



THE NATIONAL PARKS AND RESERVES OF SOUTH AUSTRALIA

by Colin R. Harris, B.A.(Hons.), Dip.Ed., Dip.T.

Thesis submitted in fulfilment of the requirements for the degree of  
Master of Arts

May 1974

Department of Geography,  
The University of Adelaide.

This thesis contains no material which has been accepted for the award of any other degree or diploma in any University, and to the best of my knowledge and belief it contains no material previously published or written by another person, except when due reference is made in the text.

Colin R. Harris,  
May 1974.

## TABLE OF CONTENTS

<u>ACKNOWLEDGEMENTS</u>	i
<u>ABBREVIATIONS USED THROUGHOUT THE TEXT</u>	iii
<u>SUMMARY</u>	v
<u>INTRODUCTION</u>	vi
NATIONAL PARKS - A PROBLEM OF DEFINITION	vi
THE SOUTH AUSTRALIAN CONTEXT	vii
REFERENCES	xi
CHAPTER I	
<u>EARLY STRUGGLES, 1877-1937</u>	1
INTRODUCTION	1
BELAIR NATIONAL PARK - THE GOVERNMENT FARM CONTROVERSY, 1877-1891	3
<i>Early moves - Page and Gooch, 1877-1883</i>	3
<i>Formation of the Field Naturalists Section, 1883</i>	6
<i>The Field Naturalists enter the controversy, 1888-1891</i>	8
THE CAMPAIGN FOR FLINDERS CHASE, 1892-1919	12
<i>The Island and its interest for naturalists</i>	12
<i>First stage of the campaign, 1892-1896</i>	15
<i>Second stage of the campaign, 1904-1914</i>	16
<i>Third stage of the campaign, 1918-1919</i>	24
FLORA AND FAUNA CONSERVATION - THE EARLY TWENTIETH CENTURY	27
<i>Legislative developments</i>	27
<i>The need for conservation</i>	29
<i>The role of Flinders Chase</i>	30
<i>Field Naturalist activity</i>	35

THE McDONALD RESERVE - CONSERVATION OF THE MALLEE	36
<i>The mallee ecosystem and its interest to naturalists</i>	36
<i>The Ashby campaign, 1936-1937</i>	38
REFERENCES	47

## CHAPTER II

<u>AN EARLY EXPANSION, 1937-1952</u>	56
A FLORA AND FAUNA ADVISORY COMMITTEE APPOINTED	56
THE MARGINAL LANDS ISSUE	57
LAND BOARD ACTION FOR PEEBINGA AND BILLIATT	60
F.F.A.C. ACTION FOR HAMBIDGE, HINCKS, AND LINCOLN	62
THE SOUTH EAST RESERVES ISSUE - MT. RESCUE DEDICATED	65
A SEQUEL TO <i>DIDICOOLOM</i> - KELLIDIE BAY	71
GOVERNMENT TARDINESS - MONARTO SOUTH AND HUMBUG SCRUB	75
<i>Monarto South additions</i>	75
<i>Humbug Scrub - a proposed national park</i>	78
FURTHER DEVELOPMENTS - NATIONAL PLEASURE RESORTS SET ASIDE	80
<i>Obelisk Estate</i>	80
<i>Horsnells Gully</i>	84
<i>Wilpena Pound</i>	85
REFERENCES	92

## CHAPTER III

<u>A TIME FOR REASSESSMENT, 1952-1962</u>	97
THE FARMING OUTLOOK IMPROVES	97
RESUMPTION MOVES ON EYRE PENINSULA	98
<i>Hambidge - the first resumption</i>	101
<i>Hambidge - the second resumption</i>	104
FURTHER PRESSURE - LINCOLN AND PEEBINGA	106
FAIRVIEW - A RESERVE OPPOSED	108
A REASSESSMENT BEGINS	110
<i>Changing attitudes at the Department of Lands</i>	110



<i>Hincks resumption proceeds - the Sharman and Specht reports</i>	115
<i>An investigation committee appointed</i>	117
<i>The flora and fauna reserves - a transfer of control</i>	119
NEW RESERVES SET ASIDE	121
<i>Spring Gully - Eucalyptus macrorrhyncha reserve</i>	121
<i>Cape Buffon</i>	123
<i>Nixon Skinner</i>	124
<i>Eric Bonython and Waitpinga</i>	124
<i>Big Heath and Fairview</i>	126
THE GAINS AND LOSSES - AN ASSESSMENT	127
REFERENCES	135
CHAPTER IV	
<u>A MAJOR EXPANSION, 1962-1972</u>	139
A NEW ELEMENT OF PURPOSE	141
<i>Parks for flora</i>	141
<i>Reserves for mangroves</i>	143
<i>Reserves for the arid interior</i>	143
<i>Reserves for semi-arid vegetation</i>	145
<i>Reserves for individual species</i>	146
<i>Parks for fauna</i>	147
<i>Parks for people</i>	149
OPPOSITION TO NEW PARKS	152
<i>Opposition from farmers</i>	153
<i>Opposition from District Councils</i>	153
<i>Opposition from Government Departments</i>	155
<i>Lincoln extensions</i>	156
<i>Creation of Oraparinna</i>	158
<i>Creation of Jip Jip</i>	160
LAND USE CONFLICTS	162
<i>Hambidge</i>	162
<i>Hambidge, 1962-1966</i>	163

<i>Hambidge, 1967-1968</i>	170
<i>Hambidge, 1968-1969</i>	174
<i>The Tiger Country</i>	179
<i>Aldinga and Normanville</i>	182
REFERENCES	197

#### CHAPTER V

<u>THE EXPANSION ANALYSED, 1962-1972</u>	205
THE REFORM OF RESERVE ADMINISTRATION	205
THE GENERAL RISE OF ENVIRONMENTAL CONCERN	206
A CONTINUING TREND TOWARDS URBANIZATION	207
A DEPRESSION IN THE WHEAT AND WOOL INDUSTRIES	208
THE CHANCE FACTOR OF LOCAL PERSONALITIES	209
PROVISION OF GOVERNMENT FINANCE FOR PARK ACQUISITION	212
A MECHANISM FOR PARK ACQUISITION	213
REFERENCES	217

#### CHAPTER VI

<u>A LOOK TO THE FUTURE - CONCLUDING THOUGHTS</u>	219
REFERENCES	224

#### APPENDIX I

<u>WILPENA POUND RECREATION SURVEY</u>	225
STATISTICAL TECHNIQUE	225
PROBLEMS ENCOUNTERED	227
<i>A problem of bias</i>	227
<i>Statistical problems</i>	228
<i>Field co-operation problems</i>	229
RESULTS OF THE SURVEY	229

#### APPENDIX II

<u>WILPENA POUND RECREATION SURVEY - 1970/71</u>	236
--	-----

<u>BIBLIOGRAPHY</u>	243
I. DEPARTMENTAL RECORDS	243
II. NEWSPAPERS	243
III. BOOKS AND JOURNALS CITED IN THE TEXT	244
IV. ADDENDUM	251

## MAPS

National Parks and Reserves	43
Regional Divisions used in Text	45
Vegetation Regions used in Text	46
Aspects of Land Settlement	58
National Parks and Reserves 1937-1952	89
Hambidge and Hincks, Land Resumed 1952-1962	102
National Parks and Reserves 1952-1962	132
Hambidge and Hincks, Land Resumed 1952-1972	177
National Parks and Reserves 1962-1972	184

## TABLES AND FIGURES

National Parks and Reserves 1836-1937	44
National Parks and Reserves 1937-1952	90-91
Wool and Wheat Prices 1925-1972	99
National Parks and Reserves 1952-1962	133-134
Increase in National Parks and Reserves 1892-1972	140
National Parks and Reserves 1962-1972	185-196

ACKNOWLEDGEMENTS

It is a pleasant duty to thank the many people who have assisted me with this thesis. Their willing and valuable help has reduced a formidable undertaking to one of manageable proportions, and for this I am extremely grateful.

The Director of Lands, South Australian Department of Lands, granted unrestricted access to all Departmental files and material dealing with national parks. Over a period of two years a great deal of time was put into the study of these records, and the Director's officers were unstinting in their cheerful assistance and expert ability to obtain material requested by me, not only from their own files, but also from many other Government Departments. Ross Thompson, in particular, took an exceptional interest in the project, and made what could have been a somewhat tedious searching procedure not only rewarding, but very enjoyable. Other officers of the Department of Lands willingly gave many hours of advice when I was planning visits to remote national parks: David Suter proved an authority on the Tiger Country of the Upper South East, and Peter Simmons and Bill Haylock were unrivalled in their first-hand knowledge of the difficult terrain in and around the Simpson Desert Conservation Park.

The National Parks Commission, like the Department of Lands, gave unrestricted access to files, and many long and valuable discussions were held with such officers as George Cornwall, an experienced field worker with a wealth of information about most parks in South Australia. The Fauna and Flora Board provided access to all minutes and general records dealing with Flinders Chase, and the South Australian Government Tourist Bureau extended full co-operation and some material support for a study of recreation patterns in and around Wilpena Pound. Further assistance for the Wilpena Pound study came in the form of statistical

advice from Ralph Leonard and Dr. Tom Sag of Flinders University, and thanks are extended to them.

The sponsoring body of this thesis, the Geography Department at the University of Adelaide, also provided a considerable amount of help. Dr. Nigel Wace, until his departure to Canberra in 1971, provided many stimulating ideas on the topic, and Dr. Michael Williams, supervisor since the departure of Dr. Wace, has put many hours into reviewing the organisation and presentation of the material. Professor G. H. Lawton generously made such essential facilities as office space, research finance, and typing assistance available to me, and in this connection sincere thanks are extended to Mrs. Sandra Evans for her cheerful and expert typing of this thesis. Max Foale, cartographer with the Department, has spent many hours in providing invaluable advice on the presentation of maps and diagrams, and along with his assistant, Miss Chris Barrington, has also put a great deal of time, patience, and expertise into the photographing, developing, and printing of copies of all maps and diagrams appearing in the text. Many of my colleagues, through suffering long discussions about national parks, have greatly assisted my formulation of attitudes and ideas, and in every way my stay in the Department has been extremely enjoyable.

A number of friends have provided excellent companionship on many trips to national parks in almost every region of South Australia, and their interest and moral support has been appreciated. Mrs. L. Sag has meticulously checked through many of the tables and proof-read the final draft of the entire thesis, but above all I must thank my wife Elizabeth: her unflagging assistance with table preparation, metric conversions, computer programming, typing, and a host of other time-consuming jobs, has been quite outstanding.

If this thesis is eventually deemed to be of some interest and value, it will in no small way be due to the very generous assistance given by all of these people.

ABBREVIATIONS USED THROUGHOUT THE TEXT

(Note that many of these abbreviations are standard symbols used for identifying State Government dockets or reference files.)

A.C.F.	Australian Conservation Foundation
A.L.P.	Australian Labor Party
B. & G.	Botanic Gardens
C.C.L.	Commissioner of Crown Lands
C.N.P.W.L.R.	Commissioners of National Parks and Wildlife Reserves
C.S.O.	Chief Secretary's Office
C.W.A.	Country Women's Association
D.A.	Director of Agriculture (Dept. of Agriculture when cited as a docket reference)
D.C.	District Council
D.I.	District Inspector, Dept. of Lands
D.L.	Director of Lands (Dept. of Lands when cited as a docket reference)
D.R.	Drawing Racks reference, Dept. of Lands
E. & W.S.	Engineering and Water Supply Department
F. & G.	Fisheries and Game Department
F.F.A.C.	Flora and Fauna Advisory Committee
F.N.S.	Field Naturalists Section of Royal Society of South Australia (later, Field Naturalists Society S.A. Inc.)
H. & L.G.	Highways and Local Government Department
L.B.	Land Board, Dept. of Lands
L.C.L.	Liberal and Country League
L.M.T.P.A.	Lock, Murdinga, Tooligie Progress Association
M.A.	Minister of Agriculture (usually cited as a docket reference)

M.L.	Minister of Lands
M.L.G.	Minister of Local Government (usually cited as a docket reference)
N.C.S.S.A.	Nature Conservation Society of South Australia
N.P.C.	National Parks Commission
N.P.W.S.	National Parks and Wildlife Service
R.A.O.U.	Royal Australasian Ornithologists' Union
R.S.L.	Returned Services League
Roy. Soc. S.A.	Royal Society of South Australia
S.A.O.A.	South Australian Ornithologists Association
S.A.P.P.	South Australian Parliamentary Papers
S.G.	Surveyor General, Dept. of Lands
S.P.A.	State Planning Authority
T.B.	Tourist Bureau (usually cited as a docket reference)
T.C.P.A.	Town and Country Planning Association
T.D.	Tourist Department (usually cited as a docket reference)
U.F.G.	United Farmers and Graziers (S.A.)
W.W.G.A.	Wheat and Wool Growers Association (S.A.)



SUMMARY

This thesis is an explanation of *how* and *why* South Australia acquired 97 national parks and two nationally-significant reserves by mid-1972. It shows that for almost half a century after settlement there was little concern for nature conservation in South Australia, and it was not until a subdivision proposal for the Government Farm at Belair was announced in the late 1870's that tangible moves were made to obtain a national park: opposition to the subdivision proposal eventually resulted in the State's first national park, at Belair, in 1891. A strong Field Naturalists Section of the Royal Society of South Australia followed up this success with a very long campaign to secure Flinders Chase. The Chase was obtained, but not until 1919, and little further action was taken until the mid-1930's. A Government appointed Flora and Fauna Advisory Committee was active throughout the late 1930's and 1940's. Several fine reserves in the mallee regions of the State were obtained, but buoyant economic conditions for wheat and wool producers throughout the 1950's saw pressure put on a number of these reserves, and valuable land was lost by resumption. In the 1960's the situation changed dramatically, and a number of important factors combined to result in an unprecedented expansion of parks and reserves. The move now is for consolidation: the parks obtained must be managed carefully if they are to retain their present value, and it is suggested that this is the challenge for the future.

INTRODUCTION

## NATIONAL PARKS - A PROBLEM OF DEFINITION

There is no universal agreement as to what constitutes a 'national park'. National and international conferences have failed repeatedly to produce any widely-accepted definition, and it is quite clear that both between and within countries there is considerable variation in interpreting the national park concept. However, to some extent it is possible to generalise and it is probably true to say that most of the world's national parks fall into one or other of two quite distinct categories.

- (1) On one hand there is the so-called 'British' type of national park, where an area of countryside having particularly appealing rural and/or historical charm is protected by careful zoning regulations. Any major changes in land use, and settlement and communication patterns, are subject to stringent controls, and must be carried out in a way that will not detract from the attractiveness of the park.
- (2) On the other hand, and providing a striking contrast, is the so-called 'American' type of national park. The American ideal is a large area of natural or semi-natural country, in which man's disturbance is kept to an absolute minimum. Carefully-framed legislation ensures that the park is relatively free from alienation, and controlling authorities are enjoined to manage it in such a way that its recreational and scientific values remain unimpaired for the benefit of future generations.

The difference between these two concepts of the term 'national park' is largely a result of the contrasting history and geography of the two countries in which they originated. Britain, a densely settled small country with a long history of land clearance and intensive agriculture, now has very few areas of any size which can be classed as

natural or near-natural. However, America, a large country with a relatively recent history of intensive land settlement, still has many areas where man's influence is minimal, and it is not surprising, therefore, that the two countries have developed such different national park systems.

The settlement and development of Australia by Europeans closely parallels that of America, and as a result it has adopted, almost unchanged, the American concept of national parks. From time to time there has been talk of introducing the British system to such regions as the Flinders Ranges, Kangaroo Island, and the Mt. Lofty Ranges, but these plans have not yet eventuated.<sup>1</sup> It should be remembered, then, that unless stated otherwise, it is the American interpretation of the national park concept which is implied throughout this thesis.

#### THE SOUTH AUSTRALIAN CONTEXT

When planning for this thesis began early in March 1970, South Australia had 64 national parks controlled by the National Parks Commission, a statutory body set up under the terms of the South Australian National Parks Act, 1966. It was intended to make the thesis an intensive study of these 64 national parks: a study to explain *how* and *why* large areas of the State's natural ecosystems had been set aside for national park purposes.

However, it soon became apparent that a problem would be posed by the fact that the 64 national parks were not the only natural or semi-natural areas set aside for conservation and recreation purposes. The State Government Tourist Bureau had under its control a number of national pleasure resorts; the Fisheries and Fauna Conservation Department administered almost 50 fauna reserves, prohibited areas, and game reserves; the South Australian Museum controlled several fossil

reserves in the north of the State, and 12 historic sites and prohibited areas under the Aboriginal and Historic Relics Preservation Act, 1965; the University of Adelaide maintained a rangeland research station in the north east of the State; the National Trust of South Australia listed over 15 reserves intended for conservation purposes; and such private organisations as the Field Naturalists Society and the Natural History Society also managed several areas for fauna and flora conservation purposes.

It had been intended to refer to some of these reserves, but on several grounds it was decided that a detailed investigation could not be undertaken: many of the reserves had a limited and specialised function, few had the same legislative protection as national parks, and quite apart from anything else it was obvious that with the time and resources available to the author an investigation of their complex backgrounds was out of the question.

Nevertheless, it was realised at an early stage that at least two reserves other than national parks were of such scenic and scientific importance that they could not, justifiably, be left out of the study. Flinders Chase, occupying approximately 59,000 ha of the western end of Kangaroo Island was, officially, a Fauna and Flora Reserve controlled by a Fauna and Flora Board. Wilpena Pound, approximately 9,500 ha in the Flinders Ranges was, officially, a National Pleasure Resort controlled by the State Government Tourist Bureau. Both these areas were considered to be of *national* significance, and rather than leave them out of the study because their nomenclature and administration did not conform with that of national parks, it was decided to frame the title of the thesis such that it made possible their inclusion with the national parks. Subsequent events have justified this decision. A new National Parks and Wildlife Act, 1972, resulted in Flinders Chase becoming Flinders Chase National Park, and Wilpena Pound becoming part of the Flinders Ranges National Park.

Research for the thesis was well underway by mid-1970, but it

soon became evident that the object of the study was far from static. The history of South Australia's national parks system was still very much in the making, and new and important areas were being declared national parks at a steady rate. By 1 July 1972 the number of parks had risen to 97, and it was clear that a halt to the gathering of information on park acquisition had to be called. Perhaps fortunately for the author, the new National Parks and Wildlife Act, referred to previously, came into operation on 3 July 1972, and as it introduced far-reaching changes it was decided that the date of its commencement would be not only convenient, but also an accurate cut-off point for the study.

The thesis has become, then, a detailed investigation to explain *how* and *why* South Australia came to have 97 national parks and 2 nationally-significant reserves by mid-1972. To this extent it is a parochial study, but no apologies are offered on this account. America, considered by many to be the home of the national parks movement, has produced a number of studies of its parks and reserves,<sup>2</sup> and the British system is recent enough for its origins to be relatively well understood.<sup>3</sup> By contrast, the origin of Australia's national parks and reserves is poorly known. Unlike the situation in America, national parks in Australia have always been a State responsibility, and as a result a number of different systems have evolved in comparative isolation. Until thorough studies of these respective systems have been completed little progress towards an understanding of the overall development of national parks and reserves in Australia can be expected. Some progress has, of course, already been made. Mosley has compiled a meticulous account of the Tasmanian system of parks and reserves.<sup>4</sup> Bardwell is working on a similar project for Victoria,<sup>5</sup> and with the completion of this thesis some progress towards an understanding of the South Australian situation will have been made,

Much remains to be done, however, and parochial studies will remain essential for some time. As Pike, quoted by Meinig, has noted:

"'by being thoroughly provincial', one may hope 'to broaden the view'",<sup>6</sup>  
It is hoped, sincerely, that this thesis will prove to be of some value  
in ultimately 'broadening the view' of national parks and reserves in  
Australia.

## REFERENCES

1. See, for example, Mosley, J. G., 1971: 'Man-made - and worth preserving'. *The Australian* 24/9/1971, 1/10/71.
2. Some of the better known studies include Udall, S. L., 1964: *The Quiet Crisis*. Holt, Rinehart & Winston, New York; Clepper, H. E., 1966: *Origins of American Conservation*. Ronald Press, New York; Coyle, D. C., 1957: *Conservation, an American Study of Conflict and Accomplishment*. Rutgers U.P., New Brunswick.
3. Abrahams, H. M. (ed.), 1959: *Britain's National Parks*. Country Life Ltd., London; Nicholson, M., 1970: *The Environmental Revolution*. Hodder & Stoughton, London.
4. Mosley, J. G., 1963: Aspects of the Geography of Recreation in Tasmania. Unpub. Ph.D. thesis, Australian National University.
5. Bardwell, S., 1974: Ph.D. thesis, in preparation, Dept. Geography, Monash University.
6. Meinig, D. W., 1970: *On the Margins of the Good Earth*. Rigby Ltd., Adelaide, p. 7.



## CHAPTER I

### EARLY STRUGGLES, 1877-1937

A period which is dominated by the Field Naturalists Section of the Royal Society of South Australia. Belair National Park, Flinders Chase, and a mallee reserve at Monarto South are set aside, but only after years of intensive lobbying and campaigning.

#### INTRODUCTION

The establishment of permanent European settlement in South Australia in 1836 marked the beginning of a period of profound change. Aboriginal man had been present in the environment for upwards of 30,000 years,<sup>1</sup> and had, unquestionably, modified the flora and fauna to some extent,<sup>2</sup> but by and large the ecosystems of the coast and arid interior had, in 1836, a certain stability. It was inevitable that the displacement of a hunting and gathering economy by the trade and commerce patterns of the world's most technologically-advanced nation would mean the complete upheaval of an environment, and 138 years after the founding of South Australia a new equilibrium has yet to be reached; changes, rapid and far-reaching, are still occurring in the very remotest of the State's ecosystems.

The changes accompanying settlement did not escape the notice of early chroniclers. In 1837, a writer noted of the country in and around Adelaide:

The kangaroo is in great abundance, and can be purchased at from 9d. to 1s. per lb. [17-22 cents per kilo]. The emu is not so plentiful, but we meet with it occasionally. The black swan and wild duck, in great variety; quail plovers, cockatoos, and parrots abound.<sup>3</sup>



Only nine years later, in 1846, George French Angas could write of Adelaide:

The dark hunters of the plain are driven back, and the timid Kangaroo is now no longer seen ... A few years more, and the gradual advance of British colonization, like a mighty flood, will have swept before it all traces of the past.<sup>4</sup>

Nostalgic though this observation was, Angas recorded elsewhere in his book satisfaction with the rapid material progress the new colony was making with its agriculture and mining. At Pt. Adelaide he noted with pride the export of 'rich and various produce of this flourishing colony', and in the Lyndoch Valley north east of Adelaide he viewed land 'producing some of the finest wheat in the world'.<sup>5</sup> Indeed the approval Angas gave to the 'gradual advance of British colonization' was very much in keeping with the times. For almost half a century after initial settlement there was little apparent concern expressed about the profound changes accompanying landscape modification. In the settled areas the native animals were declining,<sup>6</sup> the once impressive stringybark forests of the Mt. Lofty Ranges were cut over,\*<sup>7</sup> the mallee scrubs of Yorke Peninsula and the northern Adelaide Plains were being cleared for agriculture,<sup>8</sup> wheat crops were growing as far north as the semi-arid Flinders Ranges,<sup>9</sup> and pastoralism with its attendant modification of the native understorey plants was extending rapidly into the arid interior of the State.<sup>10</sup>

Very occasionally mild protests were voiced at some aspects of European man's impact. In 1853, for example, attention was drawn in the South Australian Legislative Council to the virtues of insectivorous birds,<sup>11</sup> and in 1870 when Mr. Coglein, a member of the House of Assembly, drew attention to the shooting of birds on the River Torrens on the Sabbath, another member, Mr. Hay, expressed a desire to see shooting

---

\* For a map showing the regions of South Australia referred to throughout the text vide p. 45.

of birds prevented throughout Adelaide on all days of the week.<sup>12</sup> A year later, in 1871, a local newspaper urged the police to take action against 'night prowlers' who were illegally shooting ducks on lagoons near the Port River,<sup>13</sup> but in the main these complaints were few and far between. South Australia in its early days was very much a pioneering colony dedicated to the idea of taming a wilderness, and the idea of preserving a wilderness, of actually freezing an area in its un-developed state, does not appear to have been discussed seriously until the late 1870's.

#### BELAIR NATIONAL PARK - THE GOVERNMENT FARM CONTROVERSY, 1877-1891

##### *Early moves - Page and Gooch, 1877-1883*

The controversy which awakened interest in the national park concept in South Australia centred around proposals to dispose of the so-called Government Farm, an area of approximately 800 ha at Belair in the Mt. Lofty Ranges, some 11 km south east of Adelaide. Much of the Farm consisted of deep gullies and steep ridges, rising at their highest point to a little over 520 m, and over these slopes the predominant soils were either skeletal, or relatively infertile podsols. Annual average rainfall rose on the highest ground to around 900 mm, and the natural vegetation was a dry sclerophyll woodland,\* with such dominants as *Eucalyptus odorata* (peppermint gum), *E. fasciculosa* (pink gum), and *E. obliqua* (messmate stringybark). Understorey growth was usually prickly and dense, with various species

---

\* For a map showing the vegetation regions referred to throughout the text vide p. 46.

of *Banksia*, *Casuarina*, *Pultenae*, *Leptospermum*, and *Xanthorrhoea* being particularly common.<sup>14</sup> In its natural state the dry sclerophyll woodland was considered to be of little use, for the poor soils and dense vegetation inhibited agriculture or pastoralism; the only major source of economic return came from the presence of *E. obliqua*, the timber of which had excellent splitting properties, but intensive cutting made even that resource of ephemeral value.

In contrast to the hilly country, the Farm had a number of valleys with relatively flat, alluvium-filled floors. The natural vegetation of these valleys was a savanna woodland. Large and scattered specimens of *Eucalyptus camaldulensis* (river red gum) and *E. leucoxyton* (blue gum), in combination with a predominantly herbaceous understorey, reflected the superior moisture and nutrient status of the alluvial soils, and gave to the valley bottoms a pleasing park-like appearance.<sup>15</sup> Not surprisingly, it was on these areas that agricultural activity was centred.

The Farm had been set aside by Governor Gawler in 1840, and in the succeeding years its uses were varied, ranging from a pasturage for Government livestock, to a summer resort for various State Governors.<sup>16</sup> By the late 1870's, it appeared to have outlived its usefulness, and in the early 1880's proposals for its subdivision into small agricultural holdings were drawn up for the consideration of the Commissioner of Crown Lands.<sup>17</sup>

The proposal to subdivide and dispose of the Government Farm was not in itself remarkable, being little different from many other schemes involving the alienation of crown land. What was remarkable, was that for the first time in the State's history an alienation move was actively opposed on the grounds that the land should be retained for public benefit, and should not pass into private hands. To all intents and purposes, opposition to the subdivision appears to have represented the first tangible sign of South Australian interest in the national park concept.

There were two main figures leading early opposition to the Government's plan, James Page of Mitcham, and Walter Gooch of Belair.<sup>18</sup> Little is known of Page, other than that he must have been a man of some influence, for later writers claimed that by approaching the Chief Secretary with the matter Page had been successful in placing a temporary restraint on the Commissioner of Crown Lands.<sup>19</sup> The reasons for Page's desire to have the subdivision halted are not recorded, but since he appears to have had some association with Samuel Dixon and M. Symonds Clark, both of whom were later prominent members of the Field Naturalists Section of the Royal Society of South Australia, it is not unlikely that his interest in the Government Farm was that of a naturalist.<sup>20</sup> The role of Walter Gooch in the controversy is slightly better understood than that of Page. Gooch had moved to live at Belair in 1877, and from that date was said to have made strenuous exertions to have the Farm set aside as a public recreation ground. When the Nairne Railway Act was passed in 1878 Gooch maintained that this was added support for his case against the sale of the land:

the profits that would be certain to be derived from the extra passenger traffic of excursionists to such a delightful place for recreation would far exceed the interest of the amount which could now be realised by the sale.<sup>21</sup>

The line to Nairne was intended to pass through the heart of the Farm, thereby making it easily accessible from Adelaide. This was an important consideration, for in the decade 1871-1881 Adelaide's population had all but doubled,<sup>22</sup> a remarkable increase, and one which was reflected by an upsurge in the demand for outdoor recreation areas. As the suburbs expanded away from the city parklands, and as public transport improved, the popularity of such areas as Glenelg, Brownhill Creek, Morialta, and Waterfall Gully, rose markedly, and weekend picnics to these became a feature of Adelaide's social life.<sup>23</sup>

In the light of these developments, the line of argument Gooch

took was a pragmatic one, not unlike modern arguments which attempt to justify the provision of national parks and reserves on economic grounds.<sup>24</sup> However, if he was expecting early success Gooch was to be disappointed, for in the early 1880's the South Australian economy was faltering, and approaching a depression which was to last for almost a decade.<sup>25</sup> Subdivision of the Government Farm promised immediate settlement for some of the State's hard-pressed labourers; a public park, by contrast, suggested a pleasuring ground for the wealthy, a suggestion which was probably not allayed by a memorial presented to the Commissioner of Crown Lands in January 1882: the memorial, urging reservation of the Farm as 'a water reserve, an experimental farm, an acclimatization station, and a national recreation ground', was signed by 213 'influential commercial and business gentlemen'.<sup>26</sup>

The memorial evoked little response from the Government, and in a change of approach the Hon. Alfred Catt introduced to Parliament, in September 1882, a bill which, if passed, would have prohibited the sale of the Farm. The bill was defeated in the Legislative Council, but public pressure, transmitted mainly by a sympathetic local press, continued, and in October 1883 Parliament reversed its earlier decision and passed legislation which prohibited the sale of the Farm without Parliamentary sanction.<sup>27</sup>

#### *Formation of the Field Naturalists Section, 1883*

There was a further significant development in October of 1883. Towards the end of the nineteenth century South Australia, in common with most Western countries, was supporting a number of flourishing literary or, as they were sometimes called, "young men's societies", and from these arose a demand for the opportunity to study natural history.<sup>28</sup> The Royal Society of South Australia was approached, and at an ordinary meeting early in November 1883 regulations providing

for the setting up of a Natural History Section within the Society were confirmed.<sup>29</sup> In November 1883 Professor Ralph Tate addressed a large audience at the Adelaide Town Hall, and explained that the formation of the Section was a result of

the desire of the Royal Society to meet the wishes of a number of studiously disposed persons who wished to undertake the study of Natural History from a more elementary point than that pursued by the Royal Society.

Tate further stressed that

it was not intended to exclude those who solely sought pleasant companionship and agreeable change, and that ladies as well as gentlemen would be welcomed.<sup>30</sup>

It was an important recognition of awakening public interest in natural history and the preservation of ecosystems, and the Field Naturalists Section (hereafter F.N.S.) soon became the champion of moves to set aside areas for national park purposes, a position it was to hold for almost 50 years. One of the reasons for the F.N.S. success was the firm guidance provided in the early years by some of the Royal Society's most learned and respected members. As well as playing a leading role in the evening meetings and lectures, such notable scientists as Professor Tate, the Rev. W. Howchin, and J. G. O. Tepper regularly provided expert tuition on the F.N.S. monthly excursions to such local points of interest as Waterfall Gully, Morialta Falls, the Glenelg sand dunes, and Hallett Cove.<sup>31</sup> It was through the excursions, particularly, that interest in the conservation of flora and fauna was fostered. As early as 1884, the F.N.S. was noting with disappointment that drainage had converted 'the rich flats of the Reedbeds ... into a desert for the naturalist'. The excursions reports for the same year noted further that along the River Onkaparinga near Clarendon

all the pines peculiar to the valley of the River - *Callitris cupressiformis* - have been cut down, and thereby the beauty and interest of the place much marred<sup>32</sup>

and in December 1885 members concluded that a newly erected dam at Waterfall Gully had resulted in 'the natural beauty of the spot' being 'destroyed by the rude hand of man'.<sup>33</sup>

*The Field Naturalists enter the controversy, 1888-1891*

With the F.N.S. expressing such sentiments about man's impact on the landscape it was to be expected that it would show some interest in the controversy surrounding the disposal of the Government Farm, and in fact the Farm was the venue for the very first excursion held by the F.N.S., on 24 November 1883.<sup>34</sup> The completion of the Nairne railway line in 1883 had made the farm easily accessible, and it became a popular area for the F.N.S., with the annual reports of the mid and late 1880's detailing many excursions to study its natural history.<sup>35</sup> It was from these excursions that the F.N.S. came to realise that the Act of 1883 controlling disposal of the Farm was of little protective use. In 1885 and 1886 the Government had sanctioned extensive timber cutting over the south west of the Farm,<sup>36</sup> and Samuel Dixon complained bitterly at a later date that \$1,600 worth of red gum alone had been cut after the passing of the Act.<sup>37</sup> A further threat was posed by a growing feeling that, by virtue of its closeness to Adelaide and its fertile valley floors, the Farm should be subdivided into working men's blocks. Working men's blocks were small agricultural holdings, generally under eight ha in size. Large enough for a man to grow vegetables and keep a few livestock, they had been introduced by the Government in 1885 to ease unemployment hardship caused by the prolonged depression.<sup>38</sup>

Faced with such threats the F.N.S. decided that its intervention was necessary, and in August 1888 it elected a Fauna and Flora Protection Committee.<sup>39</sup> At the inaugural meeting Arthur F. Robin read a paper entitled 'The better protection of our native fauna and flora',

and although no copy of the paper is known to exist it is believed to have been substantially the same as a paper published by Robin, writing under the pseudonym of 'Kappa' in *The Register* of October 1889. Robin's paper was a lucid and persuasive argument for the provision of national parks and reserves, and represented the most comprehensive statement on fauna and flora conservation to have appeared in South Australia to that date. In many respects its ideas were years ahead of the times, and there is little in the paper which is not as relevant to today as it was in the 1880's. Consider, for example, Robin's plea for the provision of national parks:

National parks will be useful, not only as preserves for indigenous plants and animals, but also as recreation grounds for the people. It is well to consider how comparatively few and small are the areas of this description which will be permanently available for the residents of the Adelaide Plains ... there must come a time when these plains will be thickly populated from hills to sea, and then, if not now, the need for more breathing space will be recognised. The Mt. Lofty Range is gradually passing more and more into private hands, and before many years have elapsed it will be difficult to find a place where one may enjoy the beauties of nature without fear of trespassing. The same result must follow sooner or later in all settled districts of the province. Hence there arises a necessity for large reserves which shall be vested in trustees for perpetuity.<sup>40</sup>

Arthur F. Robin was a quiet, unassuming person,<sup>41</sup> but his paper to the F.N.S. at that August meeting must have been well received. Until that evening the F.N.S. had refrained from entering publicly the Government Farm controversy, but when Samuel Dixon put to the meeting a motion dealing with the Farm it was passed with no record of any opposition. Dixon's motion proposed

that in furtherance of the proposed objects this Section desires to recommend that Government Farm be declared a public park and handed over to trustees to manage.<sup>42</sup>

In pursuit of its resolution the F.N.S. lost little time in bringing pressure to bear on the Government, and on 22 October 1888 a deputation



'composed largely of learned societies' and 'such bodies as the Trades and Labour Council and the United Friendly Societies', waited on the Treasurer.<sup>43</sup> The deputation was told that the Farm was still wanted for working men's blocks, but it could be set aside for park purposes if that was the public wish. An alternative area on the River Onkaparinga near Echunga was suggested to the deputation, but on later investigation was found to be 'unsuitable', the Government having subdivided the river frontage into small holdings.<sup>44</sup> The deputation was followed by correspondence and 'other action', and while the Government would not promise specifically to set aside the Government Farm as a national park, it did indicate that 'reserves of this character will be made'.<sup>45</sup>

Eighteen eighty nine saw a continuing exchange of correspondence between the Government and the F.N.S. In a letter of April 1889 the Government Treasurer suggested that a portion of the Farm would be sufficient for F.N.S. aims,<sup>46</sup> and this compromise proposal was expanded in a report on the Government Farm prepared by the Surveyor General, G. W. Goyder. Goyder's report was tabled in Parliament late in July 1890, and in addition to suggesting that 219 ha of the Farm would be satisfactory for park purposes, it went on to recommend that other areas, on the River Onkaparinga and near Mt. Crawford, should be set aside for indigenous plants and animals.<sup>47</sup>

Early in August 1890 a second deputation waited on the Premier, and was told that the park suggestions were looked on with approval,<sup>48</sup> but before any action could be taken the Government lost office.<sup>49</sup> It was a disappointing setback for Robin, who, as secretary of the F.N.S. and its Fauna and Flora Protection Committee had handled most of the correspondence and organised the two petitions.<sup>50</sup> The next step taken by the F.N.S. was to prepare, in conjunction with the Corporation of the City of Adelaide, a private member's bill, which would have vested the whole of Government Farm in trustees as a national park. The bill was entrusted to the Hon. S. Tomkinson, but

on 5 November 1890 the President of the Legislative Council ruled it out of order,<sup>51</sup> a move which, coming after the previous frustrations, appeared to confirm an earlier complaint that

The statesman-like policy pursued both in New South Wales and Victoria with regard both to forests and national parks stands in marked contrast to the parochial attitude of South Australian Ministers.<sup>52</sup>

Where others might have given up in disgust, however, Robin was a tenacious fighter, and by the close of 1890 he had gathered together a third deputation. Composed of representatives 'from the City of Adelaide Corporation and other municipal bodies and District Councils within a radius of 20 miles [32 km] of Adelaide, as well as the Royal Society', the deputation interviewed the Premier, and to their delight he 'appeared willing to set aside 1700 acres [688 ha] of the Farm as a public park, reserving 300 acres [121 ha] for working men's blocks'.<sup>53</sup>

The long struggle to secure South Australia's first national park was now all but over. Felling of large gums in the Farm throughout early 1891 resulted in a vigorous protest from the Australian Natives Association and Walter Gooch,<sup>54</sup> but total protection of the flora and fauna was only a question of time, and on 19 December 1891 the Governor assented to the National Park Act, an Act which vested in perpetuity some 796 ha of the Farm to a Board of twelve Commissioners.\*<sup>55</sup>

The old Government Farm became Australia's second national park, Royal National Park south of Sydney having been set aside in 1879.<sup>56</sup> Much of the credit for its establishment must go to the private efforts of such people as Gooch and Page, for without their early lobbying the Farm would, unquestionably, have been subdivided and sold. Gooch in

---

\* For a statistical summary giving such information as cadastral detail, areas, dates, docket references, and brief comments, vide table p. 44 and map p. 43. Similar information for all parks and reserves considered in the text is provided in table form at the rear of each chapter. Maps of South Australia showing the areal distribution of parks and reserves precede each table.

particular was praised, somewhat enthusiastically, as one 'who has worked for his pleasant hobby with the industry of an ant, the smartness and persistency of a mosquito, the strength of an elephant, and the engaging diplomacy of a fox terrier',<sup>57</sup> but it was the Field Naturalists, men like Robin, Dixon, and Selway, who finally brought the proposal to a satisfactory conclusion, and the emergence of the F.N.S. as a powerful political pressure group was probably the most important side effect of the whole controversy.

Throughout its campaigning the F.N.S. stressed both the recreation and conservation values of national parks, but William H. Selway, a founding member, left little doubt as to where the real sympathy of members lay:

A peoples' playground is a very desirable and beneficial undertaking, but it was, of course, not the main objective when this section laboured to secure this reserve. That objective was the preservation of our native fauna and flora.<sup>58</sup>

The preservation of native fauna and flora remained an important objective of the F.N.S., and for many decades after the setting aside of Belair National Park it worked actively towards the acquisition of further conservation areas. In particular, in 1892, less than twelve months after the passing of the National Park Act, it began what was to become an extraordinarily prolonged campaign to secure much of the western portion of Kangaroo Island for reserve purposes.

#### THE CAMPAIGN FOR FLINDERS CHASE, 1892-1919

##### *The Island and its interest for naturalists*

Field Naturalists Section interest in Kangaroo Island had been stimulated originally by a concern, appropriately enough, for its kangaroo population. The slaughter of many thousands of the thickset

*Macropus fuliginosus* had begun with explorer Matthew Flinders' visit to the Island in March 1802.<sup>59</sup> Flinders records in his journal:

a number of dark-brown kangaroos [sic] were seen feeding upon a grass plat by the side of the wood; and our landing gave them no disturbance. I had with me a double-barrelled gun fitted with a bayonet, and the gentlemen my companions had muskets. It would be difficult to guess how many kangaroos were seen; but I killed ten, and the rest of the party made up the number to thirty-one.<sup>60</sup>

With the establishment of permanent settlement in South Australia, the spasmodic killings of explorers and itinerant whalers and sealers were replaced by a systematic exploitation of kangaroos for the lucrative fur market, and by 1889 the situation in South Australia had reached a point where it could be claimed that

The only hope of the absolute extinction of the Kangaroo being prevented seems to lie in the fact that before long its numbers will have become so small as to render its chase for the purpose of commerce unremunerative.<sup>61</sup>

In response to such claims the Government passed, in 1891, a Kangaroo Protection Act. The provisions of the Act protected kangaroos in two main areas; counties Kintore, Hopetoun, Way, Dufferin, and Robinson on the West Coast; and the whole of Kangaroo Island.<sup>62</sup> Such a measure, coming in the same year as the coveted National Park Act, represented a minor triumph for the F.N.S., but pleased though it was, greater heights were aspired for, and the first indication of a major plan for fauna and flora conservation on Kangaroo Island came at the Fourth Meeting of the Australian Association for the Advancement of Science at Hobart in January 1892. At the meeting Arthur F. Robin read a paper entitled 'The Preservation of our Native Plants and Animals'.<sup>63</sup> No copy of the text remains, but it is known that at the conclusion of Robin's address Samuel Dixon put a motion, seconded by Professor Ralph Tate, that 'it is desirable that the western end of Kangaroo Island be preserved for the protection of native fauna and flora'.<sup>64</sup> The motion was carried unanimously, and on their return to Adelaide Dixon

and Robin began preparations for the lobbying which would be necessary to put it into effect.

The area proposed, the western end of Kangaroo Island, was a problematical region for settlers, but an interesting one for the naturalist. The dominating physical feature was a central plateau, the gently-undulating surface of which rose to around 250 m. The plateau surface had been laterised, and as a result the soils were chronically infertile, a typical profile consisting of highly-leached sands overlying a heavier-textured clay subsoil, with lateritic gravel scattered throughout. Difficult to cultivate and low in phosphorus and nitrogen, the soils were also characterised by a deficiency of such trace elements as copper, manganese, zinc, and molybdenum, although this deficiency was not to be recognised until the 1930's. The only soils readily amenable to cultivation were restricted to the vicinity of the small rivers and creeks which dissected the edge of the plateau. Vegetation developed over the plateau consisted of a dense, but depauperate mallee-heath. The dominants, such species as *Eucalyptus Baxteri* (brown stringybark), *E. cosmophylla* (cup gum), and *E. remota*, were frequently no more than a metre or two high, barely larger than such common understorey shrubs as *Casuarina striata*, *Banksia ornata*, and *Xanthorrhoea tateana*. In the small valleys at the edge of the plateau the soils had developed on exposed Lower Palaeozoic bedrock, and were of a nutrient status sufficient to support a savanna woodland dominated by *Eucalyptus cladocalyx* (sugar gum), some stands of which reached 18 m in height.<sup>65</sup>

Barren and inhospitable to the farmer and pastoralist, it was an area of considerable attraction to the naturalists. Rugged coastlines made for scenic charm, while botanists found much of interest in the endemic species, and the curious fusion on the Island of western and eastern elements of the Australian flora.<sup>66</sup> However, the Island's greatest attraction, to Dixon at least, was its freedom from the scourge of the introduced rabbit and fox.<sup>67</sup> The arrival of these

animals in Australia was recent enough for the naturalist to have a clear picture of the before and after situation, and to observers such as Dixon it seemed that unless a sanctuary free of the pests could be established, many species of Australia's unique flora and fauna were doomed to extinction.<sup>68</sup>

#### *First stage of the campaign, 1892-1896*

Lobbying at a private level almost certainly began in 1892 and continued into 1893, but it was not until 1894 that the F.N.S. made its first official statement on the negotiations. The statement was not particularly encouraging, noting at that stage that the only fruitful course of action seemed to lie in pressing for the adequate protection of native animals on the Cape Borda Lighthouse Reserve, an isolated area of some 17,353 ha on the north west coast of the Island. However, even this very limited aim was not achieved, for in 1896 the F.N.S. was informed officially by the Commissioner of Crown Lands that the Marine Board, controlling authority for the Lighthouse Reserve, had pointed out that the native animals on the Reserve represented 'a fresh food supply for the Lighthouse keepers'.<sup>69</sup> This setback represented the end of the first stage in the campaign for a reserve on the Island, and nothing more was to be said about the proposal for almost a decade.

Setback though it was, the impasse over Kangaroo Island did not mean any slackening of F.N.S. interest in other conservation issues. In 1886 attention had been drawn to the presence of the rare *Todea barbara* (king fern) at Waterfall Gully and Cox's Creek,<sup>70</sup> and in 1893 an indignant protest was voiced at the extensive removal of such ferns for sale in Adelaide.<sup>71</sup> The protest seems to have been ineffective, however, for in November 1907, some 14 years later, a resident of Summertown, a small market gardening settlement near Mt. Lofty,

complained that the very same practice was denuding the peat bogs above Waterfall Gully of their remaining ferns:

Here and there could be seen that the woodsman had been at work digging out the tree ferns. Such lovely ferns, that it seems a pity that they should be so disturbed from their right place in the hills. Perhaps now they are standing in the garden of some mansion. Withered and dying from the effect of the heat dust and the city smoke.<sup>72</sup>

It was not always the woodsman, the professional despoiler, at fault though. Describing, in 1894, the yacca or grass tree, James Wood wrote:

The *X. quadrangulatis* not long ago existed in tolerably considerable numbers in the Waterfall Gully, a favourite resort of holiday makers about six miles [10 km] east of Adelaide, and in the gully ending with the Morialta waterfalls. But holiday-making at most times means spoilation of some sort, and, of course, when wild flowers, ferns etc., are trophies of holiday expeditions, grass trees could not be expected to escape.<sup>73</sup>

Today, some 80 years after the above was written, the yaccas remain a distinctive feature of the more rocky and inaccessible cliffs at Morialta and Waterfall Gully, but the strange king fern, South Australia's closest approach to the true tree ferns, is represented only by scattered relic specimens in little-visited peat bogs.

Though the F.N.S. attempt to protect the ferns of the Mt. Lofty Ranges did not result in any great measure of success, the nineteenth century did close with a useful achievement in fauna conservation; a Birds Protection Act of 1900, the drafting of which had occupied much F.N.S. time and attention throughout the late 1890's.<sup>74</sup>

#### *Second stage of the campaign, 1904-1914*

In the following few years there was little progress of any note, but in 1904, in a significant move, Samuel Dixon resigned his position as one of the twelve Commissioners governing the Belair National Park.

Dixon was a forceful person with strongly-held convictions about the correctness of certain courses of action, and as Chairman of the F.N.S. Fauna and Flora Protection Committee since its formation in 1888, he considered himself to be in a unique position to press upon the Commissioners the urgent need to stock portions of Belair National Park with endangered species of Australian fauna. The Commissioners did not see the issue in the same light as Dixon though, arguing that the cost would be prohibitive,<sup>75</sup> and in his own words he resigned 'in great disgust'.<sup>76</sup> Dixon's resignation was followed by a reopening of agitation for the Kangaroo Island reserve, and there seems little doubt that having failed to achieve his aim at Belair, Dixon was determined to see it succeed on the Island.

The first opportunity for action came in 1905, when the Marine Board, somewhat surprisingly, referred to the F.N.S. a request it had received for the issue of a lease for the grazing of cattle over the Cape Borda Lighthouse Reserve. In its reply to the Board the F.N.S. pointed out the desirability of protecting indigenous kangaroos and wallabies on the Reserve, and acting on this advice the grazing lease application was refused.<sup>77</sup>

In July 1906, the second stage of the Kangaroo Island campaign began in earnest, with a meeting of the Royal Society and F.N.S. members in the City of Adelaide Lord Mayor's Parlour. At the gathering Dr. Joseph Verco proposed, and Professor Edward Stirling seconded the motion:

That this meeting is of the opinion that the large area at the western end of Kangaroo Island should be set apart as a National Reserve for Native Fauna and Flora.<sup>78</sup>

To have the motion put by such eminent and respected scientists was a shrewd move, but to strengthen the case and suggest that the F.N.S. was not oblivious to the need for recreation, Dr. Rogers moved, and Dixon seconded a second motion 'That provision should be made to give the Trustees power to establish a health resort in the area'.<sup>79</sup> In



many respects though, the Mayor's Parlour meeting was little more than a preliminary skirmish, and early in August of 1906 'a very large number of people' waited on the Premier of South Australia, the Hon. Tom Price. Price gave the deputation a sympathetic hearing, and intimated that the Cape Borda Lighthouse Reserve could be dedicated for conservation purposes almost immediately. He was not at all optimistic, however, about the chances of including two highly prized areas, Rocky River and Snug Cove, pointing out that the lessees of these areas were asking the exorbitant sum of \$56,000. The deputation expressed its disappointment, particularly over Rocky River, as it claimed that this was the only suitable stream to which *Ornithorhynchus anatinus* (the platypus) could be introduced. It was suggested to Price that the leases of Rocky River and Snug Cove could be resumed for parkland purposes, but he was not amenable to this, being, as Dixon claimed

obsessed with the city idea of parklands, and so the first Labour Premier of the State missed the opportunity to secure for the toiling and moiling people of this hot country a cool health resort and playground to recuperate in after our heated spells.<sup>80</sup>

Dixon's criticism of Price on these grounds, if not hypocritical, at least has a hollow ring, for as with the Government Farm controversy of 20 years earlier, the F.N.S. was using the recreation argument largely as window dressing: the real interest was in fauna and flora conservation, but many years of political lobbying had demonstrated that this in itself did not have a particularly wide appeal. Selway, writing in 1910, made no secret of the fact that the recreation argument was used only to further F.N.S. conservation objectives. When referring to the October 1888 deputation which was pressing for the reservation of Government Farm, Selway claimed

The inclusion in the deputation referred to above, composed largely of learned societies, of such bodies as the Trades and Labour Council and the United Friendly Societies was to strengthen our hands from the

recreation point of view, but as I have already said our main objective was the protection of our native fauna and flora. Many of us think it a matter for regret that this has been made to take quite a subsidiary place, compared with the play-ground aspect.<sup>81</sup>

If Belair National Park as a 'play-ground' did not impress the F.N.S., it was certainly popular with many thousands of Adelaide's residents. In 1908 May Vivienne noted approvingly:

There are altogether twenty-one tennis courts in the park, so you see holiday-makers are well looked after by the Commissioners. The miniature lakes, shelter-houses and bowers are well patronised at holiday times, and the fifty fireplaces, in various parts of the park, for people who are picknicking to 'boil the billy on', minimises the danger of grass fires. Sports-ovals, cricket pitches, and refreshment rooms - in fact, everything that is possible to make people happy and take their pleasures comfortably has been done in the improvements here.<sup>82</sup>

Even Selway marvelled at its popularity:

when one sees or hears of the thousands who visit it on public holidays, and in lesser numbers, but still considerable, on other days, one wonders where these crowds went before the National Park was available.<sup>83</sup>

Herein lay a tactical problem with the Kangaroo Island agitation. Clearly national parks and reserves could be popular with the public, and to this extent the recreation argument for their provision would carry weight politically. On the other hand Dixon had to be sure that by stressing recreation in the deputations he was not elevating it to the position of prominence it had assumed with Belair. One factor working in Dixon's favour was the isolation of western Kangaroo Island. On landing at Kingscote, the prospective visitor was faced with an 80 km trip over rough bush tracks to Rocky River or Cape Borda, from where tracks to the various scenic coves and cliffs were either rough and overgrown, or non-existent. In terms of accessibility it was a far cry from Belair National Park, and Dixon and his colleagues must have been aware that the isolation of the area would prove prohibitive for any grandiose health resort schemes for many decades.

In fact, in terms of a haven for endangered species of Australian fauna, western Kangaroo Island promised everything Belair could not provide, and Dixon, Selway, and others from the Royal Society and the F.N.S. put an extraordinary amount of time, effort, and money into the struggle for Government approval. The 1906 deputation, previously referred to, was followed in April 1907 by another meeting with the Premier,<sup>84</sup> the outcome of which was the gazettal on 26 December 1907 of a proclamation setting aside the 17,353 ha Cape Borda Lighthouse Reserve for lighthouse purposes and the protection and preservation of fauna and flora.<sup>85</sup> The proclamation, useful though it was, did not satisfy the F.N.S., and in January 1908 another deputation was organised, this time to wait on the Commissioner of Crown Lands. The main point stressed by the speakers was the need to enlarge the area to a proposed 78,000 ha, but in a formal reply to the F.N.S. in February the Minister claimed that the existing area was sufficient for the purposes advocated.<sup>86</sup> In March, and again in April, lengthy submissions were sent to the Acting Premier, outlining in some detail the case for a large area vested in trustees. In the correspondence, unfavourable attention was drawn to the small area set aside for wildlife protection in South Australia when compared with the large reserves interstate and in such overseas countries as New Zealand and America. As a special piece of pleading the argument failed to impress the Government, and the F.N.S. was informed again that the area could not be increased.<sup>87</sup>

Even this firm rejection did not diminish the persistence of the campaigners. Throughout the remainder of 1908 they channelled their efforts towards the production of a paper outlining the case for an enlarged reserve. The paper was supported by a map, and photographs taken by a Miss Archer, a member of the F.N.S. who had travelled solo around the Island on a bicycle, an adventurous undertaking, for much of the country was little more than an unsettled wilderness. On its completion the paper was circulated widely, with copies going to

prominent South Australians, learned societies throughout Australia, and scientific bodies in England, France, Germany, and America.<sup>88</sup>

In a follow-up to the paper, yet another large deputation was organised, this time waiting on the Commissioner of Crown Lands in November 1909. The case for an enlarged area was again forcefully put, this time with some result, for the Commissioner appeared sympathetic, stating that he 'could see force in the case from the scientific point of view'; additions which would increase the reserved area to approximately 36,260 ha were suggested to the deputation, and the meeting closed amicably. Dixon stated later that 'on this occasion, as on others, *The Register* gave a very good leader'.<sup>89</sup> The Commissioner kept his promise, and on 10 February 1910 the additions promised were gazetted, increasing the area reserved to 38,610 ha.<sup>90</sup> Selway, writing in the same year, considered this development very satisfactory, although

We wished it had been larger and still hope in that direction. We would also much prefer to have it vested in trustees as in the case of the Belair Reserve ... Now that the Kangaroo Island Reserve is proclaimed it seems desirable that further action should be taken, by preventative by-laws, to secure from destruction, not only existing fauna and flora, but whatever native animals or plants may subsequently be introduced. It may be added that as a whole, the western end of the island is not considered suitable for agricultural purposes, although there are some rich patches. Deprivation to intending settlers, therefore, would be slight, while as a sanctuary for game, etc., the country is on many grounds peculiarly suitable.<sup>91</sup>

There must have been at this stage a strong temptation to consolidate the gains, to agitate for regulations, rangers, and fences, rather than increased acreage. The Australian Natives Association had pointed out the need for this consolidation in a petition to Parliament late in 1909,<sup>92</sup> and Selway was obviously aware that mere acquisition of an area was no guarantee of protection for fauna and flora. Dixon though, was of the opinion that consolidation would come once the cherished

78,000 ha had been secured, and in pressing for the additional land he could refer, in support, to a paragraph in the Annual Report of the F.N.S. for the year ended September 1910:

Mr. J. G. O. Tepper, F.L.S. gave a lantern address, showing what the Americans have done in the reservation at Yellowstone Park. It was humiliating to Australians to think that the Americans could set aside in this one reserve 6,600 square miles [1,709,392 ha], while it seemed very difficult to induce our Governments to set aside as many acres.<sup>93</sup>

In November 1910 the F.N.S. organised its fourth major deputation to the Government, waiting once again on the Commissioner of Crown Lands. The now familiar arguments were once more put to the Commissioner, and though he listened politely it was a ritualistic performance, the only new argument put forward being the supposed presence on Kangaroo Island of *Calyptrorhynchus magnificus samueli* (red tailed black cockatoo), a bird claimed not to be found elsewhere in South Australia.<sup>94</sup>

It was a rather listless effort, and the less dedicated could well have interpreted it as a sign that the movement for a larger reserve was waning. No such thought was entertained by the F.N.S., and early in 1911 Dixon began preparations for an all out effort to secure the extra land. In May, 300 circulars were forwarded to influential people and societies, and in June a truly impressive deputation of almost 100 people waited on the Treasurer. Among the 27 organisations represented were the Royal Societies of South Australia, New South Wales, Victoria, and Tasmania; the Royal Geographical Society; the British Fauna Guild; the Zoological Society; Royal Australasian Ornithologists Union; and the Botanical, Microscopical, and Malocological Societies of South Australia. Twelve corporations and district councils from in and around Adelaide were represented, as was the Stock Exchange, Society of Arts, Boy Scouts, and the Pastoralists Association. Even the Young Women's Christian Association and Woman's Christian Temperance Union sent representatives, holding no doubt, the then popular view that exposure to nature induced habits of steadiness and sobriety in

people. To assemble such a varied collection of interested parties must have involved an extraordinary amount of organisation; certainly it was a masterly piece of public relations work, and the Minister was suitably impressed, stating in his reply that:

no one could doubt the representative character of the deputation, which had not merely a local, but an Australian interest. He was not saying that they were asking too much, or that it would not be desirable to reserve the whole of Kangaroo Island, if circumstances were favourable. He was sure that the people of South Australia would endorse the view that as large an area as possible should be preserved.

The Minister concluded his remarks by stating that he would recommend to his Cabinet colleagues an increase in the reserve size, and would, at an early opportunity, make a personal inspection of the area.<sup>95</sup>

Dixon was elated at the outcome of the meeting, and after serving for 23 years, resigned as Chairman of the F.N.S. Native Fauna and Flora Protection Committee, believing that Kangaroo Island was won, and his work done.<sup>96</sup> In a farewell address to the F.N.S., Dixon presented a wide ranging summary of conservation action in South Australia,<sup>97</sup> and concluded by suggesting that Australia could well support a 'Society for the Conservation of our Fauna and Flora', a suggestion not realised at a national level until the formation of the Australian Conservation Foundation in 1964.<sup>98</sup> Edwin Ashby, a local naturalist with particular interests in botany and ornithology,<sup>99</sup> was elected to replace Dixon, and throughout 1912 and 1913 a small sub-committee of Ashby and Royal Society members Captain S. A. White and Dr. Joseph Verco, worked in co-operation with the Commissioner of Crown Lands and Parliamentary draftsmen to prepare a bill providing for the setting aside of Flinders Chase, as western Kangaroo Island was now known, as a 'National Park and Fauna and Flora Reserve under the control of a Board of Governors'.<sup>100</sup> Progress was steady, and it came as no small shock to many when the F.N.S. announced in 1914:

your Committee was advised that owing to the financial stringency existing in this State the 'Flinders Chase Bill' must be indefinitely postponed.<sup>101</sup>

The immediate cause of the 'financial stringency' was the severe drought of 1914. The newly-opened wheatlands of the Murray Mallee were especially hard-hit, and the Government found itself not only advancing large amounts in drought relief, but also losing money through concessions extended on the various leases and agreements under which the land had been alienated. Dixon was bitterly disappointed, remarking at a later date that 'in all but eighty years such treatment never fell to my lot before'.<sup>102</sup>

In 1915 and 1916 efforts were made to resurrect the lapsed bill,<sup>103</sup> but with a World War being fought few people could put their minds to the seemingly trite matter of plant and animal protection, and little progress was made.

### *Third stage of the campaign, 1918-1919*

In 1918, as World War I drew to a close, the Royal Society decided that the time was opportune to reopen the whole question of a Flinders Chase reserve, and at the July meeting passed a resolution appointing a three man committee 'to expedite the grant of the western end of Kangaroo Island in terms of a promise made by the Commissioner of Crown Lands in 1911'.<sup>104</sup> The committee consisted of Captain S. A. White, a noted ornithologist with considerable influence at the State level of politics; J. M. Black, a well-respected taxonomic botanist; and Samuel Dixon. The committee's first step was to prepare and circulate to Parliamentarians and interested societies a paper entitled 'Flinders Chase: a Reserve for Flora and Fauna, and for the growth of Commercial Timber, especially Softwoods'.<sup>105</sup> The emphasis in the title on commercial timber production represented a new approach, and

to publicise its claimed importance a meeting of merchants, timber merchants, and others in the timber trade, was held in the Adelaide City Council Mayor's Parlour, and various speakers stressed the importance of planting large areas to softwoods, particularly in view of the likely post War shortage of good timber.

The sincerity of this argument must be open to some doubt. It is true that in those days 'conservation' was rather widely interpreted, and was held to include wise management of soils, water, and forests much more commonly than it is today, but Major Smeaton M.P., was probably closer to the real reason for introducing the argument, being reported as stating at the meeting:

they had had a succession of Premiers who had approved of the proposal made and very little more had come of it. They got a lot of sympathy and not much help. They wanted the western part of Kangaroo Island as a Fauna and Flora Reserve, and they were more likely to get it by showing the commercial advantages which would result from afforestation.<sup>106</sup>

The implication was clear: as with the recreation argument for Belair, the timber argument was introduced to broaden the base of support and convince sceptical politicians that a flora and fauna reserve could be a material gain for the State rather than a continual drain on its finances. In further support of this economic aspect the Royal Society's committee asserted, in its paper, that the area could be utilised profitably for the production of gum from the yacca, and eucalyptus oil from *Eucalyptus cneorifolia* (narrow-leaved mallee). For good measure the committee reiterated once again the claim that the Chase could become an important health resort and holiday ground.<sup>107</sup>

On 27 September 1918 the final deputation of the long campaign assembled before the Attorney General. Once more the need for an enlarged reserve was outlined, and once more the need to emulate overseas developments was stressed, with Professor Edward Stirling urging South Australians to look to America:

The Americans were shrewd people, and they had set aside



as reserves for Fauna and Flora no fewer than 6,500,000 acres [2,630,457 ha]. There were 17 national parks in the United States which were preserved in an absolutely natural state. They would not go very far wrong if they followed the example of the long-headed Americans.<sup>108</sup>

The successful conclusion to the deputation is probably best told by Samuel Dixon, proposer of the 1892 motion, and for 27 years an untiring worker for a reserve at Flinders Chase:

Weeks passed after the deputation and no decision was heard of. Capt. White, with untiring and most admirable persistence, kept on urging the Cabinet to a decision, and at last extracted a promise from the Premier - not to carry out the Ministerial promise of six years previous - but to refer the matter to the Kingscote District Council, K.I. So on April 5 of last year Mr. George Laffer, M.P., and Capt. White met the Council, which in a more patriotic spirit than the Premier, not only consented to the area already proclaimed, but agreed to add some 40 square miles [10,360 ha] on the south.<sup>109</sup>

A bill was subsequently drafted and introduced to Parliament early in August 1919. Debate on its provisions was generally favourable, one of the few discordant notes coming from an M.P. who expressed a fear that the new reserve would involve the Government in undue expense.<sup>110</sup>

On 16 November 1919 the Governor's assent was received and the Fauna and Flora Reserve Act, 1919, became law (vide table p. 44, map p. 43). The preamble of the Act stated that it was

An Act to establish a Reserve on Kangaroo Island for the Protection, Preservation, and Propagation of Australasian Fauna and Flora, and provide for the control of such Reserves, and for other purposes.<sup>111</sup>

The passing of the Act represented the climax of a remarkable campaign, a campaign handled by a Field Naturalists Section at the peak of its influence and power. There has been nothing quite like it since, and it is doubtful if it will ever be repeated in the future. The voluminous correspondence, the supporting circulars and papers, and the frequent deputations - always impressive in their composition and presentation of arguments - gave the Flinders Chase campaign a

unique character (vide p. 28). Behind it all had been the executive members of the Royal Society of South Australia and its Field Naturalists Section, many of whom had gained valuable experience from the earlier Government Farm controversy. Some were learned and articulate men, like the Rev. W. Howchin, Professor Ralph Tate, J. G. O. Tepper, Professor E. C. Stirling, and Dr. Joseph Verco: others such as Samuel Dixon, W. H. Selway, and Edwin Ashby were remarkable for their tenacious lobbying: yet others, like Captain S. A. White, provided essential diplomacy and political influence.

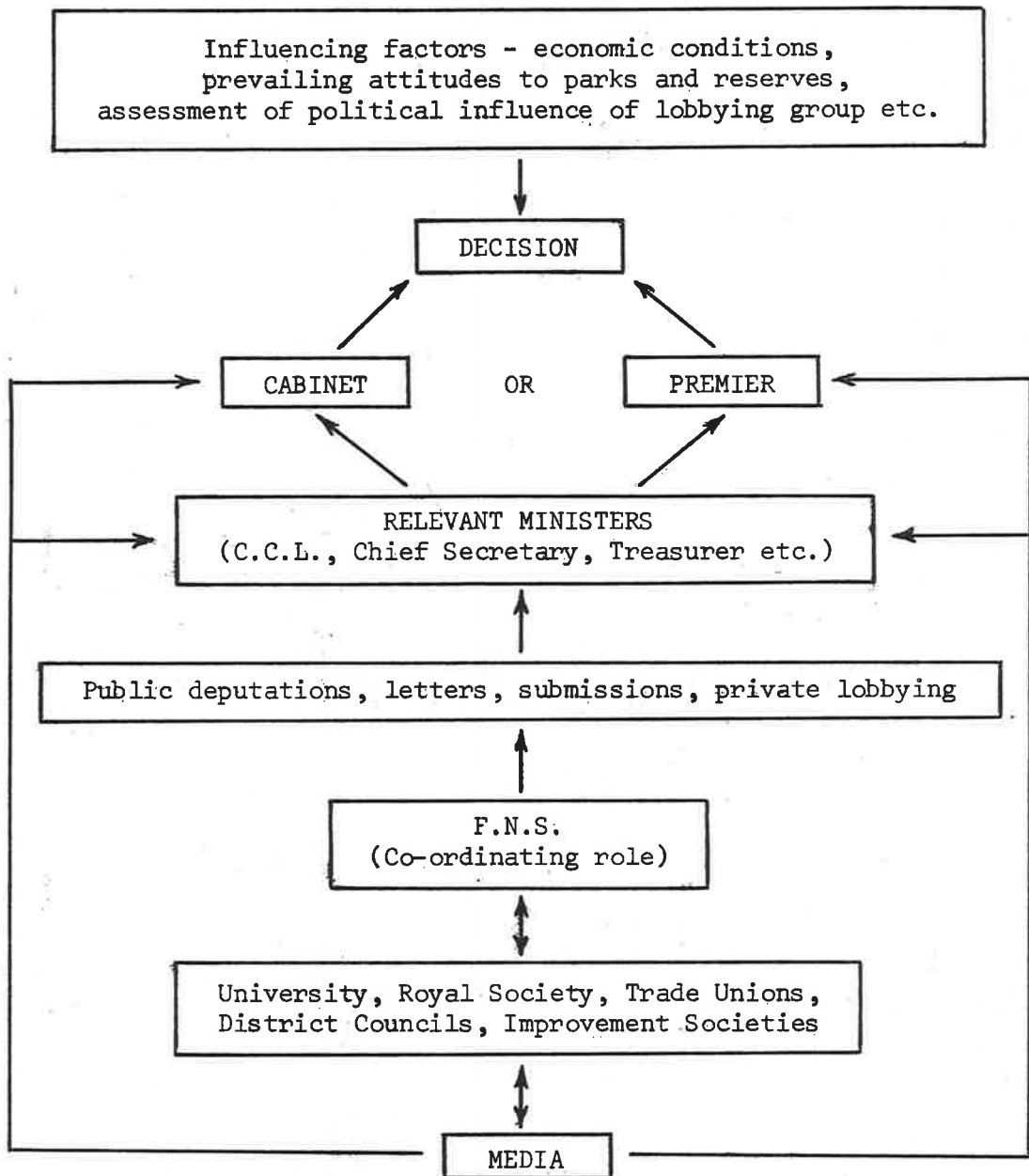
It was a formidable team, a product of an age when people's leisure time was unhurried by motorised transport and its galaxy of attendant activities; an age when scientific men could devote many hours to the minutiae of deputations, circulars, and letters. Yet it was also an age when there was little sympathy for the national park concept, and the marvel of the whole campaign is not that it took so long to achieve its goal, but rather that in the face of an occasionally hostile, and usually indifferent Government and public, it achieved it at all.

## FLORA AND FAUNA CONSERVATION - THE EARLY TWENTIETH CENTURY

### *Legislative developments*

In its closing years the Flinders Chase campaign had become an all-consuming interest for the Field Naturalists, but dominating though it was, there were several other developments of importance. Not the least of these involved the passing of a National Pleasure Resorts Act in 1914, and an Animals and Birds Protection Act in 1919.

The National Pleasure Resorts Act was legislative acknowledgement that certain areas were of scenic and recreational importance



Diagrammatic summary of the interaction and lobbying involved in the Belair and Flinders Chase campaigns.

sufficient to warrant special protection, and in the following years a number of areas were set aside under the provisions of the Act. In general the resorts were small but scenically-attractive areas, and with a few notable exceptions, were scattered throughout suburban Adelaide and the Mt. Lofty Ranges. Some of the better known resorts close to Adelaide included Morialta Falls, Waterfall Gully, Hazelwood Park, Mt. Lofty Summit, and Brownhill Creek. The provision and maintenance of such formal recreational facilities as kiosks, paths, seats, shelter sheds, and fireplaces was the major management concern, but regulations protecting the flora and fauna were given prominence. In some cases the resorts assumed a conservation importance out of all proportion to their size, a notable example of this being Hazelwood Park, a few miles east of Adelaide, where *Eucalyptus camaldulensis* (river red gum) remained as an example of a woodland formation, which, until European settlement covered a wide area of the Adelaide Plains.

#### *The need for conservation*

The Animals and Birds Protection Act, though deficient by today's standards in its schedules of protected species and closed seasons, was a logical progression from the Birds Protection Act of 1900, and a tacit admission that action was needed to stem the decline of the State's fauna. The decline was certainly spectacular. Many of Australia's smaller marsupials and placental rodents were ground dwellers, relying on the perennial native grasses and shrubs for cover and food. With the widespread introduction of sheep and cattle, such perennial native grasses as *Themeda australis* (kangaroo grass), and *Danthonia* spp. (wallaby grass) were replaced over much of southern Australia by a variety of introduced annual grasses,<sup>112</sup> while in the semi-arid shrub-steppe country of inland southern Australia such

characteristic shrubs as *Atriplex* spp. (saltbush), and *Kochia* spp. (bluebush), were replaced, over wide areas, by an open grassland dominated by the native *Stipa* spp. (spear grass) and *Bassia* spp. (bindy-eye).<sup>113</sup> Such habitat modification was undoubtedly the main cause of the decline of many native animals, but the process was greatly accelerated by the spread of the rabbit and the fox throughout South Australia in the late nineteenth century. The rabbit was a direct competitor for food and burrow space, the fox an efficient predator, and with the introduction of widespread poisoning as a technique for rabbit control, the disappearance of many species from the settled districts was inevitable.<sup>114</sup> Frederic Wood Jones in his classic study 'The Mammals of South Australia' (1923-1925), documented the decline, and his account of the disappearance of *Bettongia penicillata* (tufted tailed rat-kangaroo), though dramatic, was by no means unique:

Only a few years ago this animal was extremely common over the greater part of South Australia. Twenty years ago the dealers in Adelaide did a great trade in selling them by the dozen at about ninepence [eight cents] a head for coursing on Sunday afternoons. It may surprise people who remember those days to know that there is not a preserved specimen, not even a skin of the animal, available for scientific study in South Australia today.

Wood Jones went on to warn his readers that:

In the same way it will one day surprise the rising generation when they realise that the few native animals they are now familiar with are gone for ever.<sup>115</sup>

### *The role of Flinders Chase*

It was precisely this fear which had given the Field Naturalists a crusading zeal in their campaign for Flinders Chase, and the absence of rabbits and foxes on the Island encouraged many people to see the Chase as an ultimate sanctuary for hard-pressed mainland species. The Act of 1919 also made it clear that protection of endangered

fauna was favoured officially as a key role for the Chase, and little time was lost in putting the policy into practice. The controlling body of the Chase, a six-man Fauna and Flora Board made up of representatives from the Government, the Royal Society of South Australia, and the University of Adelaide, held its first meeting in February 1920,<sup>116</sup> and in October 1922 it was announced that the Government had purchased the 3,953 ha Rocky River Station and added it to the Chase.<sup>117</sup> The acquisition of Rocky River with its homestead and out-buildings facilitated the appointment of a full-time ranger in 1923,<sup>118</sup> which in turn made possible the introduction of mainland fauna considered to be close to extinction. Significantly, amongst the first animals liberated, in September 1923, were two mallee fowl (*Leipoa ocellata*),<sup>119</sup> a species considered by many to be in imminent danger of extinction. As early as 1914 Capt. S. A. White, a member of the Fauna and Flora Board, had written of the bird:

Since the advent of artificial manures much of the mallee country has been taken up, cleared, and put under plough, and in other parts the country is being stocked, so each year these strange birds are being driven further back, and will in time, like many other strange animals be exterminated.<sup>120</sup>

The mallee fowl were followed, in December 1923, by six koalas (*Phascolarctos cinereus*) from Victoria, and a pair of Cape Barren geese (*Cereopsis novaehollandiae*). The koala was a species for which there was also much concern at the time, with the fur trade of the Eastern States accounting, officially, for a total of 205,679 pelts in 1920 and 1921.<sup>121</sup> By 1924 the number of skins exported had risen to two million,<sup>122</sup> and the establishment of a breeding population at Flinders Chase must have seemed a project of national concern. The Cape Barren goose, though never subjected to the same pressure as the koala, was restricted to a number of small islands around the southern Australian coast, and after years of depredations by sealers and pastoralists was considered to have reached a dangerously low population

level.<sup>123</sup> In the years following these first introductions numerous additional species were liberated on the Chase (vide table pp. 33-34). Some, such as the rat-kangaroo (*Bettongia* spp.), and the platypus (*Ornithorhynchus anatinus*), were certainly species whose mainland status was precarious, but others could only be described as bizarre: the emu (*Dromaius novaehollandiae novaehollandiae*), the common bronze-wing pigeon (*Phaps haleoptera*), and the stump-tailed lizard (*Trachydosaurus rugosus*), could in no way be regarded as endangered species.

As a sanctuary for mainland species of animals Flinders Chase has probably not fulfilled the hopes held by its founders. At least two species have flourished, the numbers of koalas and Cape Barren geese having now risen to a point where they represent a management problem,<sup>124</sup> but the status of many other introductions is uncertain: mounds of the mallee fowl, for example, have not been seen for many years; there are conflicting reports as to the presence or otherwise of the rat-kangaroo; the platypus numbers have never appeared to be considerable. It is likely that the failure of most introductions could be traced to unsuitable habitat, and the release of numbers insufficient to form viable breeding populations. Although there is a lack of documentary evidence, an additional factor in the apparent failure of the mound building birds may have been predation of eggs and young by feral pigs present on the Chase. Mainland animals have been released as recently as the late 1950's, but it is unlikely that introductions on any considerable scale will be made in the future. Doubts about the wisdom of introducing species to areas they have not previously occupied have been expressed recently,<sup>125</sup> and it seems almost certain that future policy will tend to see the Chase as an important conservation and recreation area in its own right, rather than a sanctuary for mainland animals.

Such a modified view of the role of Flinders Chase is probably only possible through the wisdom of hindsight, and in the early years

ANIMALS LIBERATED ON FLINDERS CHASE, KANGAROO ISLAND

Date	Number	Species
1911	17	mallee fowl ( <i>Leipoa ocellata</i> )
1923 Sept.	2	mallee fowl ( <i>L. ocellata</i> )
Dec.	6	koalas ( <i>Phascolarctos cinereus</i> )
Dec.	2	Cape Barren geese ( <i>Cereopsis novaehollandiae</i> )
1924 Oct.	2	mallee fowl ( <i>L. ocellata</i> )
Nov.	2	kangaroo rats ( <i>Bettongia penicillata</i> )
1925 April	12	koalas ( <i>P. cinereus</i> )
1926 Jan.	4	laughing jacks ( <i>Dacelo novaeguinae novaeguinae</i> )
July	2	rat kangaroos ( <i>B. penicillata</i> )
Oct.	1	wombat ( <i>Lasiiorhinus latifrons</i> )
Oct.	15	ring-tailed opossums ( <i>Pseudocheirus peregrinus</i> )
Oct.	50	stump-tailed lizards ( <i>Trachydosaurus rugosus</i> )
Oct.	2	emus ( <i>Dromaius novaehollandiae novaehollandiae</i> )
1928 Jan.	2	emus ( <i>D. novaehollandiae novaehollandiae</i> )
Dec.	3	platypus ( <i>Ornithorhynchus anatinus</i> )
1929 Nov.	2	emus ( <i>D. novaehollandiae novaehollandiae</i> )
1932 Aug.	2	Cape Barren geese ( <i>C. novaehollandiae</i> )
1936 April	3	Cape Barren geese ( <i>C. novaehollandiae</i> )
April	1	wombat (species not known but probably <i>L. latifrons</i> )
April	2	scrub turkeys ( <i>Alectura lathamii</i> )
April	6	mallee hens ( <i>L. ocellata</i> )
1937 Sept.	12	crested pigeons ( <i>Ocyphaps lophotes lophotes</i> )
Sept.	6	peaceful doves ( <i>Geopelia striata tranquilla</i> )



Date	Number	Species
1937 Sept.	2	emus ( <i>Macropus robustus</i> )
Sept.	4	common bronze-winged pigeons ( <i>Phaps chalcoptera</i> )
Sept.	12	zebra finches ( <i>Peophila guttata castonotis</i> )
Sept.	6	zebra doves ( <i>G. striata tranquilla</i> )
Sept.	4	diamond doves ( <i>Geophelia cuneata</i> )
1940 Feb.	4	barred-shouldered doves ( <i>Geopelia humeralis</i> )
Feb.	2	pieb geese ( <i>Anseranas semipalmata</i> )
Feb.	2	plumed ground pigeons ( <i>Lophophaps plumifera leucogaster</i> )
Feb.	10	peaceful doves ( <i>G. striata tranquilla</i> )
1941 Feb.	2	Brown's parakeets ( <i>Platycercus venustus</i> )
Feb.	10	platypus ( <i>O. anatinus</i> )
1943 Feb.	4	wonga pigeons ( <i>Leucosarcia melanoleuca</i> )
1946		wonga wonga pigeons ( <i>L. melanoleuca</i> )
		tortoise (species unknown)
1947 Jan.	8	gang-gang cockatoos ( <i>Callocephalon fimbriatum</i> )
1948 March	3	mallee hens ( <i>L. ocellata</i> )
1956 March	16	gang-gang cockatoos ( <i>C. fimbriatum</i> )
1957 Jan.	3	emus ( <i>D. novaehollandiae novaehollandiae</i> )

Note that there were various suggested importations which did not eventuate, for example, the lyrebird, *Menura superba*, (none became readily available) and the yellow-footed rock wallaby, *Petrogale xanthopus*, (habitat considered unsuitable).

The above list to 1940 has been compiled by the Fauna & Flora Board. Records after 1940 have been compiled by the author from Fauna & Flora Board minutes.

there were few reservations expressed about its likely success. The Adelaide newspapers were particularly proud of the Chase, and editorials, illustrated articles, and letters occupied prime column space of *The Mail*, *The Register*, and *The Advertiser*, throughout the 1920's. In terms of public interest Flinders Chase was rivalled only by the very contentious issue of wide scale possum killing for the fur trade.

### *Field Naturalist activity*

Perhaps paradoxically, the obvious interest the press and public were showing in reserves and fauna conservation was not capitalised on by the F.N.S. In August 1921 some of the more active members had organised 'a large meeting of nature lovers' in the Adelaide Town Hall, but there was no follow up to the meeting.<sup>126</sup> In 1924 Professor J. B. Cleland urged that the area between Mt. Lofty Summit and Waterfall Gully be acquired as a 'National Reserve'. To Cleland it seemed there was an urgent need for reserves close to Adelaide:

it seems now fitting that we as a body should join with others in pressing that this place be set aside as a reserve. The city is growing, hill resorts are far too few and too small to meet even the present needs of our citizens.

His plan called for an airport, golf course, and housing estate, all of which he considered could be built 'Without interfering materially with the natural growth as a reserve'.<sup>127</sup> Although the area was ultimately purchased, and is now the Cleland Conservation Park, the scheme was too ambitious for the F.N.S., and the matter lapsed. For many years after this there was little interest expressed in acquiring further areas as reserves or national parks. Attempts to explain this decline in interest can only be speculative, but it does seem likely that the prolonged campaign for Flinders Chase had virtually exhausted the main participants. Furthermore, Selway, Dixon, and

even Ashby were ageing, and their successors as leaders of the Field Naturalists Section, men like Cotton, Tindale, Hale, and Cleland, showed more interest in such systematic studies as conchology, anthropology, and taxonomic botany, than in lobbying politicians for more lands for reserves.<sup>128</sup> The general economic depression of the early 1930's was undoubtedly another inhibiting factor, while as a further argument it could be said that the F.N.S. had realised a pause was necessary, a period of consolidation when the gains at Belair and Flinders Chase could be properly assessed. Certainly the F.N.S. had been hard at work studying the reserves close to Adelaide, for in 1936 they published an illustrated book entitled 'National Park, Morialta, and Waterfall Gully Reserves. Containing an account of their Natural History'.<sup>129</sup> Appearing originally in the F.N.S. journal *The South Australian Naturalist*, it represented a careful attempt to educate the public towards a greater appreciation of the history, attractions, and natural history of the three reserves. Work on the book had begun as early as 1924, and although modified, updated, and reprinted twice, it remains today as the quasi-official handbook of national parks and reserves in South Australia.<sup>130</sup>

#### THE McDONALD RESERVE - CONSERVATION OF THE MALLEE

##### *The mallee ecosystem and its interest to naturalists*

In the 1936 edition of the handbook, Dr. Charles Fenner, one of the State's early geographers, noted:

while South Australian naturalists are to be complimented on the variety of topographic, geological, botanical, and zoological material available in their public parks, the need for smaller reserves of mallee, mangrove, and sand-dune is worthy of emphasis.<sup>131</sup>

Fenner's view was shared by Edwin Ashby, one of the stalwarts of the Flinders Chase campaign. Though 75 years old, Ashby was still a lively member of the F.N.S., and in May 1936 he approached the State Premier with a proposal to create a reserve in mallee scrub country near Murray Bridge, some 80 km south east of Adelaide.<sup>132</sup>

The mallee scrub Ashby was anxious to preserve was a vegetation formation characteristic of wide areas of southern Australia experiencing an annual rainfall of 200 to 400 mm. The unique feature of the scrub was the peculiar growth habit of the stunted *Eucalyptus* dominants: from a partially-exposed lignotuber, the so-called 'mallee root', many slender stems branched out into a discontinuous canopy at heights ranging from two to six metres above ground level. The understorey was generally sparse, particularly in the drier regions, with various species of *Kochia*, *Atriplex*, *Rhagodia*, *Cassia*, *Melaleuca*, and *Triodia* being some of the commoner plants. The soils of the scrub country generally consisted of a sandy-loam surface layer of variable depth overlying nodular or sheet calcrete. In many areas the calcrete was either exposed or so close to the surface that cultivation was impossible. In addition to this soil problem, the rainfall was erratic, and generally lower than that considered necessary for consistently-successful cereal cropping. A further difficulty was the remarkable capacity of the mallee dominants to regenerate from the lignotubers following axing of the stems, making clearing by conventional means very difficult. Faced with such problems early settlers carefully avoided the vast mallee scrublands of Eyre Peninsula, Yorke Peninsula, and the Murray Mallee, and it was not until improved clearing techniques were developed throughout the 1870's that there was any significant move to bring the scrublands under cultivation. By the early twentieth century, changing economic conditions, technological advances, improved farming practice, and better strains of wheat had made the once despised scrubs the focus of intensive land development, and vast areas were cleared and cropped. The pace of

clearance reached a peak in the 1920's, and to observers such as Fenner and Ashby, the total obliteration of the mallee scrub as a viable ecosystem must have seemed almost inevitable.

*The Ashby campaign, 1936-1937*

Ashby was particularly concerned by the loss of habitat the clearance represented, for although sterile, superficially, the mallee scrublands did in fact support a rich fauna, a feature recognised quite early in the State's history by explorer Edward John Eyre:

the very regions, which, in the eyes of the European, are most barren and worthless, are to the native the most valuable and productive. Such are the dense brushes, or sandy tracts of country, covered with shrubs, for here the wallabie [sic], the opossum, the kangaroo rat, the bandicoot, the leipoa, snakes, lizards, iguanas, and many other animals, reptiles, birds, etc., abound; whilst the kangaroo, the emu, and the native dog, are found upon their borders.<sup>133</sup>

The 'leipoa' or mallee fowl referred to by Eyre, was of special interest to Ashby. Having devoted much time to a study of its curious mound-building habits, he was convinced that the agricultural settlement of the scrublands was a menace to its survival:

It is in danger of becoming as extinct as the Dodo that priceless giant flightless pigeon that was destroyed by mans thoughtlessness. The dedicating of the proposed Reserve is an insurance against the extinction of this World's most wonderful bird.<sup>134</sup>

Ashby's proposed reserve was in the hundred of Freeling near Monarto South, a small town 14 km west of Murray Bridge. Situated on historic Chauncy's Line, an 1852 survey route from Mt. Barker to Wellington, it was an area of scrub visited by Ashby as early as 1885,<sup>135</sup> and although in private hands and surrounded by developed farms, it still supported, in 1936, a breeding population of mallee fowl. Using experience gained throughout the long and difficult Flinders Chase campaign,

Ashby prepared his case to the Government carefully. It was unlikely that Government money would be voted to a project based on the scientific interest of one species of bird, and he argued, therefore, that not only was the 'flora rich in distinctive Mallee plants ... nowhere found nearer the city', but also that the area would become a popular picnic resort:

In early Spring (August) when both the Hills and Sea-side are bleak and windy, this mallee Reserve is bright and warm and sunny with many Spring flowers and is to motor cars within easy picnic distance of the City. Visitors by mail steamer will have time to spend an hour or so in the sunny mallee bush and still have time to catch their boat in the afternoon.<sup>136</sup>

As a trump card, Ashby offered to the politicians the prospect of financial gain to the State if the area was reserved; in glowing terms he described the commercial possibilities of the mallee fowl:

The Mallee Fowl is more than twice the size of the domestic fowl, it probably lays more eggs during the laying season than did the wild ancestor of the domestic fowl. It does not lose time in getting 'clucky'. It does not sit for three weeks on its eggs, being free to spend all its time in its real objective laying eggs. In body weight it far exceeds the domestic fowl.<sup>137</sup>

It was a curious proposition, one that few people would take seriously now, but in fairness to Ashby it must be acknowledged that as with Flinders Chase, the difficulty was to convince people that areas set aside for wildlife conservation were a legitimate and necessary form of land-use, even if they could not return a saleable crop or product. If it could be shown that mallee fowl might repay some of the capital invested in land acquisition the project probably stood a much better chance of approval. It was the same tactical ploy as that used in suggesting pine plantations for Flinders Chase, and there must be some doubt as to whether Ashby ever intended the commercialisation of mallee fowl to be considered seriously. In a similar way, and as with the Chase, the use of the recreation argument must be viewed with some reservation, for when the area was eventually secured, one of Ashby's first suggestions was that the Government purchase land at

Harriot Hill, some three km to the west, his argument being that it would 'give picnickers an area in which they could pick flowers or dig up plants. This would thereby save those on the Reserve from mutilation'.<sup>138</sup>

Ashby's original proposal to the Premier in May 1936 produced little response, and in an effort to stimulate action he began personal negotiations with the relevant landowners. His skill as a negotiator must have been considerable, for in October of the same year Robert McDonald of Monarto wrote to Ashby informing him that he was prepared to donate sections 271 and 272 of the hundred of Freeling, even though he had doubts about the whole project:

I do not wish to throw cold water on what you are working so keenly to obtain, but I am very doubtful if a National Park in this country will be a success. Should you go up take something to keep the mosquitoes away - or failing that, take a remedy for their bites. They are sure to attack outsiders.<sup>139</sup>

Undeterred by McDonald's pessimism, or his mosquitoes, Ashby pressed on, and in December 1936 announced that he had been promised a further gift of land, section T, which adjoined sections 271 and 272 of the hundred of Freeling.<sup>140</sup> Sections 238, 241, 242, 245, and 246, scrubland immediately north of the promised sections, had also been offered to Ashby for the generous price of \$350, and taking into account grubbing and fencing costs Ashby considered that the total area, 648 ha, could be secured for \$500.<sup>141</sup> It was at this point that Ashby brought all his skill at lobbying into play by preparing a statement which summarised the need for the mallee reserve and outlined the successful negotiations with landowners.<sup>142</sup> Copies of the statement were sent to selected South Australian societies, with a recommendation that they write to the premier expressing support for the proposal, and the result was encouraging. In a little over a week the Premier received letters from the South Australian Ornithological Association (hereafter S.A.O.A.), the Royal Society of South Australia, the Fauna

and Flora Board of South Australia, and the Avicultural Society of South Australia, all expressing support for the reserve proposal.<sup>143</sup> Several writers drew the Premier's attention to national park developments overseas, with the President of the Royal Society pointing out, for example, that

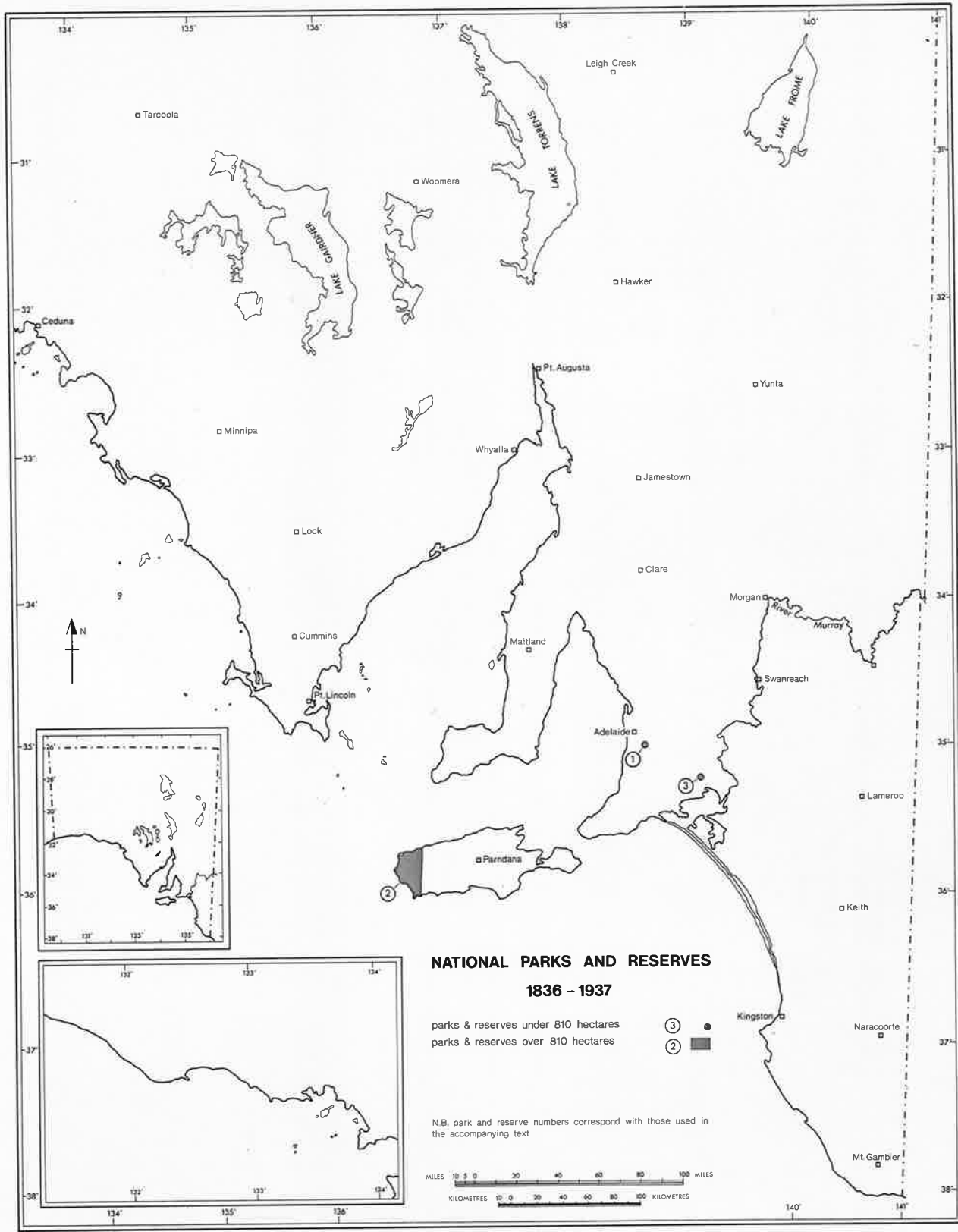
other countries are fully awake to the desirability of preserving for all times tracts of land on which occur characteristic indigenous trees and plants. Even now, I believe, Legislation is being considered in the United States of America for the protection of certain arid areas in which cacti and other desert plants are in danger of depletion. One cannot emphasise too strongly the desirability of protecting sections of the Mallee which is so typical of the drier districts of our State.<sup>144</sup>

The Premier passed the matter on to his Chief Inspector of Fisheries and Game for consideration, and in January 1937 received in reply a minute commending the proposal and recommending that the area under consideration be declared a sanctuary under the Animals and Birds Protection Act.<sup>145</sup> No action was taken by the Premier, and in March of the same year, Ashby interviewed the Minister of Agriculture, reiterating the need to carry the project through.<sup>146</sup> The Minister was sympathetic, and a week after the interview pressed Cabinet into passing his recommendation that the area be declared a sanctuary.<sup>147</sup> The formalities of purchase and transfer of land titles took some time, and it was not until 27 January 1938 that *The Advertiser* carried a report giving details of the sanctuary, and not until 28 July 1938 that sections 103, 238, 241, 245, 246, 271, and 272, 648 ha of the hundred of Freeling, were gazetted a Closed Area for Birds and Animals (vide table p. 44, map p. 43).

In March of 1938 Ashby had tired of the long delays, and written to the Minister of Agriculture deploring 'the lack of understanding interest' taken in the reserve proposal by the Chief Inspector of Fisheries and Game.<sup>148</sup> It was an unfortunate letter, petulant in tone, and unduly harsh in the light of the Chief Inspector's January 1937



minute: it was, in some ways, the bitterness of an old man who had struggled long and hard to interest people in the conservation of his much-loved Australian fauna and flora. There was sincere regret in many circles when Ashby died in January 1941.<sup>149</sup> His death represented the end of an era, for in many ways he was the last of the Field Naturalists Section's great battlers, the last of a group of men who had shown an extraordinary dedication to the national park concept. Belair, Flinders Chase, and the Freeling land remain today as a striking tribute to their astuteness and tenacity.



**NATIONAL PARKS AND RESERVES  
1836 - 1937**

parks & reserves under 810 hectares  
parks & reserves over 810 hectares

- ① ●
- ② ■

N.B. park and reserve numbers correspond with those used in the accompanying text

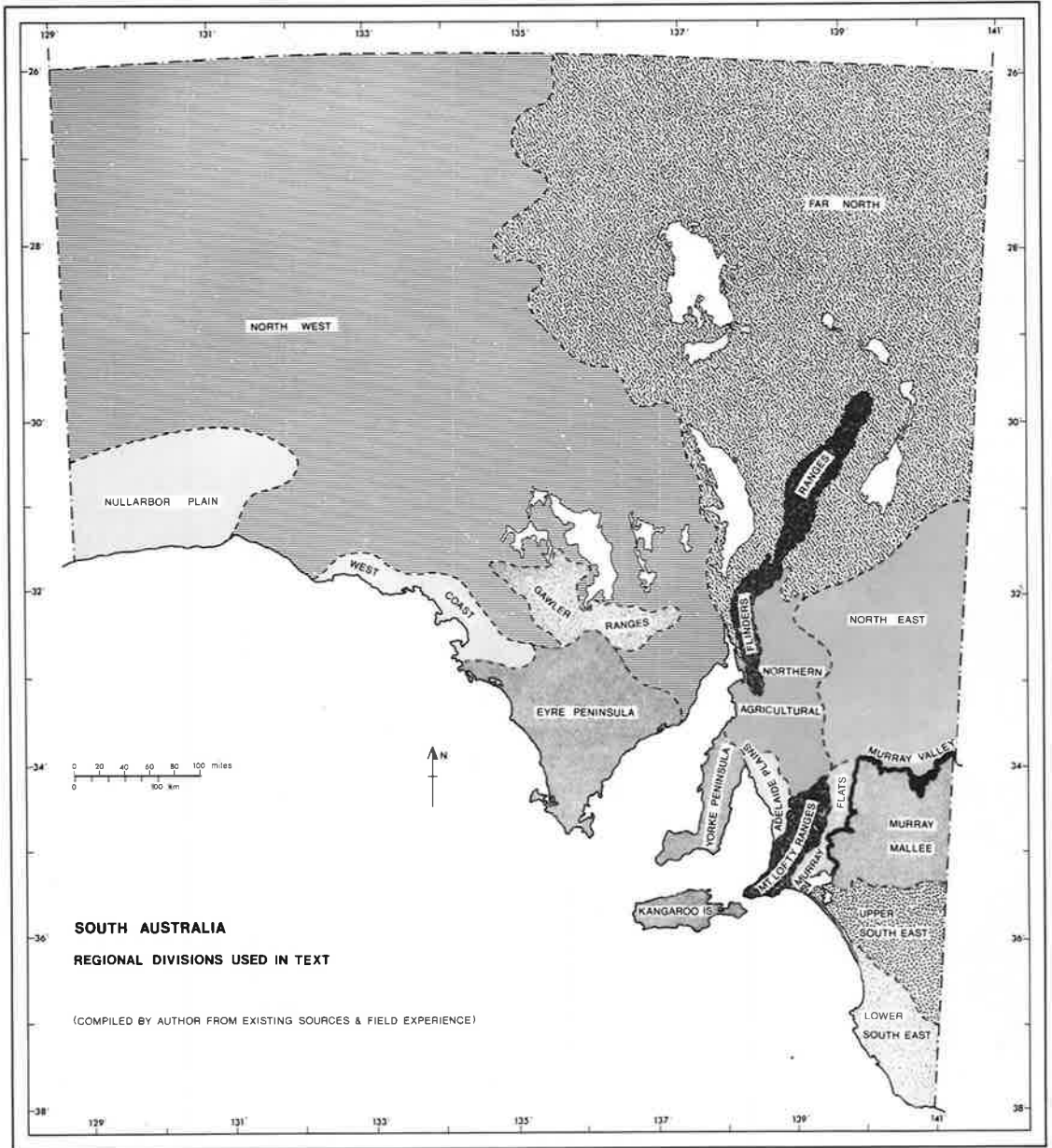


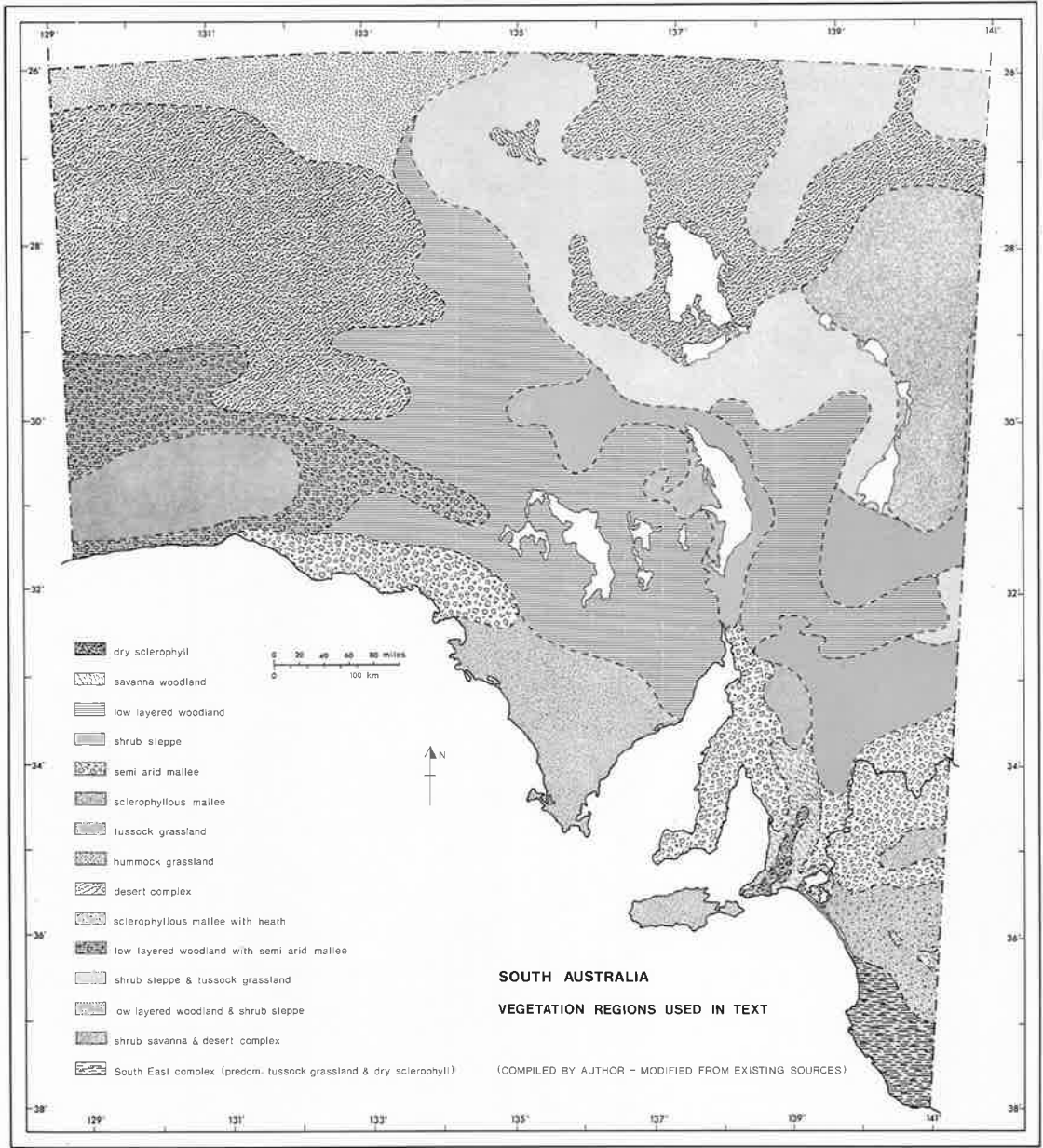
NATIONAL PARKS AND RESERVES. 1836 - 1937\*

NO <sup>a</sup>	NAME <sup>b</sup>	LOCATION		GAZETTE <sup>c</sup>		AREA		VEGETATION <sup>d</sup>	REMARKS
		REGIONAL <sup>d</sup>	CADASTRAL	DEDICATED	DECLARED	HECTARES	CUMULATIVE		
1	BELAIR National Park	Mt. Lofty Ranges	Hd. Adelaide, Co. Adelaide, no section numbers, boundaries as shown on schedules accompanying relevant Acts	Act assented to 19.12.1891		796	796	Dry sclerophyll and savanna woodland	First national park in South Australia. Outcome of over a decade of lobbying. Private individuals prominent in early years - F.N.S. dominant from 1888 to passing of Act.
2	FLINDERS CHASE Fauna & Flora Reserve	Kangaroo Island	South out of Hundreds (S.O.H.), Co. Carnarvon, no section numbers when dedicated. Boundaries of 1919 as shown on schedule accompanying Act: comprised present sections 1-11 Hd. Borda, section 66 S.O.H., section Pt17 Hd. McDonald	26.12.1907 10.2.1910 Act assented to 16.10.1919		17,353 20,461 5,439	18,149 38,610 44,049	Sclerophyllous mallee	A major reserve, built up as a result of decades of intensive lobbying by the F.N.S. and its parent body, the Royal Society of South Australia
3	McDONALD Closed Area for birds and animals	Murray Flats	Section 1 Hd. McDonald, Co. Carnarvon, and land south of and adjacent to section 1 (present sections Pt66 S.O.H., Pt17 Hd. McDonald)	20.9.1923		3,953 5,498	48,002 53,500 <sup>f</sup> - 201 <sup>f</sup> 53,299		
			Sections 103, 238, 241, 242, 245, 246, 271, 272, Hd. Freeling, Co. Sturt	28.7.1938 <sup>e</sup>		648	53,947	Semi arid mallee	Government action prompted by vigorous lobbying from Edwin Ashby of the F.N.S. Ashby's main aim was to establish a reserve for mallee fowl. C.S.O. 1480/1936

\*  
EXPLANATORY NOTES CONCERNING THE COMPILATION OF THIS, AND FOLLOWING TABLES

- a. The numbering system used represents the chronological order in which parks and reserves were dedicated and/or declared. For reasons discussed in the Introduction to this work, it does not correspond with the system of park numbers used by the Department of Lands and the National Parks Commission.
- b. The status of an area - national park, flora and fauna reserve, wild life reserve etc. - represents the status at the time of original dedication and/or declaration. As pointed out in the text, important changes were made to the status of some areas, particularly the change of flora and fauna reserves to firstly, wild life reserves, and secondly, to national parks.
- c. The terminology used in the Gazette notices usually followed a standard pattern: until the 1966 National Parks Act, areas were generally dedicated reserves under the terms of the Crown Lands Act, and then declared to be flora and fauna or wild life reserves. In some cases, mainly in the early years, declaration was overlooked.
- d. The regional and vegetation classifications conform to those shown on maps of South Australia appearing elsewhere in this text. The regional map, as compiled by the author, makes use of boundaries and names used commonly by pastoralists, farmers, and a variety of Government Departments. Similarly, the vegetation map, as compiled by the author, makes use of existing sources, particularly Wood's 1955 map in the Atlas of Australian Resources. Wood's boundaries have, however, been generalised and somewhat modified on the basis of the author's own field experience.
- e. In some cases, as for example No. 3, McDonald Reserve, the actual Gazette date came later than the limit set for the period covered by the table. Such overlap is not considered important, for although actual gazettal did not come until 1938, all important groundwork was done in the period up to, and including 1937.
- f. The sub total for Flinders Chase, 52,704 hectares, is based on figures stated at the time of dedication. Recent planimetric calculations by the Department of Lands suggest that 52,503 hectares is a more accurate figure, and a correction of 201 hectares, has therefore been made to the cumulative total listed above.





## REFERENCES

1. Jones, Rhys, 1968: 'The geographical background to the arrival of man in Australia and Tasmania'. *Archaeology and Physical Anthropology in Oceania*, v. 3, (3), p. 189.
2. For review papers dealing with this see Jones, 1968; and Merrilees, D., 1967: 'Man the destroyer : late Quaternary changes in the Australian marsupial fauna'. *Journ. Roy. Soc. West. Aust.*, v. 51, (1), pp. 1-24.
3. Smillie, William, 1838: *The great South Land*. Simpkin & Marshall, London, p. 22.
- 4, 5. Angas, George French, 1846: *South Australia Illustrated*. Thomas McLean, London. The quote is from the Preface; reference to Pt. Adelaide accompanies Plate VII; reference to the Lyndoch Valley accompanies Plate XIV.
6. For suitable reviews and summaries see Marshall, A. J., 1966: *The Great Extermination*. Heinemann, London, pp. 9-42; Jones, F. W., 1923-25: *The Mammals of South Australia*. Govt. Printer, Adelaide, (3 vols); Aitken, Peter, 1970: 'Mammals'. pp. 42-43 in *South Australian Year Book*, 1970.
7. Many accounts of the timber industry in the Ranges have been left by early writers. See for example Angas, George French, 1847: *Savage Life and Scenes in Australia and New Zealand*. Smith, Elder & Co., London, (2 vols.), v. 1, pp. 43-44.
- 8, 9. Meinig, D. W., 1970: *On the Margins of the Good Earth*. Rigby Ltd., Adelaide.
10. Barker, S., 1972: Effect of sheep stocking on the population structure of arid shrublands in South Australia. Unpub. Ph.D. thesis, Dept. Botany, Univ. of Adelaide, pp. 5-14.
11. James, C. T., 1964: 'To have and to hold - we must live with nature conservation'. *Proc. Roy. Geog. Soc. Aust./Asia (S.A. Branch)*, v. 65, p. 21.
- 12, 13. *The Advertiser* 26/10/1870; 16/10/1871.

- 14, 15. Specht, R. L., 1964: 'The vegetation of the Belair National Park and Reserves'. pp. 31-45 in Cotton, B. C. (ed.), *South Australian National Parks and Wild Life Reserves*. Govt. Printer, Adelaide; Specht, R. L., 1972: *The vegetation of South Australia*. Govt. Printer, Adelaide, pp. 101-151.
16. Pitt, George H., 1939: 'Our National Park : Some early history'. *The S.A. Naturalist*, v. 20, (1), pp. 14-16.
17. *The Register* 21/9/1901.
- 18, 19. *The Register* 21/9/01; 7/10/1901.
20. There was some dispute as to whether Gooch or Page should be given most credit for saving the Farm from alienation. In *The Register* article of 21 September 1901 Gooch was singled out for praise, but in a reply published in *The Register* of 7 November 1901 M. Symonds Clark claimed that it was Page who should be thanked. Samuel Dixon later repeated Clark's claim in *Trans. Roy. Soc. S.A.*, 1911, v. XXXV, p. 251.
21. *The Register* 21/9/01.
22. McCarty, J. W., 1970: 'Australian capital cities in the Nineteenth Century'. *Australian Economic History Review*, v. X, (2), pp. 107-137.
23. Field Naturalists Section Roy. Soc. S.A., 1936: *National Park, Morialta, and Waterfall Gully Reserves, Containing an Account of their Natural History*. Govt. Printer, Adelaide, p. 99; Cotton, B. C. (ed.), 1964, p. 20.
24. See for example Clawson, M., & Knetsch, J. L., 1971: *Economics of Outdoor Recreation*. Johns Hopkins Press, Baltimore, pp. 211-229; Sinden, J. A., & Musgrave, W. F., 1969: 'An economic framework for the conservation decision'. pp. 18-25 in Webb, L. J., et al. (eds.), *The Last of Lands*. Jacaranda Press, Brisbane.
25. Williams, M., 1969: 'The spread of settlement in South Australia'. pp. 1-50 in Gale, G. F., & Lawton, G. H. (eds.), *Settlement and Encounter*. Oxford U.P., Melbourne.
26. Pitt, 1939, p. 16.
27. *The Register* 21/9/01; Burgess, H. T., 1907: *The Cyclopaedia of South Australia*. Hussey & Gillingham, Adelaide, (2 vols.), v. 1, p. 362.

28. Selway, W. H., 1919: 'Our Beginnings'. *The S.A. Naturalist*, v. 1, (1), pp. 3-4.
29. *Trans. Roy. Soc. S.A.*, 1883, v. VI, p. 184.
30. *Trans. Roy. Soc. S.A.*, 1884, v. VII, p. 112.
31. For several years after its formation, the Field Naturalists Section was able to include in the *Trans. Roy. Soc. S.A.* detailed accounts of its excursions and meetings - see for example vols. VI, VII, VIII, IX (1884-1886). Later volumes list excursions but, presumably because of lack of space, do not discuss them in detail.
32. *Trans. Roy. Soc. S.A.*, 1884, v. VII, pp. 122-124. The Reedbeds occupied the site of the present Adelaide suburb of Fulham, low lying floodflats of the River Torrens a few kilometres west of the city; Clarendon is a small town in the Mt. Lofty Ranges, approximately 19 kilometres south east of Adelaide.
33. *Trans. Roy. Soc. S.A.*, 1886, v. IX, p. 260.
34. *Trans. Roy. Soc. S.A.*, 1884, v. VII, p. 114.
35. See *Trans. Roy. Soc. S.A.* for the annual reports.
36. Cleland, J. B., 'Historical account of the National Park', in Cotton (ed.), 1964, p. 17.
37. Dixon, Samuel, 1911: 'A farewell address to the Field Naturalists Section of the Royal Society by the Chairman of the Native Fauna and Flora Protection Committee'. *Trans. Roy. Soc. S.A.*, v. XXXV, pp. 248-254.
38. Hirst, J. B., 1963: G. W. Cotton and the Workingmen's Blocks. Unpub. B.A. (Hons.) thesis, Dept. History, University of Adelaide.
39. *Trans. Roy. Soc. S.A.*, 1889, v. XII, p. 172.
40. Field Naturalists Society S.A. (Inc.), 1965: Publicn. no. 5, being a reprint of three articles published in *The South Australian Register* 7/10/1889 (p. 6), 14/10/1889 (pp. 5-6), 4/11/1889 (p. 5).
41. Cockington, A., 1966: 'Flinders Chase Memorial Plaque'. *The S.A. Naturalist*, v. 40, (4), p. 76.
42. Selway, W. H., 1934: *The S.A. Naturalist*, v. XV, p. 70.



43. Selway, W. H., 1910: 'The National Parks and Forest Reserves of Australia'. *Trans. Roy. Soc. S.A.*, v. XXXIV, p. 283; *The Register* 7/10/01.
44. *Trans. Roy. Soc. S.A.*, 1892, v. XV, p. 286.
45. *Trans. Roy. Soc. S.A.*, 1889, v. XII, p. 173.
- 46, 47, 48. *The Register* 7/10/01.
49. Pitt, 1939, p. 16.
50. Dixon, 1911, p. 251.
51. *Trans. Roy. Soc. S.A.*, 1891, v. XIV, pp. 390-391.
- 52, 53. *Trans. Roy. Soc. S.A.*, 1890, v. XIII, pp. 281-282.
54. Selway, 1910, p. 283; *The Register* 7/10/01.
55. *Trans. Roy. Soc. S.A.*, 1892, v. XV, p. 286.
56. Mosley, J. G., 1968: *National Parks*. Nelson Doubleday, Sydney, p. 8.
57. *The Register* 21/9/01.
58. Selway, 1910, p. 282.
59. Nomenclature for all mammals is that of Ride, W. D. L., 1970: *A Guide to the Native Mammals of Australia*. Oxford U.P., Melbourne.
60. Flinders, Matthew, 1814: *A Voyage to Terra Australia*. G. & W. Nicol, London, (2 vols. & atlas), v. 1, p. 169.
61. *Trans. Roy. Soc. S.A.*, 1889, v. XII, p. 173.
62. Dixon, Samuel, 1920: *The Full Story of Flinders Chase*. Hussey & Gillingham, Adelaide, p. 9.
63. Australasian Association for the Advancement of Science, 1892: Report of the Fourth Meeting (Hobart, Tasmania, January 1892) Section D, Biology. Robin, A. F., 'The preservation of our native plants and animals'.
64. Dixon, 1920, p. 11.

65. Detailed accounts of the Island's soils and vegetation are to be found in Bauer, F. H., 1959: *The Regional Geography of Kangaroo Island*. Unpub. Ph.D. thesis, Dept. Geography, Australian National University; Baldwin, J. G., & Crocker, R. L., 1941: 'The soils and vegetation of portion of Kangaroo Island, South Australia'. *Trans. Roy. Soc. S.A.*, v. 65, pp. 263-275; Northcote, K. H., & Tucker, B. M., 1948: 'A soil survey of the hundred of Seddon and part of the hundred of MacGillivray, Kangaroo Island, South Australia'. *C.S.I.R. Bull.* 233.
66. Wood, J. G., 1930: 'An analysis of the vegetation of Kangaroo Island and adjacent Peninsulas'. *Trans. Roy. Soc. S.A.*, v. 54, pp. 105-139.
67. Dixon, 1920, p. 9.
68. *Trans. Roy. Soc. S.A.*, 1894, v. XVIII, p. 259.
69. *Trans. Roy. Soc. S.A.*, 1896, v. XX, p. 281.
70. *Trans. Roy. Soc. S.A.*, 1886, v. IX, pp. 260-262, 264.
71. *Trans. Roy. Soc. S.A.*, 1893, v. XVII, p. 371.
72. Private diary of Charles Harris, resident of Summertown from 1901-1964. Diary in possession of the author.
73. Wood, James D., 1894: *The Province of South Australia*. Govt. Printer, Adelaide, p. 39.
74. See the annual reports of the Field Naturalists Section for 1897-1901 in *Trans. Roy. Soc. S.A.*
75. Burgess, 1907, p. 364.
76. Dixon, 1920, p. 8.
77. *Trans. Roy. Soc. S.A.*, 1905, v. XXIX, pp. 357-358.
78. Gosse, J. H., 1941: History of Flinders Chase. Unpub. radio broadcast, 9/5/41, p. 1. Copy held by Fauna and Flora Board.
79. Dixon, 1920, p. 12.
80. Dixon, 1920, p. 13.
81. Selway, 1910, pp. 283-284.

82. Vivienne, May, 1908: *Sunny South Australia*. Hussey & Gillingham, Adelaide, p. 125.
83. Selway, 1910, p. 282.
84. *Trans. Roy. Soc. S.A.*, 1907, v. XXXI, p. 343.
- 85, 86, 87, 88. *Trans. Roy. Soc. S.A.*, 1908, v. XXXII, pp. 417-419.
89. Dixon, 1920, p. 14.
- 90, 91. Selway, 1910, p. 286.
- 92, 93. *Trans. Roy. Soc. S.A.*, 1910, v. XXXIV, pp. 275-276.
94. Dixon, 1920, p. 14. Note however, that the claim was almost certainly wrong: *Calyptorhynchus magnificus samueli*, the red tailed black cockatoo, is a Central and Northern Australian species generally found north of 30°S latitude (Condon, H. T., 1962: 'A handlist of the birds of South Australia'. *The S.A. Ornithologist*, v. 23, 6-8, p. 111). The deputation was probably referring to *C. lathami*, the glossy black cockatoo, an eastern Australian species represented in South Australia by a small colony on Kangaroo Island (Condon, 1962, p. 112; Schodde, R., 1958: 'Some bird observations with new records on Kangaroo Island'. *The S.A. Naturalist*, v. 33, 2, pp. 23-26).
95. *Trans. Roy. Soc. S.A.*, 1911, v. XXXV, pp. 245-246. The quote is from pp. 10-11 of a pamphlet prepared in 1918 - see note 105 below.
96. Dixon, 1920, p. 16.
97. Dixon, 1911, pp. 248-254.
98. Australian Conservation Foundation *Newsletter*, v. 1, (1), p. 1, 26/4/1967.
99. Obituary notice for Edwin Ashby. *Trans. Roy. Soc. S.A.*, 1941, v. 65, (1), p. 1.
100. *Trans. Roy. Soc. S.A.*, 1912, v. XXXVI, p. 268; 1913, v. XXXVII, p. 488.
101. *Trans. Roy. Soc. S.A.*, 1914, v. XXXVIII, p. 516.
102. Dixon, 1920, p. 16.

103. *Trans. Roy. Soc. S.A.*, 1915, v. XXXIX, pp. 879-880; 1916, v. XL, pp. 623-624.
104. Dixon, 1920, p. 17.
105. The paper, of 12 octavo-sized pages is undated, and has no indication of the authors or publishers.
106. Dixon, 1920, p. 18.
107. Page 1 of the paper described in note 105 above.
108. *The Register* 28/9/1918.
- 109, 110, 111. Dixon, 1920, p. 20; p. 23; p. 36.
112. Moore, R. M., 1959: 'Ecological observations on plant communities grazed by sheep in Australia'. pp. 500-512 in Keast, A., et al. (eds.), *Biogeography and Ecology in Australia*. Junk, The Hague.
113. Jessup, R. W., 1948: 'A vegetation and pastures survey of counties Eyre, Burra, and Kimberley, South Australia'. *Trans. Roy. Soc. S.A.*, v. 72, (1), pp. 33-68.
114. For a general discussion of the decline of the native animals see the sources listed in note 6 above, and also Marlow, B. J., 1958: 'A marsupial survey of New South Wales'. *C.S.I.R. Wildlife Research*, v. 3, (2), pp. 71-114.
115. Jones, 1923-25, p. 214.
116. *The S.A. Naturalist*, 1919, v. 1 (1), p. 19.
117. *The Advertiser* 14/10/1922.
118. *The S.A. Naturalist*, 1923, v. V, (1), p. 6.
119. All information about animals released on the Chase has been taken from the Fauna and Flora Board of South Australia Minutes Books.
120. Gordon, D. J., & Ryan, V. H. (eds.), 1914: *Handbook of South Australia*. Govt. Printer, Adelaide, p. 277.
121. Jones, 1923-25, p. 186.
122. Troughton, Ellis, 1962: *Furred Animals of Australia*. Angus & Robertson, Sydney, p. 139.

123. Australian Conservation Foundation, 1968: *The Cape Barren Goose*. Viewpoint Series, no. 3.
124. Wace, N. M., 1969: Management of the pastures at Rocky River. Unpub. report to Fauna and Flora Board; Eberhard, I. H., 1972: Ecology of the Koala (*Phascolarctus cinereus*, Goldfuss) on Flinders chase, Kangaroo Island. Unpub. Ph.D. thesis, Dept. Zoology, Univ. of Adelaide.
125. Smyth, M., 1971: 'Suggestions for a policy on introducing native animals (mainly mammals) into an area they presently do not occupy'. N.C.S.S.A. *Newsletter*, no. 35, pp. 34-38.
126. *The S.A. Naturalist*, 1921, v. III, (1), p. 15.
127. Cleland, J. B., 1924: 'A proposal for a national reserve at Mount Lofty'. *The S.A. Naturalist*, v. V, (2), pp. 100-102.
128. See for example the range of articles published in *The S.A. Naturalist* throughout the late 1920's and 1930's.
129. Field Naturalists Section Roy. Soc. S.A., 1936: *National Park, Morialta, and Waterfall Gully Reserves, Containing an account of their natural history*, being a reprint of *The S.A. Naturalist*, v. XVII, (1-4).
130. Cotton, B. C. (ed.), 1964: *South Australian National Parks and Wildlife Reserves*. Govt. Printer, Adelaide.
131. Field Naturalists Section, 1936, p. 24.
132. Ashby to Premier 29/5/36, C.S.O. 1480/1936.
133. Eyre, E. J., 1845: *Journals of Expeditions of Discovery in Central Australia and Overland from Adelaide to King Georges Sound*. T. & W. Boone, London, (2 vols.), v. 1, p. 351.
134. Ashby to Premier 29/5/36, C.S.O. 1480/1936.
135. *The Advertiser* 27/1/1938.
136. Prepared statement by Ashby, undated but probably 7/12/1936, C.S.O. 1480/1936.
137. Ashby to Premier, vide 134 above.
138. Chief Inspector F. & G. to M.A. 5/4/1938, C.S.O. 1480/1936.

139. McDonald to Ashby 17/10/1936, C.S.O. 1480/1936.
- 140, 141, 142. Statement by Ashby, vide 136 above.
143. C.S.O. 1480/1936.
144. President Roy. Soc. S.A. to Premier 9/12/36, C.S.O. 1480/1936.
145. Chief Inspector F. & G. to Premier 11/1/37, C.S.O. 1480/1936.
146. Interview dated 16/3/37, C.S.O. 1480/1936.
147. Cabinet approval 22/3/37, C.S.O. 1480/1936.
148. Ashby to M.A. 22/3/38, C.S.O. 1480/1936.
149. Obituary notice. *Trans. Roy. Soc. S.A.*, 1941, v. 65, (1), p. 1.

## CHAPTER II

AN EARLY EXPANSION, 1937-1952

Advances in reserve acquisition are closely related to the fluctuating fortunes of agriculture. A newly appointed body, the Flora and Fauna Advisory Committee, is active, and several large and important reserves are dedicated.

## A FLORA AND FAUNA ADVISORY COMMITTEE APPOINTED

One of the lessons to emerge from Ashby's campaign for the Monarto South scrub was that the Government had virtually no access to expert advice on flora and fauna conservation. While Cabinet may have had reservations about Ashby's mallee fowl commercialisation proposal, it had little guidance in trying to assess the validity of the claim, for such Public Service officials as the Chief Inspector of Fisheries and Game were, of necessity, trained more in administration than biology. In addition to this difficulty in assessing reserve and national park proposals, administration of the Animals and Birds Protection Act was increasingly becoming more complex; the timing of closed seasons for game birds was always a contentious issue with shooters and ornithologists alike, while protection of such wild fowl breeding localities as The Coorong was a vexed issue occupying much time and attention over many years.

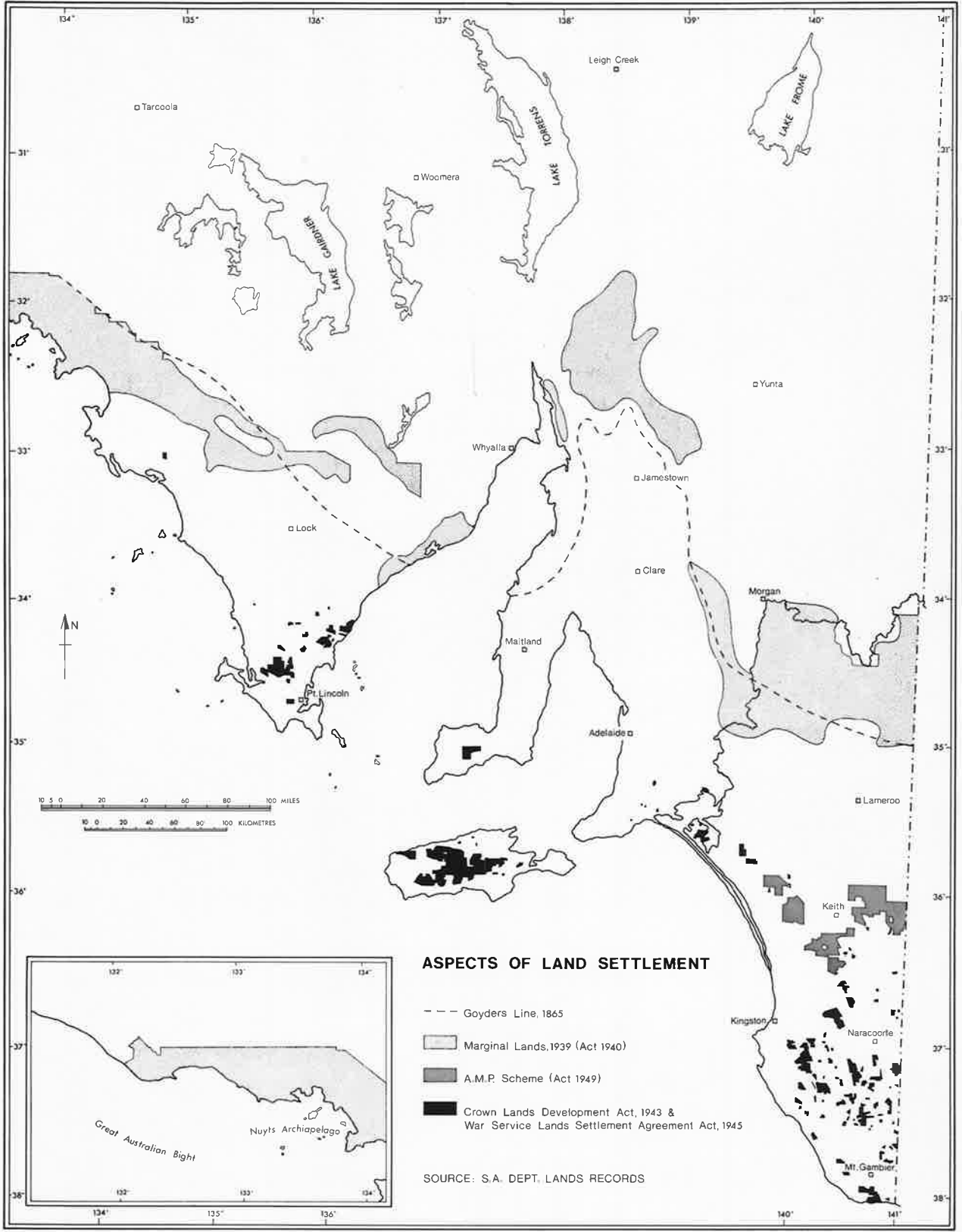
That an enlarged and better-qualified professional staff could cope with many of the problems must have been obvious to all, but in the lean years of the 1930's the Government could not justify the extra money which would be required, and in a compromise move appointed, in 1937, a Flora and Fauna Advisory Committee (hereafter F.F.A.C.).

Although responsible to the Minister of Agriculture and having the Chief Inspector of Fisheries and Game as its secretary, the F.F.A.C. was not a formal part of the Public Service; its members included the heads of some Government departments, but others were from the Field Naturalists Section and the University of Adelaide.

#### THE MARGINAL LANDS ISSUE

One of the first tasks the F.F.A.C. looked to was the provision of more reserves for flora and fauna conservation. In many respects it was a singularly opportune time for such an investigation, for in the late 1930's South Australia was undertaking a thorough reappraisal of agricultural prospects in its so-called Marginal Lands. The Marginal Lands corresponded, in broad outline, with the drier limits of the mallee scrub regions, and occupied an estimated 2,708,379 ha of the West Coast, Upper Eyre Peninsula, the Upper North, the Murray Mallee, and the eastern portion of the Murray Flats (vide map p. 58). The concept of marginality was not new to South Australia: the advance and retreat of the State's northern wheat frontier in the 1870's and 1880's had demonstrated clearly that between the safe cereal lands of the south and the pastoral country of the north there was a transition zone, the Marginal Lands, where success or failure of crops varied from year to year with the vicissitudes of rainfall,<sup>1</sup> but in the 1930's the lessons of the late nineteenth century had to be relearned. In the years immediately before and after World War I a land boom had resulted in the expansion of wheat growing into areas characterised by a low and erratic rainfall. Bouyant wheat prices, the fertility of virgin soils, and fair rainfall throughout the early 1920's gave early hopes of success, but in 1927, 1928, and 1929 a prolonged drought resulted in widespread crop failure and serious wind





**ASPECTS OF LAND SETTLEMENT**

- - - Goyders Line, 1865
- Marginal Lands, 1939 (Act 1940)
- A.M.P. Scheme (Act 1949)
- Crown Lands Development Act, 1943 & War Service Lands Settlement Agreement Act, 1945

SOURCE: S.A. DEPT. LANDS RECORDS

erosion. In summarising the position, the Department of Lands Annual Report for 1929/30 was not at all encouraging:

The season was most disastrous ... During July and August only light rain fell and was accompanied or immediately followed by boisterous winds which caused unprecedented dust-storms and sand-drift. Only in very sheltered places could the crops make any progress, as the drifting sand destroyed the young growth ... the position of many of our settlers has become difficult. Three successive crop failures and low prices, with the added burden of debt incurred to enable them to carry on, have altered their prospects considerably. Their assets have diminished as their liabilities have increased, and the strictest economy will have to be practised if they are to win through.<sup>2</sup>

Throughout the 1930's economic difficulties compounded the vagaries of climate. A world surplus of primary products resulted in depressed prices for Australian wheat, and by the mid 1930's only State Government moratorium legislation prevented widespread foreclosure and abandonment of holdings.<sup>3</sup>

Concern for man *and* land in the marginal areas increased towards the close of the 1930's. In October 1939 a State Government-appointed Marginal Lands Committee presented its findings to Parliament,<sup>4</sup> and the result was an attempt to bolster agriculture by a Marginal Lands Act of 1940. In the same year a Soil Conservation Act was passed, the outcome of a 1936 report by Commonwealth Scientific and Industrial Research biologist Francis Ratcliffe,<sup>5</sup> and a 1938 State Government report.<sup>6</sup> The problem of sand drift in the mallee lands was given special attention in the 1938 erosion report, for overcropping, excessive fallowing, and the clearance of drift-prone dunes had caused marked erosion over a wide area. The prospect of an Australian version of America's 'dust-bowl' disaster was alarming, and Adelaide poet Ian Mudie voiced the fears of many by denouncing angrily in much of his verse the 'rape' of the land which was producing 'clouds of dust and drifting sand'.<sup>7</sup>

## LAND BOARD ACTION FOR PEEBINGA AND BILLIATT

In the light of such concern for the condition of the Marginal Lands and their farmers, there could be no thought of opening up new areas of mallee scrub, indeed the move was towards contraction and the abandonment of some of the worst areas. In the south east of the Murray Mallee, deep sand country north of Pinnaroo had become notorious for poor crops and widespread sand drift, and in December 1938 the Land Board, an advisory section of the Department of Lands, recommended that several sections in the hundred of Peebinga, abandoned for farming as early as 1934, should be set aside as a flora and fauna reserve.<sup>8</sup> Although the fear of erosion was the main reason for the Board's recommendation, there was an additional factor, the presence in the area of the mallee whip bird (*Psophodes nigrogularis leucogaster*). Although the species had been described from the South West of Western Australia in 1843, little was seen of it until, in the 1930's, a small colony was found in the mallee scrub of North Western Victoria and adjacent South Australia. Such a disjunct distribution was of particular interest to those concerned with the then fashionable theory of a mid-Recent aridity in Australia, and J. Neil McGilp, Chairman of the Land Board and an enthusiastic amateur ornithologist, was keen to see the Peebinga land set aside as a reserve for the bird.

In February 1939 the Commissioner of Crown Lands approved the Land Board recommendation that sections 21, 22, 30, and 31 in the hundred of Peebinga be set aside as a fauna and flora reserve,<sup>9</sup> but further action was delayed by a local manufacturing company expressing interest in the land. F. H. Faulding & Co. Ltd. outlined, via a series of letters and interviews, a plan to harvest mallee leaves over the area for the production of Eucalyptus oil,<sup>10</sup> and in March 1939 the Land Board recommended that approval be granted, subject only to certain controls over soil erosion and native bird life.<sup>11</sup> It was a

clear case of commercial interest outweighing conservation considerations, and although Faulding had lost interest in the scheme by January 1940,<sup>12</sup> the Director of Lands recommended that dedication as a reserve should proceed only 'on the understanding that the cutting of mallee leaf on the reserve could later be allowed conditionally and under supervision if the occasion arose'.<sup>13</sup>

On 14 March 1940 sections 21, 22, 30, and 31 in the hundred of Peebinga were dedicated a fauna and flora reserve (sic) under the provisions of the Crown Lands Act (vide table p. 90, map p. 89). The use of the term 'fauna and flora reserve' instead of the correct 'flora and fauna reserve' was the result of considerable confusion amongst the Department of Lands officials responsible for preparing the definitions for *The South Australian Government Gazette*. It was not realised at the time that under the terms of the Fauna and Flora Reserve Act of 1919 'fauna and flora reserves' could be dedicated only on Kangaroo Island, and the position was complicated further by the State having a 'Fauna and Flora Board' and a 'Flora and Fauna Advisory Committee'. Mistakes were still being made in 1945: on 18 January a proclamation was gazetted declaring several Eyre Peninsula flora and fauna reserves to be under the care, control, and management of the Fauna and Flora Board; on 17 May the proclamation was revoked and the reserves in question were, this time correctly, placed under the care, control, and management of the Flora and Fauna Advisory Committee.

The dedication of Peebinga was an important step, for until that time the hard-won 648 ha reserve in the hundred of Freeling was the only area providing formal protection for mallee flora and fauna. However, to some extent Peebinga's value had been decreased by the Director of Lands making it clear that its security could not be guaranteed; the reserve would remain inviolate only as long as there was no prospect of harvesting its mallee leaves. J. Neil McGilp, with his knowledge of *Psophodes* must have had some private reservations

about the birds' survival if the Faulding scheme was to ever go into operation, but there could be at least some satisfaction in knowing that the area was no longer liable to farming and the accompanying soil drift problem.

The desire of the Land Board to avoid further wind erosion in the mallee country found further practical expression in 1940. In February of that year a farmer from Mannum enquired about the availability of crown land in the hundred of Billiatt, 16 km west of Peebinga,<sup>14</sup> and in April the Land Board commented:

As the land enquired for herein in the hundred of Billiatt is very sandy and probably liable to soil erosion and of very little value economically, the Board desires that the Soil Conservation Committee be asked to comment on the advisability or otherwise of allotting this land.<sup>15</sup>

The Soil Conservation Committee's advice was unequivocal: 22,663 ha, the northern half of the hundred of Billiatt, should be set aside as a flora and fauna reserve.<sup>16</sup> In concurring with this view the Land Board, in a minute to the Director of Lands, emphasised that 'the land is of no economic value for Agricultural or pastoral purposes, and would serve a better purpose if left undeveloped'.<sup>17</sup> The Commissioner of Crown Lands approved the proposal,<sup>18</sup> and on 12 December 1940, section 15 in the hundred of Billiatt, 22,663 ha, was dedicated a flora and fauna reserve (vide table p. 90, map p. 89).

#### F.F.A.C. ACTION FOR HAMBIDGE, HINCKS, AND LINCOLN

The initiative for the dedication of Peebinga and Billiatt had come from the Land Board, but the F.F.A.C. was well aware that the Marginal Lands issue had created a climate of opinion disposed favourably to the reservation of large areas of mallee scrub, and early in 1939 members of the Committee perused a map showing unalienated crown land

throughout South Australia.<sup>19</sup> On the basis of this it was decided that several large areas on Eyre Peninsula should be investigated, and through the Director of Agriculture an Agricultural Adviser was instructed to carry out an inspection. In September 1939 the F.F.A.C. received his reports dealing with three areas, un-named at the time, but known now as Hambidge Conservation Park, Hincks Conservation Park, and Lincoln National Park.

Area 1. (Hambidge) Unsurveyed land between the hundreds of Cootra, Palkagee, and Boonerdo, county Jervois.

I estimate that at least fifty per cent (50%) is fairly good agricultural land ... suitable for agricultural settlement ... it is not suitable as a Flora and Fauna Reserve as there are no natural water supplies and the climatic and soil conditions are such that only vegetation of a low order will grow there unless the soil is cultivated ... I don't think the State would lose much if this land was declared a Reserve because of the low price of cereals and the unsettled state and conditions throughout the world at present, but with the hope that world affairs will become brighter, happier and prosperous before long, I would not recommend that this area be proclaimed a Reserve for all time.

Area 2. (Hincks) Portions of the hundreds of Murlong and Nicholls, and adjacent unsurveyed land to the south and east, county Jervois.

Only about ten per cent (10%) of the whole of this area is suitable for agricultural development. Practically the whole of it is very poor sandy country ... Being densely covered with mallee and bush it is certainly a good breeding ground for Kangaroos and Emus, many of which I saw during my tour of inspection, but very little bird life was encountered ... it would be useless to attempt any settlement or development, and I have no hesitation in saying -

1. This block is not suitable for Agricultural Settlement.
2. The soil is so poor and sandy that I doubt whether it would be suitable as a Flora and Fauna Reserve.
3. The State would not lose anything if this area was declared a Reserve.

Area 3. (Lincoln) Portion of the hundred of Flinders, county Flinders.

Exceedingly poor rough limestone country ... only a very small proportion of the land could be cultivated ... every settler has failed after expending a considerable amount of capital and labour ... in my opinion [it] is quite unsuitable for agricultural development and settlement. The area inspected should be most suitable for a Flora and Fauna Reserve ... The State would have nothing to lose if this area was declared a Reserve.<sup>20</sup>

In the light of present attitudes the Adviser's reports seem extraordinary, but at the time they were consistent with Department of Lands and Department of Agriculture policy. The approval of Faulding's application to harvest mallee leaves over Peebinga had shown quite clearly that parks and reserves were considered an economic liability that should not be allowed to stand in the way of the State's commercial progress. Only those set aside on worthless land could be regarded as at all secure, and in January 1940 this point of view was reiterated by the Surveyor General. In a minute to the Director of Lands he stated that he could see no objection to the land in the hundred of Flinders being dedicated a reserve, but considered that the other two areas

should not be made permanent Fauna and Flora Reserves, but if it is decided to set them aside as such on a temporary basis, it should be on the understanding that portions may be made available for leasing as and when required. The Reserves could be dedicated under the Crown Lands Act and then, if required for another purpose, could be resumed by the Governor.<sup>21</sup>

The Land Board, in a report to the Director of Lands in February 1940, supported the Surveyor General's attitude, but stressed the need for extreme care in any future development of marginal lands, suggesting that the proposed reserves were so poor that 'resumptions, if any, will probably be so small that they will not affect the Reserves'.<sup>22</sup>

In June 1940 the F.F.A.C. considered the Department of Lands proposals, and after some discussion decided that as 'it was not desirable to have any area declared other than a permanent reserve, the offer made by the Lands Department was not accepted'.<sup>23</sup> A

stalemate had been reached, and throughout the remainder of 1940 neither side showed any sign of compromise. On several occasions the F.F.A.C. complained that the Department of Lands' attitude was quite unreasonable, but in reply the Land Board, the Surveyor General, and the Director of Lands reiterated their stand over dedication under the Crown Lands Act.<sup>24</sup> After almost a year of dispute the F.F.A.C. decided that an insecure reserve was probably better than no reserve, and in April 1941 recommended that the Department of Lands proceed with dedication of the three areas under the provisions of the Crown Lands Act.<sup>25</sup>

The gazette notice dedicating the three areas flora and fauna reserves appeared on 14 August 1941, and the area involved was impressive; the Hincks reserve occupied 75,260 ha, Hambidge 43,237 ha, and Lincoln 6,560 ha (vide table p. 90, map p. 89). In the following years, however, the fears expressed by the F.F.A.C. for the security of the reserves proved to be justified, and only Lincoln was to remain secure. By 1961 a total of 14,418 ha had been resumed from Hincks and Hambidge for agricultural settlement, and as late as 1968 further resumptions planned for Hambidge were a contentious political issue (vide Chapters III and IV).

#### THE SOUTH EAST RESERVES ISSUE - MT. RESCUE DEDICATED

Even with their insecure tenure Peebinga, Billiatt, Hambidge, Hincks, and Lincoln, represented important additions to the State's meagre system of reserves. With the exception of Lincoln, however, all were located in the relatively low rainfall mallee scrublands. While no member of the F.F.A.C. considered that an excessive area of mallee scrub had been reserved, botanists such as Professors J. G. Wood and J. B. Cleland were anxious to see some of the vegetation of higher rainfall regions preserved. In particular, early attention



was focused on the Upper South East of the State, the vegetation of which consisted, in broad outline, of mallee-heath, and swampy tussock grassland. The mallee-heath was rather similar in structure and composition to that described for the laterite plateau of Kangaroo Island; and occupied a large area between the mallee scrub of the north and dry sclerophyll woodland to the south (vide map p. 46). Typically the formation was developed on deep siliceous sands, which were gently undulating in some areas, but piled by wind erosion elsewhere into a jumbled array of parabolic dunes.<sup>26</sup> Towards the south west of the region a series of stranded coastal dunes impinged from a south easterly direction,<sup>27</sup> and these, in combination with a relatively high rainfall and a seasonally-high water table, resulted in a series of south east-north west trending flats being subject to inundation for up to nine months of each year. The natural vegetation developed over the flats consisted of such wetland species as *Gahnia trifida* (cutting grass), and *Cladium filum* (thatching grass), and was of considerable interest in a predominantly arid State.<sup>28</sup>

Interesting though the flora was, its future was by no means assured. A comprehensive drainage scheme begun by the State Government in the late nineteenth century was steadily drying out the flats,<sup>29</sup> and introduced pasture plants were replacing the native species over a wide area. Even the long-despised mallee-heath country, known throughout South Australia as 'The Ninety Mile Desert', was attracting the attention of agricultural research workers. The siliceous sands, like the residual lateritic podsols of central Kangaroo Island, were chronically infertile, but all efforts to discover the cause of the intransigence had failed until, in the South East, at Robe and near Keith in the mid and late 1930's, soil scientists from the Commonwealth Scientific and Industrial Research unit and South Australia's Waite Agricultural Research Institute traced the problem to a deficiency of micronutrients, the so-called trace elements. The implications of the discovery were profound, for it opened up the possibility of extensive

clearance and pasture development over areas hitherto able to support only a few thousand sheep and a handful of beekeepers.<sup>30</sup> Professor Wood, as Head of the Botany Department at the University of Adelaide was aware of the importance of the soil research, and by the late 1930's some of his best postgraduate students were already in the South East studying plant and soil relationships in areas likely to be chosen for pasture development.

It was no coincidence, therefore, that in June 1938 Wood drew the attention of the F.F.A.C. to an area in the hundreds of Laffer and Willalooka where the flora displayed an interesting transition between mallee-heath and sclerophyll woodland.<sup>31</sup> Earlier, in November 1937, the F.F.A.C. had discussed the possibility of reserving portions of 'interesting flora in Co. Cardwell between Meningie and Tintinara',<sup>32</sup> and in February 1939 it was decided to draw the attention of the Commissioner of Crown Lands to the desirability of flora reserves in county Cardwell and in the hundreds of Laffer and Willalooka.<sup>33</sup> In reply to this request the Land Board asked for a more precise indication of where, in the areas cited, the F.F.A.C. would like reserves established.<sup>34</sup> Wood's recommendation was that an area of 3,000 ha in the hundreds of Petherick and Willalooka would be ideal, but in June 1939 he suggested that the question of a reserve site should probably be left until the Department of Lands had completed a projected soil survey of county Cardwell, at which stage it could be compared with work recently completed by his own students.<sup>35</sup>

There was little further action until, in May 1941, the Minister of Agriculture wrote to the Commissioner of Crown Lands with a request that pastoral lease 1458, due to expire in July 1941, be dedicated a flora and fauna reserve.<sup>36</sup> Pastoral lease 1458 was *Didicoolum*, a 25,641 ha sheep station in the hundred of Petherick. Improvements on *Didicoolum* were valued at \$1,501.65, an amount the Pastoral Board thought the Government would find excessive, and on the Board's suggestion Wood decided that 2,833 ha would be an adequate reserve.<sup>37</sup>

The Land Board reported in September of the same year that improvements over the 2,833 ha area were valued at \$140,<sup>38</sup> and on 10 November 1941 a F.F.A.C. recommendation that the Government provide this amount was referred to Cabinet. The recommendation was referred back to the Commissioner of Crown Lands without approval, and on 15 November the Director of Lands stated that his Department had no funds for such a purpose. In a bid for a special grant the proposal was referred back to Cabinet on 17 November 1941, but once again it was rejected.

With Cabinet's final refusal to find \$140 the matter lapsed, and it was not until July 1944 that Mr. James Gosse, a member of the F.F.A.C., reopened the issue by stating indignantly that if the only obstacle to the reserve was \$140 he would gladly donate that amount.<sup>39</sup> At this stage speedy acceptance of his offer would probably have secured the land, but in an unfortunate move the Minister of Agriculture requested that the Conservator of Forests prepare an estimate of likely fencing costs. The whole proposal bogged down in administrative minutiae, and it was not until 6 December 1944 that a figure of \$2,000 was sent to Cabinet. Predictably, Cabinet referred the matter back to the Minister of Agriculture without approval.<sup>40</sup> In the following year a few desultory moves were made, but no firm steps were taken until October 1946, when Professor Cleland, understandably annoyed by the seemingly endless procrastination, questioned the obsession with fencing and supervision costs of a non-existent reserve.<sup>41</sup> The F.F.A.C. once again requested the Government to purchase a portion of *Didicoolum*, but this time the request did not even reach Cabinet; the Minister of Lands dismissed it by referring tersely to the minutes of 10/11/41, 15/11/41, and 17/11/41, all of which had rejected the earlier proposal.

The chances of obtaining the land now seemed remote. In addition to the Government's consistent refusal to co-operate, the Upper South East was now the scene of intensive land development. The trace element discoveries had revolutionized the agricultural possibilities of the region, and World War II had stimulated the development of such heavy

machinery as the massive bulldozers so admirably suited to cheap and rapid scrub clearance. The repatriation of thousands of returned servicemen anxious to settle on the land and take advantage of rising wheat and wool prices had provided the stimulus necessary for wide-ranging Government action, and a State Government Crown Lands Development Act of 1943 was followed in 1945 by the Commonwealth/State Governments' War Service Lands Settlement Agreement Act. Under the terms of the War Service Act the Commonwealth Government financed the development of areas suitable for settlement of servicemen, with the State Government responsible for the local operation and general administration of the scheme. It was from the 1945 Act that most of the development stemmed, the Crown Lands Development Act being used mainly for areas deemed by the Commonwealth to be unsuitable for inclusion in the joint scheme.

Three trace element deficient areas were chosen for attention: the South East, central and western Kangaroo Island, and south-central Eyre Peninsula (vide map p. 58). By June 1948, 70,604 ha in the South East had been purchased with Commonwealth money, and the State Government's Land Development Executive was hard at work supervising the clearance of scrub, preparation of improved pastures, and provision of buildings, water supply, and fencing necessary before the land could be allotted to selected applicants. Post-war shortage of materials and labour resulted in the supply of farms being outpaced by demand, and when a large insurance company, the Australian Mutual Provident Society (A.M.P.), approached the South Australian and Victorian Governments with a proposal to undertake land development along similar lines to that already under way, it was met with ready approval. In South Australia the Land Settlement (Development Leases) Act of 1949 enabled the A.M.P. to acquire large areas of land in the Upper South East (vide map p. 58); on acquisition, the land was to be surrendered to the Crown, which then issued the A.M.P. with 21 year development leases, the accompanying conditions being that the Society develop,

subdivide, and sell the leased land to approved settlers.<sup>42</sup>

This massive development work by private enterprise and Government, to eventually cover almost 404,000 ha in the South East, had been foreshadowed by the F.F.A.C. in March 1945. A sub committee discussing the *Didicoolum* land had predicted that with trace element treatment 'development in the South East will go ahead by leaps and bounds' and that there was, therefore, a need 'to set aside a number of areas which should be kept as samples of this virgin country'. The sub committee suggested that at least two reserves were needed, one in the mallee-heath country of such hundreds as Colebatch and Strawbridge, and the other in the swampy country of such hundreds as Laffer, Petherick, and Willalooka.<sup>43</sup>

By 1951, with the Government and A.M.P. schemes proceeding apace, there must have seemed little chance of obtaining either reserve. In June however, the F.F.A.C. noted that the lessees of *Didicoolum* were proposing to sell 2,833 ha to the A.M.P., and an immediate request was sent to the Government to purchase the area for reserve purposes.<sup>44</sup> It was a futile bid: in March 1952 the Director of Lands wrote to the F.F.A.C. suggesting that they find another area and let the A.M.P. have *Didicoolum*:

Active development is going on in the locality, and it is desired to avoid interfering with bona fide development for food production if other land suitable for the purpose of the Committee is available.<sup>45</sup>

By now it must have been obvious to the F.F.A.C. that if they were to ever acquire a reserve in the South East it would have to be land acknowledged to be useless for agriculture, and land which would not involve the Government in any expense. The indefatigable Wood set about finding such an area, and in May 1952 reported to the Secretary of the F.F.A.C. that after examining all existing soil and vegetation maps he had come to the conclusion that 'no area suitable for a reserve and comprising all soil and vegetation types remains unalienated'. Of what was left, Wood considered that the best was to be found in the

hundreds of Archibald and Makin, 16 km north of Keith in county Buckingham. The bulk of the area proposed was Crown Land, but a narrow north-south belt along the eastern border was held by the A.M.P. as part of Development Lease 1. Wood reported, however, that he had already approached the A.M.P. with a suggestion that they surrender the land, and had found them amenable to the idea, particularly when it was implied that their co-operation would result in the F.F.A.C. relinquishing any claim to the *Didicoolum* land.<sup>46</sup>

In September 1952 the Land Board, in a minute to the Director of Lands noted that the Archibald/Makin land suggested by the F.F.A.C.

is predominantly land unsuitable for development on account of its hilly or sandy nature. In the circumstances the Board considers it would be reasonable to RECOMMEND to the Government that the necessary action be taken to make the land available for purposes of a Flora and Fauna Reserve.<sup>47</sup>

By the end of the month the Minister of Lands (formerly the Commissioner of Crown Lands) had approved the Board's recommendation, but it was almost a year later, 5 August 1953, before the proposal was put to and approved by Cabinet. On 20 August 1953, sections 9 and 10 in the hundred of Archibald, and sections 3 and 4 in the hundred of Makin, 19,243 ha, were dedicated a flora and fauna reserve (vide table p. 91, map p. 89). Un-named at the time, the land now forms part of Mt. Rescue Conservation Park.

On being told of the dedication, the F.F.A.C. at its October 1953 meeting 'expressed great delight'.<sup>48</sup>

#### A SEQUEL TO *DIDICOOLOM* - KELLIDIE BAY

The delight expressed by the F.F.A.C. was certainly understandable, for a stubborn Minister of Lands and seemingly endless Departmental procrastination had reduced the effort to obtain *Didicoolum* to a

futile wrangle. To finish the affair with a large and valuable reserve was certainly some compensation for the years of submissions, debates, and frustration, but the fact did remain that the mallee heath of Mt. Rescue could in no way be regarded as a substitute for the tussock grassland of *Didicoolum*'s flood flats.

Disappointment must, therefore, have tempered the delight, but the bid to preserve a sample of the State's scarce wetland flora, if not rewarded in the South East, at least found some practical expression at Kellidie Bay on Eyre Peninsula. Kellidie Bay, in the hundred of Lake Wangary some 48 km north west of Pt. Lincoln, was an area described by George French Angas in 1846 as 'rich and beautiful country'.<sup>49</sup> Angas predicted that by 1850 the district would be 'thickly settled and cultivated', but not all the land proved to be as fertile as he imagined. Around the eastern margin of Kellidie Bay was an area of 'poor useless country, quite unsuitable for settlement'.<sup>50</sup> Approximately one third of the 2,023 ha area was low-lying land dominated by such swamp-loving tussock plants as *Gahnia deusta* and *G. trifida*, while the remainder, mallee scrubland, consisted of higher land covered by either exposed limestone or very shallow calcareous soils. The swampy tussock grassland was similar in structure and composition to that on *Didicoolum* in the South East, and as the prospects of acquiring that land seemed poor by the mid 1940's, it was not entirely unexpected that the F.F.A.C. would take an interest in the Kellidie Bay land.

In 1946 the Government received two proposals that the area be declared a national park or flora and fauna reserve, one proposal coming from the F.F.A.C. and the other from the South Australian Ornithological Association (hereafter S.A.O.A.).<sup>51</sup> Commenting, in February 1947, the Land Board noted that the area was 'land of low carrying capacity and on which depastured sheep are subject to coast disease. The Board sees no objection to the dedicating of this area'.<sup>52</sup> Cabinet approval was prompt, coming on the same day that the Land Board had made its comments, but at the request of the Director of Lands dedication was deferred

until a survey of the proposed town of Kellidie Bay was finished.

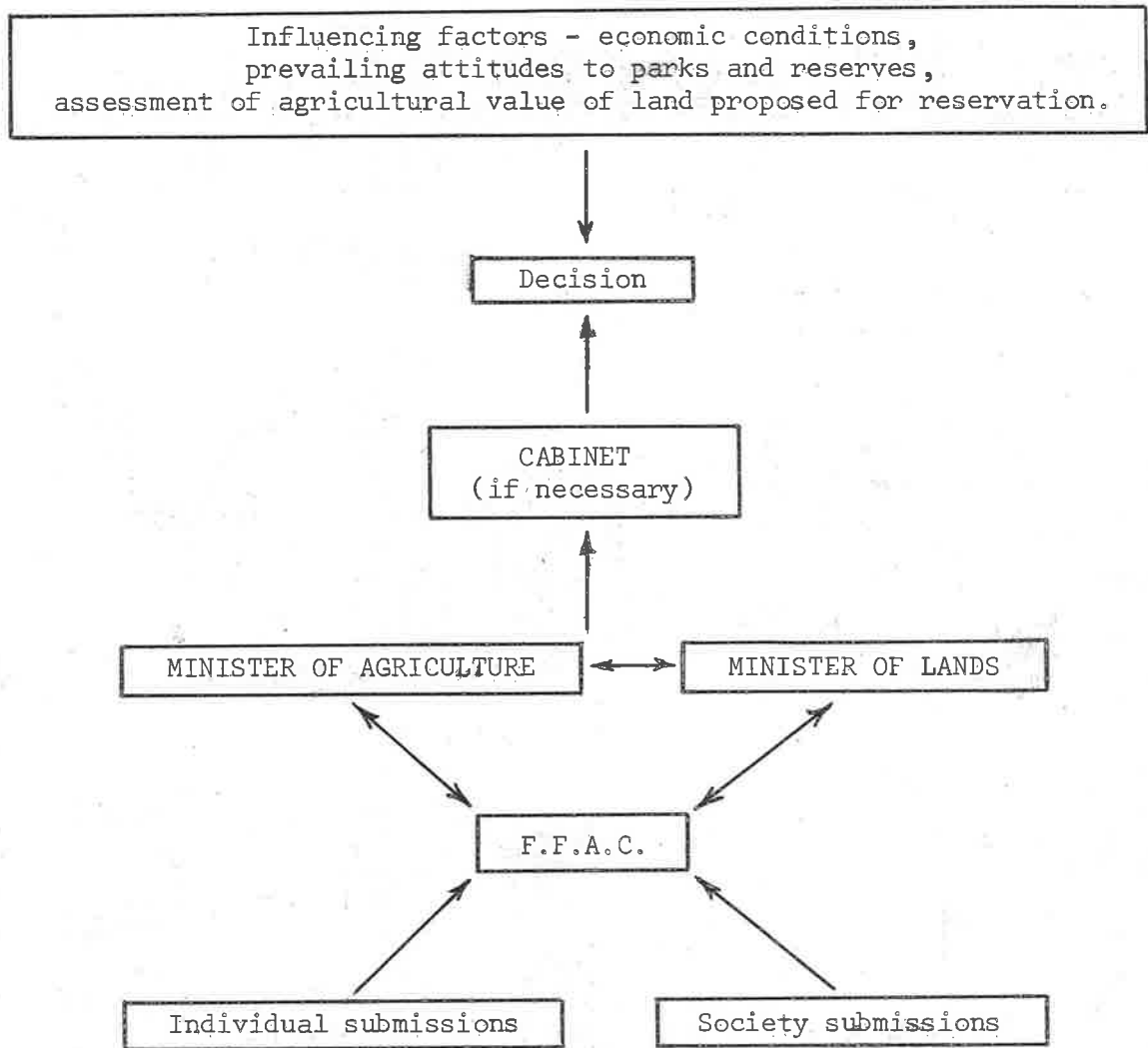
In August 1948, two applications, one for grazing rights, and one for the harvesting of cutting grass, were forwarded to the F.F.A.C., and on its recommendation both were rejected.<sup>53</sup> Survey work for the township was prolonged for several years, and by October 1953 a number of other applications to lease or exchange portions of the land had been received by the Department of Lands. The Land Board, in reviewing these, did not consider they should be allowed to alter the reserve plans:

Board has knowledge of the country, for which the present enquiry has been made, and considers it has a very limited use for agriculture or grazing purposes, being for the most part swampy land covered with cutting grass and various bushes.<sup>54</sup>

The Director of Lands agreed with the Board's remarks, and on 30 September 1954 sections 1-13, 21, 131, 271, 273-277, and 295 hundred of Lake Wangary county Flinders, 1,973 ha, were dedicated a flora and fauna reserve (vide table p. 91, map p. 89). A slightly reduced area now forms the Kellidie Bay Conservation Park.

Dedication of the Kellidie Bay land added to an already impressive list of reserves obtained by the F.F.A.C. For a body of limited power it had achieved much in a short time, and one of the reasons for this lay, no doubt, in its unique position within the Government hierarchy. As a Government-appointed body responsible directly to the Minister of Agriculture for advice on flora and fauna conservation it had ready access to other Ministers and Cabinet, and did not have to go through the rather involved lobbying procedure necessary for such voluntary bodies as the F.N.S. (vide p. 74). At the same time though, it must be pointed out that this privileged position also imposed limitations, for unlike the F.N.S. it could not bring direct political pressure to bear on any key figures in a crisis, its relative impotence in the *Didicoolum* affair being a case in point.





Diagrammatic summary of steps taken by the F.F.A.C. in obtaining areas as reserves.

*Note the relatively low degree of public involvement (cf. p. 28)*

## GOVERNMENT TARDINESS - MONARTO SOUTH AND HUMBUG SCRUB

A more important reason for F.F.A.C. success almost certainly lay in the fact that it cost the Government virtually nothing to set aside such large reserves as Hambidge, Hincks, Lincoln, and Mt. Rescue. All were areas of unused Crown Lands, and as they had little scenic appeal it was clear that there would be no need for visitor facilities, and therefore no running expenses. It was all very cheap and easy with such reserves, but it was a different matter when the Government was faced with the need to purchase land for a reserve or park: Ministers became niggardly, Cabinet rejection almost automatic, and voluntary societies found themselves involved in long and tiring campaigns to prove the worth of a particular area. Edwin Ashby's campaign for the mallee scrub at Monarto South had demonstrated this very clearly throughout the mid and late 1930's, and further proof of Government tardiness came with proposals that land be added to the Monarto South reserve, and that a national park be established at Humbug Scrub.

*Monarto South additions*

The 1938 proclamation of the Monarto South scrub as a Closed Area for Birds and Animals had proved, over the succeeding years, to be less than satisfactory. Cutting of mallee broom-bush for brush fences, and shooting of mallee fowl on the reserve had become common throughout the 1940's and early 1950's,<sup>55</sup> in spite of an attempt to exercise greater supervision by the erection of warning signs and the transfer of control of the area to the F.F.A.C. in November 1952. Surprisingly, some of the mallee fowl escaped the almost constant shooting raids, and field naturalists and ornithologists remained

convinced that if the reserve could be better policed, and possibly expanded, the species' chances of survival in the area remained good. Adequate supervision remains a problem today, but in August 1952 the attention of the Premier of South Australia was drawn to the possibility of enlarging the reserve. An auction of the D. C. Harvey Estate, 3,683 ha adjoining the existing reserve, was set down for 11 September 1952, and in informing the Premier of this, Miss O. D. Waite, a stalwart of the Field Naturalists Section, urged that the Estate be acquired:

It is one of the best areas for the preservation of our flora and fauna. Some of our most beautiful and rare wildflowers grow there, and bird life is abundant ... It is unthinkable that these things should be lost to us ... England has its National Trust which cares for beautiful ruins and inanimate things. This country is not old enough for that but we should at least, keep our living traditions.

Miss Waite went on to explain that James Ferries, born at Hartley, and buried near Wistow, had left a bequest to the Field Naturalists Section, and it was anxious to pay a tribute to Ferries' interest in conservation by seeing a fine reserve established in his home district.<sup>56</sup>

Realising that the Premier was not known for his sympathy towards reserve acquisition, the Field Naturalists urged other organisations to support their move, and in late August and early September of 1952 the Premier received letters from the S.A.O.A., the Royal Society of South Australia, and the Royal Australasian Ornithologists Union (South Australian Branch), pressing upon him the need to secure all or part of the Harvey Estate as an addition to the existing reserve.<sup>57</sup> The arguments put forward by the ornithologists were, in a sense, conventional, following similar lines to those established in the Belair and Flinders Chase campaigns, but a novel approach came from the President of the Royal Society of South Australia, Dr. H. G. Andrewartha. Drawing on his background as a professional zoologist,

Andrewartha argued that areas of undisturbed scrub such as the Harvey Estate were essential to agriculture, not just as a yardstick against which success or failure of adjoining farms could be measured, but also as a source of irreplaceable genetic material, the future value of which could never be underestimated. It was an interesting argument, and in the following two decades it was to be used frequently, particularly in the dispute over the proposed resumption of the Hambidge Flora and Fauna Reserve (vide Chapters III & IV).

On 3 September 1952 the Director of Immigration and Tourism reported to his Minister that after inspecting the Estate with the Director of the Botanic Gardens, he was convinced that if the land could be acquired for a reasonable price it would be a valuable addition to the existing reserve. The Director added that the Land Board had a low opinion of the agricultural value of the Estate, and considered it could well be sold for around \$2.47 per hectare.<sup>58</sup> The day after the Director's report, the Chairman of the Field Naturalists Section made a firm offer to the Government, stating that through the Ferries bequest, \$3,000 would be contributed if the whole Estate were purchased, while a lesser area would be subsidised on a pro rata basis.<sup>59</sup> The offer swayed Cabinet into approval for the Land Board to attend the auction and bid to \$3.09 per hectare, but when bidding began it was clear that the Board had sadly underestimated the effect the wool boom of the early 1950's was having on land prices: when the Estate was eventually knocked down to a local carrier, it was for \$5.81 per hectare. Given Cabinet's limit of \$3.09 per hectare there was nothing further the Land Board could do, but immediately after the auction an agent for the Field Naturalists Section began private negotiations with the successful purchaser, and secured from him Lot no. 1, 195 ha, for \$7.04 per hectare.<sup>60</sup>

After hopes had been held for acquiring the whole Estate it was a disappointingly small area, but even if the Land Board had anticipated the inflated values it is doubtful whether Cabinet would have approved

a per hectare figure high enough to secure even a portion of the Estate. Soon after acquisition the Field Naturalists set about transferring the land to the Government, and on 20 August 1953 sections 266, 267, and 268 hundred of Freeling county Sturt were dedicated a flora and fauna reserve (vide table p. 91, map p. 89). The additions adjoined the south western corner of the original reserve, and in recognition of the two men whose donations had contributed much of the land, the combined area became known over the years as the Ferries-McDonald Reserve. It is now the Ferries-McDonald Conservation Park.

#### *Humbug Scrub - a proposed national park*

Thirty two km north east of Adelaide, in the hundreds of Para Wirra and Barossa county Adelaide, was an area of rough hilly country covered with a rather low but dense dry sclerophyll woodland. Known locally as the Humbug Scrub, the poor soils and steep terrain of the area had inhibited land development, and apart from desultory attempts at gold mining the Scrub had remained little used and comparatively isolated. Such native animals as the grey kangaroo (*Macropus fuliginosus*), the echidna (*Tachyglossus aculeatus*), and the short-nosed bandicoot (*Isodon obesulus*), becoming rare elsewhere in the Mt. Lofty Ranges, were still common, and by the late 1940's the area was coming under close scrutiny from the newly-formed Adelaide Bush Walkers Club.

H. A. Lindsay, a journalist, had formed the club in 1946 after writing an article on bushwalking in the magazine section of *The Advertiser* the previous year,<sup>61</sup> and it was Lindsay, in his capacity as President of the Club, who outlined, in November 1947, a proposed national park of 1,214-2,023 ha in the Humbug Scrub. Lindsay was a persuasive writer, and on paper his case appeared convincing: the Bush Walkers realised, he said, that the chances of setting aside a

national park over good agricultural land were 'very remote', but the Humbug Scrub had only skeletal soils over quartzitic rock, offering little chance of pasture improvement. Furthermore, he added, though the soils were poor the native flora was rich and varied, and supported an excellent array of wildlife.<sup>62</sup>

The Hon. E. E. Anthony, M.L.C., forwarded Lindsay's proposal to the Department of Lands for investigation, but in January 1948 the Minister of Lands dashed all hopes by stating that 'the cost of acquiring the land would be out of all reason as the *unimproved* value for Taxation is over £8,000 [\$16,000]'.<sup>63</sup> The Minister considered the matter closed, but in March 1948 Lindsay reiterated the desirability of acquiring the land:

the area at Humbug Scrub represents our last chance to secure a tract of virgin bush, reasonably close to Adelaide, for a national park. No other area of similar country is now left. The area has never been cut over and the timber is the original growth.

Lindsay also argued that the other States of Australia were well ahead of South Australia in setting aside suitable areas for parks and reserves:

Our Belair National Park is only 2,000 acres [809 ha], and is fast becoming a huge playground. We have no quarrel with that fact, but we do think that South Australia should have what all other States possess - a large area of country, close to the capital, which is kept in its natural state; a piece of the original Australia, to be held in trust for posterity.<sup>64</sup>

The Minister replied by again stating the likely cost, and the matter lapsed.<sup>65</sup> Perhaps understandably, there must have seemed little attraction in an isolated area of scrub likely to be used only by a small bushwalking fraternity, but time was to vindicate Lindsay's stand, and the State paid dearly for the Minister's shortsightedness. By 1960 the Government had decided that Humbug Scrub *would* make a good national park, and in the following eight years it purchased a little over 1,214 ha of the area.

In 1947 the 2,023 ha proposed by Lindsay could have been obtained for around \$16,000: by 1968 the Government had outlaid for 1,214 ha of the same land, \$257,600.<sup>66</sup>

#### FURTHER DEVELOPMENTS - NATIONAL PLEASURE RESORTS SET ASIDE

To some extent the Government could afford to be niggardly with the Monarto South land and the Humbug Scrub, for at the time it seemed that both were designed to cater primarily for two minority groups; naturalists on one hand, and bushwalkers on the other. Both areas were relatively remote from Adelaide and seemed to have little general appeal, but the same criticism could not be used as an excuse for failure to obtain parks and reserves in other areas of the State. In particular, the steady growth of Adelaide was making it imperative for the Government to provide more recreation areas within easy travelling distance of the suburbs, and the post-World War II increase in private car ownership (vide p. 207) was drawing travellers in increasing numbers to scenic regions of South Australia once considered remote and inaccessible. The purchase of Obelisk Estate and Horsnells Gully in the Mt. Lofty Ranges, and the proclamation of Wilpena Pound in the Flinders Ranges as a National Pleasure Resort, were tangible signs that somewhat slowly, and certainly reluctantly, the Government was beginning to recognise that Belair National Park and a handful of other smaller reserves could no longer be regarded as sufficient for those seeking outdoor recreation in natural surroundings.

#### *Obelisk Estate*

Situated near Mt. Lofty, highest peak on the Mt. Lofty Ranges, the Obelisk Estate was a prime area to secure for conservation and

recreation purposes, being typical of the central portion of the Ranges, an area which had become known, over the years, as 'the Adelaide Hills'. The Ranges were low and unspectacular by international standards, rising at their highest point to only a little over 610 m, but successive generations of South Australians had come to regard them as an admirable backdrop to the city of Adelaide. Noticeably cooler than the Adelaide Plains, the Ranges were particularly popular during the spring and summer months, and many of the more affluent members of Adelaide society had lavish summer resorts erected: by the early twentieth century such localities as Mt. Lofty, Crafers, Stirling, and Bridgewater were noted for their fine mansions and sprawling lawns and gardens.<sup>67</sup> Those who could not afford such luxury had to be content with day excursions to picnic sites within easy reach of Adelaide and its suburbs, and it was the proximity to public transport of such places as Belair National Park, Waterfall Gully, Morialta Falls, and Brownhill Creek which explained much of their popularity throughout the late nineteenth and early twentieth century.<sup>68</sup> In the predominantly horse and buggy days of pre-World War I there was a certain leisurely charm about excursions to these reserves, a charm which W. H. Selway recalled with some nostalgia when describing Waterfall Gully:

In the earlier days there was little in the way of paths up the gully, and the road was bad. The stream had to be crossed many times, sometimes on narrow planks. There was, indeed, at that time a touch of adventure in the walk, especially when the stream was swollen with heavy rains and the gallants of the party, as in duty bound, helped the fair maidens to negotiate safely the turbulent waters.<sup>69</sup>

Selway was writing in 1936, and went on to complain that such good times had been somewhat spoiled by the advent of the automobile, and indeed in the 1920's and 1930's Adelaide's steadily rising population, relying more and more on the motor car for its weekend excursions, was placing an increasing strain on existing parks and reserves.

It was apparent, even to a State Government traditionally wary of



committing any money to the purchase of parks and reserves, that more land would have to be acquired, and late in 1937 an important opportunity arose in the proposed sale of the Obelisk Estate. The Estate covered some 688 ha between Waterfall Gully and Mt. Lofty summit in the hundred of Adelaide, county Adelaide, and was the very area Professor Cleland had suggested should be reserved in 1924 (vide p. 35). Much of the land was underlain by arenaceous rocks dissected extensively by small gullies, and covered by a dry sclerophyll forest similar to that found in the Belair National Park a few kilometres to the south west. By contrast, argillaceous rocks in the west and north west of the Estate had weathered to a gentler topography of rolling ridges and valleys, the vegetation of which was a savanna woodland dominated by such species as *Eucalyptus leucoxylon* (blue gum) and *E. viminalis* (manna gum). The Estate was certainly not undisturbed land, various sections having been utilised over the years for woodcutting, grazing, and tobacco growing, but it was a popular bushwalking area, and was also regarded highly by botanists; in several small gullies below Mt. Lofty peat bogs containing the rare *Todea barbara* (king fern) occurred, and on higher ground near Mt. Bonython was a small stand of *Eucalyptus rubida* (candlebark gum), an attractive tree restricted, in the Mt. Lofty Ranges, to pockets of fertile soil in the high rainfall areas.<sup>70</sup>

At the time the land was offered to the Government, November 1937, it was held by Obelisk Estate Ltd., a company which had sponsored an elaborate but generally unsuccessful plan to develop the Estate for forestry, grazing, market gardening, and high-class housing. In its offer to the Government, the company described the area as ideally suited for such recreational development as ovals and swimming pools,<sup>71</sup> and in a report of June 1938 the Director of Tourism agreed that there was much of value in the Estate. In particular, the Director saw it as a desirable link between national pleasure resorts already in existence at Waterfall Gully and Mt. Lofty summit, and a key area in flood control; the area contained the headwaters of First Creek,

and erosion following excessive timber cutting had caused the Creek to flood as it meandered across the Adelaide Plains towards the River Torrens.<sup>72</sup> It was a valuable area, but the price was considered quite unreasonable, especially after a Land Board valuation of February 1939 had suggested a figure well below that asked by the company.<sup>73</sup>

Negotiations over the purchase price broke down in April 1939, and there was little further action until 1944. In that year the Land Board became involved in the purchase of a cottage and land immediately below the summit of Mt. Lofty and adjacent to the Obelisk Estate. In the course of routine minutes and reports dealing with the purchase, the Board noted extensive timber cutting over the Estate, and urged the Government to halt the cutting by acquiring the entire area.<sup>74</sup> In February 1945 the Director of Tourism supported the Land Board's urgings and drew attention to the impending auction sale of Obelisk Estate. Stressing the desirability of acquiring the land, the Director noted:

I fear that if the Government does not obtain control of this land, it will be purchased by someone for the value of timber on it, or for the purpose of quarrying, and extensive operations in either of these directions would have a detrimental effect from an aesthetic point of view and would seriously affect the tourist attractions of the district.<sup>75</sup>

Early in March 1945 the F.F.A.C. added its weight to the purchase moves by advising that from 'every point of view' Obelisk Estate was a most desirable piece of land,<sup>76</sup> and on 15 March 1945 the Government purchased the Estate, 708 ha, for \$14,000 (vide table p. 90, map p. 89).

The land, renumbered section 608 hundred of Adelaide county Adelaide, now forms the bulk of the Cleland Conservation Park, but at the time of purchase the \$14,000 had come from Tourist Bureau Estimates for acquisition as a national pleasure resort, and the Estate was to remain under the control of the Bureau until 1963.<sup>77</sup>

### *Horsnells Gully*

In the year following the purchase of Obelisk Estate, the Government was presented with the opportunity for obtaining further land close to Adelaide. In November 1946 the Commissioner of Highways reported to the Minister of Local Government that the owner of a quarry in Horsnells Gully, an area several kilometres to the north of Obelisk Estate, was offering to sell the Government his quarry and adjoining land. The Highways Department had no use for the quarry, but as the owner had suggested that the adjacent land would make a fine 'national reserve' a visit had been made to sections 919, 1180, and 1181 hundred of Adelaide county Adelaide:

An inspection of these shows that they consist of high timbered ridges (Stringybark) intersected by gullies in which are growing a number of rather fine white gum trees ... If section 1179 belonging to Stonyfell Quarries Ltd., and section 1183 belonging to the State Bank could be included, the five sections would make a very desirable area which could be preserved in its present condition for the benefit of future generations, and also to preserve a large proportion of the watershed of Third Creek, which discharges through the Eastern suburbs.<sup>78</sup>

On the basis of this report Cabinet approved, on 20 February 1947, the purchase of sections 919, 1180, 1181, and a portion of 1109 hundred of Adelaide county Adelaide, 114 ha, and on 4 September 1947 the land was gazetted a national pleasure resort (vide table p. 91, map p. 89).

Renumbered as section 609, the area set aside now forms part of the Horsnells Gully Conservation Park. As with Obelisk Estate, the land remained under the control of the Tourist Bureau until 1963, but in that time no attempt was made to effect any formal 'improvements' on either of the reserves. Horsnells Gully, though small, was similar in relief and vegetation to that of Obelisk Estate, and the combined area of the two reserves was approximately the same as that of the Belair National Park. There seems little doubt that Cabinet's decision

to outlay \$16,700 for the purchase of Obelisk Estate and Horsnells Gully was influenced by their proximity to Adelaide, for both areas were only ten km from the heart of the city and within easy walking distance of public transport. Use of them by the public was virtually assured.

### *Wilpena Pound*

By contrast, Wilpena Pound was 483 km north of Adelaide, and even as late as the 1930's the country north of Pt. Augusta was known to most people as 'desert', a harsh inland known mainly for its heat and dust. That this difficult country could have a beauty of its own and scenery of more than ordinary charm was appreciated by only a few rare visitors, amongst them the artist Hans Heysen and poet Ian Mudie. Although both men travelled widely they returned time and again to one region in particular, the Flinders Ranges, and on canvas and in verse they did much to awaken a realisation that here was an arid mountain range of rare beauty.<sup>79</sup>

Rising to around 1,220 m in height, the Ranges represented a northward extension of the Mt. Lofty Ranges, but in their bold sandstone ramparts, broad undulating valleys, and startling red colours, they were a striking contrast to the more subdued hills of the south. In a region of spectacular form there was much to excite the visitor, but few features were admired more than Wilpena Pound. Situated some 48 km north of Hawker, the Pound consisted of an eroded anticlinal arch in massive sandstone, disposed in such a way that a central basin was encircled by a rugged series of peaks rising to almost 1,220 m, the whole effect being likened frequently to a vast amphitheatre. On the alluvium-filled floor of the Pound an attractive parklike woodland of *Eucalyptus camaldulensis* and *Callitris colummelaris* alternated with mallee scrub, while on the surrounding rim, stunted mallees,

sheoaks, and yaccas crowded a rocky skyline.<sup>80</sup> Discovered by Europeans in the mid-nineteenth century, the stockyard-like nature of the Pound was quickly appreciated by pastoralists, and with the exception of a 20 year period before and after World War I when wheat was grown over its floor, the Pound was used variously for depasturing and holding cattle, horses, and sheep.<sup>81</sup>

As motor vehicles became more robust and outback travel more common the number of visitors to the area increased steadily, and on 25 October 1945 the Government acknowledged the Pound's growing importance as a tourist attraction by proclaiming it a national pleasure resort (vide table p. 90, map p. 89). In 1948, Bonds Tours, an Adelaide-based company, constructed a 20 room 'chalet' on Wilpena Creek, a short distance outside the Pound, and in the following decade used it as a base for regular tours of the Flinders Ranges.<sup>82</sup>

Tourism was certainly seen by the Government as the main use for the Pound, but it was also seen by many as having fascinating geological and botanical features, and over the years there was consistent pressure to give it greater protection and care.<sup>83</sup> Few would have disputed that it was an area of national significance, and its proclamation as a National Pleasure Resort, though limited in value, represented one of the most important developments in what had proved to be a remarkable period, a period of marked expansion in the State's system of parks and reserves.

In 19~~3~~<sup>37</sup> the combined area of Flinders Chase, Belair National Park, and the McDonald Reserve at Monarto South, totalled only 53,947 hectares: by 1952 the acquisition of the reserves described in this chapter had raised the figure to 249,261 hectares. On paper the gains appeared impressive, and suggested that the early struggle of the Field Naturalists Section to awaken Government interest in parks and reserves had not been in vain.

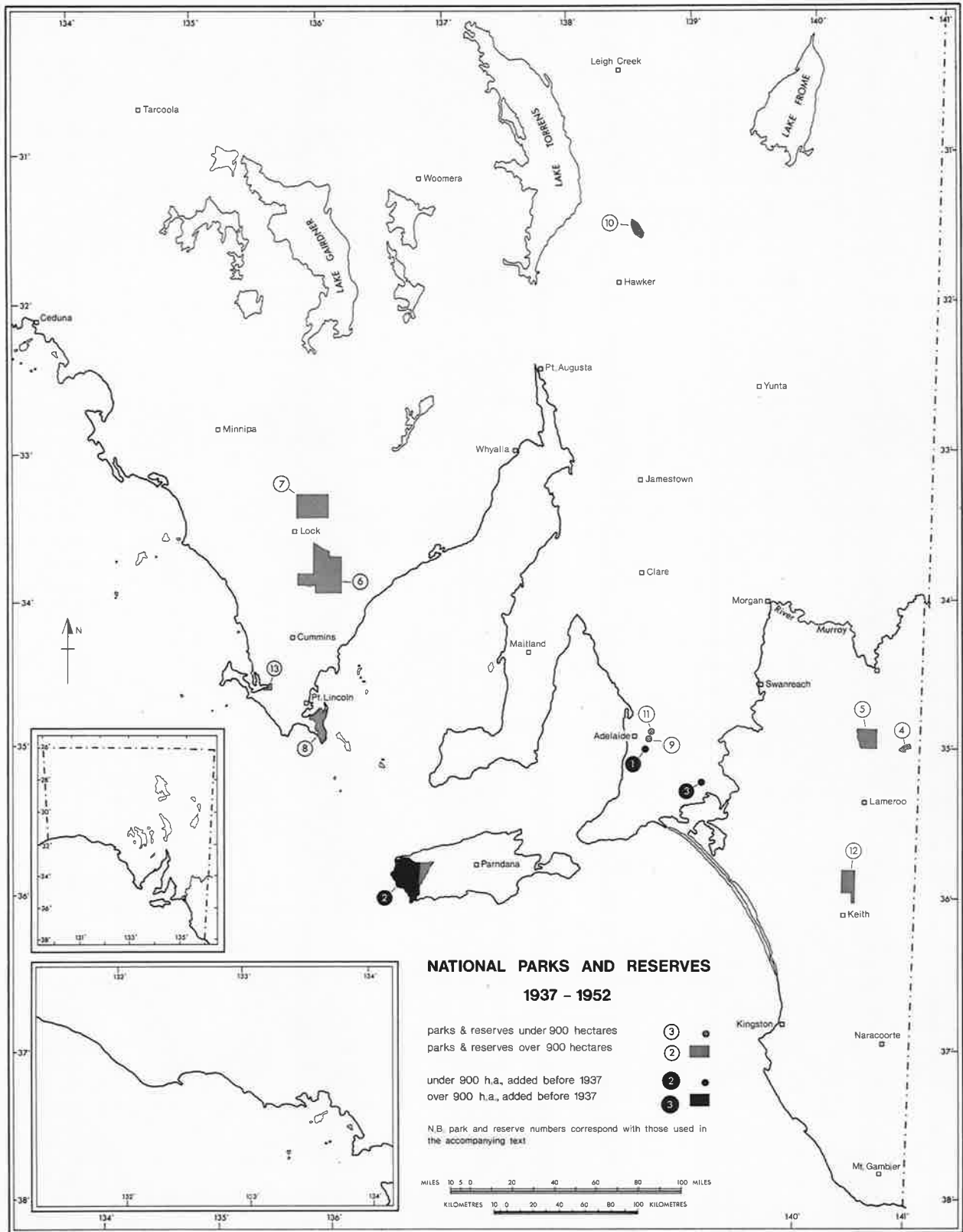
Certainly there could be no doubt that by setting aside such areas as Wilpena Pound and the Obelisk Estate the Government was showing

an increasing awareness of the potential importance of tourism to the State; neither could it be denied that the need to conserve particular plants and animals was being ignored, for it was acknowledged that such reserves as Peebinga and Kellidie Bay would preserve natural history features of some importance.

At the same time, however, it must be remembered that in many cases the reasons for dedication had little or nothing to do with flora and fauna conservation. In the case of Billiatt and Peebinga it was the fear of marginal lands and erosion; with Lincoln, Mt. Rescue, and Kellidie Bay it was an acknowledgement that the land was of no commercial use, and with Hambidge and Hincks it was made quite clear that they were to be flora and fauna reserves only for as long as the land was not in demand for agriculture. Rightly or wrongly Government Departments believed that flora and fauna reserves were, in terms of economics, at best useless, and at worst a hindrance to the State's increasing wealth. It followed from this that as little as possible should be spent on their acquisition and maintenance, and the Government's tardiness in this respect was illustrated very clearly by its refusal to even consider purchase of the Humbug Scrub, and its shortsightedness in failing to find a mere \$140 for the valuable swampland on *Didicoolum*.

The result of this official attitude was that in 1952 much of the area reserved consisted of land which was either so poor as to be unfit for almost any commercial enterprise, or land which was remote from existing land development schemes. In this latter category could be placed such reserves as Hambidge and Hincks, for although containing soils suitable for wheat and wool growing they were, in 1940, relatively remote and inaccessible. Furthermore, the then prevailing suspicion of marginal mallee lands ensured that any new development proposals were not looked on with any favour by the Government. As long as this combination of circumstances continued there was no serious thought given to resumption, but in the early 1950's the situation

changed. The position of primary production in Australia took a marked upturn, and the result was not only active opposition to proposals for new reserves, but the beginning of concerted campaigns to have such existing reserves as Hambidge and Hincks resumed and subdivided for agricultural settlement.





## REFERENCES

1. Meinig, D. W., 1970: *On the Margins of the Good Earth*. Rigby Ltd., Adelaide.
2. Dept. Lands & Survey S.A., Annual Report for 1929/30. S.A.P.P. 1926-1929, p. 39.
3. For a discussion of the Marginal Lands problem, particularly as it related to the Murray Mallee of S.A., see Harris, C. R., 1968: Mantung : A Study of Man's Impact on a Landscape. Unpub. B.A. (Hons.) thesis, Dept. Geography, Univ. of Adelaide.
4. S.A.P.P. 62/1939.
5. Ratcliffe, F. N., 1936: Soil Drift in the Arid Pastoral Areas of South Australia. C.S.I.R. Pamph. 64.
6. S.A.P.P. 40/1938.
7. Mudie, Ian, 1945: *Poems : 1934-1944*. Georgian House, Melbourne.
8. L.B. to D.L. 20/12/38, D.L. 5293/1934.
9. C.C.L. approval 14/2/39, D.L. 1049/1939.
10. F. H. Faulding & Co. Ltd., interviews 15/10/38, 25/2/39; letter 25/2/39: D.L. 1049/1939.
11. L.B. to D.L. 22/3/39, D.L. 1049/1939.
12. Faulding to D.L. 10/1/40, D.L. 1049/1939.
13. D.L. to L.B. 16/1/40, D.L. 1049/1939.
14. L. W. Wiebrecht to D. L. 19/2/40, D.L. 1419/1940.
15. L.B. to D.L. 9/4/40, D.L. 1419/1940.
16. Advisory Committee on Soil Conservation Report 18/9/40, D.L. 1419/1940.
17. L.B. to D.L. 27/9/40, D.L. 1419/1940.

18. C.C.L. approval, 28/9/40, D.L. 1419/1940.
19. Minutes of F.F.A.C. meeting, 29/3/39, F. & G. 77/1939.
20. Report by A. D. Adams, Agricultural Adviser, 23/9/39, F. & G. 77/1939.
21. S.G. to D.L. 19/1/40, F. & G. 77/1939.
22. L.B. to D.L. 10/2/40, F. & G. 77/1939.
23. Minutes of F.F.A.C. Meeting 5/6/40, F. & G. 77/1939.
24. S.G. to D.L. 19/6/40; D.L. to M.A. 18/7/40; F.F.A.C. to M.A. 4/12/40; L.B. to D.L. 20/12/40; F.F.A.C. to D.L. 4/3/41; D.L. to M.L. 17/3/41; F. & G. 77/1939.
25. Minutes of F.F.A.C. meeting 30/4/41, F. & G. 77/1939.
26. Coaldrake, J. E., 1951: 'The Climate, Geology, Soils, and Plant Ecology of Portion of the County of Buckingham (Ninety Mile Plain), South Australia'. *C.S.I.R.O. Bull.* 266.
27. Crocker, R. L., 1941: 'Notes on the geology of the Lower South East of South Australia, with reference to late climatic history'. *Trans. Roy. Soc. S.A.*, v. 65, (1), 103-107.
28. Crocker, R. L., 1944: 'Soil and Vegetation relationships in the Lower South-East of South Australia'. *Trans. Roy. Soc. S.A.*, v. 68, (1), 144-172.
29. Williams, M., 1964: 'The Historical Geography of an Artificial Drainage System: The Lower South-East of South Australia'. *Aust. Geog. Studies*, 2, 87-102.
30. For a recent review of the trace element discoveries see Marshall, Ann, 1972: 'Desert becomes Downs: The Impact of a Scientific Discovery'. *The Australian Geographer*, XII, (1), 23-34.
31. Minutes of F.F.A.C. meeting 8/6/38, F. & G. 112/1938.
32. Minutes of F.F.A.C. meeting 16/11/37, F. & G. 112/1938.
33. Minutes of F.F.A.C. meeting 15/2/39, F. & G. 112/1938.
34. Minutes of F.F.A.C. meeting 29/3/39, F. & G. 112/1938.
35. Minutes of F.F.A.C. meeting 26/4/39; Wood to Sec. F.F.A.C. 14/6/39: F. & G. 112/1938.

36. M.A. to C.C.L. 19/5/41, F. & G. 112/1938.
37. Pastoral Board, minute, 19/6/41; Wood to Sec. F.F.A.C. 29/7/41: F. & G. 112/1938.
38. L.B., minute, 25/9/41, F. & G. 112/1938.
39. Minutes of F.F.A.C. meeting 26/7/44, F. & G. 112/1938.
40. M.A., minute, 9/8/44; Conservator of Forests Report 6/11/44; Cabinet rejection 6/12/44: F. & G. 112/1938.
41. Minutes of F.F.A.C. meeting 16/10/46, F. & G. 112/1938.
42. For detailed reports on development in the trace element deficient areas see the Dept. of Lands Annual Reports for the 1940's and 1950's (printed as Parliamentary Papers each year).
43. Subcommittee of F.F.A.C. report 21/3/45, F. & G. 112/1938.
44. Minutes of F.F.A.C. meeting 1/6/51, F. & G. 112/1938.
45. D.L. to F.F.A.C. 7/3/52, F. & G. 112/1938.
46. Wood to Sec. F.F.A.C. 6/5/52, F. & G. 112/1938.
47. L.B. to D.L. 18/9/52, F. & G. 112/1938.
48. Minutes of F.F.A.C. meeting 7/10/53, F. & G. 112/1938.
49. Angas, G. F., 1846: *South Australia Illustrated*. Thomas Mclean, London. Quotes are from the description accompanying Plate XX.
50. President S.A.O.A. to M.A. 21/11/46, M.A. 300/1946.
51. M.A. 300/1946, F. & G. 59/1946.
52. L.B. to D.L. 25/2/47, M.A. 300/1946.
53. Minutes of F.F.A.C. meeting 10/8/48, M.A. 300/1946.
54. L.B. to D.L. 10/53, M.A. 300/1946.
55. S.A.O.A. to Chief Inspector F. & G. 24/7/47; D. C. Harvey to D.L. 30/9/53; O. D. Waite to F.F.A.C. 28/5/54; F.F.A.C. to D.L. 17/12/54: C.S.O. 1480/1936.
56. Waite to Premier 18/8/52, C.S.O. 602/1952.

57. S.A.O.A. 22/8/52; Roy. Soc. S.A. 3/9/52; R.A.O.U. 5/9/52; C.S.O. 602/1952.
58. Director Immigration & Tourism to Minister of Immigration & Tourism 3/9/52, C.S.O. 602/1952.
59. Chairman F.N.S. to Premier 4/9/52, C.S.O. 602/1952.
60. L.B. to D.L. 12/9/52, C.S.O. 602/1952.
61. Pitt, R., 1970: 'A tribute to H. A. Lindsay'. *Tarndanya* (Magazine of the Adelaide Bushwalkers), pp. 6-7.
62. Lindsay to Anthony, letter undated but probably November 1947, D.L. 5782/1947.
63. M.L. to Anthony 20/1/48, D.L. 5782/1947.
64. Lindsay to Anthony 9/3/48, D.L. 5782/1947.
65. M.L. to Lindsay 22/3/48, D.L. 5782/1947.
66. D.L. 3148/1963; D.L. 4564/1963; D.L. 4146/1961; D.L. 2272/1956; D.L. 6780/1960; D.L. 423/1966; D.L. 657/1968.
67. See, for example, the comments in Vivienne, M., 1908: *Sunny South Australia*. Hussey & Gillingham, Adelaide, pp. 125-127.
68. Burgess, H. T., 1909: *The Cyclopedia of South Australia*. Hussey & Gillingham, Adelaide, (2 vols.), v. 2, pp. 195-196.
69. Field Naturalists Section Roy. Soc. S.A., 1936: *National Park, Morialta, and Waterfall Gully Reserves, Containing an account of their natural history*, being a reprint of *The S.A. Naturalist*, v. XVII, (1-4), p. 99.
70. Cotton, B. C. (ed.), 1964: *South Australian National Parks and Wild Life Reserves*. Govt. Printer, Adelaide, p. 140.
71. Managing Agents Obelisk Estate Ltd. to Govt. 16/11/37; also see undated Company prospectus: both in D.L. 6499/1937.
72. Director of Immigration & Tourism, minute, 27/6/38, D.L. 6499/1937.
73. L.B. to D.L. 13/2/39, D.L. 6499/1937.
74. L.B. to D.L. (several minutes), T.D. 75/1939.

75. Director of Immigration & Tourism, minute, 28/2/45, D.L. 6499/1937.
76. F.F.A.C., minute, 5/3/45, D.L. 6499/1937.
77. T.B. 440/1962 deals with the transfer of control of Obelisk Estate and Horsnell's Gully to the N.P.C. Also see Chapter III.
78. Commissioner of Highways to Minister of Local Government 27/11/46, H. & L.G. 1088/1946.
79. For a fine account of Heysen's work in the Flinders Ranges see pp. 195-212 in Thiele, C., 1968: *Heysen of Hahndorf*. Rigby Ltd., Adelaide; an evocative paper by Ian Mudie expressing his affinity with the Flinders Ranges appears in Mudie, I., 1972: 'What the Flinders Ranges mean to me'. pp. 1-9 in Whitelock, D. (ed.), *The Future of the Flinders Ranges*. Dept. Adult Educn., Univ. of Adelaide, publicn. no. 28.
80. Corbett, D. W. P. (ed.), 1969: *The Natural History of the Flinders Ranges*. Libraries Board of South Australia, Adelaide.
81. Mincham, H., 1964: *The Story of the Flinders Ranges*. Rigby Ltd., Adelaide, pp. 258-272.
82. Director S.A. Govt. Tourist Bureau to author (pers. comm.) 30/7/70.
83. See, for example, Saddler, B. A., 1970: 'Wilpena Pound, Flinders Ranges, South Australia'. *Wildlife*, v. 7, (3), 84-85; Serventy, V., 1968: *Wildlife*, v. 5, (4), p. 126; v. 7, (3), p. 68.

## CHAPTER III

A TIME FOR REASSESSMENT, 1952-1962

Prospects for farming throughout southern Australia show a marked improvement. Pressure from rural interests results in the loss of reserve land, but out of the accompanying controversy comes an important reassessment. Land is lost but administration tightened, and the stage is set for a major expansion of parks and reserves.

## THE FARMING OUTLOOK IMPROVES

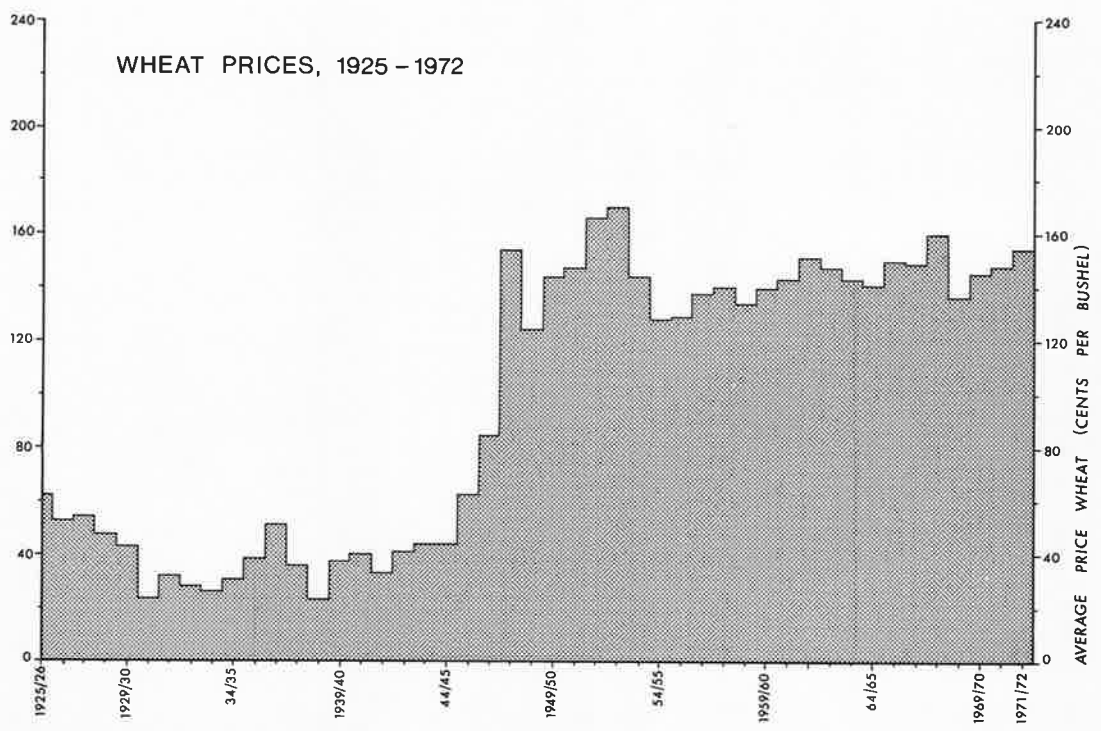
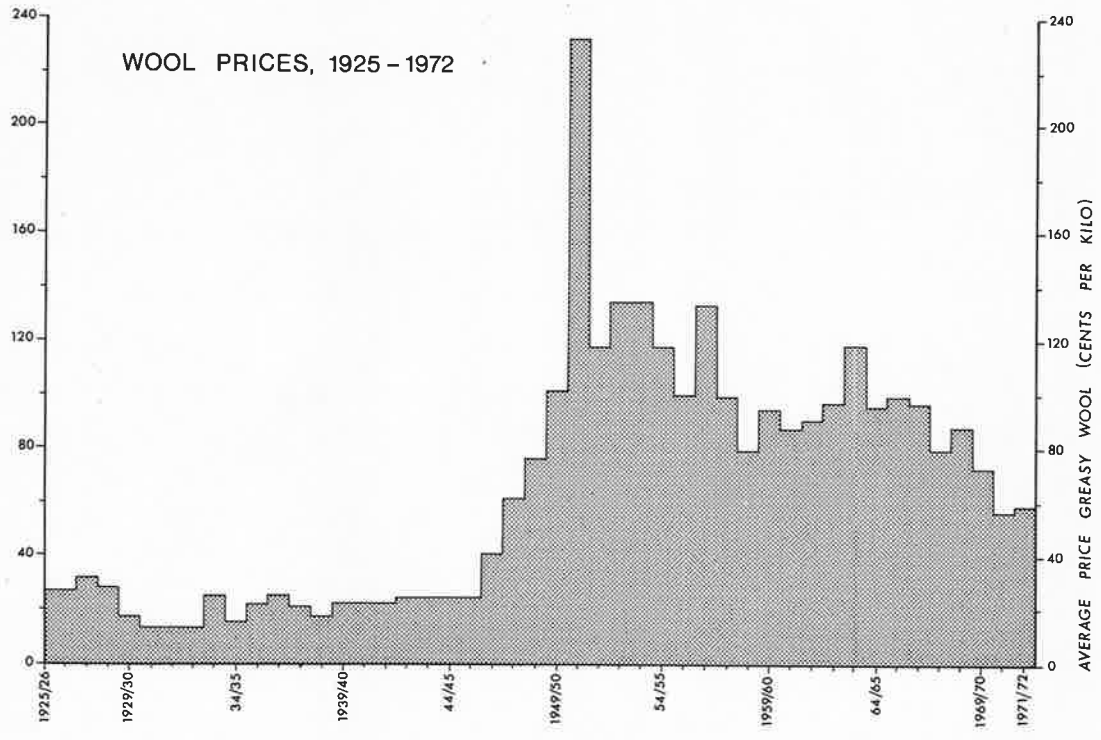
For almost a decade before World War II, and for several years after its close, primary production in Australia languished. The wheat industry, in particular, had fallen into grave marketing difficulties throughout the 1930's, and by 1939 several thousand Australian farmers had been declared bankrupt. When war broke out it soon became clear that stability for the industry was essential, and working towards this end through a greater control of marketing procedure and pricing, the Commonwealth Government set up the Australian Wheat Board. When the War ended the Board was retained, and under its control war-time marketing procedures for wheat were extended for several years. While satisfactory as a short-term expedient, it was clear to all that such an arrangement could not extend indefinitely, and in 1948 the Commonwealth and State Governments agreed on a wheat prices stabilization plan. The main feature of the plan was the provision of guaranteed minimum prices for all wheat sold in Australia, and for some of the wheat sold on the overseas market. Although not without its critics, the plan did manage to bring stability to an industry formerly plagued by wildly-fluctuating prices, and by the early 1950's there was a rare

air of confidence in the future of wheat<sup>1</sup> (vide p. 99).

Coincidental with the recovery of wheat was the fillip given to wool production by the Korean War. Frantic buying of Australian wool stocks by the American military forces had rocketed the average price of greasy wool to around 240 cents per kilo in the 1950/51 season, and although such dizzy heights were ephemeral, wool was to continue to provide good returns for growers throughout the 1950's and early 1960's (vide p. 97). A run of excellent rainfall seasons in the early and mid-1950's added further confidence and income to the wheat and wool industries, and with both Commonwealth and State Governments actively encouraging expansion in the rural sector with soldier settlement schemes and attractive taxation concessions, the result was a lively land boom. In its annual reports for the early 1950's the South Australian Department of Lands commented at some length on the boom, expressing particular concern over the inflation of land prices. The Department pointed out that spiralling demand and high values for privately owned land were resulting in a greatly increased number of enquiries for unalienated Crown Land, even that of inferior quality. At the same time, the Department pointed out, this demand for the release of Crown Land was not restricted solely to private settlers, for the Land Board, in search of areas suitable for inclusion in the Commonwealth/States returned servicemen schemes, was also finding the inflated private land values prohibitive; it too was interested in Crown Lands as potential development areas.<sup>2</sup>

#### RESUMPTION MOVES ON EYRE PENINSULA

Given such a combination of circumstances it is hardly surprising that by 1953 both private and official thought was being given to the possibility of resuming suitable portions of the State's flora and



SOURCE: S.A. STATISTICAL REGISTER

ALL VALUES REPRESENT SOUTH AUSTRALIAN AVERAGE PRICES



fauna reserves for agricultural development. On Eyre Peninsula, especially, the time to many seemed ripe to press for suitable resumption measures. For many years land clearance and development of the region had lagged behind that of other portions of the State. Soils and rainfall were good, but transport difficulties, particularly the lack of an effective railway network, had restricted early development. By the early 1950's such barriers to expansion were gone, and with capital and heavy machinery readily available, clearance of the ubiquitous mallee scrub proceeded apace. Hambidge and Hincks were no longer secure: newly constructed roads from Cleve to Kyancutta, and Cleve to Tooligie Hill passed through the northern portions of both reserves, and the protective isolation was gone.<sup>3</sup> Farmers, now able to inspect the land within their boundaries, were not slow to observe that although a large proportion of the reserves consisted of deep sands of limited value, there were flats having the heavier-textured solonised brown soils well-suited for wheat growing. Rainfall was also considered adequate and reliable, ranging from an annual average of around 356 mm over Hambidge to 406 mm over Hincks.

The inevitable result of all these factors was pressure to resume the land for agricultural development, and one of the earliest moves towards this end came from a local politician, the Hon. G. G. Pearson, member for the State Parliament seat of Flinders. In a letter of August 1952 to the Minister of Lands Pearson had proposed, initially, that portion of the Lincoln flora and fauna reserve be released for grazing, but had then gone on to suggest the resumption of Hincks:

Another reserve in the Lock area has been quoted to me as containing a lot of arable land ... A new road is constructed through this reserve, and revealed some very desirable farming land.<sup>4</sup>

In reply to Pearson the Director of Lands stated firstly, that the Lincoln land was inferior and considered 'incapable of economic development', and secondly, that in response to numerous requests the Hincks land would be examined once aerial photographs were available



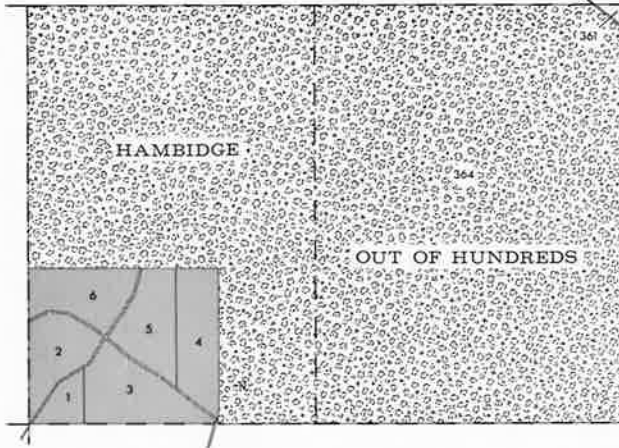
and a proper ground survey could be initiated.<sup>5</sup> With both reserves there was no thought that flora and fauna conservation needs should be examined, it was purely a question of economics and practical expediency, and in this respect it was clear that official attitudes to flora and fauna reserves had not changed in over a decade. When the Land Board inspected the northern portion of Hincks from the Cleve-Tooligie Hill road in August 1952 it was concerned solely with the agricultural potential of the area, and this attitude was maintained in the following year when, in July of 1953, the Board recommended a reconnaissance inspection of the bulk of Hincks 'with the object of defining which portions, if any, merit a more detailed examination for purposes of subdivision'.<sup>6</sup>

#### *Hambidge - the first resumption*

At the same time that subdivision of Hincks was under consideration, active steps were being taken towards the resumption of land from Hambidge. The Cleve-Kyancutta road referred to previously, had been surveyed such that it passed through the north eastern corner of Hambidge, thereby severing an area of 70 ha from the bulk of the reserve. Concurrent with this development was the leasing of the adjoining sections 31 and 32 hundred of Darke to a farmer from nearby Cootra, and in October 1953 the Director of Lands wrote to the F.F.A.C. informing them that the 70 ha would be resumed from the Hambidge reserve (vide map p. 102, table p. 133). In his letter the Director stated firstly, that the land was needed for inclusion in the hundred of Darke lease, and secondly:

it is considered that as the road which leads from Darke Peak to Kyancutta forms a natural boundary to the reserve, the excision of this portion is unimportant.<sup>7</sup>

The F.F.A.C. had been presented with a *fait accompli*, the Director



**HAMBIDGE**  
**LAND RESUMED, 1952 - 1962**

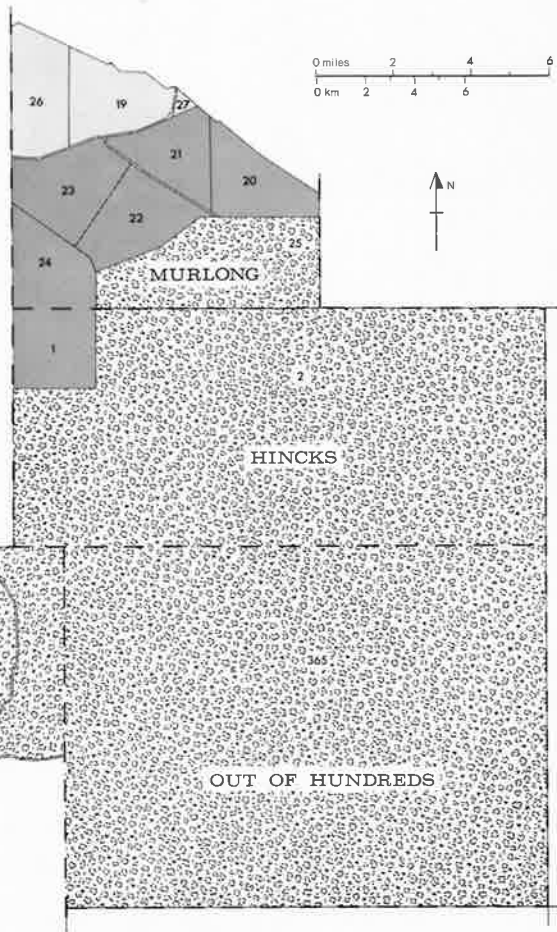
- area resumed & allotted for settlement, Gazette 11.2.1954
- area resumed & allotted for settlement, Gazette 5.12.1957

SOURCE, D.L. 5315/1953, 6896/1954

**HINCKS**  
**LAND RESUMED, 1952 - 1962**

- area resumed & allotted for settlement, Gazette 31.3.1960
- area resumed & retained as Crown Land, Gazette 31.3.1960

SOURCE: D.L. 2454/1952



noting coolly that the Minister had already approved the resumption, and reaction was hostile. The resumption was gazetted on 11 February 1954, the 70 ha being numbered section 361 north out of hundreds, and at its June meeting of 1954 the F.F.A.C., after 'much discussion', recorded that

All members deplored the chiselling off of sections from reserves whether the areas be big or small, and in this case thought that the Committee should first have had the opportunity of expressing an opinion.<sup>8</sup>

Coming from a Committee of essentially moderate views, it was a strongly-worded statement, yet one which is not difficult to understand in the context of the situation. The resumption, in itself, was not of any great significance, the area being very small in proportion to the total reserve area and of little use once severed by the road, but two important issues were at stake: one was the authority of the F.F.A.C. as controlling body of the reserve, and the second was the precedent set for future resumptions. On 17 May 1945 a gazette proclamation had declared Hambidge, Hincks, and Lincoln, to be under the 'care, control, and management' of the F.F.A.C., and while the Committee had no funds for this purpose its responsibility was clear; to leave it out of the resumption discussions was an affront to its controlling status. The second issue was the precedent set by the resumption, and this was certainly the more important of the two. In its clash with the Department of Lands in 1940 over the question of security of tenure for the reserves, the F.F.A.C. had shown itself to be well aware of likely resumption moves, and it was also well aware that the process was not likely to stop with the 70 ha of Hambidge. Perhaps paradoxically, in view of the breakdown of liaison, the Director of Lands was also a member of the F.F.A.C., and at its June 1954 meeting he had stated that 'from time to time areas may have to be excised from reserves to make living areas of nearby holdings'.<sup>9</sup> It was an ominous warning, and the implication was clear: no reserve could be considered inviolate. The alarm felt by F.F.A.C. members

was reflected by the strength of their protest statement, and taken aback by the reaction, the Director of Lands wrote a formal letter to the F.F.A.C. stating

I had no intention of ignoring the Committee ... I agree, however, that any proposed resumption from Flora and Fauna Reserves will in future be referred to the Committee to give it an opportunity to express its views.<sup>10</sup>

### *Hambidge - the second resumption*

With the Director's conciliatory gesture the matter closed, but towards the end of 1953 the whole question of resumption was reopened, with the Department of Lands receiving a letter from T. A. McInnis, a young sharefarmer resident at Lock, and an approved soldier settler under the Commonwealth/States scheme. In his letter McInnis outlined a desire to acquire land of his own, and went on to say that in the Lock district he considered the most suitable land left for development was to be found in the south western corner of the Hambidge reserve.<sup>11</sup>

On the recommendation of the Land Board, a Department of Lands District Inspector accompanied McInnis on an inspection of 5,180 ha of the south west portion of the reserve, and in January 1955 his report was forwarded to the Director of Lands:

I was more than surprised by the quantity of land that could be brought into production on this reserve, and it would pay any settler well who was allotted a holding should the land be open for selection. I would say that more than 65% of the land was arable and with the modern methods of development and the excellent prices for farm products it should be a fairly safe venture.<sup>12</sup>

True to his promise the Director of Lands forwarded plans of the proposed resumption to the F.F.A.C., and at its May 1955 meeting the Committee discussed them at some length. The outcome was a decision to oppose the resumption on three main grounds:

- (1) large areas were essential for flora and fauna conservation

- (2) good land as well as poor should be set aside
- (3) the land and its vegetation was a reservoir of genetic material which could well prove to be valuable in such fields as drug synthesis.<sup>13</sup>

If not the first, it was certainly one of the most articulate statements to have appeared in defence of the flora and fauna reserves, and the same basic arguments were to be used time and again as further resumption controversies flared in the late 1950's and 1960's.\* At the time though, its significance was not appreciated: as the Land Board pointed out, the expansion of wheat farming was all important:

it is felt that where lands can be brought under successful agricultural settlement serious consideration should be given to such areas for this purpose, particularly where they lie within Goyder's line of rainfall.<sup>14</sup>

Goyder's line of rainfall, laid down as the southern limit of a drought in the northern pastoral areas of the State in the mid 1860's (vide map p. 58), was a curious criterion to be applying to the suitability of land for wheat growing in 1955,<sup>15</sup> but the Land Board's view was shared by the Director of Lands in a minute to the Minister of Lands:

I am, as you are aware, a Member of the Flora and Fauna Committee and am very interested in the preservation of flora and fauna, but as Director of Lands, it seems to me that as the land is now considered suitable for development, the demand for land for food production is paramount to such preservation.<sup>16</sup>

The outcome was never in doubt: on 29 August 1955 Cabinet approved the resumption of 5,180 ha from the south west sector of Hambidge, and on 14 September 1955 the F.F.A.C. was informed officially of this decision<sup>17</sup> (vide map p. 102).

Only two months later, the Director of Lands received the report of a Departmental surveyor dealing with the suitability for resumption of land in the Hincks reserve. The report suggested that approximately

---

\* See chapters 4, 5.

6,880 ha of the northern portion would be suitable for subdivision and development,<sup>18</sup> and a minute from the Department of Agriculture confirmed this, stating that the area contained 'much good country', and that accordingly 'no objection should be taken to development on the grounds of erosion hazard'.<sup>19</sup> Survey work preparatory to the proposed resumptions at Hambidge and Hincks was now begun in earnest, and continued throughout 1956 and 1957. In October 1957 two new hundreds were constituted, Hambidge (no. 580), and Hincks (no. 581). Within the hundred of Hambidge, the land to be resumed was subdivided into six sections of approximately equal size, and on 5 December 1957 the gazette notice dealing with the resumption was published (vide map p. 102, table p. 134).

With this move the area of the reserve was reduced from 43,167 ha to 37,987 ha. Having been conducted at a Departmental level only, the resumption attracted no public protest. Members of the F.F.A.C. who were also members of such conservation-orientated bodies as the F.N.S. may have passed on news of the resumption, but even if this were done protest must have seemed rather futile, for the decision was made and the allocation of the sections for farming was only a question of time.

#### FURTHER PRESSURE - LINCOLN AND PEEBINGA

With the loss of 5,180 ha of Hambidge and the impending loss of at least 6,880 ha of Hincks, 1957 had not been encouraging for the F.F.A.C., but its problems did not lie solely with these two reserves: the run of good seasons and the flourishing state of the wheat and wool industries had encouraged farmers to seek out more and more land, and two more reserves, Lincoln and Peebinga, came under resumption pressure.

At Lincoln, earlier moves to have section 12 resumed for grazing

purposes had been rejected by the Director of Lands, as pointed out early in this chapter, but throughout 1957 a spirited campaign was waged to have this decision reversed. An almost constant stream of personal letters, letters from solicitors acting on behalf of applicants, and representations from local politicians were received by the Director of Lands, and acting under his instructions the Land Board inspected the disputed area. Confirming the opinion expressed by the Agricultural Adviser in 1939, the Board came down strongly against resumption:

the land constituting the Flora and Fauna Reserve is ideally suited for the purpose and as the quality of the land is indicative of very limited potential for development or grazing it is felt that alienation for this purpose would not be accompanied by production commensurate to the loss of the country in its present state as a sanctuary for bird, animals, and plant life in their natural habitat.<sup>20</sup>

Section 12, like most of the reserve, is characterised by thin and discontinuous soils over sheet limestone, and where open plains or glades occur amongst the otherwise dense mallee scrub, the pastures are scattered, and except in exceptional years, of poor quality. It is hard, today, to appreciate how so much interest could have been generated by such poor land, and there may well have been some truth in a dark hint at the time that at least some of the applicants were interested only in the amount of firewood that could be cut out from the scrub.<sup>21</sup> The Director of Lands not only supported the Land Board report, but in a minute of November 1957 to the Minister of Lands went on to suggest that the adjacent sections 1, 10, and 11, should be added to the reserve on expiry of the miscellaneous leases extant over them.<sup>22</sup>

Lincoln had been saved because of its worthlessness for rural development, but the same degree of protection was not afforded to Peebinga. Although considered useless when first set aside as a reserve, progress in the techniques of farming drift-prone mallee country had advanced, by the mid and late 1950's, to a point where deep sand



country was being cleared and developed successfully for cereals and improved pastures.

It was not altogether surprising, therefore, that in November 1957 the Director of Lands received a request from J. Konkoly, a farmer with land adjoining Peebinga, that at least half of section 30 be resumed and allotted to him.<sup>23</sup> Ostensibly, the request was based on difficulty of access to his home, but the Land Board was probably nearer the real reason when it reported, in May 1958, that the land under review was 'reasonably heavy' and suitable for cropping.<sup>24</sup> In August 1958 the F.F.A.C. considered the matter, and lacking specific knowledge of the area, appointed a sub-committee to visit the reserve and make appropriate recommendations. The sub-committee presented its report in November 1958, and after stating that Konkoly was a settler worthy of extra land, went on to argue that many other areas of Crown Land quite unsuitable for farming would remain to protect wildlife in the hundreds of Peebinga, Kingsford, and Auld. The recommendation was that Konkoly be given the land,<sup>25</sup> and the result was a gazette notice of 5 March 1959 resuming 391 ha of section 30 (vide table p. 134).

#### FAIRVIEW - A RESERVE OPPOSED

Two hundred and twenty five km south of Peebinga, the clash between farming and conservation interests took on a somewhat different form. Fairview Estate, an area of 12,803 ha in the hundreds of Woolumbool and Lochaber, had been purchased by the State Government in 1945 in anticipation of its inclusion in the War Services Land Settlement Scheme,<sup>26</sup> but although submitted to the Commonwealth Government several times it had, on each occasion, been rejected as inferior land.<sup>27</sup>

In 1957, development of some 2,833 ha of the Estate began under the State Government's Crown Lands Development Act, but no specific

action was planned for the remaining 9,970 ha. Newly-established landholders resented the presence of 'idle' land in their district, and in August 1957 thirty of them signed a petition complaining that the Fairview scrub was a fire and vermin hazard, and should either be developed fully by the State Government, or auctioned off to private enterprise.<sup>28</sup> The petition was reported in a country edition of *The Advertiser* 14/8/57, and on 26 of the same month a reply to the petitioners was published as a letter to the editor of the *Naracoorte Herald*:

Face up you petitioners and other landholders. You criticise, but your own record isn't good. Your patches of scrub and run down pastures near our main roads, towns and railways are hindering the development of our district much more than the holding of one inaccessible slab by the Government.

Obviously, local opinion was divided, and the first real opportunity for both sides to debate the Fairview issue came at a quarterly meeting of the South East Stockowners' District Committee. A proposal by the Naracoorte Branch that a committee be set up to investigate suitable areas for the preservation of native flora and fauna was passed, but only after a lively debate. Several speakers spoke out strongly in favour of declaring Fairview a national park, but others warned that such a park would be a fire menace and a harbour for vermin, especially the 'countless thousands of kangaroos' which were claimed to be 'roaming in the scrub lands'.<sup>29</sup>

In the following three years the debate continued, an involved, acrimonious affair which was complicated further by moves made at the same time to have an area of swampland in the nearby hundred of Spence, known locally as the 'Big Heath', also declared a reserve.<sup>30</sup> The dissension between local graziers was even matched by conflict at the official level, with public servants and politicians failing to agree on the reserve issue. In November 1957 the Superintendent of the Development Branch at the Department of Lands had sent a minute to his Chief Administrative Officer in which he favoured a reserve for Fairview:

Soil salinity sufficient to make the establishment of satisfactory improved pastures unsafe is evident east and south east of the Kangoora Lagoon area ... The Kangoora Lagoon area, including the land not considered suitable for development and subdivision, could be made available as a reserve. This has been mooted by interested bodies in the Naracoorte-Lucindale districts.<sup>31</sup>

When the Parliamentary Committee on Land Settlement produced its report on the Fairview Estate early in 1958, however, it disagreed with the Superintendent's view:

Whilst the Committee is fully sympathetic towards any proposal designed to preserve our native animal and plant life, it fears that in this case, unless adequate safeguards were provided and an efficient and effective authority set up to control the reserve, it would be a constant menace to adjoining landowners. It was evident to the Committee during its inspection that considerable vermin infestation occurs in this locality. The Committee considers that the presence of a neighbouring uncleared area of scrub would increase settlers' difficulties in rabbit destruction, and that a Reserve is undesirable.<sup>32</sup>

Undeterred by the politicians' contrary view, the Superintendent reiterated that the Kangoora Lagoon area was quite unsuitable for pastures, being land 'which would be excluded from any subdivision incorporating agricultural development carried out by this Department', and went on to recommend that 'subdivision of the area surrounding Kangoora Lagoon be deferred'.<sup>33</sup>

#### A REASSESSMENT BEGINS

##### *Changing attitudes at the Department of Lands*

In many ways the Fairview dispute was a turning point in the history of South Australian conservation reserves. The strongly opposing

views forced Department of Lands officials to reappraise such fundamental issues as why reserves should be set aside, how they should be managed, and who should manage them.

The first sign of a reassessment came in March 1958 in the form of a minute from the Director of Lands to the Minister of Lands. Essentially the business of the minute was the Fairview proposal, but the Director went on to say that

Apart altogether from this particular scheme, the practice of creating Flora and Fauna Reserves ... creates many difficulties and focuses attention on the Government in the matter of responsibility for vermin-proof fencing to keep rabbits, kangaroos, wallabies, emus, etc. within the boundaries of such reserves ... it is obviously of little permanent benefit to continue to place these reserves under the control of the Flora and Fauna Committee, as this body, as previously stated, has neither funds, staff, nor power to control or maintain these areas.<sup>34</sup>

An amendment to the National Park Act in 1955 had enabled the Commissioners of the Belair National Park to extend their control to take in other areas, to be known as wild life reserves, and in the Director's opinion they were the obvious choice to take responsibility for the flora and fauna reserves. At the same time, he stressed to the Minister that the Commissioners would need money for fencing and supervision; if this were not available the flora and fauna reserves would continue to be 'merely areas of Crown Lands constituting a menace to adjoining settlers'.<sup>35</sup>

The Director's statement was a realistic summary of the difficulties facing all parties involved in some way or other with reserves, but it was clear that reform could not come overnight. Long and involved discussions would be necessary before any change could be introduced, and in the short term, developments from earlier decisions had to be followed through. Survey work for the proposed resumptions at Hincks was continuing; the Fairview and Big Heath proposals were becoming increasingly entangled in procedural problems, delays, and disputes; and farmers, and farmers' organisations were continuing to press for

the resumption of land from existing reserves, particularly those on Eyre Peninsula.<sup>36</sup> Such was the pressure of this unfinished business that it was not until August 1959 that the Director of Lands could see his way clear to institute the first stage of a comprehensive review of flora and fauna reserves.

The opportunity to begin the review arose, basically, from the decision of the Commonwealth Government to end its financial support for the War Service Land Settlement Scheme on 30 June 1959. Anxious to maintain a programme of active land development, the Minister of Lands ordered a review of all undeveloped and under-developed areas within the agricultural districts of the State,<sup>37</sup> and in August of 1959 the Director issued an instruction that as part of the review a summary of all flora and fauna reserves was to be prepared 'with a view to ascertaining whether any portion of the Reserves would be suitable for agricultural purposes'.<sup>38</sup> In response to this instruction, a summary plan detailing all flora and fauna reserves, their location, and area, was prepared and forwarded with an accompanying report to the Director of Lands:

- (1) Reserves in the Murray Lands and Upper South East:  
Very poor quality viewed agriculturally or as grazing land. This description applies even if one were to take an optimistic forward view of advances in development techniques. In the circumstances it would be reasonable to support action which placed these areas aside for the preservation of native plant and wild life.
- (2) Central Eyre Peninsula reserves:  
There can be no doubt that the major portion so set aside is poor quality land under any recognised form of usage ... [however] ... The time may come when pressure from the land-hungry section of the community will compel a more optimistic view to be taken of the possibilities of these very extensive tracts of country ... it might be claimed that somewhat smaller and equally representative areas could serve the purpose, besides which *control and care* of the natural Flora and Fauna would be more easily exercised. This feature appears to be almost non existent under

the existing system. The extent and inaccessibility of the reserved areas, coupled with the paucity of funds available to the controlling authority relegates the Reserves to a standard of being 'in name only'. This suggests that some thought should now be given to a review of the policy wherein it has become a popular practice to 'declare' what appeared on the surface to be waste land and pass it over to the Flora and Fauna Committee.<sup>39</sup>

It was a frank résumé of a situation which had developed in the absence of almost any stated aims or means for acquiring and controlling reserves, and in commending the report to the Minister of Lands, the Director of Lands recommended that as a preliminary to a thorough enquiry, the question of future control of reserves be referred to the F.F.A.C. for comment.<sup>40</sup> Early in November 1959 the F.F.A.C. replied, and after stressing the difficulties which lack of funds and an adequate controlling authority had imposed on its activities, the Committee went on to recommend that the responsibility for all flora and fauna reserves be transferred to the Commissioners of the National Park and Wild Life Reserves (hereafter C.N.P.W.L.R.).<sup>41</sup> Soon after this advice had been received, the C.N.P.W.L.R. wrote to the Minister of Lands, emphasising that they were the logical authorities to control flora and fauna reserves:

The Commissioners are selected from scientific bodies for their special knowledge of the scientific requirements of the position and moreover have a considerable income apart from Government Grants which is likely to increase in years to come.<sup>42</sup>

The question of finance was certainly the more valid claim. The F.F.A.C. had some excellent members, men more than capable of drawing up management plans for the reserves, but without money the expertise was of little use, and it was here that the C.N.P.W.L.R., with money gained from the hire of sporting facilities at Belair National Park, could offer the prospect of improved supervision. A meeting between all interested parties was called, and early in December 1959 the Minister of Lands and his Director, and the respective Chairmen of the

F.F.A.C. and the C.N.P.W.L.R. met to discuss the proposed transfer. While all sides seemed to agree that the transfer was essential, the Director pressed for a preliminary investigation of all reserves to decide whether they might be reduced to a size 'that could be fenced and supervised so as to protect adjoining properties from damage by kangaroos, emus etc.'. The proposal met with general approval, and the meeting closed on the understanding that arrangements would be made for such an investigation.<sup>43</sup>

The move towards a complete overhaul of flora and fauna reserves policy was gathering momentum, and nowhere was this better illustrated than in the changing attitude of the Land Board. Throughout the early and mid 1950's the Board, though conceding the need for reserves, invariably came down in favour of resumption where soils were suitable for agricultural development, and few people would have regarded it as a champion of the conservation cause. The Director of Lands might well have been forgiven, therefore, if he had expressed some surprise at the content of a long and detailed minute forwarded by the Board in late November 1959. The subject of the minute was the proposed reserves at Fairview and Big Heath, but the recommendations dealing with these were prefaced by a strongly-worded statement outlining the need for a more enlightened policy towards the setting aside of reserves and national parks:

The stage has been reached in the development of this State when, if the natural flora and fauna is to be preserved, it is imperative that steps be taken to preserve representative areas of natural bushland in each of the various climatic and vegetational zones within our boundaries. Such is the rate of development of land in the higher rainfall areas that the point has been reached where truly representative areas of native flora are becoming very scarce ... Individual feelings concerning the preservation of the natural vegetation and the native birds and other wildlife which frequent it would appear beside the point. It is in the hands of the present generation to determine whether future generations will be given the opportunity to have any

feelings concerning the matter and in the Board's opinion this is an opportunity they should not be denied. The National Park Belair and Flinders Chase, contrary to what is frequently claimed of them, are not sufficient to preserve for posterity a representative cross section of the flora and fauna of South Australia. At best they can represent a cross section of their own particular environment: at worst they can, by the introduction of plants and animals from other areas, become only glorified zoological gardens in which some native flora and fauna are retained.<sup>44</sup>

At least some credit for such a marked change of attitude can be given to the presence of Cecil T. Rix on the Board. Rix, a land valuer by profession, joined the Land Board in May 1958, and like J. Neil McGilp, an earlier Land Board Chairman, was a keen amateur ornithologist. By his moves to have Peebinga and Billiatt set aside as reserves, McGilp had demonstrated that an individual member could direct Board policy and action towards ends he favoured, and throughout the 1960's Rix was to demonstrate this very clearly. At the same time though, it must be remembered that in 1959 Rix was a newcomer to the Board, and did not have the status and power he was later to obtain as Chairman. His influence can be seen in the Board's minute, but it was a general report which would not have been forwarded if other members had disapproved of its contents, and in this respect it was an important reflection of the reassessment being directed towards conservation reserves.<sup>45</sup>

#### *Hincks resumption proceeds - the Sharman and Specht reports*

As far as Hincks was concerned, the reassessment came too late. The basic decision had been made, and the survey work necessary for resumption was completed. Only the formalities remained, and one of the last of these was to allow the F.F.A.C. to express its opinion on the resumption. Early in November 1959 the Committee met to discuss



the issue, and after agreeing that the reserve should not be reduced in size, resolved to apply to the Minister of Lands for enough money to allow a sub-committee to visit Hincks and prepare a case against the impending resumption.<sup>46</sup>

Approval was granted, and the F.F.A.C. nominated a sub-committee of three: Professor J. B. Cleland; Dr. R. Specht, a botanist from the University of Adelaide; and Dr. G. Sharman, a zoologist, also from the University of Adelaide. The sub-committee flew to Eyre Peninsula on 7 December 1959, and during the next two days made extensive traverses across the reserve. On return to Adelaide Sharman and Specht prepared jointly a 16 page report which, after outlining the soils, and flora and fauna, went on to recommend strongly that the reserve be maintained intact:

The needs of the times can always be used to justify the opening up of land for settlement but the sacrifice of a Nature Reserve for this purpose is an irrevocable act which can only cause subsequent regret ... Conservation committees have a difficult enough task which will not be lessened if it is shown that they can be forced to compromise their principles to the extent of allowing small scale haggling to cut down hard won reserves.<sup>47</sup>

It was a wide-ranging report with many important recommendations, not the least of which dealt with the management problems associated with conservation reserves. It was, for example, if not the first, one of the earliest warnings of the danger to native vegetation posed by fertilizer drifting into reserves from adjacent farms.

Accompanying the Sharman and Specht report was a general outline of the visit prepared by Cleland, and speaking for the sub-committee he expressed regret over the proposed resumption, stating that if the disputed land were taken, the remainder of the reserve should be regarded as inviolate.<sup>48</sup> The F.F.A.C. considered the reports in February 1960, and after endorsing them, stated its continuing opposition to the resumption plans.<sup>49</sup>

It is doubtful whether the Minister of Lands ever studied the

F.F.A.C. reports in detail. The Director of Lands summarised the Committee's attitude for him in a minute of 4 March 1960, and then proceeded to recommend that the resumption go ahead as planned.<sup>50</sup> This final recommendation did not even reach the Cabinet room: the Minister's approval came without comment, and the gazette notice covering the resumption appeared on 31 March 1960. The land resumed amounted to 9,168 ha, the total area of Hincks thereby being reduced to 66,092 ha (vide map p. 102, table p. 134).

As with Hambidge, the resumption appeared to go unnoticed at first, but by August 1960 members of the F.N.S. had obtained some details, and a letter expressing the Society's 'grave concern' was sent to the Premier.<sup>51</sup> The Premier's brief reply consisted of a summary of the resumption, and a statement to the effect that at that stage no further resumption moves were planned.<sup>52</sup> A short time after, another F.N.S. protest appeared, this time as a letter to the editor of *The South Australian Ornithologist*. The writer, Ken Preiss, in effect, placed on record the first public protest at the resumption of land from flora and fauna reserves.<sup>53</sup>

#### *An investigation committee appointed*

At the same time that the F.N.S. was expressing its views about the resumption, moves were being made to begin the investigation of reserves agreed to at the December 1959 meeting, and early in August 1960 the composition of a Flora and Fauna Reserves Investigation Committee was announced. A four-man committee, its members consisted of Dr. R. Specht representing the F.F.A.C., Professor J. B. Cleland representing the C.N.P.W.L.R., A. C. Bogg representing the Department of Fisheries and Game, and O. Bowden representing the Department of Lands.<sup>54</sup> In the succeeding months the Committee covered a wide area of the State, visiting all flora and fauna reserves, and by mid

December 1960 it had presented a general report to the Minister of Lands, and indicated that specific reports for each reserve would continue to be forwarded as completed. In its general report, the Committee made the following six points:

- (1) Almost the whole of the larger reserves involved are of very low potential agriculturally, and in fact, apart from the Hundred of Flinders, usually consist of light sandy soils with a high erosion hazard ... It is obvious that the areas under consideration are the remnants left after a most intensive search for useable land during earlier stages of settlement in this State, and it is clear that with few exceptions no further intrusion into these virgin soils can be permitted with safety...
- (2) If any plan to preserve flora and fauna is to be effective, it is essential for large areas to be reserved to permit the seasonal movement of animals, birds and other forms of life to different feeding and breeding grounds ... Furthermore it is considered that where relatively large acreages are involved, fires rarely take the whole area...
- (3) Complementary to the question of flora and fauna in this investigation the Committee attaches much importance to the need for retaining in their natural conditions as many soil types as possible ... it can be visualized that the soil scientist, agronomist, entomologist and other agricultural research workers will look to such virgin soils and associations, if available, to provide the starting point for investigations into the problems of agriculture as they develop on the older lands in future...
- (4) Under the existing set-up, most of the Reserves are not under a satisfactory arrangement for their proper control and policing...
- (5) The Committee considers that several of the Reserves inspected should eventually vest in the Commissioners of National Park and Wild Life Reserves...
- (6) In making these observations, the Committee assumes from within correspondence that the Commissioners of National Park and Wild Life Reserves are agreeable to take over control of the Reserves, and would co-operate with Government Departments as regards the policing of them.<sup>55</sup>

As a policy statement and guide to future action, the report was the most important to have appeared in South Australia up to that time, and its general theme was reiterated in the individual reserve reports, the last of which were completed by early 1961.<sup>56</sup>

With only minor exceptions, the Committee pressed firmly for the retention of all flora and fauna reserves, and showed a keen sympathy for the problems associated with the control and management of such large areas. Considering that it had been set up originally to consider whether the reserves should be reduced in size, the Committee's findings were received with some satisfaction by such bodies as the F.F.A.C. and the C.N.P.W.L.R., and there was little argument with the recommendation that the resumption of relatively small areas from several of the existing reserves should not be opposed. Specifically, it was agreed that:

- (1) to create a boundary of regular shape, and therefore one less expensive for fencing, the southern extension of section 3 hundred of Makin, approximately 1,619 ha, could be excluded from Mt. Rescue.
- (2) because of its isolation from the bulk of the reserve, section 271 hundred of Lake Wangary, 31 ha, could be excluded from Kellidie Bay.
- (3) to create a boundary of surveyed roads and railway land, section 30 hundred of Peebinga, 444 ha, could be excluded from Peebinga (vide table p. 134).

#### *The flora and fauna reserves - a transfer of control*

In June and August 1961, the C.N.P.W.L.R. and the F.F.A.C., respectively, recorded their complete agreement with the findings and recommendations of the Investigation Committee,<sup>57</sup> and on 2 November 1961 a proposal that control of eight flora and fauna reserves be transferred to the C.N.P.W.L.R. was approved by Cabinet (vide table p. 120).

FLORA AND FAUNA RESERVES TRANSFERRED TO C.N.P.W.L.R. ; 1962*	
Reserve	Area
Mt. Rescue	17,624 ha
Hincks	66,092 ha
Hambidge	37,987 ha
Peebinga	1,629 ha
Kellidie Bay	1,942 ha
Lincoln	14,375 ha
Cape Buffon	22 ha
Billiatt	22,663 ha
Total area	162,334 ha
<p>* The 1962 transfer did not involve the following two flora and fauna reserves:</p>	
Minnipa (section 94 hd. Minnipa)	16 ha
Ferries-McDonald	844 ha
<p>Due to its 'location and to some extent other considerations', it was decided to leave the Minnipa reserve under the control of the Minister of Agriculture (D.L. 3401/59)</p> <p>The Ferries-McDonald reserve had already been transferred to the C.N.P.W.L.R. (dedication 26/4/56, declaration 3/5/56)</p> <p>Source: D.L. 3401/1959</p>	

On 8 March and 10 May 1962, gazette notices resuming the flora and fauna reserves and dedicating them wild life reserves appeared, and with these formalities the F.F.A.C. ended over two decades of direct involvement with conservation reserves. Hamstrung by lack of finance, it had done its best, and over the years it had enjoyed the services of some excellent members, but more than anything else the resumption of land from Hambidge and Hincks had demonstrated that any controlling body had to have money, advisory expertise, and an administrative structure capable of handling the routine side of reserve management. In South Australia, the only body equal to such a task was that represented by the Commissioners of the National Park and Wild Life Reserves, and while the loss of 14,418 ha from the Eyre Peninsula reserves was to be deplored, the transfer of reserve control to the Commissioners was applauded by many, especially the ever-watchful F.N.S.<sup>58</sup>

#### NEW RESERVES SET ASIDE

The transfer of control of the flora and fauna reserves marked the end of a notable decade. Dominated by the related issues of resumption and reassessment, it was not a period in which major advances in reserve acquisition could have been expected. By and large this proved to be the case, although there were a few developments worthy of notice.

#### *Spring Gully - Eucalyptus macrorrhyncha reserve*

From a botanical point of view, one of the most interesting reserves in South Australia is that at Spring Gully, in the south west portion of the hundred of Clare, county Stanley. In a classic paper published in 1947, Crocker and Wood had examined the evidence for a mid-Recent arid

phase in Australia's climatic history, and as one of the main lines of evidence they considered a number of plant species notable for their disjunct distribution.<sup>59</sup> One of the species used was *Eucalyptus macrorrhyncha*, the red stringybark, recorded by Tate in the late nineteenth century as occurring in the 'Adelaide district', but ignored by later workers until its rediscovery by Boomsma. Boomsma demonstrated that the limited area occupied by the species near Clare was its sole occurrence in South Australia, the nearest other examples being at Stawell in Victoria, some 483 km away to the south east.<sup>60</sup> Crocker and Wood argued that such a distribution could only be explained if the South Australian occurrence was regarded as a relic from a time when the distribution must have been much more widespread. The onset of an arid phase, they argued, had restricted the species in South Australia to the isolated pocket or 'refuge area' near Clare, and that with subsequent amelioration of the climate the species had been unable to re-occupy its former range.

The rediscovery of the tree in South Australia and its likely links with climatic change aroused considerable interest amongst botanists, both professional and amateur, and in 1953 the F.N.S. forwarded a proposal to the F.F.A.C. that 405 ha within the Clare district should be set aside as a reserve for the red stringybark.<sup>61</sup> There was little positive action though until 1958, when, by interview and letter, Professor Cleland urged the Minister of Lands to purchase a small area which had become available.<sup>62</sup> Impressed by his statements that the tree was found nowhere else in South Australia and was in urgent need of preservation, Cabinet approved the purchase of six ha on 8 December 1958. Renumbered section 568, the land was dedicated a wild life reserve under the terms of the Crown Lands Act on 12 January 1961, and declared to be under the control of the C.N.P.W.L.R. on 3 February 1962 (vide table p. 133, map p. 132). Although very small it was a valuable purchase, and with later additions now forms the interesting and important Spring Gully Conservation Park.

*Cape Buffon*

In some ways, the importance of the red stringybark made a reserve at Spring Gully inevitable, but not all reserves could make a similar claim to fame. Many were simply pleasant areas of natural bushland in otherwise developed farming country, and their reservation was occasionally due not so much to Adelaide-based moves, but rather to the efforts of local residents. One such area was at Cape Buffon in the hundred of Rivoli Bay on the South East coast of the State. In November 1954 Professor Cleland had received a letter from a local resident stating that a number of people in the area were anxious to see some 30 ha of crown land at Cape Buffon declared a reserve:

we are afraid that if people start making camp sites on the headland the area would soon become spoilt and much of the scrub destroyed by the use of the axe and fire. The number and variety of birds are also worthy of preservation.<sup>63</sup>

Without carrying out an inspection, the F.F.A.C. endorsed the reserve proposal,<sup>64</sup> but in spite of several letters of support from various local organisations and residents, progress towards dedication was ponderously slow: it was not until 20 August 1959 that a gazette notice appeared dedicating sections 377, 378, and 379 a flora and fauna reserve (vide table p. 133, map p. 132). The area was 22 ha, hardly enough to remain unsullied, and towards the end of 1959 complaints of abuse by campers and dumping of 'old fish, bags and boxes, clothing, stinking bait and other rubbish' by professional fishermen were being made by local residents.<sup>65</sup> It was yet another illustration of the inability of the F.F.A.C. to police its reserves. In later years the Cape Buffon reserve was to become incorporated into a very much larger area, the Canunda Conservation Park, and in this way its continued existence was assured: as a separate reserve it did not, in 1959, appear to have any chance of remaining viable.



*Nixon Skinner*

Under the terms of the Act which had set up the Belair National Park in 1891, the Commissioners' jurisdiction was, effectively, limited to the Belair National Park, and when Mrs. L. E. Page of Myponga expressed a desire to donate land to them, it was found that an amendment to the Act would be necessary before the gift could be accepted and appropriate transfer of land titles take place.<sup>66</sup> The necessary amendment was assented to on 1 December 1955, but subsequent formalities took some time, and it was October 1958 before the transfer was recorded officially on the certificate of title.

Formerly a portion of section 80 in the hundred of Myponga county Hindmarsh, the land was renumbered section 245, and in recognition of the Skinner family, who had been anxious to see its dry sclerophyll woodland preserved, became known as the Nixon Skinner Wild Life Reserve (vide table p. 133, map p. 132). Like Spring Gully, it was very small, the original nine ha being reduced to eight ha on completion of the adjacent Myponga Reservoir, but the C.N.P.W.L.R. welcomed it as a valuable relic of the southern Mt. Lofty Ranges vegetation, much of which was being cleared rapidly in the wake of the post World War II land boom.<sup>67</sup>

*Eric Bonython and Waitpinga*

Although an old man by the late 1950's, Professor John Burton Cleland's interest in flora conservation was indefatigable, and one of his strongly-held convictions was that while large areas of natural scrub and forest were essential, there was much of value to be found in such relatively small areas as roadsides, cemeteries, water conservation reserves, quarry reserves, and travelling stock routes.

For many years he worked actively towards instilling in the controlling authorities, usually district councils and State Government departments, a greater appreciation of the conservation value of the reserves, and although disheartened frequently by the damage resulting from such activities as road widening, his efforts were not entirely in vain.<sup>68</sup> Two reserves on the Fleurieu Peninsula, some 80 km south of Adelaide, exist today as permanent reminders of his interest in conserving small areas.

Waitpinga Conservation Park, 2½ ha, section 355 hundred of Waitpinga county Hindmarsh, was set aside as a water conservation reserve in 1885, the time of initial survey of the surrounding land, and in the succeeding years was not dedicated or placed under the control of anybody. In effect it remained Crown Land, with the Department of Lands holding ultimate responsibility. At Cleland's instigation the C.N.P.W.L.R. inspected the reserve, and it was decided that they would seek control by having it dedicated and declared a wild life reserve.<sup>69</sup> Almost certainly the Commissioners were influenced in their decision by the very rapid land clearance which was taking place on Fleurieu Peninsula. Before World War II the Peninsula had stagnated: much of it consisted of a laterised plateau in every way as infertile as that on Kangaroo Island, but discovery of the nature of trace element deficiencies, availability of heavy machinery for scrub clearance, and the boom conditions of primary industry throughout the 1950's had resulted in development of a very thorough nature, and it must have seemed by 1960 that even the tiny water conservation reserves would be cleared for pasture development.

Department of Lands approval for the reserve proposal was given readily, and when the District Council of Yankalilla raised no objection the formalities were dealt with relatively quickly, and the gazette notice dedicating it a wild life reserve appeared on 21 June 1960. Declaration followed on 25 August 1960 (vide table p. 133, map p. 132).

Eric Bonython Conservation Park, six ha, sections 356 and 357

hundred of Waitpinga county Hindmarsh, was obtained, initially, in an almost identical fashion to Waitpinga. Section 356 was a two ha water conservation reserve set aside in 1885, and because of its proximity to section 355 was inspected at the same time by the C.N.P.W.L.R.<sup>70</sup> Dedication and declaration followed, on the same dates as those for Waitpinga, but a year later the reserve was enlarged by four ha. Eric G. Bonython, a pastoralist with land adjoining the reserve, was sympathetic to the aims of the Commissioners, and wrote to them offering four ha of his land adjacent to section 356.<sup>71</sup> His offer was accepted readily, and after survey the land was renumbered section 357. Dedication and declaration as an addition to the land previously gazetted followed on 30 April and 28 May 1964 respectively (vide table p. 133, map p. 132).

### *Big Heath and Fairview*

The only other material gains for the decade 1952-62 lay with the controversial South East reserves.

On 28 November-1957 sections 15, 16, 21, 22, F, G, and portion of C in the hundred of Spence county Robe had been declared a Closed Area with respect to birds generally, a compromise move which pleased no one in particular. On the one hand conservation bodies continued to press for the area to be dedicated formally and placed under a controlling body as a flora and fauna or wild life reserve; on the other hand graziers complained loudly about the 'bushfire and vermin hazard' the Big Heath represented.

With Fairview, the involved controversy over the use of Kangoora Lagoon and its surrounds was resolved eventually in favour of a reserve. Perhaps paradoxically, the main driving force in the move for a reserve had been the Stockowners' Association of South Australia, but this involvement is not so difficult to understand once it is appreciated that the most energetic stockowners in the campaign were

graziers well-known in the South East for their interest in flora and fauna conservation, It was an interesting demonstration that not all land use disputes could be simplified to a 'city versus country' confrontation.<sup>72</sup>

The Stockowners campaign was crucial, but it could not have succeeded without support from the Land Board, and in November 1959 this was obtained in the form of a strongly-worded minute to the Director of Lands.<sup>73</sup> The matter was referred to Cabinet for a decision, and on 17 February 1960 it announced its approval for the reserve proposal. Gazette notices dedicating and declaring as a wild life reserve sections 93 and 98 hundred of Woolloomool county MacDonnell appeared on 13 and 20 September 1960, the area being 1,089 ha (vide table p. 133, map p. 132). Considering the size of the original Fairview Estate is was disappointingly-small, but in view of the determined opposition to its creation this was probably inevitable. With its lagoons and surrounding blue gum ridges Fairview Conservation Park remains today as one of the most attractive areas in the South East of South Australia.

#### THE GAINS AND LOSSES - AN ASSESSMENT

As shown on the accompanying table (vide pp. 133, 134), the total area acquired for the decade 1952-62 amounted to 1,262 ha. Offsetting this figure was the loss of 16,903 ha through resumption of existing reserves, resulting in a loss for the period of 15,641 ha. In addition to this loss of *actual* reserve land, there was an even greater loss of *potential* reserve land as a result of opposition to reserve proposals. The accompanying table (vide p. 128) outlines some of the more important proposals which were rejected, and shows that approximately 64,750 ha was involved.

It is clear from these figures that the period under review was

## RESERVES PROPOSED, BUT REJECTED, 1952-62

Locality	Estimated area	Sponsor of proposal	Objection to proposal
<p>Eyre Peninsula</p> <p>Hds. Pinkawillinie &amp; Panitya, Co. Buxton</p>	<p>Area available up to 80,937 ha, but probably only 40,469 being sought</p>	<p>Sharman, Specht, &amp; Cleland (1960 - D.L. 6317/59)</p>	<p>Dept. of Lands - reasons not given</p>
<p>Upper South East</p> <p>Sections 7 &amp; 8 hd. Archibald as extension to Mt. Rescue, Co. Buckingham</p>	<p>10,764 ha</p>	<p>Mr. Nankivell, M.P. (1960 - F. &amp; G. 112/38, D.L. 1494/65)</p>	<p>D.C. Coonalpyn Downs &amp; Upper South East 'Development Committee': 'substantial areas of it could be developed'</p>
<p>Eyre Peninsula</p> <p>Sections 1, 10, &amp; 11, hd. Flinders Co. Flinders, as an addition to Lincoln</p>	<p>9,308 ha</p>	<p>Dept. of Lands &amp; F.F.A.C. (1958 - F. &amp; G. 37/48)</p>	<p>Minister of Agriculture - area in his own electorate, under pressure from graziers</p>
<p>Lower South East</p> <p><i>Didicoolum</i>, hd. Petherick, Co. Cardwell</p>	<p>Up to 2,428 ha</p>	<p>Geo. Hensley (owner) (1958 - F. &amp; G. 112/38)</p>	<p>Chief Inspector Fisheries &amp; Game: 'a substitute area has been declared' (Mt. Rescue)</p>

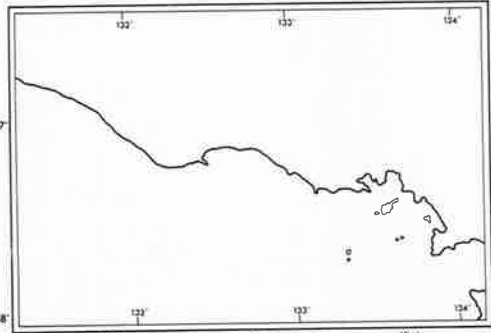
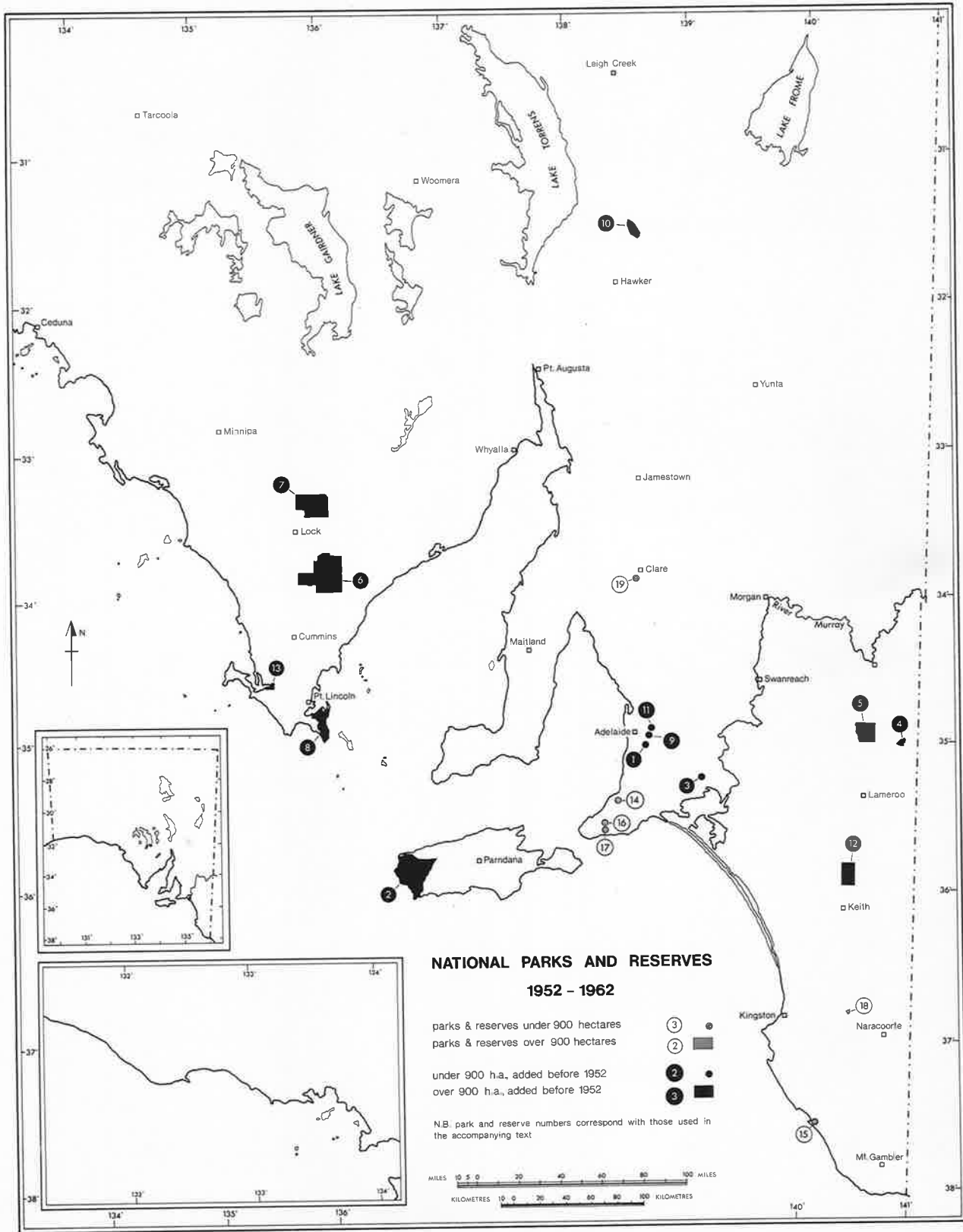
Locality	Estimated area	Sponsor of proposal	Objection to proposal
<p>Mt. Lofty Ranges</p> <p>Black Hill, hd. Adelaide, Co. Adelaide</p>	<p>Up to 809 ha</p>	<p>F.N.S. (1954 &amp; 1961, <i>The S.A. Naturalist</i>, v. 29, (2), p. 25; v. 36, (1), p. 7)</p>	<p>Premier &amp; Minister of Lands - land 'unavailable'</p>
<p>Mt. Lofty Ranges</p> <p>Humbug Scrub, hd. Para Wirra, Co. Adelaide</p>	<p>1,012 ha</p>	<p>C.N.P.W.L.R. (1956 - D.L. 2272/56)</p>	<p>Minister of Lands - probably financial</p>

not a favourable one when considered in terms of the number and size of reserves. Initially, politicians and public servants alike were too much concerned with the rising fortunes of wheat and wool to give flora and fauna conservation much sympathetic attention, but trite though it may sound, some good invariably accompanies the bad. The State had gained some important new reserves, even though they were small, and it had transferred control of the flora and fauna reserves to a body able to exercise better supervision. These were important developments, but of even more significance, there had been a major reassessment of attitudes to flora and fauna conservation.

The sustained pressure to have reserve land given over to farming, and the frequent opposition to proposals for new reserves, had forced many people, administrators, academics, and naturalists alike, to take stock of their approach to flora and fauna conservation. Where once there had been, in official circles, an aimless belief that reserves were a good idea, as long as they did not interfere with other forms of land use, new and sharper ideas were formulated: aims and management policies were discussed, and there was a growing acceptance of the view that national parks and reserves represented a form of land use quite as legitimate as farming, pastoralism, and mining. Much of this reassessment was carried out at the official level; but in a variety of ways the new ideas filtered through to the public: in 1961 Specht and Cleland had published an important paper on flora conservation,<sup>74</sup> and many of the ideas and recommendations were those they had discussed, clarified, and included previously in departmental reports. During 1961 there was also the first release of the findings of a sub-committee investigating national parks and reserves in South Australia as part of a nation-wide enquiry by the Australian Academy of Science.<sup>75</sup> Once again men like Sharman, Specht, and Cleland were involved, and the result was another opportunity for the most up to date thinking on parks and reserves to be made available to the public.

In one way or another the late 1950's and early 1960's had proved to be a time of intense discussion and debate. Basic policies were formulated, and by 1962 one of the most tangible signs of the whole reassessment was to be found in the list of areas under active consideration as future reserves or parks: Para Wirra, Kyeema, Mt. Remarkable, Big Heath, Deep Creek, and Muntoora. Out of the conflict of the 1950's had come reform, and in 1962 the stage was set for a major expansion of the State's parks and reserves system.

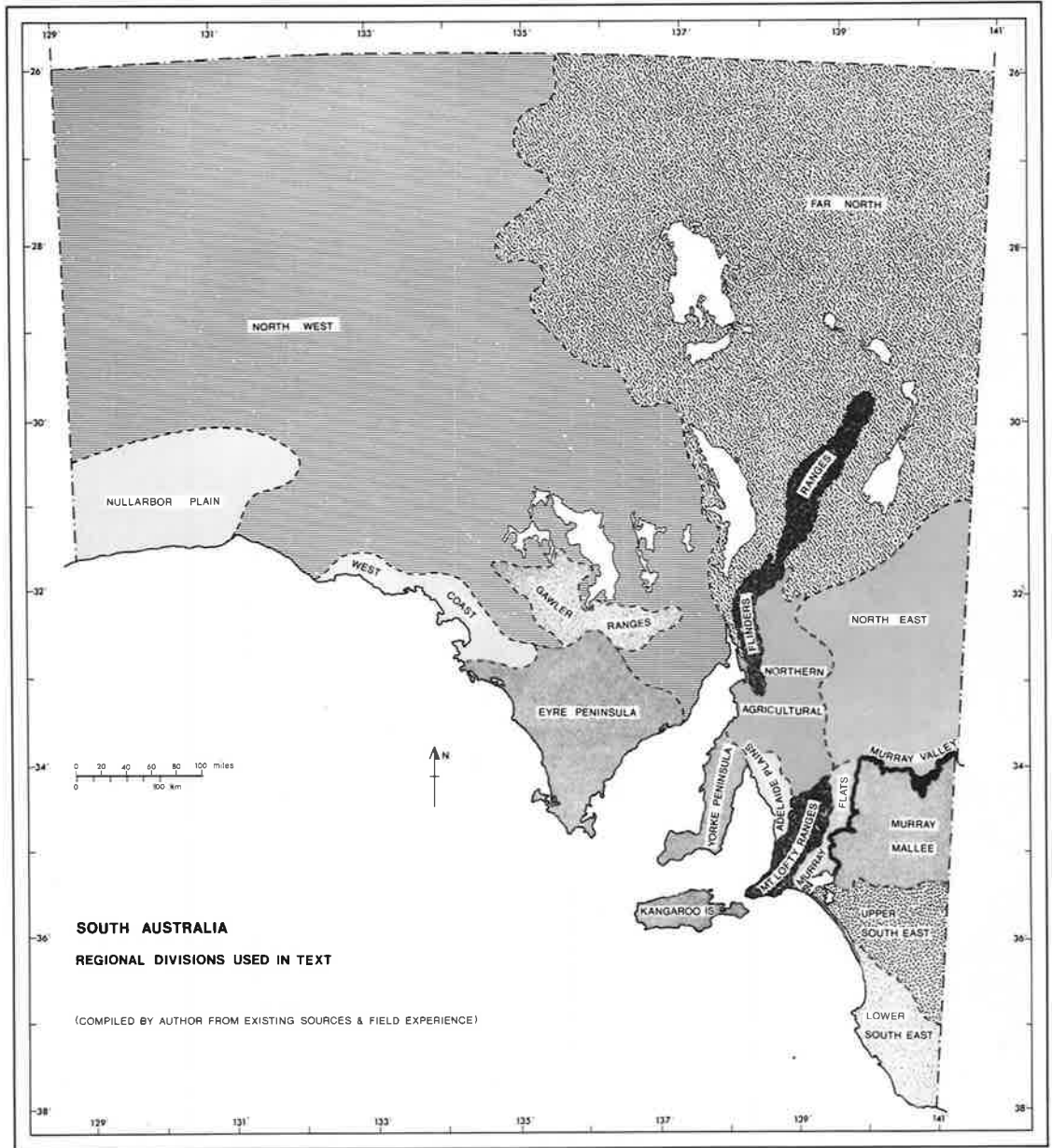


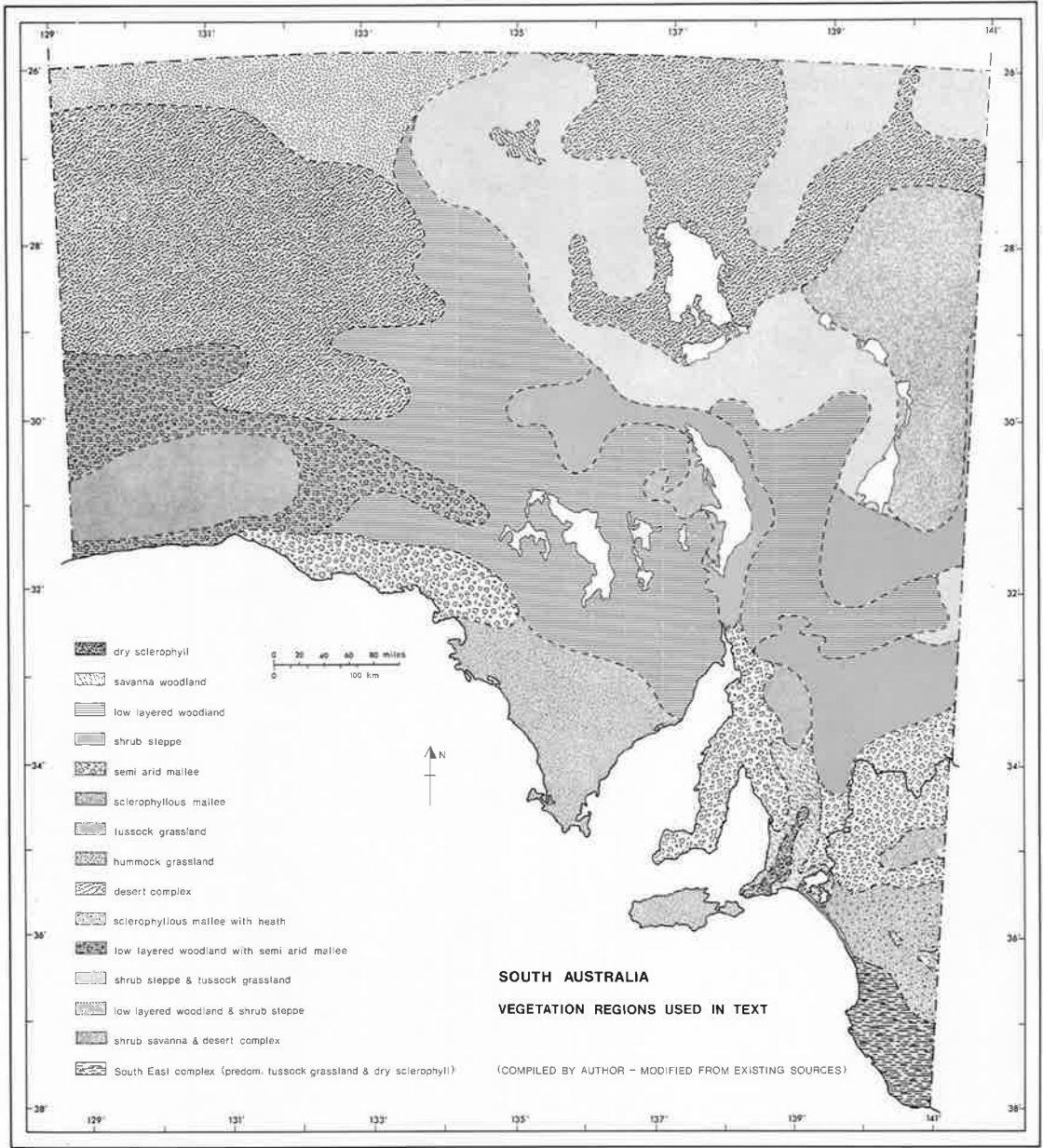


NO <sup>a</sup>	NAME <sup>b</sup>	LOCATION		GAZETTE <sup>c</sup>		AREA		VEGETATION <sup>d</sup>	REMARKS
		REGIONAL <sup>d</sup>	CADASTRAL	DEDICATED	DECLARED	HECTARES	CUMULATIVE		
1	BELAIR National Park	Mt. Lofty Ranges	Hd. Adelaide, Co. Adelaide, no section numbers, boundaries as shown on schedules accompanying relevant Acts	Act assented to 19.12.1891		796	796	Dry sclerophyll and savanna woodland	First national park in South Australia. Outcome of over a decade of lobbying. Private individuals prominent in early years - F.N.S. dominant from 1888 to passing of Act.
2	FLINDERS CHASE Fauna & Flora Reserve	Kangaroo Island	South out of Hundreds (S.O.H.), Co. Carnarvon, no section numbers when dedicated. Boundaries of 1919 as shown on schedule accompanying Act: comprised present sections 1-11 Hd. Borda, section 66 S.O.H., section Pt17 Hd. McDonald	26.12.1907 10.2.1910 Act assented to 16.10.1919		17,353 20,461 5,439	18,149 38,610 44,049	Sclerophyllous mallee	A major reserve, built up as a result of decades of intensive lobbying by the F.N.S. and its parent body, the Royal Society of South Australia
3	McDONALD Closed Area for birds and animals	Murray Flats	Section 1 Hd. McDonald, Co. Carnarvon, and land south of and adjacent to section 1 (present sections Pt66 S.O.H., Pt17 Hd. McDonald)	20.9.1923		3,953 5,498	48,002 53,500 <sup>f</sup> - 201 <sup>f</sup> 53,299		
			Sections 103, 238, 241, 242, 245, 246, 271, 272, Hd. Freeling, Co. Sturt	28.7.1938 <sup>e</sup>		648	53,947	Semi arid mallee	Government action prompted by vigorous lobbying from Edwin Ashby of the F.N.S. Ashby's main aim was to establish a reserve for mallee fowl. C.S.O. 1480/1936

\*  
EXPLANATORY NOTES CONCERNING THE COMPILATION OF THIS, AND FOLLOWING TABLES

- a. The numbering system used represents the chronological order in which parks and reserves were dedicated and/or declared. For reasons discussed in the Introduction to this work, it does not correspond with the system of park numbers used by the Department of Lands and the National Parks Commission.
- b. The status of an area - national park, flora and fauna reserve, wild life reserve etc. - represents the status at the time of original dedication and/or declaration. As pointed out in the text, important changes were made to the status of some areas, particularly the change of flora and fauna reserves to firstly, wild life reserves, and secondly, to national parks.
- c. The terminology used in the Gazette notices usually followed a standard pattern: until the 1966 National Parks Act, areas were generally dedicated reserves under the terms of the Crown Lands Act, and then declared to be flora and fauna or wild life reserves. In some cases, mainly in the early years, declaration was overlooked.
- d. The regional and vegetation classifications conform to those shown on maps of South Australia appearing elsewhere in this text. The regional map, as compiled by the author, makes use of boundaries and names used commonly by pastoralists, farmers, and a variety of Government Departments. Similarly, the vegetation map, as compiled by the author, makes use of existing sources, particularly Wood's 1955 map in the Atlas of Australian Resources. Wood's boundaries have, however, been generalised and somewhat modified on the basis of the author's own field experience.
- e. In some cases, as for example No. 3, McDonald Reserve, the actual Gazette date came later than the limit set for the period covered by the table. Such overlap is not considered important, for although actual gazettal did not come until 1938, all important groundwork was done in the period up to, and including 1937.
- f. The sub total for Flinders Chase, 52,704 hectares, is based on figures stated at the time of dedication. Recent planimetric calculations by the Department of Lands suggest that 52,503 hectares is a more accurate figure, and a correction of 201 hectares, has therefore been made to the cumulative total listed above.





## REFERENCES

1. Jones, Rhys, 1968: 'The geographical background to the arrival of man in Australia and Tasmania'. *Archaeology and Physical Anthropology in Oceania*, v. 3, (3), p. 189.
2. For review papers dealing with this see Jones, 1968; and Merrilees, D., 1967: 'Man the destroyer : late Quaternary changes in the Australian marsupial fauna'. *Journ. Roy. Soc. West. Aust.*, v. 51, (1), pp. 1-24.
3. Smillie, William, 1838: *The great South Land*. Simpkin & Marshall, London, p. 22.
- 4, 5. Angas, George French, 1846: *South Australia Illustrated*. Thomas McLean, London. The quote is from the Preface; reference to Pt. Adelaide accompanies Plate VII; reference to the Lyndoch Valley accompanies Plate XIV.
6. For suitable reviews and summaries see Marshall, A. J., 1966: *The Great Extermination*. Heinemann, London, pp. 9-42; Jones, F. W., 1923-25: *The Mammals of South Australia*. Govt. Printer, Adelaide, (3 vols); Aitken, Peter, 1970: 'Mammals'. pp. 42-43 in *South Australian Year Book*, 1970.
7. Many accounts of the timber industry in the Ranges have been left by early writers. See for example Angas, George French, 1847: *Savage Life and Scenes in Australia and New Zealand*. Smith, Elder & Co., London, (2 vols.), v. 1, pp. 43-44.
- 8, 9. Meinig, D. W., 1970: *On the Margins of the Good Earth*. Rigby Ltd., Adelaide.
10. Barker, S., 1972: Effect of sheep stocking on the population structure of arid shrublands in South Australia. Unpub. Ph.D. thesis, Dept. Botany, Univ. of Adelaide, pp. 5-14.
11. James, C. T., 1964: 'To have and to hold - we must live with nature conservation'. *Proc. Roy. Geog. Soc. Aust./Asia (S.A. Branch)*, v. 65, p. 21.
- 12, 13. *The Advertiser* 26/10/1870; 16/10/1871.

- 14, 15. Specht, R. L., 1964: 'The vegetation of the Belair National Park and Reserves'. pp. 31-45 in Cotton, B. C. (ed.), *South Australian National Parks and Wild Life Reserves*. Govt. Printer, Adelaide; Specht, R. L., 1972: *The vegetation of South Australia*. Govt. Printer, Adelaide, pp. 101-151.
16. Pitt, George H., 1939: 'Our National Park : Some early history'. *The S.A. Naturalist*, v. 20, (1), pp. 14-16.
17. *The Register* 21/9/1901.
- 18, 19. *The Register* 21/9/01; 7/10/1901.
20. There was some dispute as to whether Gooch or Page should be given most credit for saving the Farm from alienation. In *The Register* article of 21 September 1901 Gooch was singled out for praise, but in a reply published in *The Register* of 7 November 1901 M. Symonds Clark claimed that it was Page who should be thanked. Samuel Dixon later repeated Clark's claim in *Trans. Roy. Soc. S.A.*, 1911, v. XXXV, p. 251.
21. *The Register* 21/9/01.
22. McCarty, J. W., 1970: 'Australian capital cities in the Nineteenth Century'. *Australian Economic History Review*, v. X, (2), pp. 107-137.
23. Field Naturalists Section Roy. Soc. S.A., 1936: *National Park, Morialta, and Waterfall Gully Reserves, Containing an Account of their Natural History*. Govt. Printer, Adelaide, p. 99; Cotton, B. C. (ed.), 1964, p. 20.
24. See for example Clawson, M., & Knetsch, J. L., 1971: *Economics of Outdoor Recreation*. Johns Hopkins Press, Baltimore, pp. 211-229; Sinden, J. A., & Musgrave, W. F., 1969: 'An economic framework for the conservation decision'. pp. 18-25 in Webb, L. J., et al. (eds.), *The Last of Lands*. Jacaranda Press, Brisbane.
25. Williams, M., 1969: 'The spread of settlement in South Australia'. pp. 1-50 in Gale, G. F., & Lawton, G. H. (eds.), *Settlement and Encounter*. Oxford U.P., Melbourne.
26. Pitt, 1939, p. 16.
27. *The Register* 21/9/01; Burgess, H. T., 1907: *The Cyclopaedia of South Australia*. Hussey & Gillingham, Adelaide, (2 vols.), v. 1, p. 362.

28. Selway, W. H., 1919: 'Our Beginnings'. *The S.A. Naturalist*, v. 1, (1), pp. 3-4.
29. *Trans. Roy. Soc. S.A.*, 1883, v. VI, p. 184.
30. *Trans. Roy. Soc. S.A.*, 1884, v. VII, p. 112.
31. For several years after its formation, the Field Naturalists Section was able to include in the *Trans. Roy. Soc. S.A.* detailed accounts of its excursions and meetings - see for example vols. VI, VII, VIII, IX (1884-1886). Later volumes list excursions but, presumably because of lack of space, do not discuss them in detail.
32. *Trans. Roy. Soc. S.A.*, 1884, v. VII, pp. 122-124. The Reedbeds occupied the site of the present Adelaide suburb of Fulham, low lying floodflats of the River Torrens a few kilometres west of the city; Clarendon is a small town in the Mt. Lofty Ranges, approximately 19 kilometres south east of Adelaide.
33. *Trans. Roy. Soc. S.A.*, 1886, v. IX, p. 260.
34. *Trans. Roy. Soc. S.A.*, 1884, v. VII, p. 114.
35. See *Trans. Roy. Soc. S.A.* for the annual reports.
36. Cleland, J. B., 'Historical account of the National Park', in Cotton (ed.), 1964, p. 17.
37. Dixon, Samuel, 1911: 'A farewell address to the Field Naturalists Section of the Royal Society by the Chairman of the Native Fauna and Flora Protection Committee'. *Trans. Roy. Soc. S.A.*, v. XXXV, pp. 248-254.
38. Hirst, J. B., 1963: G. W. Cotton and the Workingmen's Blocks. Unpub. B.A. (Hons.) thesis, Dept. History, University of Adelaide.
39. *Trans. Roy. Soc. S.A.*, 1889, v. XII, p. 172.
40. Field Naturalists Society S.A. (Inc.), 1965: Publicn. no. 5, being a reprint of three articles published in *The South Australian Register* 7/10/1889 (p. 6), 14/10/1889 (pp. 5-6), 4/11/1889 (p. 5).
41. Cockington, A., 1966: 'Flinders Chase Memorial Plaque'. *The S.A. Naturalist*, v. 40, (4), p. 76.
42. Selway, W. H., 1934: *The S.A. Naturalist*, v. XV, p. 70.

43. Selway, W. H., 1910: 'The National Parks and Forest Reserves of Australia'. *Trans. Roy. Soc. S.A.*, v. XXXIV, p. 283; *The Register* 7/10/01.
44. *Trans. Roy. Soc. S.A.*, 1892, v. XV, p. 286.
45. *Trans. Roy. Soc. S.A.*, 1889, v. XII, p. 173.
- 46, 47, 48. *The Register* 7/10/01.
49. Pitt, 1939, p. 16.
50. Dixon, 1911, p. 251.
51. *Trans. Roy. Soc. S.A.*, 1891, v. XIV, pp. 390-391.
- 52, 53. *Trans. Roy. Soc. S.A.*, 1890, v. XIII, pp. 281-282.
54. Selway, 1910, p. 283; *The Register* 7/10/01.
55. *Trans. Roy. Soc. S.A.*, 1892, v. XV, p. 286.
56. Mosley, J. G., 1968: *National Parks*. Nelson Doubleday, Sydney, p. 8.
57. *The Register* 21/9/01.
58. Selway, 1910, p. 282.
59. Nomenclature for all mammals is that of Ride, W. D. L., 1970: *A Guide to the Native Mammals of Australia*. Oxford U.P., Melbourne.
60. Flinders, Matthew, 1814: *A Voyage to Terra Australia*. G. & W. Nicol, London, (2 vols. & atlas), v. 1, p. 169.
61. *Trans. Roy. Soc. S.A.*, 1889, v. XII, p. 173.
62. Dixon, Samuel, 1920: *The Full Story of Flinders Chase*. Hussey & Gillingham, Adelaide, p. 9.
63. Australasian Association for the Advancement of Science, 1892: Report of the Fourth Meeting (Hobart, Tasmania, January 1892) Section D, Biology. Robin, A. F., 'The preservation of our native plants and animals'.
64. Dixon, 1920, p. 11.



65. Detailed accounts of the Island's soils and vegetation are to be found in Bauer, F. H., 1959: *The Regional Geography of Kangaroo Island*. Unpub. Ph.D. thesis, Dept. Geography, Australian National University; Baldwin, J. G., & Crocker, R. L., 1941: 'The soils and vegetation of portion of Kangaroo Island, South Australia'. *Trans. Roy. Soc. S.A.*, v. 65, pp. 263-275; Northcote, K. H., & Tucker, B. M., 1948: 'A soil survey of the hundred of Seddon and part of the hundred of MacGillivray, Kangaroo Island, South Australia'. *C.S.I.R. Bull.* 233.
66. Wood, J. G., 1930: 'An analysis of the vegetation of Kangaroo Island and adjacent Peninsulas'. *Trans. Roy. Soc. S.A.*, v. 54, pp. 105-139.
67. Dixon, 1920, p. 9.
68. *Trans. Roy. Soc. S.A.*, 1894, v. XVIII, p. 259.
69. *Trans. Roy. Soc. S.A.*, 1896, v. XX, p. 281.
70. *Trans. Roy. Soc. S.A.*, 1886, v. IX, pp. 260-262, 264.
71. *Trans. Roy. Soc. S.A.*, 1893, v. XVII, p. 371.
72. Private diary of Charles Harris, resident of Summertown from 1901-1964. Diary in possession of the author.
73. Wood, James D., 1894: *The Province of South Australia*. Govt. Printer, Adelaide, p. 39.
74. See the annual reports of the Field Naturalists Section for 1897-1901 in *Trans. Roy. Soc. S.A.*
75. Burgess, 1907, p. 364.
76. Dixon, 1920, p. 8.
77. *Trans. Roy. Soc. S.A.*, 1905, v. XXIX, pp. 357-358.
78. Gosse, J. H., 1941: History of Flinders Chase. Unpub. radio broadcast, 9/5/41, p. 1. Copy held by Fauna and Flora Board.
79. Dixon, 1920, p. 12.
80. Dixon, 1920, p. 13.
81. Selway, 1910, pp. 283-284.

82. Vivienne, May, 1908: *Sunny South Australia*. Hussey & Gillingham, Adelaide, p. 125.
83. Selway, 1910, p. 282.
84. *Trans. Roy. Soc. S.A.*, 1907, v. XXXI, p. 343.
- 85, 86, 87, 88. *Trans. Roy. Soc. S.A.*, 1908, v. XXXII, pp. 417-419.
89. Dixon, 1920, p. 14.
- 90, 91. Selway, 1910, p. 286.
- 92, 93. *Trans. Roy. Soc. S.A.*, 1910, v. XXXIV, pp. 275-276.
94. Dixon, 1920, p. 14. Note however, that the claim was almost certainly wrong: *Calyptorhynchus magnificus samueli*, the red tailed black cockatoo, is a Central and Northern Australian species generally found north of 30°S latitude (Condon, H. T., 1962: 'A handlist of the birds of South Australia'. *The S.A. Ornithologist*, v. 23, 6-8, p. 111). The deputation was probably referring to *C. lathami*, the glossy black cockatoo, an eastern Australian species represented in South Australia by a small colony on Kangaroo Island (Condon, 1962, p. 112; Schodde, R., 1958: 'Some bird observations with new records on Kangaroo Island'. *The S.A. Naturalist*, v. 33, 2, pp. 23-26).
95. *Trans. Roy. Soc. S.A.*, 1911, v. XXXV, pp. 245-246. The quote is from pp. 10-11 of a pamphlet prepared in 1918 - see note 105 below.
96. Dixon, 1920, p. 16.
97. Dixon, 1911, pp. 248-254.
98. Australian Conservation Foundation *Newsletter*, v. 1, (1), p. 1, 26/4/1967.
99. Obituary notice for Edwin Ashby. *Trans. Roy. Soc. S.A.*, 1941, v. 65, (1), p. 1.
100. *Trans. Roy. Soc. S.A.*, 1912, v. XXXVI, p. 268; 1913, v. XXXVII, p. 488.
101. *Trans. Roy. Soc. S.A.*, 1914, v. XXXVIII, p. 516.
102. Dixon, 1920, p. 16.

103. *Trans. Roy. Soc. S.A.*, 1915, v. XXXIX, pp. 879-880; 1916, v. XL, pp. 623-624.
104. Dixon, 1920, p. 17.
105. The paper, of 12 octavo-sized pages is undated, and has no indication of the authors or publishers.
106. Dixon, 1920, p. 18.
107. Page 1 of the paper described in note 105 above.
108. *The Register* 28/9/1918.
- 109, 110, 111. Dixon, 1920, p. 20; p. 23; p. 36.
112. Moore, R. M., 1959: 'Ecological observations on plant communities grazed by sheep in Australia'. pp. 500-512 in Keast, A., et al. (eds.), *Biogeography and Ecology in Australia*. Junk, The Hague.
113. Jessup, R. W., 1948: 'A vegetation and pastures survey of counties Eyre, Burra, and Kimberley, South Australia'. *Trans. Roy. Soc. S.A.*, v. 72, (1), pp. 33-68.
114. For a general discussion of the decline of the native animals see the sources listed in note 6 above, and also Marlow, B. J., 1958: 'A marsupial survey of New South Wales'. *C.S.I.R. Wildlife Research*, v. 3, (2), pp. 71-114.
115. Jones, 1923-25, p. 214.
116. *The S.A. Naturalist*, 1919, v. 1 (1), p. 19.
117. *The Advertiser* 14/10/1922.
118. *The S.A. Naturalist*, 1923, v. V, (1), p. 6.
119. All information about animals released on the Chase has been taken from the Fauna and Flora Board of South Australia Minutes Books.
120. Gordon, D. J., & Ryan, V. H. (eds.), 1914: *Handbook of South Australia*. Govt. Printer, Adelaide, p. 277.
121. Jones, 1923-25, p. 186.
122. Troughton, Ellis, 1962: *Furred Animals of Australia*. Angus & Robertson, Sydney, p. 139.

123. Australian Conservation Foundation, 1968: *The Cape Barren Goose*. Viewpoint Series, no. 3.
124. Wace, N. M., 1969: Management of the pastures at Rocky River. Unpub. report to Fauna and Flora Board; Eberhard, I. H., 1972: Ecology of the Koala (*Phascolarctus cinereus*, Goldfuss) on Flinders chase, Kangaroo Island. Unpub. Ph.D. thesis, Dept. Zoology, Univ. of Adelaide.
125. Smyth, M., 1971: 'Suggestions for a policy on introducing native animals (mainly mammals) into an area they presently do not occupy'. N.C.S.S.A. *Newsletter*, no. 35, pp. 34-38.
126. *The S.A. Naturalist*, 1921, v. III, (1), p. 15.
127. Cleland, J. B., 1924: 'A proposal for a national reserve at Mount Lofty'. *The S.A. Naturalist*, v. V, (2), pp. 100-102.
128. See for example the range of articles published in *The S.A. Naturalist* throughout the late 1920's and 1930's.
129. Field Naturalists Section Roy. Soc. S.A., 1936: *National Park, Morialta, and Waterfall Gully Reserves, Containing an account of their natural history*, being a reprint of *The S.A. Naturalist*, v. XVII, (1-4).
130. Cotton, B. C. (ed.), 1964: *South Australian National Parks and Wildlife Reserves*. Govt. Printer, Adelaide.
131. Field Naturalists Section, 1936, p. 24.
132. Ashby to Premier 29/5/36, C.S.O. 1480/1936.
133. Eyre, E. J., 1845: *Journals of Expeditions of Discovery in Central Australia and Overland from Adelaide to King Georges Sound*. T. & W. Boone, London, (2 vols.), v. 1, p. 351.
134. Ashby to Premier 29/5/36, C.S.O. 1480/1936.
135. *The Advertiser* 27/1/1938.
136. Prepared statement by Ashby, undated but probably 7/12/1936, C.S.O. 1480/1936.
137. Ashby to Premier, vide 134 above.
138. Chief Inspector F. & G. to M.A. 5/4/1938, C.S.O. 1480/1936.

139. McDonald to Ashby 17/10/1936, C.S.O. 1480/1936.
- 140, 141, 142. Statement by Ashby, vide 136 above.
143. C.S.O. 1480/1936.
144. President Roy. Soc. S.A. to Premier 9/12/36, C.S.O. 1480/1936.
145. Chief Inspector F. & G. to Premier 11/1/37, C.S.O. 1480/1936.
146. Interview dated 16/3/37, C.S.O. 1480/1936.
147. Cabinet approval 22/3/37, C.S.O. 1480/1936.
148. Ashby to M.A. 22/3/38, C.S.O. 1480/1936.
149. Obituary notice. *Trans. Roy. Soc. S.A.*, 1941, v. 65, (1), p. 1.

## CHAPTER II

AN EARLY EXPANSION, 1937-1952

Advances in reserve acquisition are closely related to the fluctuating fortunes of agriculture. A newly appointed body, the Flora and Fauna Advisory Committee, is active, and several large and important reserves are dedicated.

## A FLORA AND FAUNA ADVISORY COMMITTEE APPOINTED

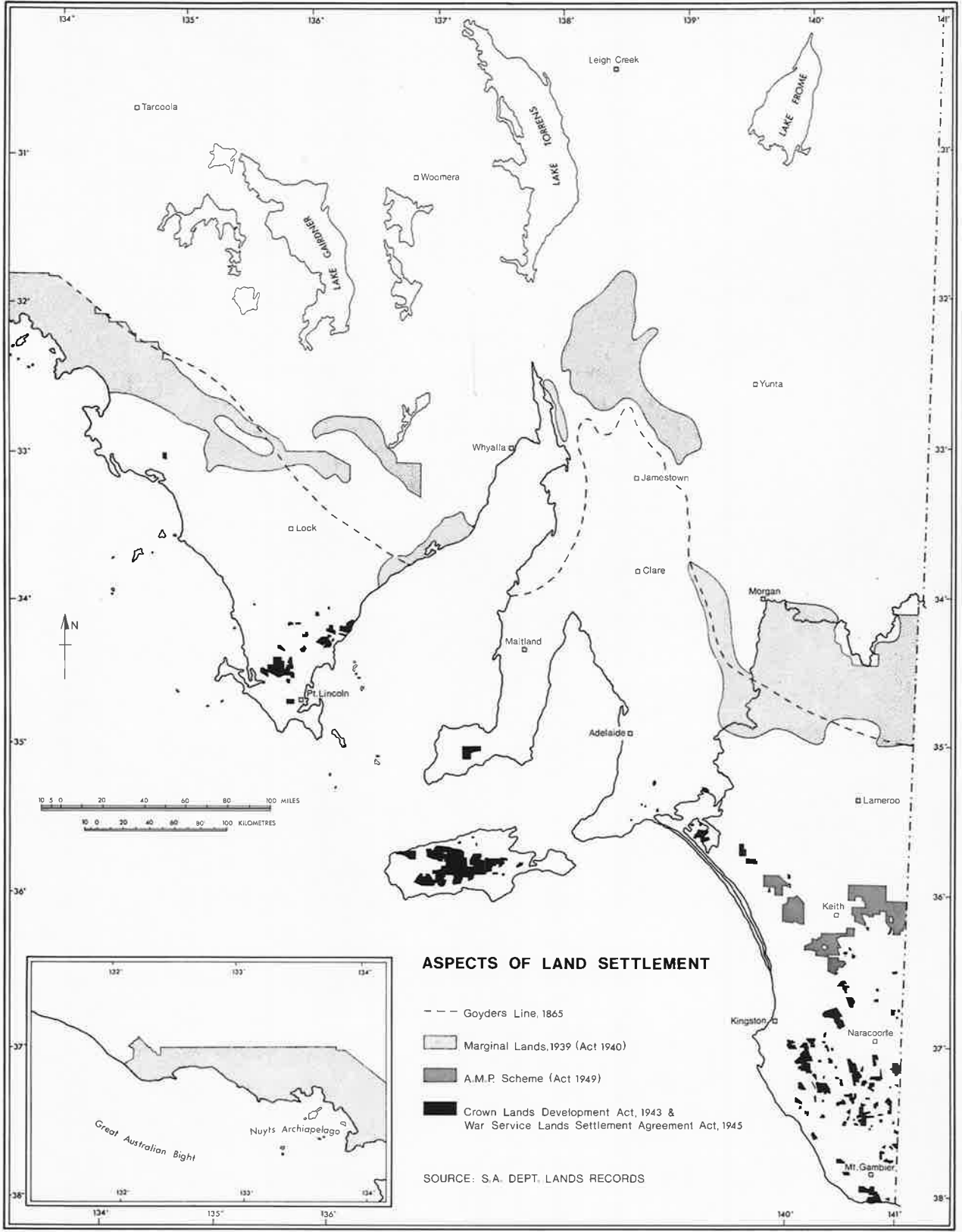
One of the lessons to emerge from Ashby's campaign for the Monarto South scrub was that the Government had virtually no access to expert advice on flora and fauna conservation. While Cabinet may have had reservations about Ashby's mallee fowl commercialisation proposal, it had little guidance in trying to assess the validity of the claim, for such Public Service officials as the Chief Inspector of Fisheries and Game were, of necessity, trained more in administration than biology. In addition to this difficulty in assessing reserve and national park proposals, administration of the Animals and Birds Protection Act was increasingly becoming more complex; the timing of closed seasons for game birds was always a contentious issue with shooters and ornithologists alike, while protection of such wild fowl breeding localities as The Coorong was a vexed issue occupying much time and attention over many years.

That an enlarged and better-qualified professional staff could cope with many of the problems must have been obvious to all, but in the lean years of the 1930's the Government could not justify the extra money which would be required, and in a compromise move appointed, in 1937, a Flora and Fauna Advisory Committee (hereafter F.F.A.C.).

Although responsible to the Minister of Agriculture and having the Chief Inspector of Fisheries and Game as its secretary, the F.F.A.C. was not a formal part of the Public Service; its members included the heads of some Government departments, but others were from the Field Naturalists Section and the University of Adelaide.

#### THE MARGINAL LANDS ISSUE

One of the first tasks the F.F.A.C. looked to was the provision of more reserves for flora and fauna conservation. In many respects it was a singularly opportune time for such an investigation, for in the late 1930's South Australia was undertaking a thorough reappraisal of agricultural prospects in its so-called Marginal Lands. The Marginal Lands corresponded, in broad outline, with the drier limits of the mallee scrub regions, and occupied an estimated 2,708,379 ha of the West Coast, Upper Eyre Peninsula, the Upper North, the Murray Mallee, and the eastern portion of the Murray Flats (vide map p. 58). The concept of marginality was not new to South Australia: the advance and retreat of the State's northern wheat frontier in the 1870's and 1880's had demonstrated clearly that between the safe cereal lands of the south and the pastoral country of the north there was a transition zone, the Marginal Lands, where success or failure of crops varied from year to year with the vicissitudes of rainfall,<sup>1</sup> but in the 1930's the lessons of the late nineteenth century had to be relearned. In the years immediately before and after World War I a land boom had resulted in the expansion of wheat growing into areas characterised by a low and erratic rainfall. Bouyant wheat prices, the fertility of virgin soils, and fair rainfall throughout the early 1920's gave early hopes of success, but in 1927, 1928, and 1929 a prolonged drought resulted in widespread crop failure and serious wind



**ASPECTS OF LAND SETTLEMENT**

- - - Goyders Line, 1865
- Marginal Lands, 1939 (Act 1940)
- A.M.P. Scheme (Act 1949)
- Crown Lands Development Act, 1943 & War Service Lands Settlement Agreement Act, 1945

SOURCE: S.A. DEPT. LANDS RECORDS



erosion. In summarising the position, the Department of Lands Annual Report for 1929/30 was not at all encouraging:

The season was most disastrous ... During July and August only light rain fell and was accompanied or immediately followed by boisterous winds which caused unprecedented dust-storms and sand-drift. Only in very sheltered places could the crops make any progress, as the drifting sand destroyed the young growth ... the position of many of our settlers has become difficult. Three successive crop failures and low prices, with the added burden of debt incurred to enable them to carry on, have altered their prospects considerably. Their assets have diminished as their liabilities have increased, and the strictest economy will have to be practised if they are to win through.<sup>2</sup>

Throughout the 1930's economic difficulties compounded the vagaries of climate. A world surplus of primary products resulted in depressed prices for Australian wheat, and by the mid 1930's only State Government moratorium legislation prevented widespread foreclosure and abandonment of holdings.<sup>3</sup>

Concern for man *and* land in the marginal areas increased towards the close of the 1930's. In October 1939 a State Government-appointed Marginal Lands Committee presented its findings to Parliament,<sup>4</sup> and the result was an attempt to bolster agriculture by a Marginal Lands Act of 1940. In the same year a Soil Conservation Act was passed, the outcome of a 1936 report by Commonwealth Scientific and Industrial Research biologist Francis Ratcliffe,<sup>5</sup> and a 1938 State Government report.<sup>6</sup> The problem of sand drift in the mallee lands was given special attention in the 1938 erosion report, for overcropping, excessive fallowing, and the clearance of drift-prone dunes had caused marked erosion over a wide area. The prospect of an Australian version of America's 'dust-bowl' disaster was alarming, and Adelaide poet Ian Mudie voiced the fears of many by denouncing angrily in much of his verse the 'rape' of the land which was producing 'clouds of dust and drifting sand'.<sup>7</sup>

## LAND BOARD ACTION FOR PEEBINGA AND BILLIATT

In the light of such concern for the condition of the Marginal Lands and their farmers, there could be no thought of opening up new areas of mallee scrub, indeed the move was towards contraction and the abandonment of some of the worst areas. In the south east of the Murray Mallee, deep sand country north of Pinnaroo had become notorious for poor crops and widespread sand drift, and in December 1938 the Land Board, an advisory section of the Department of Lands, recommended that several sections in the hundred of Peebinga, abandoned for farming as early as 1934, should be set aside as a flora and fauna reserve.<sup>8</sup> Although the fear of erosion was the main reason for the Board's recommendation, there was an additional factor, the presence in the area of the mallee whip bird (*Psophodes nigrogularis leucogaster*). Although the species had been described from the South West of Western Australia in 1843, little was seen of it until, in the 1930's, a small colony was found in the mallee scrub of North Western Victoria and adjacent South Australia. Such a disjunct distribution was of particular interest to those concerned with the then fashionable theory of a mid-Recent aridity in Australia, and J. Neil McGilp, Chairman of the Land Board and an enthusiastic amateur ornithologist, was keen to see the Peebinga land set aside as a reserve for the bird.

In February 1939 the Commissioner of Crown Lands approved the Land Board recommendation that sections 21, 22, 30, and 31 in the hundred of Peebinga be set aside as a fauna and flora reserve,<sup>9</sup> but further action was delayed by a local manufacturing company expressing interest in the land. F. H. Faulding & Co. Ltd. outlined, via a series of letters and interviews, a plan to harvest mallee leaves over the area for the production of Eucalyptus oil,<sup>10</sup> and in March 1939 the Land Board recommended that approval be granted, subject only to certain controls over soil erosion and native bird life.<sup>11</sup> It was a

clear case of commercial interest outweighing conservation considerations, and although Faulding had lost interest in the scheme by January 1940,<sup>12</sup> the Director of Lands recommended that dedication as a reserve should proceed only 'on the understanding that the cutting of mallee leaf on the reserve could later be allowed conditionally and under supervision if the occasion arose'.<sup>13</sup>

On 14 March 1940 sections 21, 22, 30, and 31 in the hundred of Peebinga were dedicated a fauna and flora reserve (sic) under the provisions of the Crown Lands Act (vide table p. 90, map p. 89). The use of the term 'fauna and flora reserve' instead of the correct 'flora and fauna reserve' was the result of considerable confusion amongst the Department of Lands officials responsible for preparing the definitions for *The South Australian Government Gazette*. It was not realised at the time that under the terms of the Fauna and Flora Reserve Act of 1919 'fauna and flora reserves' could be dedicated only on Kangaroo Island, and the position was complicated further by the State having a 'Fauna and Flora Board' and a 'Flora and Fauna Advisory Committee'. Mistakes were still being made in 1945: on 18 January a proclamation was gazetted declaring several Eyre Peninsula flora and fauna reserves to be under the care, control, and management of the Fauna and Flora Board; on 17 May the proclamation was revoked and the reserves in question were, this time correctly, placed under the care, control, and management of the Flora and Fauna Advisory Committee.

The dedication of Peebinga was an important step, for until that time the hard-won 648 ha reserve in the hundred of Freeling was the only area providing formal protection for mallee flora and fauna. However, to some extent Peebinga's value had been decreased by the Director of Lands making it clear that its security could not be guaranteed; the reserve would remain inviolate only as long as there was no prospect of harvesting its mallee leaves. J. Neil McGilp, with his knowledge of *Psophodes* must have had some private reservations

about the birds' survival if the Faulding scheme was to ever go into operation, but there could be at least some satisfaction in knowing that the area was no longer liable to farming and the accompanying soil drift problem.

The desire of the Land Board to avoid further wind erosion in the mallee country found further practical expression in 1940. In February of that year a farmer from Mannum enquired about the availability of crown land in the hundred of Billiatt, 16 km west of Peebinga,<sup>14</sup> and in April the Land Board commented:

As the land enquired for herein in the hundred of Billiatt is very sandy and probably liable to soil erosion and of very little value economically, the Board desires that the Soil Conservation Committee be asked to comment on the advisability or otherwise of allotting this land.<sup>15</sup>

The Soil Conservation Committee's advice was unequivocal: 22,663 ha, the northern half of the hundred of Billiatt, should be set aside as a flora and fauna reserve.<sup>16</sup> In concurring with this view the Land Board, in a minute to the Director of Lands, emphasised that 'the land is of no economic value for Agricultural or pastoral purposes, and would serve a better purpose if left undeveloped'.<sup>17</sup> The Commissioner of Crown Lands approved the proposal,<sup>18</sup> and on 12 December 1940, section 15 in the hundred of Billiatt, 22,663 ha, was dedicated a flora and fauna reserve (vide table p. 90, map p. 89).

#### F.F.A.C. ACTION FOR HAMBIDGE, HINCKS, AND LINCOLN

The initiative for the dedication of Peebinga and Billiatt had come from the Land Board, but the F.F.A.C. was well aware that the Marginal Lands issue had created a climate of opinion disposed favourably to the reservation of large areas of mallee scrub, and early in 1939 members of the Committee perused a map showing unalienated crown land

throughout South Australia.<sup>19</sup> On the basis of this it was decided that several large areas on Eyre Peninsula should be investigated, and through the Director of Agriculture an Agricultural Adviser was instructed to carry out an inspection. In September 1939 the F.F.A.C. received his reports dealing with three areas, un-named at the time, but known now as Hambidge Conservation Park, Hincks Conservation Park, and Lincoln National Park.

Area 1. (Hambidge) Unsurveyed land between the hundreds of Cootra, Palkagee, and Boonerdo, county Jervois.

I estimate that at least fifty per cent (50%) is fairly good agricultural land ... suitable for agricultural settlement ... it is not suitable as a Flora and Fauna Reserve as there are no natural water supplies and the climatic and soil conditions are such that only vegetation of a low order will grow there unless the soil is cultivated ... I don't think the State would lose much if this land was declared a Reserve because of the low price of cereals and the unsettled state and conditions throughout the world at present, but with the hope that world affairs will become brighter, happier and prosperous before long, I would not recommend that this area be proclaimed a Reserve for all time.

Area 2. (Hincks) Portions of the hundreds of Murlong and Nicholls, and adjacent unsurveyed land to the south and east, county Jervois.

Only about ten per cent (10%) of the whole of this area is suitable for agricultural development. Practically the whole of it is very poor sandy country ... Being densely covered with mallee and bush it is certainly a good breeding ground for Kangaroos and Emus, many of which I saw during my tour of inspection, but very little bird life was encountered ... it would be useless to attempt any settlement or development, and I have no hesitation in saying -

1. This block is not suitable for Agricultural Settlement.
2. The soil is so poor and sandy that I doubt whether it would be suitable as a Flora and Fauna Reserve.
3. The State would not lose anything if this area was declared a Reserve.

Area 3. (Lincoln) Portion of the hundred of Flinders, county Flinders.

Exceedingly poor rough limestone country ... only a very small proportion of the land could be cultivated ... every settler has failed after expending a considerable amount of capital and labour ... in my opinion [it] is quite unsuitable for agricultural development and settlement. The area inspected should be most suitable for a Flora and Fauna Reserve ... The State would have nothing to lose if this area was declared a Reserve.<sup>20</sup>

In the light of present attitudes the Adviser's reports seem extraordinary, but at the time they were consistent with Department of Lands and Department of Agriculture policy. The approval of Faulding's application to harvest mallee leaves over Peebinga had shown quite clearly that parks and reserves were considered an economic liability that should not be allowed to stand in the way of the State's commercial progress. Only those set aside on worthless land could be regarded as at all secure, and in January 1940 this point of view was reiterated by the Surveyor General. In a minute to the Director of Lands he stated that he could see no objection to the land in the hundred of Flinders being dedicated a reserve, but considered that the other two areas

should not be made permanent Fauna and Flora Reserves, but if it is decided to set them aside as such on a temporary basis, it should be on the understanding that portions may be made available for leasing as and when required. The Reserves could be dedicated under the Crown Lands Act and then, if required for another purpose, could be resumed by the Governor.<sup>21</sup>

The Land Board, in a report to the Director of Lands in February 1940, supported the Surveyor General's attitude, but stressed the need for extreme care in any future development of marginal lands, suggesting that the proposed reserves were so poor that 'resumptions, if any, will probably be so small that they will not affect the Reserves'.<sup>22</sup>

In June 1940 the F.F.A.C. considered the Department of Lands proposals, and after some discussion decided that as 'it was not desirable to have any area declared other than a permanent reserve, the offer made by the Lands Department was not accepted'.<sup>23</sup> A

stalemate had been reached, and throughout the remainder of 1940 neither side showed any sign of compromise. On several occasions the F.F.A.C. complained that the Department of Lands' attitude was quite unreasonable, but in reply the Land Board, the Surveyor General, and the Director of Lands reiterated their stand over dedication under the Crown Lands Act.<sup>24</sup> After almost a year of dispute the F.F.A.C. decided that an insecure reserve was probably better than no reserve, and in April 1941 recommended that the Department of Lands proceed with dedication of the three areas under the provisions of the Crown Lands Act.<sup>25</sup>

The gazette notice dedicating the three areas flora and fauna reserves appeared on 14 August 1941, and the area involved was impressive; the Hincks reserve occupied 75,260 ha, Hambidge 43,237 ha, and Lincoln 6,560 ha (vide table p. 90, map p. 89). In the following years, however, the fears expressed by the F.F.A.C. for the security of the reserves proved to be justified, and only Lincoln was to remain secure. By 1961 a total of 14,418 ha had been resumed from Hincks and Hambidge for agricultural settlement, and as late as 1968 further resumptions planned for Hambidge were a contentious political issue (vide Chapters III and IV).

#### THE SOUTH EAST RESERVES ISSUE - MT. RESCUE DEDICATED

Even with their insecure tenure Peebinga, Billiatt, Hambidge, Hincks, and Lincoln, represented important additions to the State's meagre system of reserves. With the exception of Lincoln, however, all were located in the relatively low rainfall mallee scrublands. While no member of the F.F.A.C. considered that an excessive area of mallee scrub had been reserved, botanists such as Professors J. G. Wood and J. B. Cleland were anxious to see some of the vegetation of higher rainfall regions preserved. In particular, early attention

was focused on the Upper South East of the State, the vegetation of which consisted, in broad outline, of mallee-heath, and swampy tussock grassland. The mallee-heath was rather similar in structure and composition to that described for the laterite plateau of Kangaroo Island; and occupied a large area between the mallee scrub of the north and dry sclerophyll woodland to the south (vide map p. 46). Typically the formation was developed on deep siliceous sands, which were gently undulating in some areas, but piled by wind erosion elsewhere into a jumbled array of parabolic dunes.<sup>26</sup> Towards the south west of the region a series of stranded coastal dunes impinged from a south easterly direction,<sup>27</sup> and these, in combination with a relatively high rainfall and a seasonally-high water table, resulted in a series of south east-north west trending flats being subject to inundation for up to nine months of each year. The natural vegetation developed over the flats consisted of such wetland species as *Gahnia trifida* (cutting grass), and *Cladium filum* (thatching grass), and was of considerable interest in a predominantly arid State.<sup>28</sup>

Interesting though the flora was, its future was by no means assured. A comprehensive drainage scheme begun by the State Government in the late nineteenth century was steadily drying out the flats,<sup>29</sup> and introduced pasture plants were replacing the native species over a wide area. Even the long-despised mallee-heath country, known throughout South Australia as 'The Ninety Mile Desert', was attracting the attention of agricultural research workers. The siliceous sands, like the residual lateritic podsols of central Kangaroo Island, were chronically infertile, but all efforts to discover the cause of the intransigence had failed until, in the South East, at Robe and near Keith in the mid and late 1930's, soil scientists from the Commonwealth Scientific and Industrial Research unit and South Australia's Waite Agricultural Research Institute traced the problem to a deficiency of micronutrients, the so-called trace elements. The implications of the discovery were profound, for it opened up the possibility of extensive



clearance and pasture development over areas hitherto able to support only a few thousand sheep and a handful of beekeepers.<sup>30</sup> Professor Wood, as Head of the Botany Department at the University of Adelaide was aware of the importance of the soil research, and by the late 1930's some of his best postgraduate students were already in the South East studying plant and soil relationships in areas likely to be chosen for pasture development.

It was no coincidence, therefore, that in June 1938 Wood drew the attention of the F.F.A.C. to an area in the hundreds of Laffer and Willalooka where the flora displayed an interesting transition between mallee-heath and sclerophyll woodland.<sup>31</sup> Earlier, in November 1937, the F.F.A.C. had discussed the possibility of reserving portions of 'interesting flora in Co. Cardwell between Meningie and Tintinara',<sup>32</sup> and in February 1939 it was decided to draw the attention of the Commissioner of Crown Lands to the desirability of flora reserves in county Cardwell and in the hundreds of Laffer and Willalooka.<sup>33</sup> In reply to this request the Land Board asked for a more precise indication of where, in the areas cited, the F.F.A.C. would like reserves established.<sup>34</sup> Wood's recommendation was that an area of 3,000 ha in the hundreds of Petherick and Willalooka would be ideal, but in June 1939 he suggested that the question of a reserve site should probably be left until the Department of Lands had completed a projected soil survey of county Cardwell, at which stage it could be compared with work recently completed by his own students.<sup>35</sup>

There was little further action until, in May 1941, the Minister of Agriculture wrote to the Commissioner of Crown Lands with a request that pastoral lease 1458, due to expire in July 1941, be dedicated a flora and fauna reserve.<sup>36</sup> Pastoral lease 1458 was *Didicoolum*, a 25,641 ha sheep station in the hundred of Petherick. Improvements on *Didicoolum* were valued at \$1,501.65, an amount the Pastoral Board thought the Government would find excessive, and on the Board's suggestion Wood decided that 2,833 ha would be an adequate reserve.<sup>37</sup>

The Land Board reported in September of the same year that improvements over the 2,833 ha area were valued at \$140,<sup>38</sup> and on 10 November 1941 a F.F.A.C. recommendation that the Government provide this amount was referred to Cabinet. The recommendation was referred back to the Commissioner of Crown Lands without approval, and on 15 November the Director of Lands stated that his Department had no funds for such a purpose. In a bid for a special grant the proposal was referred back to Cabinet on 17 November 1941, but once again it was rejected.

With Cabinet's final refusal to find \$140 the matter lapsed, and it was not until July 1944 that Mr. James Gosse, a member of the F.F.A.C., reopened the issue by stating indignantly that if the only obstacle to the reserve was \$140 he would gladly donate that amount.<sup>39</sup> At this stage speedy acceptance of his offer would probably have secured the land, but in an unfortunate move the Minister of Agriculture requested that the Conservator of Forests prepare an estimate of likely fencing costs. The whole proposal bogged down in administrative minutiae, and it was not until 6 December 1944 that a figure of \$2,000 was sent to Cabinet. Predictably, Cabinet referred the matter back to the Minister of Agriculture without approval.<sup>40</sup> In the following year a few desultory moves were made, but no firm steps were taken until October 1946, when Professor Cleland, understandably annoyed by the seemingly endless procrastination, questioned the obsession with fencing and supervision costs of a non-existent reserve.<sup>41</sup> The F.F.A.C. once again requested the Government to purchase a portion of *Didicoolum*, but this time the request did not even reach Cabinet; the Minister of Lands dismissed it by referring tersely to the minutes of 10/11/41, 15/11/41, and 17/11/41, all of which had rejected the earlier proposal.

The chances of obtaining the land now seemed remote. In addition to the Government's consistent refusal to co-operate, the Upper South East was now the scene of intensive land development. The trace element discoveries had revolutionized the agricultural possibilities of the region, and World War II had stimulated the development of such heavy

machinery as the massive bulldozers so admirably suited to cheap and rapid scrub clearance. The repatriation of thousands of returned servicemen anxious to settle on the land and take advantage of rising wheat and wool prices had provided the stimulus necessary for wide-ranging Government action, and a State Government Crown Lands Development Act of 1943 was followed in 1945 by the Commonwealth/State Governments' War Service Lands Settlement Agreement Act. Under the terms of the War Service Act the Commonwealth Government financed the development of areas suitable for settlement of servicemen, with the State Government responsible for the local operation and general administration of the scheme. It was from the 1945 Act that most of the development stemmed, the Crown Lands Development Act being used mainly for areas deemed by the Commonwealth to be unsuitable for inclusion in the joint scheme.

Three trace element deficient areas were chosen for attention: the South East, central and western Kangaroo Island, and south-central Eyre Peninsula (vide map p. 58). By June 1948, 70,604 ha in the South East had been purchased with Commonwealth money, and the State Government's Land Development Executive was hard at work supervising the clearance of scrub, preparation of improved pastures, and provision of buildings, water supply, and fencing necessary before the land could be allotted to selected applicants. Post-war shortage of materials and labour resulted in the supply of farms being outpaced by demand, and when a large insurance company, the Australian Mutual Provident Society (A.M.P.), approached the South Australian and Victorian Governments with a proposal to undertake land development along similar lines to that already under way, it was met with ready approval. In South Australia the Land Settlement (Development Leases) Act of 1949 enabled the A.M.P. to acquire large areas of land in the Upper South East (vide map p. 58); on acquisition, the land was to be surrendered to the Crown, which then issued the A.M.P. with 21 year development leases, the accompanying conditions being that the Society develop,

subdivide, and sell the leased land to approved settlers.<sup>42</sup>

This massive development work by private enterprise and Government, to eventually cover almost 404,000 ha in the South East, had been foreshadowed by the F.F.A.C. in March 1945. A sub committee discussing the *Didicoolum* land had predicted that with trace element treatment 'development in the South East will go ahead by leaps and bounds' and that there was, therefore, a need 'to set aside a number of areas which should be kept as samples of this virgin country'. The sub committee suggested that at least two reserves were needed, one in the mallee-heath country of such hundreds as Colebatch and Strawbridge, and the other in the swampy country of such hundreds as Laffer, Petherick, and Willalooka.<sup>43</sup>

By 1951, with the Government and A.M.P. schemes proceeding apace, there must have seemed little chance of obtaining either reserve. In June however, the F.F.A.C. noted that the lessees of *Didicoolum* were proposing to sell 2,833 ha to the A.M.P., and an immediate request was sent to the Government to purchase the area for reserve purposes.<sup>44</sup> It was a futile bid: in March 1952 the Director of Lands wrote to the F.F.A.C. suggesting that they find another area and let the A.M.P. have *Didicoolum*:

Active development is going on in the locality, and it is desired to avoid interfering with bona fide development for food production if other land suitable for the purpose of the Committee is available.<sup>45</sup>

By now it must have been obvious to the F.F.A.C. that if they were to ever acquire a reserve in the South East it would have to be land acknowledged to be useless for agriculture, and land which would not involve the Government in any expense. The indefatigable Wood set about finding such an area, and in May 1952 reported to the Secretary of the F.F.A.C. that after examining all existing soil and vegetation maps he had come to the conclusion that 'no area suitable for a reserve and comprising all soil and vegetation types remains unalienated'. Of what was left, Wood considered that the best was to be found in the

hundreds of Archibald and Makin, 16 km north of Keith in county Buckingham. The bulk of the area proposed was Crown Land, but a narrow north-south belt along the eastern border was held by the A.M.P. as part of Development Lease 1. Wood reported, however, that he had already approached the A.M.P. with a suggestion that they surrender the land, and had found them amenable to the idea, particularly when it was implied that their co-operation would result in the F.F.A.C. relinquishing any claim to the *Didicoolum* land.<sup>46</sup>

In September 1952 the Land Board, in a minute to the Director of Lands noted that the Archibald/Makin land suggested by the F.F.A.C.

is predominantly land unsuitable for development on account of its hilly or sandy nature. In the circumstances the Board considers it would be reasonable to RECOMMEND to the Government that the necessary action be taken to make the land available for purposes of a Flora and Fauna Reserve.<sup>47</sup>

By the end of the month the Minister of Lands (formerly the Commissioner of Crown Lands) had approved the Board's recommendation, but it was almost a year later, 5 August 1953, before the proposal was put to and approved by Cabinet. On 20 August 1953, sections 9 and 10 in the hundred of Archibald, and sections 3 and 4 in the hundred of Makin, 19,243 ha, were dedicated a flora and fauna reserve (vide table p. 91, map p. 89). Un-named at the time, the land now forms part of Mt. Rescue Conservation Park.

On being told of the dedication, the F.F.A.C. at its October 1953 meeting 'expressed great delight'.<sup>48</sup>

#### A SEQUEL TO *DIDICOOLOM* - KELLIDIE BAY

The delight expressed by the F.F.A.C. was certainly understandable, for a stubborn Minister of Lands and seemingly endless Departmental procrastination had reduced the effort to obtain *Didicoolum* to a

futile wrangle. To finish the affair with a large and valuable reserve was certainly some compensation for the years of submissions, debates, and frustration, but the fact did remain that the mallee heath of Mt. Rescue could in no way be regarded as a substitute for the tussock grassland of *Didicoolum*'s flood flats.

Disappointment must, therefore, have tempered the delight, but the bid to preserve a sample of the State's scarce wetland flora, if not rewarded in the South East, at least found some practical expression at Kellidie Bay on Eyre Peninsula. Kellidie Bay, in the hundred of Lake Wangary some 48 km north west of Pt. Lincoln, was an area described by George French Angas in 1846 as 'rich and beautiful country'.<sup>49</sup> Angas predicted that by 1850 the district would be 'thickly settled and cultivated', but not all the land proved to be as fertile as he imagined. Around the eastern margin of Kellidie Bay was an area of 'poor useless country, quite unsuitable for settlement'.<sup>50</sup> Approximately one third of the 2,023 ha area was low-lying land dominated by such swamp-loving tussock plants as *Gahnia deusta* and *G. trifida*, while the remainder, mallee scrubland, consisted of higher land covered by either exposed limestone or very shallow calcareous soils. The swampy tussock grassland was similar in structure and composition to that on *Didicoolum* in the South East, and as the prospects of acquiring that land seemed poor by the mid 1940's, it was not entirely unexpected that the F.F.A.C. would take an interest in the Kellidie Bay land.

In 1946 the Government received two proposals that the area be declared a national park or flora and fauna reserve, one proposal coming from the F.F.A.C. and the other from the South Australian Ornithological Association (hereafter S.A.O.A.).<sup>51</sup> Commenting, in February 1947, the Land Board noted that the area was 'land of low carrying capacity and on which depastured sheep are subject to coast disease. The Board sees no objection to the dedicating of this area'.<sup>52</sup> Cabinet approval was prompt, coming on the same day that the Land Board had made its comments, but at the request of the Director of Lands dedication was deferred

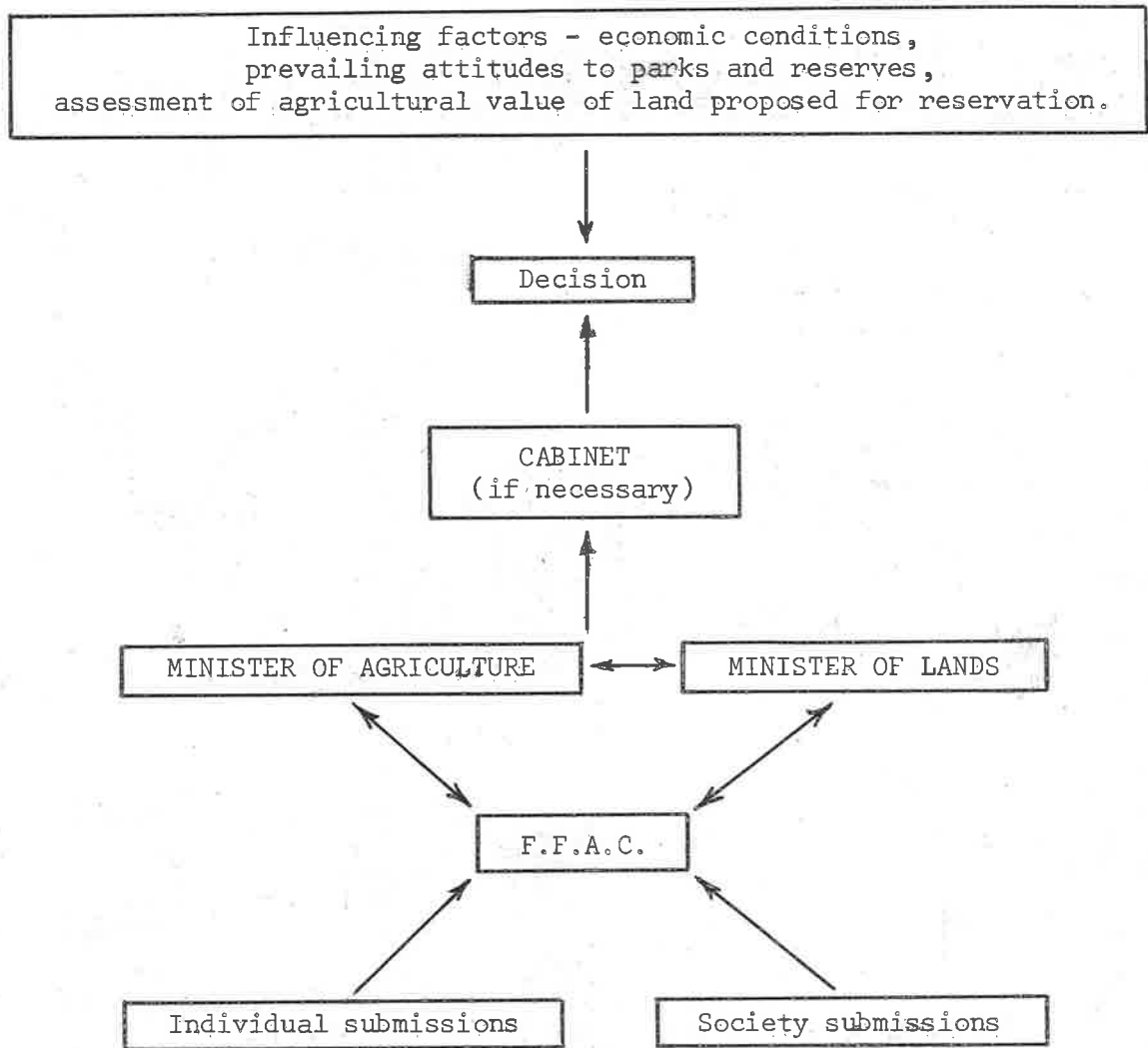
until a survey of the proposed town of Kellidie Bay was finished.

In August 1948, two applications, one for grazing rights, and one for the harvesting of cutting grass, were forwarded to the F.F.A.C., and on its recommendation both were rejected.<sup>53</sup> Survey work for the township was prolonged for several years, and by October 1953 a number of other applications to lease or exchange portions of the land had been received by the Department of Lands. The Land Board, in reviewing these, did not consider they should be allowed to alter the reserve plans:

Board has knowledge of the country, for which the present enquiry has been made, and considers it has a very limited use for agriculture or grazing purposes, being for the most part swampy land covered with cutting grass and various bushes.<sup>54</sup>

The Director of Lands agreed with the Board's remarks, and on 30 September 1954 sections 1-13, 21, 131, 271, 273-277, and 295 hundred of Lake Wangary county Flinders, 1,973 ha, were dedicated a flora and fauna reserve (vide table p. 91, map p. 89). A slightly reduced area now forms the Kellidie Bay Conservation Park.

Dedication of the Kellidie Bay land added to an already impressive list of reserves obtained by the F.F.A.C. For a body of limited power it had achieved much in a short time, and one of the reasons for this lay, no doubt, in its unique position within the Government hierarchy. As a Government-appointed body responsible directly to the Minister of Agriculture for advice on flora and fauna conservation it had ready access to other Ministers and Cabinet, and did not have to go through the rather involved lobbying procedure necessary for such voluntary bodies as the F.N.S. (vide p. 74). At the same time though, it must be pointed out that this privileged position also imposed limitations, for unlike the F.N.S. it could not bring direct political pressure to bear on any key figures in a crisis, its relative impotence in the *Didicoolum* affair being a case in point.



Diagrammatic summary of steps taken by the F.F.A.C. in obtaining areas as reserves.

*Note the relatively low degree of public involvement (cf. p. 28)*



## GOVERNMENT TARDINESS - MONARTO SOUTH AND HUMBUG SCRUB

A more important reason for F.F.A.C. success almost certainly lay in the fact that it cost the Government virtually nothing to set aside such large reserves as Hambidge, Hincks, Lincoln, and Mt. Rescue. All were areas of unused Crown Lands, and as they had little scenic appeal it was clear that there would be no need for visitor facilities, and therefore no running expenses. It was all very cheap and easy with such reserves, but it was a different matter when the Government was faced with the need to purchase land for a reserve or park: Ministers became niggardly, Cabinet rejection almost automatic, and voluntary societies found themselves involved in long and tiring campaigns to prove the worth of a particular area. Edwin Ashby's campaign for the mallee scrub at Monarto South had demonstrated this very clearly throughout the mid and late 1930's, and further proof of Government tardiness came with proposals that land be added to the Monarto South reserve, and that a national park be established at Humbug Scrub.

*Monarto South additions*

The 1938 proclamation of the Monarto South scrub as a Closed Area for Birds and Animals had proved, over the succeeding years, to be less than satisfactory. Cutting of mallee broom-bush for brush fences, and shooting of mallee fowl on the reserve had become common throughout the 1940's and early 1950's,<sup>55</sup> in spite of an attempt to exercise greater supervision by the erection of warning signs and the transfer of control of the area to the F.F.A.C. in November 1952. Surprisingly, some of the mallee fowl escaped the almost constant shooting raids, and field naturalists and ornithologists remained

convinced that if the reserve could be better policed, and possibly expanded, the species' chances of survival in the area remained good. Adequate supervision remains a problem today, but in August 1952 the attention of the Premier of South Australia was drawn to the possibility of enlarging the reserve. An auction of the D. C. Harvey Estate, 3,683 ha adjoining the existing reserve, was set down for 11 September 1952, and in informing the Premier of this, Miss O. D. Waite, a stalwart of the Field Naturalists Section, urged that the Estate be acquired:

It is one of the best areas for the preservation of our flora and fauna. Some of our most beautiful and rare wildflowers grow there, and bird life is abundant ... It is unthinkable that these things should be lost to us ... England has its National Trust which cares for beautiful ruins and inanimate things. This country is not old enough for that but we should at least, keep our living traditions.

Miss Waite went on to explain that James Ferries, born at Hartley, and buried near Wistow, had left a bequest to the Field Naturalists Section, and it was anxious to pay a tribute to Ferries' interest in conservation by seeing a fine reserve established in his home district.<sup>56</sup>

Realising that the Premier was not known for his sympathy towards reserve acquisition, the Field Naturalists urged other organisations to support their move, and in late August and early September of 1952 the Premier received letters from the S.A.O.A., the Royal Society of South Australia, and the Royal Australasian Ornithologists Union (South Australian Branch), pressing upon him the need to secure all or part of the Harvey Estate as an addition to the existing reserve.<sup>57</sup> The arguments put forward by the ornithologists were, in a sense, conventional, following similar lines to those established in the Belair and Flinders Chase campaigns, but a novel approach came from the President of the Royal Society of South Australia, Dr. H. G. Andrewartha. Drawing on his background as a professional zoologist,

Andrewartha argued that areas of undisturbed scrub such as the Harvey Estate were essential to agriculture, not just as a yardstick against which success or failure of adjoining farms could be measured, but also as a source of irreplaceable genetic material, the future value of which could never be underestimated. It was an interesting argument, and in the following two decades it was to be used frequently, particularly in the dispute over the proposed resumption of the Hambidge Flora and Fauna Reserve (vide Chapters III & IV).

On 3 September 1952 the Director of Immigration and Tourism reported to his Minister that after inspecting the Estate with the Director of the Botanic Gardens, he was convinced that if the land could be acquired for a reasonable price it would be a valuable addition to the existing reserve. The Director added that the Land Board had a low opinion of the agricultural value of the Estate, and considered it could well be sold for around \$2.47 per hectare.<sup>58</sup> The day after the Director's report, the Chairman of the Field Naturalists Section made a firm offer to the Government, stating that through the Ferries bequest, \$3,000 would be contributed if the whole Estate were purchased, while a lesser area would be subsidised on a pro rata basis.<sup>59</sup> The offer swayed Cabinet into approval for the Land Board to attend the auction and bid to \$3.09 per hectare, but when bidding began it was clear that the Board had sadly underestimated the effect the wool boom of the early 1950's was having on land prices: when the Estate was eventually knocked down to a local carrier, it was for \$5.81 per hectare. Given Cabinet's limit of \$3.09 per hectare there was nothing further the land Board could do, but immediately after the auction an agent for the Field Naturalists Section began private negotiations with the successful purchaser, and secured from him Lot no. 1, 195 ha, for \$7.04 per hectare.<sup>60</sup>

After hopes had been held for acquiring the whole Estate it was a disappointingly small area, but even if the Land Board had anticipated the inflated values it is doubtful whether Cabinet would have approved

a per hectare figure high enough to secure even a portion of the Estate. Soon after acquisition the Field Naturalists set about transferring the land to the Government, and on 20 August 1953 sections 266, 267, and 268 hundred of Freeling county Sturt were dedicated a flora and fauna reserve (vide table p. 91, map p. 89). The additions adjoined the south western corner of the original reserve, and in recognition of the two men whose donations had contributed much of the land, the combined area became known over the years as the Ferries-McDonald Reserve. It is now the Ferries-McDonald Conservation Park.

#### *Humbug Scrub - a proposed national park*

Thirty two km north east of Adelaide, in the hundreds of Para Wirra and Barossa county Adelaide, was an area of rough hilly country covered with a rather low but dense dry sclerophyll woodland. Known locally as the Humbug Scrub, the poor soils and steep terrain of the area had inhibited land development, and apart from desultory attempts at gold mining the Scrub had remained little used and comparatively isolated. Such native animals as the grey kangaroo (*Macropus fuliginosus*), the echidna (*Tachyglossus aculeatus*), and the short-nosed bandicoot (*Isodon obesulus*), becoming rare elsewhere in the Mt. Lofty Ranges, were still common, and by the late 1940's the area was coming under close scrutiny from the newly-formed Adelaide Bush Walkers Club.

H. A. Lindsay, a journalist, had formed the club in 1946 after writing an article on bushwalking in the magazine section of *The Advertiser* the previous year,<sup>61</sup> and it was Lindsay, in his capacity as President of the Club, who outlined, in November 1947, a proposed national park of 1,214-2,023 ha in the Humbug Scrub. Lindsay was a persuasive writer, and on paper his case appeared convincing: the Bush Walkers realised, he said, that the chances of setting aside a

national park over good agricultural land were 'very remote', but the Humbug Scrub had only skeletal soils over quartzitic rock, offering little chance of pasture improvement. Furthermore, he added, though the soils were poor the native flora was rich and varied, and supported an excellent array of wildlife.<sup>62</sup>

The Hon. E. E. Anthony, M.L.C., forwarded Lindsay's proposal to the Department of Lands for investigation, but in January 1948 the Minister of Lands dashed all hopes by stating that 'the cost of acquiring the land would be out of all reason as the *unimproved* value for Taxation is over £8,000 [\$16,000]'.<sup>63</sup> The Minister considered the matter closed, but in March 1948 Lindsay reiterated the desirability of acquiring the land:

the area at Humbug Scrub represents our last chance to secure a tract of virgin bush, reasonably close to Adelaide, for a national park. No other area of similar country is now left. The area has never been cut over and the timber is the original growth.

Lindsay also argued that the other States of Australia were well ahead of South Australia in setting aside suitable areas for parks and reserves:

Our Belair National Park is only 2,000 acres [809 ha], and is fast becoming a huge playground. We have no quarrel with that fact, but we do think that South Australia should have what all other States possess - a large area of country, close to the capital, which is kept in its natural state; a piece of the original Australia, to be held in trust for posterity.<sup>64</sup>

The Minister replied by again stating the likely cost, and the matter lapsed.<sup>65</sup> Perhaps understandably, there must have seemed little attraction in an isolated area of scrub likely to be used only by a small bushwalking fraternity, but time was to vindicate Lindsay's stand, and the State paid dearly for the Minister's shortsightedness. By 1960 the Government had decided that Humbug Scrub *would* make a good national park, and in the following eight years it purchased a little over 1,214 ha of the area.

In 1947 the 2,023 ha proposed by Lindsay could have been obtained for around \$16,000: by 1968 the Government had outlayed for 1,214 ha of the same land, \$257,600.<sup>66</sup>

#### FURTHER DEVELOPMENTS - NATIONAL PLEASURE RESORTS SET ASIDE

To some extent the Government could afford to be niggardly with the Monarto South land and the Humbug Scrub, for at the time it seemed that both were designed to cater primarily for two minority groups; naturalists on one hand, and bushwalkers on the other. Both areas were relatively remote from Adelaide and seemed to have little general appeal, but the same criticism could not be used as an excuse for failure to obtain parks and reserves in other areas of the State. In particular, the steady growth of Adelaide was making it imperative for the Government to provide more recreation areas within easy travelling distance of the suburbs, and the post-World War II increase in private car ownership (vide p. 207) was drawing travellers in increasing numbers to scenic regions of South Australia once considered remote and inaccessible. The purchase of Obelisk Estate and Horsnells Gully in the Mt. Lofty Ranges, and the proclamation of Wilpena Pound in the Flinders Ranges as a National Pleasure Resort, were tangible signs that somewhat slowly, and certainly reluctantly, the Government was beginning to recognise that Belair National Park and a handful of other smaller reserves could no longer be regarded as sufficient for those seeking outdoor recreation in natural surroundings.

#### *Obelisk Estate*

Situated near Mt. Lofty, highest peak on the Mt. Lofty Ranges, the Obelisk Estate was a prime area to secure for conservation and

recreation purposes, being typical of the central portion of the Ranges, an area which had become known, over the years, as 'the Adelaide Hills'. The Ranges were low and unspectacular by international standards, rising at their highest point to only a little over 610 m, but successive generations of South Australians had come to regard them as an admirable backdrop to the city of Adelaide. Noticeably cooler than the Adelaide Plains, the Ranges were particularly popular during the spring and summer months, and many of the more affluent members of Adelaide society had lavish summer resorts erected: by the early twentieth century such localities as Mt. Lofty, Crafers, Stirling, and Bridgewater were noted for their fine mansions and sprawling lawns and gardens.<sup>67</sup> Those who could not afford such luxury had to be content with day excursions to picnic sites within easy reach of Adelaide and its suburbs, and it was the proximity to public transport of such places as Belair National Park, Waterfall Gully, Morialta Falls, and Brownhill Creek which explained much of their popularity throughout the late nineteenth and early twentieth century.<sup>68</sup> In the predominantly horse and buggy days of pre-World War I there was a certain leisurely charm about excursions to these reserves, a charm which W. H. Selway recalled with some nostalgia when describing Waterfall Gully:

In the earlier days there was little in the way of paths up the gully, and the road was bad. The stream had to be crossed many times, sometimes on narrow planks. There was, indeed, at that time a touch of adventure in the walk, especially when the stream was swollen with heavy rains and the gallants of the party, as in duty bound, helped the fair maidens to negotiate safely the turbulent waters.<sup>69</sup>

Selway was writing in 1936, and went on to complain that such good times had been somewhat spoiled by the advent of the automobile, and indeed in the 1920's and 1930's Adelaide's steadily rising population, relying more and more on the motor car for its weekend excursions, was placing an increasing strain on existing parks and reserves.

It was apparent, even to a State Government traditionally wary of

committing any money to the purchase of parks and reserves, that more land would have to be acquired, and late in 1937 an important opportunity arose in the proposed sale of the Obelisk Estate. The Estate covered some 688 ha between Waterfall Gully and Mt. Lofty summit in the hundred of Adelaide, county Adelaide, and was the very area Professor Cleland had suggested should be reserved in 1924 (vide p. 35). Much of the land was underlain by arenaceous rocks dissected extensively by small gullies, and covered by a dry sclerophyll forest similar to that found in the Belair National Park a few kilometres to the south west. By contrast, argillaceous rocks in the west and north west of the Estate had weathered to a gentler topography of rolling ridges and valleys, the vegetation of which was a savanna woodland dominated by such species as *Eucalyptus leucoxylon* (blue gum) and *E. viminalis* (manna gum). The Estate was certainly not undisturbed land, various sections having been utilised over the years for woodcutting, grazing, and tobacco growing, but it was a popular bushwalking area, and was also regarded highly by botanists; in several small gullies below Mt. Lofty peat bogs containing the rare *Todea barbara* (king fern) occurred, and on higher ground near Mt. Bonython was a small stand of *Eucalyptus rubida* (candlebark gum), an attractive tree restricted, in the Mt. Lofty Ranges, to pockets of fertile soil in the high rainfall areas.<sup>70</sup>

At the time the land was offered to the Government, November 1937, it was held by Obelisk Estate Ltd., a company which had sponsored an elaborate but generally unsuccessful plan to develop the Estate for forestry, grazing, market gardening, and high-class housing. In its offer to the Government, the company described the area as ideally suited for such recreational development as ovals and swimming pools,<sup>71</sup> and in a report of June 1938 the Director of Tourism agreed that there was much of value in the Estate. In particular, the Director saw it as a desirable link between national pleasure resorts already in existence at Waterfall Gully and Mt. Lofty summit, and a key area in flood control; the area contained the headwaters of First Creek,



and erosion following excessive timber cutting had caused the Creek to flood as it meandered across the Adelaide Plains towards the River Torrens.<sup>72</sup> It was a valuable area, but the price was considered quite unreasonable, especially after a Land Board valuation of February 1939 had suggested a figure well below that asked by the company.<sup>73</sup>

Negotiations over the purchase price broke down in April 1939, and there was little further action until 1944. In that year the Land Board became involved in the purchase of a cottage and land immediately below the summit of Mt. Lofty and adjacent to the Obelisk Estate. In the course of routine minutes and reports dealing with the purchase, the Board noted extensive timber cutting over the Estate, and urged the Government to halt the cutting by acquiring the entire area.<sup>74</sup> In February 1945 the Director of Tourism supported the Land Board's urgings and drew attention to the impending auction sale of Obelisk Estate. Stressing the desirability of acquiring the land, the Director noted:

I fear that if the Government does not obtain control of this land, it will be purchased by someone for the value of timber on it, or for the purpose of quarrying, and extensive operations in either of these directions would have a detrimental effect from an aesthetic point of view and would seriously affect the tourist attractions of the district.<sup>75</sup>

Early in March 1945 the F.F.A.C. added its weight to the purchase moves by advising that from 'every point of view' Obelisk Estate was a most desirable piece of land,<sup>76</sup> and on 15 March 1945 the Government purchased the Estate, 708 ha, for \$14,000 (vide table p. 90, map p. 89).

The land, renumbered section 608 hundred of Adelaide county Adelaide, now forms the bulk of the Cleland Conservation Park, but at the time of purchase the \$14,000 had come from Tourist Bureau Estimates for acquisition as a national pleasure resort, and the Estate was to remain under the control of the Bureau until 1963.<sup>77</sup>

### *Horsnells Gully*

In the year following the purchase of Obelisk Estate, the Government was presented with the opportunity for obtaining further land close to Adelaide. In November 1946 the Commissioner of Highways reported to the Minister of Local Government that the owner of a quarry in Horsnells Gully, an area several kilometres to the north of Obelisk Estate, was offering to sell the Government his quarry and adjoining land. The Highways Department had no use for the quarry, but as the owner had suggested that the adjacent land would make a fine 'national reserve' a visit had been made to sections 919, 1180, and 1181 hundred of Adelaide county Adelaide:

An inspection of these shows that they consist of high timbered ridges (Stringybark) intersected by gullies in which are growing a number of rather fine white gum trees ... If section 1179 belonging to Stonyfell Quarries Ltd., and section 1183 belonging to the State Bank could be included, the five sections would make a very desirable area which could be preserved in its present condition for the benefit of future generations, and also to preserve a large proportion of the watershed of Third Creek, which discharges through the Eastern suburbs.<sup>78</sup>

On the basis of this report Cabinet approved, on 20 February 1947, the purchase of sections 919, 1180, 1181, and a portion of 1109 hundred of Adelaide county Adelaide, 114 ha, and on 4 September 1947 the land was gazetted a national pleasure resort (vide table p. 91, map p. 89).

Renumbered as section 609, the area set aside now forms part of the Horsnells Gully Conservation Park. As with Obelisk Estate, the land remained under the control of the Tourist Bureau until 1963, but in that time no attempt was made to effect any formal 'improvements' on either of the reserves. Horsnells Gully, though small, was similar in relief and vegetation to that of Obelisk Estate, and the combined area of the two reserves was approximately the same as that of the Belair National Park. There seems little doubt that Cabinet's decision

to outlay \$16,700 for the purchase of Obelisk Estate and Horsnells Gully was influenced by their proximity to Adelaide, for both areas were only ten km from the heart of the city and within easy walking distance of public transport. Use of them by the public was virtually assured.

### *Wilpena Pound*

By contrast, Wilpena Pound was 483 km north of Adelaide, and even as late as the 1930's the country north of Pt. Augusta was known to most people as 'desert', a harsh inland known mainly for its heat and dust. That this difficult country could have a beauty of its own and scenery of more than ordinary charm was appreciated by only a few rare visitors, amongst them the artist Hans Heysen and poet Ian Mudie. Although both men travelled widely they returned time and again to one region in particular, the Flinders Ranges, and on canvas and in verse they did much to awaken a realisation that here was an arid mountain range of rare beauty.<sup>79</sup>

Rising to around 1,220 m in height, the Ranges represented a northward extension of the Mt. Lofty Ranges, but in their bold sandstone ramparts, broad undulating valleys, and startling red colours, they were a striking contrast to the more subdued hills of the south. In a region of spectacular form there was much to excite the visitor, but few features were admired more than Wilpena Pound. Situated some 48 km north of Hawker, the Pound consisted of an eroded anticlinal arch in massive sandstone, disposed in such a way that a central basin was encircled by a rugged series of peaks rising to almost 1,220 m, the whole effect being likened frequently to a vast amphitheatre. On the alluvium-filled floor of the Pound an attractive parklike woodland of *Eucalyptus camaldulensis* and *Callitris colummelaris* alternated with mallee scrub, while on the surrounding rim, stunted mallees,

sheoaks, and yaccas crowded a rocky skyline.<sup>80</sup> Discovered by Europeans in the mid-nineteenth century, the stockyard-like nature of the Pound was quickly appreciated by pastoralists, and with the exception of a 20 year period before and after World War I when wheat was grown over its floor, the Pound was used variously for depasturing and holding cattle, horses, and sheep.<sup>81</sup>

As motor vehicles became more robust and outback travel more common the number of visitors to the area increased steadily, and on 25 October 1945 the Government acknowledged the Pound's growing importance as a tourist attraction by proclaiming it a national pleasure resort (vide table p. 90, map p. 89). In 1948, Bonds Tours, an Adelaide-based company, constructed a 20 room 'chalet' on Wilpena Creek, a short distance outside the Pound, and in the following decade used it as a base for regular tours of the Flinders Ranges.<sup>82</sup>

Tourism was certainly seen by the Government as the main use for the Pound, but it was also seen by many as having fascinating geological and botanical features, and over the years there was consistent pressure to give it greater protection and care.<sup>83</sup> Few would have disputed that it was an area of national significance, and its proclamation as a National Pleasure Resort, though limited in value, represented one of the most important developments in what had proved to be a remarkable period, a period of marked expansion in the State's system of parks and reserves.

In 19~~3~~<sup>37</sup> the combined area of Flinders Chase, Belair National Park, and the McDonald Reserve at Monarto South, totalled only 53,947 hectares: by 1952 the acquisition of the reserves described in this chapter had raised the figure to 249,261 hectares. On paper the gains appeared impressive, and suggested that the early struggle of the Field Naturalists Section to awaken Government interest in parks and reserves had not been in vain.

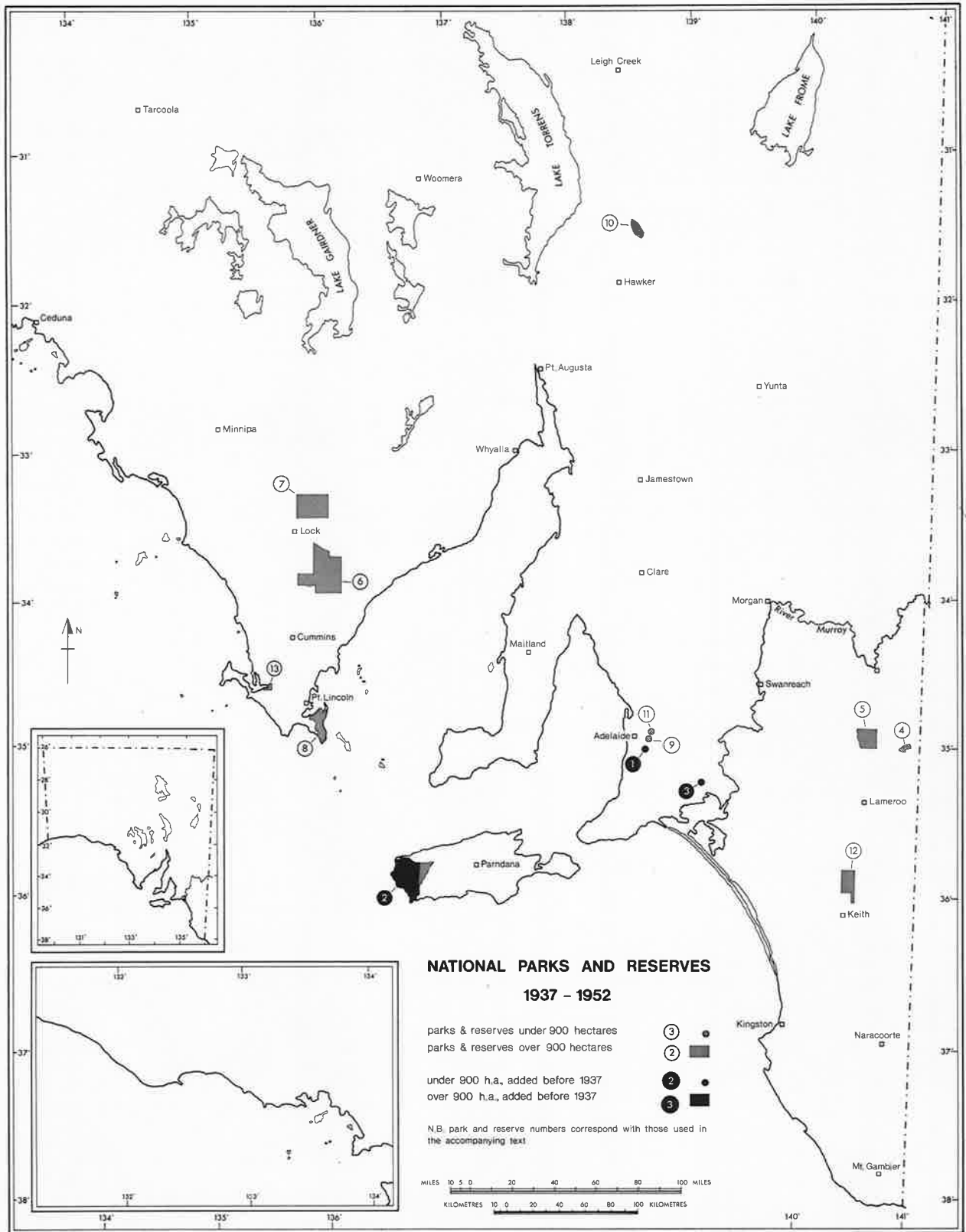
Certainly there could be no doubt that by setting aside such areas as Wilpena Pound and the Obelisk Estate the Government was showing

an increasing awareness of the potential importance of tourism to the State; neither could it be denied that the need to conserve particular plants and animals was being ignored, for it was acknowledged that such reserves as Peebinga and Kellidie Bay would preserve natural history features of some importance.

At the same time, however, it must be remembered that in many cases the reasons for dedication had little or nothing to do with flora and fauna conservation. In the case of Billiatt and Peebinga it was the fear of marginal lands and erosion; with Lincoln, Mt. Rescue, and Kellidie Bay it was an acknowledgement that the land was of no commercial use, and with Hambidge and Hincks it was made quite clear that they were to be flora and fauna reserves only for as long as the land was not in demand for agriculture. Rightly or wrongly Government Departments believed that flora and fauna reserves were, in terms of economics, at best useless, and at worst a hindrance to the State's increasing wealth. It followed from this that as little as possible should be spent on their acquisition and maintenance, and the Government's tardiness in this respect was illustrated very clearly by its refusal to even consider purchase of the Humbug Scrub, and its shortsightedness in failing to find a mere \$140 for the valuable swampland on *Didicoolum*.

The result of this official attitude was that in 1952 much of the area reserved consisted of land which was either so poor as to be unfit for almost any commercial enterprise, or land which was remote from existing land development schemes. In this latter category could be placed such reserves as Hambidge and Hincks, for although containing soils suitable for wheat and wool growing they were, in 1940, relatively remote and inaccessible. Furthermore, the then prevailing suspicion of marginal mallee lands ensured that any new development proposals were not looked on with any favour by the Government. As long as this combination of circumstances continued there was no serious thought given to resumption, but in the early 1950's the situation

changed. The position of primary production in Australia took a marked upturn, and the result was not only active opposition to proposals for new reserves, but the beginning of concerted campaigns to have such existing reserves as Hambidge and Hincks resumed and subdivided for agricultural settlement.



NO.	NAME	LOCATION		GAZETTE		AREA		VEGETATION	REMARKS
		REGIONAL	CADASTRAL	DEDICATED	DECLARED	HECTARES	CUMULATIVE		
4	PEEBINGA Flora & Fauna Reserve	Murray Mallee	Sections 21, 22, 30, 31, Hd. Peebinga, Co. Chandos	14.3.1940		2,464	56,411	Sclerophyllous mallee	Marginal farming land abandoned in 1930's. Chairman of Land Board anxious to have land preserved to protect rare mallee whip bird. D.L. 5293/1934, 1049/1939
2A	FLINDERS CHASE Addition	Kangaroo Island	Vide Remarks column	Amending Act assented to 7.11.1940		+ 11,857 - 6,346	61,923	Sclerophyllous mallee	Land north of Cape Borda road of some agricultural value: Fauna and Flora Board agreed to resumption in return for an extension of the eastern boundary, the result of which was the inclusion of the Rocky River headwaters in the reserve. Act 25, 1940; D.L. 6251/1939
5	BILLIATT Flora & Fauna Reserve	Murray Mallee	Section 15; Hd. Billiatt, Co. Chandos	12.12.1940		22,663	84,586	Sclerophyllous mallee	Deep sand country prone to wind erosion when disturbed. Considered to be of no economic value. D.L. 1419/1940
6	HINCKS Flora & Fauna Reserve	Eyre Peninsula	North out of Hundreds (N.O.H.), Co. Jervois, no section numbers when dedicated: comprised present section 365 N.O.H.; sections 1,2, Hd. Hincks; section 11 Hd. Nicholls; sections 19-27 Hd. Murlong	14.8.1941	28.8.1941	75,260	159,846	Sclerophyllous mallee	Deep sand country, 90% considered unsuitable for agriculture. Set aside at request of F.F.A.C. F.&G. 77/1939
7	HAMBIDGE Flora & Fauna Reserve	Eyre Peninsula	North out of Hundreds, Co. Jervois, no section numbers when dedicated: comprised present sections 361, 364, N.O.H.; sections 1-8 Hd. Hambidge	14.8.1941	28.8.1941	43,237	203,083	Sclerophyllous mallee	Large portions considered suitable for agriculture. Dept. of Lands only agreeable to F.F.A.C. reserve proposals if it was understood resumption for agriculture could occur at any time. F.& G. 77/1939
8	LINCOLN Flora & Fauna Reserve	Eyre Peninsula	Sections 2, 5, 6, 13, Hd. Flinders, Co. Flinders	14.8.1941	28.8.1941	6,560	209,643	Sclerophyllous mallee	Rough grazing country considered to be of little economic use. Set aside at F.F.A.C. request. F.& G. 77/1939; D.L.A. 4651; D.L. 408/1944, 795/1941
9	CLELAND National Pleasure Resort	Mt. Lofty Ranges	Sections Pt1053, Pt1005, Pt1054, Pt925, Pt926, Pt931, Pt1172, Pt969, Pt1161, Pt1160, Pt1115, Pt985,983, 984, 924, Hd. Adelaide, Co. Adelaide (later renumbered section 608)	Land purchased 15.3.45		708	210,351	Dry sclerophyll and savanna woodland	Formerly Obelisk Estate, to immediate W. and N.W. of Mt. Lofty summit. Acquired by Government after many years of urging by Land Board, Tourist Bureau, and F.F.A.C. D.L. 6499/1937, T.D. 75/1939
8A	LINCOLN Addition	Eyre Peninsula	Section 3 Hd. Flinders, Co. Flinders	5.4.1945		623	210,974	Sclerophyllous mallee	See remarks, No. 8.
10	WILPENA National Pleasure Resort	Flinders Ranges	Section 106 N.O.H.	25.10.1945		9,480	220,454	Low layered woodland	Formerly a Forest Reserve. Status changed by Government in recognition of increasing tourist potential of area.



NO.	NAME	LOCATION		GAZETTE		AREA		VEGETATION	REMARKS
		REGIONAL	CADASTRAL	DEDICATED	DECLARED	HECTARES	CUMULATIVE		
8B	LINCOLN Addition	Eyre Peninsula	Section 12 Hd. Flinders, Co. Flinders	31.1.1946		5,439	225,893	Sclerophyllous mallee	Vide remarks, No. 8.
8C	LINCOLN Addition	Eyre Peninsula	Section 14 Hd. Flinders, Co. Flinders	27.2.1947		1,753	227,646	Sclerophyllous mallee	Vide remarks, No. 8.
11	HORSNELLS GULLY National Pleasure Resort	Mt. Lofty Ranges	Sections 919, Pt1109, 1180, 1181, Hd. Adelaide, Co. Adelaide (later renumbered, section 609)	4.9.1947		114	227,760	Dry sclerophyll	Purchased on recommendation of the Commissioner of Highways - to protect fine gums and prevent erosion of Third Creek headwaters, H.L.G. 1088/1946
2B	FLINDERS CHASE Addition	Kangaroo Island	No section numbers - land between Light House Reserves at Cape Borda and Harvey's Return, Co. Carnarvon	7.10.1948		86	227,846	Sclerophyllous mallee	Vide Dept. Lands S.D.B. Hd. Borda. Area approximate - Dept. Lands planimeter, 1973.
1A	BELAIR Addition	Mt. Lofty Ranges	Section 567 Hd. Adelaide, Co. Adelaide	24.2.1949		4	227,850	Dry sclerophyll	Former quarry reserve - added at request of Commissioners of the National Park. D.L. 2361/1948
12	MT. RESCUE Flora & Fauna Reserve	Upper South East	Sections 3, 4, Hd. Makin; sections 9,10, Hd. Archibald, Co. Buckingham	20.8.1953		19,243	247,093	Sclerophyllous mallee with heath	Dedicated after a long struggle by the F.F.A.C. to secure swampy country at nearby <u>Didicoolum</u> failed. F. & G. 112/ 1938
3A	McDONALD Addition	Murray Flats	Sections 266, 267, 268, Hd. Freeling Co. Sturt	20.8.1953		195	247,288	Sclerophyllous mallee	Portion of the McDonald Estate auctioned in 1952. Purchased by F.N.S. using money donated by James Ferries. C.S.O. 602/1952
13	KELLIDIE BAY Flora & Fauna Reserve	Eyre Peninsula	Sections 1 - 13, 21, 131, 271, 273-277, 295, Hd. Lake Wangary, Co. Flinders	30.9.1954		1,973	249,261	Sclerophyllous mallee & tussock grassland	Poor grazing country, dedicated through F.F.A.C. urging - seen by F.F.A.C. as some compensation for failure to gain tussock grassland of <u>Didicoolum</u> . M.A. 300/1946

## REFERENCES

1. Meinig, D. W., 1970: *On the Margins of the Good Earth*. Rigby Ltd., Adelaide.
2. Dept. Lands & Survey S.A., Annual Report for 1929/30. S.A.P.P. 1926-1929, p. 39.
3. For a discussion of the Marginal Lands problem, particularly as it related to the Murray Mallee of S.A., see Harris, C. R., 1968: Mantung : A Study of Man's Impact on a Landscape. Unpub. B.A. (Hons.) thesis, Dept. Geography, Univ. of Adelaide.
4. S.A.P.P. 62/1939.
5. Ratcliffe, F. N., 1936: Soil Drift in the Arid Pastoral Areas of South Australia. C.S.I.R. Pamph. 64.
6. S.A.P.P. 40/1938.
7. Mudie, Ian, 1945: *Poems : 1934-1944*. Georgian House, Melbourne.
8. L.B. to D.L. 20/12/38, D.L. 5293/1934.
9. C.C.L. approval 14/2/39, D.L. 1049/1939.
10. F. H. Faulding & Co. Ltd., interviews 15/10/38, 25/2/39; letter 25/2/39: D.L. 1049/1939.
11. L.B. to D.L. 22/3/39, D.L. 1049/1939.
12. Faulding to D.L. 10/1/40, D.L. 1049/1939.
13. D.L. to L.B. 16/1/40, D.L. 1049/1939.
14. L. W. Wiebrecht to D. L. 19/2/40, D.L. 1419/1940.
15. L.B. to D.L. 9/4/40, D.L. 1419/1940.
16. Advisory Committee on Soil Conservation Report 18/9/40, D.L. 1419/1940.
17. L.B. to D.L. 27/9/40, D.L. 1419/1940.

18. C.C.L. approval, 28/9/40, D.L. 1419/1940.
19. Minutes of F.F.A.C. meeting, 29/3/39, F. & G. 77/1939.
20. Report by A. D. Adams, Agricultural Adviser, 23/9/39, F. & G. 77/1939.
21. S.G. to D.L. 19/1/40, F. & G. 77/1939.
22. L.B. to D.L. 10/2/40, F. & G. 77/1939.
23. Minutes of F.F.A.C. Meeting 5/6/40, F. & G. 77/1939.
24. S.G. to D.L. 19/6/40; D.L. to M.A. 18/7/40; F.F.A.C. to M.A. 4/12/40; L.B. to D.L. 20/12/40; F.F.A.C. to D.L. 4/3/41; D.L. to M.L. 17/3/41; F. & G. 77/1939.
25. Minutes of F.F.A.C. meeting 30/4/41, F. & G. 77/1939.
26. Coaldrake, J. E., 1951: 'The Climate, Geology, Soils, and Plant Ecology of Portion of the County of Buckingham (Ninety Mile Plain), South Australia'. *C.S.I.R.O. Bull.* 266.
27. Crocker, R. L., 1941: 'Notes on the geology of the Lower South East of South Australia, with reference to late climatic history'. *Trans. Roy. Soc. S.A.*, v. 65, (1), 103-107.
28. Crocker, R. L., 1944: 'Soil and Vegetation relationships in the Lower South-East of South Australia'. *Trans. Roy. Soc. S.A.*, v. 68, (1), 144-172.
29. Williams, M., 1964: 'The Historical Geography of an Artificial Drainage System: The Lower South-East of South Australia'. *Aust. Geog. Studies*, 2, 87-102.
30. For a recent review of the trace element discoveries see Marshall, Ann, 1972: 'Desert becomes Downs: The Impact of a Scientific Discovery'. *The Australian Geographer*, XII, (1), 23-34.
31. Minutes of F.F.A.C. meeting 8/6/38, F. & G. 112/1938.
32. Minutes of F.F.A.C. meeting 16/11/37, F. & G. 112/1938.
33. Minutes of F.F.A.C. meeting 15/2/39, F. & G. 112/1938.
34. Minutes of F.F.A.C. meeting 29/3/39, F. & G. 112/1938.
35. Minutes of F.F.A.C. meeting 26/4/39; Wood to Sec. F.F.A.C. 14/6/39: F. & G. 112/1938.

36. M.A. to C.C.L. 19/5/41, F. & G. 112/1938.
37. Pastoral Board, minute, 19/6/41; Wood to Sec. F.F.A.C. 29/7/41; F. & G. 112/1938.
38. L.B., minute, 25/9/41, F. & G. 112/1938.
39. Minutes of F.F.A.C. meeting 26/7/44, F. & G. 112/1938.
40. M.A., minute, 9/8/44; Conservator of Forests Report 6/11/44; Cabinet rejection 6/12/44: F. & G. 112/1938.
41. Minutes of F.F.A.C. meeting 16/10/46, F. & G. 112/1938.
42. For detailed reports on development in the trace element deficient areas see the Dept. of Lands Annual Reports for the 1940's and 1950's (printed as Parliamentary Papers each year).
43. Subcommittee of F.F.A.C. report 21/3/45, F. & G. 112/1938.
44. Minutes of F.F.A.C. meeting 1/6/51, F. & G. 112/1938.
45. D.L. to F.F.A.C. 7/3/52, F. & G. 112/1938.
46. Wood to Sec. F.F.A.C. 6/5/52, F. & G. 112/1938.
47. L.B. to D.L. 18/9/52, F. & G. 112/1938.
48. Minutes of F.F.A.C. meeting 7/10/53, F. & G. 112/1938.
49. Angas, G. F., 1846: *South Australia Illustrated*. Thomas Mclean, London. Quotes are from the description accompanying Plate XX.
50. President S.A.O.A. to M.A. 21/11/46, M.A. 300/1946.
51. M.A. 300/1946, F. & G. 59/1946.
52. L.B. to D.L. 25/2/47, M.A. 300/1946.
53. Minutes of F.F.A.C. meeting 10/8/48, M.A. 300/1946.
54. L.B. to D.L. 10/53, M.A. 300/1946.
55. S.A.O.A. to Chief Inspector F. & G. 24/7/47; D. C. Harvey to D.L. 30/9/53; O. D. Waite to F.F.A.C. 28/5/54; F.F.A.C. to D.L. 17/12/54: C.S.O. 1480/1936.
56. Waite to Premier 18/8/52, C.S.O. 602/1952.

57. S.A.O.A. 22/8/52; Roy. Soc. S.A. 3/9/52; R.A.O.U. 5/9/52; C.S.O. 602/1952.
58. Director Immigration & Tourism to Minister of Immigration & Tourism 3/9/52, C.S.O. 602/1952.
59. Chairman F.N.S. to Premier 4/9/52, C.S.O. 602/1952.
60. L.B. to D.L. 12/9/52, C.S.O. 602/1952.
61. Pitt, R., 1970: 'A tribute to H. A. Lindsay'. *Tarndanya* (Magazine of the Adelaide Bushwalkers), pp. 6-7.
62. Lindsay to Anthony, letter undated but probably November 1947, D.L. 5782/1947.
63. M.L. to Anthony 20/1/48, D.L. 5782/1947.
64. Lindsay to Anthony 9/3/48, D.L. 5782/1947.
65. M.L. to Lindsay 22/3/48, D.L. 5782/1947.
66. D.L. 3148/1963; D.L. 4564/1963; D.L. 4146/1961; D.L. 2272/1956; D.L. 6780/1960; D.L. 423/1966; D.L. 657/1968.
67. See, for example, the comments in Vivienne, M., 1908: *Sunny South Australia*. Hussey & Gillingham, Adelaide, pp. 125-127.
68. Burgess, H. T., 1909: *The Cyclopedia of South Australia*. Hussey & Gillingham, Adelaide, (2 vols.), v. 2, pp. 195-196.
69. Field Naturalists Section Roy. Soc. S.A., 1936: *National Park, Morialta, and Waterfall Gully Reserves, Containing an account of their natural history*, being a reprint of *The S.A. Naturalist*, v. XVII, (1-4), p. 99.
70. Cotton, B. C. (ed.), 1964: *South Australian National Parks and Wild Life Reserves*. Govt. Printer, Adelaide, p. 140.
71. Managing Agents Obelisk Estate Ltd. to Govt. 16/11/37; also see undated Company prospectus: both in D.L. 6499/1937.
72. Director of Immigration & Tourism, minute, 27/6/38, D.L. 6499/1937.
73. L.B. to D.L. 13/2/39, D.L. 6499/1937.
74. L.B. to D.L. (several minutes), T.D. 75/1939.

75. Director of Immigration & Tourism, minute, 28/2/45, D.L. 6499/1937.
76. F.F.A.C., minute, 5/3/45, D.L. 6499/1937.
77. T.B. 440/1962 deals with the transfer of control of Obelisk Estate and Horsnell's Gully to the N.P.C. Also see Chapter III.
78. Commissioner of Highways to Minister of Local Government 27/11/46, H. & L.G. 1088/1946.
79. For a fine account of Heysen's work in the Flinders Ranges see pp. 195-212 in Thiele, C., 1968: *Heysen of Hahndorf*. Rigby Ltd., Adelaide; an evocative paper by Ian Mudie expressing his affinity with the Flinders Ranges appears in Mudie, I., 1972: 'What the Flinders Ranges mean to me'. pp. 1-9 in Whitelock, D. (ed.), *The Future of the Flinders Ranges*. Dept. Adult Educn., Univ. of Adelaide, publicn. no. 28.
80. Corbett, D. W. P. (ed.), 1969: *The Natural History of the Flinders Ranges*. Libraries Board of South Australia, Adelaide.
81. Mincham, H., 1964: *The Story of the Flinders Ranges*. Rigby Ltd., Adelaide, pp. 258-272.
82. Director S.A. Govt. Tourist Bureau to author (pers. comm.) 30/7/70.
83. See, for example, Saddler, B. A., 1970: 'Wilpena Pound, Flinders Ranges, South Australia'. *Wildlife*, v. 7, (3), 84-85; Serventy, V., 1968: *Wildlife*, v. 5, (4), p. 126; v. 7, (3), p. 68.

## CHAPTER III

A TIME FOR REASSESSMENT, 1952-1962

Prospects for farming throughout southern Australia show a marked improvement. Pressure from rural interests results in the loss of reserve land, but out of the accompanying controversy comes an important reassessment. Land is lost but administration tightened, and the stage is set for a major expansion of parks and reserves.

## THE FARMING OUTLOOK IMPROVES

For almost a decade before World War II, and for several years after its close, primary production in Australia languished. The wheat industry, in particular, had fallen into grave marketing difficulties throughout the 1930's, and by 1939 several thousand Australian farmers had been declared bankrupt. When war broke out it soon became clear that stability for the industry was essential, and working towards this end through a greater control of marketing procedure and pricing, the Commonwealth Government set up the Australian Wheat Board. When the War ended the Board was retained, and under its control war-time marketing procedures for wheat were extended for several years. While satisfactory as a short-term expedient, it was clear to all that such an arrangement could not extend indefinitely, and in 1948 the Commonwealth and State Governments agreed on a wheat prices stabilization plan. The main feature of the plan was the provision of guaranteed minimum prices for all wheat sold in Australia, and for some of the wheat sold on the overseas market. Although not without its critics, the plan did manage to bring stability to an industry formerly plagued by wildly-fluctuating prices, and by the early 1950's there was a rare

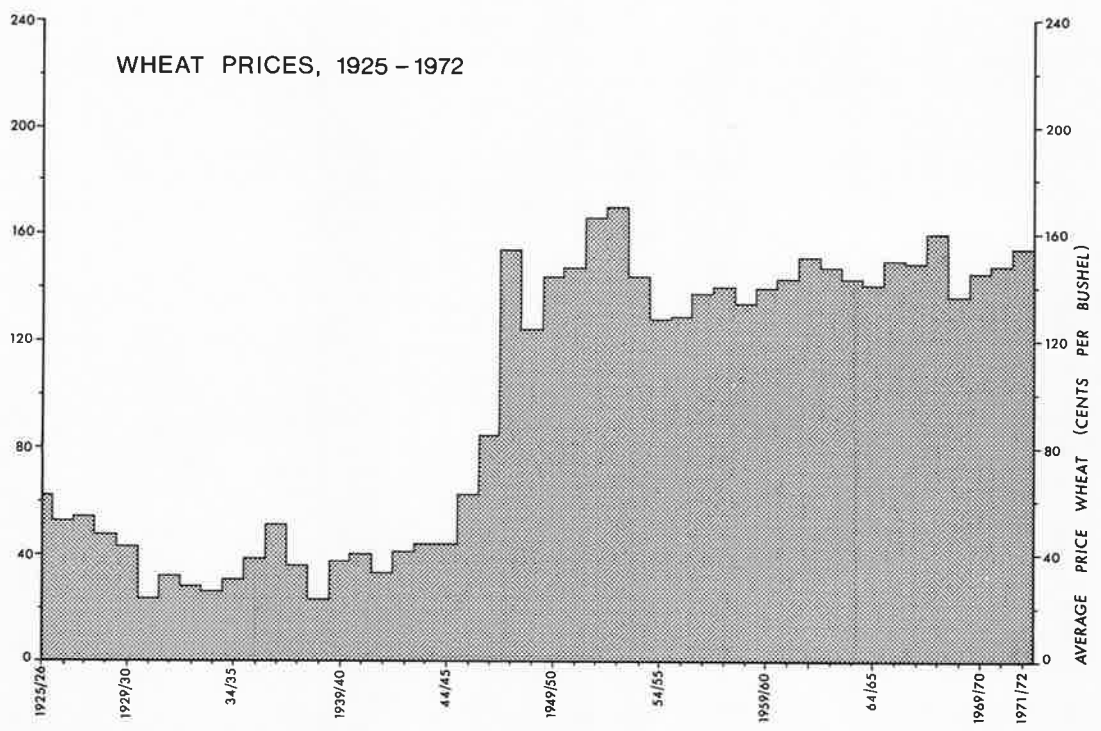
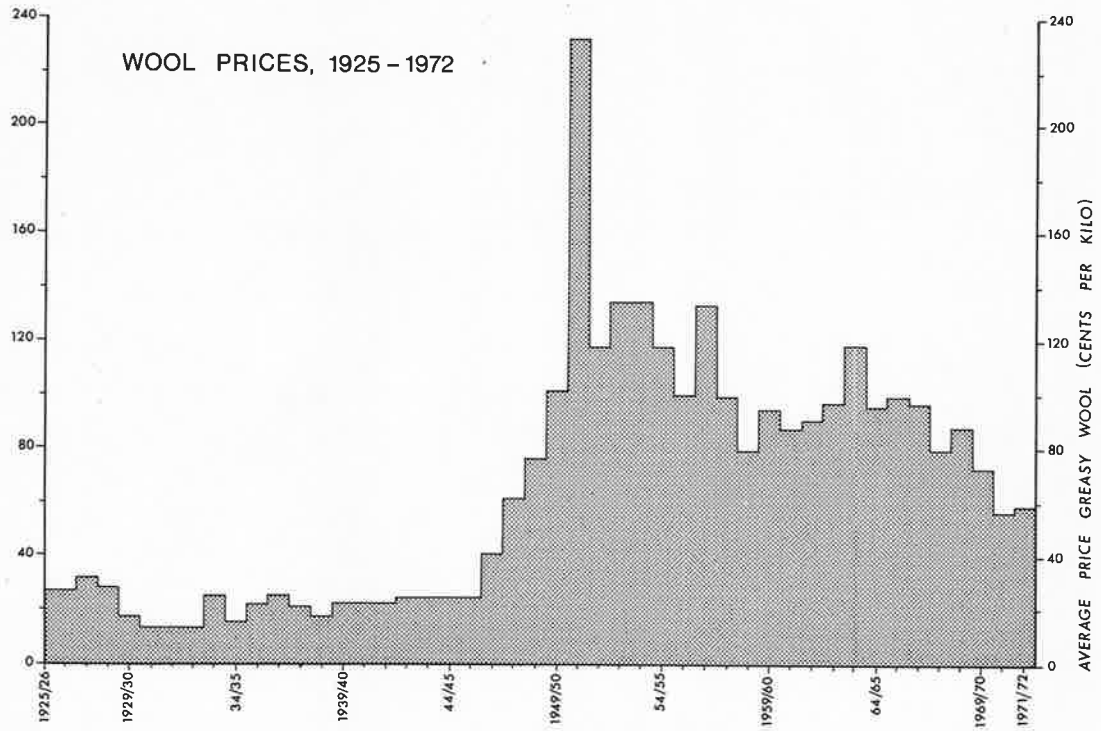
air of confidence in the future of wheat<sup>1</sup> (vide p. 99).

Coincidental with the recovery of wheat was the fillip given to wool production by the Korean War. Frantic buying of Australian wool stocks by the American military forces had rocketed the average price of greasy wool to around 240 cents per kilo in the 1950/51 season, and although such dizzy heights were ephemeral, wool was to continue to provide good returns for growers throughout the 1950's and early 1960's (vide p. 97). A run of excellent rainfall seasons in the early and mid-1950's added further confidence and income to the wheat and wool industries, and with both Commonwealth and State Governments actively encouraging expansion in the rural sector with soldier settlement schemes and attractive taxation concessions, the result was a lively land boom. In its annual reports for the early 1950's the South Australian Department of Lands commented at some length on the boom, expressing particular concern over the inflation of land prices. The Department pointed out that spiralling demand and high values for privately owned land were resulting in a greatly increased number of enquiries for unalienated Crown Land, even that of inferior quality. At the same time, the Department pointed out, this demand for the release of Crown Land was not restricted solely to private settlers, for the Land Board, in search of areas suitable for inclusion in the Commonwealth/States returned servicemen schemes, was also finding the inflated private land values prohibitive; it too was interested in Crown Lands as potential development areas.<sup>2</sup>

#### RESUMPTION MOVES ON EYRE PENINSULA

Given such a combination of circumstances it is hardly surprising that by 1953 both private and official thought was being given to the possibility of resuming suitable portions of the State's flora and





SOURCE: S.A. STATISTICAL REGISTER

ALL VALUES REPRESENT SOUTH AUSTRALIAN AVERAGE PRICES

fauna reserves for agricultural development. On Eyre Peninsula, especially, the time to many seemed ripe to press for suitable resumption measures. For many years land clearance and development of the region had lagged behind that of other portions of the State. Soils and rainfall were good, but transport difficulties, particularly the lack of an effective railway network, had restricted early development. By the early 1950's such barriers to expansion were gone, and with capital and heavy machinery readily available, clearance of the ubiquitous mallee scrub proceeded apace. Hambidge and Hincks were no longer secure: newly constructed roads from Cleve to Kyancutta, and Cleve to Tooligie Hill passed through the northern portions of both reserves, and the protective isolation was gone.<sup>3</sup> Farmers, now able to inspect the land within their boundaries, were not slow to observe that although a large proportion of the reserves consisted of deep sands of limited value, there were flats having the heavier-textured solonised brown soils well-suited for wheat growing. Rainfall was also considered adequate and reliable, ranging from an annual average of around 356 mm over Hambidge to 406 mm over Hincks.

The inevitable result of all these factors was pressure to resume the land for agricultural development, and one of the earliest moves towards this end came from a local politician, the Hon. G. G. Pearson, member for the State Parliament seat of Flinders. In a letter of August 1952 to the Minister of Lands Pearson had proposed, initially, that portion of the Lincoln flora and fauna reserve be released for grazing, but had then gone on to suggest the resumption of Hincks:

Another reserve in the Lock area has been quoted to me as containing a lot of arable land ... A new road is constructed through this reserve, and revealed some very desirable farming land.<sup>4</sup>

In reply to Pearson the Director of Lands stated firstly, that the Lincoln land was inferior and considered 'incapable of economic development', and secondly, that in response to numerous requests the Hincks land would be examined once aerial photographs were available



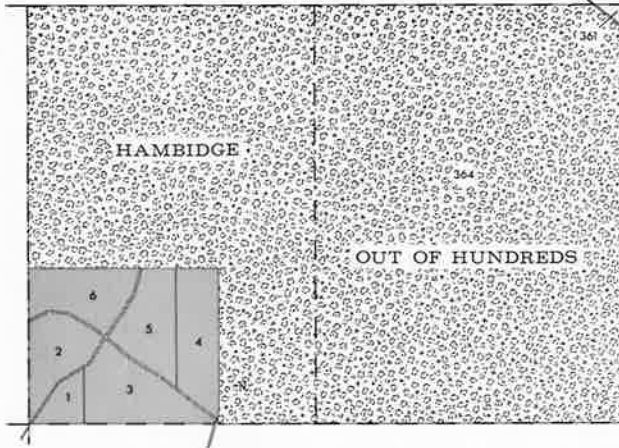
and a proper ground survey could be initiated.<sup>5</sup> With both reserves there was no thought that flora and fauna conservation needs should be examined, it was purely a question of economics and practical expediency, and in this respect it was clear that official attitudes to flora and fauna reserves had not changed in over a decade. When the Land Board inspected the northern portion of Hincks from the Cleve-Tooligie Hill road in August 1952 it was concerned solely with the agricultural potential of the area, and this attitude was maintained in the following year when, in July of 1953, the Board recommended a reconnaissance inspection of the bulk of Hincks 'with the object of defining which portions, if any, merit a more detailed examination for purposes of subdivision'.<sup>6</sup>

*Hambidge - the first resumption*



At the same time that subdivision of Hincks was under consideration, active steps were being taken towards the resumption of land from Hambidge. The Cleve-Kyancutta road referred to previously, had been surveyed such that it passed through the north eastern corner of Hambidge, thereby severing an area of 70 ha from the bulk of the reserve. Concurrent with this development was the leasing of the adjoining sections 31 and 32 hundred of Darke to a farmer from nearby Cootra, and in October 1953 the Director of Lands wrote to the F.F.A.C. informing them that the 70 ha would be resumed from the Hambidge reserve (vide map p. 102, table p. 133). In his letter the Director stated firstly, that the land was needed for inclusion in the hundred of Darke lease, and secondly:

it is considered that as the road which leads from Darke Peak to Kyancutta forms a natural boundary to the reserve, the excision of this portion is unimportant.<sup>7</sup>

The F.F.A.C. had been presented with a *fait accompli*, the Director





**HAMBIDGE**  
**LAND RESUMED, 1952 - 1962**

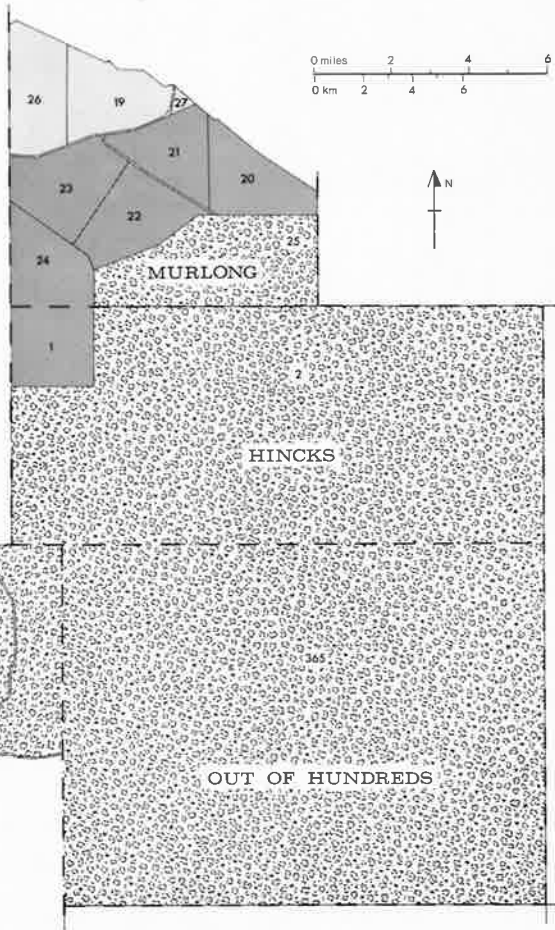
-  area resumed & allotted for settlement, Gazette 11.2.1954
-  area resumed & allotted for settlement, Gazette 5.12.1957

SOURCE, D.L. 5315/1953, 6896/1954

**HINCKS**  
**LAND RESUMED, 1952 - 1962**

-  area resumed & allotted for settlement, Gazette 31.3.1960
-  area resumed & retained as Crown Land, Gazette 31.3.1960

SOURCE: D.L. 2454/1952



noting coolly that the Minister had already approved the resumption, and reaction was hostile. The resumption was gazetted on 11 February 1954, the 70 ha being numbered section 361 north out of hundreds, and at its June meeting of 1954 the F.F.A.C., after 'much discussion', recorded that

All members deplored the chiselling off of sections from reserves whether the areas be big or small, and in this case thought that the Committee should first have had the opportunity of expressing an opinion.<sup>8</sup>

Coming from a Committee of essentially moderate views, it was a strongly-worded statement, yet one which is not difficult to understand in the context of the situation. The resumption, in itself, was not of any great significance, the area being very small in proportion to the total reserve area and of little use once severed by the road, but two important issues were at stake: one was the authority of the F.F.A.C. as controlling body of the reserve, and the second was the precedent set for future resumptions. On 17 May 1945 a gazette proclamation had declared Hambidge, Hincks, and Lincoln, to be under the 'care, control, and management' of the F.F.A.C., and while the Committee had no funds for this purpose its responsibility was clear; to leave it out of the resumption discussions was an affront to its controlling status. The second issue was the precedent set by the resumption, and this was certainly the more important of the two. In its clash with the Department of Lands in 1940 over the question of security of tenure for the reserves, the F.F.A.C. had shown itself to be well aware of likely resumption moves, and it was also well aware that the process was not likely to stop with the 70 ha of Hambidge. Perhaps paradoxically, in view of the breakdown of liaison, the Director of Lands was also a member of the F.F.A.C., and at its June 1954 meeting he had stated that 'from time to time areas may have to be excised from reserves to make living areas of nearby holdings'.<sup>9</sup> It was an ominous warning, and the implication was clear: no reserve could be considered inviolate. The alarm felt by F.F.A.C. members

was reflected by the strength of their protest statement, and taken aback by the reaction, the Director of Lands wrote a formal letter to the F.F.A.C. stating

I had no intention of ignoring the Committee ... I agree, however, that any proposed resumption from Flora and Fauna Reserves will in future be referred to the Committee to give it an opportunity to express its views.<sup>10</sup>

*Hambidge - the second resumption*

With the Director's conciliatory gesture the matter closed, but towards the end of 1953 the whole question of resumption was reopened, with the Department of Lands receiving a letter from T. A. McInnis, a young sharefarmer resident at Lock, and an approved soldier settler under the Commonwealth/States scheme. In his letter McInnis outlined a desire to acquire land of his own, and went on to say that in the Lock district he considered the most suitable land left for development was to be found in the south western corner of the Hambidge reserve.<sup>11</sup>

On the recommendation of the Land Board, a Department of Lands District Inspector accompanied McInnis on an inspection of 5,180 ha of the south west portion of the reserve, and in January 1955 his report was forwarded to the Director of Lands:

I was more than surprised by the quantity of land that could be brought into production on this reserve, and it would pay any settler well who was allotted a holding should the land be open for selection. I would say that more than 65% of the land was arable and with the modern methods of development and the excellent prices for farm products it should be a fairly safe venture.<sup>12</sup>

True to his promise the Director of Lands forwarded plans of the proposed resumption to the F.F.A.C., and at its May 1955 meeting the Committee discussed them at some length. The outcome was a decision to oppose the resumption on three main grounds:

- (1) large areas were essential for flora and fauna conservation

- (2) good land as well as poor should be set aside
- (3) the land and its vegetation was a reservoir of genetic material which could well prove to be valuable in such fields as drug synthesis.<sup>13</sup>

If not the first, it was certainly one of the most articulate statements to have appeared in defence of the flora and fauna reserves, and the same basic arguments were to be used time and again as further resumption controversies flared in the late 1950's and 1960's.\* At the time though, its significance was not appreciated: as the Land Board pointed out, the expansion of wheat farming was all important:

it is felt that where lands can be brought under successful agricultural settlement serious consideration should be given to such areas for this purpose, particularly where they lie within Goyder's line of rainfall.<sup>14</sup>

Goyder's line of rainfall, laid down as the southern limit of a drought in the northern pastoral areas of the State in the mid 1860's (vide map p. 58), was a curious criterion to be applying to the suitability of land for wheat growing in 1955,<sup>15</sup> but the Land Board's view was shared by the Director of Lands in a minute to the Minister of Lands:

I am, as you are aware, a Member of the Flora and Fauna Committee and am very interested in the preservation of flora and fauna, but as Director of Lands, it seems to me that as the land is now considered suitable for development, the demand for land for food production is paramount to such preservation.<sup>16</sup>

The outcome was never in doubt: on 29 August 1955 Cabinet approved the resumption of 5,180 ha from the south west sector of Hambidge, and on 14 September 1955 the F.F.A.C. was informed officially of this decision<sup>17</sup> (vide map p. 102).

Only two months later, the Director of Lands received the report of a Departmental surveyor dealing with the suitability for resumption of land in the Hincks reserve. The report suggested that approximately

---

\* See chapters 4, 5.

6,880 ha of the northern portion would be suitable for subdivision and development,<sup>18</sup> and a minute from the Department of Agriculture confirmed this, stating that the area contained 'much good country', and that accordingly 'no objection should be taken to development on the grounds of erosion hazard'.<sup>19</sup> Survey work preparatory to the proposed resumptions at Hambidge and Hincks was now begun in earnest, and continued throughout 1956 and 1957. In October 1957 two new hundreds were constituted, Hambidge (no. 580), and Hincks (no. 581). Within the hundred of Hambidge, the land to be resumed was subdivided into six sections of approximately equal size, and on 5 December 1957 the gazette notice dealing with the resumption was published (vide map p. 102, table p. 134).

With this move the area of the reserve was reduced from 43,167 ha to 37,987 ha. Having been conducted at a Departmental level only, the resumption attracted no public protest. Members of the F.F.A.C. who were also members of such conservation-orientated bodies as the F.N.S. may have passed on news of the resumption, but even if this were done protest must have seemed rather futile, for the decision was made and the allocation of the sections for farming was only a question of time.

#### FURTHER PRESSURE - LINCOLN AND PEEBINGA

With the loss of 5,180 ha of Hambidge and the impending loss of at least 6,880 ha of Hincks, 1957 had not been encouraging for the F.F.A.C., but its problems did not lie solely with these two reserves: the run of good seasons and the flourishing state of the wheat and wool industries had encouraged farmers to seek out more and more land, and two more reserves, Lincoln and Peebinga, came under resumption pressure.

At Lincoln, earlier moves to have section 12 resumed for grazing



purposes had been rejected by the Director of Lands, as pointed out early in this chapter, but throughout 1957 a spirited campaign was waged to have this decision reversed. An almost constant stream of personal letters, letters from solicitors acting on behalf of applicants, and representations from local politicians were received by the Director of Lands, and acting under his instructions the Land Board inspected the disputed area. Confirming the opinion expressed by the Agricultural Adviser in 1939, the Board came down strongly against resumption:

the land constituting the Flora and Fauna Reserve is ideally suited for the purpose and as the quality of the land is indicative of very limited potential for development or grazing it is felt that alienation for this purpose would not be accompanied by production commensurate to the loss of the country in its present state as a sanctuary for bird, animals, and plant life in their natural habitat.<sup>20</sup>

Section 12, like most of the reserve, is characterised by thin and discontinuous soils over sheet limestone, and where open plains or glades occur amongst the otherwise dense mallee scrub, the pastures are scattered, and except in exceptional years, of poor quality. It is hard, today, to appreciate how so much interest could have been generated by such poor land, and there may well have been some truth in a dark hint at the time that at least some of the applicants were interested only in the amount of firewood that could be cut out from the scrub.<sup>21</sup> The Director of Lands not only supported the Land Board report, but in a minute of November 1957 to the Minister of Lands went on to suggest that the adjacent sections 1, 10, and 11, should be added to the reserve on expiry of the miscellaneous leases extant over them.<sup>22</sup>

Lincoln had been saved because of its worthlessness for rural development, but the same degree of protection was not afforded to Peebinga. Although considered useless when first set aside as a reserve, progress in the techniques of farming drift-prone mallee country had advanced, by the mid and late 1950's, to a point where deep sand

country was being cleared and developed successfully for cereals and improved pastures.

It was not altogether surprising, therefore, that in November 1957 the Director of Lands received a request from J. Konkoly, a farmer with land adjoining Peebinga, that at least half of section 30 be resumed and allotted to him.<sup>23</sup> Ostensibly, the request was based on difficulty of access to his home, but the Land Board was probably nearer the real reason when it reported, in May 1958, that the land under review was 'reasonably heavy' and suitable for cropping.<sup>24</sup> In August 1958 the F.F.A.C. considered the matter, and lacking specific knowledge of the area, appointed a sub-committee to visit the reserve and make appropriate recommendations. The sub-committee presented its report in November 1958, and after stating that Konkoly was a settler worthy of extra land, went on to argue that many other areas of Crown Land quite unsuitable for farming would remain to protect wildlife in the hundreds of Peebinga, Kingsford, and Auld. The recommendation was that Konkoly be given the land,<sup>25</sup> and the result was a gazette notice of 5 March 1959 resuming 391 ha of section 30 (vide table p. 134).

#### FAIRVIEW - A RESERVE OPPOSED

Two hundred and twenty five km south of Peebinga, the clash between farming and conservation interests took on a somewhat different form. Fairview Estate, an area of 12,803 ha in the hundreds of Woolumbool and Lochaber, had been purchased by the State Government in 1945 in anticipation of its inclusion in the War Services Land Settlement Scheme,<sup>26</sup> but although submitted to the Commonwealth Government several times it had, on each occasion, been rejected as inferior land.<sup>27</sup>

In 1957, development of some 2,833 ha of the Estate began under the State Government's Crown Lands Development Act, but no specific

action was planned for the remaining 9,970 ha. Newly-established landholders resented the presence of 'idle' land in their district, and in August 1957 thirty of them signed a petition complaining that the Fairview scrub was a fire and vermin hazard, and should either be developed fully by the State Government, or auctioned off to private enterprise.<sup>28</sup> The petition was reported in a country edition of *The Advertiser* 14/8/57, and on 26 of the same month a reply to the petitioners was published as a letter to the editor of the *Naracoorte Herald*:

Face up you petitioners and other landholders. You criticise, but your own record isn't good. Your patches of scrub and run down pastures near our main roads, towns and railways are hindering the development of our district much more than the holding of one inaccessible slab by the Government.

Obviously, local opinion was divided, and the first real opportunity for both sides to debate the Fairview issue came at a quarterly meeting of the South East Stockowners' District Committee. A proposal by the Naracoorte Branch that a committee be set up to investigate suitable areas for the preservation of native flora and fauna was passed, but only after a lively debate. Several speakers spoke out strongly in favour of declaring Fairview a national park, but others warned that such a park would be a fire menace and a harbour for vermin, especially the 'countless thousands of kangaroos' which were claimed to be 'roaming in the scrub lands'.<sup>29</sup>

In the following three years the debate continued, an involved, acrimonious affair which was complicated further by moves made at the same time to have an area of swampland in the nearby hundred of Spence, known locally as the 'Big Heath', also declared a reserve.<sup>30</sup> The dissension between local graziers was even matched by conflict at the official level, with public servants and politicians failing to agree on the reserve issue. In November 1957 the Superintendent of the Development Branch at the Department of Lands had sent a minute to his Chief Administrative Officer in which he favoured a reserve for Fairview:

Soil salinity sufficient to make the establishment of satisfactory improved pastures unsafe is evident east and south east of the Kangoora Lagoon area ... The Kangoora Lagoon area, including the land not considered suitable for development and subdivision, could be made available as a reserve. This has been mooted by interested bodies in the Naracoorte-Lucindale districts.<sup>31</sup>

When the Parliamentary Committee on Land Settlement produced its report on the Fairview Estate early in 1958, however, it disagreed with the Superintendent's view:

Whilst the Committee is fully sympathetic towards any proposal designed to preserve our native animal and plant life, it fears that in this case, unless adequate safeguards were provided and an efficient and effective authority set up to control the reserve, it would be a constant menace to adjoining landowners. It was evident to the Committee during its inspection that considerable vermin infestation occurs in this locality. The Committee considers that the presence of a neighbouring uncleared area of scrub would increase settlers' difficulties in rabbit destruction, and that a Reserve is undesirable.<sup>32</sup>

Undeterred by the politicians' contrary view, the Superintendent reiterated that the Kangoora Lagoon area was quite unsuitable for pastures, being land 'which would be excluded from any subdivision incorporating agricultural development carried out by this Department', and went on to recommend that 'subdivision of the area surrounding Kangoora Lagoon be deferred'.<sup>33</sup>

#### A REASSESSMENT BEGINS

##### *Changing attitudes at the Department of Lands*

In many ways the Fairview dispute was a turning point in the history of South Australian conservation reserves. The strongly opposing

views forced Department of Lands officials to reappraise such fundamental issues as why reserves should be set aside, how they should be managed, and who should manage them.

The first sign of a reassessment came in March 1958 in the form of a minute from the Director of Lands to the Minister of Lands. Essentially the business of the minute was the Fairview proposal, but the Director went on to say that

Apart altogether from this particular scheme, the practice of creating Flora and Fauna Reserves ... creates many difficulties and focuses attention on the Government in the matter of responsibility for vermin-proof fencing to keep rabbits, kangaroos, wallabies, emus, etc. within the boundaries of such reserves ... it is obviously of little permanent benefit to continue to place these reserves under the control of the Flora and Fauna Committee, as this body, as previously stated, has neither funds, staff, nor power to control or maintain these areas.<sup>34</sup>

An amendment to the National Park Act in 1955 had enabled the Commissioners of the Belair National Park to extend their control to take in other areas, to be known as wild life reserves, and in the Director's opinion they were the obvious choice to take responsibility for the flora and fauna reserves. At the same time, he stressed to the Minister that the Commissioners would need money for fencing and supervision; if this were not available the flora and fauna reserves would continue to be 'merely areas of Crown Lands constituting a menace to adjoining settlers'.<sup>35</sup>

The Director's statement was a realistic summary of the difficulties facing all parties involved in some way or other with reserves, but it was clear that reform could not come overnight. Long and involved discussions would be necessary before any change could be introduced, and in the short term, developments from earlier decisions had to be followed through. Survey work for the proposed resumptions at Hincks was continuing; the Fairview and Big Heath proposals were becoming increasingly entangled in procedural problems, delays, and disputes; and farmers, and farmers' organisations were continuing to press for

the resumption of land from existing reserves, particularly those on Eyre Peninsula.<sup>36</sup> Such was the pressure of this unfinished business that it was not until August 1959 that the Director of Lands could see his way clear to institute the first stage of a comprehensive review of flora and fauna reserves.

The opportunity to begin the review arose, basically, from the decision of the Commonwealth Government to end its financial support for the War Service Land Settlement Scheme on 30 June 1959. Anxious to maintain a programme of active land development, the Minister of Lands ordered a review of all undeveloped and under-developed areas within the agricultural districts of the State,<sup>37</sup> and in August of 1959 the Director issued an instruction that as part of the review a summary of all flora and fauna reserves was to be prepared 'with a view to ascertaining whether any portion of the Reserves would be suitable for agricultural purposes'.<sup>38</sup> In response to this instruction, a summary plan detailing all flora and fauna reserves, their location, and area, was prepared and forwarded with an accompanying report to the Director of Lands:

- (1) Reserves in the Murray Lands and Upper South East: Very poor quality viewed agriculturally or as grazing land. This description applies even if one were to take an optimistic forward view of advances in development techniques. In the circumstances it would be reasonable to support action which placed these areas aside for the preservation of native plant and wild life.
- (2) Central Eyre Peninsula reserves: There can be no doubt that the major portion so set aside is poor quality land under any recognised form of usage ... [however] ... The time may come when pressure from the land-hungry section of the community will compel a more optimistic view to be taken of the possibilities of these very extensive tracts of country ... it might be claimed that somewhat smaller and equally representative areas could serve the purpose, besides which *control and care* of the natural Flora and Fauna would be more easily exercised. This feature appears to be almost non existent under

the existing system. The extent and inaccessibility of the reserved areas, coupled with the paucity of funds available to the controlling authority relegates the Reserves to a standard of being 'in name only'. This suggests that some thought should now be given to a review of the policy wherein it has become a popular practice to 'declare' what appeared on the surface to be waste land and pass it over to the Flora and Fauna Committee.<sup>39</sup>

It was a frank résumé of a situation which had developed in the absence of almost any stated aims or means for acquiring and controlling reserves, and in commending the report to the Minister of Lands, the Director of Lands recommended that as a preliminary to a thorough enquiry, the question of future control of reserves be referred to the F.F.A.C. for comment.<sup>40</sup> Early in November 1959 the F.F.A.C. replied, and after stressing the difficulties which lack of funds and an adequate controlling authority had imposed on its activities, the Committee went on to recommend that the responsibility for all flora and fauna reserves be transferred to the Commissioners of the National Park and Wild Life Reserves (hereafter C.N.P.W.L.R.).<sup>41</sup> Soon after this advice had been received, the C.N.P.W.L.R. wrote to the Minister of Lands, emphasising that they were the logical authorities to control flora and fauna reserves:

The Commissioners are selected from scientific bodies for their special knowledge of the scientific requirements of the position and moreover have a considerable income apart from Government Grants which is likely to increase in years to come.<sup>42</sup>

The question of finance was certainly the more valid claim. The F.F.A.C. had some excellent members, men more than capable of drawing up management plans for the reserves, but without money the expertise was of little use, and it was here that the C.N.P.W.L.R., with money gained from the hire of sporting facilities at Belair National Park, could offer the prospect of improved supervision. A meeting between all interested parties was called, and early in December 1959 the Minister of Lands and his Director, and the respective Chairmen of the

F.F.A.C. and the C.N.P.W.L.R. met to discuss the proposed transfer. While all sides seemed to agree that the transfer was essential, the Director pressed for a preliminary investigation of all reserves to decide whether they might be reduced to a size 'that could be fenced and supervised so as to protect adjoining properties from damage by kangaroos, emus etc.'. The proposal met with general approval, and the meeting closed on the understanding that arrangements would be made for such an investigation.<sup>43</sup>

The move towards a complete overhaul of flora and fauna reserves policy was gathering momentum, and nowhere was this better illustrated than in the changing attitude of the Land Board. Throughout the early and mid 1950's the Board, though conceding the need for reserves, invariably came down in favour of resumption where soils were suitable for agricultural development, and few people would have regarded it as a champion of the conservation cause. The Director of Lands might well have been forgiven, therefore, if he had expressed some surprise at the content of a long and detailed minute forwarded by the Board in late November 1959. The subject of the minute was the proposed reserves at Fairview and Big Heath, but the recommendations dealing with these were prefaced by a strongly-worded statement outlining the need for a more enlightened policy towards the setting aside of reserves and national parks:

The stage has been reached in the development of this State when, if the natural flora and fauna is to be preserved, it is imperative that steps be taken to preserve representative areas of natural bushland in each of the various climatic and vegetational zones within our boundaries. Such is the rate of development of land in the higher rainfall areas that the point has been reached where truly representative areas of native flora are becoming very scarce ... Individual feelings concerning the preservation of the natural vegetation and the native birds and other wildlife which frequent it would appear beside the point. It is in the hands of the present generation to determine whether future generations will be given the opportunity to have any



feelings concerning the matter and in the Board's opinion this is an opportunity they should not be denied. The National Park Belair and Flinders Chase, contrary to what is frequently claimed of them, are not sufficient to preserve for posterity a representative cross section of the flora and fauna of South Australia. At best they can represent a cross section of their own particular environment: at worst they can, by the introduction of plants and animals from other areas, become only glorified zoological gardens in which some native flora and fauna are retained.<sup>44</sup>

At least some credit for such a marked change of attitude can be given to the presence of Cecil T. Rix on the Board. Rix, a land valuer by profession, joined the Land Board in May 1958, and like J. Neil McGilp, an earlier Land Board Chairman, was a keen amateur ornithologist. By his moves to have Peebinga and Billiatt set aside as reserves, McGilp had demonstrated that an individual member could direct Board policy and action towards ends he favoured, and throughout the 1960's Rix was to demonstrate this very clearly. At the same time though, it must be remembered that in 1959 Rix was a newcomer to the Board, and did not have the status and power he was later to obtain as Chairman. His influence can be seen in the Board's minute, but it was a general report which would not have been forwarded if other members had disapproved of its contents, and in this respect it was an important reflection of the reassessment being directed towards conservation reserves.<sup>45</sup>

### *Hincks resumption proceeds - the Sharman and Specht reports*

As far as Hincks was concerned, the reassessment came too late. The basic decision had been made, and the survey work necessary for resumption was completed. Only the formalities remained, and one of the last of these was to allow the F.F.A.C. to express its opinion on the resumption. Early in November 1959 the Committee met to discuss

the issue, and after agreeing that the reserve should not be reduced in size, resolved to apply to the Minister of Lands for enough money to allow a sub-committee to visit Hincks and prepare a case against the impending resumption.<sup>46</sup>

Approval was granted, and the F.F.A.C. nominated a sub-committee of three: Professor J. B. Cleland; Dr. R. Specht, a botanist from the University of Adelaide; and Dr. G. Sharman, a zoologist, also from the University of Adelaide. The sub-committee flew to Eyre Peninsula on 7 December 1959, and during the next two days made extensive traverses across the reserve. On return to Adelaide Sharman and Specht prepared jointly a 16 page report which, after outlining the soils, and flora and fauna, went on to recommend strongly that the reserve be maintained intact:

The needs of the times can always be used to justify the opening up of land for settlement but the sacrifice of a Nature Reserve for this purpose is an irrevocable act which can only cause subsequent regret ... Conservation committees have a difficult enough task which will not be lessened if it is shown that they can be forced to compromise their principles to the extent of allowing small scale haggling to cut down hard won reserves.<sup>47</sup>

It was a wide-ranging report with many important recommendations, not the least of which dealt with the management problems associated with conservation reserves. It was, for example, if not the first, one of the earliest warnings of the danger to native vegetation posed by fertilizer drifting into reserves from adjacent farms.

Accompanying the Sharman and Specht report was a general outline of the visit prepared by Cleland, and speaking for the sub-committee he expressed regret over the proposed resumption, stating that if the disputed land were taken, the remainder of the reserve should be regarded as inviolate.<sup>48</sup> The F.F.A.C. considered the reports in February 1960, and after endorsing them, stated its continuing opposition to the resumption plans.<sup>49</sup>

It is doubtful whether the Minister of Lands ever studied the

F.F.A.C. reports in detail. The Director of Lands summarised the Committee's attitude for him in a minute of 4 March 1960, and then proceeded to recommend that the resumption go ahead as planned.<sup>50</sup> This final recommendation did not even reach the Cabinet room: the Minister's approval came without comment, and the gazette notice covering the resumption appeared on 31 March 1960. The land resumed amounted to 9,168 ha, the total area of Hincks thereby being reduced to 66,092 ha (vide map p. 102, table p. 134).

As with Hambidge, the resumption appeared to go unnoticed at first, but by August 1960 members of the F.N.S. had obtained some details, and a letter expressing the Society's 'grave concern' was sent to the Premier.<sup>51</sup> The Premier's brief reply consisted of a summary of the resumption, and a statement to the effect that at that stage no further resumption moves were planned.<sup>52</sup> A short time after, another F.N.S. protest appeared, this time as a letter to the editor of *The South Australian Ornithologist*. The writer, Ken Preiss, in effect, placed on record the first public protest at the resumption of land from flora and fauna reserves.<sup>53</sup>

#### *An investigation committee appointed*

At the same time that the F.N.S. was expressing its views about the resumption, moves were being made to begin the investigation of reserves agreed to at the December 1959 meeting, and early in August 1960 the composition of a Flora and Fauna Reserves Investigation Committee was announced. A four-man committee, its members consisted of Dr. R. Specht representing the F.F.A.C., Professor J. B. Cleland representing the C.N.P.W.L.R., A. C. Bogg representing the Department of Fisheries and Game, and O. Bowden representing the Department of Lands.<sup>54</sup> In the succeeding months the Committee covered a wide area of the State, visiting all flora and fauna reserves, and by mid

December 1960 it had presented a general report to the Minister of Lands, and indicated that specific reports for each reserve would continue to be forwarded as completed. In its general report, the Committee made the following six points:

- (1) Almost the whole of the larger reserves involved are of very low potential agriculturally, and in fact, apart from the Hundred of Flinders, usually consist of light sandy soils with a high erosion hazard ... It is obvious that the areas under consideration are the remnants left after a most intensive search for useable land during earlier stages of settlement in this State, and it is clear that with few exceptions no further intrusion into these virgin soils can be permitted with safety...
- (2) If any plan to preserve flora and fauna is to be effective, it is essential for large areas to be reserved to permit the seasonal movement of animals, birds and other forms of life to different feeding and breeding grounds ... Furthermore it is considered that where relatively large acreages are involved, fires rarely take the whole area...
- (3) Complementary to the question of flora and fauna in this investigation the Committee attaches much importance to the need for retaining in their natural conditions as many soil types as possible ... it can be visualized that the soil scientist, agronomist, entomologist and other agricultural research workers will look to such virgin soils and associations, if available, to provide the starting point for investigations into the problems of agriculture as they develop on the older lands in future...
- (4) Under the existing set-up, most of the Reserves are not under a satisfactory arrangement for their proper control and policing...
- (5) The Committee considers that several of the Reserves inspected should eventually vest in the Commissioners of National Park and Wild Life Reserves...
- (6) In making these observations, the Committee assumes from within correspondence that the Commissioners of National Park and Wild Life Reserves are agreeable to take over control of the Reserves, and would co-operate with Government Departments as regards the policing of them.<sup>55</sup>

As a policy statement and guide to future action, the report was the most important to have appeared in South Australia up to that time, and its general theme was reiterated in the individual reserve reports, the last of which were completed by early 1961.<sup>56</sup>

With only minor exceptions, the Committee pressed firmly for the retention of all flora and fauna reserves, and showed a keen sympathy for the problems associated with the control and management of such large areas. Considering that it had been set up originally to consider whether the reserves should be reduced in size, the Committee's findings were received with some satisfaction by such bodies as the F.F.A.C. and the C.N.P.W.L.R., and there was little argument with the recommendation that the resumption of relatively small areas from several of the existing reserves should not be opposed. Specifically, it was agreed that:

- (1) to create a boundary of regular shape, and therefore one less expensive for fencing, the southern extension of section 3 hundred of Makin, approximately 1,619 ha, could be excluded from Mt. Rescue.
- (2) because of its isolation from the bulk of the reserve, section 271 hundred of Lake Wangary, 31 ha, could be excluded from Kellidie Bay.
- (3) to create a boundary of surveyed roads and railway land, section 30 hundred of Peebinga, 444 ha, could be excluded from Peebinga (vide table p. 134).

#### *The flora and fauna reserves - a transfer of control*

In June and August 1961, the C.N.P.W.L.R. and the F.F.A.C., respectively, recorded their complete agreement with the findings and recommendations of the Investigation Committee,<sup>57</sup> and on 2 November 1961 a proposal that control of eight flora and fauna reserves be transferred to the C.N.P.W.L.R. was approved by Cabinet (vide table p. 120).

FLORA AND FAUNA RESERVES TRANSFERRED TO C.N.P.W.L.R. ; 1962*	
Reserve	Area
Mt. Rescue	17,624 ha
Hincks	66,092 ha
Hambidge	37,987 ha
Peebinga	1,629 ha
Kellidie Bay	1,942 ha
Lincoln	14,375 ha
Cape Buffon	22 ha
Billiatt	22,663 ha
Total area	162,334 ha
<p>* The 1962 transfer did not involve the following two flora and fauna reserves:</p>	
Minnipa (section 94 hd. Minnipa)	16 ha
Ferries-McDonald	844 ha
<p>Due to its 'location and to some extent other considerations', it was decided to leave the Minnipa reserve under the control of the Minister of Agriculture (D.L. 3401/59)</p> <p>The Ferries-McDonald reserve had already been transferred to the C.N.P.W.L.R. (dedication 26/4/56, declaration 3/5/56)</p> <p>Source: D.L. 3401/1959</p>	

On 8 March and 10 May 1962, gazette notices resuming the flora and fauna reserves and dedicating them wild life reserves appeared, and with these formalities the F.F.A.C. ended over two decades of direct involvement with conservation reserves. Hamstrung by lack of finance, it had done its best, and over the years it had enjoyed the services of some excellent members, but more than anything else the resumption of land from Hambidge and Hincks had demonstrated that any controlling body had to have money, advisory expertise, and an administrative structure capable of handling the routine side of reserve management. In South Australia, the only body equal to such a task was that represented by the Commissioners of the National Park and Wild Life Reserves, and while the loss of 14,418 ha from the Eyre Peninsula reserves was to be deplored, the transfer of reserve control to the Commissioners was applauded by many, especially the ever-watchful F.N.S.<sup>58</sup>

#### NEW RESERVES SET ASIDE

The transfer of control of the flora and fauna reserves marked the end of a notable decade. Dominated by the related issues of resumption and reassessment, it was not a period in which major advances in reserve acquisition could have been expected. By and large this proved to be the case, although there were a few developments worthy of notice.

#### *Spring Gully - Eucalyptus macrorrhyncha reserve*

From a botanical point of view, one of the most interesting reserves in South Australia is that at Spring Gully, in the south west portion of the hundred of Clare, county Stanley. In a classic paper published in 1947, Crocker and Wood had examined the evidence for a mid-Recent arid

phase in Australia's climatic history, and as one of the main lines of evidence they considered a number of plant species notable for their disjunct distribution.<sup>59</sup> One of the species used was *Eucalyptus macrorrhyncha*, the red stringybark, recorded by Tate in the late nineteenth century as occurring in the 'Adelaide district', but ignored by later workers until its rediscovery by Boomsma. Boomsma demonstrated that the limited area occupied by the species near Clare was its sole occurrence in South Australia, the nearest other examples being at Stawell in Victoria, some 483 km away to the south east.<sup>60</sup> Crocker and Wood argued that such a distribution could only be explained if the South Australian occurrence was regarded as a relic from a time when the distribution must have been much more widespread. The onset of an arid phase, they argued, had restricted the species in South Australia to the isolated pocket or 'refuge area' near Clare, and that with subsequent amelioration of the climate the species had been unable to re-occupy its former range.

The rediscovery of the tree in South Australia and its likely links with climatic change aroused considerable interest amongst botanists, both professional and amateur, and in 1953 the F.N.S. forwarded a proposal to the F.F.A.C. that 405 ha within the Clare district should be set aside as a reserve for the red stringybark.<sup>61</sup> There was little positive action though until 1958, when, by interview and letter, Professor Cleland urged the Minister of Lands to purchase a small area which had become available.<sup>62</sup> Impressed by his statements that the tree was found nowhere else in South Australia and was in urgent need of preservation, Cabinet approved the purchase of six ha on 8 December 1958. Renumbered section 568, the land was dedicated a wild life reserve under the terms of the Crown Lands Act on 12 January 1961, and declared to be under the control of the C.N.P.W.L.R. on 3 February 1962 (vide table p. 133, map p. 132). Although very small it was a valuable purchase, and with later additions now forms the interesting and important Spring Gully Conservation Park.



*Cape Buffon*

In some ways, the importance of the red stringybark made a reserve at Spring Gully inevitable, but not all reserves could make a similar claim to fame. Many were simply pleasant areas of natural bushland in otherwise developed farming country, and their reservation was occasionally due not so much to Adelaide-based moves, but rather to the efforts of local residents. One such area was at Cape Buffon in the hundred of Rivoli Bay on the South East coast of the State. In November 1954 Professor Cleland had received a letter from a local resident stating that a number of people in the area were anxious to see some 30 ha of crown land at Cape Buffon declared a reserve:

we are afraid that if people start making camp sites on the headland the area would soon become spoilt and much of the scrub destroyed by the use of the axe and fire. The number and variety of birds are also worthy of preservation.<sup>63</sup>

Without carrying out an inspection, the F.F.A.C. endorsed the reserve proposal,<sup>64</sup> but in spite of several letters of support from various local organisations and residents, progress towards dedication was ponderously slow: it was not until 20 August 1959 that a gazette notice appeared dedicating sections 377, 378, and 379 a flora and fauna reserve (vide table p. 133, map p. 132). The area was 22 ha, hardly enough to remain unsullied, and towards the end of 1959 complaints of abuse by campers and dumping of 'old fish, bags and boxes, clothing, stinking bait and other rubbish' by professional fishermen were being made by local residents.<sup>65</sup> It was yet another illustration of the inability of the F.F.A.C. to police its reserves. In later years the Cape Buffon reserve was to become incorporated into a very much larger area, the Canunda Conservation Park, and in this way its continued existence was assured: as a separate reserve it did not, in 1959, appear to have any chance of remaining viable.

*Nixon Skinner*

Under the terms of the Act which had set up the Belair National Park in 1891, the Commissioners' jurisdiction was, effectively, limited to the Belair National Park, and when Mrs. L. E. Page of Myponga expressed a desire to donate land to them, it was found that an amendment to the Act would be necessary before the gift could be accepted and appropriate transfer of land titles take place.<sup>66</sup> The necessary amendment was assented to on 1 December 1955, but subsequent formalities took some time, and it was October 1958 before the transfer was recorded officially on the certificate of title.

Formerly a portion of section 80 in the hundred of Myponga county Hindmarsh, the land was renumbered section 245, and in recognition of the Skinner family, who had been anxious to see its dry sclerophyll woodland preserved, became known as the Nixon Skinner Wild Life Reserve (vide table p. 133, map p. 132). Like Spring Gully, it was very small, the original nine ha being reduced to eight ha on completion of the adjacent Myponga Reservoir, but the C.N.P.W.L.R. welcomed it as a valuable relic of the southern Mt. Lofty Ranges vegetation, much of which was being cleared rapidly in the wake of the post World War II land boom.<sup>67</sup>

*Eric Bonython and Waitpinga*

Although an old man by the late 1950's, Professor John Burton Cleland's interest in flora conservation was indefatigable, and one of his strongly-held convictions was that while large areas of natural scrub and forest were essential, there was much of value to be found in such relatively small areas as roadsides, cemeteries, water conservation reserves, quarry reserves, and travelling stock routes.

For many years he worked actively towards instilling in the controlling authorities, usually district councils and State Government departments, a greater appreciation of the conservation value of the reserves, and although disheartened frequently by the damage resulting from such activities as road widening, his efforts were not entirely in vain.<sup>68</sup> Two reserves on the Fleurieu Peninsula, some 80 km south of Adelaide, exist today as permanent reminders of his interest in conserving small areas.

Waitpinga Conservation Park, 2½ ha, section 355 hundred of Waitpinga county Hindmarsh, was set aside as a water conservation reserve in 1885, the time of initial survey of the surrounding land, and in the succeeding years was not dedicated or placed under the control of anybody. In effect it remained Crown Land, with the Department of Lands holding ultimate responsibility. At Cleland's instigation the C.N.P.W.L.R. inspected the reserve, and it was decided that they would seek control by having it dedicated and declared a wild life reserve.<sup>69</sup> Almost certainly the Commissioners were influenced in their decision by the very rapid land clearance which was taking place on Fleurieu Peninsula. Before World War II the Peninsula had stagnated: much of it consisted of a laterised plateau in every way as infertile as that on Kangaroo Island, but discovery of the nature of trace element deficiencies, availability of heavy machinery for scrub clearance, and the boom conditions of primary industry throughout the 1950's had resulted in development of a very thorough nature, and it must have seemed by 1960 that even the tiny water conservation reserves would be cleared for pasture development.

Department of Lands approval for the reserve proposal was given readily, and when the District Council of Yankalilla raised no objection the formalities were dealt with relatively quickly, and the gazette notice dedicating it a wild life reserve appeared on 21 June 1960. Declaration followed on 25 August 1960 (vide table p. 133, map p. 132).

Eric Bonython Conservation Park, six ha, sections 356 and 357

hundred of Waitpinga county Hindmarsh, was obtained, initially, in an almost identical fashion to Waitpinga. Section 356 was a two ha water conservation reserve set aside in 1885, and because of its proximity to section 355 was inspected at the same time by the C.N.P.W.L.R.<sup>70</sup> Dedication and declaration followed, on the same dates as those for Waitpinga, but a year later the reserve was enlarged by four ha. Eric G. Bonython, a pastoralist with land adjoining the reserve, was sympathetic to the aims of the Commissioners, and wrote to them offering four ha of his land adjacent to section 356.<sup>71</sup> His offer was accepted readily, and after survey the land was renumbered section 357. Dedication and declaration as an addition to the land previously gazetted followed on 30 April and 28 May 1964 respectively (vide table p. 133, map p. 132).

### *Big Heath and Fairview*

The only other material gains for the decade 1952-62 lay with the controversial South East reserves.

On 28 November-1957 sections 15, 16, 21, 22, F, G, and portion of C in the hundred of Spence county Robe had been declared a Closed Area with respect to birds generally, a compromise move which pleased no one in particular. On the one hand conservation bodies continued to press for the area to be dedicated formally and placed under a controlling body as a flora and fauna or wild life reserve; on the other hand graziers complained loudly about the 'bushfire and vermin hazard' the Big Heath represented.

With Fairview, the involved controversy over the use of Kangoora Lagoon and its surrounds was resolved eventually in favour of a reserve. Perhaps paradoxically, the main driving force in the move for a reserve had been the Stockowners' Association of South Australia, but this involvement is not so difficult to understand once it is appreciated that the most energetic stockowners in the campaign were

graziers well-known in the South East for their interest in flora and fauna conservation, It was an interesting demonstration that not all land use disputes could be simplified to a 'city versus country' confrontation.<sup>72</sup>

The Stockowners campaign was crucial, but it could not have succeeded without support from the Land Board, and in November 1959 this was obtained in the form of a strongly-worded minute to the Director of Lands.<sup>73</sup> The matter was referred to Cabinet for a decision, and on 17 February 1960 it announced its approval for the reserve proposal. Gazette notices dedicating and declaring as a wild life reserve sections 93 and 98 hundred of Woolloomool county MacDonnell appeared on 13 and 20 September 1960, the area being 1,089 ha (vide table p. 133, map p. 132). Considering the size of the original Fairview Estate is was disappointingly-small, but in view of the determined opposition to its creation this was probably inevitable. With its lagoons and surrounding blue gum ridges Fairview Conservation Park remains today as one of the most attractive areas in the South East of South Australia.

#### THE GAINS AND LOSSES - AN ASSESSMENT

As shown on the accompanying table (vide pp. 133, 134), the total area acquired for the decade 1952-62 amounted to 1,262 ha. Offsetting this figure was the loss of 16,903 ha through resumption of existing reserves, resulting in a loss for the period of 15,641 ha. In addition to this loss of *actual* reserve land, there was an even greater loss of *potential* reserve land as a result of opposition to reserve proposals. The accompanying table (vide p. 128) outlines some of the more important proposals which were rejected, and shows that approximately 64,750 ha was involved.

It is clear from these figures that the period under review was

## RESERVES PROPOSED, BUT REJECTED, 1952-62

Locality	Estimated area	Sponsor of proposal	Objection to proposal
<p>Eyre Peninsula</p> <p>Hds. Pinkawillinie &amp; Panitya, Co. Buxton</p>	<p>Area available up to 80,937 ha, but probably only 40,469 being sought</p>	<p>Sharman, Specht, &amp; Cleland (1960 - D.L. 6317/59)</p>	<p>Dept. of Lands - reasons not given</p>
<p>Upper South East</p> <p>Sections 7 &amp; 8 hd. Archibald as extension to Mt. Rescue, Co. Buckingham</p>	<p>10,764 ha</p>	<p>Mr. Nankivell, M.P. (1960 - F. &amp; G. 112/38, D.L. 1494/65)</p>	<p>D.C. Coonalpyn Downs &amp; Upper South East 'Development Committee': 'substantial areas of it could be developed'</p>
<p>Eyre Peninsula</p> <p>Sections 1, 10, &amp; 11, hd. Flinders Co. Flinders, as an addition to Lincoln</p>	<p>9,308 ha</p>	<p>Dept. of Lands &amp; F.F.A.C. (1958 - F. &amp; G. 37/48)</p>	<p>Minister of Agriculture - area in his own electorate, under pressure from graziers</p>
<p>Lower South East</p> <p><i>Didicoolum</i>, hd. Petherick, Co. Cardwell</p>	<p>Up to 2,428 ha</p>	<p>Geo. Hensley (owner) (1958 - F. &amp; G. 112/38)</p>	<p>Chief Inspector Fisheries &amp; Game: 'a substitute area has been declared' (Mt. Rescue)</p>

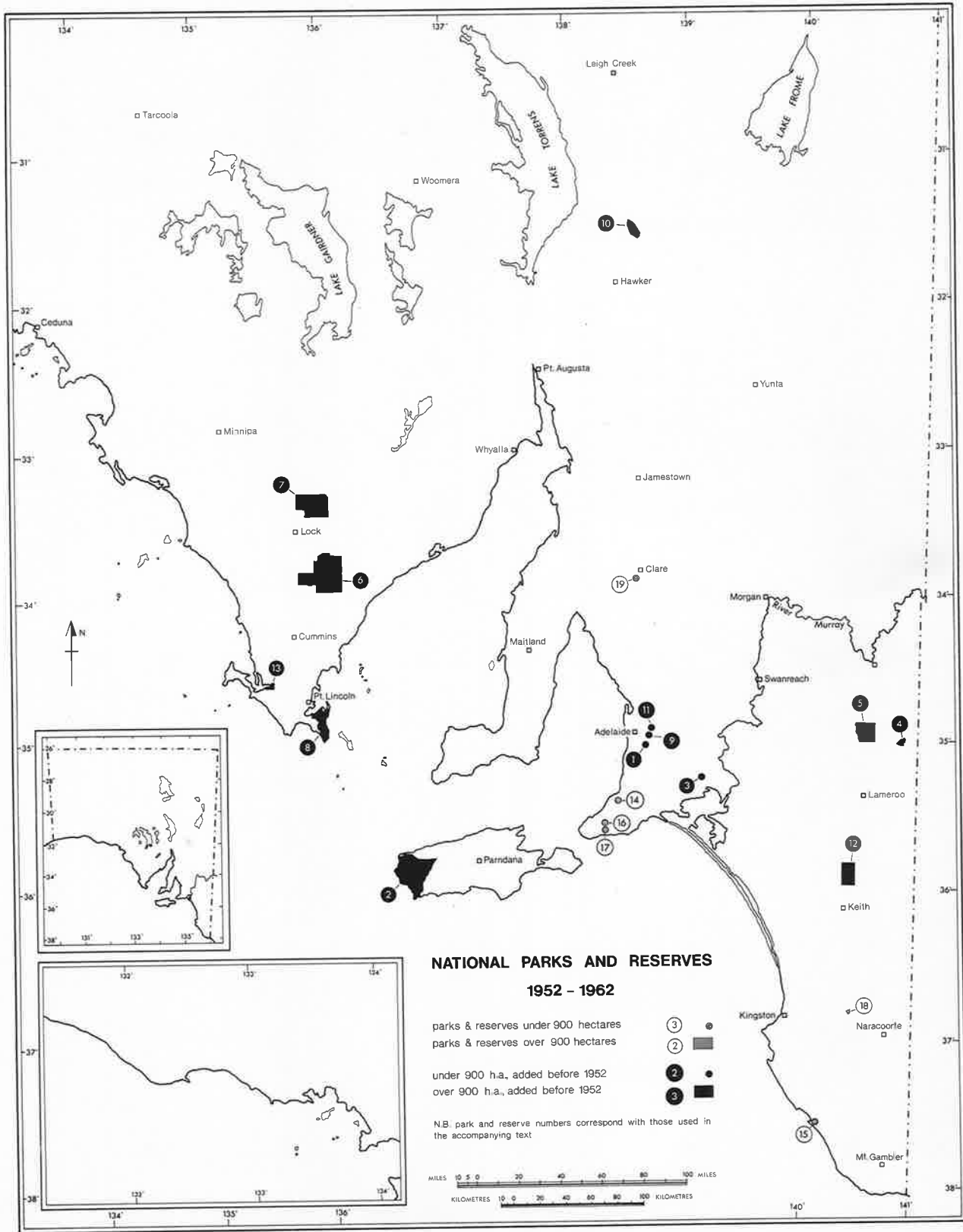
Locality	Estimated area	Sponsor of proposal	Objection to proposal
<p>Mt. Lofty Ranges</p> <p>Black Hill, hd. Adelaide, Co. Adelaide</p>	<p>Up to 809 ha</p>	<p>F.N.S. (1954 &amp; 1961, <i>The S.A. Naturalist</i>, v. 29, (2), p. 25; v. 36, (1), p. 7)</p>	<p>Premier &amp; Minister of Lands - land 'unavailable'</p>
<p>Mt. Lofty Ranges</p> <p>Humbug Scrub, hd. Para Wirra, Co. Adelaide</p>	<p>1,012 ha</p>	<p>C.N.P.W.L.R. (1956 - D.L. 2272/56)</p>	<p>Minister of Lands - probably financial</p>

not a favourable one when considered in terms of the number and size of reserves. Initially, politicians and public servants alike were too much concerned with the rising fortunes of wheat and wool to give flora and fauna conservation much sympathetic attention, but trite though it may sound, some good invariably accompanies the bad. The State had gained some important new reserves, even though they were small, and it had transferred control of the flora and fauna reserves to a body able to exercise better supervision. These were important developments, but of even more significance, there had been a major reassessment of attitudes to flora and fauna conservation.

The sustained pressure to have reserve land given over to farming, and the frequent opposition to proposals for new reserves, had forced many people, administrators, academics, and naturalists alike, to take stock of their approach to flora and fauna conservation. Where once there had been, in official circles, an aimless belief that reserves were a good idea, as long as they did not interfere with other forms of land use, new and sharper ideas were formulated: aims and management policies were discussed, and there was a growing acceptance of the view that national parks and reserves represented a form of land use quite as legitimate as farming, pastoralism, and mining. Much of this reassessment was carried out at the official level; but in a variety of ways the new ideas filtered through to the public: in 1961 Specht and Cleland had published an important paper on flora conservation,<sup>74</sup> and many of the ideas and recommendations were those they had discussed, clarified, and included previously in departmental reports. During 1961 there was also the first release of the findings of a sub-committee investigating national parks and reserves in South Australia as part of a nation-wide enquiry by the Australian Academy of Science.<sup>75</sup> Once again men like Sharman, Specht, and Cleland were involved, and the result was another opportunity for the most up to date thinking on parks and reserves to be made available to the public.



In one way or another the late 1950's and early 1960's had proved to be a time of intense discussion and debate. Basic policies were formulated, and by 1962 one of the most tangible signs of the whole reassessment was to be found in the list of areas under active consideration as future reserves or parks: Para Wirra, Kyeema, Mt. Remarkable, Big Heath, Deep Creek, and Mundoora. Out of the conflict of the 1950's had come reform, and in 1962 the stage was set for a major expansion of the State's parks and reserves system.



**NATIONAL PARKS AND RESERVES  
1952 - 1962**

parks & reserves under 900 hectares  
parks & reserves over 900 hectares

under 900 h.a., added before 1952  
over 900 h.a., added before 1952

N.B. park and reserve numbers correspond with those used in the accompanying text

- ③ ○
- ② ■
- ② ●
- ③ ■



NO.	NAME	LOCATION		GAZETTE		AREA		VEGETATION	REMARKS	
		REGIONAL	CADASTRAL	DEDICATED	DECLARED	HECTARES	CUMULATIVE			
1B	BELAIR Addition	Mt. Lofty Ranges	Section 580 Hd. Adelaide, Co. Adelaide	8.10.1953		0.4	249,261	Dry sclerophyll	Road reserve changes, southern boundary of park. D.L. 4223/1947	
14	NIXON SKINNER Wild Life Reserve	Mt. Lofty Ranges	Section 245 Hd. Myponga, Co. Hindmarsh	C.O.T. 26/8/146, 15.10.1958		8	249,269	Dry sclerophyll	Land donated to C.N.P.W.L.R. by Page family of Myponga, D.L. 1373/1956	
15	CAPE BUFFON Flora & Fauna Reserve Later enlarged & name changed to Canunda	Lower South East	Sections 377-379 Hd. Rivoli Bay, Co. Grey	20.8.1959		22	249,291	South East complex	Formerly Crown Land. Dedicated at request of local residents with F.F.A.C. support, F. & G. 90/1954	
16	WAITPINGA Wild Life Reserve	Mt. Lofty Ranges	Section 355 Hd. Waitpinga, Co. Hindmarsh	21.6.1960	25.8.1960	2	249,293	Dry sclerophyll	Formerly a water conservation reserve, dedicated at request of C.N.P.W.L.R. D.L. 8445/1959	
17	ERIC BONYTHON Wild Life Reserve	Mt. Lofty Ranges	Section 356 Hd. Waitpinga, Co. Hindmarsh	21.6.1960	25.8.1960	2	249,295	Dry sclerophyll	Formerly a water conservation reserve, dedicated at request of C.N.P.W.L.R. D.L. 8445/1959	
18	FAIRVIEW Wild Life Reserve	Lower South East	Sections 93, 98, Hd. Woolumbool, Co. McDonnell	13.9.1960	20.9.1960	1,089	250,384	South East complex	Dedicated after several years of controversy, in which local pastoralists figured prominently in arguments for and against the reserve. D.L. 4902/1957, 1478/1958	
19	SPRING GULLY Wild Life Reserve	Northern Agricultural	Section Pt436 Hd. Clare, Co. Stanley	12.1.1961	3.2.1962	6	250,390	Savanna woodland	Reserved to protect <u>Bicalyptus macrorrhyncha</u> , a species with a dis-junct distribution over South Eastern Australia. Instigation from Professor Cleland after earlier F.N.S. proposal lapsed. D.L. 6997/1958	
1C	BELAIR Addition	Mt. Lofty Ranges	Section 979 Hd. Adelaide, Co. Adelaide	20.4.1961		27	250,417	Dry sclerophyll	Purchased at request of C.N.P.W.L.R. to prevent subdivision & allow expansion of tennis courts etc. D.L. 2939/1960	
1D	BELAIR Addition	Mt. Lofty Ranges	Section 600 Hd. Adelaide, Co. Adelaide	11.5.1961		1	250,418	Dry sclerophyll	Old Government House. Transferred to C.N.P.W.L.R. from Woods & Forests Dept. D.L. 4188/1957	
2C	FLINDERS CHASE Addition	Kangaroo Island	Section 15 Hd. McDonald, Co. Carnarvon	30.11.1961		105	250,523	Sclerophyllous mallee	See Dept. Lands S.D.B. Hd. McDonald	
							NO. HECTARES ADDED FOR PERIOD	1,262		
OFFSETTING THE GAIN OF 1,262 HECTARES FOR THE PERIOD 1952 - 1962 WAS THE LOSS BY RESUMPTION OF THE FOLLOWING RESERVE LAND										
7	HAMBIDGE	Eyre Peninsula	Section 361, N.O.H., Co. Jervois	11.2.1954		- 70	250,453	Sclerophyllous mallee	North east corner of reserve, severed	

NO.	NAME	LOCATION		GAZETTE		AREA		VEGETATION	REMARKS	
		REGIONAL	CADASTRAL	DEDICATED	DECLARED	HECTARES	CUMULATIVE			
7	HAMBIDGE	Eyre Peninsula	Sections 1-6 Hd. Hambidge, Co. Jervois	5.12.1957		-5,180	245,273	Sclerophyllous mallee	by Cleve - Kyancutta road, & allotted for settlement, D.L. 5315/1953	
4	PEEBINGA	Murray Mallee	Section Pt30 Hd. Peebinga, Co. Chandos (renumbered section 100)	5.3.1959		-391	244,882	Sclerophyllous mallee	South west corner of reserve, resumed and allotted for settlement, D.L. 6896/1954	
6	HINCKS	Eyre Peninsula	Section 1 Hd. Hincks; sections 19-24, 26-27, Hd. Murlong, Co. Jervois	31.3.1960		-9,168	235,714	Sclerophyllous mallee	Resumed and allotted to adjoining farmer, ostensibly on grounds of difficulty of access to his property, D.L. 4398/1957	
4	PEEBINGA	Murray Mallee	Section 30 Hd. Peebinga, Co. Chandos	8.3.1962		-444	235,270	Sclerophyllous mallee	Northern portion of reserve, resumed and allotted for settlement, D.L. 2454/1952	
12	MT. RESCUE	Upper South East	Southern portion section 4 Hd. Makin, Co. Buckingham	8.3.1962		-1,619	233,651	Sclerophyllous mallee with heath	Said to be of value for farming, and a necessary resumption for ease of fencing, D.L. 3401/1959	
13	KELLIDIE BAY	Eyre Peninsula	Section 271 Hd. Lake Wangary, Co. Flinders	8.3.1962		-31	233,620	Sclerophyllous mallee	Elongated southern portion of reserve excluded to simplify fencing, D.L. 3401/1959	
NO. HECTARES LOST FOR PERIOD							16,903			

## REFERENCES

1. Campbell, K., 1969: 'Wheat'. *Current Affairs Bulletin*, v. 45, (1), 1-16.
2. See, for example, Dept. of Lands, Annual Report 1950/51, p. 17.
3. D.L. 5315/1953; D.L. 2454/1952.
4. Pearson to M.L. 18/4/52, D.L. 2454/1952.
5. D.L. to Pearson 15/7/52; D.L. 2454/1952.
6. L.B. to D.L. 12/8/52; L.B. to D.L. 29/7/52; D.L. 2454/1952.
7. D.L. to Sec. F.F.A.C. 9/10/53, F. & G. 77/1939.
- 8, 9. Minutes F.F.A.C. meeting 2/6/54, F. & G. 77/1939.
10. D.L. to Sec. F.F.A.C. 18/6/54, F. & G. 77/1939.
11. McInnis to D.L. 11/10/54, D.L. 6896/1954.
12. Partridge to D.L. 19/1/53, D.L. 6896/1954.
13. Minutes F.F.A.C. meeting 4/5/55, D.L. 6896/1954.
14. L.B. to D.L. 16/6/55, D.L. 6896/1954.
15. Meinig, 1962, pp. 45-46 outlines the history of Goyder's Line.
16. D.L. to M.L. 21/6/55, D.L. 6896/1954.
17. D.L. to Sec. F.F.A.C. 13/9/55, D.L. 6896/1954.
18. Report by Surveyor Paynter 28/10/55, D.L. 2454/1952.
19. Undated minute from Soil Conservator to D.A., D.L. 2454/1952.
20. L.B. to D.L. 31/10/57, D.L. 5220/1946.
21. Baillie to Premier 18/11/59, D.L. 5220/1946.

22. D.L. to M.L. 5/11/57, D.L. 5220/1946.
23. Konkoly to D.L. 15/11/57, D.L. 6995/1957.
24. L.B. to D.L. 1/5/58, D.L. 6995/1957.
25. Subcommittee report 7/11/58, D.L. 6995/1957.
26. D.L. to M.L. 14/8/57, D.L. 4902/1957.
27. Blackburn, G., & Jackson, E. A., 1953: Report on the soils of parts Hundreds of Woolumbool and Lochaber South Australia. C.S.I.R.O., Divisional Report 4/53.
28. Petition to D.C. Naracoorte, D.L. 4902/1957.
29. *Naracoorte Herald* 10/10/1957.
30. Also dealt with in D.L. 4902/1957.
31. 28/11/57, D.L. 4902/1957.
32. S.A.P.P. 14/1958.
33. 18/6/58, D.L. 4902/1957.
- 34, 35. D.L. to M.L. 31/3/1958, D.L. 1478/1958.
36. D.L. 2454/1952 (Hincks); D.L. 1478/1958, D.L. 7912/1959 (Fairview & Big Heath); D.L. 2454/1952 (resumption pressure).
37. Letter from D.L. to all District Councils 21/7/59, D.L. 5657/1959.
38. D.L. to Chief Draftsman 14/8/59, D.L. 5657/1959.
39. L.B. to D.L. 8/10/59, D.L. 5657/1959.
40. D.L. to M.L. 9/11/59, D.L. 3401/1959.
41. F.F.A.C. to M.L. 6/11/59, D.L. 3401/1959.
42. Chairman C.N.P.W.L.R. to M.L. 9/11/59, D.L. 3401/1959.
43. Minutes of meeting held 11/12/59, D.L. 1478/1958.
44. L.B. to D.L. 24/11/59, D.L. 1478/1958.

45. The information given for C. T. Rix has been obtained from Dept. of Lands Staff Records and discussion with Dept. of Lands officials.
46. Minutes F.F.A.C. meeting 4/11/59, D.L. 6317/1959.
47. Sharman & Specht report, undated, D.L. 6317/1959.
48. Cleland report, undated, D.L. 6317/1959.
49. Minutes F.F.A.C. meeting 3/2/60, D.L. 6317/1959.
50. D.L. to M.L. 4/3/60, D.L. 2454/1952.
51. Sec. F.N.S. to Premier 20/8/60, D.L. 6317/1959.
52. Premier to Sec. F.N.S. 31/8/60; 8/9/60, D.L. 6317/1959.
53. *The S.A. Ornithologist*, v. 23, (4), 1/3/1961.
54. 2/8/60, D.L. 3401/1959.
55. Investigation Committee to M.L. 20/12/60, D.L. 3401/1959.
56. D.L. 3401/1959 contains all reports by the Investigation Committee.
57. Report endorsed by C.N.P.W.L.R. 20/6/61; F.F.A.C. endorsement 4/8/61: D.L. 3401/1959.
58. *The S.A. Naturalist*, v. 36, (2), 1961, pp. 19, 21.
59. Crocker, R. L., & Wood, J. G., 1947: 'Some Historical Influences on the Development of the South Australian Vegetation Communities and their bearing on Concepts and Classification in Ecology'. *Trans. Roy. Soc. S.A.*, v. 71, (1), pp. 91-136.
60. Boomsma, C. D., 1949: 'The Ecology of the Western Clare Hills, South Australia, with special reference to the Disjunct Occurrence of *E. macrorrhyncha* (F.v.M.)'. *Trans. Roy. Soc. S.A.*, v. 72, pp. 216-220.
61. *The S.A. Naturalist*, v. 28, (2), 1953, p. 19.
62. Cleland to M.L. 23/10/58, D.L. 6997/1958.
63. Stuckey to Cleland 7/11/54, F. & G. 90/54.

64. Minutes F.F.A.C. meeting 8/12/54, F. & G. 90/54.
65. Lamshed to Cleland 4/11/59, F. & G. 90/54.
66. D.L. 1373/1956.
67. For details of the Page gift and a list of the plants of the area see *The S.A. Naturalist*, v. 32, (3), 1958, pp. 39-43.
68. Author's personal knowledge of Professor Cleland and also from discussion with Dept. of Lands officials. For obituaries of Professor Cleland see *The S.A. Naturalist*, v. 46, (1), p. 14; and *The Advertiser* 12/8/1971.
69. D.L. 8445/1959.
70. D.L. 813/1954; D.L. 8445/1959.
71. Bonython to C.N.P.W.L.R., undated, D.L. 910/1961.
72. The background to Big Heath and Fairview is long and involved; the relevant material is in D.L. 1478/1958; D.L. 1562/1945; M.A. 23/1958; D.L. 7912/1959; D.L. 3401/1959; D.L. 1771/1961; M.L.G. 15/1957; D.L. 4902/1957.
73. L.B. to D.L. 24/11/59, D.L. 1478/1958.
74. Specht, R. L., & Cleland, J. B., 1961: 'Flora Conservation in South Australia. I. The Preservation of Plant Formations and Associations recorded in South Australia'. *Trans. Roy. Soc. S.A.*, v. 85, pp. 177-196.
75. Australian Academy of Science, 1963: National Parks Committee. Report of the South Australian Sub Committee. Mimeog. report.



## CHAPTER IV

A MAJOR EXPANSION, 1962-1972

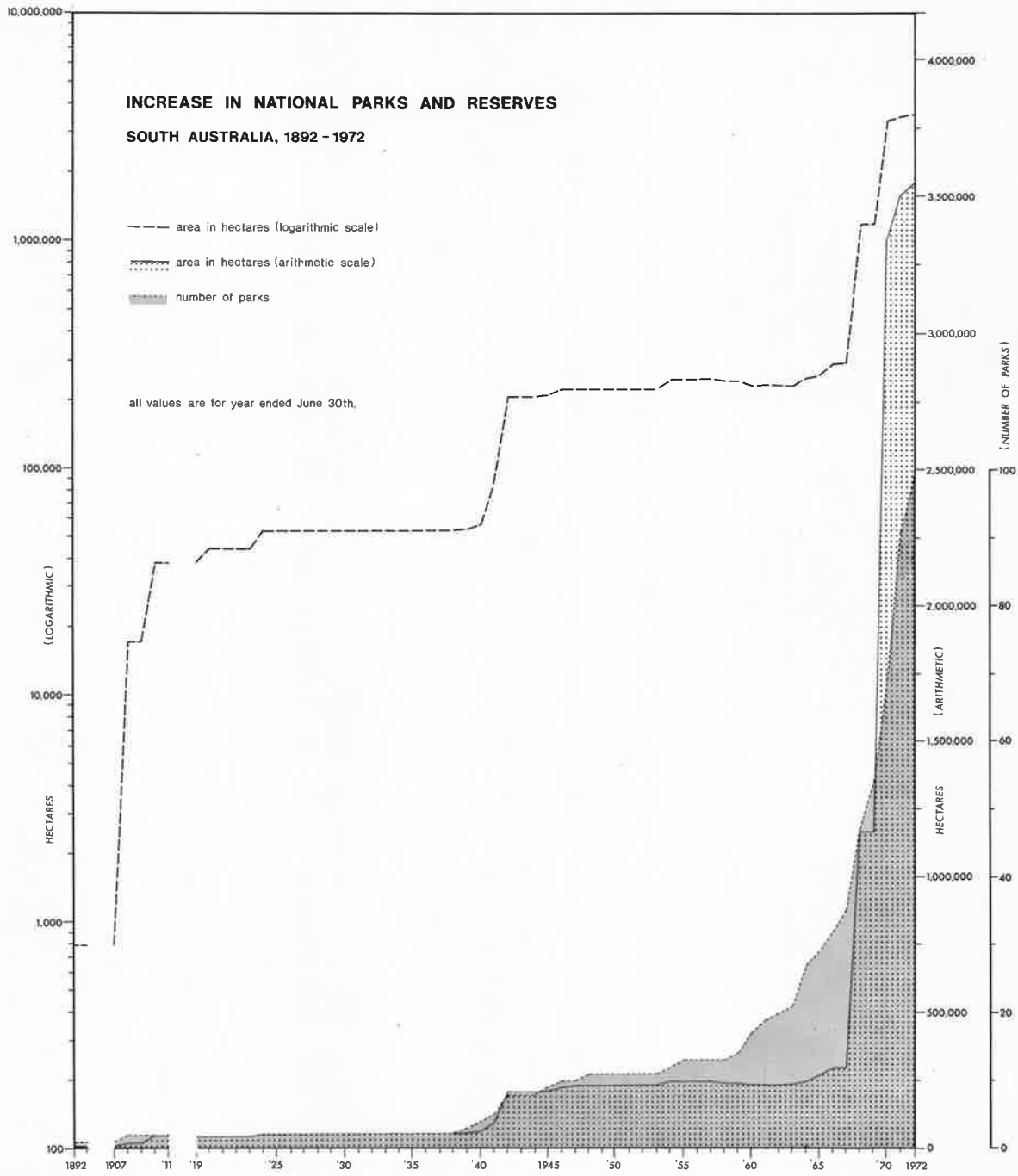
In almost every way the decade is the most remarkable period ever in the evolution of South Australian parks and reserves. In early 1962 the State lists 19 parks and reserves occupying an area of 233,620 ha. Only 10 years later, in mid 1972, the corresponding figures have risen to an impressive 99 parks and reserves occupying an area of 3,546,564 ha. This remarkable expansion is considered in two chapters: Chapter IV takes several themes to illustrate *how* it has occurred, and Chapter V attempts, briefly, to explain *why* it has occurred.

The major expansion between 1962 and 1972 is illustrated graphically on page 140. It can be seen that 80 parks and reserves totalling 3,312,944 ha were added in a mere decade, but to explain in *detail* how they were added to the existing parks and reserves system is a task beyond the scope of this work. A consideration of each park would result in an overwhelming amount of detail, detail which is probably not necessary, for it is possible to trace through the period a number of common themes, three of the most important of which are as follows:

- (1) a new element of purpose in creating parks
- (2) opposition to park creation from inside and outside the Government offsets, at times, a widespread acceptance of the need for parks and reserves
- (3) land use conflicts are generated: Hambidge, the Tiger Country,\* Aldinga, and Normanville strengthen public support for parks, for although battles are lost, a war is won.

---

\* The Tiger Country is a term used frequently to describe a large area of uncleared and unalienated Crown Land in the Upper South East of South Australia. The land is in the counties of Chandos and Buckingham between Pinnaroo and Bordertown.



SOURCE: S.A. DEPT. LANDS RECORDS

## A NEW ELEMENT OF PURPOSE

Before the 1960's there was little aim evident in the acquiring of parks and reserves. As shown in the earlier chapters many areas, the large flora and fauna reserves especially, were created not because they conserved unique landforms or rare flora or fauna, but because they were regarded at the time as useless waste lands. It is true that such bodies as the F.N.S. did have a relatively clear picture of what areas were of particular value to conservation, and pressed the need to obtain these at every opportunity, but in official circles it was generally believed that one scrub area was as good as another: the subtleties of changing plant and animal life over quite small areas were lost to them, and the substitution of the mallee-heath of Mt. Rescue for the swampy tussock grassland of *Didicoolum* was a very clear illustration of what really amounted to ecological illiteracy.

### *Parks for flora*

With careful education illiteracy can be cured, and, as mentioned in Chapter III, Specht and Cleland published in 1961 a paper which amounted, in effect, to an introductory primer for those involved in park and reserve acquisition in South Australia.<sup>1</sup> A timely and important work it discussed and tabulated, amongst other things, the extent to which existing parks and reserves preserved the plant formations and associations recorded for South Australia. The conclusions drawn by the authors illustrated clearly just how haphazard had been the creation of the existing reserve system. Only 0.24% of the total area of the State had been set aside for flora protection, and serious deficiencies occurred in every formation recorded. Many plant associations, particularly those characteristic of the arid and semi-arid interior,

and the higher rainfall areas of the Mt. Lofty Ranges and Lower South East, were not protected by any existing reserves. Specht and Cleland's recommendation was to use the data provided to find those vegetation communities in danger of extinction and obtain protective reserves, a recommendation to be borne in mind in the following years. In 1963, in a follow-up paper, the same authors examined the preservation of plant species in South Australia, and in so doing again highlighted the deficiencies of the reserve system: only 42% of 2,255 native species listed for South Australia were recorded from reserves, and as with the survey of plant formations and associations, the deficiencies were on a regional scale, with the arid interior accounting for 69% of all species not protected in existing reserves.<sup>2</sup>

Specht and Cleland's papers could hardly have come at a better time. In 1963 the stage was being set for the marked expansion of the following years, and their general findings of marked regional deficiencies in plant protection became well known to such key figures as Rix. Rix may not have kept a copy of their work on his desk, but he was in constant touch with members of the C.N.P.W.L.R. and National Parks Commission (hereafter N.P.C.) who fully appreciated the findings.\* Cleland himself was Chairman of the C.N.P.W.L.R. until the replacement Act of 1966, and such other figures as T. R. N. Lothian, Director of the Botanic Gardens and Chairman of the N.P.C., and C. Warren Bonython, an active member of the N.P.C., were well aware of reserve deficiencies.

Given that an inventory of reserve needs for flora protection had been established and made known, it was to be expected that some care would be taken in reserve acquisition, and a number of examples show a degree of forethought and planning quite unknown before the 1960's. Consider, as an illustration, the following.

---

\* Under the terms of the National Parks Act, 1966, the N.P.C. replaced the C.N.P.W.L.R. as the controlling body of national parks (vide p. 170).

*Reserves for mangroves.* The disjunct occurrence of the mangrove (*Avicennia marina var resinifera*) around the southern coast of Australia had long interested botanists,<sup>3</sup> and it was no comfort to be reminded by Specht and Cleland that in South Australia the formation had no reserve protection. In May 1963 Lothian, acting in his official capacity as Director of the Botanic Gardens, forwarded a report to the Minister of Lands pointing out this deficiency and recommending dedication of the northern portion of Torrens Island, a low-lying area at the mouth of the Port River, a few kilometres north of Adelaide.<sup>4</sup> Lothian pointed out that protection of the area would not only guarantee survival of the mangrove, but also such other interesting plants as *Melaleuca halmaturorum* (salt water tea tree), *Callitris columellaris* (native pine), *Casuarina stricta* (drooping sheoak), and several species of *Kochia*, *Atriplex*, and *Rhagodia*. The result of Lothian's approach was dedication of 58 ha as a reserve in November 1963 (vide table p. 185, map p. 184), but Department of Lands insistence on the exclusion of a 30 metre coast reserve resulted in the mangroves being outside the legal boundaries of the reserved land.<sup>5</sup> It was an unsatisfactory position, and at a later date the N.P.C. pressed for more satisfactory protection of mangroves. Attention was again centred on the relatively shallow waters of the northern portion of St. Vincent Gulf, and the result was the declaration of the 397 ha Clinton National Park in September 1970 (vide table p. 193, map p. 184),<sup>6</sup> and the 433 ha Pt. Gawler National Park in December 1971 (vide table p. 194, map p. 184).<sup>7</sup> In both cases the Department of Marine and Harbours and the Department of Lands agreed to waive their claims to land immediately above and below high water mark, thereby allowing the N.P.C. control of the actual mangrove swamps.

*Reserves for the arid interior.* Specht and Cleland had also stressed in their papers the deplorable lack of reserves for plants of the arid

interior of the State. With a new sense of direction evident in the 1960's it was to be expected that attempts would be made to correct this imbalance, and in November 1967 the State's first truly arid national park was established, the 64,750 ha Elliot Price Wilderness (vide table p. 188, map p. 184).<sup>8</sup> Covering much of Hunt Peninsula at Lake Eyre North, the vegetation consisted of low *Atriplex*-dominated shrub steppe, but the boundaries also took in a considerable area of the saline surface of the Lake, habitat of the interesting Agamid lizard, *Amphibolurus maculosus*.<sup>9</sup> A principal figure in the negotiations which lead pastoralist Elliot Price to relinquish his lease over the area in favour of a national park had been C. Warren Bonython, and Bonython was also involved in moves to establish South Australia's second major reserve in the arid interior, the 691,615 ha Simpson Desert National Park (vide table p. 189, map p. 184). The park was declared in December 1967 as South Australia's contribution to what was intended to be a truly *national* three-State park, with Queensland and the Northern Territory declaring adjoining portions of the Desert in their States as national parks. The Northern Territory decided that for political reasons it could not contribute its share of the project, but South Australia and Queensland went ahead, and the vast area of parallel sand ridges dominated by *Zygochloa paradoxa* (cane grass), and *Triodia basedowii* ('spinifex') was an impressive addition to the State's park system.<sup>10</sup> Even more spectacular in terms of sheer size alone was the declaration in May 1970 of an un-named park of 2,132,716 ha in the remote North West of the State (vide table p. 192, map p. 184).<sup>11</sup> An almost untouched wilderness of high sand ridges and sand plains covered with *Triodia basedowii* and such scattered dominants as *Eucalyptus gongylocarpa* (desert gum), and *Acacia aneura* (mulga), it was an area which had been suggested for inclusion in a vast Central Australian national park proposed as early as 1936, and revived periodically from 1955 onwards.<sup>12</sup>

*Reserves for semi-arid vegetation.* The declaration of reserves for the mangroves and arid vegetation were the most direct attempts to correct some of the major deficiencies pointed out by Specht and Cleland, but efforts were also made to obtain protection for associations characteristic of the State's semi-arid regions, associations which, while not rare, were subjected to grazing, marginal wheat farming, and other forms of human interference. North of the River Murray Pooginook National Park was declared (vide table p. 192, map p. 184), a 2,852 ha area of semi-arid mallee scrubland, a formation dominated by such typical mallee species as *Eucalyptus socialis* and *E. gracilis*, but of considerable interest because of the predominantly arid element of *Kochia*, *Atriplex*, *Rhagodia*, *Eremophila*, *Cassia*, and *Bassia* in its understorey.<sup>13</sup> Several years earlier Yumbarra National Park, a 106,191 ha area north of Ceduna on the West Coast of the State, had been declared and much of its vegetation was similar to Pooginook (vide table p. 189, map p. 184).<sup>14</sup> Together Pooginook and Yumbarra represented an important gain, for much of the semi-arid mallee scrubland of northern Eyre Peninsula and the Murray Mallee had been cleared for wheat growing earlier in the century, and Specht and Cleland had made particular mention of the need for its inclusion in the reserve system. With decreasing rainfall the semi-arid mallee of South Australia gives way to low woodland dominated by such species as *Acacia sowdenii* (myall), *Casuarina cristata* (black oak), and *Myoporum platycarpum*, false sandalwood (vide map p. 46). A dense understorey of *Kochia* and *Atriplex* has made these woodlands much favoured pastoral country, and modification by stock grazing and trampling has been inevitable.<sup>15</sup> Previous attempts to obtain representative areas for reserve purposes had failed, and there was no little satisfaction amongst N.P.C. members when in 1969 and 1970 the White National Park Reserve was declared, 911 ha of a former travelling stock route north west of Morgan on the River Murray (vide table p. 191, 193, map p. 184).<sup>16</sup> Largely ungrazed, the park supported *C. cristata* and *Heterodendrum oleifolium* (bullock

bush), with a *Kochia-Atriplex* understorey, and its dense growth provided a striking contrast to the bareness of surrounding pastoral country. In the following year, 1971, the 1,011 ha Whyalla National Park, a few kilometres north of the town of Whyalla, was declared (vide table p. 195, map p. 184), the area being a fine example of the *A. sowdenii-Kochia sedifolia* woodland so characteristic of north eastern Eyre Peninsula.<sup>17</sup> Many botanists argued that White and Whyalla should have been much larger, but the N.P.C. could point out in reply that at least a start had been made.

*Reserves for individual species.* In general, provision of reserves had been based on the protection of plant associations and formations, but in some cases individual species were considered to be endangered to a point where special preservation was necessary. One of the most publicised examples was Calcectasia National Park Reserve, a 14 ha area in the South East of the State, specifically set aside in June 1967 to protect *Calcectasia cyanea*, the blue tinsell lily (vide table p. 188, map p. 184).<sup>18</sup> On Kangaroo Island, a 17 ha reserve was obtained at Mt. Taylor to protect *Stylidium tepperianum* (Tepper's trigger plant), a species endemic to South Australia and known from only two localities on the Island, the type locality of Mt. Taylor, and the mouth of Stun'sail Boom River (vide table p. 193, map p. 184).<sup>19</sup> Also on Kangaroo Island, the 933 ha Dudley National Park was declared in March 1970 (vide table p. 192, map p. 184), a move intended to preserve *Eucalyptus cneorifolia* (the Kangaroo Island narrow leaf mallee).<sup>20</sup> The tree had once been common over the eastern portion of the Island, being for many years the basis of a Eucalyptus oil distilling industry, but steady land clearance had so greatly restricted its range that protection was considered essential.

There were other examples of course, but the point being made should by now be clear: a new element of planning for adequate



representation of as wide a cross section of the State's vegetation as possible had entered the park acquisition process.

### *Parks for fauna*

Implicit in this attempt to preserve maximum vegetation diversity was the belief that this would also ensure adequate fauna protection. No survey of fauna comparable to the Specht and Cleland survey of plants had been undertaken, indeed the criteria used for park suitability were almost invariably botanical. This was of course understandable, for the relatively static plants are much more amenable to reconnaissance survey than the highly mobile birds and the frequently nocturnal and cryptic reptiles and mammals. By and large the assumption that a large flora reserve would guarantee fauna protection proved a reasonable rule of thumb with park acquisition, for speed and hasty surveys were the norm rather than the exception.

On several occasions though, consideration for the fauna of an area was invoked as the main justification for park declaration, and one of the clearest examples of this was Swan Reach National Park, an 874 ha reserve intended to protect the Murray Valley population of the hairy nosed wombat (*Lasiorhinus latifrons*). As early as 1920 it had been claimed that along the Murray Flats the species was 'on the point of extinction',<sup>21</sup> and over the succeeding years heavy sheep grazing, drought, and persistent persecution from pastoralists restricted the population to a few strongholds around Blanchetown and Swan Reach.<sup>22</sup> In 1966 the F.N.S. sent a detailed submission to the Government urging acquisition of 18,130 ha around Lake Short west of Blanchetown,<sup>23</sup> but after a brief consideration by the Land Board the proposal was deemed to be too expensive and the matter lapsed.<sup>24</sup> From 1965-67 most of the Murray Mallee and adjacent Murray Flats experienced a severe drought, and several naturalists interested in the wombats of the region

reported widespread death of the animals from starvation and malnutrition. The Natural History Society, an Adelaide-based conservation group, became aware of these reports, and after consultation with William Reschke, senior journalist with a local newspaper, *The Sunday Mail*, the Society launched a massive publicity campaign to obtain funds for a wombat reserve.<sup>25</sup> Relying heavily on the emotional appeal of the animal the campaign was outstandingly successful, and in a little over a month the target of \$18,000 had been first reached, and then exceeded. The immediate result was the purchase of sections 162 and 163 hundred of Skurray county Eyre, an area of some 1,188 ha, with section 164, of 809 ha, being added two years later, in 1970.<sup>26</sup> It was an interesting example of the power of the media to effectively champion a cause which had some initial public appeal, but not everyone was pleased with the outcome. Privately, some members of the N.P.C. expressed doubt about the ability of the Natural History Society to manage capably its 'Moorundie Reserve', and these fears appeared to be borne out when a dispute about management aims and techniques flared into open controversy in 1970.<sup>27</sup> Notwithstanding Natural History Society assertions that Moorundie would guarantee survival for the wombat population Rix decided that the N.P.C. should have its own reserve, and after reviewing previous moves to conserve the wombat, including the F.N.S. submission of 1964, recommended purchase of several sections in the hundred of Fisher west of Swan Reach, an 'area of natural environment already carrying a viable population of wombats'.<sup>28</sup> The outcome was the declaration of Swan Reach National Park in May 1970 (vide table p. 192, map p. 184).

Swan Reach for wombats was paralleled by Sandy Creek and Innes for birds. In 1963 F.F.A.C. attention had been drawn to scrubland at Sandy Creek near Gawler. A submission prepared by F.F.A.C. member Dr. Mark Bonnin outlined the general natural history of the scrub and also claimed that on the basis of sightings extended over eight visits the area had 'the highest concentration of bird life that has been

recorded in the Mt. Lofty Ranges'.<sup>29</sup> After visiting the area Rix confirmed the extraordinary diversity of birds, but Cabinet response was tardy, with some Ministers arguing that Para Wirra was already an adequate reserve for the area north of Adelaide. Rix persisted, pointing out that a recorded occurrence of 93 species of birds made the scrub 'unique', for 'experienced ornithologists know of no area in South Australia where so many species can be observed year in year out',<sup>30</sup> and in 1965 his efforts were rewarded by the purchase of 51 ha of the scrub (vide table p. 187, map p. 184).<sup>31</sup> At the southern tip of Yorke Peninsula, the 6,091 ha Innes National Park was established to provide, amongst other things, habitat protection for *Psophodes nigrogularis pondalowiensis*, a subspecies of the rare western whipbird which had been discovered in the area in 1965.<sup>32</sup> The presence of *Psophodes* was not the sole reason for declaration, as the general area was a popular holiday and fishing resort, but discovery of the bird could hardly have come at a better time. After earlier attempts to have the land reserved had lapsed, the District Council of Warooka had reopened the question in early 1965, and when the presence of *Psophodes* had been confirmed, considerable publicity in the press and in Parliament virtually assured approval for the park proposal (vide table p. 192, map p. 184).<sup>33</sup>

### *Parks for people*

The preceding discussion has stressed the degree of planning which went into the acquisition of areas intended primarily to conserve flora and fauna. With a few exceptions it was intended that these areas should also be available for use by the public, but management of flora and fauna rather than visitors was to remain the top priority; conservation rather than recreation was their chief purpose.

Not all areas were to be like this, however, for the Commissioners

had a dual responsibility, and the provision of natural areas for outdoor recreation was a responsibility which could not be ignored, particularly in view of Adelaide's continuing expansion. In previous chapters mention has been made of the intensive use of recreational facilities at Belair National Park. A striking example of this was provided by bookings for the Labour Day holiday of 9 October 1961. Bookings opened at 9 a.m. on 3 October 1960, and by 9.30 a.m. all formal recreation facilities, including ovals, tennis courts, arbors, paddocks, and running tracks were booked.<sup>34</sup> It was obvious that Belair could no longer provide for the ever-increasing number of people who enjoyed recreation in pleasant semi-natural surroundings, and the need for more parks with facilities comparable to those at Belair was highlighted in the 1960 interim report of a Town Planning Committee set up to provide guidelines for Adelaide's future development,<sup>35</sup> and emphasised further in the full report of 1962.<sup>36</sup> Specifically, it was realised that as suburban Adelaide became more elongated along the north-south trending Adelaide Plains, there would be an increasing need for parks to serve the residents of new suburbs, especially those living in the already heavily built up urban area of Elizabeth and Salisbury. As pointed out earlier, H. A. Lindsay had recognised this need as early as 1947,<sup>37</sup> and in 1956 the C.N.P.W.L.R. drew the attention of the Minister of Lands to a land sale at Humbug Scrub, arguing that a park in that area would be one of the necessary amenities for the Elizabeth-Salisbury complex. Unhappily though, the Hon. Cecil Stephen Hincks was as unreceptive to this argument as he had been to Lindsay's of almost a decade earlier, and no action was taken to secure the land until four years later.<sup>38</sup> Cabinet approval of purchase of an initial 584 ha came in July 1960, and there can be no doubt that the Town Planning Committee's interim report was the deciding factor in reversing Hincks' previous decision about Humbug Scrub. The Land Board made much of the report in its Departmental submissions,<sup>39</sup> and by the early 1960's the view that Para Wirra, as the park became known,

would be a second Belair for residents of Adelaide's northern suburbs was well accepted, with additions being made steadily throughout the 1960's and early 1970's (vide tables pp. 185, 187, 188, 190, map p. 184).

Para Wirra to the north, Belair to the east, and Kyeema to the south was the basic provision of parks envisaged by the Town Planning Committee. Kyeema was an old Prison Farm in the Mt. Lofty Ranges some 40 km south of Adelaide, intended originally for afforestation, but used over the years for some farming, gardening, and grazing.<sup>40</sup> In 1959 the Farm was closed, and the Department of Lands took steps to offer the land for use as dairy farms.<sup>41</sup> Little thought was given to its potential use as a national park at this stage, but when the interim report of the Town Planning Committee published a population estimate of 105,000 by 1981 for the nearby Pt. Stanvac-Christies Beach industrial complex, the Land Board argued that a park for these people was of far greater importance than another two dairy farms.<sup>42</sup> Late in 1960, the C.N.P.W.L.R. added weight to the proposal by sending to the Minister of Lands impressive statistics dealing with the heavy use of Belair,<sup>43</sup> and in April 1961 Cabinet approved the setting aside of Kyeema for park purposes (vide table p. 186, map p. 184).

Seasoned campaigners of the F.N.S. and C.N.P.W.L.R., remembering the long struggles of the past, might well have been surprised at the speed with which Para Wirra and Kyeema were acquired and set aside on the basis of the Town Planning Committee recommendations, but it was just another expression of the changing attitudes of the 1960's. In the succeeding years other parks close to Adelaide were added: Montacute, Black Hill, Morialta, Mt. Magnificent, Hale, Warren, Cudlee Creek, and Totness, all of which were relatively small in size and not intended to offer the same degree of material recreation facilities as Belair, Para Wirra, and Kyeema, but nonetheless available to the public, and few doubted that as Adelaide

continued to grow the use of these parks would increase markedly (vide tables pp. 185, 186, 187, 188, 191, 194, 195, map p. 184).<sup>44</sup> Further afield in the spectacular Flinders Ranges a number of important parks were set aside, to conserve plants, animals, and landforms as a matter of course, but also to cater for the increasingly important tourist trade building up in the region. In the mid 1960's Mt. Remarkable, Alligator Gorge, and Mambray Creek were set aside over the southern portion of the Ranges (vide tables pp. 186, 187, 188, map p. 184),<sup>45</sup> and in late 1970 the large Oraparinna National Park was declared (vide table p. 193, map p. 184), an area containing such important tourist attractions as Bunyeroo Valley, Brachina Gorge, Aroona Valley, and the Heysen Range.<sup>46</sup>

This new element of purpose, the acquiring of parks for specific conservation and recreation purposes, forms one of the most prominent themes of the decade under review. It is true that in a number of cases areas were acquired on a rather ad hoc basis, with little prior thought being given to why they should be added to the parks system, but in general a conscious effort was made to obtain areas known to be of value and likely future benefit to the community.

#### OPPOSITION TO NEW PARKS

The discussion in this chapter has emphasised so far the positive side of park expansion in the period under review. It has pointed out how a new element of planning entered park acquisition, but to maintain a balanced perspective of the period it is also necessary to consider the negative side of expansion, the opposition to the creation of new parks.

### *Opposition from farmers*

In Chapter III it was pointed out that the rising fortunes of wheat and wool encouraged farmers and farmers' organisations to not only campaign actively against the formation of new parks and reserves, but also to agitate for the resumption of arable portions of existing parks. As the economic position of wheat and wool deteriorated steadily throughout the 1960's it was to be expected that direct rural opposition to the creation of new parks would decline, and with the exception of the continuing Hambidge controversy this proved in fact to be the case (vide p. 99). One of the few examples of farmers opposing a new park came with the announcement of plans for Yumbarra, on the West Coast of the State. In a protest reminiscent of the 1940's attitude to Hambidge, Hincks, Lincoln, and Billiatt, the Ceduna-Goode Branch of the United Farmers and Graziers of South Australia expressed the view that

this land is considered locally to be very suitable for agricultural purposes and that there is other land adjacent unsuitable for agricultural purposes and therefore suitable for a Sanctuary or National Park.<sup>47</sup>

In a minute to the Director of Lands the Land Board brushed the protest aside, stating that national parks should preserve a sample of all land, good and bad, and declaration of the park proceeded with little interruption.<sup>48</sup>

### *Opposition from District Councils*

More effective and sustained opposition to parks came from rural district councils. Not all councils opposed parks, Mundoora, Mt. Remarkable, and Clinton, being notable examples of areas set aside with enthusiastic support and encouragement from local councils, but these

were exceptions, and in general council opposition was widespread, and frequently effective. The opposition was a supplement to that coming more directly from farmers and their organisations, for council membership invariably included local farmers and graziers, and in many cases parks were opposed on the grounds that the land could be better used for primary production. Increased primary production meant not only farms for councillors' sons and relatives, but also increased council revenue, for whereas a single farm could yield several hundred dollars per year in rates, national parks, like any crown lands, were not rateable, and since most councils were run on slender budgets it was to be expected that parks would be opposed in many districts.

The District Council of Morgan, for one, opposed declaration of a park over the total length of the old Morgan-Burra travelling stock route, arguing that much of it should be used for grazing, and partly as a result of this opposition, White National Park Reserve was extended for some 16 km only, whereas a maximum of near 80 km could have been possible.<sup>49</sup> Away to the south, at Mt. Rescue, a plan to extend the park eastwards to take in the actual summit of Mt. Rescue met with determined opposition, the District Council of Tatiara lodging a strong protest on the grounds that the area could support at least two farms. The Council enlisted the aid of a local member from the State Parliament, and so effective was the opposition that the original proposal was first modified, and then shelved indefinitely.<sup>50</sup>

Further to the south again, early proposals to set aside many kilometres of coastal sand dunes, the present-day Canunda National Park, met with fierce opposition from the District Council of Millicent. The Council fought the plan in almost every way possible: deputations, resolutions, sympathetic local newspaper articles, and representations to local members of Parliament, resulted in a long and bitter controversy. Surprisingly, the land was of little value for even sparse grazing, consisting of vast areas of drifting dunes, and Council opposition centred basically on the fear that declaration of a park would result



in local people losing freedom of access to the area: at least one of the councillors had for many years shot rabbits on the land to use as bait for fishing excursions, and the opposition was, therefore, of a very personal nature. After five years of dispute the land was dedicated and declared (vide table p. 187, map p. 184), but in spite of efforts by the N.P.C. to improve relations, the District Council remained hostile, and when plans to extend the park were announced late in 1969 the reaction was predictable: the Millicent District Council expressed implacable opposition, and angry editorials and articles in local newspapers denounced the scheme as further evidence of the 'locking away of land from local use'. Ignoring the fact that industrial effluent and Millicent's raw sewage had already polluted the lake to a point where it was little better than an open cesspool, local newspapers printed photographs claimed to show sand dunes from Canunda 'overwhelming' adjacent Lake Bonney. It was certainly partisan press reporting, and the District Council used it to good effect in the political lobbying which eventually caused the park extension plans to be dropped.<sup>51</sup>

The Canunda dispute was a good example of how a determined district council could block moves to create new parks or extend existing parks, but it was rather unusual in that the motives were so very personal, and indeed somewhat trivial. Usually district council opposition centred on either a desire to see the land developed for farming, or a fear that parks would be bushfire and vermin hazards.

#### *Opposition from Government Departments*

It is certain in this State, development of the sparse water supply resources wherever found must take precedence over other land users if the development of that portion of the State is being hampered by lack of water supplies. (*E. & W.S. Department objections to extending Lincoln National Park*).<sup>52</sup>

There is no objection from this Department to the creation of as many national parks as possible provided that the areas are immediately proclaimed available for mineral exploitation under the Mining Act. (*Department of Mines objections to creation of Oraparinna National Park*).<sup>53</sup>

On the whole, wherever stone is suitable for engineering work this Department's future supplies should be safeguarded if necessary at the expense of the establishment of other types of reserves. (*Highways Department objections to creation of Jip Jip National Park*).<sup>54</sup>

By lobbying politicians and using a sympathetic local press at every opportunity, farmers and district councils brought their opposition to parks into the open, and as a result their attitudes became well-known, and to some extent could be anticipated by those involved in park acquisition. By contrast, opposition to park creation from Departments within the Government was conducted at an official level, with Public Service regulations and protocol usually ensuring that only sketchy details, if any, reached the public. Such secrecy made acquisition of controversial areas difficult, for with public ignorance of an inter-Departmental conflict those in favour of a park proposal could not draw on any outside support for their views.

*Lincoln extensions.* A clear example of this came with the proposal to add sections 1, 10, and 11 of the hundred of Flinders to Lincoln National Park, a logical enough step which, by extending the park to take in almost all of the southern tip of Eyre Peninsula, would have greatly simplified administration and fencing, as well as adding an interesting area of quasi-open country dominated by scattered clumps of *Casuarina stricta* (drooping sheoak), many of which had grown to fine dimensions on the relatively inhospitable sheet calcrete so characteristic of the region. As early as November 1957 the Director of Lands had suggested that the sections would be a desirable addition to Lincoln.<sup>55</sup> In the following years his view was supported strongly

by the Flora and Fauna Reserves Investigation Committee and the C.N.P.W.L.R., and it was tacitly understood within the Department of Lands that on expiry of the leases over the area in 1978 the land would be added to Lincoln. It seemed a relatively straightforward matter, but in the early 1960's the Engineering and Water Supply Department (hereafter E. & W.S.) had decided that it needed the three sections for the purpose of avoiding pollution of underground waters used to supply nearby Pt. Lincoln, and in a masterly *fait accompli* Cabinet approval for E. & W.S. purchase was granted in June 1963.<sup>56</sup> In August of the same year the Minister of Lands wrote to the Minister of Works, the Minister in charge of the E. & W.S., pointing out that as the area had been planned as an addition to Lincoln for many years, it seemed reasonable that the sections should be dedicated and declared for reserve purposes, bearing in mind E. & W.S. rights of access to bores and pipelines.<sup>57</sup> Subject to such conditions, the Minister of Works agreed with the proposal, but moves to add the sections became hopelessly entangled in such administrative detail as road closure orders, so much so that as late as March 1970 definitions for declaration were still not prepared. At this stage the E. & W.S. decided that the situation should be reviewed, almost seven years having passed since the Minister of Works had authorised dedication and declaration of the sections as an addition to Lincoln.<sup>58</sup> Departmental officers set to work, and in June 1970 forwarded a recommendation to the Minister of Works that the decision of seven years ago should be rescinded in favour of the E. & W.S. retaining full control. It was argued firstly, that to control pollution people had to be kept out of the area, a policy considered inconsistent with national park purposes, and secondly, that the National Parks Act of 1966 (vide p. 170) had made resumption of any declared park so difficult that the E. & W.S. would, effectively, lose long term control of the sections.<sup>59</sup> The Minister of Works referred the matter to the Minister of Lands and the Minister of Environment and

Conservation,\* and both came down strongly in favour of the sections for national park purposes, pointing out that the 1966 Act and its regulations gave more than adequate power for managing the sections along the lines considered necessary by the E. & W.S. The issue went back to the E. & W.S. officers for reconsideration, and from this point on any semblance of co-operation disappeared. Already strained relations between the E. & W.S. and N.P.C. had been aggravated in March 1970 by a Commission decision to refuse the E. & W.S. access to Mambray Creek National Park for the purpose of installing a gauging weir to measure stream flow, and in September 1970 a further clash occurred over E. & W.S. access to Bascombe Well National Park on Eyre Peninsula. A series of test bores to measure the quality of the underground waters of the Kappawanta Basin had been drilled by the Department of Mines prior to declaration of the area as a national park, and as a policy for the E. & W.S., the N.P.C. had drawn up a series of guide lines, the aim of which was to ensure that any moves for commercial utilisation of the Basin's waters would be planned in close consultation with the N.P.C. It was made quite clear in the guide lines that the intention was not to exclude further E. & W.S. development, but to plan it in such a way that damage to park ecosystems would be minimised. The E. & W.S. chose, however, to interpret it otherwise, claiming that the N.P.C. had set out to 'impose conditions which preclude water resources development in areas under their control'. It was clearly a misrepresentation of Commission policy, but one which remained unchallenged: it is still being used as the basis for continuing opposition to sections 1, 10, and 11 being added to Lincoln National Park.<sup>60</sup>

*Creation of Oraparinna.* An inter-Departmental dispute which had a more favourable outcome for the national parks system was that involving

---

\* The portfolio of Minister of Environment and Conservation was created on 20 November 1970.

declaration of Oraparinna National Park in the Flinders Ranges. When the Department of Mines was informed of the park proposal it expressed 'deep concern', pointing out that not only were Special Mining Leases for exploration purposes still extant over the area, but also that the western foothills of the Heysen Range included high grade limestone and dolomite deposits being held as a 'reserve against large-scale industrial requirement for the future'.<sup>61</sup> Other areas of the proposed park were claimed to show 'encouraging lead and zinc mineralisation', while diapiric structures were known to contain enough copper ore of marginal quality to 'warrant further exploration'.<sup>62</sup> Department of Mines officials were quite outspoken in their criticism of the park proposal, so much so that they provoked an unusually vigorous reply from the Director of Lands, in which he pointed out quite forcibly that a national park for tourism and conservation was a form of land use quite as legitimate and necessary as mining, especially in the scenically spectacular Flinders Ranges.<sup>63</sup> It was certainly a sign of the times to have a Director of Lands taking such a line when only a decade or so earlier his Department had tended to regard parks and reserves as rather useless waste land, and it was quite clear that in this case the Department of Mines could not expect unqualified support for its views, particularly as Cabinet was well aware of the tourist potential of the area. Compromise would be expected, and late in 1970 this was obtained by both sides in the dispute agreeing to certain concessions: the park would be declared as planned, but under section 25.(2) of the National Parks Act of 1966, it would be subject to the provisions of the Mining Act, 1930-62. Exploration and actual mining operations could proceed, therefore, but in a further agreement between the Director of Mines and the Director of Lands, stringent rules were laid down for the rehabilitation of worked areas.<sup>64</sup> As with any compromise this was bound to attract criticism, particularly as there was a widespread feeling amongst conservation interests that mineral exploration and mining operations were incompatible with

national park aims, but given the power and respect enjoyed by the mining industry in Australia as a result of the 'mining boom' of the 1960's and early 1970's, the Oraparinna decision was probably the most satisfactory solution possible.

*Creation of Jip Jip.* A third example of opposition to a park proposal coming from within the Government was provided by Jip Jip in the South East of the State. Jip Jip consisted of a number of granite tors on a low rise in the hundred of Peacock county McDonnell, and like a number of other localities in the South East, represented an area where crystalline basement rocks protruded through a thin blanket of sedimentary deposits.<sup>65</sup> As pasture development increased throughout the 1950's, the need for upgraded roads also increased, and district councils and the Highways Department began quarrying for road metal such tors as Papineau Rocks, Christmas Rocks, Mt. Monster, and Taratap. Early in 1964 Dr. Paul S. Hossfeld, a geologist from the University of Adelaide, drew the attention of the C.N.P.W.L.R. to this increasing destruction of the granite tors, and suggested that as Jip Jip was one of the few remaining outcrops as yet untouched, it should be reserved. Hossfeld added that rumours were rife of Highways Department plans to begin quarrying at Jip Jip, and submitted that 'the matter should be considered urgent'.<sup>66</sup> Independent examinations of Jip Jip by the Department of Lands and the C.N.P.W.L.R. produced enthusiastic endorsement of Hossfeld's proposal,<sup>67</sup> and in August 1964 the Minister of Lands wrote to the Minister of Works stressing the need for the Highways Department to refrain from beginning any quarrying at Jip Jip.<sup>68</sup> Highways Department reaction was not favourable, its engineers advising that the granite at Jip Jip was suitable for the production of screenings for either concrete or bituminous hotmix work, and plans for quarrying were continued.<sup>69</sup> By now, however, enough had been learnt of the Highways Department plans to sustain a vigorous public campaign, and in a series of spirited attacks on

'official vandalism' Hossfeld and the Kingston Branch of the National Trust enlisted a great deal of local support for the reserve proposal.<sup>70</sup> At the same time, the C.N.P.W.L.R. prepared a detailed submission, in which they carefully rebutted claims put forward by the Highways Department,<sup>71</sup> and so effective was the opposition that by December 1964 the Minister of Roads felt it necessary to issue a public statement to the effect that quarrying, if absolutely necessary, would be carried out only after close consultation with all interested bodies.<sup>72</sup> It was a politician's way of admitting defeat without saying so in as many words, and Hossfeld and the C.N.P.W.L.R. could be well pleased with their effort. Although negotiations over the actual purchase price of Jip Jip extended for several years, there were no further moves to quarry the granite, and all tors were intact when the park was finally declared in August 1967 (vide table p. 188, map p. 184).

Where Lincoln had failed, and Oraparinna had been a compromise, Jip Jip was a notable success. Undoubtedly this was due in a large part to alternative rock outcrops being available for the Highways Department, but there can be little doubt that it was due also to the publicity the controversy received. Whereas with both Lincoln and Oraparinna knowledge of the Departmental opposition was confined to official circles, the same was not the case for Jip Jip: Hossfeld and the National Trust knew enough of the Highways Department attitude to make out a damaging case in the press and at local protest meetings, and with the long-ruling State Liberal Government facing almost certain defeat at an early 1965 election, it is understandable that the Minister of Roads was prepared to act against the wishes of his Departmental officers. To this extent Jip Jip offers an interesting contrast to the previous two examples, but in other respects the three controversies were very similar, a point illustrated nicely by the quotes which preface this section. In each case a Département reacted vigorously to what it considered was an invasion of its exclusive preserve,

arguing that its needs coincided with those of the State and should be given top priority.

#### LAND USE CONFLICTS

To complete this consideration of the 1960's and early 1970's it is necessary to discuss now the third theme selected, the development of a number of fierce land use conflicts. In so doing it is not implied that disputes over the creation of such new parks as Oraparinna, Jip Jip, and Canunda were not in themselves land use conflicts, for clearly they were; rather, the third theme is treated separately because in many ways the conflicts selected, Hambidge, the Tiger Country, Aldinga, and Normanville, differ significantly from the disputes outlined previously, particularly in the degree of public involvement.

#### *Hambidge*

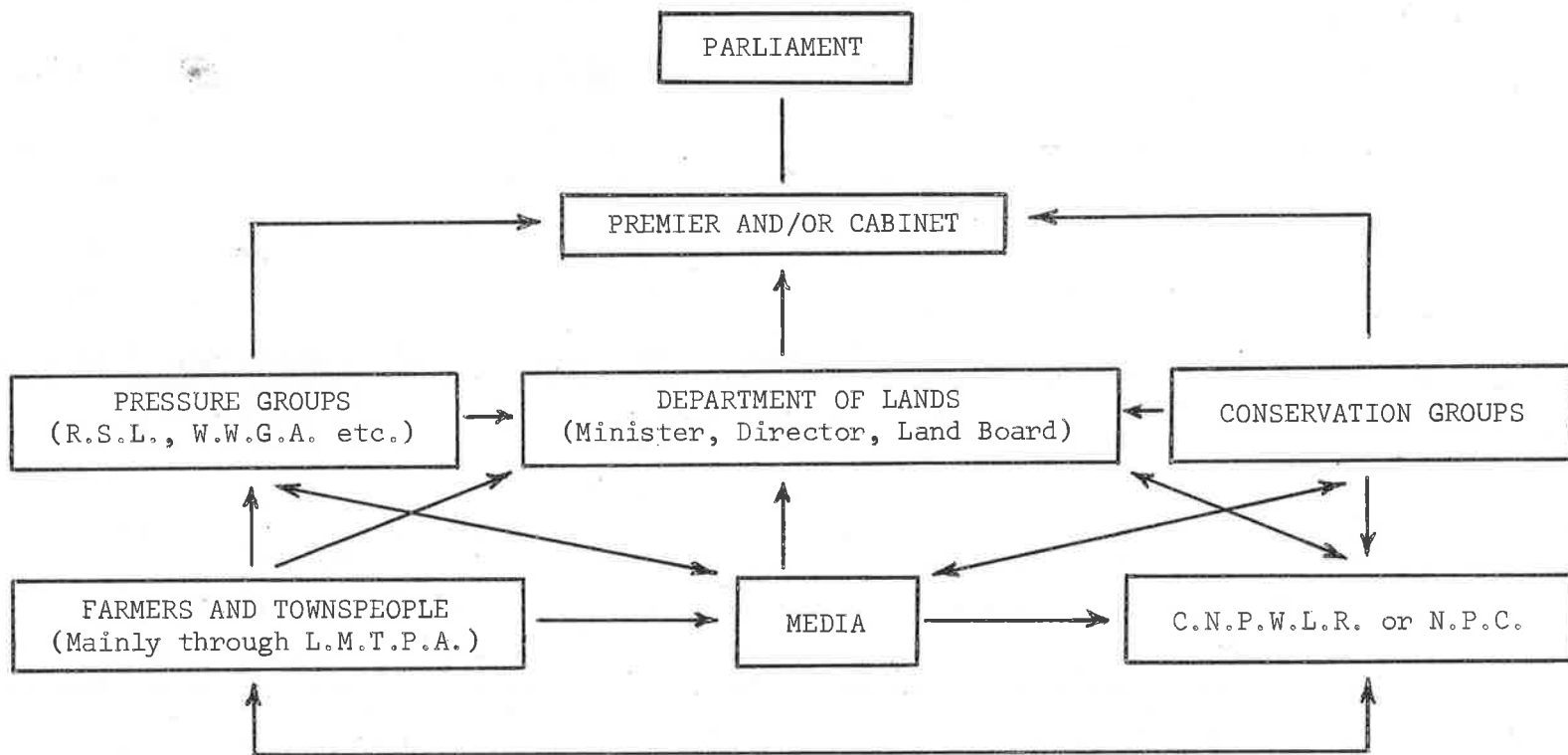
Hambidge especially, was a long and involved controversy, a complex dispute over land use which preoccupied successive Ministers of Lands throughout the 1960's. The basic issue was simple enough: rural interests wanted the reserve for wheat farming, a desire they had made clear since the early 1950's. Successive resumptions from Hincks and Hambidge in the mid and late 1950's had rewarded their efforts, and with continuing high prices for wheat and wool a clamour had gone up for the whole of Hambidge to be released. If the attitudes of the 1950's had continued into the 1960's these demands would have been met with little hesitation, but, as pointed out earlier, times *were* changing: in the 1960's questions would be asked, a controversy was inevitable.



To analyse and explain fully the intricacies of the controversy would require a separate volume, for it was to become a long and complex issue involving many principles, personalities, and conflicting pressure groups. The detail is formidable, but in spite of this, it is possible to discern clearly three stages in the development of the controversy:

- (1) 1962-1966, successive Ministers of Lands strenuously oppose resumption moves
- (2) 1967-1968, Corcoran eventually yields to rural pressure; the N.P.C. agrees to release half of Hambidge, but in a dramatic reprieve the Government loses office and the whole issue is once again put up for review
- (3) 1968-1969, conservation organisations, slow to realise what is happening, sense a reprieve with the appearance of Brookman as Minister of Lands, and begin a late but vigorous campaign opposing resumption; Brookman finally puts the matter to Cabinet, but the declining fortunes of wheat and wool eventually result in the controversy dying away with no official decision for or against resumption.

*Hambidge, 1962-1966.* As pointed out earlier, the 1960/61 Flora and Fauna Reserves Investigation Committee had, in its specific and general reports, opposed strongly any moves to resume further land from either Hambidge or Hincks. In this view it was supported fully by the Department of Lands and its Minister, but even if this policy was widely known, it was not considered a deterrent by the rural interests campaigning for Hambidge. If anything, it seemed only to produce a redoubling of efforts, and by early 1962 the issue had become thoroughly political: questions and statements from local M.P.'s became common in State Parliament, and such quasi-political pressure groups as the Returned Services League (R.S.L.), and the South Australian Wheat and Wool Growers Association (W.W.G.A.), launched a vigorous campaign in support of resumption, the W.W.G.A. through its General Secretary Tom Stott, being particularly persistent with letters and representations on the matter (vide p. 164). In most cases the



A diagrammatic summary of the interaction between key people and organisations involved in the Hamdige dispute. The lobbying and pressure group activity was rather more complex than suggested here - the diagram is a simplification, but it should assist understanding of the accompanying text. Although the diagram relates specifically to Hamdige in the 1960's, the interaction is similar to that present in the Hincks resumption, and with relatively few changes it would apply to almost any situation in which parks come under resumption pressure. Note that in the Hamdige example the resumption proposal did not reach Parliament.

arguments followed a standard pattern: after stressing the 'bushfire and vermin hazard' presented by the reserves, the writers or speakers would then outline how development of the Lock-Cleve-Cummins area of Eyre Peninsula was being retarded by the presence of such large and 'useless' reserves as Hincks and Hambidge. A common claim was that towns such as Lock were seriously hampered by the lack of medical and dental services, facilities which would only appear in the town when the surrounding district had increased its population, and of course, the argument went, the only way the district could increase its population was by development of the reserve lands. As a final claim, to illustrate that the issue was not entirely parochial, it was often argued that another 20 or 30 wheat farms on Hambidge would add at least one million dollars annually to the States' export earnings.<sup>73</sup>

In most cases, the arguments in favour of resumption, though one-sided, were presented in a reasonably logical and sane manner, but occasionally absurd claims were made. On one occasion G. B. Bockelberg M.P. claimed that Hambidge was such a barren, useless waste that it could not be expected to support a single sleepy lizard or a single kangaroo,<sup>74</sup> while on another occasion Stott claimed a threat to farmers in the form of loss of water as a result of birds from Hambidge drinking at surrounding dams!<sup>75</sup> Even partisan observers could hardly have taken such claims seriously, and it was appreciated at an early stage that an extreme position was hardly likely to shift Government opinion. Moderation and appeal to reason would be needed, and some of the more astute supporters of the resumption cause realised that their hand would be strengthened greatly if they could offer an alternative area to Hambidge. Local enquiries were made, and late in 1962 two areas were proposed as suitable replacement reserves for Hambidge; one was uncleared sandy country in the hundreds of Panitya and Pinkawillinie near Buckleboo, an area suggested for reserve purposes by Sharman, Specht, and Cleland in 1959 (vide p. 128); the other was hard limestone grazing country in the hundreds of Blesing

and Kappawanta west of Lock. In the Legislative Council, and in representations from the W.W.G.A., it was claimed that these two areas, though of little agricultural or pastoral value, were rich in plant and animal life, and would more than compensate any loss of wildlife associated with the resumption of Hambidge.<sup>76</sup>

On paper, the case in favour of resuming Hambidge was now taking on a formidable appearance. Reports of the resumption moves began to appear in the Eyre Peninsula regional press,<sup>77</sup> and in early 1963 conservation interests, thoroughly alarmed by the moves, voiced public protests over the resumption bid.<sup>78</sup> Pressure was mounting also for a revision of Department of Lands policy on the issue, and on assuming office in January 1963 the new Minister of Lands, the Hon. P. H. Quirke, gave the matter his early attention. Deciding that he must have first-hand knowledge of the disputed reserve, Quirke made arrangements for a visit to Eyre Peninsula, and in mid-April 1963 he was taken on a tour of Hambidge, and the proposed replacement area of Blesing/Kappawanta. On the evening of 17 April Quirke addressed a meeting of some 200 people at Lock, and although non committal about the ultimate fate of Hambidge, made it quite clear that the Blesing/Kappawanta land could in no way be regarded as a substitute for Hambidge.<sup>79</sup> Privately, Quirke was already convinced that Hambidge must not be resumed, and on returning to Adelaide he wrote to the C.N.P.W.L.R. appealing for information on which he could base a defence of the reserve.<sup>80</sup> The Commissioners co-operated as far as possible, and as word of Quirke's views became known to conservation interests he received letters of support for his stand, two of the more notable coming from Professors Robertson and Andrewartha, Heads of the Botany and Zoology Departments respectively at the University of Adelaide.<sup>81</sup> As the months passed in 1963 pressure in favour of resumption continued to grow, but officially Quirke refused to commit himself to a definite policy, gathering instead more information and arguments in favour of retaining the reserve. One of the most

influential reports he received was from a party of botanists and pedologists which had visited the area under C.N.P.W.L.R. auspices late in 1963: after inspecting both Hambidge and Blesing/Kappawanta their conclusion was that while Blesing/Kappawanta did have some interesting features in its own right, its soils and vegetation were such that it could not be regarded as a substitute area for Hambidge.<sup>82</sup>

It was a conclusion which confirmed the view Quirke had formed after visiting the area earlier in the year, a conclusion which further strengthened his determination not to have the area resumed. When a local M.P. made a series of wild assertions in the House of Assembly late in February 1964, Quirke replied in the strongest terms possible that there would be no resumption of Hambidge.<sup>83</sup> It was a comforting statement for conservation interests, a bitter blow for the rural interests: conservation bodies congratulated him for his bold stand, rural interests set about the organising of a petition seeking to have his decision reversed. Clearly, the struggle was not yet over.

A somewhat hopeful application for the resumption of a portion of Hincks was made soon after, in May 1964, but Quirke rejected it (vide map p. 177),<sup>84</sup> and in the following months most attention centred on the collection of signatures for the petition. Response was good, with farmers and townspeople from all areas of Eyre Peninsula adding their names to a call for the resumption of Hambidge, and early in August 1964 the petition, with 950 signatories was presented to the Premier, the Hon. Tom Playford.<sup>85</sup> Playford was concerned by its arrival. His long-ruling Liberal and Country League Party (L.C.L.) had fared badly at the last State elections, only narrowly retaining office, and with another election due early in 1965 he could ill-afford to antagonise any section of his country-based support. Aware that Playford was likely to sacrifice Hambidge in his bid to retain office, Quirke decided that the best form of defence was attack, and late in December 1964 he forwarded a strongly-worded minute to the Premier in which he roundly criticised the campaign to resume Hambidge, stating

that a complete revision of legislation was needed to ensure a more secure form of tenure for parks and reserves.<sup>86</sup> Playford was unimpressed, and in February 1965, with House of Assembly elections one month away, he ordered the Land Board to open negotiations for purchase of the Blesing/Kappawanta land as a substitute for Hambidge.<sup>87</sup> As a vote-saving move the decision did not influence the final result: on 6 March 1965 Playford's Government was defeated by the Australian Labor Party (hereafter A.L.P.).

The change in Government was a reprieve for Hambidge. The Land Board was still, at this stage, in favour of retaining the reserve intact, and later in March it recommended that the C.N.P.W.L.R. be approached for its opinion on the matter.<sup>88</sup> Not surprisingly, the reply was a firm recommendation that Hambidge not be resumed, and those agitating for resumption, particularly the Lock-Murdinga-Tooligie Progress Association (hereafter L.M.T.P.A.), were informed once again that the reserve would not be resumed for farming purposes.<sup>89</sup> Little more was said on the issue for several months, but late in October 1965 fire swept through approximately 16,200 ha of the western half of the reserve. In the following week questions about the fire were asked in the House of Assembly, and the L.M.T.P.A. lost little time in branding the reserve a fire hazard, suggesting that since the area burnt would now be useless for conservation it might just as well be cleared for farming. The C.N.P.W.L.R., in drafting a reply for the Minister of Lands to put to the House, made a spirited defence, emphasising the important role played by fire in the ecology of sclerophyllous mallee, but the criticism continued. Officially, the cause of the fire was given as lightning strike, but unofficially it was suggested by some that it had been started intentionally in an attempt to embarrass the C.N.P.W.L.R.<sup>90</sup> Whatever the real cause, it was used to strengthen the hand of those pressing for resumption, and even some three years later, in October 1968, it was being claimed that the area swept by fire had been changed permanently and was 'not now of the same significance as

it was in earlier years'.<sup>91</sup>

Throughout the early months of 1966 the controversy continued. A steady stream of letters continued to flow between the new Minister of Lands, the Hon. Desmond Corcoran, and the L.M.T.P.A., but neither side showed any sign of compromise. Corcoran stressed firmly, on a number of occasions, that he could see no reason to reverse earlier decisions not to resume Hambidge, while the L.M.T.P.A. in turn continued to urge a change of thinking.<sup>92</sup> In effect a stalemate had been reached, and in an attempt to break the deadlock the L.M.T.P.A. decided to launch a vigorous press campaign to publicise the case for resumption. Beginning in April 1966, feature articles and letters to the editors of both the Adelaide and Eyre Peninsula regional press began to appear, all putting the now standard arguments used by those advocating resumption.<sup>93</sup> Although the articles and letters provoked little public comment, the Nature Conservation Society of South Australia (N.C.S.S.A.), an Adelaide-based group with a strong academic membership, was alarmed by the publicity, and early in October 1966 it sent a group of botanists, zoologists, pedologists, and general assistants, to visit Hambidge and obtain information for a report on its importance as a wildlife reserve. The group spent three days at Hambidge, and on its return published a report which came down strongly against resumption, one of its firmly-made points being that the good agricultural soils of Hambidge were one of the most important reasons for *not* resuming it: it was claimed that very few areas of undisturbed solonized brown soils remained in South Australia, and that those occurring in Hambidge should remain as 'benchmarks' or controls, against which success or failure of agriculture in dealing with similar soils elsewhere could be measured. It was an important report, and in the following years was to provide much of the material used in defence of Hambidge.<sup>94</sup>

To the conservation interests, 1966 was also of importance insofar as it saw a considerable strengthening of legislation relating to the

status and resumption of national parks. Before the passage of the National Parks Act, 1966, the provisions of the National Park and Wildlife Reserve Act, 1891-1960, were such that the Governor of South Australia could, by proclamation, resume any land declared for reserve purposes under the terms of the Act. Such an insecure form of tenure had worried Quirke as early as 1963, and under his guidance a committee was established to revise existing legislation. The 1965 change of Government temporarily upset the work, but in 1966 the committee's efforts culminated in the National Parks Act,<sup>95</sup> an Act which had two key features of relevance to the Hambidge dispute:

- (1) all areas formerly known as wildlife reserves became national parks
- (2) national parks could only be resumed after each House of Parliament had passed a resolution, at least 14 sitting days notice having to be given before passage of the resolution.

The Act was assented to on 1 December 1966, and conservation interests were more than gratified. Resumption of Hambidge was now seen to be much more difficult, but while this was true technically, paradoxically passage of the Act actually brought resumption a step closer.

*Hambidge, 1967-1968.* The reason for this paradox was related to Corcoran's position in the dispute. As Minister of Lands he was under constant attack from the L.M.T.P.A. and such supporting bodies as the L.C.L., R.S.L., W.W.G.A., District Councils, and the Country Women's Association (C.W.A.).<sup>96</sup> In opposing the resumption moves Corcoran was acting on Departmental advice, but, as a politician alive to the electoral implications of an unpopular stand, he was also beginning to have doubts about the wisdom of continued support for Hambidge. The campaign in favour of resumption had been unremitting for many years, and by the close of 1966 he was looking for an easy way out of the dilemma. To make a decision himself would undoubtedly antagonise one of the conflicting parties to the dispute, and therefore, in a



politically-astute move, he decided that Parliament could decide the issue: a resumption proposal passed by both Houses would be seen as satisfying the democratic process, while at the same time it would absolve him of any blame.

In coming to this decision he was undoubtedly influenced by a visit he and the Director of Lands made to Eyre Peninsula in early December 1966. At Lock, Corcoran and the Director discussed the matter with representatives of the L.M.T.P.A. for two and a half hours, and at the end of the meeting Corcoran had intimated that he would pass the matter to Parliament.<sup>97</sup> His resolve to retain Hambidge was clearly weakening in the face of continued pressure, and the conservation interests were alarmed by what they saw as a dangerous concession. Corcoran also promised to have an investigation made by the new National Parks Commission (N.P.C.), the advisory body set up under the 1966 Act to replace the former C.N.P.W.L.R. Corcoran, probably rightly, felt that a resolution could not go to Parliament without an accompanying N.P.C. recommendation, but an inspection by the Committee was delayed time and again, and it was not until August 1967 that a sub committee visited the area. Members of the N.P.C. involved in the inspection of Hambidge and the Blesing/Kappawanta area were T. R. N. Lothian, Chairman of the Commission and Director of the S.A. Botanic Gardens; Dr. W. P. Crowcroft, Deputy Chairman of the Commission and Director of the S.A. Museum; C. T. Rix, Chairman of the Land Board; and M. G. Smith, a resident of Cowell on Eyre Peninsula. Assisting the sub committee was George Cornwall, the Commission's Field Officer. The visit lasted a week, four days being used for an inspection of Hambidge and the Blesing/Kappawanta area, and on Friday August 11 1967 the sub committee met local District Council members and representatives of the L.M.T.P.A.<sup>98</sup> After a few opening remarks by the Chairman of the L.M.T.P.A., Lothian was introduced to the meeting. As Chairman of a body carrying out the functions previously assigned to the C.N.P.W.L.R., it was not unreasonable to expect that Lothian would announce the Commission's continuing opposition to any

resumption. For many years the C.N.P.W.L.R. had resisted strongly any suggestion of compromise, and in this stand it had enjoyed the unqualified support of the Department of Lands. As pointed out earlier, Corcoran's resolve had weakened towards the close of 1966, but it was generally believed that the N.P.C. would oppose resumption regardless of the Minister's attitude, particularly as it now had the report of the N.C.S.S.A. to back up its case in favour of retaining Hambidge.

Given these circumstances, Lothian's announcement was surprising:

The committee investigating the situation will recommend to the National Parks Commission that they ask the Minister of Lands to arrange for portion of the Hambidge National Park to be relinquished and made available for farming purposes.<sup>99</sup>

It was a complete *volte-face*, and appears at first glance to be incomprehensible. On closer examination of the situation, however, a number of reasons for the reversal become apparent:

- (1) Corcoran had decided that Hambidge was a liability, but to present a resolution to Parliament which was opposed by the N.P.C. would be a poor exercise in public relations, particularly as the N.P.C. would receive strong support for its stand from the Adelaide-based conservation groups; pressure was, therefore, put on the N.P.C. to bring its policy into line with the Minister's wishes
- (2) Crowcroft, Deputy Chairman of the N.P.C., was a persuasive and influential person when conservation policy was under discussion, and he had a firm belief that in South Australia field naturalists and other conservation groups too often blindly opposed any perceived threat to wildlife; rather than oppose any threat on principle, he argued strongly that compromise was often not only necessary, but in the long-term view often desirable; in accordance with this belief he pressed firmly for an N.P.C. decision in favour of resumption of approximately half of Hambidge.
- (3) Rix, as shown in Chapter V, was anxious to expand the State's national park system as rapidly as possible, and by 1967 he had become firmly convinced that, in the interests of an expansion policy, Hambidge had to go; given that Corcoran wished to see Hambidge resumed, Rix believed that Land Board and N.P.C. opposition to this could result in Corcoran taking a negative attitude to future park expansion; furthermore, Rix believed that several fine areas on Eyre Peninsula could be secured as future parks if Hambidge was released - his belief was that resumption of all or

part of Hambidge would encourage local land holders to look favourably at any future moves by the Land Board to purchase land for national parks on Eyre Peninsula; essentially it was a pragmatic line based on maximisation of the number and area of the State's parks, and strong support for his views came from Smith, the other N.P.C. member of the sub committee

- (4) the resumption proposal under consideration did not involve the whole park; just under half of the total area was to be resumed, and within the resumed portion a small area surrounding a group of clay pans was to remain uncleared because of its interesting flora.<sup>100</sup> (vide p. 177)

There is certainly room for dispute in any attempt to decide whether Lothian, Crowcroft, Rix, and Smith acted wisely in deciding not to oppose resumption of Hambidge, but, given the circumstances outlined above, it is possible to understand the reasons for their decision. The N.P.C. had no doubts about the wisdom of its sub committee's decision: at a meeting held on 15 September 1967 all members, except one abstainer, voted in favour of the resumption recommendation.<sup>101</sup>

Meanwhile the N.C.S.S.A., still worrying about the resumption issue but not knowing of the N.P.C. decision, decided that it would carry out a survey of the Blesing/Kappawanta area to see, in part, if it could be regarded as a substitute for Hambidge. The survey undertaken was similar to that of Hambidge a year earlier, with a group of biologists and pedologists spending some ten days in the area early in October 1967. Compilation of a report was begun as soon as the group returned to Adelaide, but even with everyone aware of the urgency of the task it was not until late February 1968 that the first completed report was hurriedly forwarded to the Minister of Lands.<sup>102</sup> The report confirmed the findings of the 1963 C.N.P.W.L.R. investigation: Blesing, though interesting, was quite unlike Hambidge and could in no way be seen as a substitute. Unhappily for the N.C.S.S.A. its report reached the Minister several weeks too late to have any real impact on the Hambidge decision. Earlier that month, on 2 February 1968, the Land Board had recommended to the Director of Lands that the planned resumption proceed,<sup>103</sup> and on 12 February 1968 the Minister of Lands

wrote to the L.M.T.P.A. telling it that resumption had been approved.<sup>104</sup> The Association was jubilant, and by the end of February the regional press on Eyre Peninsula had announced the decision in bold headlines.

What had been a long and controversial issue now seemed to be decided, with the *Eyre Peninsula Tribune* noting

The disclosure by the Minister winds up years of campaigning to have the whole or part of the 93,000 acre [37,636 ha] flora and fauna reserve opened up for farming purposes.<sup>105</sup>

Unluckily for the campaigners though, the paper was wrong. Once again Hambidge was given a reprieve by a change of Government: at the State elections held on 2 March 1968 the ruling A.L.P. lost ground, and after a period of some uncertainty the L.C.L. gained the support of Independent member Tom Stott and assumed office. It was an ironical situation. The L.C.L., long-recognised champion of farmers' interests, supported by Tom Stott, one of the most vigorous of the early advocates for a Hambidge resumption, was about to give Hambidge a new lease of life!

*Hambidge, 1968-1969.* The L.C.L. Ministry was announced on 17 April 1968, the new Minister being the Hon. David Brookman. From a conservation view-point this was a timely turn of events, for as explained in Chapter V, Brookman had more than an ordinary sympathy for the needs of parks and reserves. Survey work for the proposed resumption, authorised while Corcoran was still Minister, was underway by the time Brookman began a review of the whole controversy, but he soon made clear the point that he was not necessarily committed to Corcoran's earlier decision.<sup>106</sup>

Conservation interests were quick to appreciate this, seeing in the change of Ministers a very real chance of preventing any resumption. In many ways earlier conservation opposition to the resumption campaign had been desultory. The N.C.S.S.A. had been one of the few bodies to take any positive moves, but even its surveys of Hambidge and Blesing

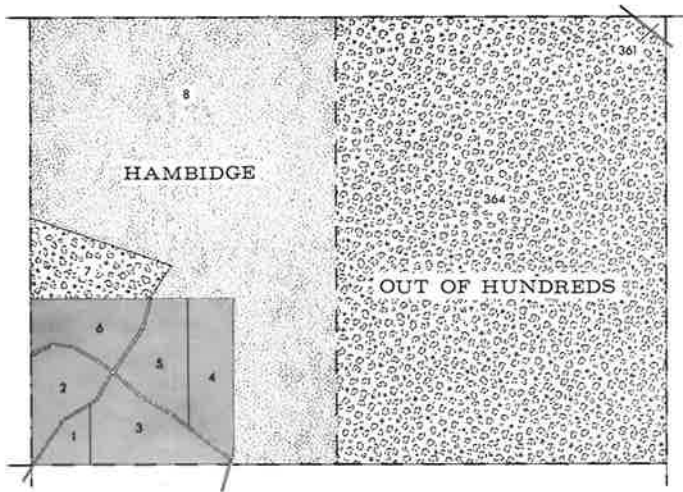
could not hope to match the vigorous and sustained campaign of the L.M.T.P.A. Polite, carefully-reasoned letters, and objective assessments of field data were admirable enough when an issue was still to be decided on the basis of rational discussion, but the L.M.T.P.A. had made Hambidge very much a political issue, and its constant letters, deputations, questions in each House of Parliament, and use of such quasi-political pressure groups as the R.S.L. and W.W.G.A. had succeeded in having a far greater impact on Corcoran than any efforts of the N.C.S.S.A. (vide p. 164).

With the arrival of Brookman this situation changed. Angered by Corcoran's failure to tell them of his resumption decision, conservation groups were directing their efforts towards an all out bid to retain Hambidge, and late in April 1968 a belated but very vigorous campaign was launched. The N.C.S.S.A. had appointed a special Hambidge committee to act on the Society's behalf,<sup>107</sup> and on 30 April 1968 the committee met three representatives of the N.P.C. (Messrs. Lothian, Rix, and J. R. Dunsford - Director of Lands). At the meeting the N.P.C. representatives made a number of points in justification of their decision for resumption, points which the N.C.S.S.A. committee noted and later distributed to all Society members.<sup>108</sup> Only two days after this meeting a letter to the editor of *The Advertiser* appeared criticising the resumption moves,<sup>109</sup> and in the following month a further 23 letters dealing with the dispute were published.<sup>110</sup> Of these 23, four were in favour of resumption, but 19 were highly critical of the resumption moves. Midway through this press campaign *The Advertiser* published a feature article outlining the history of the controversy,<sup>111</sup> and on 28 May 1968 it made its attitude clear by publishing an editorial which expressed firm opposition to any resumption of land from Hambidge. To have the State's morning newspaper coming down firmly on the side of the conservation lobby was an interesting development, and there can be no doubt that it stimulated further action in defence of the park. In particular, many letters and petitions were

forwarded to the Premier, the Minister of Lands, the Director of Lands, and the N.P.C.: by the end of 1968 at least 35 letters opposing resumption had been received by the Department of Lands.<sup>112</sup> Many carried multiple signatures in petition form, and in June, July, and August of 1968 several large deputations waited on Brookman.<sup>113</sup>

The range of conservation bodies represented in the letters, petitions, and deputations was considerable: the N.C.S.S.A., the F.N.S., the National Trust, the Adelaide Bushwalkers, the Town and Country Planning Association (hereafter T.C.P.A.), the Mt. Lofty Ranges Association, the Northern Naturalists Association, the Natural History Society, the S.A. Chapter of the Royal Australian Institute of Architects, the Coolabah Club, the S.A.O.A., and the Society for Growing Australian Plants, were some of the better known, but in addition to these bodies many people wrote to the Minister privately, including Dr. Geoff Sharman, then Professor of Zoology at the University of New South Wales, but originally a resident of South Australia, and a member of the F.F.A.C. committee which had investigated Hambidge and Hincks in the late 1950's.<sup>114</sup>

In terms of vigour and lobbying pressure it was a campaign reminiscent of the Flinders Chase controversy half a century earlier, but its actual impact on the Government is difficult to assess. As mentioned earlier Corcoran had initiated survey work on the proposed resumption before losing office, and by September 1968 this work had been completed. An area of 1,209 ha had been surveyed around the claypans area in the south west corner of the hundred of Hambidge and numbered section 7; the balance of the hundred, 14,553 ha approximately, was then renumbered section 8 (vide map p. 177).<sup>115</sup> Early in July 1968 Brookman had made a thorough inspection of the Eyre Peninsula parks, but in reply to questioning in the House of Assembly had stated that he still had the matter under review.<sup>116</sup> On 8 October 1968 the Director of Lands forwarded a detailed minute to Brookman outlining once more the history of the controversy, and recommending that the matter be put to Cabinet for a decision. Brookman agreed, and on 10 October



**HAMBIDGE**

**LAND RESUMED, 1952 - 1972**

- area resumed & allotted for settlement, Gazette 11.2.1954
- area resumed & allotted for settlement, Gazette 5.12.1957
- resumption proposal put to Cabinet, 10.10.1968

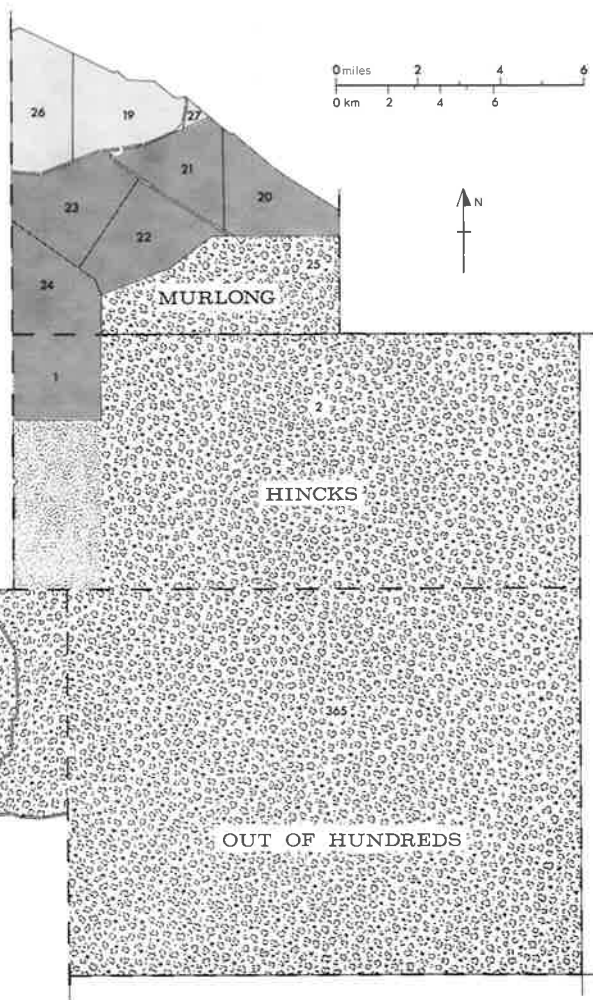
SOURCE: D.L. 5315/53, 6896/54, 1354/68

**HINCKS**

**LAND RESUMED, 1952 - 1972**

- area resumed & allotted for settlement, Gazette 31.3.1960
- area resumed & retained as Crown Land, Gazette 31.3.1960
- area proposed for resumption May 1964

SOURCE: D.L. 2454/52



1968 the matter went to the Chief Secretary for presentation to Cabinet (vide map p. 177).<sup>117</sup>

In an interesting development, what should have been the climax of a long and involved controversy, turned out to be an anticlimax. Officially, Cabinet made no decision! The file was returned without further comment, and over the next few months the whole issue gradually petered out, the last entry in the file being for May 1969. With the wisdom of hindsight it is not difficult to offer at least some plausible reasons for this remarkable end to a remarkable controversy:

- (1) whether by intent or accident, Brookman's indecision gave conservation interests time to rally considerable support for the case against resumption
- (2) in 1968 the case against resumption was put with considerable vigour, the conservation lobby adopting many of the pressure group tactics previously used by the L.M.T.P.A. (vide p. 164).
- (3) as shown in Chapter V, by mid 1968 both wheat and wool were heading towards grave economic difficulties; with the announcement of wheat quotas early in 1969 there could be no thought of resuming land from Hambidge, and even the L.M.T.P.A. realised this - as the months had passed in 1968 only token efforts were made to continue agitation in favour of resumption, and by 1969 the Association was silent.

Given the prevailing economic conditions of primary industry the Hambidge controversy was over, but its importance to the development of conservation interest in the State was considerable. To those interested in national parks and reserves the resumption proposals were a threat with far-reaching implications, for many believed that if Hambidge went then it would only be a matter of time before pressure was exerted for the resumption of other parks.<sup>118</sup> The controversy became, in many ways, a rallying point, just as the famous Hetch Hetchy dispute in America at the turn of the century had become a focal issue around which conservation interests had gathered and planned for united action in land use conflicts.<sup>119</sup> Many academics and naturalists who had traditionally remained aloof from political disputes became committed to intensive lobbying, and such organisations



as the N.C.S.S.A. gained from Hambidge much valuable experience in the organisation of field surveys and the preparation of reports and submissions. It is true that, as pointed out in Chapter V, conditions in the Western countries were such that conservation bodies in South Australia would have increased in strength throughout the 1960's regardless of Hambidge, but Hambidge was a catalyst which greatly speeded the emergence of an effective conservation lobby in the State, and further illustration of this was provided by a number of land use conflicts which developed in the wake of the Hambidge dispute.

### *The Tiger Country*

Between Pinnaroo in the Murray Mallee, and Bordertown in the Upper South East of South Australia, there is a large expanse of uncleared Crown Land. Occupying a portion of county Buckingham, and much of southern county Chandos, it is characterised by the presence of a deep mantle of white, siliceous sands, neutral in reaction, and chronically deficient in organic matter, phosphorus and nitrogen, and a number of trace elements. Known in South Australia as the Tiger Country, and in adjoining Victoria as the Big Desert, the country represents the northern portion of a larger area once known commonly as the Ninety Mile Desert.<sup>120</sup> As detailed in Chapter II, most of the Ninety Mile Desert was cleared for improved pastures in the post World War II land boom, but development of the Tiger Country was never given serious consideration. The sclerophyllous mallee and almost pure heath communities of the region were easy to clear, and extensive heath flats occurred throughout, but steep-sided, parabolic sand dunes rising to a local relief of over 30 metres in places were scattered in a disarrayed pattern throughout the entire region, and presented a formidable barrier in terms of erosion problems which would follow clearing.

Apart from light seasonal grazing of sheep over the area it received little attention until the mid 1960's. By this stage most of the uncleared land to the south and south west of the Tiger Country had been developed, and pressure for a northward expansion into county Chandos resulted in an investigation by the Parliamentary Committee on Land Settlement.<sup>121</sup> From this investigation a decision was made in principle to develop at least some of the land, and throughout 1967 and 1968 work was carried out by the Department of Agriculture and the Department of Lands to determine the likely economics of the scheme, the problems of soil erosion, and the cadastral needs of any subdivision. Questions about the development scheme were raised in Parliament as early as 1967,<sup>122</sup> but there was little reaction from conservation interests at that stage. Early in 1969 a combined report from the Departments of Agriculture and Lands was completed, and although recommending the allocation of ten blocks, with a total area of approximately 20,000 ha, the report warned that establishment costs and likely carrying capacity were such that a 'high degree' of management skill would be needed. Stringent controls of clearing to avoid erosion of the high dunes were also proposed, while a further recommendation was for the establishment of national parks around Scorpion Well and Mt. Shaugh,\* to total over 32,000 ha.<sup>123</sup> Brookman, in his capacity as Minister of Lands, was satisfied with the report, but his announcement of the scheme produced an immediate outcry from conservation interests. Opposition to the development was stimulated and co-ordinated by the T.C.P.A. and the S.A.O.A., one of the main techniques being a letter-writing campaign. Members of a variety of conservation groups were given an information sheet outlining and criticising the scheme, and urged to send a protest based on the information given to Members of Parliament and/or the press.<sup>124</sup> In

---

\* Both areas were eventually declared national parks (vide tables p. 193, 195, map p. 184).

response, 10 letters opposing the scheme were published in *The Advertiser* between September and December 1969,<sup>125</sup> and in the same period a further 26 were received by the Department of Lands.<sup>126</sup> Many of the letters were very similar, following almost exactly the line of argument set out in the information sheet, and Brookman was, perhaps understandably, annoyed by this stereotyped campaign to upset what he considered to be a carefully-planned and well-balanced land development scheme. Tempers became frayed, and a heated exchange in the press between Brookman and T.C.P.A. members organising the protest produced an unfortunate atmosphere of mutual suspicion.<sup>127</sup>

The scheme was eventually shelved, but pressure from conservation interests was probably not the deciding factor. Steadily-declining wool prices had made the project of dubious economic value, and in December 1969 a sub committee of the Australian Institute of Agricultural Science presented to the Minister a very unfavourable report, concluding that

there are strong reasons for not proceeding with further development of self-contained properties in the Counties of Chandos and Buckingham at the present time.<sup>128</sup>

On the same day that the sub committee released its report Brookman issued a press statement to the effect that no development would be carried out unless it could be shown to be economically feasible, and with that assurance the controversy ended.<sup>129</sup>

In Brookman's view it should never have been a controversy, but leaving aside the tactics of the T.C.P.A., it was an interesting issue, and one which demonstrated clearly the new-found lobbying power of conservation interests. In the 1950's and early 1960's rural pressure groups agitated against the declaration of new parks and reserves: in the late 1960's conservation pressure groups agitated against the creation of new farms!

*Aldinga and Normanville*

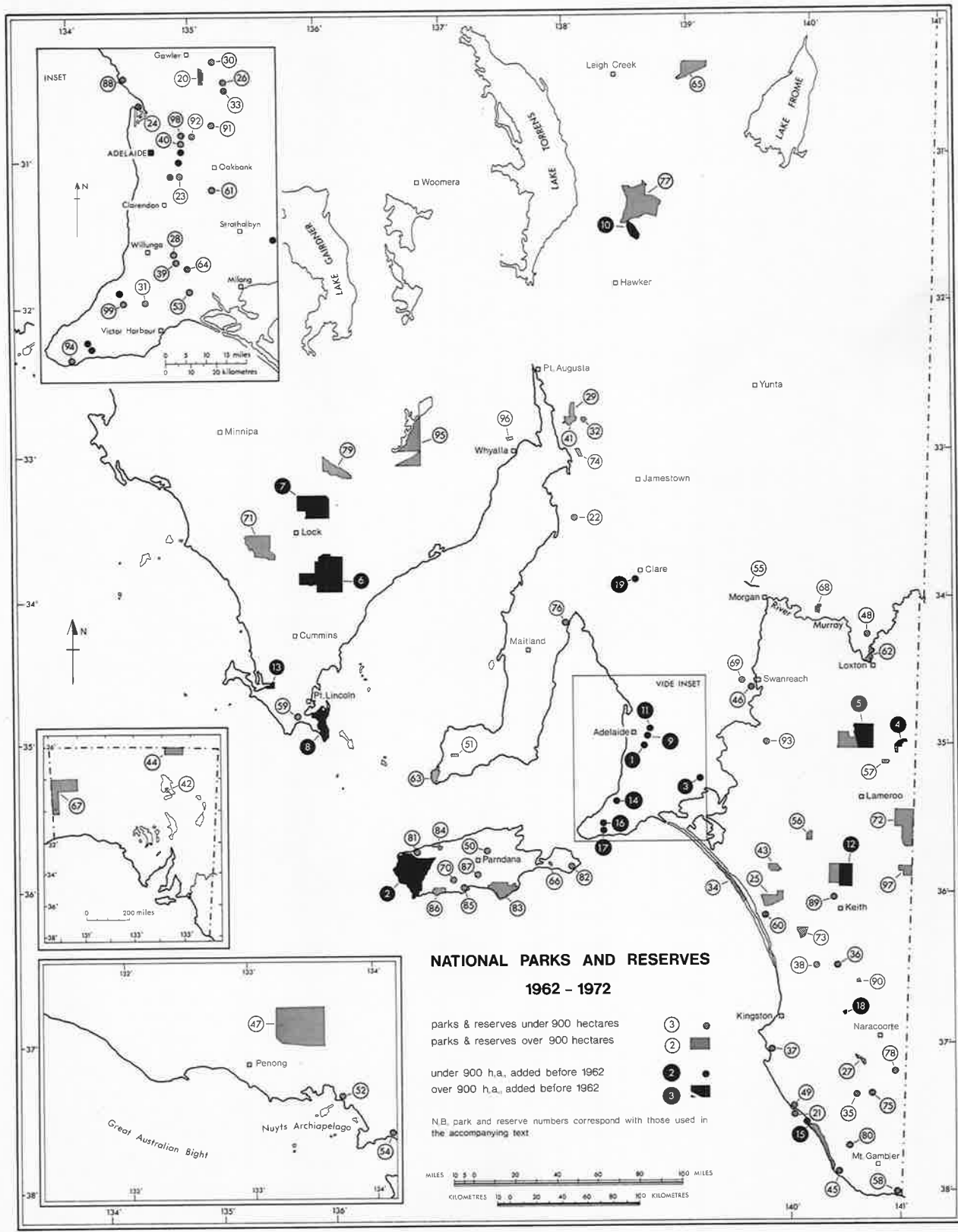
At the same time that development of the Tiger Country was being disputed, controversy raged over the fate of two areas of coastal scrub south of Adelaide. As with Hambidge and the Tiger Country, both issues would more than repay a detailed examination, but in the interests of length only the following brief summaries are included.

At Aldinga, forty eight km south of Adelaide, the State Planning Authority (S.P.A.) had announced its intention to purchase for open space purposes 89 ha of a relic patch of scrub, but conservation interests, led by the N.C.S.S.A. and T.C.P.A. campaigned actively to have the area purchased extended to cover some 243 ha, the full extent of the scrub.<sup>130</sup> Some 600 people formally objected to the S.P.A. plan to purchase only the 89 ha, and although the position is still not fully clear it is understood that S.P.A. policy has been altered and now involves purchase of the entire area.<sup>131</sup>

At Normanville, eighty km south of Adelaide, a four km stretch of coastal dunes was purchased by Australian Chemical Industries (A.C.I.) for mining of the sands for glass manufacture. In spite of a vigorous campaign against the mining operations little progress was made. In a bid to dampen some of the public criticism, A.C.I. offered a few hectares as a 'reserve', but at the time of writing there is still doubt about the ultimate size and status of the promised 'reserve'.<sup>132</sup>

Normanville, specifically, was a loss for conservation interests, but in general it was yet another sign of changing values and ideas. Whereas ten years earlier A.C.I.'s activity would have been welcomed as 'progress', the fierce opposition to it in 1969/70 was clear evidence

that public concern for environmental issues was increasing. In a similar way, Hambidge, and the Tiger Country and Aldinga Scrub issues, indicated a marked swing in public and official attitudes. Times *were* changing, not rapidly enough for some, but if the battlers of the past, men like Selway, Robin, Gooch, Dixon, Ashby, and White, had been able to witness the period 1962-1972 there can be no doubt that they would have been both astonished and delighted: for national parks and reserves, it had truly been a remarkable decade.

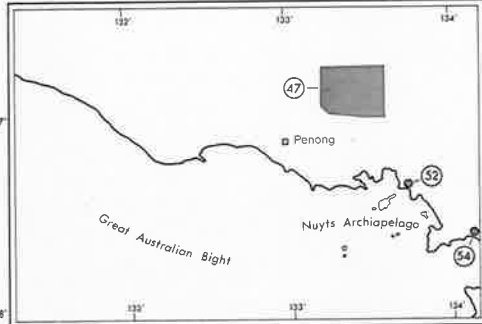
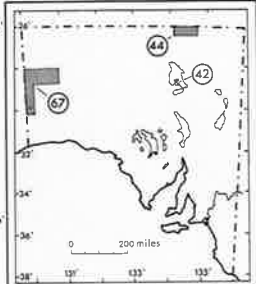
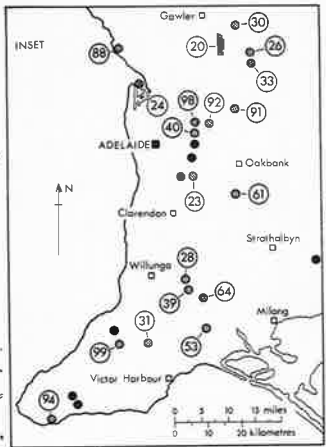


**NATIONAL PARKS AND RESERVES  
1962 - 1972**

① parks & reserves under 900 hectares  
 ② parks & reserves over 900 hectares

① under 900 h.a., added before 1962  
 ② over 900 h.a., added before 1962

N.B. park and reserve numbers correspond with those used in the accompanying text.



## NATIONAL PARKS AND RESERVES, 1962 - 1972

NO.	NAME	LOCATION		GAZETTE		AREA		VEGETATION	REMARKS
		REGIONAL	CADASTRAL	DEDICATED	DECLARED	HECTARES	CUMULATIVE		
20	PARA WIRRA National Park	Mt. Lofty Ranges	Sections 3277, 3278, 3279, 3280, 288, 289, Pt3273, Pt3274, Hd. Para Wirra (renumbered section 423); section 311 Hd. Barossa, Co. Adelaide	21.6.1962		584	234,204	Dry sclerophyll	Portion of the Humbug Scrub area suggested as a reserve as early as 1947. Purchased for development as a park to serve expanding urban complex at Elizabeth and Salisbury. D.L. 5782/1947, 2272/1956
1E	BELAIR Addition	Mt. Lofty Ranges	Section 606 Hd. Adelaide, Co. Adelaide	5.7.1962		1	234,205	Dry sclerophyll	Small area purchased as part of a policy of expanding the eastern boundary as much as possible. D.L. 2761/1961
1F	BELAIR Addition	Mt. Lofty Ranges	Section 514 Hd. Adelaide, Co. Adelaide	20.6.1963		2	234,207	Dry sclerophyll	Vide remarks 1E.
21	PENGUIN ISLAND Wild Life Reserve	Lower South East	South out of Hundreds, being south east of Cape Martin & approximately 1.6 km. south of Beachport	1.8.1963	23.4.1964	2	234,209	Unclassified	Former lighthouse reserve, transferred to C.N.P.W.L.R. to protect sea birds resting and breeding on Island. D.L. 4616/1960
5A	BILLIATT Resumption	Murray Mallee	Section Pt15 Hd. Billiatt, Co. Chandos	16.5.1963	20.6.1963	- 23	234,086	Sclerophyllous mallee	Resumed for construction of Lameroo - Alawoona road. H. & L.G.D. 1146/1961
22	MUNDOORA Wild Life Reserve	Northern Agricultural	Sections 439-441 Hd. Mundoora, Co. Daly	17.10.1963	24.10.1963	547	234,733	Semi arid mallee	Formerly a timber reserve. Dedicated at request of D.C. Red Hill. D.L. 1475/1949
23	THE KNOLL Wild Life Reserve	Mt. Lofty Ranges	Section Pt977 Hd. Adelaide, Co. Adelaide (renumbered section 612)	21.11.1963	28.11.1963	2	234,735	Dry sclerophyll	Small area of native vegetation donated to Tourist Bureau by a local resident. Transferred to C.N.P.W.L.R. to facilitate control. T.B. 671/1960
24	TORRENS ISLAND Wild Life Reserve	Adelaide Plains	Section 467 Hd. Pt. Adelaide, Co. Adelaide	21.11.1963	28.11.1963	58	234,793	Unclassified	Northern portion Torrens Island. Dedicated at instigation of Director of Botanic Gardens to protect mangroves and other vegetation. B. & G. 193/1963
25	MESSENT Wild Life Reserve	Upper South East	Section 1 Hd. Messent, Co. Cardwell	9.1.1964	23.1.1964	11,331	246,124	Sclerophyllous mallee with heath	Area held under annual licence by Dr. M. Schneider. Schneider anxious to see area reserved, and surrendered his licence after F.F.A.C. reported favourably on area. F. & G. 141, (5)/1963
26	HALE Wild Life Reserve	Mt. Lofty Ranges	Sections 119, 124, 125, 138, 135, Hd. Barossa, Co. Adelaide	9.1.1964	23.1.1964	114	246,238	Dry sclerophyll	Private land purchased on Land Board recommendation. D.L. 1484/1963
20A	PARA WIRRA Addition	Mt. Lofty Ranges	Sections 271-274 Hd. Para Wirra, Co. Adelaide (renumbered section 428)	26.3.1964	9.4.1964	297	246,535	Dry sclerophyll	Land Board recommendation with Town Planner & C.N.P.W.L.R. support. D.L. 4146/1961

1962 - 1972 (Cont.)

NO.	NAME	LOCATION		GAZETTE		AREA		VEGETATION	REMARKS
		REGIONAL	CADASTRAL	DEDICATED	DECLARED	HECTARES	CUMULATIVE		
17A	ERIC BONYTHON Addition	Mt. Lofty Ranges	Section 357 Hd. Waitpinga, Co. Hindmarsh	30.4.1964	28.5.1964	4	246,539	Dry sclerophyll	Land donated for flora and fauna conservation by a local pastoralist, Eric G. Bonython. D.L. 910/1961
27	BIG HEATH Wild Life Reserve	Lower South East	Sections 17-20, 169, Hd. Spence, Co. Robe	7.5.1964	14.5.1964	2,351	248,890	South East complex	A 'wetland' reserve. Agitation for and against its dedication was contemporaneous with that for Fairview. D.L. 1478/1958, 7912/1959; M.L.G. 15/1957
28	KYEEMA National Park	Mt. Lofty Ranges	Sections 92, 522, 688, 850 Hd. Kuitpo, Co. Adelaide	5.11.1964	12.11.1964	279	249,169	Dry sclerophyll	Former prison farm. Transferred to C.N.P.W.L.R. for development as a park to serve developing urban complex of Christies Beach/Pt. Stanvac. D.L. 8011/1959
11A	HORSNELLS GULLY Addition	Mt. Lofty Ranges	Sections Pt1109, Pt1110 Hd. Adelaide, Co. Adelaide (renumbered section 618)	3.12.1964	17.12.1964	26	249,195	Dry sclerophyll	A strategic piece of land acquired at request C.N.P.W.L.R. Controlled entry to existing reserve and provided housing for ranger. D.L. 5635/1963
26A	HALE Addition	Mt. Lofty Ranges	Sections Pt126, Pt127, Pt137 Hd. Barossa, Co. Adelaide (renumbered section 315)	4.2.1965	11.2.1965	77	249,272	Dry sclerophyll	Purchased on Land Board recommendation. D.L. 4544/1963
1G	BELAIR Addition	Mt. Lofty Ranges	Section 496 Hd. Adelaide, Co. Adelaide	18.3.1965		1	249,273	Dry sclerophyll	Former railways dam, transferred to C.N.P.W.L.R. following phasing out of steam trains. D.L. 6530/1958
12A	MT. RESCUE Addition	Upper South East	Sections 7, 8, Hd. Archibald, Co. Buckingham	17.6.1965	29.7.1965	10,764	260,037	Sclerophyllous mallee with heath	Important addition, with fresh water soaks surrounded by old Aboriginal camps. Added on strong recommendation F.P.A.C. & C.N.P.W.L.R. D.L. 3695/1963
29	ALLIGATOR GORGE Wild Life Reserve	Flinders Ranges	Sections I, J, M, N, Hd. Winninowie, Co. Frome (renumbered section 176)	15.7.1965	29.7.1965	3,831	263,868	Low layered woodland	As early as 1960 D.C. Pt. Germein urged provision of a large national park to cater for tourism in southern Flinders Ranges. Sub committee of C.N.P.W.L.R. prepared a detailed report which provided the basis for action resulting in the purchase of Alligator Gorge. Mt. Remarkable, and Mambrey Creek. D.L. 4843/1963, 3612/1964
5B	BILLIATT Addition	Murray Mallee	Section 18 Hd. Billiatt; section 26 Hd. Auld, Co. Chandos	23.9.1965	30.9.1965	14,136	278,004	Sclerophyllous mallee	Land considered to be of little economic use - added on recommendation F.P.A.C. & C.N.P.W.L.R. F. & G. 141, (4)/1963
4C	PEEBINGA Addition	Murray Mallee	Sections 19, 30, Hd. Peebinga, Co. Chandos	30.9.1965	7.10.1965	1,518	279,522	Sclerophyllous mallee	Both sections considered unsuitable for settlement by Land Board,



NO.	NAME	LOCATION		GAZETTE		AREA		VEGETATION	REMARKS
		REGIONAL	CADASTRAL	DECLARED	DECLARED	HECTARES	CUMULATIVE		
30	SANDY CREEK Wild Life Reserve	Mt. Lofty Ranges	Section 72 Hd. Barossa, Co. Adelaide	7.10.1965	21.10.1965	51	279,573	Dry sclerophyll	thereby reversing resumption notice of 8.3.1962 for section 30. D.L. 4156/1959  Area recommended strongly for purchase by F.F.A.C. & Chairman of Land Board: said to have exceptional variety of native birds. F. & G. 141, (7)/1963
19A	SPRING GULLY Addition	Northern Agricultural	Sections 143, 144, 364, 371, 372, 374, Hd. Clare, Co. Stanley (renumbered section 572)	20.1.1966	3.2.1966	284	279,857	Savanna woodland	An important addition instigated by Hon. P.H. Quirke, then Minister of Lands: a strong advocate of parks & reserves & resident of Clare district. D.L. 4918/1963
31	SPRING MOUNT Wild Life Reserve	Mt. Lofty Ranges	Sections 633, 715, Hd. Encounter Bay, Co. Hindmarsh	27.1.1966	3.2.1966	34	279,891	Dry sclerophyll	Former forest reserve supporting fine stand of stringybark. Best timber cut out in early 1950's, but some large trees remained. D.L. 2902/1949
15A	CANUNDA Addition	Lower South East	Section 157 Hd. Mayurra, section 386 Hd. Benara, section 396 Hd. Rivoli Bay, Co. Grey	10.2.1966	24.2.1966	8,929	288,820	South East complex	Long stretch of coastal dunes, first proposed as a reserve by Dr. T.D. Campbell of the University of Adelaide. Dedication delayed by several years of hostile opposition from D.C. Millicent. D.L. 5742/1961
32	MT. REMARKABLE Wild Life Reserve	Flinders Ranges	Section 200, 201, Pt202, Pt205, Pt206 Hd. Wongyarra, Co. Frome (renumbered section 471)	17.3.1966	31.3.1966	272	289,092	Low layered woodland	Vide remarks for No. 29, Alligator Gorge. D.L. 4843/1963, 3618/1964
2D	FLINDERS CHASE Addition	Kangaroo Island	Section 16 Hd. McDonald, Co. Carnarvon	31.3.1966		761	289,853	Sclerophyllous mallee	Vide Dept. Lands S.D.B. Hd. McDonald.
20B	PARA WIRRA Addition	Mt. Lofty Ranges	Sections 282, 283, 3271, 3272, Pt3273, Pt3274, Pt45, Hd. Para Wirra, Co. Adelaide (incorporated into section 423)	28.4.1966	5.5.1966	219	290,072	Dry sclerophyll	Private land purchased at prices well above valuation levels. Government reluctant to pay inflated prices, but Land Board & C.N.P.W.L.R. convinced Cabinet that long term savings would result from purchase. D.L. 3148/1963, 4564/63, 6780/1960
33	WARREN Wild Life Reserve	Mt. Lofty Ranges	Sections 118, 387, 388 Hd. Para Wirra, Co. Adelaide	14.7.1966	21.7.1966	343	290,415	Dry sclerophyll	Hilly, well-timbered country, purchased on Land Board recommendation. D.L. 4601/1964
34	COORONG Wild Life Reserve	Adj. Upper South East	Sections 6, 7, Hd. Santo (renumbered section 6); sections 9, 17-20 Hd. Glyde (renumbered section 17); sections F, F1, G1, Hd. Glyde (renumbered section 60) Co. Cardwell	4.8.1966 15.9.1966	25.8.1966 22.9.1966	3,157	293,572	Unclassified	Thirty two km. stretch of coastal sand dunes on Youngusband Peninsula. Private land purchased on Land Board recommendation. D.L. 5507/1965, 5508/1965

NO.	NAME	LOCATION		GAZETTE		AREA		VEGETATION	REMARKS
		REGIONAL	CADASTRAL	DEDICATED	DECLARED	HECTARES	CUMULATIVE		
1H	BELAIR Resumption	Mt. Lofty Ranges	Section Pt979 Hd. Adelaide, Co. Adelaide (renumbered section 631)	6.10.1966		-3	293,569	Dry sclerophyll	Small area resumed for Education Department purposes. Dept. Lands S.D.B. Hd. Adelaide
20C	PARA WIRRA Addition	Mt. Lofty Ranges	Section Pt45 Hd. Para Wirra, Co. Adelaide (renumbered section 429)		20.4.1967	32	293,601	Dry sclerophyll	Purchase recommended by Land Board to round off boundaries. D.L. 423/1966
35	CALECTASIA National Park Reserve	Lower South East	Section Pt124 Hd. Short, Co. Grey (renumbered section 157)		1.6.1967	14	293,615	South East complex	Declared at N.P.C. request to protect <u>Coloctasia cyanea</u> (the rare, blue tinsel lily). D.L. 2593/1966
36	DESERT CAMP National Park Reserve	Upper South East	Section 87 Hd. Marcollat, Co. McDonnell		27.7.1967	38	293,653	Sclerophyllous mallee	Small area, formerly Crown Land, declared on Land Board & N.P.C. recommendation. D.L. 2100/1966
37	GUICHEN BAY National Park	Lower South East	Sections 360, 361, Hd. Waterhouse, Co. Robe		27.7.1967	75	293,728	South East complex	Former Crown Land on sandy coastal soils, considered unsuitable for settlement. Declared on Land Board recommendation. D.L. 413/1967
26A	KYEEMA Addition	Mt. Lofty Ranges	Section 302 Hd. Kuitpo, Co. Adelaide		3.8.1967	45	293,773	Dry sclerophyll	Partially - cleared land, purchased on Town Planner recommendation with Land Board support. D.L. 2781/1966
38	JIP JIP National Park	Lower South East	Section 86 Hd. Peacock, Co. McDonnell		10.8.1967	142	293,915	South East complex	Declared after shelving of controversial plans by Highways Department to quarry granite tors of the area. D.L. 1245/1964
39	MT. MAGNIFICENT National Park	Mt. Lofty Ranges	Section 293 Hd. Kuitpo, Co. Adelaide		10.8.1967	89	294,004	Savanna woodland	Area left to Government by private owner for purpose of maintaining a natural reserve. C.S.O. 474/1963
40	MORIALTA National Park	Mt. Lofty Ranges	Section 833 Hd. Adelaide, Co. Adelaide		31.8.1967	157	294,161	Dry sclerophyll	Natural vegetation to immediate east of Morialta National Pleasure Resort. Purchased on Town Planner & Land Board recommendation. C.S.O. 355/1964
41	MAMBRAY CREEK National Park	Flinders Ranges	Sections LNW, M,N, Q, R, S, Hd. Baroota, Co. Frome (renumbered section 218)		14.9.1967	2,691	296,852	Low layered woodland	Portion of Old Baroota station, containing well-known tourist attraction of Mambray Creek Gorge. Vide remarks for No. 29, Alligator Gorge. D.L. 4843/1963, 3619/1964
42	ELLIOT PRICE Wilderness National Park	Far North	Portion Hunt Peninsula, Lake Eyre North (later numbered section 49 N.O.H.)		9.11.1967	64,750	361,602	Desert complex	First arid national park declared in South Australia. Outcome of negotiations between C.W. Bonython &

1962 - 1972 (Cont.)

NO.	NAME	LOCATION		GAZETTE		AREA		VEGETATION	REMARKS
		REGIONAL	CADASTRAL	DEDICATED	DECLARED	HECTARES	CUMULATIVE		
43	MT. BOOTHBY National Park	Upper South East	Section 3 Hd. Colebatch, Co. Cardwell		30.11.1967	4,045	365,647	Sclerophyllous mallee with heath	Elliot Price, lessee of <u>Muloorina</u> station. D.L. 1142/1967  Former Crown Land. Withheld from settlement because of lack of underground water. Declared on Land Board recommendation in spite of D.C. Coonahpyn Downs opposition. D.L. 5167/1965
44	SIMPSON DESERT National Park	Far North	Pastoral blocks 574, 579, Pt571, Pt572, Pt575, Pt580 (later numbered section 48 N.O.H.)		14.12.1967	691,615	1,057,262	Desert complex	Outstanding area of sand ridge desert, declared as South Australia's contribution to proposed three-State national park. Pastoral Board opposition overruled. D.L. 4904/1966
41A	MAMBRAY CREEK Addition	Flinders Ranges	Sections PtPW, PtPE Hd. Baroota, Co. Frome (renumbered sections 216, 217)		7.3.1968	458	1,057,720	Low layered woodland	Undeveloped private land, sold to Government for cost of a fence along its southern boundary. D.L. 3616/1964
19B	SPRING GULLY Addition	Northern Agricultural	Section 365 Hd. Clare, Co. Stanley		21.3.1968	34	1,057,754	Savanna woodland	D.L. 3532/1967
45	BUCKS LAKE National Park	Lower South East	Section 405, and Bucks Lake south of Bucks Crossing, Hd. Kongorong, Co. Grey (renumbered section 618)		25.4.1968	138	1,057,892	South East complex	Area declared on L.B. recommendation after approaches for a reserve made by D.C. Pt. McDonnell. N.P.C. not favourably impressed by area. D.L. 1645/1964
32A	MT. REMARKABLE Addition	Flinders Ranges	Section Pt199; sections 203, 204, 206 (renumbered section 489); section 474 Hd. Wongyarra, Co. Frome		23.5.1968	603	1,058,495	Low layered woodland	Purchased on Land Board recommendation. D.L. 3617/1964
46	RIDLEY National Park Reserve	Murray Flats	Section 144 Hd. Fisher; sections 479, 480, 483, Hd. Ridley, Co. Sturt		30.5.1968	414	1,058,909	Semi arid mallee	Portion former travelling stock route. Declared on Land Board recommendation. N.P.C. support given in principle, but concern expressed about likely fencing problem. D.L. 2103/1967
41B	MAMBRAY CREEK Addition	Flinders Ranges	Section PtA Hd. Wongyarra, Co. Frome (renumbered section 488)		30.5.1968	191	1,059,100	Low layered woodland	Purchased on Land Board recommendation to allow southern boundary to continue along natural watershed. D.L. 3615/1964
47	YUMBARRA National Park	Adj. West Coast	Portion Co. Way; sections 121, 389 N.O.H. (renumbered section 457 N.O.H.)		30.5.1968	106,191	1,165,291	Semi arid mallee	Declared on Land Board recommendation with N.P.C. support. D.L. 411/1966
11	BELAIR Addition	Mt. Lofty Ranges	Section 633 Hd. Adelaide, Co. Adelaide		25.7.1968	3	1,165,294	Dry sclerophyll	Small area added to compensate loss of section 631 (see 1H) Dept. Lands S.D.B. Hd. Adelaide

1962 - 1972 (Cont.)

NO.	NAME	LOCATION		GAZETTE		AREA		VEGETATION	REMARKS
		REGIONAL	CADASTRAL	DEDICATED	DECLARED	HECTARES	CUMULATIVE		
4E	GLOSSOP National Park Reserve	Murray Valley	Section 1444 Berri Irrigation Area		12.9.1968	3	1,165,297	Semi arid mallee	Small area of natural scrub adjoining Glossop High School. Primarily intended to allow ecological studies by school students. D.L. 5045/1966
49	BEACHPORT National Park	Lower South East	Sections 31, 32, 40, 58, 5, 7, Hd. Lake George Co. Grey		19.9.1968	624	1,165,921	South East complex	Large dunes & dense coastal scrub. Crown Lands suggested for a reserve by naturalists in 1964. D.C. Beachport objected - portion of land said to be 'too good' for a reserve. D.L. 2448/1964
50	PARNDANA National Park	Kangaroo Island	Section 58 Hd. Seddon, Co. Carnarvon		26.9.1968	310	1,166,231	Sclerophyllous mallee	Former Crown Land, declared on Land Board recommendation with N.P.C. support. D.L. 1161/1968
22A	MUNDOORA Addition	Northern Agricultural	Section 442 Hd. Mundoora, Co. Daly		17.10.1968	235	1,166,466	Semi arid mallee	Former timber reserve (see remarks No. 28), declared after extensive unauthorised cutting of mallee. D.L. 1475/1949
20D	PARA WIRRA Addition	Mt. Lofty Ranges	Sections 118, 299, 183-185, 217, 181 Hd. Barossa, Co. Adelaide		17.10.1968	174	1,166,640	Dry sclerophyll	Purchased on Land Board recommendation - would assist in 'fire control' D.L. 657/1968
36A	DESERT CAMP Addition	Upper South East	Section 105 Hd. Marcollat, Co. McDonnell		21.11.1968	11	1,166,651	Sclerophyllous mallee	Formerly portion Perpetual Lease 3886, surrendered & declared after road changes severed land from balance of lease. D.L. 2100/1966
51	WARRENBEN National Park	Yorke Peninsula	Section Pt7 Hd. Warrenben, Co. Fergusson (renumbered section 97)		9.1.1969	1,035	1,167,686	Semi arid mallee	Purchased on Land Board recommendation after S.A. Ornithological Assocn. had drawn attention to sale of scrub land in the area. D.L. 4697/1967
9A	CLELAND Addition	Mt. Lofty Ranges	Former freehold land (vide L.T.O. Plan 3796), incorporated into section 608 Hd. Adelaide, Co. Adelaide		16.1.1969	6	1,167,692	Dry sclerophyll	Land subdivided in abortive housing scheme of 1930's. Purchased, titles cancelled, and land added to existing reserve. Dept. Lands S.D.B. Hd. Adelaide
52	WITTELBEE National Park	West Coast	Section 101 Hd. Bonython, Co. Way		16.1.1969	121	1,167,813	Semi arid mallee	Area of high dunes and semi arid scrub, declared after Dept. of Lands District Inspector made a strong plea for reservation. D.L. 1353/1968
53	SCOTT National Park	Mt. Lofty Ranges	Section 218; section Pt220 (renumbered section 347) Hd. Goolwa, Co. Hindmarsh		20.3.1969	209	1,168,022	Savanna woodland	Area of natural vegetation in otherwise cleared land. Purchased on Land Board recommendation following generous offer by owner. D.L. 2094/1968

NO.	NAME	LOCATION		GAZETTE		AREA		VEGETATION	REMARKS
		REGIONAL	CADASTRAL	DEDICATED	DECLARED	HECTARES	CUMULATIVE		
54	CARATOOOLA National Park Reserve	West Coast	Section 53 Hd. Haslam, Co. Dufferin		24.4.1969	55	1,168,077	Semi arid mallee	Declared after Dept. of Lands District Inspector made a strong plea for its reservation. D.L. 6405/1968
55	WHITE National Park Reserve	North East	Section 202 Hd. Lindley, Co. Burra		17.7.1969	60	1,168,137	Low layered woodland & shrub steppe	Portion former travelling stock route. Declaration recommended by F.F.A.C. & N.P.C. D.L. 5944/1964
34A	COORONG Addition	Adj. Upper South East	Section 59 Hd. Glyde, Co. Cardwell		17.7.1969	72	1,168,209	Sclerophyllous mallee	Dept. Lands S.D.B. Hd. Glyde.
56	CARCUMA National Park	Upper South East	Section 23 Hd. Carcuma, Co. Buccleuch		28.8.1969	2,881	1,171,090	Sclerophyllous mallee with heath	Former Crown Land, considered unsuitable for settlement. Declared on Land Board & N.P.C. recommendation D.L. 124/1968
57	KARTE National Park	Murray Mallee	Sections 3, 4, Hd. Kingsford, Co. Chandos		4.9.1969	1,376	1,172,466	Sclerophyllous mallee	Former Crown Land, considered unsuitable for settlement. Declared on Land Board & N.P.C. recommendation D.L. 243/1968
58	PICCANINIE PONDS National Park	Lower South East	Sections 598, 692, Hd. Caroline, Co. Grey		16.10.1969	382	1,172,848	South East complex	Declared on N.P.C. recommendation after a carefully-prepared F.N.S. submission had drawn attention to need to conserve area. D.L. 4188/1964
59	SLEAFORD MERE National Park	Eyre Peninsula	Section 36 Hd. Sleaford, Co. Flinders		20.11.1969	688	1,173,536	Sclerophyllous mallee	Small lake, declared after N.P.C. attempts to secure eastern shore failed in face of E.& W.S. opposition D.L. 4468/1969
60	UN-NAMED National Park	Lower South East	Section 14 Hd. Messent; section 19 Hd. Santo, Co. Cardwell		27.11.1969	563	1,174,099	South East complex	Small area, but varied topography and vegetation. Purchased on Land Board & N.P.C. recommendation. D.L. 5311/1968
33A	WARREN Addition	Mt. Lofty Ranges	Sections Pt132, Pt133 Hd. Barossa, Co. Adelaide (renumbered section 321)		27.11.1969	20	1,174,119	Dry sclerophyll	Small area north of South Para River, recommended as an addition by C.N.P.W.L.R. D.L. 4601/1964
41C	MAMBREY CREEK Addition	Flinders Ranges	Sections 180, 210, 219, Hd. Baroota, Co. Frome		27.11.1969	207	1,174,326	Savanna woodland (along watercourse)	Three km. extension west along Mambrey Creek: some Cabinet hesitation, but approval given after Land Board pressed strongly for purchase. D.L. 2829/1968
61	TOTNESS National Park Reserve	Mt. Lofty Ranges	Sections Pt3823, Pt3824, Pt3827, Hd. Macclesfield, Co. Hindmarsh (renumbered section 124)		15.1.1970	35	1,174,361	Savanna woodland	Former railway dam and catchment area for Mt. Barker station. N.P.C. recommended declaration, but with some reservations about heavy weed infestation. D.L. 90/1967

1962 - 1972 (Cont.)

NO.	NAME	LOCATION		GAZETTE		AREA		VEGETATION	REMARKS
		REGIONAL	CADASTRAL	DEDICATED	DECLARED	HECTARES	CUMULATIVE		
21A	PENGUIN ISLAND Addition	Lower South East	Section 374 Hd. Rivoli Bay, Co. Grey		22.1.1970	2	1,174,363	Unclassified	Vide Dept. Lands S.D.B. Hd. Rivoli Bay
62	KATARAPKO National Park	Murray Valley	Section 74 Hd. Katarapko, Cobdogla Irrigation Area, Weigall Division		5.3.1970	3,258	1,177,621	Savanna woodland	Declaration moves begun as early as 1965, with strong Local Government support. Long and involved administrative procedures extended over several years. D.L. 327/1967
63	INNES National Park	Yorke Peninsula	Sections 100-102 Hd. Warrenben, Co. Fergusson		5.3.1970	6,091	1,183,712	Semi arid mallee	Declared following representations from D.C. Warooka and S.A. Ornithological Association. Important holidaying and fishing area, & site of 1965 capture of rare western whip bird. D.L. 2819/1952, 1557/1965; F. & G. 141, (2)/1963
64	COX'S SCRUB National Park	Mt. Lofty Ranges	Sections 1972, 1979-1985 Hd. Kondoparinga, Co. Hindmarsh		5.3.1970	481	1,184,193	Dry sclerophyll	Declared after F.N.S., N.P.C., S.A. Ornithological Assoon., and Land Board had all stressed value of area. D.L. 6058/1968
65	GAMMON WILDERNESS National Park	Flinders Ranges	Section 464 N.O.H., Out of Counties		5.3.1970	11,396	1,195,589	Low layered woodland	Special F.F.A.C. committee in conjunction with Pastoral Board and State Planning Office examined need for reserves in Flinders Ranges (first meeting 4.8.1965, last report 19.2.1969) Immediate outcome was Gammon Wilderness. F. & G. 160/1964; D.L. 5605/1961
66	DUDLEY National Park	Kangaroo Island	Sections 294-296, 302, 303, Hd. Dudley, Co. Carnarvon		26.3.1970	933	1,196,522	Sclerophyllous mallee	Urgent action taken by Land Board and N.P.C. to have area declared for protection of <u>Eucalyptus oneorifolia</u> (Kangaroo Island narrow leaf mallee) D.L. 4246/1968
67	UN-NAMED National Park	North West	North out of Hundreds (later numbered section 50)		7.5.1970	2,132,716	3,329,238	Desert complex	State's largest park: covered portion of an area proposed as a vast Central Australian Park as early as 1936. D.L. 1221/1970
68	POOGINOOK National Park	North East	Sections 7, 8, 14, Hd. Pooginook, Co. Young		7.5.1970	2,852	3,332,090	Semi arid mallee	Partially-cleared scrub used for marginal wheat farming. Offered to Government when rural economy slumped. D.L. 3181/1969
69	SWAN REACH National Park	Murray Flats	Sections 38, 39, 55, 56, 59, 60, Hd. Fisher, Co. Eyre		28.5.1970	874	3,332,964	Semi arid mallee	Purchased on Land Board recommendation to protect colony of hairy nosed wombats. D.L. 2574/1969

NO.	NAME	LOCATION		GAZETTE		AREA		VEGETATION	REMARKS
		REGIONAL	CADASTRAL	DEDICATED	DECLARED	HECTARES	CUMULATIVE		
77A	ORAPARINNA Addition	Flinders Ranges	Section 333 N.O.H.		20.5.1971	1,813	3,499,973	Low layered woodland	Formerly under miscellaneous lease to <u>Oraparinna</u> station, but surrendered before expiry. D.L. 3057/1970
92	MONTACUTE National Park	Mt. Lofty Ranges	Sections 473, 523, 524, 5586, 5587, 5589, 5590 Hd. Onkaparinga, Co. Adelaide		12.8.1971	166	3,500,139	Savanna woodland	Land rejected by Woods & Forest Dept. because of steepness. Declared on Land Board recommendation. D.L. 2451/1970
93	LOWAN National Park	Murray Mallee	Sections Pt23, Pt24 Hd. Bowhill, Co. Buckleuch (renumbered section 71)		9.9.1971	662	3,500,801	Semi arid mallee	Purchased on Land Board and N.P.C. recommendation from private owners who were anxious to see scrub remain. D.L. 1684/1969
94	DEEP CREEK National Park	Mt. Lofty Ranges	Sections 35, 213, 214, 215, 130 (renumbered sections 130, 365), 216, 217, Hd. Waitpinga, Co. Hindmarsh		30.9.1971	570	3,501,371	Dry sclerophyll	A much sought after area on Fleurieu Peninsula. Strenuous efforts begun in early 1960's by National Fitness Council & F.N.S. to have area reserved, but strategic catchment area of Deep Creek still in private hands. D.L. 6124/1961
65A	GAMMON WILDERNESS Addition	Flinders Ranges	Section 35 N.O.H., Out of Counties		30.9.1971	4,144	3,505,515	Low layered woodland	D.L. 5605/1961
95	LAKE GILLES National Park	North West	Sections 1-14, 16, 17-20, 43, Hd. O'Connor; Pastoral Block 958 N.O.H., Co. Buxton; section 316 N.O.H., Co. York		30.9.1971	33,102	3,538,617	Low layered woodland	Transition area between agricultural and pastoral country. Purchased on Land Board recommendation. D.L. 5130/1969, 1191/70
96	WHYALLA National Park	North West	Section 14 Hd. Cultana, Co. York		4.11.1971	1,011	3,539,628	Low layered woodland	Purchased on Land Board recommendation to protect vegetation & provide a picnic spot for Whyalla residents. D.L. 4384/1969
2E	FLINDERS CHASE Addition	Kangaroo Island	Section 4 Hd. McDonald, Co. Carnarvon		11.11.1971	34	3,539,662	Sclerophyllous mallee	Vide Dept. Lands S.D.B. Hd. McDonald.
97	MT. SHAUGH National Park	Upper South East	Section 5 Hd. Shaugh, Co. Buckingham		25.11.1971	3,460	3,543,122	Sclerophyllous mallee with heath	Same origin as Scorpion Well - vide remarks No. 72. D.L. 3172/1969
80A	GOWER Addition	Lower South East	Closed road merged with & being portion of section 517 Hd. Hindmarsh, Co. Grey		16.12.1971	2	3,543,124	South East complex	Closed road added to park. D.L. 1417/1970
37A	GUICHEN BAY Addition	Lower South East	Closed road merged with & being portion of section 360 Hd. Waterhouse, Co. Robe		13.1.1972	2	3,543,126	South East complex	Closed road added to park. D.L. 3172/1970
98	BLACK HILL National Park	Mt. Lofty Ranges	Sections 669-671 Hd. Adelaide; section 526 Hd. Onkaparinga, Co. Adelaide		27.1.1972	142	3,543,268	Dry sclerophyll	Area recommended for reservation as early as 1954 by F.N.S. ( <u>The S.A. Naturalist</u> , 1954, 29, (2), p.25). Purchased by State Planning Authority and control transferred to N.P.C. S.P.A. 1/1970

1962 - 1972 (Cont.)

NO.	NAME	LOCATION		GAZETTE		AREA		VEGETATION	REMARKS
		REGIONAL	CADASTRAL	DEDICATED	DECLARED	HECTARES	CUMULATIVE		
25A	MESSENT Addition	Upper South East	Section 1 Hd. Colebatch, Co. Cardwell		18.6.1970	882	3,333,846	Sclerophyllous mallee with heath	Crown Land added on Land Board recommendation, D.L. 4981/1969
70	MT. TAYLOR National Park Reserve	Kangaroo Island	Section Pt31 Hd. Newland, Co. Carnarvon (renumbered section 102)		2.7.1970	17	3,333,863	Sclerophyllous mallee	Purchased at N.P.C. request to protect one of only two known colonies of <u>Stylidium tepperianum</u> (Tepper's trigger plant). D.L. 4357/1968
71	BASCOMBE WELL National Park	Eyre Peninsula	Section 2 Hd. Kappawanta; section 11 Hd. Elsieing; section 29 Hd. Barwell; sections 39, 65, Hd. Cowan, Co. Musgrave		2.7.1970	29,056	3,362,919	Sclerophyllous mallee	Originally purchased as a replacement for the area intended to be resumed from Hambidge (1960's controversy). Hambidge resumption shelved, but decision made that Bascombe Well declaration should proceed regardless. D.L. 3965/1964, 1899/67, 2966/67, 4142/68, 3557/66, 4021/66, 1770/67
72	SCORPION WELL National Park	Upper South East	Sections 9, 10, Hd. Quirke; section 16 Hd. Piske; section 65 S.O.H.		9.7.1970	30,368	3,393,287	Sclerophyllous mallee with heath	Late 1960's saw a public controversy develop over Government plans to release for development 20,000 hectares of Crown Land in Co. Chandos. Government made simultaneous plans for national park in area. Development plans dropped (low wool prices), but park declaration proceeded. D.L. 3574/1967
73	GUM LAGOON National Park	Lower South East	Sections 9, 30, Hd. Wells; sections 8, 37, Hd. Petherick, Co. Cardwell		20.8.1970	4,002	3,397,289	South East complex	Former Crown Land, declared after N.P.C. had reported flora well worth conserving. D.L. 966/1970
74	TELOWIE GORGE National Park	Flinders Ranges	Sections 439, 491, Hd. Telowie, Co. Frome		3.9.1970	1,946	3,399,235	Low layered woodland	Popular picnic spot for local and tourist use. Purchased on Land Board recommendation. D.L. 2237/1969
75	PENOLA National Park	Lower South East	Sections 255, 256, Hd. Monbulla, Co. Grey		10.9.1970	226	3,399,461	South East complex	Purchased on Land Board recommendation D.L. 5272/1969
76	CLINTON National Park	Yorke Peninsula	Section 568 Hd. Clinton, Co. Daly		10.9.1970	397	3,399,858	Mangroves & coastal scrub (map classification shows semi arid mallee)	Declared after F.N.S. & D.C. Clinton had drawn attention to interest of the flora. D.L. 4533/1968
55A	WHITE Addition	North East	Section 252 Hd. Maude; sections 197, 199, 201, Hd. Lindley, Co. Burra		17.9.1970	851	3,400,709	Low layered woodland & shrub steppe	Portion former travelling stock route: vide comments, No. 55. D.L. 5944/1964
77	ORAPARINNA National Park	Flinders Ranges	Section 473 N.O.H.; section 61 Hd. Parechilna; section 177 Hd. Bunyeroo; section 148 Hd. Edeowie, Co. Taunton		22.10.1970	48,360	3,449,069	Low layered woodland	Former <u>Oraparinna</u> station, containing many well known tourist attractions. Declared after early opposition from Dept. Mines. D.L. 4279/1969



NO.	NAME	LOCATION		GAZETTE		AREA		VEGETATION	REMARKS
		REGIONAL	CADASTRAL	DEDICATED	DECLARED	HECTARES	CUMULATIVE		
78	GLEN ROY National Park	Lower South East	Sections 276, 279, 479, Hd. Comaun, Co. Robe		12.11.1970	541	3,449,610	South East complex	Purchased on Land Board recommendation. D.L. 735/1970
79	PINKAWILLINIE National Park	Eyre Peninsula	Section 29 Hd. Panitya; section 114 Hd. Pinkawillinie, Co. Buxton		17.12.1970	17,719	3,467,329	Sclerophyllous mallee	Suggested as a reserve as early as 1960 (D.L. 6317/1959), & suggested as a replacement for Hambidge in 1960's resumption controversy. D.L. 480/1968, 2454/1952
80	GOWER National Park Reserve	Lower South East	Section Pt206 Hd. Hindmarsh, Co. Grey (renumbered section 517)		21.1.1971	38	3,467,367	South East complex	Small area of natural scrub, donated to N.P.C. by a local resident. D.L. 1417/1970
81	CAPE TORRENS National Park	Kangaroo Island	Section 10 Hd. Borda, Co. Carnarvon		21.1.1971	749	3,468,116	Sclerophyllous mallee	The seven parks listed, 81-87 inclusive, have a common origin. All were Crown lands, considered at various times for land development, but all were rejected as being unsuitable. Land Board pointed out, however, that both N.P.C. & State Planning Office had recommended declaration of the areas, as having either outstanding scenic or conservation values. D.L. 2448/1964
82	CAPE HART National Park	Kangaroo Island	Sections 377, 384, Hd. Dudley, Co. Carnarvon		21.1.1971	291	3,468,407	Sclerophyllous mallee	
83	CAPE GANTHEAUME National Park	Kangaroo Island	Section 52 Hd. Seddon; sections 66, 67 Hd. McGillivray; sections 258, 275-279, 284, Hd. Haines, Co. Carnarvon		21.1.1971	20,470	3,488,877	Sclerophyllous mallee	
84	WESTERN RIVER National Park	Kangaroo Island	Sections 8, 47, Hd. Gosse, Co. Carnarvon		21.1.1971	2,286	3,491,163	Sclerophyllous mallee	
85	VIVONNE BAY National Park	Kangaroo Island	Sections 7, 8, 106, Hd. Newland, Co. Carnarvon		21.1.1971	847	3,492,010	Sclerophyllous mallee	
86	KELLY HILL National Park	Kangaroo Island	Section 5 Hd. Ritchie, Co. Carnarvon		21.1.1971	4,643	3,496,653	Sclerophyllous mallee	
87	SEDDON National Park Reserve	Kangaroo Island	Section 67 Hd. Seddon, Co. Carnarvon		21.1.1971	23	3,496,676	Sclerophyllous mallee	
88	PT. GAWLER National Park	Adelaide Plains	Section 483 Hd. Pt. Adelaide, Co. Adelaide; section 616 Hd. Pt. Gawler, Co. Gawler		11.2.1971	433	3,497,109	Mangroves (map classification shows semi arid mallee)	Coastal fringe, declared at request of N.P.C. D.L. 166/1969
89	KELVIN POWRIE National Park Reserve	Upper South East	Section 34 Hd. Archibald; section 475 Hd. Stirling, Co. Buckingham		4.3.1971	18	3,497,127	Sclerophyllous mallee with heath	Formerly portion of a road reserve. Declared at request of Weite Agricultural Research Institute to commemorate work of research scientist Kelvin Powrie. D.L. 3986/1969; H. & L.G.D. 3705/1969
90	PADTHAWAY National Park	Lower South East	Section A, & Pt6 Hd. Parsons, Co. McDonnell (renumbered section 136)		18.3.1971	986	3,498,111	South East complex	Purchased on Land Board recommendation with N.P.C. support. D.L. 3624/1964
91	CUDLEE CREEK National Park Reserve	Mt. Lofty Ranges	Sections Pt6119, Pt6225, Pt6354, Hd. Talunga, Co. Adelaide (renumbered section 57)		29.4.1971	49	3,498,160	Dry sclerophyll	Land rejected by Woods & Forest Dept as unsuitable for pine planting. Declared on Land Board & N.P.C. recommendation. D.L. 1814/1969

NO.	NAME	LOCATION		GAZETTE		AREA		VEGETATION	REMARKS
		REGIONAL	CADASTRAL	DEDICATED	DECLARED	HECTARES	CUMULATIVE		
32B	MT. REMARKABLE Addition	Flinders Ranges	Closed road merged with and being portion of section 474 Hd. Wongyarra, Co. Frome		17.2.1972	4	3,543,272	Low layered woodland	Closed road added to park. D.L. 3618/1970
51A	WARRENBEN Addition	Yorke Peninsula	Sections 44, 45, 54, Hd. Warrenben, Co. Fergusson		17.2.1972	3,026	3,546,298	Semi arid mallee	D.L. 4612/1970
99	MYPONGA National Park	Mt. Lofty Ranges	Sections 269, 270, Hd. Myponga, Co. Hindmarsh		24.2.1972	166	3,546,564	Dry sclerophyll	Purchased on Land Board recommendation. Said to be one of the few remaining areas of natural scrub in the southern Mt. Lofty Ranges. D.L. 2676/1970, 2677/70

## REFERENCES

1. Specht, R. L., & Cleland, J. B., 1961: 'Flora conservation in South Australia. I. The Preservation of Plant Formations and Associations recorded in South Australia'. *Trans. Roy. Soc. S.A.*, v. 85, pp. 177-196.
2. Specht, R. L., & Cleland, J. B., 1963: 'Flora Conservation in South Australia. II. The Preservation of Species Recorded in South Australia'. *Trans. Roy. Soc. S.A.*, v. 87, pp. 63-92.
3. See, for example, Bird, E. C. F., 1972: 'Mangroves on the Australian Coast'. *Australian Natural History*, v. 17, (5), pp. 167-171; Wester, L. L., 1967: The Distribution of the Mangrove in South Australia. Unpub. B.A. (Hons.) Thesis, Dept. Geog., Univ. of Adelaide.
4. Lothian to M.L. 24/5/63, B. & G. 193/1963.
5. Much of the South Australian coast line and the River Murray has a frontage of 150 link reserves (now known as 30 metre reserves). The reserves are Crown Lands, and are intended to guarantee public access to beaches and the river front. Department of Lands policy favoured retention of the reserves even when adjacent to a park, and since the inland limit of mangroves generally coincides with the high water mark, this meant that on Torrens Island the area actually covered by mangroves was outside the legal boundaries of the park (vide D.L. 5451/1965).
6. D.L. 4533/1968.
7. D.L. 166/1969.
8. D.L. 1142/1967.
9. Mitchell, F. J., 1973: 'Studies on the Ecology of the Agamid Lizard *Amphibolurus maculosus* (Mitchell)'. *Trans. Roy. Soc. S.A.*, v. 97, (1), pp. 47-76.
10. D.L. 4904/1966. See also Crocker, R. L., 1946: 'The Soils and Vegetation of the Simpson Desert and its Borders'. *Trans. Roy. Soc. S.A.*, v. 70, (2), pp. 235-260.
11. D.L. 1221/1970.

12. Finlayson, H. H., 1936: *The Red Centre*. Angus & Robertson, Sydney, p. 20; *The Advertiser* 29/7/1964; *The Sunday Mail* 27/11/1971.
13. D.L. 3181/1969.
14. D.L. 411/1966.
15. Barker, S., 1972: Effect of sheep stocking on the population structure of arid shrublands in South Australia. Unpub. Ph.D. thesis, Dept. Botany, Univ. of Adelaide.
16. D.L. 5944/1964; D.L. 5142/1968.
17. D.L. 4384/1969.
18. D.L. 2593/1966.
19. D.L. 4357/1968; Lothian, T. R. N., 1962: 'Rediscovery of *Stylidium tepperianum* (F.v.M.) Mildb. Kangaroo Island Trigger Plant'. *The S.A. Naturalist*, v. 36, (3), pp. 46-47; Lothian, T. R. N., 1969: 'Teppers Trigger Plant *Stylidium tepperianum*'. *The S.A. Naturalist*, v. 43, (4), pp. 104-106.
20. D.L. 4246/1968.
21. Dixon, S., 1920: *The Full Story of Flinders Chase*. Hussey & Gillingham, Adelaide, p. 8.
22. D.L. 5838/1949, for example, has an interesting series of reports which demonstrate clearly the persecution suffered by wombats in the Swan Reach area.
23. Cockington, A., 1968: 'Proposals for the Preservation of the Hairy-nosed Wombat (*Lasiorchinus latifrons*)'. *The S.A. Naturalist*, v. 42, (4), pp. 91-99.
24. L.B. to D.L. 13/6/69, D.L. 2574/1969.
25. *The Sunday Mail* 16/3/1968, *The News* 18/3/1968, *The Australian* 18/3/68, *The Advertiser* 19/3/68, *The Sunday Mail* 23/3/68, *The Advertiser* 26/3/68, *The Sunday Mail* 30/3/68, 6/4/68, 13/4/68.
26. D.L. 4144/1968, D.L. 825/1969.
27. *The Advertiser* 24/1/1970, 31/1/70, 3/2/70, 9/2/70, 11/2/70, 18/2/70, 23/2/70, 28/2/70, 9/3/70; *The Sunday Mail* 21/8/71, 28/8/71, 4/9/71; *The Advertiser* 6/9/71.

28. L.B. to D.L. 13/6/69, D.L. 2574/1969.
29. Bonnin to Sec. F.F.A.C. 14/3/63, F. & G. 141, (7)/1963.
30. L.B. to D.L. 14/10/64, F. & G. 141, (7)/1963.
31. D.L. 4209/1965; D.L. 2048/1966.
32. *The Advertiser* 21/10/1965; Condon, H. T., 1966: 'The Western Whipbird'. *The S.A. Ornithologist*, v. 24, pp. 79-92.
33. D.L. 1557/1965.
34. Cleland to M.L. 3/10/60, D.L. 8011/1959.
35. L.B. to D.L. 16/6/60, D.L. 2272/1956.
36. Town Planning Committee, 1962: *Report on the Metropolitan Area of Adelaide*. Govt. Printer, Adelaide, pp. 198-201.
37. D.L. 5782/1947.
38. Cleland to M.L. 13/4/56, D.L. 2272/1956.
39. See, for example, L.B. to D.L. 16/6/60, D.L. 2272/1956.
40. Deputy Sherrif & Deputy Comptroller of Prisons to D.L. 13/11/59, D.L. 8011/1959.
41. Chief Admin. Officer Land Development Branch to D.L. 8/12/59, D.L. 8011/1959.
42. D.L. to M.L. in support of L.B. proposal 1/9/60, D.L. 8011/1959.
43. Cleland to M.L. 3/10/60, D.L. 8011/1959.
44. The respective dockets for the parks listed are D.L. 2451/1970; S.P.A. 1/1970; C.S.O. 355/1964; C.S.O. 474/1963; D.L. 1484/1963; D.L. 4544/1963; D.L. 4601/1964; D.L. 1814/1969; D.L. 90/1967.
45. D.L. 4843/1963 contains material relevant to all three parks: the specific dockets are D.L. 3618/1964, D.L. 3617/1964 (Mt. Remarkable); D.L. 3612/1964 (Alligator Gorge); D.L. 3615/1964, D.L. 3616/1964, D.L. 3619/1964, D.L. 2829/1968 (Mambray Creek).
46. D.L. 4279/1969.

47. Sec. Ceduna-Goode Branch U.F.G. to D.L. 28/8/67, D.L. 411/1966.
48. L.B. to D.L. 13/10/67, D.L. 411/1966.
49. D.L. 5944/1964.
50. D.C. Tatiara to D.L. 19/6/67, D.L. 5716/1962.
51. The Canunda dispute was long and involved. Full details, including the local press reports, are in D.L. 5742/1961 and D.L. 4016/1969.
52. Asst. Director Engineering Operations to Director & Engineer in Chief 3/2/71, E. & W.S. 2970/1963.
53. Director of Mines to Minister of Mines 9/7/70, D.L. 4279/1969.
54. Engineer for Materials to Senior Assistant Chief Engineer 14/9/64, D.L. 1245/1964.
55. D.L. to M.L. 5/11/57, D.L. 5220/1946.
56. Cabinet approval 24/6/63, E. & W.S. 2970/1963.
57. M.L. to Minister Works 20/8/63, E. & W.S. 2970/1963.
58. Chief Property Officer to Asst. Director Admin. & Finance 9/3/70, E. & W.S. 2970/1963.
59. Engineer for Water Supply to Asst. Director Engineering Operations 11/6/70, E. & W.S. 2970/1963.
60. Departmental reports, E. & W.S. 2970/1963.
61. Director Mines to D.L. 28/5/70, D.L. 4279/1969.
62. Director Mines to Minister Mines 26/6/70, D.L. 4279/1969.
63. D.L. to Minister Mines 29/6/70, D.L. 4279/1969.
64. Director Mines to D.L. 2/11/70, D.L. 4279/1969.
65. Sprigg, R. C., 1959: 'Stranded sea beaches and associated sand accumulation of the Upper South-East'. *Trans. Roy. Soc. S.A.*, v. 82, pp. 183-193.
66. Hossfeld to Cleland 19/2/64, D.L. 1245/1964.

67. D.I. to D.L. 16/4/64; C.N.P.W.L.R. report 14/7/64: D.L. 1245/1964.
68. M.L. to Minister Works 24/8/64, D.L. 1245/1964.
69. Engineer for Materials to Senior Asst. Chief Engineer Highways Dept. 14/9/64, D.L. 1245/1964.
70. *The Advertiser* 1/12/1964.
71. C.N.P.W.L.R. to M.L. 30/11/64, D.L. 1245/1964.
72. *The Advertiser* 2/12/1964.
73. The agitation of the early 1960's was very complex and far too involved to document fully in a work of this nature. D.L. 2454/1952 covering the years 1952-1964 is the relevant reference, being a veritable mine of information.
74. Hansard, House of Assembly 27/2/1964.
75. Stott to M.L. 3/4/62, D.L. 2454/1952.
76. Hansard, Legislative Council 31/7/1962; Stott to M.L. 26/11/62, D.L. 2454/1952.
77. *Pt. Lincoln Times* 22/11/1962.
78. *The Advertiser* 2/3/1963.
79. M.L. to Premier 29/4/63, D.L. 2454/1952, is a report of the Minister's visit. See also *Eyre Peninsula Tribune* 25/4/1963, and *Pt. Lincoln Times* 2/5/1963.
80. M.L. to C.N.P.W.L.R. 24/4/63, D.L. 2454/1952.
81. Robertson to M.L. 13/5/63; Andrewartha to M.L. 10/5/63: D.L. 2454/1952.
82. C.N.P.W.L.R. to M.L. 29/10/63, D.L. 2454/1952.
83. Hansard, House of Assembly 27/2/1964.
84. Four farmers with land adjacent to the north west portion of Hincks applied to the Dept. of Lands in April and May 1964 for the release of an area shown on the map p. 177. They were notified that the land was unavailable on 22/5/64, D.L. 2454/1952.

85. The petition was presented on 4 August 1964 (Hansard, Legislative Council 4/8/1964). It is now in D.L. 3965/1964. A report on the petition and summary of the case in favour of resumption also appeared in *Eyre Peninsula Tribune* 30/7/1964.
86. M.L. to Premier 24/12/64, D.L. 3965/1964.
87. Premier to L.B. 3/2/65 (L.B. to D.L. 18/3/65, D.L. 3965/1964).
88. L.B. to D.L. 18/3/65, D.L. 3965/1964.
89. M.L. to L.M.T.P.A. 6/5/65, D.L. 3965/1964.
90. The fire burnt from Friday 29 to Sunday 31 October 1965 (Hansard, House of Assembly 2/11/65, 4/11/65; also see C.N.P.W.L.R. to M.L. 30/11/65, D.L. 3965/1964).
91. D.L. to M.L. 8/10/68, D.L. 1354/1968.
92. See, for example, L.M.T.P.A. to M.L. 6/12/65 (reply, M.L. to L.M.T.P.A. 5/1/66), D.L. 3965/1964.
93. *The Sunday Mail* 2/4/1966, 9/4/1966; *Pt. Lincoln Times* 2/7/1966; *Eyre Peninsula Tribune* 7/7/1966, 14/7/1966, 4/8/1966, 11/8/1966; *The Sunday Mail* 20/8/1966; *The Advertiser* 17/8/1966.
94. Bonython, C. W., & Preiss, K. A., 1968: *Hambidge Wild Life Reserve. A Survey by the Nature Conservation Society of South Australia*. F.N.S. Publicn. no. 6, being a reprint of a previously unpub. report.
95. Bonython, C. W., 1972: 'The Origins and History of the Conservation Movement'. pp. 61-70 in Warburton, J. W., & Corbett, D. W. P. (ed.), *Pollution and Conservation. Selected Papers*. Dept. Adult Educn., Univ. of Adelaide, publicn. no. 27.
96. As noted in 73 above it would take far too much space to document fully each letter or approach made by the pressure groups. D.L. 3965/1964 contains full details from 1964 to early 1968, and D.L. 1354/1968 continues through 1968 and into 1969.
97. D.L. to N.P.C. 9/2/67, D.L. 3965/1964; see also *The News* 12/12/1966.
98. Lothian to M.L. 25/9/67, D.L. 3965/1964.
99. Minutes of meeting 11/8/67, D.L. 3965/1964.



100. The reasons outlined are based on the author's intensive study of all available records and many long discussions with those involved in the dispute. Note, however, that while it has been possible to discuss Hambidge with such leading figures as Rix and Lothian, Crowcroft had moved overseas before this research was begun in earnest: the assessment of his attitudes and influence is based, principally, on two sources:
- (1) private letter, Dr. Michael Smyth to Professor R. L. Specht 13/8/1968 (personal file on Hambidge made available by the late Dr. Michael Smyth; copy held by author)
  - (2) Crowcroft, P., 1964: 'Nature Conservation in South Australia'. *Proc. Roy. Geog. Soc. Aust./Asia (S.A. Branch)*, v. 65, pp. 31-41.
101. Lothian to M.L. 25/9/67, D.L. 3965/1964.
102. Bonython to M.L. 29/2/1968.
103. L.B. to D.L. 2/2/68, D.L. 3965/1964.
104. M.L. to L.M.T.P.A. 12/2/68, D.L. 3965/1964.
105. *Eyre Peninsula Tribune* 29/2/1968.
106. *The Advertiser* 15/5/1968.
107. Members of the committee were Professor H. G. Andrewartha, Dr. Michael Smyth, Dr. C. T. James, and Mrs. M. C. Saddler.
108. Undated circular forwarded to N.C.S.S.A. members May 1968 (copy held by author).
109. *The Advertiser* 2/5/1968.
110. *The Advertiser* 4/5/68, 8/5/68, 14/5/68, 15/5/68, 17/5/68, 18/5/68, 21/5/68, 22/5/68, 23/5/68 (4 letters), 24/5/68 (2), 25/5/68 (2), 27/5/68 (2), 29/5/68, 31/5/68 (2), 3/6/68, 4/6/68.
111. *The Advertiser* 23/5/1968.
112. D.L. 1354/1968.
113. Deputations waited on the Minister on 19/6/68, 23/7/68, 14/8/68, D.L. 1354/1968.
114. Sharman to M.L. 19/8/68, D.L. 1354/1968.
115. D.R. 75/1968.

116. *Eyre Peninsula Tribune* 18/7/1968.
117. M.L. to C.S.O. 10/10/68, D.L. 1354/1968.
118. See, for example, Smyth to Specht 13/8/68, (note 100 above).
119. The Hetch Hetchy controversy is described in many books dealing with the history of conservation in America: see, for example, Udall, S., 1964: *The Quiet Crisis*. Holt, Rinehart & Winston, New York.
120. Coaldrake, J. E., 1951: 'The climate, geology, soils and plant ecology of portion of the County of Buckingham (Ninety Mile Plain), South Australia'. *C.S.I.R.O. Bull.* 266; Rowan, J. N., & Downes, R. G., 1963: *A Study of the Land in North Western Victoria*. Soil Conservn. Authority, Melbourne.
121. D.L. 3574/1967.
122. Hansard, House of Assembly 18/7/1967.
123. D.L. 2534/1966.
124. Undated sheet, copy in possession of the author.
125. *The Advertiser* 5/9/1969 (2), 11/9/69 (2), 23/9/69, 27/9/69, 1/10/69, 30/10/69, 5/11/69, 15/12/69.
126. D.L. 3574/1967.
127. *The Advertiser* 13/10/1969.
128. Australian Institute Agricultural Science to M.L. 15/12/1969 (copy held by author).
129. *The Advertiser* 15/12/1969.
130. *The Advertiser* 19/9/1968, 2/10/68, 11/10/68, 24/7/70, 29/7/70, 31/7/70, 1/8/70, 27/1/70. See also N.C.S.S.A. *Newsletter*, no. 23 (p. 2), 24 (p. 5), 25 (pp. 12, 13), 26 (pp. 14-17), 27 (pp. 6, 9), 30 (p. 19).
131. Wollaston, E. M. (ed.), 1973: *Aldinga-Sellicks Beach Scrub*. N.C.S.S.A., Adelaide, p. iii.
132. *The Advertiser* 3/5/1969, 30/4/69, 18/7/69, 5/9/69, 5/12/69, 16/12/69, 20/12/69, 4/4/70, 10/4/70, 30/10/71, 9/2/73, 16/2/73; *The Sunday Mail* 8/11/69, 15/11/69; N.C.S.S.A. *Newsletter*, no. 22 (p. 5), 23 (p. 3), 25 (p. 14), 26 (pp. 8, 19), 27 (p. 9), 28 (pp. 4, 5), 30 (p. 9).

## CHAPTER V

THE EXPANSION ANALYSED, 1962-1972

The outstanding increase in parks and reserves detailed in the previous chapter is difficult to explain satisfactorily, for there has not yet been sufficient time to rise above the detail and obtain a balanced perspective. A definitive study must be looked for in the future, but it is suggested that the following factors will almost certainly figure in any analysis of the subject:

- (1) the reform of reserve administration
- (2) the general rise of environmental concern
- (3) a continuing trend towards urbanization
- (4) a depression in the Australian wheat and wool industries
- (5) the chance factor of local personalities
- (6) provision of Government finance for park acquisition
- (7) the establishment of a suitable procedure for park acquisition.

## THE REFORM OF RESERVE ADMINISTRATION

As emphasised in Chapter III, this was one of the most important developments to emerge from the period 1952-1962. The detail has been outlined and need not be repeated here: it is sufficient to note that administrative reform was essential for reserve management, and a wide ranging reassessment of attitudes to parks and reserves was a prerequisite for expansion.

## THE GENERAL RISE OF ENVIRONMENTAL CONCERN

While it is true that almost purely local issues stimulated the changing attitudes to parks and reserves in South Australia in the early 1960's, it is also true that since the late 1950's almost all Western countries of the world have experienced what has become loosely known as 'the environmental revolution'. A definitive study of the emergence of this phenomenon has yet to be made, but it does appear to stem, basically, from the increasing affluence of almost all levels of society. As spending power rose and leisure time increased, more and more people acquired the trappings necessary for outdoor recreation. Use of existing parks and reserves spiralled, and with many deteriorating visibly through over-use by visitors, the cry went up from many quarters for more land.<sup>1</sup>

Paradoxically though, the very affluence which gave people time to appreciate the parks and reserves, was soon recognised to be one of the gravest threats to the 'good life' so many were seeking. By the mid-1960's, pollution and overpopulation were household words in America and Europe, and by 1970 even Australia, 'the lucky country', was beginning to realise that affluence was not without its problems.<sup>2</sup> Conservation societies dedicated to the preservation of wildlife habitat extended their concern to man's habitat,<sup>3</sup> politicians campaigned on 'environmental' issues,<sup>4</sup> and Governments set up new departments to administer 'environment and conservation'.<sup>5</sup> So vigorously did the media adopt the environment as a crusading cause that many urged moderation, warning of over-exposure and a possible public backlash.<sup>6</sup>

In the face of such widespread concern for man and the land, no public service or political party could afford to ignore the provision of more parks and reserves, and though the 'environmental revolution' probably had little effect in South Australia in the early and mid 1960's, it must be seen as one of the major contributing factors to

the continuing expansion of the national parks and reserves system during the late 1960's and early 1970's.

#### A CONTINUING TREND TOWARDS URBANIZATION

Closely related to the 'environmental revolution' was the continuing trend towards urbanization of the population, a trend especially noticeable in Australia, and in South Australia in particular. In 1901 Adelaide's population as a proportion of the State population was 45.4%, and the proportion of the population classed as rural was 44%. By 1966 Adelaide accounted for 66.6% of the State population, and the proportion of the population classed as rural had dropped to 17.3%. In other words, by the mid 1960's, well over three quarters of the State population were urban dwellers.<sup>7</sup>

At the same time that the population was becoming overwhelmingly urban in character, the mobility of individuals and families was increasing greatly through the widespread availability of the automobile, for whereas in 1945 the ratio of cars to people was approximately 1:10, it had become by the mid 1960's 1:3.5.<sup>8</sup> Now it is well known that as more and more people live in urban areas the demand for outdoor recreation away from the cities and towns increases markedly.<sup>9</sup> With the ready availability of fast private transport, many of the constraints to travelling associated with public transport and horse drawn vehicles were removed, and whereas once a day railway excursion to Victor Harbour or Murray Bridge was regarded as high adventure, the hedonist of the 1960's was quite blasé about driving hundreds of miles in a day to visit some favoured area for outdoor recreation.

The implications of these developments for the provision of parks and reserves were obvious to planners many years ago, but at the same

time that city people were discovering for themselves the pleasure of the countryside, vast areas of natural scrubland were disappearing in the wake of the post World War II land boom.<sup>10</sup> As pointed out in the previous chapter the advent of heavy machinery had revolutionized clearing techniques, and while man-manipulated rural landscapes did present a charm appreciated by many visitors,<sup>11</sup> there was a corresponding anxiety in many circles to preserve substantial areas of uncleared vegetation.<sup>12</sup> In some instances campaigns to save bushland were based on a fierce dislike of the destructive power of bulldozers, but other campaigns were more articulate, pointing out that even if parks and reserves were not used to any extent for the present, the continuing trend towards urban living and high mobility for recreation would guarantee their use by future generations. It was a powerful argument, and was certainly an important contributory factor to the expansion of parks and reserves throughout the period under review.

#### A DEPRESSION IN THE WHEAT AND WOOL INDUSTRIES

As shown in Chapter III, the improved position of wheat and wool in the 1950's resulted in an expansion of farming and the loss of reserve land. By the late 1960's the wheel had turned full circle, and wheat and wool were in grave difficulties economically. Expansion had halted, rural opposition to the creation of parks was dropped, and in a nice touch of irony hard-pressed farmers sold land to the Government for incorporation into the national parks system.<sup>13</sup>

The main cause of the depression lay with declining wool prices (vide p. 99). With the exception of two minor rises, the average price of greasy wool had declined steadily from the 1963/64 season, a decline due at least in part, to a slackening in demand from the overseas textile industries of the U.S.A., Britain, France, and West Germany.<sup>14</sup>

Given such a decline it was to be expected that farmers would look to other activities for compensation, and over much of Southern Australia the logical alternative seemed to be an expansion of wheat growing at the expense of sheep.<sup>15</sup> Whereas wool, and even fat lambs, were dependent on the vagaries of fluctuating demand, the wheat stabilization plan provided some price assurance, and the result was a marked increase in production throughout Australia: in the decade 1958/59-1968/69 the area under wheat rose from 4.2 million ha to 10.8 million ha, while the production increase for the same period was from 215 million bushels to 540 million bushels.<sup>16</sup> The inevitable result was a glut, with Australia producing far more grain than it could hope to sell on the tightly-controlled international wheat market. The carry over from the 1967/68 season alone was 51 million bushels, and few were surprised when in April 1969 the Federal Minister for Primary Industry announced that the Commonwealth and State Governments had agreed to introduce market delivery quotas, beginning with the 1969/70 harvest.<sup>17</sup>

In effect, this decision removed many farmers' solution to the low wool prices, and by 1970 newspapers throughout the country were talking of a 'rural crisis'.<sup>18</sup> The brake had been well and truly applied to the post-War expansion: development schemes for uncleared scrublands were shelved by both Government and private agencies,<sup>19</sup> and farmers held protest marches in the capital cities to draw attention to their plight.<sup>20</sup> The economic climate could hardly have been better for national park expansion.

#### THE CHANCE FACTOR OF LOCAL PERSONALITIES

The preceding discussion should have made it clear that there were powerful factors operating in favour of an expansion of the parks and reserves system in the 1960's and early 1970's. Social and economic

conditions were such that almost regardless of the personal inclinations of those in power there would have to be expansion; no politician, or public servant for that matter, could afford to fly in the face of the widespread public support national parks were enjoying. But, it must also be borne in mind that the attitude of a Minister or Department official could have an extremely important influence on the rate of increase, and in this respect South Australia was particularly fortunate.

Mention has been made previously of Cecil Rix and his interest in ornithology. A member of the Land Board since 1958, Rix had become its Chairman in May 1965, a position of considerable influence, and it could be said that the actual engineering of the expansion came from his office. Officially, the Land Board was responsible for investigations, valuations, and recommendations for the use of areas of land under review for one reason or another, and in this capacity its main responsibility was to the Department of Lands, although on request it did carry out work for other Departments. The administrative body of national parks and reserves in the State, the C.N.P.W.L.R. under the Act of 1891-1960, and the N.P.C. under the replacement Act of 1966, was not a Government Department, but it was responsible to the Government through the Minister of Lands, and throughout the period under review it relied heavily on the Land Board for the formalities of park acquisition. Rix tackled the task enthusiastically, for while he could, justifiably, have delayed any action for park acquisition until directed to a specific area by the C.N.P.W.L.R. or N.P.C., he soon made it clear that he saw no need to wait for any official approaches. To Rix it seemed that the State had to catch up on years of neglect and indifference, and he actively sought out land for parks all over the State. Once fixed on a particular area he used his not inconsiderable influence to press for its declaration at almost every level of the decision-making process, and there can be no doubt that if Rix had not been able to assume the role of Departmental champion of national parks, there would have been a noticeably shorter list of parks acquired by mid 1972.



Although the recommendations made by the Land Board usually went to the Director of Lands before being passed on to the Minister of Lands, the Chairman of the Board was frequently in direct and close consultation with the Minister, particularly when the acquisition of a desirable area was proving to be difficult or controversial. An unsympathetic Minister could have shown either indifference or active opposition to many proposals, but throughout the 1960's the Board enjoyed a succession of Ministers quite favourably disposed to park expansion. Two in particular, the Hons. P. H. Quirke and D. N. Brookman, were notable for an interest in parks well in excess of that needed for their job. Quirke, as seen with the Hambidge dispute, was quite outspoken in his support for more parks and reserves, and was implacably opposed to resumption pressures from farmers, even when he knew his views clashed with those of the Premier. A former Labor and Independent M.P. he had joined the Liberal and Country League in 1962, and was appointed Minister of Lands to succeed the deceased Sir Cecil Stephen Hincks in January 1963. Hincks had been notably unsympathetic in his attitude to parks, and to have him succeeded by a Minister of Quirke's enthusiasm, was a timely turn of events.

When the Playford Government eventually lost office to the Labor Party in 1965, the Hons. G. Bywaters and D. Corcoran respectively handled the Lands portfolio, efficiently enough, but without the flair for parks shown by their predecessor. The return of the Liberals to power in 1968 saw the Hon. D. N. Brookman become Minister of Lands, and there was no doubting where his sympathies lay. A pastoralist, former Minister of Agriculture, and member of the Fauna and Flora Board responsible for the administration of Flinders Chase, Brookman made no secret of his interest in flora and fauna conservation, and although criticised by some for his role in the Hambidge and Tiger Country disputes, he was an able and enthusiastic supporter of the park expansion programme throughout the late 1960's.

The importance of individuals must not of course be exaggerated,

for their interest was of little use without money to give it practical expression, and in a major controversy the Minister, even if sympathetic himself, still had to convince Cabinet. Nonetheless, the point that they accelerated a process which other factors had initiated still stands, and to this extent Rix, Quirke, and Brookman cannot be ignored in any consideration of park expansion since 1962.

#### PROVISION OF GOVERNMENT FINANCE FOR PARK ACQUISITION

Until 1963 finance had been a major stumbling block in the acquisition of reserves. Flinders Chase, the Ferries-McDonald land, Humbug Scrub, and Para Wirra had shown over many years that successive Governments were loath to invest in areas which did not promise any clear financial return. Grudgingly, they admitted some necessity to provide recreation space in and around Adelaide, but remote areas of scrubland set aside for the relatively abstract aims of conservation were to be tolerated only if they involved no capital outlay or recurring expenditure.

To have a Government reform this situation to the extent of providing finance for park purchase on each years Estimates of Expenditure was a notable development. Introduced as it was in 1963, much of the credit must go to Quirke, but in a very real sense the decision was a tacit acknowledgement by Cabinet that social and economic factors made this a desirable step, and in this way the decision can be seen as a logical product of the factors already described in this chapter. The amount allocated, approximately \$150,000 per annum, was criticised by some as inadequate,<sup>21</sup> but since many parks were former Crown Lands and cost nothing, the Land Board was able to achieve more than the actual amount would suggest, and certainly to be able to purchase an area without involving voluntary organisations and individuals

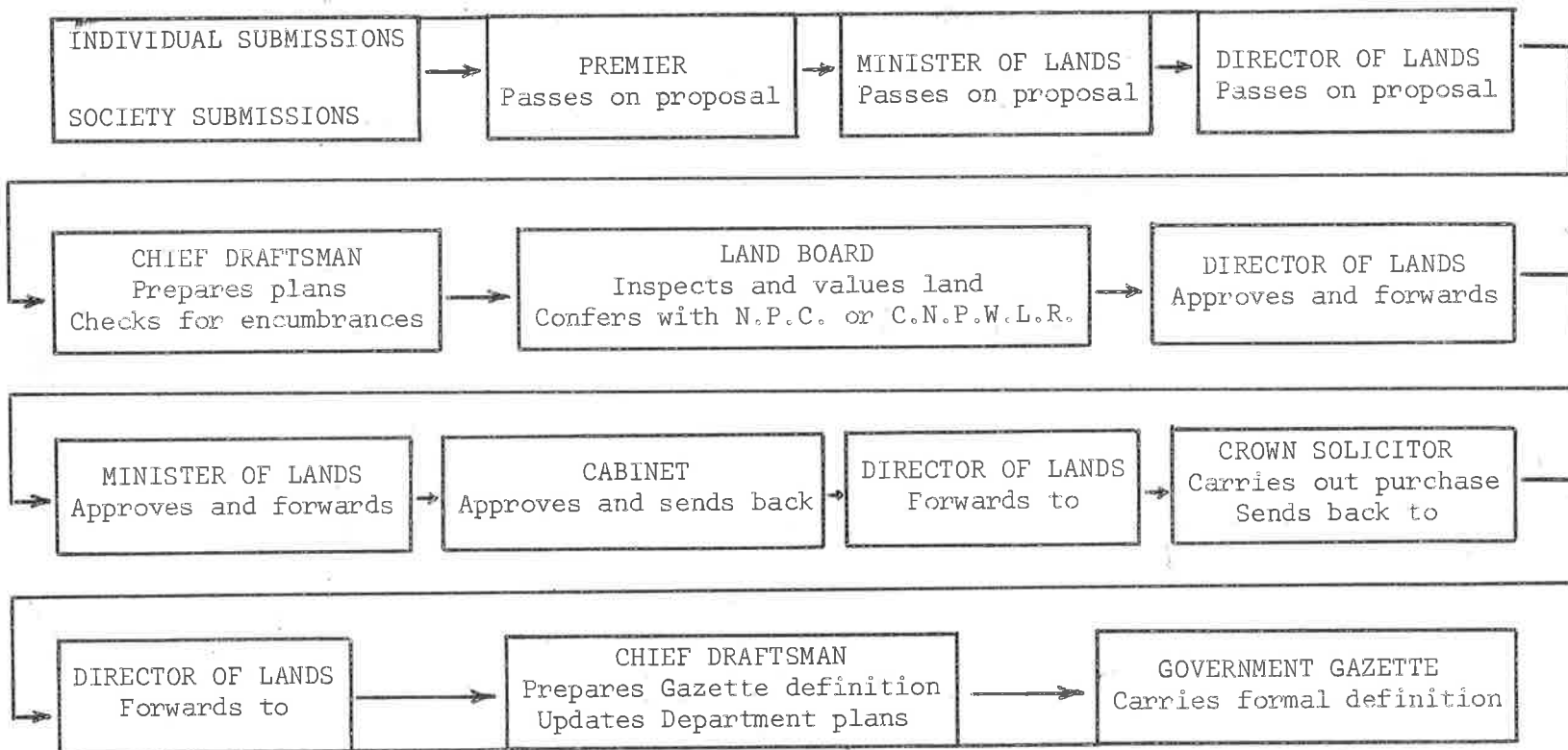
in long and tedious lobbying for a special grant from Cabinet, was a more than welcome change.

#### A MECHANISM FOR PARK ACQUISITION

As shown above, the provision by the State Government of approximately \$150,000 per annum for park acquisition was an important stimulus for the expansion of the 1960's and early 1970's. With money available and areas being purchased on a regular basis, it was possible to establish a routine mechanism for park acquisition, and this was to simplify greatly what had previously been a complex and time consuming process.

The accompanying diagram (vide p. 214) illustrates the general sequence of events, from when a proposal for a park was first received, to its eventual dedication and/or declaration. Not every proposal went through all steps indicated, for in many instances it was the Land Board or the N.P.C. acting through the Land Board which initiated moves to acquire land. Furthermore, where the area involved was Crown Land the formalities of finance and transfer and cancellation of land titles could be dispensed with, and the speed of the whole process greatly increased.

As implied earlier in this chapter, the key step in the whole process was inspection and valuation by the Land Board. In most instances the Land Board, after a preliminary appraisal, referred the land under consideration to the C.N.P.W.L.R. or N.P.C. for further inspection, but on occasions acquisition proceeded on the basis of Land Board inspection alone, and if a criticism of the system were to be made it would be that some of the inspections were too perfunctory. A more detailed consideration of the land in at least some cases could have avoided duplication of ecosystems, and provided boundaries based on physical features rather than the existing cadaster. To be fair to



A diagrammatic summary of the procedure commonly used in the acquisition and declaration of land as a national park in the 1960's. Note that not every case involved all the steps shown: in some cases park proposals originated from the N.P.C., C.N.P.W.L.R., or the Land Board, and in many cases where money for purchase was readily available approval from the Minister of Lands or Cabinet was not necessary.

the Land Board though, it must be realised that it was not trained to carry out national park surveys, and in several instances clearance of scrubland was so close that there was only time for the Board alone to carry out a hasty inspection. Once the Land Board had made its recommendations, and money for purchase was available, Ministerial or Cabinet approval was usually a formality. This did not necessarily imply immediate gazettal, however, for Department procedure which followed could become rather long and involved, especially if an area needed any survey work to establish new section boundaries. In some cases, as with Deep Creek, such formalities delayed declaration for many years, and letters from the C.N.P.W.L.R. or N.P.C. to the Director of Lands enquiring about the fate of a proposed park were common.

Given the administrative structure outlined though, occasional delays were inevitable, and by and large the system proved to be a reasonably effective means of park acquisition. It was certainly a far cry from the long and involved campaigns to obtain land in earlier years, and through it the Land Board was able to secure the declaration of as many as 19 parks in a single year (1970). It was an impressive effort, but the administrative machinery responsible has not been well understood by those outside the park acquisition process, and its importance can easily be overlooked. To anyone familiar with the background of park expansion, however, the relative simplicity of park acquisition and declaration forms a striking contrast to previous periods, and is a constantly-recurring theme of the 1960's and early 1970's. It cannot be ignored and its importance must not be underrated: ease of acquisition was an essential complement to effective planning.

Reserve administration reform, environmental concern, urbanization, sympathetic Ministers and Public Servants, depressed rural industries, the provision of Government money for park acquisition, and a mechanism for ready acquisition of areas all interacted and played their part

in the expansion under review. The passage of time may enable a maturer review to add to the list of factors and put those already discussed into a more balanced perspective, but it is believed that a basic understanding of the causes has been established.

## REFERENCES

1. A number of American workers have attempted, with varying degrees of success, to describe and account for the 'environmental revolution'. See, for example, the discussion and references in Nash, R., 1972: 'American Environmental History: A New Teaching Frontier'. *Pacific Historical Review*, v. XLI, (3), pp. 362-372.
2. The phrase 'lucky country' was popularised by Horne, D., 1964: *The Lucky Country*. Penguin Books. Horne's work was a critical review of Australians and their way of life.
3. Locally, this change was illustrated clearly by the Nature Conservation Society of South Australia. The Newsletters of the Society show, throughout the late 1960's and early 1970's, an increasing concern for such broad environmental issues as the quality of life, over-population, and limits to economic growth. A similar change in many overseas conservation groups has also been reported: see, for example, McCloskey, M., 1972: 'Wilderness Movement at the Crossroads, 1945-1970'. *Pacific Historical Review*, v. XLI, (3), pp. 346-361.
4. An interesting reflection of this is a statement in 1970 by the then Minister for the Army (Mr. Andrew Peacock). *The Australian* 13/4/1970.
5. In South Australia the portfolio of Minister of Environment and Conservation was created on 20 November 1970, and a Department of Environment and Conservation established on 28 February 1972.
6. Max Harris in *The Australian* 25/3/1972; Phillip Adams in *The Australian* 4/7/70; Dr. R. Strahan in *The Australian* 12/9/70; Sir Garfield Barwick in *The Advertiser* 1/11/72; and Coombs, H. C., 1972: *Matching Ecological and Economic Realities*. A.C.F. Occasional Publicn. no. 9, p. 13.
7. Williams, M., 1969: 'The Changing Face of South Australia'. pp. 1-17 in Williams, M. (ed.), *South Australia From the Air*. ANZAAS, Melbourne U.P.
8. Williams, 1969, p. 5.
9. Hendee, J. C., 1969: 'Rural-Urban Differences Reflected in Outdoor Recreation Participation'. *Journal of Leisure Research*, v. 1, (4), pp. 333-341.

10. A very clear illustration of this can be seen in two maps compiled by J. A. Lothian of the S.A. State Planning Office. One shows the natural vegetation of the Mt. Lofty Ranges in 1945, the other the natural vegetation remaining in 1968 (Submission by J. A. Lothian to the House of Representatives Select Committee on Wildlife Conservation, 15/4/1971).
11. Two articles by J. G. Mosley, *The Australian* 24/9/1971; *The Australian* 1/10/71.
12. See, for example, N.C.S.S.A. advertisement inserted in *The Advertiser* 23/5/1970 during a State Government election campaign.
13. Pooginook, a once marginal wheat farm north of the River Murray, was typical of a number of parks secured in this way (D.L. 3181/1969).
14. *The Australian* 20/7/1968.
15. Campbell, K., 1969: 'Wheat'. *Current Affairs Bulletin*, v. 45, (1), p. 6; Smith, R., 1973: 'The Australian Wheat Industry: Some Important Occurrences'. *Taminga*, v. 10, (1), pp. 5-58.
16. Campbell, 1969, p. 6.
17. Campbell, 1969, p. 3.
18. The 'rural crisis' was discussed at length in newspapers and periodicals throughout 1969, 1970, and 1971. A report typical of the many which appeared was that by Stewart Cockburn in *The Advertiser* 23/4/1971.
19. The shelving of resumption plans for Hambidge, and development of the Tiger Country (discussed in Chapter IV), were due, at least in part, to the 'rural crisis'.
20. *The Australian* 2/2/1970; *The Chronicle* 24/7/1970.
21. N.C.S.S.A. advertisement, *The Advertiser* 23/5/1970. Vide note 12 above.



## CHAPTER VI

A LOOK TO THE FUTURE - CONCLUDING THOUGHTS

The aim of this work has been to outline the development of the South Australian system of national parks and reserves. It is a study which, beginning with Belair National Park, has examined *how* many of the State's parks and reserves were originally set aside, but it has also attempted, wherever possible, to analyse the reasons *why* parks and reserves were originally set aside. To this extent it is a study preoccupied with the background of South Australia's existing parks and reserves.

Quite another matter is the future of the parks and reserves once set aside. Very few people now believe that once a park or reserve has been set aside it can be left alone for natural forces to control. It is appreciated, almost universally, that *management* is necessary, and there can be no doubt that planning for the management of South Australia's parks and reserves must become the dominant theme for the future. As pointed out by the author in a previously published paper outlining this issue, there has, until recently, been relatively little thought given to parks and reserve management in the State.<sup>1</sup> For almost a century conservation interests and park administrators have directed their efforts almost exclusively towards obtaining further areas for conservation purposes, and such a preoccupation is quite understandable. Public and political indifference to the need for parks at a time when agriculture and pastoralism were modifying rapidly vast areas of the State's ecosystems made long and involved campaigns inevitable.

By 1972, however, the situation was changing. The expansion of the 1960's and early 1970's was beginning to slacken. While it was

realised that more parks were needed, particularly in the higher rainfall areas of South Australia, it was also appreciated that a pause was necessary, a time when the gains of the past could be assessed and consolidated. In mid-1972 legislative opportunity for consolidation arose in the form of a new National Parks and Wildlife Act. Under the provisions of the Act the N.P.C. was abolished, and in its place a National Parks and Wildlife Service was created (hereafter N.P.W.S.), the N.P.W.S. to be a Division of the newly-created State Government's Department of Environment and Conservation. While responsible for the administration of all areas controlled previously by the N.P.C., the Act also specified that the N.P.W.S. would take over control of fauna and flora conservation administered previously under separate Acts, and many areas which were formerly either national pleasure resorts or reserves under the provisions of the Fauna Conservation Act, 1964, were transferred to the N.P.W.S.

This rationalisation of flora and fauna conservation was welcomed by many as a long overdue step, but the importance of the Act was not limited to that move. Whereas under the terms of the 1966 Act all areas administered by the N.P.C. were known as national parks, the new 1972 Act established four classes of reserves; national parks, conservation parks, recreation parks, and game reserves. This was an interesting development, for although the Act made no attempt to define what each class entailed, the division was clearly made with management aims in mind:

- (1) national parks were areas with scenic and conservation values of *national* significance, and management would attempt to conserve these values unimpaired for the enjoyment of future generations
- (2) conservation parks were areas without the spectacular appeal of national parks, but they were of considerable value for flora and fauna conservation, and would be managed accordingly
- (3) recreation parks were areas which would be managed in such a way as to provide for fairly intensive visitor usage
- (4) game reserves were areas having, in the main, populations of wildfowl which, under controlled conditions, could be made available for game shooting purposes.

Of even more significance than this nomenclature system, however, was Part III Division V which set up, in considerable detail, a framework providing for the preparation of management plans for every reserve coming under the administration of the Act. The management plans were, in their preliminary stages, to be made available for public comment, and plans for each reserve were to be made 'as soon as practicable'.

'As soon as practicable' is certainly the key phrase. It is a truism that wildlife management in parks and reserves is an extraordinarily complex business, but a management problem of even greater proportions is presented when it comes to the control of human usage. Overseas, and indeed even local experience, had demonstrated only too clearly that uncontrolled or excessive visitor usage can result in parks and reserves being damaged to the point where they lose the very attractions for which they are noted. Management decisions aimed at avoiding such deterioration must be made, as the Act recognises, but management planning, if it is to be at all effective, must be based firmly on a thorough knowledge and understanding of the problem involved. Research is essential to provide such information, but research needs trained personnel, time, and frequently a lot of money. Even when all these conditions are met it is certain that many difficulties will be encountered.

As an example of the problems which can arise, brief mention may be made here of a recreation research project undertaken by the author at Wilpena Pound in the Flinders Ranges of South Australia. Basically, the project was an attempt to find out why people visited Wilpena Pound, what their recreation in and around the Pound involved, what their expectations of the area had been, and whether it had lived up to their expectations. The project was based on the premise that Wilpena Pound was a good example of a reserve which came under heavy visitor usage; a reserve which was in need of effective management planning, but a reserve where management planning could not proceed without detailed information on the recreation patterns already

existing. The technique was based on the collection of names and addresses of all people staying overnight at either the Motel or Caravan Park, the original intention being that collection would extend over a twelve month period to allow for seasonal variation. Names and addresses were to be forwarded to the author at regular intervals, and detailed questionnaires would then be forwarded to a random sample.

The project was planned carefully, and the author had full co-operation and some material support from the South Australian Government Tourist Bureau and the proprietor of the Motel and camping area (Flinders Ranges Tourist Services Pty. Ltd.). In addition, expert statistical advice on sampling problems was available, and computing facilities for data analysis were available throughout the survey. Given such a favourable background success would have seemed assured, but in fact a host of problems, many serious, greatly hampered work and, although after two years a large amount of data was gathered and analysed, the results were not nearly as valuable or reliable as had been hoped for originally. For those interested in the actual project Appendix I at the rear of this work outlines the statistical techniques, discusses the problems encountered, and provides a brief summary of results. It is not proposed to examine the detail here, for it is a general point which is being made, namely that any research programme, no matter how well planned, will encounter similar problems.

This is not to devalue the worth of research, for it is essential. Rather, the point being made is that personnel, money, and a lot of time and patience are needed. Given these necessities, the phrase 'as soon as practicable' takes on a new significance. At present the N.P.W.S. has 164 reserves under its control. This number will increase in the future, and legislation demands that management plans for all of these be prepared 'as soon as practicable'. The commitment is formidable. Not every reserve will have problems as complex as those at Wilpena Pound, not every management plan will be as ambitious as that attempted by the author, but even given these qualifications the

task, at the moment, seems quite impossible. The N.P.W.S. has, at present, only a handful of professional officers, and all are hamstrung by routine administrative demands. It is true that the N.P.W.S. has an Advisory Council of 17 people chosen for their special knowledge of parks and reserves; it is true also that some research assistance can be expected from such institutions as the South Australian Museum, and the State's two Universities, but there can be no escaping the fact that if *any* management plans of value are to appear for South Australia's national parks and reserves, the N.P.W.S. must build up a strongly-motivated and highly-trained interdisciplinary team of professional officers.

This is the challenge for the future. Just over two years ago the author wrote: 'one thing in particular is quite clear: without a massive injection of finance and expertise, the National Parks Commission will be quite incapable of managing the vast areas entrusted to it'.<sup>2</sup> Today the only difference is that the N.P.W.S. has replaced the N.P.C. The problem remains the same, and unless management planning is instituted with vigour and effectiveness there must be serious doubts about the future of many of South Australia's finest national parks and reserves, parks and reserves which have, as shown in this thesis, been painstakingly acquired over many years. The task is enormous, the responsibility awesome.

## REFERENCES

1. Harris, C. R., 1972: 'National Parks - Past, Present, and Future'. pp. 83-98 in Warburton, J. W., & Corbett, D. W. P., *Pollution and Conservation. Selected Papers*. Dept. Adult Educn., Univ. of Adelaide, publicn. no. 27.
2. Harris, 1972, p. 95.

## APPENDIX I

WILPENA POUND RECREATION SURVEY

## STATISTICAL TECHNIQUE

Many thousands of people visit Wilpena Pound each year, but use of the area is not uniform. Seasonal demand is marked, with heavy visitation in spring, and light use in summer. To sample visitors in all seasons it was considered necessary to cover a period of at least 12 months. Determining a sample size for the twelve month period proved problematical: no information on the characteristics of visitors to Wilpena Pound was available, and it was decided that if a sample size sufficient for later generalization was to be obtained it would be necessary to carry out a pilot survey.

A questionnaire was drawn up in mid-1970 (vide Appendix II), and on the recommendation of statistical advisers a sample of  $n = 100$  was decided on for the pilot survey. With the assistance of the S.A. Govt. Tourist Bureau and Flinders Ranges Tourist Services Pty. Ltd., an attempt was made to gather names and addresses of all visitors to the Pound between October 1970 and February 1971.

In early 1971 copies of the questionnaire were posted to a random sample of 133 persons and over a period of two months 107 were completed and returned to the author, an 80% return. In the meantime, formulae for calculating suitable sample sizes had been devised:

(1) For Yes/No type questions

(a) Determine  $\hat{p} = x/n$

( $x$  = number of yes answers;  $n$  = number in sample)

$$\hat{q} = 1 - \hat{p}$$

Then the true proportion of yes answers ( $p$ ) is given by

$$p = \hat{p} \pm 1.96 \sqrt{\frac{\hat{p}\hat{q}}{n}}$$

with 95% probability, provided  $n > 30$  and  $\hat{p}$  is not too close to 1 or 0.

- (b) Assuming  $\hat{p}$  will not differ greatly from one sample to another, choose sample size  $n$  so that

$$1.96 \sqrt{\frac{\hat{p}\hat{q}}{n}}$$

is small (e.g. 0.01)

Then for this value of  $n$  the sample will determine  $p$  to within 0.01 (i.e. 1%) with 95% certainty.

- (2) For questions with 'continuous answer' (e.g. age, length of stay etc.)

Let  $i^{\text{th}}$  answer to sample be  $x_i$

Let  $n$  = number of people in sample.

Calculate

- (a) Sample mean

$$\bar{x} = \frac{1}{n} \sum_{i=1}^n x_i$$

- (b) Sample variance

$$s^2 = \frac{\sum_{i=1}^n x_i^2 - (\sum_{i=1}^n x_i)^2/n}{n-1}$$

Then the true mean  $\mu$  is given by

$$\mu = \bar{x} \pm \frac{ts}{\sqrt{n}}$$

where  $t$  is given in tables for various values of  $n$  with 95% probability.

- (c) Calculate  $n$  such that  $ts/\sqrt{n}$  is small (e.g. 0.01  $\bar{x}$ ).



A fortran IV programme for the University of Adelaide I.B.M. CDC 6400 computer was then devised in such a way that using the 107 questionnaires from the pilot survey it was possible to establish the sample size needed for each question asked. The highest sample size indicated would then become the sample size necessary for the survey proper: as it turned out, question (8). 2) indicating a necessary 384 samples became the standard to be adopted.

With the sample size calculated from the pilot survey it was possible to begin the survey proper, and once again a total record of the names and addresses of all visitors to Wilpena Pound was attempted. As with the pilot survey a random sample was then selected and mailed questionnaires. For reasons explained in the next section, the period covered was October 1971 to May 1972, eight months instead of the twelve months originally considered necessary. Because of this premature termination only 294 completed questionnaires (a 70% return) were returned to the author, 90 short of the 384 considered necessary.

#### PROBLEMS ENCOUNTERED

In spite of careful planning a host of difficulties attended the survey. Three main problems eventually resulted in the survey having considerably less reliability and value than had originally been anticipated.

##### *A problem of bias*

At Wilpena Pound, visitors either remain overnight at the Motel or camp in an adjacent caravan park. It was discovered quite early in the pilot survey that collection of the names and addresses of motel

guests was much more successful than for campers. On reflection, this was not surprising: motel guests were limited in numbers, and had considerable contact with the office staff responsible for collecting names and addresses. By contrast campers were frequently arriving in large numbers, collection of camping fees from them had to be hasty, and most had little contact with the office staff: as a result relatively few names and addresses were obtained. Therefore, the names and addresses gathered were biased towards motel guests, and since it could reasonably be expected that, on an average, campers have rather different backgrounds and attitudes to motel guests, the bias has serious implications.

A further source of bias came, of course, through response to the questionnaire. Although the 80% and 70% response rates respectively for the pilot survey and survey proper were extremely high for the kind of work, they do mean that it is the interested, and probably articulate, person who sends in his views on the questions asked. The indifferent or apathetic visitor is not likely to respond, and so his views cannot be taken into account in management planning (and his views may be important - why, for example, is he indifferent to Wilpena Pound?).

### *Statistical problems*

Because there was virtually no prior knowledge of the characteristics of visitors to Wilpena Pound, the pilot survey, outlined earlier, was necessary, and it proved time-consuming and expensive. Furthermore, devising formulae and a computer programme to determine a sample size on the basis of the pilot survey was difficult, and many abortive runs were made. No similar survey either in Australia or overseas could be found, and the statistical technique had to be developed and tested over a period of many months. This problem, in turn, contributed to a

third major difficulty.

### *Field co-operation problems*

Although the South Australian Tourist Bureau was an enthusiastic supporter of the survey it was perhaps inevitable that difficulties would be experienced at Wilpena Pound. The proprietors of Flinders Ranges Tourist Services Pty. Ltd. were co-operative throughout, but the enthusiasm of their office staff did wane as the statistical problems referred to above dragged out the survey to a period of two years, instead of the originally-anticipated twelve months. At a critical stage of the survey proper the standard of gathering names and addresses declined alarmingly, and in spite of letters and personal visits by the author the situation eventually deteriorated to a point where the survey had to be terminated prematurely.

### RESULTS OF THE SURVEY

Because of the problems outlined above the results must be treated with great caution: it would be quite wrong to generalize about the total population from them, and their usefulness for meaningful management planning must be open to doubt. However, in spite of all its limitations and inherent weaknesses the survey was an interesting exercise, from at least two points of view:

- (1) it has provided information about a selected sample of visitors, whereas previously virtually none existed
- (2) it was almost certainly the first attempt in South Australia to carry out a fully-planned and statistically-sound survey of outdoor recreation patterns at an important reserve, and the very deficiencies and limitations outlined so far should greatly

assist future workers in this field - if others can learn from its drawbacks and difficulties, then the time, money, and considerable frustration will have been worthwhile.

A tabulation of the results is given below, but a detailed analysis and discussion is not relevant to this thesis. A thorough treatment of the results will appear in a separate paper dealing with the survey at a later date.

- (1) Occupation of the head of family or individual completing this questionnaire

Category*	0	1	2	3	4	5	6	7/8	9	10	11
Percentage of total sample	51.6	10.1	8.7	8.4	2.1	0.0	3.5	5.2	2.8	0.0	7.7

\* Classification of occupations is that used by Aust. Bureau of Census and Statistics, vide S.A. or Commonwealth Yearbooks.

- (2) Age (to nearest year) of the head of family or individual completing this questionnaire

Age limits (in years)	<19	20-24	25-29	30-34	35-39	40-44	45-49	50-54
% of sample	2.1	17.1	16.7	8.7	8.0	6.3	6.3	12.2

Age limits (in years)	55-59	60-64	65-69	70-74	>75
% of sample	7.7	9.1	4.5	1.0	0.3

- (3) Did you visit Wilpena

- 1) With your family ('family' includes husband and wife combinations)
- 2) With your family and family friends

% of sample
49.6
12.0

3) Without your family but with a group of friends	26.8
4) By yourself	7.4
5) As a member of any club, group, association etc.	4.6

(4) Did you travel to Wilpena	%*
1) By private car	93.0
2) By tourist coach	7.4
3) Other modes of transport (give details)	3.2

\* Some people indicated more than one method.

- (5) In addition to Wilpena, what other towns and places of interest did you visit during your holiday (i.e. give a brief itinerary of your holiday)

Not yet analysed.

- (6) Length of stay at Wilpena

Number of days	1	2	3	4	5	6	7	8	9	10
% of sample	5.6	26.0	22.1	15.1	10.5	5.3	6.7	2.5	1.1	1.1

Number of days	11	12	13	14	>14
% of sample	0.4	0.4	0.7	0.4	2.5

- (6a) Including the time spent at Wilpena, how many days did your holiday take

Not yet analysed.

- (7) Including this visit, how many times have you visited Wilpena Pound

Number of times	1	2	3	4	5	6	7	8	9	>9
% of sample	69.7	16.0	5.2	3.1	0.7	1.4	1.0	0.7	0.0	2.1

(8) If this is your first trip to the Pound, did you hear about it by

1) Tourist Bureau or travel agency publicity

%*
----

21.5
------

2) Recommendation from friends

80.0
------

3) Magazine articles or books

32.5
------

4) Other sources (give details)

12.0
------

\* Some people indicated more than one source.

(9) Did you decide to holiday at the Pound because of

1) Scenic appeal

%*
----

77.2
------

2) 'Outback' attraction

45.9
------

3) Bushwalking and hiking opportunities

26.9
------

4) Such outdoor interests as

(a) nature observation

35.0
------

(b) photography

38.8
------

(c) painting and sketching

5.1
-----

5) No particular reason - just a pleasant place to go for a holiday

16.3
------

6) Other reasons (give details)

21.8
------

\* Many people indicated more than one reason.

(10) At Wilpena, did you stay

1) In the Motel

%
---

52.0
------

2) In a caravan

7.4
-----

3) Under canvas (i.e. camping)

31.8
------

4) A combination of 2) and 3) above

2.7
-----

5) Other accommodation (give details)

6.1
-----

(11) During your stay at Wilpena did you

1) Climb St. Mary's Peak	%
(a) via the 'outside' track	24.2
(b) via the 'inside' track	11.9
(c) via Mt. Boorong and Attunga Bluff	1.0
2) Climb Mt. John	30.3
3) Walk into the Pound	
(a) to the old Homestead	83.7
(b) to the Lookout area	71.1
4) Hike to the head of Edeowie Gorge	12.2
5) Hike the full length of Edeowie Gorge	3.7
6) Hike in the Moralana Valley/Elders Range area	8.2
7) Hike in the Mt. Falkland/Mt. Hayward area	3.4
8) Any other hiking in the Pound region (give details)	4.4

(12) While at Wilpena did you make day trips to any of the following

	%
1) Blinman and surrounding district	72.1
2) Parachilna Gorge	74.7
3) Bunyeroo Valley and Brachina Gorge	67.3
4) Aroona Valley	47.6
5) Moralana Valley Scenic Drive	30.3
6) Wilkawillina Gorge	5.8
7) Sacred Canyon	32.3
8) Other day trips (give details)	19.0

- (13) The following list indicates some of the common recreational activities at Wilpena and the surrounding district. Please rank the activities you engaged in by placing a number in the appropriate squares. For example, if you spent most of your time driving to such scenic spots as those listed in (12) above, place a '1' in the square. If you estimated that after driving you spent most of your time hiking, place a '2' in that square, and so on.

	Ranking	1	2	3	4	5*
1) Travelling by either private car or tourist coach to such scenic spots as those in (12) above		180	30	16	3	0
2) Hiking and climbing in and around the Pound		72	101	21	10	0
3) Carrying out such interests as painting, photography, nature observation etc.		30	39	64	37	1
4) Relaxation around the Motel/Caravan Park area		30	26	46	36	1
5) Other activities (give ranking details)		4	3	2	5	1

\* Percentages could not be calculated in any reliable form as some participants gave only one or two preferences and others put the same number in more than one box. The figures given in the table are the number of people who chose that particular preference.

- (14) Figures given are the percentage of the total sample who *agreed* with the suggestion put forward.

	%
1) Improvement of <i>existing</i> roads	54.1
2) Opening up of scenic areas with <i>new</i> roads	38.8
3) Building of a road <i>into</i> and <i>throughout</i> the interior of the Pound	9.9
4) Provision of <i>more</i> tracks for hikers	53.1
5) Rangers and guides to conduct walking tours to points of interest	47.6
6) Construction of local nature and/or historical museums	59.5
7) Barbecue and picnic facilities at scenic spots	36.4



8) Chairlift to Summit of St. Mary's Peak	26.2
9) Introduction of sophisticated evening entertainment - floor shows, dances etc.	15.3
10) Improvements to the Caravan Park	40.1
11) Other suggested changes (give details)	17.3

(15) What did you enjoy most about Wilpena Pound?  
Detailed analysis not completed.

(16) What displeased you most at Wilpena Pound?  
Detailed analysis not completed.

(17) Would you visit Wilpena Pound again?

YES	NO
93.2	6.8

## APPENDIX II

WILPENA POUND RECREATION SURVEY - 1970/71

THE UNIVERSITY OF ADELAIDE  
ADELAIDE, SOUTH AUSTRALIA, 5001

WILPENA POUND RECREATION SURVEY - 1970/71

## INTRODUCTION

You may recall that during a recent visit to Wilpena Pound you provided your name and address on a recreation survey form provided by the University of Adelaide.

To obtain more detailed information on the recreation patterns of visitors to Wilpena, a random sample has been chosen, and you have been one of those selected.

Accompanying this note is a questionnaire dealing with your visit to Wilpena Pound. We would be grateful if you could spare the time to complete this questionnaire and post it to the University in the enclosed envelope.

The information you provide will be of considerable value. Answers will be carefully analysed for University research purposes, and when complete the findings will be made available to those responsible for the administration and development of Wilpena Pound. Your completion of this questionnaire can, therefore, be seen as an important contribution towards improving the Pound for future visitors.

No names will be used.

Every assurance is given that all information will be treated confidentially.

---

## INSTRUCTIONS

Wherever a family is involved we would like the head of the family to complete this questionnaire. Answer the questions by speaking for the family as a whole.

	Tick appropriate square	OFFICE USE ONLY
THE QUESTIONNAIRE*		
(1) Occupation of the head of family or individual completing this questionnaire .....		1 <input type="checkbox"/>
(2) Age (to nearest year) of the head of family or individual completing this questionnaire .....		<input type="checkbox"/> <input type="checkbox"/> 2 3
(3) Did you visit Wilpena		
1) With your family ('family' includes husband and wife combinations)	<input type="checkbox"/>	
2) With your family and family friends	<input type="checkbox"/>	
3) Without your family but with a group of friends	<input type="checkbox"/>	4 <input type="checkbox"/>
4) By yourself	<input type="checkbox"/>	
5) As a member of any club, group, association etc.	<input type="checkbox"/>	

\* A map is included at the rear to assist in the location of place names used in this questionnaire.

Tick appropriate square

OFFICE USE ONLY

(4) Did you travel to Wilpena

1) By private car

5

2) By tourist coach

3) Other modes of transport (give details)

.....

(5) In addition to Wilpena, what other towns and places of interest did you visit during your holiday (i.e. give a brief itinerary of your holiday

.....  
.....  
.....

(6) Dates of stay at Wilpena: from ..... to .....  
(inclusive)

6 7 8

(6a) Including the time spent at Wilpena, how many days did your holiday take .....

9 10 11

(7) Including this visit, how many times have you visited Wilpena Pound .....

12 13

(8) If this is your first trip to the Pound, did you hear about it by

1) Tourist bureau or travel agency  
publicity

14

2) Recommendation from friends

15

3) Magazine articles or books

16

4) Other sources (give details) .....

.....

17

(9) Did you decide to holiday at the Pound because of

1) Scenic appeal

18

2) 'Outback' attraction

19

3) Bushwalking and hiking opportunities

20

Tick appropriate square

OFFICE USE ONLY

4) Such outdoor interests as

(a) nature observation

21

(b) photography

22

(c) painting and sketching

23

5) No particular reason - just a pleasant place to go for a holiday

24

6) Other reasons (give details) .....

25

(10) At Wilpena, did you stay

1) In the Motel

2) In a caravan

26

3) Under canvas (i.e. camping)

4) A combination of 2) and 3) above

5) Other accommodation (give details) .....

(11) During your stay at Wilpena did you

1) Climb St. Mary's Peak

27

(a) via the 'outside' track

28

(b) via the 'inside' track

29

(c) via Mt. Boorong and Attunga Bluff

30

2) Climb Mt. John

31

3) Walk into the Pound

32

(a) to the old Homestead

33

(b) to the Lookout area

34

4) Hike to the head of Edeowie Gorge

35

(See map at rear)

Tick appropriate square

OFFICE USE ONLY

- 5) Hike the full length of Edeowie Gorge  36
- 6) Hike in the Moralana Valley/Elders Range area  37
- 7) Hike in the Mt. Falkland/Mt. Hayward area  38
- 8) Any other hiking in the Pound region (give details) .....  39

(12) While at Wilpena did you make day trips to any of the following

Private car      Organised tour

- 1) Blinman and surrounding district   40
- 2) Parachilna Gorge   41
- 3) Bunyeroo Valley and Brachina Gorge   42
- 4) Aroona Valley   43
- 5) Moralana Valley Scenic Drive   44
- 6) Wilkawillina Gorge   45
- 7) Sacred Canyon   46
- 8) Other day trips (give details) .....  47

(13) The following list indicates some of the common recreational activities at Wilpena and the surrounding district. Please rank the activities you engaged in by placing a number in the appropriate squares. For example, if you spent most of your time driving to such scenic spots as those listed in (12) above, place a '1' in the square. If you estimate that after driving you spent most of your time hiking, place a '2' in that square, and so on.

- 1) Travelling by either private car or tourist coach to such scenic spots as those in (12) above  48

Tick appropriate square

OFFICE USE ONLY

- 2) Hiking and climbing in and around the Pound  49
- 3) Carrying out such interests as painting, photography, nature observation etc.  50
- 4) Relaxation around the Motel/Caravan Park area  51
- 5) Other activities (give ranking details)  52

(14) If you agree with any of the following suggestions tick the appropriate square, and give your reason wherever possible. If you disagree with any of the suggestions leave the appropriate square blank, but give, if possible, your reason for disagreement.

- 1) Improvement of existing roads  53   
Reason for answer .....
- 2) Opening up of scenic areas with new roads  54   
Reason .....
- 3) Building of a road into and throughout the interior of the Pound  55   
Reason .....
- 4) Provision of more tracks for hikers  56   
Reason .....
- 5) Rangers and guides to conduct walking tours to points of interest  57   
Reason .....
- 6) Construction of local nature and/or historical museums  58   
Reason .....

Tick appropriate square

OFFICE USE ONLY

- 7) Barbecue and picnic facilities at scenic spots  59   
Reason .....
- 8) Chairlift to Summit of St. Mary's Peak  60   
Reason .....
- 9) Introduction of sophisticated evening entertainment - floor shows, dances etc.  61   
Reason .....
- 10) Improvements to the Caravan Park  62   
Suggested improvements .....
- 11) Other suggested changes (give details)  63   
.....
- (15) What did you enjoy most about Wilpena Pound ..... 64   
.....
- (16) What displeased you most at Wilpena Pound ..... 65   
.....
- (17) Would you visit Wilpena Pound again   66   
Reason for answer .....  
.....  
Yes No

THANK YOU FOR YOUR CO-OPERATION



BIBLIOGRAPHY

## I. DEPARTMENTAL RECORDS (South Australian State Government)

Botanic Gardens  
Chief Secretary's Office  
Department of Agriculture  
Department of Environment and Conservation  
Department of Lands  
Department of Mines  
Engineering and Water Supply Department  
Fisheries and Game Department (now Dept. of Fisheries)  
Highways and Local Government Department  
State Planning Authority  
Tourist Bureau

## II. NEWSPAPERS (Adelaide and Country based)

*The Advertiser*  
*The Australian*  
*The Chronicle*  
*Eyre Peninsula Tribune*  
*Mount Barker Courier*  
*Naracoorte Herald*  
*Port Lincoln Times*  
*South East Times*

*South Eastern Times*

*Stock Journal*

*The News*

*The Register*

*The Sunday Mail*

*The Whyalla News*

### III. BOOKS AND JOURNALS CITED IN THE TEXT

- ABRAHAMS, H. M. (ed.), 1959: *Britain's National Parks*. Country Life Ltd., London.
- AITKEN, P., 1970: 'Mammals'. pp. 42-49 in *South Australian Yearbook*, 1970. Govt. Printer, Adelaide.
- ANGAS, George French, 1846: *South Australia Illustrated*. Thomas McLean, London.
- ANGAS, George French, 1847: *Savage Life and Scenes in Australia and New Zealand*. Smith, Elder & Co., London, (2 vols.).
- ANONYMOUS, 1918: *Flinders Chase : A Reserve for Flora and Fauna and for the Growth of Commercial Timber, Especially Softwoods*. W. K. Thomas & Co. (Printers), Adelaide.
- AUSTRALASIAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE, 1892: Report of the Fourth Meeting (Hobart, Tasmania, January 1892), Section D, Biology. Robin, A. F., 'The Preservation of our Native Plants and Animals'.
- AUSTRALIAN ACADEMY OF SCIENCE, 1963: National Parks Committee. Report of the South Australian Sub Committee. Mimeog. report, Adelaide.
- AUSTRALIAN CONSERVATION FOUNDATION, 1968: *The Cape Barren Goose*. Viewpoint Series, no. 3.
- BALDWIN, J. G., & CROCKER, R. L., 1941: 'The soils and vegetation of portion of Kangaroo Island, South Australia'. *Trans. Roy. Soc. S.A.*, v. 65, pp. 263-275.
- BARDWELL, S., 1974: Ph.D. thesis, in preparation, Dept. Geography, Monash University.

- BARKER, S., 1972: Effect of Sheep Stocking on the Population Structure of Arid Shrublands in South Australia. Unpub. Ph.D. thesis, Dept. Botany, Univ. of Adelaide.
- BAUER, F. H., 1959: The Regional Geography of Kangaroo Island. Unpub. Ph.D. thesis, Dept. Geography, Australian National University.
- BIRD, E. C. F., 1972: 'Mangroves on the Australian coast'. *Australian Natural History*, v. 17, (5), pp. 167-171.
- BLACKBURN, G., & JACKSON, E. A., 1953: Report on the Soils of Parts Hundreds of Woolloomool and Lochaber South Australia. C.S.I.R.O., Divisional Report 4/53.
- BONYTHON, C. W., & PREISS, K. A., 1968: *Hambidge Wild Life Reserve. A Survey by the Nature Conservation Society of South Australia*. F.N.S. Publicn. no. 6. Being a reprint of a previously unpublished report.
- BONYTHON, C. W., 1972: 'The origins and history of the conservation movement'. pp. 61-70 in WARBURTON, J. W., & CORBETT, D. W. P. (eds.), *Pollution and Conservation. Selected Papers*. Dept. Adult Educn., Univ. of Adelaide, publicn. no. 27.
- BOOMSMA, C. D., 1949: 'The ecology of the Western Clare Hills, South Australia, with special reference to the disjunct occurrence of *E. macrorrhyncha* (F.v.M.)'. *Trans. Roy. Soc. S.A.*, v. 72, pp. 216-220.
- BURGESS, H. T., 1907: *The Cyclopaedia of South Australia*. Hussey & Gillingham, Adelaide, (2 vols.).
- CAMPBELL, K., 1969: 'Wheat'. *Current Affairs Bulletin*, v. 45, (1), pp. 1-16.
- CLAWSON, M., & KNETSCH, J. L., 1966: *Economics of Outdoor Recreation*. The Johns Hopkins Press for Resources for the Future, Baltimore.
- CLELAND, J. B., 1924: 'A proposal for a national reserve at Mt. Lofty'. *The S.A. Naturalist*, v. V, (2), pp. 100-102.
- CLELAND, J. B., 1964: 'Historical account of the national park'. pp. 15-18 in COTTON, B. C. (ed.), *South Australian National Parks and Wild Life Reserves*. Govt. Printer, Adelaide.
- CLEPPER, H. E., 1966: *Origins of American Conservation*. Ronald Press Co., New York. Ed. for Natural Resources of America Council.
- COALDRAKE, J. E., 1951: 'The climate, geology, soils, and plant ecology of portion of the County of Buckingham (Ninety Mile Plain), South Australia'. *C.S.I.R.O. Bull.* 266.
- COCKINGTON, A., 1966: 'Flinders Chase Memorial Plaque'. *The S.A. Naturalist*, v. 40, (4), pp. 73-77.

- COCKINGTON, A., 1968: 'Proposals for the preservation of the hairy-nosed wombat (*Lasiornhinus latifrons*)'. *The S.A. Naturalist*, v. 42, (4), pp. 91-99.
- CONDON, H. T., 1962: 'A handlist of the birds of South Australia'. *The S.A. Ornithologist*, v. 23, (6-8), pp. 86-150.
- CONDON, H. T., 1966: 'The Western Whipbird'. *The S.A. Ornithologist*, v. 24, pp. 79-92.
- COOMBS, H. C., 1972: *Matching Ecological and Economic Realities*. A.C.F. Occasional Publicn. no. 9.
- CORBETT, D. W. P. (ed.), 1969: *The Natural History of the Flinders Ranges*. Libraries Board of South Australia, Adelaide.
- COTTON, B. C. (ed.), 1964: *South Australian National Parks and Wild Life Reserves*. Govt. Printer, Adelaide.
- COYLE, D. C., 1957: *Conservation, An American Story of Conflict and Accomplishment*. Rutgers U.P., New Brunswick.
- CROCKER, R. L., 1941: 'Notes on the geology of the Lower South East of South Australia, with reference to late climatic history'. *Trans. Roy. Soc. S.A.*, v. 65, (1), pp. 103-107.
- CROCKER, R. L., 1946: 'The soils and vegetation of the Simpson Desert and its borders'. *Trans. Roy. Soc. S.A.*, v. 70, (2), pp. 235-260.
- CROCKER, R. L., & WOOD, J. G., 1947: 'Some historical influences on the development of the South Australian vegetation communities and their bearing on concepts and classification in ecology'. *Trans. Roy. Soc. S.A.*, v. 71, (1), pp. 91-136.
- CROWCROFT, P., 1964: 'Nature conservation in South Australia', *Proc. Roy. Geog. Soc. Aust./Asia (S.A. Branch)*, v. 65, pp. 31-41.
- DIXON, Samuel, 1911: 'A farewell address to the Field Naturalists Section of the Royal Society by the Chairman of the Native Fauna and Flora Protection Committee'. *Trans. Roy. Soc. S.A.*, v. XXXV, pp. 248-254.
- DIXON, Samuel, 1920: *The Full Story of Flinders Chase*. Hussey & Gillingham, Adelaide.
- EBERHARD, I. H., 1972: Ecology of the Koala (*Phascolarctus cinereus*, Goldfuss) on Flinders Chase, Kangaroo Island. Unpub. Ph.D. thesis, Dept. Zoology, Univ. of Adelaide.
- EYRE, E. J., 1845: *Journals of Expeditions of Discovery in Central Australia and Overland from Adelaide to King Georges Sound*. T. & W. Boone, London, (2 vols.).

- FIELD NATURALISTS SECTION ROY. SOC. S.A., 1936: *National Park, Morialta, and Waterfall Gully Reserves, Containing an Account of their Natural History*. Govt. Printer, Adelaide. Being a reprint of *The S.A. Naturalist*, v. XVII, (1-4).
- FIELD NATURALISTS SOCIETY S.A. (INC.), 1965: Publicn. no. 5. Being a reprint of three articles published in *The South Australian Register* 7/10/1889 (p. 6), 14/10/1889 (pp. 5-6), 4/11/1889 (p. 5).
- FINLAYSON, H. H., 1936: *The Red Centre*. Angus & Robertson, Sydney.
- FLINDERS, Matthew, 1814: *A Voyage to Terra Australis*. G. & W. Nicol, London, (2 vols. and atlas).
- GORDON, D. J., & RYAN, V. H. (eds.), 1914: *Handbook of South Australia*. Govt. Printer, Adelaide.
- GOSSE, J. H., 1941: History of Flinders Chase. Unpub. radio broadcast, 9/5/1941. Copy held by Fauna and Flora Board.
- HARRIS, C. R., 1968: Mantung : A Study of Man's Impact on a Landscape. Unpub. B.A. (Hons.) thesis, Dept. Geography, Univ. of Adelaide.
- HARRIS, C. R., 1972: 'National Parks - past, present, and future'. pp. 83-98 in WARBURTON, J. W., & CORBETT, D. W. P. (eds.), *Pollution and Conservation. Selected Papers*. Dept. Adult Educn., Univ. of Adelaide, publicn. no. 27.
- HENDEE, J. C., 1969: 'Rural-urban differences reflected in outdoor recreation participation'. *Journal of Leisure Research*, v. 1, (4), pp. 333-341.
- HIRST, J. B., 1963: G. W. Cotton and the Workingmen's Blocks. Unpub. B.A. (Hons.) thesis, Dept. History, Univ. of Adelaide.
- HORNE, D., 1964: *The Lucky Country*. Penguin Books, Adelaide.
- JAMES, C. T., 1964: 'To have and to hold - we must live with nature conservation'. *Proc. Roy. Geog. Soc. Aust./Asia (S.A. Branch)*, v. 65, pp. 17-29.
- JESSUP, R. W., 1948: 'A vegetation and pastures survey of counties Eyre, Burra, and Kimberley, South Australia'. *Trans. Roy. Soc. S.A.*, v. 72, (1), pp. 33-68.
- JONES, F. W., 1923-25: *The Mammals of South Australia*. Govt. Printer, Adelaide.
- JONES, Rhys, 1968: 'The geographical background to the arrival of man in Australia and Tasmania'. *Archaeology and Physical Anthropology in Oceania*, v. 3, (3), pp. 186-215.
- LOTHIAN, T. R. N., 1962: 'Rediscovery of *Stylidium tepperianum* (F.v.M.) Mildb. Kangaroo Island Trigger Plant'. *The S.A. Naturalist*, v. 36, (3), pp. 46-47.

- LOTHIAN, T. R. N., 1969: 'Teppers Trigger Plant *Stylidium tepperianum*'. *The S.A. Naturalist*, v. 43, (4), pp. 104-106.
- MCCARTY, J. W., 1970: 'Australian capital cities in the nineteenth century'. *Australian Economic History Review*, v. X, (2), pp. 107-137.
- MCCLOSKEY, M., 1972: 'Wilderness movement at the crossroads, 1945-1970'. *Pacific Historical Review*, v. XLI, (3), pp. 346-361.
- MARLOW, B. J., 1958: 'A marsupial survey of New South Wales'. *C.S.I.R.O. Wildlife Research*, v. 3, (2), pp. 71-114.
- MARSHALL, A. J. (ed.), 1966: *The Great Extermination*. Heinemann Ltd., Adelaide.
- MARSHALL, Ann, 1972: 'Desert becomes downs : the impact of a scientific discovery'. *The Australian Geographer*, v. XII, (1), pp. 23-34.
- MEINIG, D. W., 1970: *On the Margins of the Good Earth*. Rigby Ltd., Adelaide.
- MERRILEES, D., 1967: 'Man the destroyer : Late Quaternary changes in the Australian marsupial fauna'. *Journ. Roy. Soc. West. Aust.*, v. 51, (1), pp. 1-24.
- MINCHAM, H., 1964: *The Story of the Flinders Ranges*. Rigby Ltd., Adelaide.
- MITCHELL, F. J., 1973: 'Studies on the ecology of the Agamid Lizard *Amphibolurus maculosus* (Mitchell)'. *Trans. Roy. Soc. S.A.*, v. 97, (1), pp. 47-76.
- MOORE, R. M., 1959: 'Ecological observations on plant communities grazed by sheep in Australia'. pp. 500-512 in KEAST, A., et al. (eds.), *Biogeography and Ecology in Australia*. Junk, The Hague.
- MOSLEY, J. G., 1963: Aspects of the Geography of Recreation in Tasmania. Unpub. Ph.D. thesis, Australian National University.
- MOSLEY, J. G., 1968: *National Parks*. Nelson Doubleday, Around Australia Programme.
- MUDIE, Ian, 1945: *Poems : 1934-1944*. Georgian House, Melbourne.
- MUDIE, Ian, 1972: 'What the Flinders Ranges mean to me'. pp. 1-9 in WHITELOCK, D. (ed.), *The Future of the Flinders Ranges*. Dept. Adult Educn., Univ. of Adelaide, publicn. no. 28.
- NASH, R., 1972: 'American environmental history : a new teaching frontier'. *Pacific Historical Review*, v. XLI, (3), pp. 362-372.
- NICHOLSON, M., 1970: *The Environmental Revolution*. Hodder & Stoughton, London.

- NORTHCOTE, K. H., & TUCKER, B. M., 1948: 'A soil survey of the Hundred of Seddon and part of the Hundred of MacGillivray, Kangaroo Island, South Australia'. *C.S.I.R. Bull.* 233.
- PITT, George H., 1939: 'Our National Park : some early history'. *The S.A. Naturalist*, v. 20, (1), pp. 14-16.
- PITT, R., 1970: 'A tribute to H. A. Lindsay'. *Tarndanya* (Magazine of the Adelaide Bushwalkers), pp. 6-7.
- RATCLIFFE, F. N., 1936: Soil Drift in the Arid Pastoral Areas of South Australia. C.S.I.R. Pamph. 64.
- RIDE, W. D. L., 1970: *A Guide to the Native Mammals of Australia*. Oxford U.P., Melbourne.
- ROWAN, J. N., & DOWNES, R. G., 1963: *A Study of the Land in North Western Victoria*. Soil Conservn. Authority, Melbourne.
- SADDLER, B. A., 1970: 'Wilpena Pound, Flinders Ranges, South Australia'. *Wildlife*, v. 7, (3), pp. 84-85.
- SCHODDE, R., 1958: 'Some bird observations with new records on Kangaroo Island'. *The S.A. Naturalist*, v. 33, (2), pp. 23-26.
- SELWAY, W. H., 1910: 'The national parks and forest reserves of Australia'. *Trans. Roy. Soc. S.A.*, v. XXXIV, pp. 279-297.
- SELWAY, W. H., 1919: 'Our beginnings'. *The S.A. Naturalist*, v. 1, (1), pp. 3-4.
- SERVENTY, V., 1968: 'Grazing in Wilpena Pound'. *Wildlife*, v. 5, (4), p. 126.
- SINDEN, J. A., & MUSGRAVE, W. F., 1969: 'An economic framework for the conservation decision'. pp. 18-26 in WEBB, J. L., et al., *The Last of Lands*. Jacaranda Press, Brisbane.
- SMILLIE, W., 1838: *The Great South Land*. Simpkin & Marshall, London.
- SMITH, R., 1973: 'The Australian wheat industry : some important occurrences'. *Taminga*, v. 10, (1), pp. 5-58.
- SMYTH, M., 1971: 'Suggestions for a policy on introducing native animals (mainly mammals) into an area they presently do not occupy'. *N.C.S.S.A. Newsletter*, no. 35, pp. 34-38.
- SPECHT, R. L., & CLELAND, J. B., 1961: 'Flora conservation in South Australia. I. The preservation of plant formations and associations recorded in South Australia'. *Trans. Roy. Soc. S.A.*, v. 85, pp. 177-196.
- SPECHT, R. L., & CLELAND, J. B., 1963: 'Flora conservation in South Australia. II. The preservation of species recorded in South Australia'. *Trans. Roy. Soc. S.A.*, v. 87, pp. 63-92.

- SPECHT, R. L., 1964: 'The vegetation of the Belair National Park and Reserves'. pp. 31-45 in COTTON, B. C. (ed.), *South Australian National Parks and Wild Life Reserves*. Govt. Printer, Adelaide.
- SPECHT, R. L., 1972: *The Vegetation of South Australia*. Govt. Printer, Adelaide.
- SPRIGG, R. C., 1959: 'Stranded sea beaches and associated sand accumulation of the Upper South-East'. *Trans. Roy. Soc. S.A.*, v. 82, pp. 183-193.
- THIELE, C., 1968: *Heysen of Hahndorf*. Rigby Ltd., Adelaide.
- TOWN PLANNING COMMITTEE, 1962: *Report on the Metropolitan Area of Adelaide*. Govt. Printer, Adelaide.
- TROUGHTON, Ellis, 1962: *Furred Animals of Australia*. Angus & Robertson, Sydney.
- UDALL, S. L., 1964: *The Quiet Crisis*. Holt, Rinehart & Winston, New York.
- VIVIENNE, May, 1908: *Sunny South Australia*. Hussey & Gillingham, Adelaide.
- WACE, N. M., 1969: Management of the Pastures at Rocky River. Unpub. report to S.A. Fauna and Flora Board.
- WEBB, J. L., WHITELOCK, D., & LeGAY BRERETON, J. (eds.), 1969: *The Last of Lands*. Jacaranda Press, Brisbane.
- WESTER, L. L., 1967: The Distribution of the Mangrove in South Australia. Unpub. B.A. (Hons.) thesis, Dept. Geography, Univ. of Adelaide.
- WILLIAMS, M., 1964: 'The historical geography of an artificial drainage system : the Lower South-East of South Australia'. *Aust. Geog. Studies*, v. 2, pp. 87-102.
- WILLIAMS, M., 1969: 'The changing face of South Australia'. pp. 1-17 in WILLIAMS, M. (ed.), *South Australia From the Air*. ANZAAS, Melbourne U.P.
- WILLIAMS, M., 1969: 'The spread of settlement in South Australia'. pp. 1-50 in GALE, G. F., & LAWTON, G. H. (eds.), *Settlement and Encounter*. Oxford U.P., Melbourne.
- WOLLASTON, E. M. (ed.), 1973: *Aldinga - Sellicks Beach Scrub*. N.C.S.S.A., Adelaide.
- WOOD, JAMES D., 1894: *The Province of South Australia*. Govt. Printer, Adelaide.
- WOOD, J. G., 1930: 'An analysis of the vegetation of Kangaroo Island and adjacent peninsulas'. *Trans. Roy. Soc. S.A.*, v. 54, pp. 105-139.



## IV. ADDENDUM

In recent years the literature on national parks and environmental conservation in general has expanded enormously. The following list of selected references indicates some which, while not cited directly in the text, provided useful background for certain sections of the work: it is in no way exhaustive.

- ARVILL, R., 1967: *Man and Environment*. Penguin Books.
- AUSTRALIAN ACADEMY OF SCIENCE, 1968: National Parks and Reserves in Australia. Report of the Committee established by Council in August 1958.
- AUSTRALIAN CONSERVATION FOUNDATION, 1967: 'Caring for Queensland'. Papers presented at a symposium at Univ. of Queensland, 14/15th October 1967.
- AUSTRALIAN INSTITUTE OF LANDSCAPE ARCHITECTS (ed.), 1971: *Landscape Architecture in Conservation*. Griffin Press, Adelaide.
- BOARD, C., et al., 1970: 'People at play in Dartmoor National Park'. *The Geographical Magazine*, v. XLII, (4), pp. 266-279.
- BONYTHON, C. Warren, 1964: 'The urgent need for conserving nature'. *Proc. Roy. Geog. Soc. Aust./Asia (S.A. Branch)*, v. 65, pp. 1-4.
- BONYTHON, C. Warren, & DAILY, B., 1964: 'National parks and reserves in South Australia'. *Proc. Roy. Geog. Soc. Aust./Asia (S.A. Branch)*, v. 65, pp. 5-15.
- BULTENA, G. L., & KLESSIG, L. L., 1969: 'Satisfaction in camping : a conceptualization and guide to social research'. *Journal of Leisure Research*, v. 1, (3), pp. 348-354.
- BURCH, W. R., 1964/65: 'The play world of camping : research into the social meaning of outdoor recreation'. *American Journal of Sociology*, v. 70, pp. 604-612.
- BURCH, W. R., 1969, 'The social circles of leisure : competing explanations'. *Journal of Leisure Research*, v. 1, (2), pp. 125-147.
- BURTON, Thomas L., 1971: *Experiments in Recreation Research*. George Allen & Unwin, London.
- CESARIO, F. J., 1969: 'Operations research in outdoor recreation'. *Journal of Leisure Research*, v. 1, (1), pp. 33-51.

- CLAWSON, Marion, 1959: *Methods of Measuring the Demand for and Value of Outdoor Recreation*. Reprint no. 10, Resources for the Future Inc., Washington.
- CLAWSON, M., 1960: *The Dynamics of Park Demand : Present and Future Demand for Recreation and Open Space in the Tri-State New York Metropolitan Region and the Nation*. Bull. no. 94, Regional Planning Association, New York.
- COLENUTT, R. J., 1969: 'Modelling travel patterns of day visitors to the countryside'. *Area* (Inst. of British Geographers), no. 2, pp. 43-47.
- COMMITTEE ON ENVIRONMENT, 1972: *The Environment in South Australia*. Govt. Printer, Adelaide.
- COSTIN, A. B., & FRITH, H. J. (eds.), 1971: *Conservation*. Penguin Books, Melbourne.
- DEPARTMENT OF ADULT EDUCATION (ed.), 1965: *Wildlife Conservation School, April 1965 - Proceedings*. Univ. of Adelaide.
- DOWNES, R. G., 1972: *Classification of Landscape for Management*. A.C.F. Occasional Publicn. no. 8.
- FISHER, James, 1970: 'Conservation in Britain'. *Journal of the Town Planning Institute*, v. 56, (3), pp. 87-91.
- FRANKENBERG, Judith, 1971: *Nature Conservation in Victoria - A Survey*. Victorian National Parks Assoc., Sydney.
- FRITH, H. J., 1972: *Management for Wildlife Conservation*. A.C.F. Occasional Paper no. 8.
- GRIEG, P. J., 1971: 'Data capture for park planning'. *Australian Parks*, May, pp. 18-20.
- HART, W. J., 1966: *A Systems Approach to Park Planning*. I.U.C.N., Morges, Switzerland.
- HOUSE OF REPRESENTATIVES SELECT COMMITTEE, 1972: *Wildlife Conservation*. Aust. Govt. Publishing Service, Canberra.
- HUTCHINGS, Alan W. J., 1969: *Planning for Conservation. Recreational Land Use in the Natural Environment*. Unpub. thesis for Dip in Town Planning, School of Architecture and Building, South Australian Institute of Technology.
- INTERNATIONAL FEDERATION OF PARK AND RECREATION ADMINISTRATION, 1970: *Proceedings of the Sixth International and First Australian Regional International Congress of Park Administration*. Canberra.
- INTERNATIONAL UNION CONSERVATION OF NATURE, 1967: *Towards a New Relationship of Man and Nature in Temperate Lands. I. Ecological impact of recreation and tourism upon temperate environments*. Morges, Switzerland.

- INTERNATIONAL UNION CONSERVATION OF NATURE, 1967: *Towards a New Relationship of Man and Nature in Temperate Lands. II. Town and country planning problems*. Morges, Switzerland.
- INTERNATIONAL UNION CONSERVATION OF NATURE, 1967: *Towards a New Relationship of Man and Nature in Temperate Lands. III. Changes due to introduced species*. Morges, Switzerland.
- JARRETT, H. (ed.), 1958: *Perspectives on conservation*. The Johns Hopkins Press for Resources for the Future, Baltimore.
- LODER, Bruce, 1971: 'Landscape design in National Parks'. pp. 48-57 in AUSTRALIAN INSTITUTE OF LANDSCAPE ARCHITECTS (ed.), *Landscape Architecture in Conservation*. Griffin Press, Adelaide.
- LOWENTHAL, David, 1970: 'Recreation habits and values : implications for landscape quality'. pp. 103-117 in DANSEREAU, P. (ed.), *Challenge for Survival, Land, Air and Water for Man in Megalopolis*. Columbia U.P., New York.
- LUCAS, Robert C., & OLTMAN, J. L., 1971: 'Survey sampling wilderness visitors'. *Journal of Leisure Research*, v. 3, (1), pp. 28-43.
- McMICHAEL, D. F., 1970: 'The future of wildlife in Australia'. *Australian Natural History*, v. 16, (10), pp. 321-325.
- MERCER, D. C., 1970: 'Outdoor recreation and the mountains of mainland southeastern Australia'. *Geography*, v. 55, (1), pp. 78-80.
- MERCER, D. C., 1970: 'Urban recreational hinterlands : a review and example'. *The Professional Geographer*, v. XXII, (2), pp. 74-78.
- MERCER, David, 1971: 'Discretionary travel behaviour and the urban mental map'. *Australian Geographical Studies*, v. IX, (2), pp. 133-143.
- MOSLEY, J. G., 1966: 'Functional classification of national park systems : some overseas examples'. pp. 3-15 in CAVENOR, S., & WHITELOCK D. (eds.), *Practical Problems of National Parks*. Proc. of Seminar held at Univ. of New England, February 1966.
- MOSLEY, J. G., 1966: Functional Classification - A Method of Improving National Park Effectiveness, and the Pioneer Zoning Plan for the Kosciusko State Park. Based on talks given in Newcastle to A.G.M.'s of Northern Parks and Playground Movement 8/9/65, and Hunter-Manning Branch of the National Parks Association of N.S.W. 23/9/65.
- MOSLEY, J. G., 1968: 'Trends in the planning of Australia's national parks and reserves'. *The Australian Journal of Science*, v. 30, (8), pp. 281-284.
- MOSLEY, J. G., 1969: 'Conserving the southwest Tasmania wilderness'. *Australian Natural History*, v. 16, (5), pp. 145-150.

- MOSLEY, J. G., 1970: 'National parks of Australia'. *Australian Parks*, October, pp. 31-37.
- MOSLEY, J. G., 1970: 'The challenge of wilderness'. *Architecture in Australia*, August, pp. 567-578.
- NASH, R., 1968: *The American Environment : Readings in the History of Conservation*. Addison-Wesley Pub. Co., Massachusetts.
- NATURE CONSERVATION SOCIETY OF SOUTH AUSTRALIA, 1967: The Hundred of Blesing. A Survey of its Natural Values. Mimeog. report, Adelaide.
- NATURE CONSERVATION SOCIETY OF SOUTH AUSTRALIA, 1969: Hambidge, Hincks, and Blesing. An Assessment of Three Areas on Eyre Peninsula. Mimeog. report, Adelaide.
- OUTDOOR RECREATION RESOURCES REVIEW COMMISSION, 1962: *Wilderness and Recreation - A Report on Resources, Values, and Problems*. O.R.R.R.C. Study report no. 3, prep. by The Wildland Research Centre, Univ. of California.
- PATMORE, J. Allan, 1972: *Land and Leisure*. Penguin Books, Melbourne.
- PERRY, N. H., 1970: *Recreation Planning and Countryside Conservation : A Biographical Introduction to the German-Language Literature*. Univ. College, London, Occasional paper no. 4.
- RAPOPORT, Amos (ed.), 1972: *Australia as Human Setting*. Angus & Robertson, Melbourne.
- RECHER, Harry F., 1971: 'Do we need more national parks?'. *Search*, v. 2, (1), pp. 22-26.
- SMITH, Robert J., 1971: 'The evaluation of recreation benefits : the Clawson method in practice'. *Urban Studies*, v. 8, (2), pp. 89-102.
- STAMP, L. D., 1969: *Nature Conservation in Britain*. Collins New Naturalist Series, XIV.
- ULLMAN, E. L., 1967: 'Geographical prediction and theory : the measure of recreation benefits in the Meramec Basin'. pp. 124-145 in COHEN, S. B. (ed.), *Problems and Trends in American Geography*. Basic Books Inc., New York.
- WIPPLER, Reinhard, 1970: 'Leisure behaviour : a multivariate approach'. *Sociologica Neerlandica*, v. VI, (1), pp. 51-65.
- WRIGHT, J., 1970: *Conservation as an Emerging Concept*. A.C.F. Occasional Publicn. no. 2.