

SOME THOUGHTS ON MAN AND THE MAMMALS IN THE CENTRAL PLATEAU

by Eric R. Guiler

Department of Zoology, University of Tasmania

INTRODUCTION

The Central Plateau area represents a region of considerable richness in mammals, all of our native and introduced species being recorded from various places, often in considerable numbers. The richness of the fauna has attracted people to the area since the earliest days of settlement and one of the features of the Plateau has been the development of family enclaves which have persisted in some places to the present day. Initially, the Plateau provided sanctuary for bush rangers, escaped convicts and others who wished to avoid too much contact with the law, and they were able to live, raise families and survive in a rigorous environment using the wildlife as a source of food and income. With greater accessibility the Plateau became noted for the wealth of wildlife available for hunting, either for food, pelts or recreation, and snaring became a profitable occupation for the shepherds who had moved into the area to mind the large flocks of sheep which were pastured there, particularly on summer agistment.

A number of species have been or still are utilised for one or more purposes (Table 7). In addition to these a further three species are or were hunted as pests or on account of their nuisance value. These are wombats, *Phascolomys ursinus*, which break fences and dig burrows which are dangerous to horsemen and also are hunted as dog food, although in former times salt pickled wombat meat was used for human consumption; Tasmanian devils, *Sarcophilus harrisi*, were and still are hunted as pests on possum traplines, the carcasses being valueless, and the animals are destroyed on account of the damage they do to the possum pelts; the third species, thylacines or Tasmanian tigers, *Thylacinus cynocephalus*, were hunted extensively as alleged serious pests of the sheep industry, a bounty of £1 being collected from the Government on each head presented.

The list given in Table 7 contains nearly all of

TABLE 7

Wildlife utilization in the Central Plateau, Tasmania.

The platypus was hunted formerly but is now totally protected.

<u>Species</u>	<u>Purpose</u>	<u>Product</u>
Brush possum, <i>Trichosurus vulpecula</i>	Industrial	Pelts
Ringtail possum, <i>Pseudochirus convolutor</i>	"	"
Wallaby, <i>Wallabia rufogrisea</i>	"	"
	Recreation	Meat
Brush Wallaby, <i>Thylogale billardieri</i>	Industrial	Pelts; Meat
	Recreation	Meat
Rabbit, <i>Oryctolagus cuniculus</i>	Industrial	Pelts; Meat
	Recreation	"
Deer, <i>Dama dama</i>	Recreation	" Heads

the Tasmanian mammals which are exploited for recreational or industrial purposes and serves to emphasise the importance of the Central Plateau both in the past and at the present time. Species which do not appear on the Table may be exploited elsewhere in Tasmania but in no place do they form a significant industry or play a major part in the affairs of the community. For example, the water rat, *Hydromys chrysogaster*, is caught for its pelts but is not an important fur bearing species.

It is not possible to assess the economic importance of the mammals of the Central Plateau during early times as the necessary basic data relating to catch, pelt prices and number of persons engaged are completely lacking and it was not until 1923 that some elementary statistical collections were made. However, prior to that date, there is not any doubt of the importance of the region in general and the importance of its fur bearers in particular. Evidence of the large number of people who worked in the Plateau is found in the number of trappers huts scattered throughout the bush in lonely places.

THE BRUSH POSSUM

Perhaps no animal has had greater industrial impact on man in the Plateau than the brush possum, *Trich-*

osurus vulpecula. This species is widespread through the region and is exploited solely for its pelt. A number of colour phases occur in the area, the most common being grey, followed by black and then rufous. The other colour phases, silver, cream and albino are all comparatively rare. The distribution of the colour phases is of some economic importance since the blacks command higher prices.

Guiler (1953) and Guiler and Banks (1958) examined the detailed distribution of these two colour phases of the possum and found that the Central Plateau largely supported the grey phase. The percentage of greys found at randomly selected places in the region is: Strickland 85%; Cressy 81%; Great Lake 91%; King William Saddle 71%; Interlaken 90%; Butler's Gorge 84%; Steppes 93%; Tarraleah 92%. This finding of high percentages of grey phase animals was somewhat surprising in view of Gloger's Law which points out that the darker colour phase of any species is to be encountered in the wetter, more humid parts of its geographic range. However, detailed examination of the vegetation of the Highlands shows that the forests are comparatively open in nature, with silver tussock plains, often of considerable extent, and although humid, steep gullies with dense forest are to be found, these do not form the major part of the habitat. Consequently the necessary conditions for the dominance of the black phase do not occur. It is significant that King William Saddle, bordering on the dense forests of the Surprise Valley has a much lower percentage of greys than the Plateau as a whole, while Queenstown and Waratah have only 15% and 9% greys respectively.

The distribution of the colour phases was based on the data provided by the royalty returns furnished to the Police during the 1949 and 1952 open seasons. Re-examination of these returns showed that 40% of a total of 59,624 skins which could be assigned to a geographical area came from the Central Plateau. A further 92,548 skins could not be assigned to any definite place of capture but it is reasonable to assume that 40% of these also came from the Highlands, giving an approximate total of 61,200 skins from that area in two years.

The total number of possum skins taken in Tasmania during the period 1923-55 is 1,105,593, with a total to 1970 of 1,586,306, of which 40%, some 634,500, were caught in the Central Plateau. The value of this

industry has been considerable, particularly during periods of economic depression. The best quality skins are winter pelts from the Plateau and these always command the highest prices. During the 1960's such pelts were fetching 22 shillings each. The return in cash to shepherds varies with the effort and success of the individual, but figures of 200 were commonly made by men working on the part-time snaring of possum. There used to be a number of snarers who penetrated into the depths of the Plateau to snare throughout the open season but these men no longer are to be found as there is insufficient reward in this activity nowadays.

THE RINGTAIL POSSUM

This possum, *Pseudochirus convolutor*, is smaller than the Brush Possum and was once the mainstay of the trapping industry in Tasmania. Between the years 1923 and 1952 no fewer than 8,110,410 skins were submitted for royalty. A disease swept through the Ringtail possum population in 1952-3 and the numbers were reduced to such an extent that it was very difficult to find an animal. The species recovered slowly and is now common throughout much of its former range. There has been no open season since 1952.

The ringtail possum is the only species of our native mammals which is known to exhibit such violent population cycles. Other species, such as the Tasmanian devil, have fluctuated slowly in numbers over the years but not with the dramatic suddenness of *Pseudochirus*. The deaths are so dramatic that bush workers speak of ring-tails dropping dead from trees during the periods of calamity. Post-mortem examination of a specimen showed the cause of death to be pleuro-pneumonia.

The remarks made about the impact of the brush possum upon man in the Plateau apply with equal force to this species which furnished the major part of a winter's snaring activity.

WALLABY AND SCRUB WALLABY

Some confusion exists in the popular names of these two species. The larger of the two, Bennett's wallaby, *Wallabia rufogrisea*, is commonly referred to as

the kangaroo and as such is generally known throughout Tasmania. However, the animal is not a kangaroo and this appellation confuses it with the forester kangaroo which is a totally protected species. The smaller scrub wallaby, rufous wallaby or pademelon, *Thylogale billardieri*, is often known simply as wallaby, which engenders confusion with the larger species.

An estimated total of 1,802,600 *Wallabia* were presented for royalty between 1923 and 1969, and 2,139,700 *Thylogale* royalties were paid during the same period. However, these figures take no account of the numbers shot for meat and dog food and it is likely that at least the same number have been killed for these purposes during the same period.

Both these species are widespread throughout the Plateau and in some places may be abundant but they are not as numerous as in other parts of the State, notably the North-East and the North-West. There is no method of obtaining estimates of the number taken in the Plateau area.

These two macropods have had considerable, although unassessable, affect upon the human communities, particularly in the supply of meat for human as well as canine consumption.

THE RABBIT

The rabbit, *Oryctolagus cuniculus*, is the most destructive and abundant of all the mammal introductions from overseas and is widespread throughout the Central Plateau. Although much blamed for habitat alteration and consequent deprivation for many native species, nevertheless the rabbit has brought its own economic benefit, especially as a winter occupation when rabbits joined the possums and the macropods in the snarers activities. Many of the shepherds maintained large numbers of rabbit traps, and children used to process their own catches before catching the school bus. In addition, large packs of dogs were used in rabbit hunting and the lure of the country was enhanced by the excitement of the hunt.

As with so many of these small industries, it is not possible to assess the value of the industry or

the number of animals caught per annum. In addition, the hunting and trapping was rather disorganised, with many part-time and weekend participants rendering data collection very difficult if not impossible.

DEER

This introduced species is widespread in its distribution throughout much of the eastern part of the Plateau extending from the foot of the Western Tiers to the Steppes and Arthur's Lake, and from Bothwell to the Tiers near Poatina. However, large concentrations of deer occur around Interlaken and The Den.

Deer are utilised solely for sport shooting and add little of value to the country residents.

SPECIES OF NUISANCE VALUE

The Tasmanian devil, *Sarcophilus harrisi*, and the wombat, *Phascolomys ursinus*, are both actively hunted in the Plateau largely on account of their nuisance value. Both species are present in some numbers, especially the devil, and no fears are felt for their future.

The Tasmanian devil at present is found throughout the Central Plateau in large numbers, locally reaching pest proportions and is blamed for killing sheep, fowl and other stock. However, experiments carried out in the laboratory on the killing habits of the devils reveal that they are extremely inefficient at killing and it is unlikely that they would kill a free running and healthy sheep. Examination of the droppings and stomach contents frequently shows quantities of wool and there is no doubt that a devil will eat a dead sheep or even kill a cast or sick animal or a weak lamb.

The Tasmanian devil undergoes population cycles but these are not as dramatic as the ringtail possum. The number of devils in the Plateau dropped to a low level about 1908-10 and they were scarce for many years until the 1950-60 period when they returned in numbers and have increased steadily since then to their present (1973) very large numbers.

The Tasmanian devil has had only a negative in-

fluence on man in the Plateau, raiding poultry yards, killing and eating rabbits and possum in snares and eating sheep. One indirect positive contribution to the economy of the Plateau has been made by the devils in that they have eaten carcasses of dead animals and thus kept the bush clean with a consequent diminution of the disease and blowfly risks in the area.

Most of our wildlife has suffered from the appearance of white man, but the Tasmanian devil may well have benefitted from man's activities since an abundance of offal has been supplied in the form of sheep, cattle and rabbits, all of which provide sustenance for devils. In addition, man brought pasture pests, provided garbage dumps and general litter, all of which are a source of much food and entertainment to a scavenging animal.

Another negative contributor to the economy of the Highlands is, or perhaps was, the thylacine or Tasmanian tiger. None of our animals has captured the imagination quite as much as this species, and nowhere else in the State was there such a rich folk-lore about thylacines as in the Central Plateau. No other animal has collected so many legends as the thylacine.

There is no possible doubt that the Highlands once supported large numbers of thylacines, though it must be remembered that large numbers is a relative term. As the apex species of a pyramid of numbers this animal was never numerous. Unhappily, we have no density counts upon which to base population estimates, and all we can do is to derive such information from such sources as are available to us. The only data available are those in the Lands Department files recording the payment of a bounty of £1 for adult and 10/- for juvenile thylacines. This scheme commenced in 1888 and lapsed in 1910 for want of claimants. These years provide the only detailed distributional evidence that we have for thylacines. Prior to 1888 a number of local Thylacine Protection Associations were formed and paid bounties on dead thylacines, but their records, if any, are now lost.

Details of the distribution of the thylacine were described by Guiler (1961) where it was shown that the Central Plateau was the area from which most animals were claimed for bounty. A total of 2184 thylacines were

presented for bounty, of which at least 682 could be assumed to have originated in the central massif or the area immediately around it. Of this number of animals no less than 233 were captured in the Dee Bridge-Bronte-Derwent Bridge area. In addition to this, a further 55 thylacines, presented by Ouse and Bothwell residents, probably were caught in the Plateau. Table 8 shows the profound influence that certain families and certain individuals had upon thylacine numbers in the Highlands area. These families spent considerable periods of time in hunting thylacines and were experienced in the ways of these animals. Unfortunately, they are all now deceased but their stories persist in the surviving generations. Since these families constituted most, if not all, of the population of the area in those times, the influence of the thylacine on the activities of the area must have been considerable. The cash return was not great but a dead thylacine was worth more than £1 as most local landowners paid the captor an additional reward for his efforts.

TABLE 8

Thylacine captures by families in the
Dee Bridge-Bronte-Derwent Bridge areas,
1888-1910

Area	No. of thylacines	Family or individuals	No. of thylacines
Bronte	55	Jenkins family	53
		W. Jenkins	29
Gowan Brae	5	Cairns family	5
Dee Bridge	95	Temple family	30
		D. Temple	25
		Stannard family	21
		A. Stannard	10
		Ellis family	14
Derwent Bridge	78	Stock family	12
		Pearce family	73
		J. Pearce	49
		D. Pearce	16
		I. McConnell	5

There are many species of our native mammals which have not been mentioned in this brief account, such as the delightful native cat, the potoroo, the bandicoots, sugar glider and so on. These have had no economic or social impact on man in this area beyond perhaps giving pleasure to some lonely trapper around his camp fire, or to hiking parties. Nevertheless, these allegedly "useless" species, in common with the economically valuable animals as well as the destructive species, perform a vital part in the ecosystem of the Central Plateau.

REFERENCES

- Guiler, E.R., 1953: Distribution of the Brush Possum in Tasmania. *Nature*, 172, 4389, 1091-2.
- , 1961: The former distribution and decline of the thylacine. *Aust. J. Sci.*, 23, 207-10.
- Guiler, E.R. and Banks, D.M., 1958: A further examination of the distribution of the Brush Possum (*Trichosurus vulpecula*) in Tasmania. *Ecol.*, 39, 89-97.

PLATE 8



(a) Serious sheet erosion with rapid attrition of original land surface by undercutting and slumping; St. Patricks Plains; alt. 870 m.



(b) Advanced stage of processes shown in (a), same locality.