

## **NINGALOO MARINE PARK TOURISM SCOPING PAPER – Jan 2006**

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The Ningaloo Marine Park extends along a section of the north-west coast of Western Australia. The pocket protects a fringing coral reef that is easily accessible from the shore. The natural beauty of the region and the abundance and variety of marine life draws large numbers of Australian and international tourists. This paper provides an overview of tourism in the Ningaloo region and summarises the characteristics of visitors to the Ningaloo Marine Park, including visitor numbers, place of origin, travel motivations and activities, accommodation, and length of stay. It also outlines the relationship between fishing tourism and other visitor characteristics, and discusses the implications of these findings for the management of the Ningaloo region.

This paper is based on primary data from a longitudinal visitor survey of the Ningaloo region conducted between 1997 and 2004. Other tourism data is drawn upon where relevant. The visitor surveys were carried out in: April 1997 (n=188); April 2000 (n=139); April 2001 (n=207); April 2002 (n=136); July 2002 (n=293); February 2003 (n=105) April 2003 (n=373); and October 2004 (n=126). The April surveys were conducted during the Easter school holidays, which also coincide with the arrival of whale sharks in the Ningaloo Marine Park, attracting a significant number of tourists between April and late June. The July survey was carried out during the July school holidays, and the October survey was undertaken at a time when there were large numbers of older tourists visiting Ningaloo. The process of administering the visitor surveys differed between survey periods in relation to the distribution location, sites, method and distributors (see table 1).

Analysis of the longitudinal survey data demonstrates that the market segments which visit during the month of April were different from those who choose to visit during other times of the year. For this reason visitor data collected during April is separated from data collected during February, July, and October.

Table 1: Survey administration

Survey	Distribution location	Distribution sites	Method	Distributor(s)
Apr 1997	Exmouth-Yardie Creek	<ul style="list-style-type: none"> <li>tourism locations</li> </ul>	face-to-face interviews	Curtin University students
Apr 2000	Exmouth-Yardie Creek (incl. small Coral Bay sample)	<ul style="list-style-type: none"> <li>tourism locations</li> </ul>	face-to-face interviews	Curtin University students
Apr 2001	Exmouth-Yardie Creek	<ul style="list-style-type: none"> <li>tourism locations</li> </ul>	face-to-face interviews	Curtin University students
Apr 2002	Exmouth-Yardie Creek	<ul style="list-style-type: none"> <li>tourism locations</li> <li>accommodation</li> <li>Learmonth airport</li> </ul>	self-completed questionnaires	research team, accommodation providers & airport operators
Jul 2002	Exmouth-Quobba Station (incl. stations & Coral Bay)	<ul style="list-style-type: none"> <li>tourism locations</li> <li>accommodation</li> <li>entrance to Cape Range NP</li> </ul>	self-completed questionnaires	research team, accommodation providers & CALM staff
Feb 2003		<ul style="list-style-type: none"> <li></li> </ul>	self-completed questionnaires	
Apr 2003		<ul style="list-style-type: none"> <li>tourism locations</li> <li>accommodation</li> </ul>	self-completed questionnaires	
Sep 2004		<ul style="list-style-type: none"> <li></li> </ul>		

### Ningaloo tourism overview

The proximity of the Ningaloo Reef to the towns of Coral Bay and Exmouth is the major reason why tourists are attracted to the region. Whilst Coral Bay has been a popular tourism destination for Western Australians for a number of years, tourism only emerged as a major industry for Exmouth in the 1990s (Wood & Dowling 2002). The nature of tourism in the Ningaloo region has changed over the last ten years. During the early 1990s it was primarily visited by Western Australians who came to the area for fishing. The proportion of international visitors has increased dramatically in recent years as the area has gained an international reputation for viewing whale sharks. Recently Ningaloo has become known for its diving and snorkelling and it attracts approximately equal numbers of locals and internationals.

There has been significant growth in the total number of tourists visiting Exmouth since 1997 (Wood 2003). An estimated 188,000 people visit the Ningaloo region annually (Carlsen & Wood 2004).

## Visitor characteristics

### Visitor origins

The proportion of international tourists visiting the Ningaloo region has significantly increased over time. The majority (85%) of visitors between 1989 and 1991 were Western Australians (Wood & Dowling 2002). The 1997 survey data indicates a similar visitor profile (see table 2). The proportion of internationals has remained at a consistent level in the surveys undertaken since 2000. The current visitor profile during the month of April, when whale sharks pass through the area, consisted of relatively equal proportions of international and intrastate visitors, with only a small proportion of interstate visitors. The majority of international visitors to the region were from the UK, Germany and the Netherlands (Wood 2003).

Table 2: Visitor place of origin - April 1997-2003

Place of origin	1997	2000	2001	2002	2003
International	10.6	35.9	41.0	54.1	39.7
Interstate	18.6	12.0	14.1	14.1	13.0
Intrastate	70.8	52.1	44.9	31.9	47.2

Table 3 illustrates the seasonality of visitor origin to the Ningaloo Marine Park. The proportion of international visitors was highest during February and lowest during July. Intrastate visitors dominated the tourism market in July. These trends in seasonality can be attributed to the desire for visitors to escape the cold weather by visiting the region: internationals during the northern hemisphere's winter months; and Western Australians during the southern hemisphere's winter.

Table 3: Visitor place of origin - by season

Place of origin	Feb (03)	Apr (01-03)	Jul (02)	Sep (04)
International	73.8	42.0	4.0	17.1
Interstate	8.7	13.0	17.0	47.2
Intrastate	17.5	44.0	79.0	35.8

Visitor travel motivations and activities

Most visitors to Exmouth and Coral Bay were attracted to the natural assets of the Ningaloo Marine Park. The main reasons for visitors holidaying in the area are reported by visitors as: the Ningaloo Marine Park, the natural environment generally, activities such as snorkelling, diving and swimming with the whale sharks, and access to the coast (see table 4). Significantly, Western Australian visitors and station campers are less likely to nominate the CALM managed Marine Park as a reason for visiting the area (Wood 2003) despite enjoying the natural assets of the Park environment.

Table 4 – Reasons for visiting (2000-2003 surveys)

Reasons	Visitors (%)
Natural environment generally	61.0
Ningaloo Marine Park	72.0
Access to the coast	59.0
Activities	66.0

Snorkelling was the most popular activity, undertaken by 78% of visitors to the Ningaloo Marine Park. The activities undertaken by visitors are shown in table 5. Swimming with the whale sharks was very popular in April, the whale shark season. Fishing was only undertaken by 34% of visitors to the region during the month of April, and only 10% viewed it as their preferred activity. In July fishing was nominated as the most preferred activity by 48% of campers staying in Cape Range and 50% of campers on stations (Wood 2003). While fishing was a favoured activity among Western Australian campers at Cape Range and on coastal stations, it has declined in popularity since 1989-91 when Dowling found that 73% of people across the region nominated fishing as the favoured activity (Dowling 1992; Wood & Dowling 2002).

Table 5 - Visitor activities - undertaken and preferred (April 2001-2003 surveys)

Activities	Visitors - % undertaken	Visitors - % preferred activity
Snorkelling	78.0	37.0
Diving	32.0	14.0
Fishing	34.0	10.0
Swimming - whale sharks	40.0	22.0

Accommodation and length of stay

The majority of visitors stayed in camping accommodation, including CALM campgrounds on the west coast of the Exmouth Peninsula and those provided in caravan parks. Backpacker accommodation in both Exmouth and Coral Bay was also popular, along with caravan parks in and around Exmouth and the Pot Shot hotel in Exmouth town. Table 6 illustrates the proportions of visitor accommodation (note that the percentages exceed 100% because some visitors stay in more than one accommodation type during their stay in the region).

Table 6: April 2003 surveyed accommodation type (source: Carlsen & Wood, 2004)

Accommodation type	Visitors (%)
Campground	73.5
Caravan park	13.1
Backpackers	28.2
Cabin / unit	7.3
Hotel / motel	16.5
Rental house	5.9
Other	3.1

According to Remote Research (2002) figures, it has been estimated that during July alone approximately 1350 campers utilised informal sites with no formal toilet facilities on Ningaloo, Cardabia and Warroora Stations.

The mean length of stay for visitors during the different seasons is provided below in table 7. Whilst the average length of stay was approximately the same for February and April, visitors in July and September stay in the region for almost twice as long. These figures are reflective of the different types of visitors during different seasons. The July and September survey periods included a much smaller proportion of internationals, who are likely to stay for shorter periods in the Ningaloo region. Analysis of length of stay by accommodation location indicates the campers staying on stations during July are particularly more likely to stay for longer periods (Wood 2003).

Table 7: Mean visitor length of stay - by season

	Feb (2003)	Apr (2000-03)	Jul (2002)	Sep (2004)
Length of stay (mean)	12 days	13 days	25 days	21 days

### Commentary

The Ningaloo region has experienced a shift in visitor activities from fishing to snorkelling and diving. This shift is due to a number of factors: the changing attitudes of travellers and growth in nature-based tourism markets; the increasing proportion of international visitors; and the more stringent fishing regulations in the Ningaloo Marine Park (Wood & Dowling 2002). The shift away from fishing as a primary attractant for visitors indicates that extension of protected sanctuary zones for the Ningaloo Reef will not have a major impact on the region's economy. The increasing popularity of snorkelling and diving as a reason for visiting the region also highlights the importance in protecting the quality of fishing stocks at the reef for the tourism market.

The market segments that visited the towns of Coral Bay and Exmouth differ to those that stay at the coastal stations (Wood 2003). These segments have different visitor origins, length of stay, and undertake different activities. Visitor expenditure in the Ningaloo region correlates significantly with visitor place of origin, accommodation, activities and age (Wood, Glasson, Carlsen & Hopkins 2005). International visitors had higher daily expenditures than interstates and locals respectively (Wood, Glasson, Carlsen & Hopkins 2005). Visitors staying in campsite accommodation had lower expenditures than those staying in caravan parks, backpackers, and hotels respectively (Wood, Glasson, Carlsen & Wood 2005). These findings have significant implications for the region's economy and management of the Ningaloo Reef. Western Australian visitors who stay in campsites therefore made significantly lower contributions to the region's economy than internationals staying in hotels or backpacker accommodation.

### **Fishing and tourism**

The changing profile of tourism to Ningaloo indicates that fishing no longer occupies the central place amongst tourist activities rated by either popularity or the revenue it brings to the region. Analysis of the survey data indicates that approximately 40% of visitors surveyed between April 2000 and April 2003, including February and July data periods, participated in fishing.

Table 8: Fishing statistics

	no. surveys	% of visitors	estimated annual visitors
Participated in fishing	550	39.9%	75,000
Didn't participate in fishing	829	60.1%	113,000
Total visitors	1379	100.0%	188,000

The proportion of visitors who participated in fishing has generally decreased from April 2000 (see table 9). During the month of April, between 30 and 35 percent of visitors fished in the region. The highest proportion of visitors who fished occurred in July and the lowest occurred in February.

Table 9: Proportion of visitors who fish in the region - by survey period

	Apr 2000	Apr 2001	Apr 2002	Jul 2002	Feb 2003	Apr 2003
Visitors who fish (%)	58.3	35.3	30.9	70.6	17.1	34.6
n total visitors=	139	207	136	293	105	373

These figures reflect the relative proportions of local visitors at different times of year (see table 3), as Western Australians are more likely to engage in fishing (see table 10). While a small proportion of international visitors participated in fishing, two-thirds of Western Australian visitors fished during their stay in the region.

Table 10: Visitor origin - by activity (surveys 2000-2003)

Place of origin (% visitors)	Fished	Did not fish
International	15	85
Interstate	41	59
Intrastate	66	34

Visitors who participated in fishing stay for twice as long in the region as those who did fish (see table 11).

Table 11: Visitor length of stay - by activity (surveys 2000-2003)

	Fished	Did not fish
Length of stay (mean) in days	22	11

Fishing visitors predominantly stayed in campgrounds or on stations. The high proportion of fishers on the stations and at campsites may be attributed to the lack of

proximity to stores and an ethos of self-sufficient survival amongst these groups (Wood 2003).

Visitors who participate in fishing have half the level of daily expenditure of visitors that did not fish (see table 12). Those that fish therefore do not partake in as many other paid activities as other visitors, hence spending half as much on activities, and less on travel, accommodation, food and drinks.

Table 12: Visitor expenditure - by participation in fishing (source: Wood & Hughes, unpublished)

	Fished	Did not fish
Mean expenditure (pp/per day)	\$58.60	\$139.20

Those who swim with the whale sharks have a much greater daily expenditure (Wood, Glasson, Carlsen & Hopkins 2005). There is little difference in expenditure when participation versus non-participation in other activities, such as diving or snorkelling, is calculated (Wood & Hughes, unpublished). Fishing is the only activity in which participants spend less than non-participants (Wood & Hughes, unpublished).

### Commentary

Western Australian visitors to the region are much more likely to engage in fishing than their international counterparts. Visitors who do fish stayed longer in the region and much lower daily expenditures. The popularity of fishing amongst station campers is a significant management issue because of the high numbers of campers, their long duration of stay, and the lack of appropriate waste and sewerage disposal available at these sites (Wood 2003).

### **Conclusion**

Most visitors to Coral Bay and Exmouth cite snorkelling as their preferred recreational activity and attach little importance to fishing, a reversal of Dowling's 1989-91 survey results (Wood 2003). However most July campers on coastal stations and in Cape Range National Park indicate that fishing is their most desired activity (Wood 2003). The increase in the proportion of international visitors to the Ningaloo region has been a major contribution to the decline in fishing and increase in snorkelling and diving. The visitors who did not participate in fishing made greater contributions to the region's economy due to higher daily expenditures.

In a resident survey conducted by Dowling in 1990-91 (1992), the majority of residents believed that undersized fishing and overfishing, particularly by visitors, was having an adverse environmental impact on the region. Fishing visitors have admitted that they often do not stop fishing when they have enough for meals for a few days (Wood 2003). The problem of overfishing, combined with the high proportion of campers that fish and their long duration of stay, raises concerns about the preservation of fish stocks in the Ningaloo Marine Park (Wood 2003). While visitors who fish in the Ningaloo Marine Park contribute to depleting fish stocks, they do not make a significant contribution to the region's economy. Visitors who enjoy other activities such as snorkelling and diving make much higher economic contributions to tourism.

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