

# Research Note

## Ecotourism on Lancelin Island, Western Australia

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Concern for the conservation of flora and fauna in natural areas and the potential impacts of human activity, recreation and tourism has become a high priority. Combining appropriate ecotourism activity with conservation guidelines is the main focus of this concern. These issues are of great importance to the crayfishing community of Lancelin, who are concerned about the future of their small offshore island (Lancelin Island). The purpose of this study was to investigate patterns of recreational usage on Lancelin Island and assess the acceptance of a newly constructed hardwood boardwalk and viewing platform designed to minimise the disruption of flora and fauna caused by visitors. The study would also determine whether an additional walkway would be appropriate. Research using the survey interview method was conducted over four separate visits to the island. Results showed that Lancelin Island is a popular ecotourism and recreational destination for local residents and their visiting families and friends. Respondents viewed the island as a place for recreation and also as a place for the protection of flora and fauna. Although the existing walkway is popular, current visitor numbers indicate that there is no immediate need for this structure to be extended.

### Introduction

Coastal Nature Reserves have been established around the Australian continent both to protect the environment and maintain natural conservation values. They have also become popular destinations for ecotourism, leisure and recreational activities, with increasing visitor numbers placing additional pressures on these fragile environments. This paper will investigate visitor usage of Lancelin Island Reserve in Western Australia with particular focus on the utilisation and acceptance of a newly constructed boardwalk across the island.

Lancelin Island, an A Class Nature Reserve, is located approximately one hundred kilometres north of Perth, Western Australia. Covering an area of 8.2 hectares, it is highly visible from the small mainland cray fishing community of Lancelin. Situated just 600 metres from the mainland, it is easily accessible by numerous types of watercraft for a variety of leisure and recreational purposes including water sports, fishing, boating, swimming, diving and picnicking. At present Lancelin Island is managed by the Department of Conservation and Land Management (CALM) for the conservation of flora and fauna, with an active community group known as the Friends of Lancelin Island (FLI) also committed to the conservation and protection of the island.

In response to increased leisure activities and visitor numbers on the island, a raised timber walkway was constructed in 1998 to minimise environmental degradation and the disruption of flora and fauna. This project was supported by a \$49,944 grant from Coastcare/Coastwest in addition to \$50,000 financial and

in-kind support from CALM. In-kind support was also contributed by the Friends of Lancelin Island in the form of biological research and consultation. Construction was undertaken by the Friends of Lancelin Island with the assistance of CALM and local volunteers as part of a campaign to repair the environmental damage on the island including damaged seabird habitat and disturbed nesting sites and to assist with the island's ongoing management and protection (Coastcare, 2000). The outcomes of this research will complement existing management guidelines.

## Conservation and Leisure Management Issues

At present, CALM has identified several species at risk from continued uncontrolled visitor behaviour; for example, the only known population of the Lancelin Island skink (*Ctenotus lancelini*), a species listed as threatened, several species of birds including terns, gulls, noddies and ospreys, and sea lions (CALM, 1998). A Lancelin Island Skink Recovery Plan is currently under consideration by CALM as an attempt to increase the island's skink population. This relocation is a joint operation between CALM and the Perth Zoological Gardens.

Due to the island being a popular leisure and recreational destination for Lancelin residents and their families and friends, CALM has reported some damaging effects of human activity, including the risks associated with uncontrolled public use around bird nesting burrows (CALM, 1998). Some bird species are vulnerable to any sort of human activity as disturbances in their pre-laying, settlement and incubation stages can lead to colony abandonment (CALM, 1998; Dunlop, 1997).

CALM has identified some key management issues which include the protection of the island's wildlife, habitats and landforms, the promotion of appropriate and safe recreational areas, the promotion of visitor awareness, appreciation and understanding of the natural ecosystem and the monitoring and control of human visitation (1998: 3). Other key management issues concern fire management, domestic pets and accessibility (beach moorage and pathways).

Following two years of consultation, the Friends of Lancelin Island, Fisheries WA and CALM have been successful in their attempt for the island to be declared a fish habitat protection area. This includes a total ban on the removal of marine species and fishing at the Lancelin Island Lagoon (Heinzman, 2001). The management of this protected area will allow for the protection of 13 types of hard coral and fish stocks to be replenished, allowing those seeking snorkelling and diving adventures an improved marine leisure experience.

At present, little educational or interpretative information is available to prospective island visitors. The dearth of information available for actual and potential visitors limits their awareness of conservation issues on the island and their ability to ensure their leisure activities are not compromising the sustainability of visitation to Lancelin Island. Personal communication with CALM representatives has recognised an immediate need to combine visitor recreation and conservation values by providing educational and interpretative material to visitors, and thereby increasing compliance to a code of minimal impact to the island's nature conservation values.

Responding to an immediate need for signage, CALM officers have placed

interim signs on both the island and the mainland, providing some interpretative material relating to the conservation of the island. These signs have since been vandalised and repaired. According to CALM officers, interpretative signs are a high priority and the drafting of additional material is currently underway. Other community groups have displayed interest in providing additional signs on the mainland relating to historical and heritage issues of the island and surrounds. This activity represents an increasing awareness of local community groups combining conservation issues with recreation (Darbyshire, 2001).

## **Methodology**

This research was initiated by the Friends of Lancelin Island, a local community group committed to protecting the flora and fauna of Lancelin Island, and supported by CALM, the local management authority. Prior to this research, the Friends of Lancelin Island and CALM had identified possible conflicts regarding the public use of the island, concerned with the balance of conservation and leisure and recreational use. Two researchers from Murdoch University were commissioned to undertake a visitor survey to address these concerns.

The overall purpose of the survey was to determine visitor attitudes and their recreational use of the island and to assess the usage and acceptance of the newly constructed walkway. In addition to the survey, personal communication with members of the Friends of Lancelin Island, locals and CALM representatives also contributed to the research process.

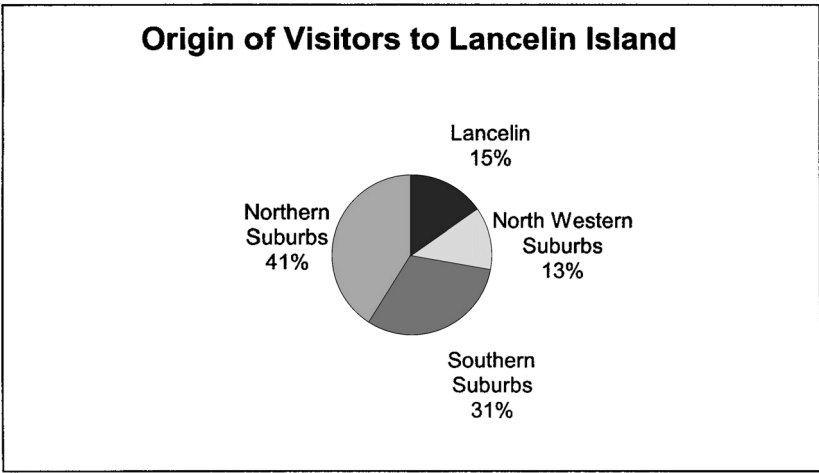
The survey method used was semi-structured and administered by the interviewees on location at Lancelin Island. Each participant was informed of the purpose of the research and then invited to continue. Over four separate visits to the island during two peak summer periods, 39 responses were obtained from 40 visitors approached. Although it was intended that individuals would complete the survey on a one-to-one basis, it was found in the field that group responses were most appropriate. This reflects that most visitors were part of a larger group visiting the island. The average group size consisted of approximately two to three family and friend combinations.

## **Results**

Lancelin Island is a popular recreational destination for a variety of water sports, fishing, boating, picnicking, relaxation and diving/snorkelling. Access is primarily by small powered aluminium dinghies and these craft are mostly moored on the beach. Larger craft prefer to anchor off the beach. Traditionally, New Year's Day is the most heavily populated time on the island by local residents. Other peak times include the summer and Easter holiday periods.

Due to the group survey method, which originated during the course of the study, non-locals (or tourists) tended to answer the questions on behalf of the larger group (Figure 1). Lancelin residents would add comments but usually directed the focus of the survey to their visitors. Perhaps this represents some form of misunderstanding that the researchers were interested in 'tourists' to the island and not 'locals'. This may be a direct result of the researchers' introducing themselves as students of tourism.

Table 1 indicates the rate of visitation to Lancelin Island. These results show



**Figure 1** Origin of visitors to Lancelin Island

**Table 1** Rate of visitation to Lancelin Island

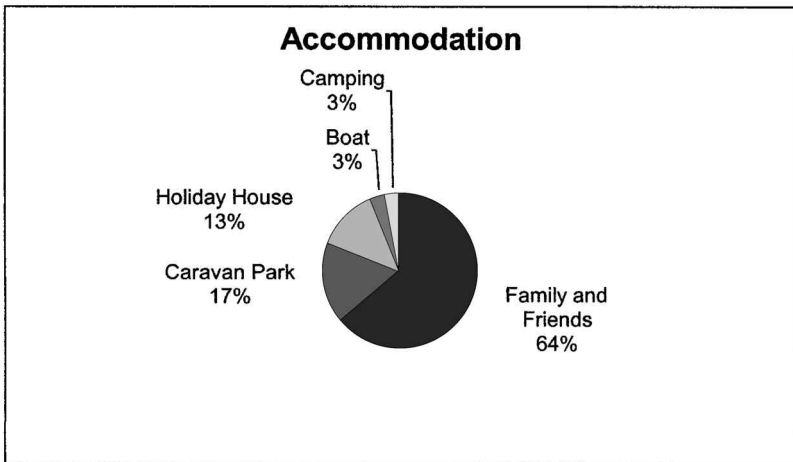
<i>Rate of Visitation</i>	<i>Percentage</i>
First visit	23%
Visited once before	8%
2-3 times	25%
More than 4 times	38%

that the island has a high rate of return visitation. In addition, 97% of respondents were visiting the island with family and friends who were local to the Lancelin area. These factors may assist in the development of a sense of affinity with the island, which would perhaps make these visitors more responsive to management strategies designed to protect the fragile island ecosystem.

The mean age of the respondents was 40. It was also noted in the field that there were a significant number of children visiting the island, at times equal to the adult visitor population. Gender was generally mixed and roughly equal in number with the exception of a large snorkelling party who arrived on one occasion with all male members. Approximately 51% of respondents had completed high school with the remainder possessing post-secondary qualifications. Again, this relatively high level of education amongst visitors could indicate the potential for more awareness and acceptance of conservation issues on the island.

Almost 80% of the respondents were not local to the Lancelin area, with 93% of these respondents visiting Lancelin and Lancelin Island as part of a holiday; 63% of the respondents were staying in Lancelin with family and friends, the remainder staying in a range of community facilities including caravan parks and camping grounds (Figure 2).

The average length of stay in Lancelin of visitors surveyed was one to three days. This result could be due to the survey being administered over a weekend



**Figure 2** Accommodation types utilised by Lancelin Island visitors

period on three occasions; 82% of respondents had stayed overnight in Lancelin before their visit to the island. This would indicate that perhaps visitors would have had time to obtain interpretative information. However, as previously recognised by CALM, 87% of visitors did not seek interpretative or general information before going to the island, and such general information that was sought was generated from family and friends who had knowledge of the area. The majority of people knew about the walkway before going to the island, mostly from visiting before or from word of mouth.

In terms of the walkway usage, 90% of respondents had used the walkway with the remainder intending to use the walkway at some time during their visit. All respondents cited a positive experience for using the walkway. The following quotations represent these views:

The walkway is a great way to link both sides of the island and it makes it easier to walk across ... and it stops people walking through the bush.

Because of the walkway I get to see more of the island without disturbing the birds.

The walkway has made a great improvement to the island.

Due to the popularity of the walkway, 59% of respondents would like the walkway to be extended to the southern end of the island. The reasons for this generally concern the further protection of the wildlife and to obtain an improved view of the island. Others believe that the existing walkway is enough and the addition of another would be '... too much ...', and 'would impact too much on the environment', and 'place too much pressure on the birds living at that end of the island'.

Whilst a significant number of people welcomed the idea of extending the walkway, most disagreed with the concept of commercial tours operating on the island. When asked how they would feel about commercial tours operating to the island only 18% agreed. Of most concern is the potential increase of visitors

and therefore an increased chance of damage to the environment. Those who agreed with the concept suggested that everyone should have the opportunity to see the island and its wildlife.

In addition to the island being a place for leisure and recreation, a majority of respondents viewed the island as a place to protect nature and animals. Other important 'island meanings' included a place to be with family and friends and a place to rest. In terms of the perceived comfort zone on the island, most respondents were content with the number of people on the island, and on each occasion a select few stated they felt too crowded and would prefer isolation.

## Conclusion

This report emphasises the importance of maintaining a balance between tourism, leisure, recreation and conservation to ensure the sustainability of this natural island habitat, as the island is an important 'meeting place' for Lancelin residents and their families and friends. In summary, this research suggests the following:

- Given the present visitor numbers, there is no immediate need for further site hardening in the form of a walkway extension.
- It is recommended that issues of signage and signage interpretation be addressed.
- That visitors to the island are assisted in their increased awareness of the importance of conservation in accordance with ecotourism guidelines.
- An additional system of monitoring patterns of visitation and recreational use is implemented.

The researchers observed that a visit to the island by CALM personnel contributed to a high level of environmental awareness during peak times, suggesting that more of this type of management-based presence on the island may assist in maintaining and enforcing appropriate behaviour on the island. For example, despite there being no restrictions to jet skis in the area, ramping these craft on the beach has the potential to cause erosion and also poses a safety issue relating to other island visitors and wildlife.

Providing public education and interpretative information will contribute to increasing the awareness and appreciation of the natural environment of Lancelin Island. Further research and monitoring will also provide additional information necessary for the successful management of the island and its visitors.

## Acknowledgements

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## References

- Coastcare (2000) *S.O.S. Save Our Shorebirds, Save Our Seabirds: Seabird Protection on Lancelin Island*.  
<http://www.environment.gov.au/marine/coastcare/week2000/casestudies/wa.htm>
- Darbyshire, A. (2000–2001) CALM Officer – Personal Communication.
- Department of Conservation and Land Management (1998) *Lancelin and Edwards Island Nature Reserve Interim Guidelines for Management*. Moora District.
- Dunlop, N. (1997) Wildlife management on Lancelin Island. Coping with increasing recreational pressures. Unpublished.
- Dunlop, N. (1997) *Surface Nesting Seabirds on Lancelin Island – Notes on Spatial Constraints to Recreational Use*.
- Dunlop, N. (2000–2001) Friends of Lancelin Island member – Personal Communication.
- Heinzman, S. (2001) 'Look – but no more fishing'. *The West Australian*, March 29.
- Jones, B. (1996) *Lancelin Island Skink Ctenotus lancelini*. Report Prepared for the Department of Conservation and Land Management.