




Trends in Human Usage in Marmion Marine Park



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Seminar Overview

- Issue
- Research aims
- Research undertaken
- Research outputs
- Management outcomes
- Conclusion



Issue

- Rapid increase in recreational usage in Marmion Marine Park.
- Marmion Marine Park Management plan due for review 2002.
- Alternative human usage data collection methods require consideration.
- Existing data requires analysis.

Research aims

1. What are the trends in human usage types and locations in MMP.
 - Describe the types of human usage in MMP.
 - Determine and analyse the trends.
2. What are the most cost-effective methods of gathering relevant human usage data.
 - Effectiveness of current methods.
 - Additional methods of data collection and analysis.
 - Recommendations for further investigation.

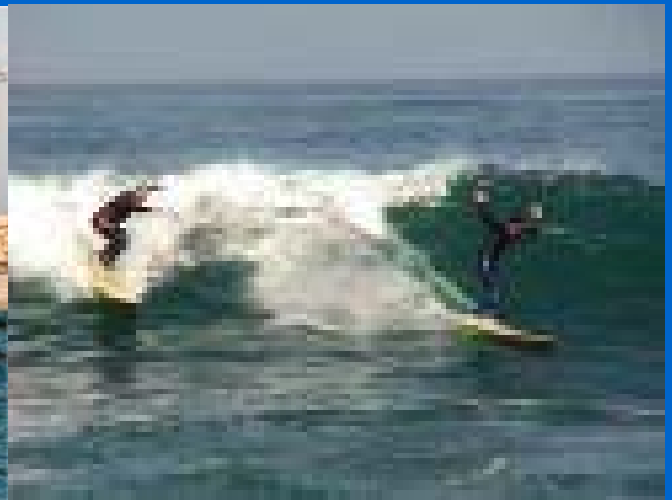
Research undertaken

Three aspects:

- **Literature review** provided a background to the issue and identified alternative methods of gathering human usage data.
- **Primary data** collected during an aerial survey were analysed and its effectiveness as a collection method assessed.
- **Secondary data** collected from a number of sources were analysed to determine any trend pattern and compared with aerial survey data.

Research outputs

1. Types and locations of human usage.
2. Analysis of methods used.
3. Recommendations.



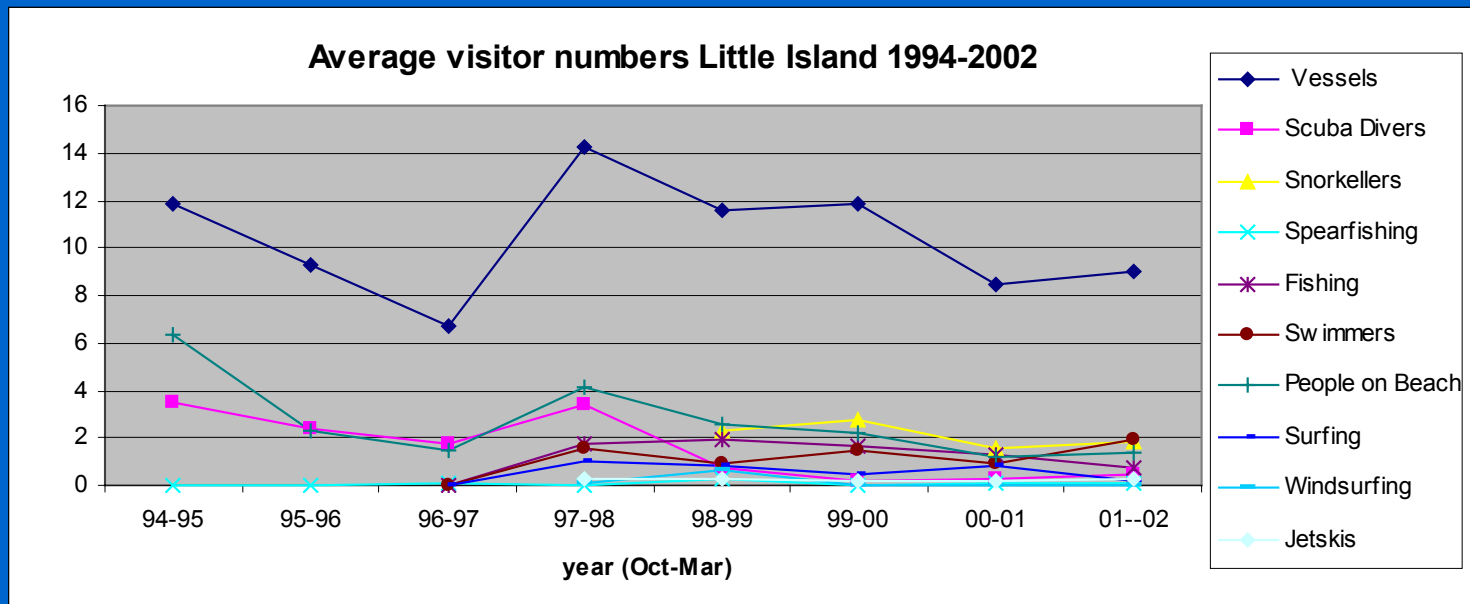
1. Types and locations of human usage

- Boat ramp ticket sales indicated increasing visitation by boats at launch sites.

Year	Launches Hillarys	Launches Ocean Reef	Total
87-88	8,566	4,854	13,420
88-89	9,980	5,633	15,613
89-90	13,000	8,555	21,555
90-91	16,680	13,532	30,212
91-92	16,128	6,935	23,063
97-98	21,000	7,000	28,000
98-99	22,094	7,100	29,194
99-00	23,956	8,216	32,172
00-01	24,000	8,500	32,500

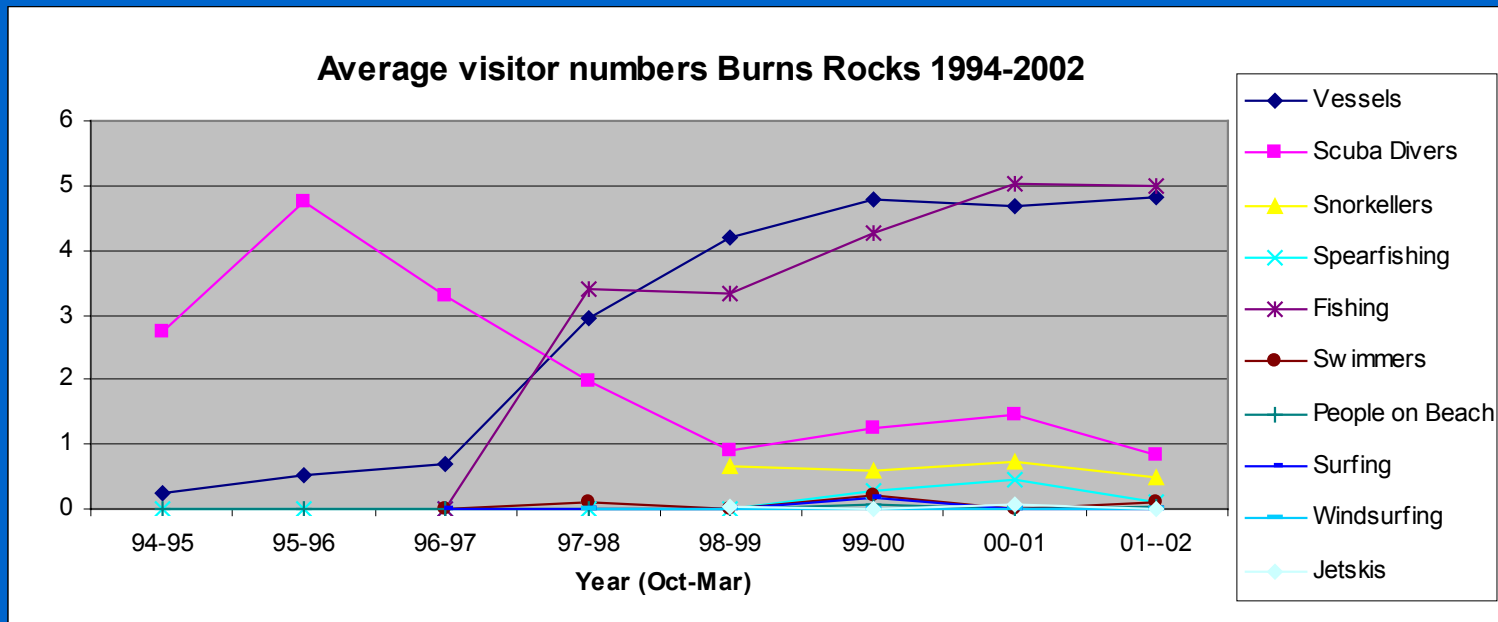
1. Types and locations of human usage.

- However, boat patrol observations generally indicated a flat trend in usage levels, with some sites showing decreasing use.



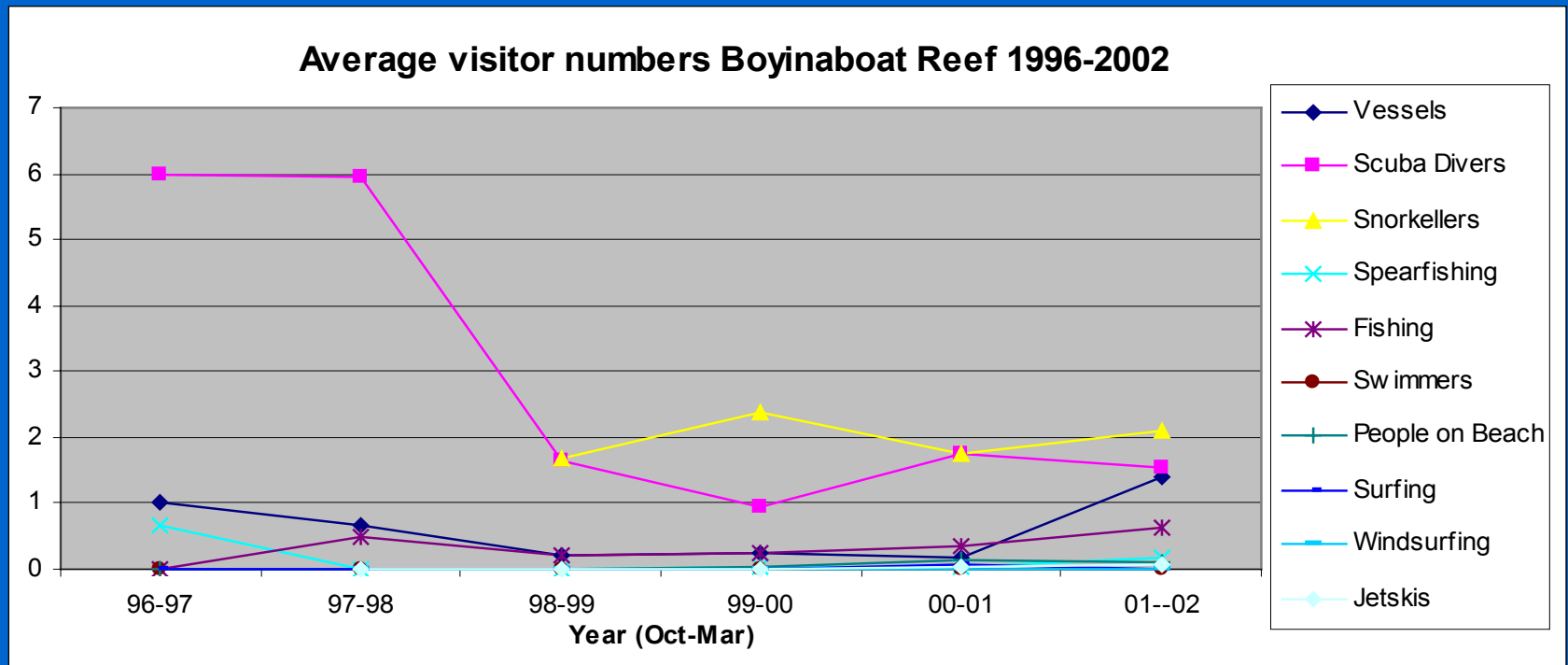
1. Types and locations of human usage

- Boat patrol observation data indicated changing use patterns over time.



1. Types and locations of human usage

- Decline in some types of usage in sanctuary zones.



1. Types and locations of human usage

- Usage at coastal areas was dependant on access, facilities and conditions at each site, i.e. car parking, dog beaches, shops and cafes, or surf breaks.
- Usage at offshore areas was influenced by zoning and weather conditions.
- Highest usage at launch ramps Jan-Apr.
- Recreational fishing one of the highest in WA.

2. Analysis of methods used.

- Aerial survey - Snap shot of whole park.
- Boat patrol observation - Long term trends, cost-effective
- Visitor surveys - Visitor profiles and activities.
- Secondary data - Cost-effective, but limited data.

3. Recommendations

- MMP data collected for VISTAT is often unrepresentative of visitor usage.
- All methods have advantages and disadvantages. Using a combination of methods allows for the most cost-effective method to be used in a given situation.
- Use aerial survey, patrol observations, visitor surveys, secondary data.

Management outcomes.

- Surprise at patrol observation trends and realisation that current patrol format may not provide truly representative observations of visitor usage.
- Aerial survey to be given strong consideration for future.
- Need to identify the where boats are travelling within the park.

Management outcomes (cont)

- Need to complete a harbour wall survey of divers using Boyinaboat Reef - currently underrepresented in boat patrol observations.
- Justification for funding required to complete effective visitor monitoring.
- Provided a clearer understanding of the cost-effectiveness of each method.
- Could assist in developing a visitor monitoring system for use within the new Management plan.

Conclusion

- Benefits to management.
- Further research required.
- Benefits to ME!

