



Tourism and Sea-lion Interaction at Carnac Island Nature Reserve

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Background

- Carnac Island Nature Reserve - purpose of “*conservation of flora and fauna and recreation*”.
- Historical recreational use - pre 1900s
- Significant ‘haul out’ island for male Australian Sea-lions.
- Significant breeding site for seabirds.

Australian Sea-lion

- Page Is (SA) - Houtman Abrolhos (WA)
- 2300 - 5000 individuals (Gales 1992).
- Listed as “in need of special protection” under Wildlife Conservation Act.
- Located on five islands off the Perth metropolitan coast. Four are reserves managed by the Department.
- Breeding - islands between Lancelin and Dongara.

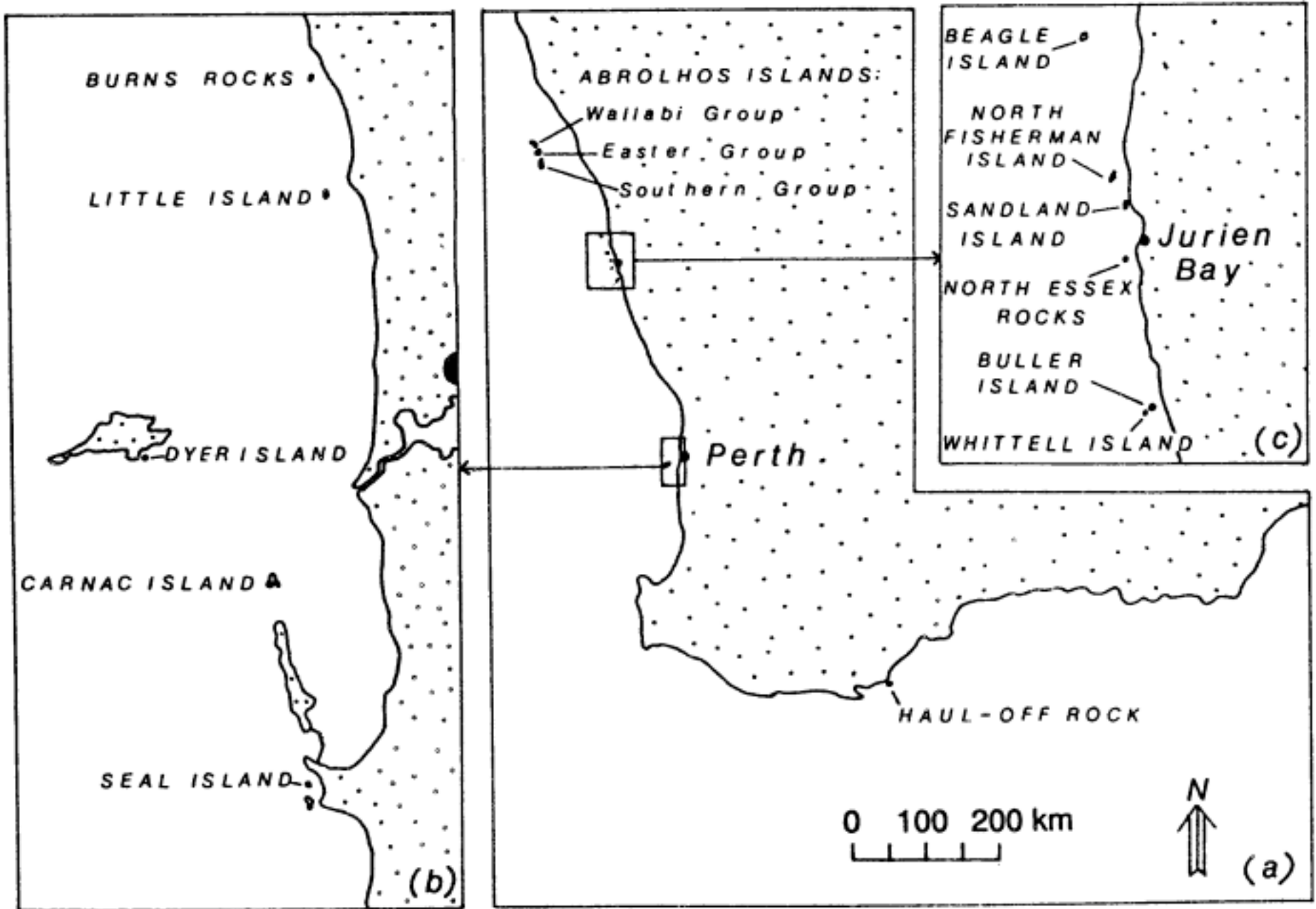


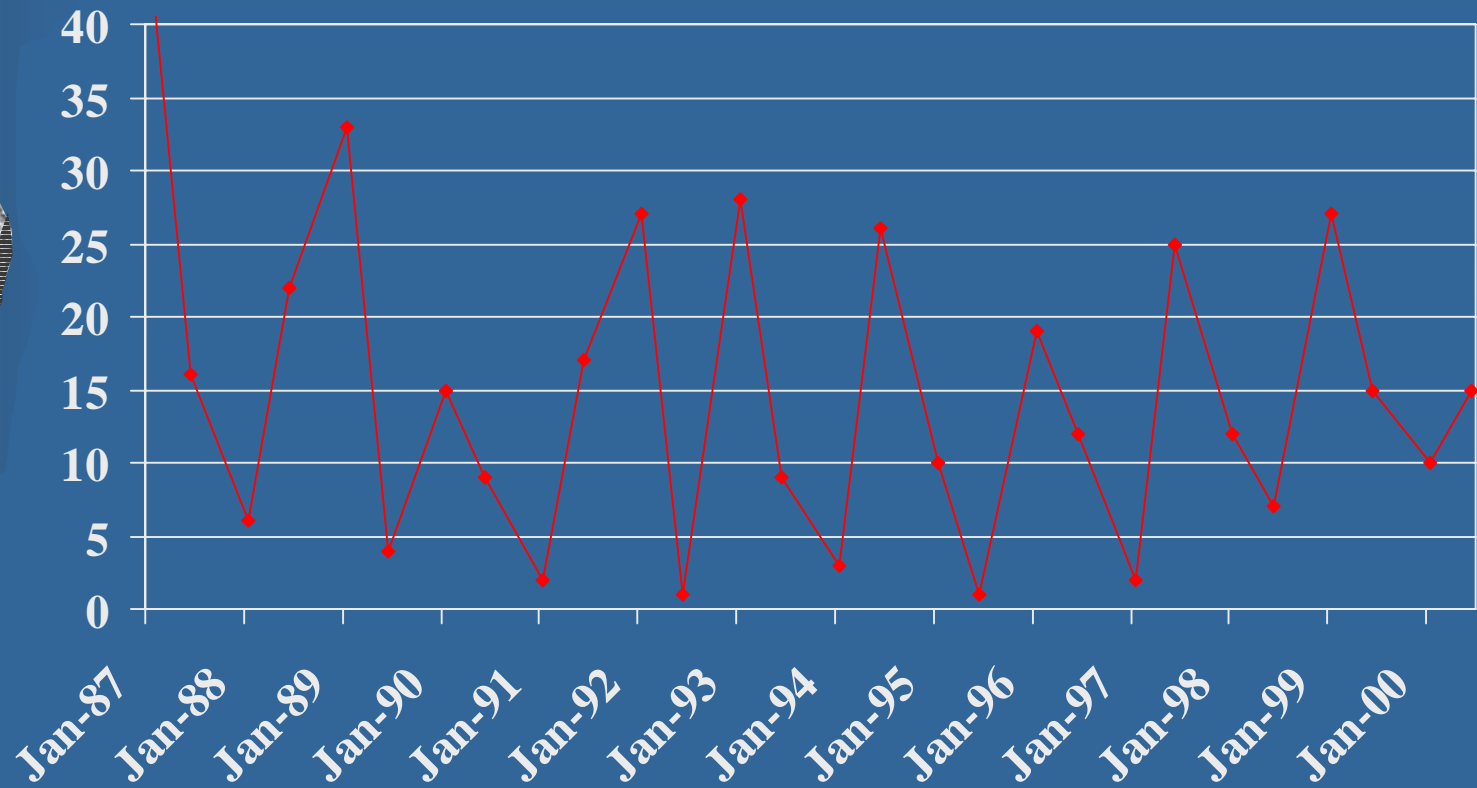
Fig. 1. Distribution of the Australian sea-lion on the west coast of Western Australia.



Australian Sea-lions on Carnac Island

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- Sea-lion population in metropolitan area almost certainly all male.
- Carnac Is. is an important haul-out site.
- Use of metropolitan islands by Sea-lions drops during those summers that coincide with the sea-lion breeding on islands to the north.

Max number of Sea-lions observed on Carnac Island



Regulation

- Marine mammals in all waters/land are protected and managed under the Wildlife Conservation Act
- Commercial activities on reserves is managed under the Conservation and Land Management Act



Wildlife Interaction Regulations

- Interaction with Sea-lions is regulated through a Marine Mammal (Closed Season) Notice under the Wildlife Conservation Act.
 - No swimming within 10 m
 - Move away on approach
 - No feeding
 - Vessel speed <5knots



Carnac Island- Increasing attractiveness to visitors

- Proximity to Fremantle (day trip)
- Increasing boat ownership.
- Relatively well protected (SW breeze).
- Safer and easier destination for families than Rottnest Island, and easier mooring.
- Appeal of the Sea-Lions.



Human usage

- Increasing use of the island by private recreational boaters.
- Rapid growth in commercial operators visiting island.
- Plans for large commercial tours.
- Mounting pressure to limit human access.
- Possible impacts on wildlife.



Activities

- Sea-lion interaction
- Beach walking
- Picnicking
- Snorkelling
- Swimming



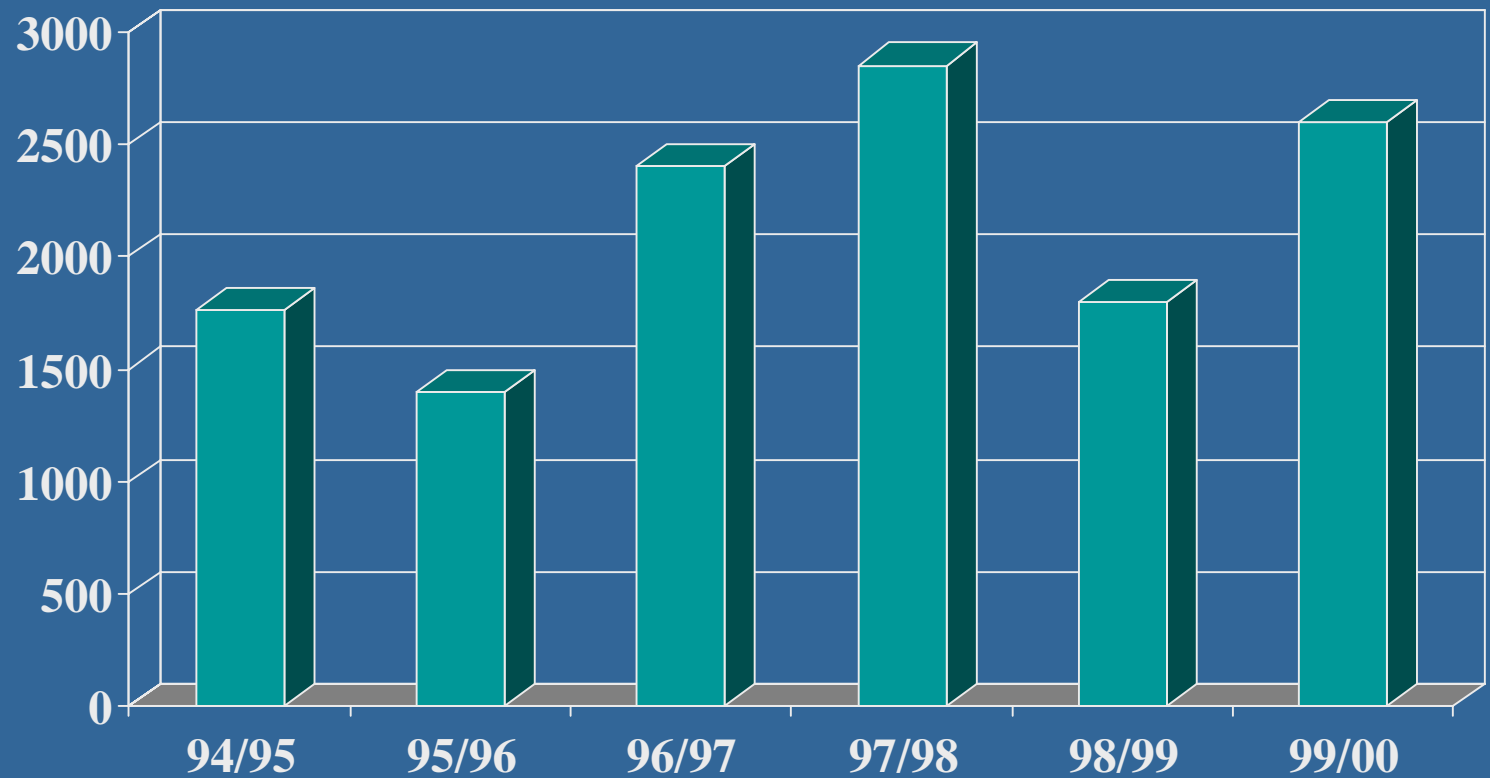
Data

- Ranger staff - Field observations (standard format) since 1984.
- Commercial tour operator log records.
- Sea -lion research since 1984.

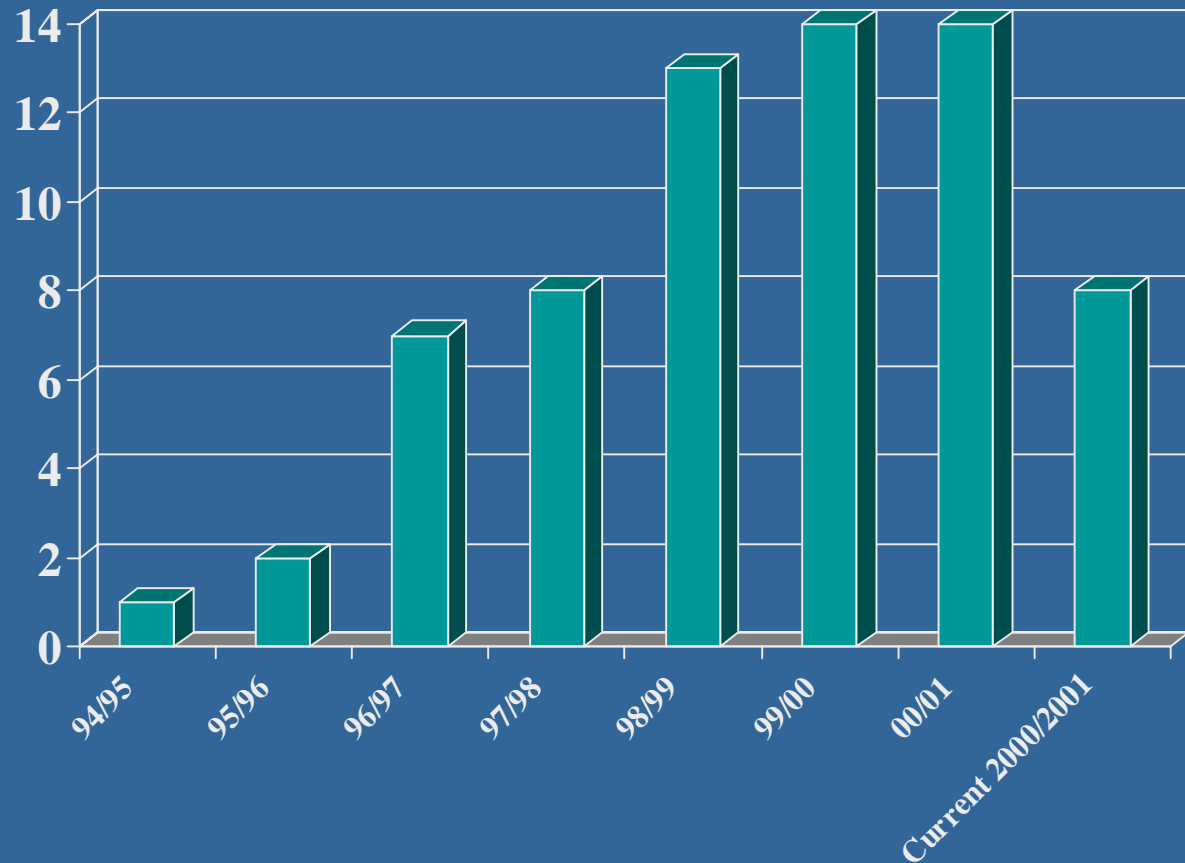
Visitation

- Annual Visitation - estimated 12 000 p.a.
- Half between December and March
- 2000 - commercial visits (summer)
- 3-4000 independent visits(summer), although probably an under-estimate.

Carnac Island (Summer) Private Vessel Numbers 1994 -2000

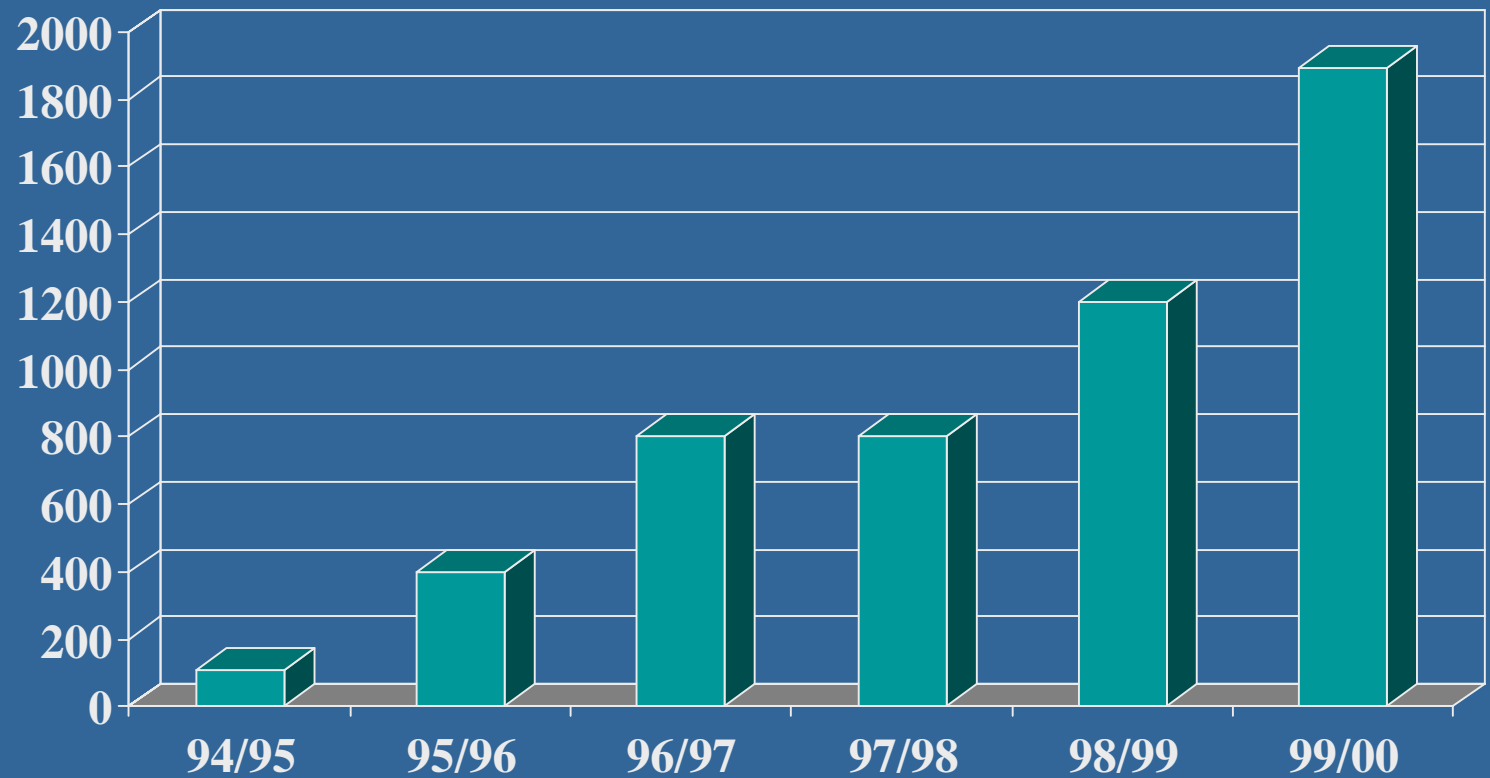


Carnac Island Commercial Operator Numbers 1994 -2001



Carnac Island (Summer)

Commercial Visitor Numbers 1994 -2000





Management Response

- Prepare a draft management plan for the reserve.
- Expand public education initiatives.
- Undertake further research and monitoring of Sea-lion populations.
- Zone the beach to limit visits to day visits only, and prohibit access to northern portion of beach.
- Prohibit non-conforming activities.
- Commence preparation of a Mooring Control Area around the island.

Management Response

- Commercial Operators
 - Refuse renewal to non-active operators (14>8).
 - Limit the group size landing on the island (15).
 - Make NEAP (or similar) accreditation compulsory.
 - Strengthen licence conditions.
 - Prohibit non-conforming activities.

Lessons Learned

- The importance of:-
 - having monitoring programs in place to collect human usage data.
 - undertaking fundamental wildlife research.
 - collecting, storing and using human usage data.
 - having operators contribute to monitoring their own use.
 - The importance of ‘trial programs’ as part of the planning process.