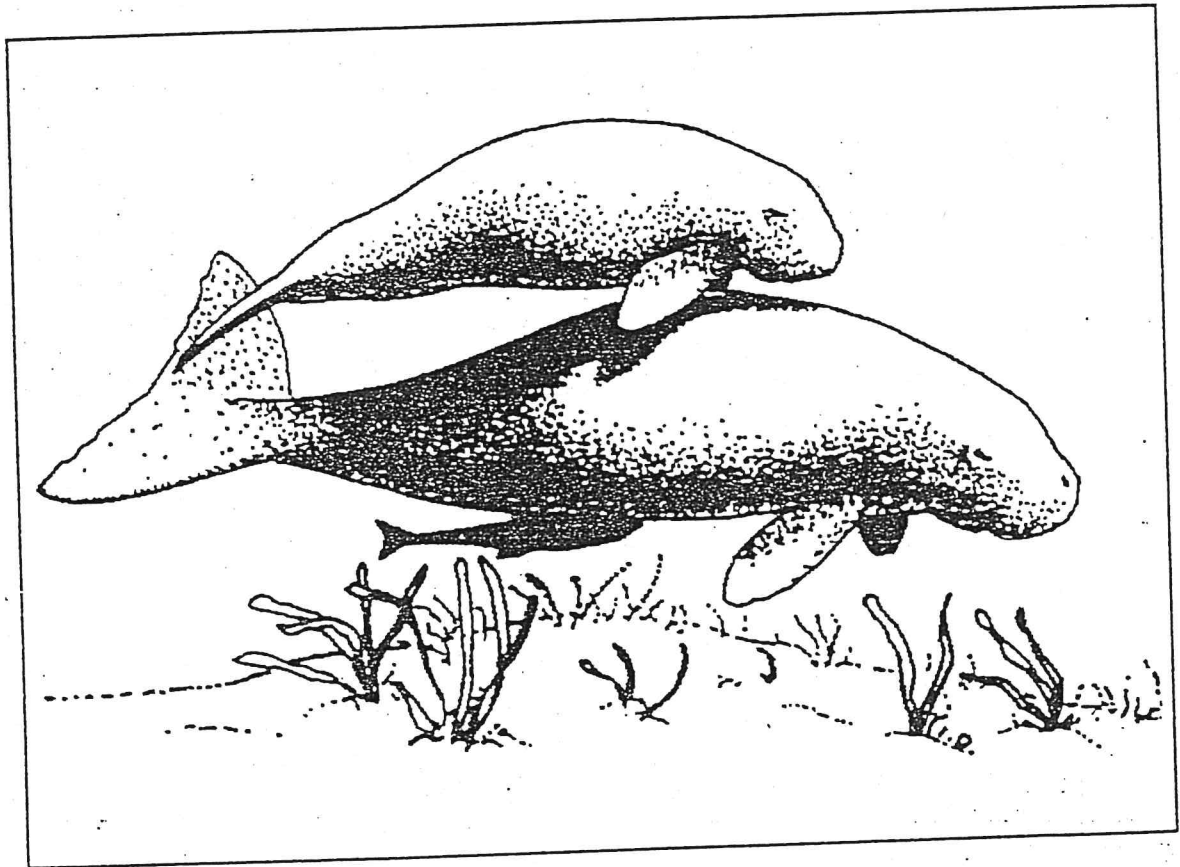


SUMMARY OF THE  
SHARK BAY WORLD HERITAGE AREA  
USER SURVEY

June - November 1993



Department of Conservation and Land Management  
Fisheries Department  
1994

## ACKNOWLEDGEMENTS

Aminya Koch compiled this report. The following people are gratefully acknowledged for their contribution to the survey:

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## INTRODUCTION

Shark Bay is located in Western Australia, 700 kilometres north of Perth. Shark Bay was nominated for World Heritage listing on the basis of its natural values in October 1990 and inscribed on the World Heritage List in December 1991.

Shark Bay comprises a series of north-south trending peninsulas and islands which have created a series of inlets and bays. The area covers some 22 000 square kilometres, with the waters comprising 66% of this area.

CALM is preparing management plans for the Terrestrial Reserves and Marine Reserves at Shark Bay and a Strategic plan for the World Heritage Area. The Fisheries Department of Western Australia is also preparing a Fish Resource Management Plan for the World Heritage Area. Preparation of the plans has involved considerable public participation, including public workshops and obtaining public comments and submissions through advertising in local and Statewide newspapers. Gathering information on users of the World Heritage Area and their views on future management is also considered an essential part of the planning process. This survey was undertaken to obtain this information and was aimed at local residents and visitors to the Area.

## OBJECTIVES

The objectives of the survey were to obtain information and points of view from a representative sample of visitors and residents in the Shark Bay World Heritage Area. Specifically, the survey aimed to determine:

- a profile of Shark Bay World Heritage Area users;
- patterns of usage;
- the attitudes and expectations of local residents and visitors about the World Heritage Area and specific issues; and
- implications for World Heritage Area management.

## METHOD

### Survey Instrument

A survey based on a detailed questionnaire was conducted between June and November, 1993. The survey techniques were pilot tested in May 1993, and alterations were made to some of the items after preliminary observations were made.

The questionnaire included questions on the origin and age of the user, locations visited and activities undertaken during their visit. There were also opportunities for people to indicate how the management of the Shark Bay World Heritage Area could be improved and how areas visited can be improved to protect them and to provide appropriate experiences for visitors. A copy of the questionnaire and a summary of the results from the survey are provided in Appendix 1.

### **Procedure**

Questionnaires and collection boxes were placed at major visitor sites in the World Heritage Area such as Monkey Mia, Hamelin Pool, Peron Homestead and Shire and CALM offices. Completed surveys were collected from the sites at regular intervals and replaced with new surveys. Survey questionnaires were also distributed to visitors, in particular boat users and campers around the shoreline of the Shark Bay Marine Park during the July 1993 school holidays. Questionnaires were distributed to all residents of Denham and Useless Loop, all pastoralists in the Shark Bay World Heritage Area and 250 questionnaires were sent to Carnarvon residents chosen at random. Over 2000 questionnaires were distributed to users of the World Heritage Area.

It should be noted that some survey results would have been influenced by the availability of survey forms and the popularity of some areas. Data from visitors to some remote areas may not have been captured (eg. Tamala Station) where as others (such as Monkey Mia) may have received a higher level of sampling.

## **RESULTS**

A total of 211 questionnaires were collected over the survey period between June and November, 1993. The sample size from the survey satisfied the recommended levels advised by the Australian Bureau of Statistics and the results are considered to be statistically valid.

Of the 211 questionnaires received, 156 were from visitors, 15 were from Denham residents, 9 from Useless Loop residents and 31 from Carnarvon residents.

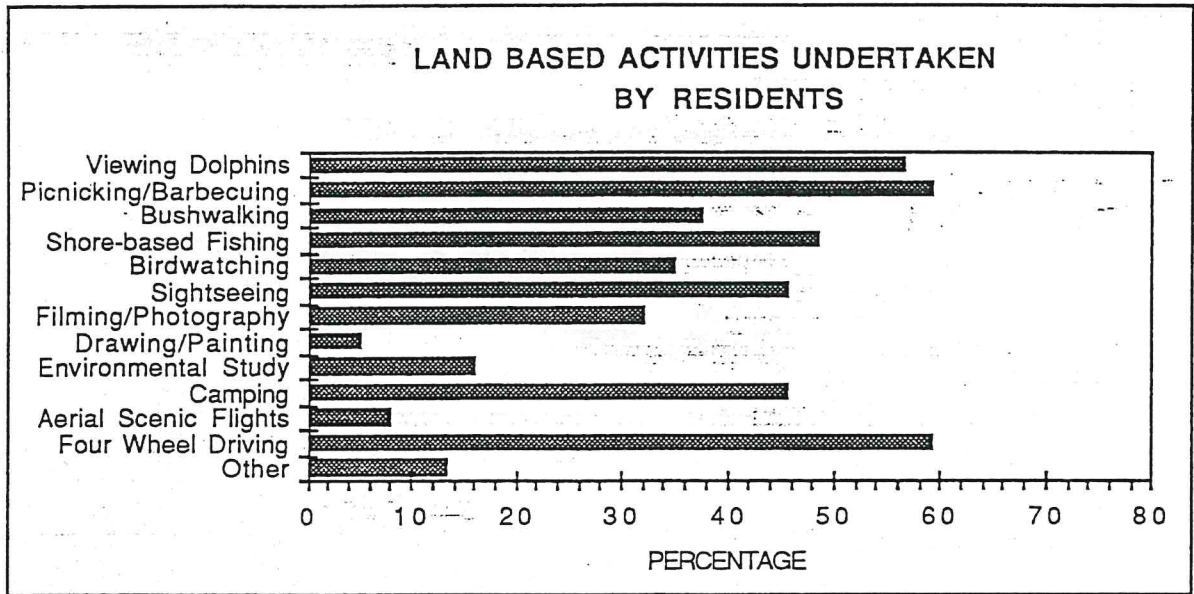
The survey information is representative of visitation to the area over winter and spring in 1993. This summary provides an overview of the results, however more detailed information can be obtained from the data.

# 1. ACTIVITIES UNDERTAKEN

## 1.1 Land Based Activities

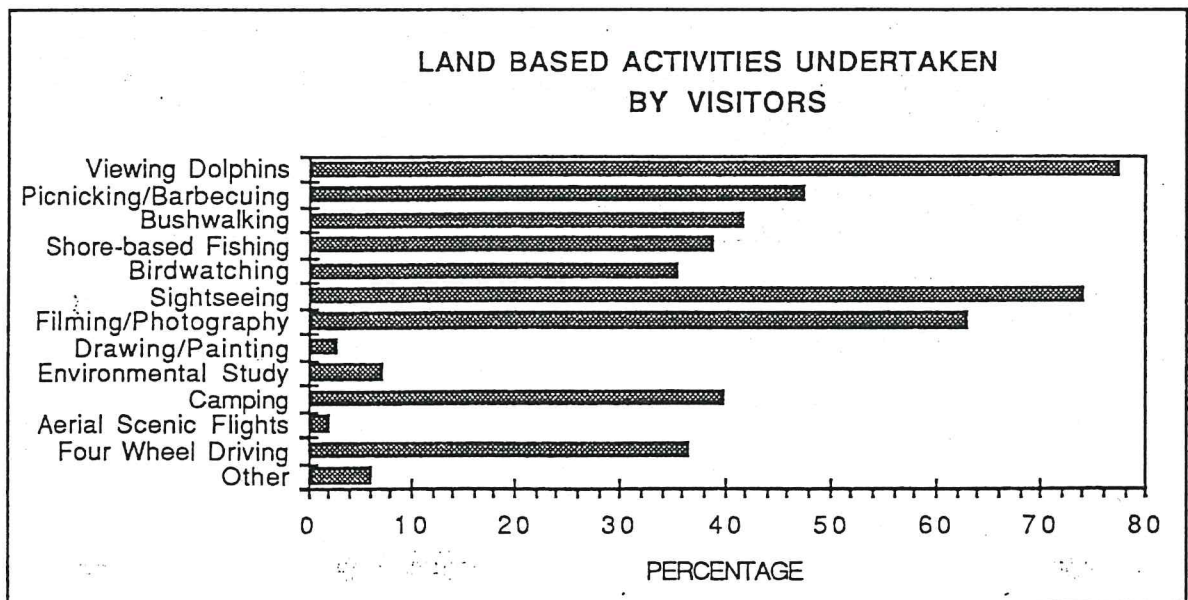
Residents surveyed in the World Heritage Area indicated that picnicking/barbecuing (59.5%) and four wheel driving (59.5%) were the most popular land based activities. Viewing dolphins (56.8%) was the next most popular activity, followed by shore-based fishing (48.6%) (Figure 1).

Figure 1



Visitors surveyed in the World Heritage Area indicated that viewing dolphins (77.6%) was the most popular land based activity. Sightseeing (74.1%) was the next most popular activity, followed by photography/filming (63.2%) (Figure 2).

Figure 2

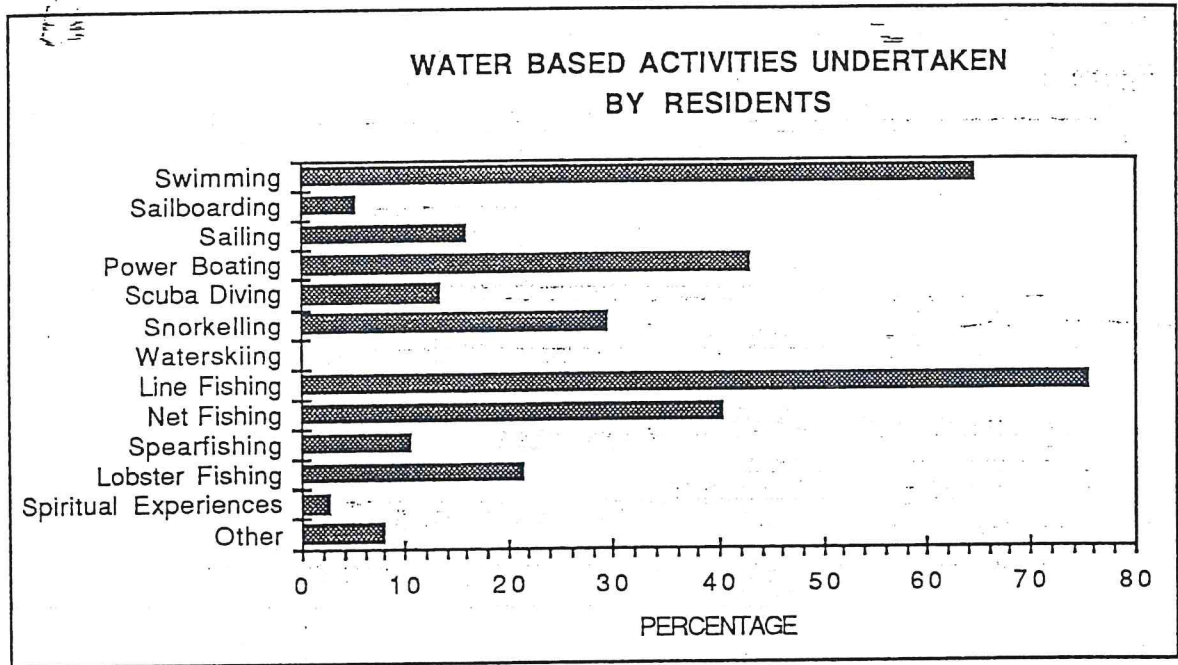




## 1.2 Water Based Activities

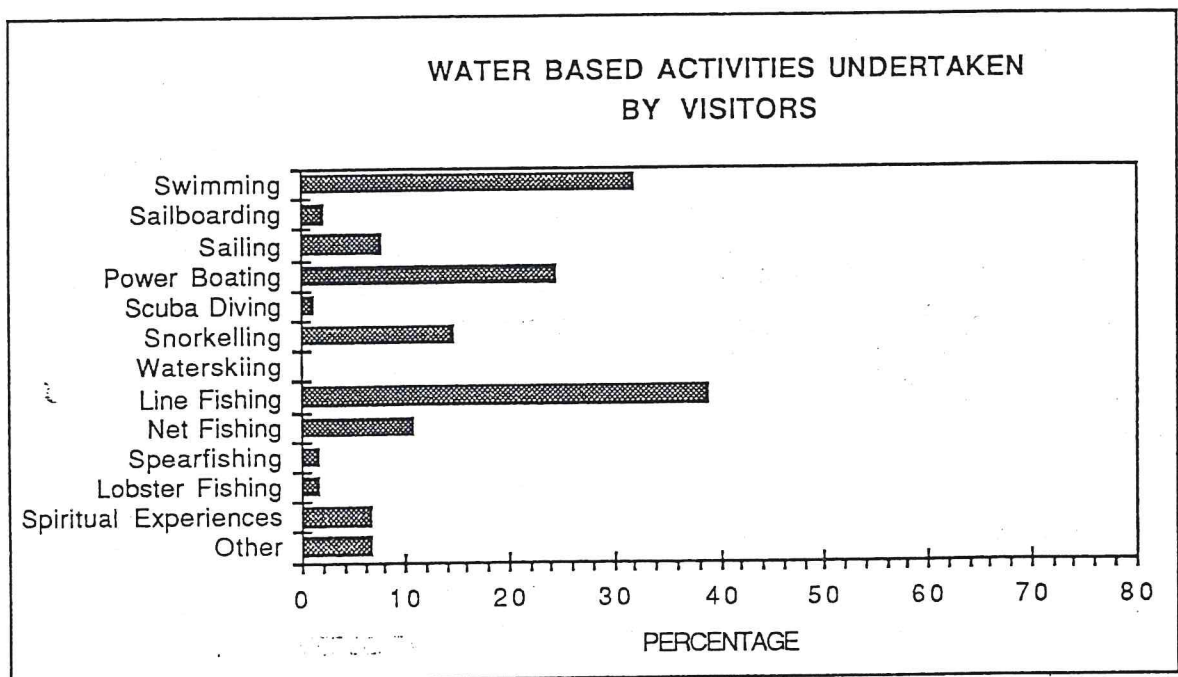
Residents surveyed in the World Heritage Area indicated that line fishing (75.7%) was the most popular water based activity. Swimming (64.9%) was the next most popular activity followed by power boating (43.2%) (Figure 3).

Figure 3



Visitors surveyed in the World Heritage Area indicated that line fishing (39.1%) was the most popular water based activity. Swimming (32.2%) was the next most popular activity followed by power boating (24.7%) (Figure 4).

Figure 4



### Implications for Management

The most popular land based visitor activity was viewing dolphins. There is a need to ensure that management of dolphin interaction protects the dolphins and the quality of visitors' experiences.

Both residents and visitors engage in a variety of passive land based activities ie, bushwalking, birdwatching, sightseeing, photography, drawing/painting and environmental study. Management needs to ensure that these activities are provided for and that other activities do not impinge on these activities.

Camping is popular with both residents and visitors (46% and 40% respectively participated). Broadscale recreation planning for the World Heritage Area should provide opportunities for camping where possible.

The high participation in four wheel driving highlights the need for monitoring and education/information so that these activities do not impact on the conservation values. It also suggests that there may be reluctance to upgrading road standards in popular four wheel drive areas.

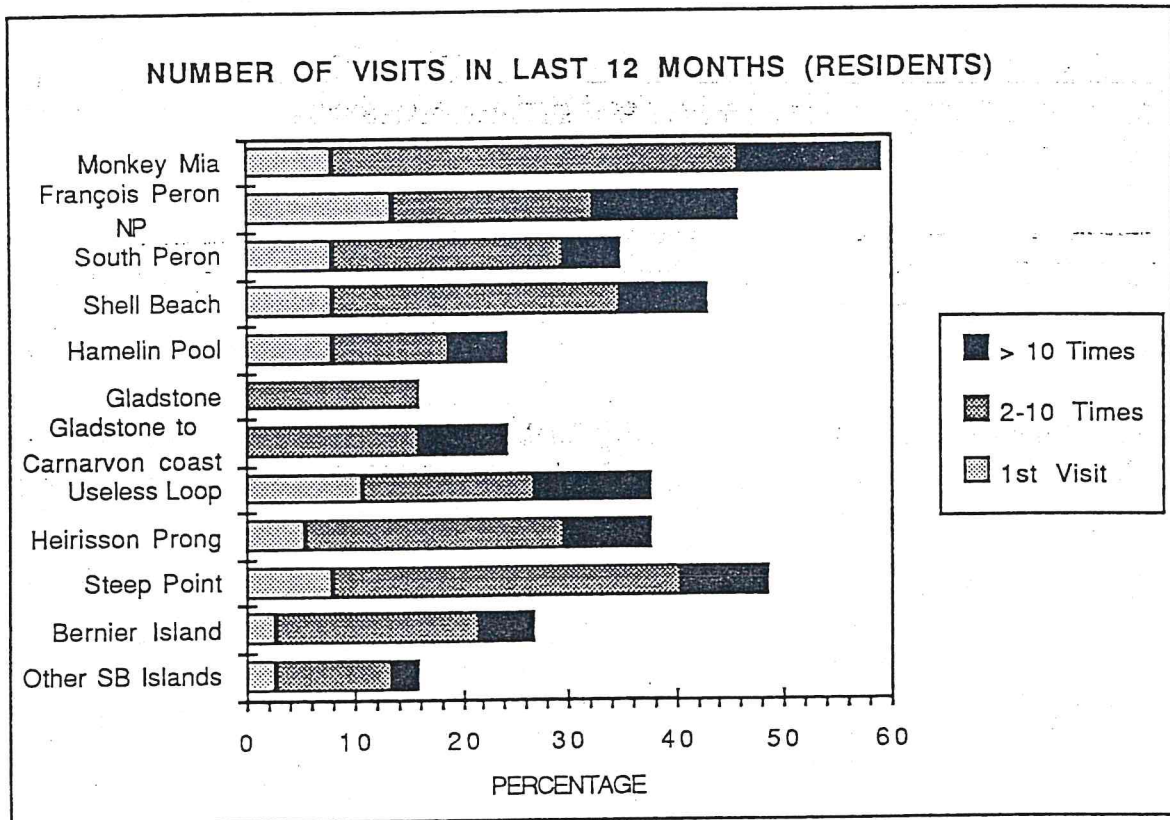
Line fishing is the most popular activity for both residents and visitors (79% and 39%). Management of the waters of the World Heritage Area needs to consider this popular activity and the sustainability of the resource.

Participation in water based activities was generally higher by residents than visitors.

## 2. NUMBER OF VISITS IN LAST 12 MONTHS

Residents surveyed had generally visited the areas listed 2-10 times in the last 12 months. The main areas that were visited more than 10 times were Monkey Mia, François Peron National Park and Useless Loop. Areas that had low visitation from residents were Gladstone, Hamelin Pool and the Gladstone to Carnarvon coast (Figure 5).

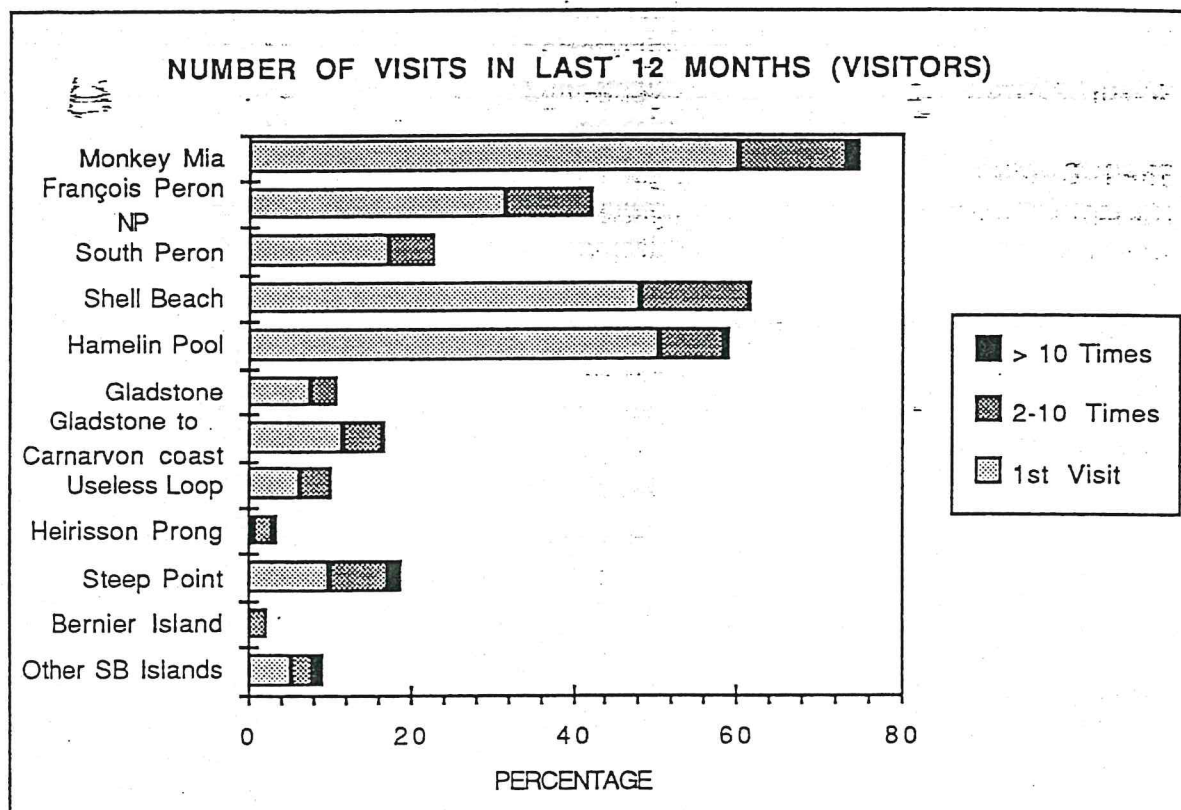
Figure 5





The majority of visitors surveyed were on their first visit to the areas listed. The main areas that were visited were Monkey Mia, Shell Beach and Hamelin Pool. Areas that had low visitation were Heirisson Prong and Bernier Island (Figure 6).

Figure 6



### Implications for Management

The most popular destinations for residents were Monkey Mia, François Peron National Park, Steep Point and Shell Beach. Management should focus on these areas.

First visits were low for residents, with the majority of those surveyed visiting areas more than twice in the last 12 months. Regular visitors will have different information needs.

Monkey Mia, François Peron National Park, Shell Beach and Hamelin Pool are extremely popular and dominated by first time visitors. This implies that provision of information is extremely important for these areas as visitors are likely to have little knowledge of the area, rules and regulations, etc.

The other areas have a much lower visitation but have a much higher proportion of people who have visited the area more than once. These people require specific, targeted information.

**3. MAJOR ACTIVITIES AT SPECIFIC AREAS BY RESIDENTS**

		%
Monkey Mia	viewing dolphins	35.7
	sightseeing	21.4
François Peron National Park	fishing	38.5
	use artesian bore	30.8
	sightseeing	15.4
South Peron	sightseeing	45.4
	fishing	36.4
Shell Beach	sightseeing	50.0
Hamelin Pool	sightseeing	50.0
Gladstone	fishing	83.3
	camping	50.0
	fishing	44.4
Gladstone to Carnarvon Coast	sightseeing	33.3
	camping	33.3
	sightseeing	13.3
Useless Loop	fishing	13.3
	camping	13.3
	sightseeing	13.3
Heirisson Prong	fishing	33.3
	sightseeing	16.7
	picnicking/barbecuing	16.7
Steep Point	fishing	46.1
	sightseeing	15.4
	camping	15.4
Bernier Island	fishing	54.5
	camping	18.2

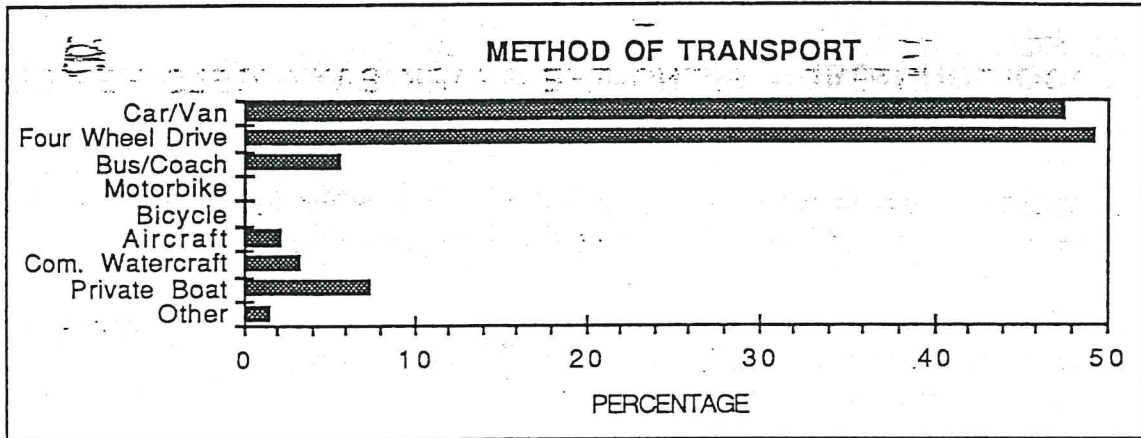
**4. MAJOR ACTIVITIES AT SPECIFIC AREAS BY VISITORS**

		%
Monkey Mia	viewing dolphins	67.9
	sightseeing	16.0
François Peron National Park	sightseeing	40.8
	fishing	22.4
	use artesian bore	14.3
South Peron	sightseeing	63.0
	fishing	18.5
Shell Beach	sightseeing	68.4
Hamelin Pool	sightseeing	78.4
Gladstone	sightseeing	46.7
Gladstone to Carnarvon Coast	sightseeing	42.1
Steep Point	fishing	48.0
	sightseeing	40.0
	camping	28.0

## 5. METHOD OF TRANSPORT

Most people surveyed used a four wheel drive (49.4%) or a car/van (47.7%) to visit the Shark Bay World Heritage Area (Figure 7).

Figure 7



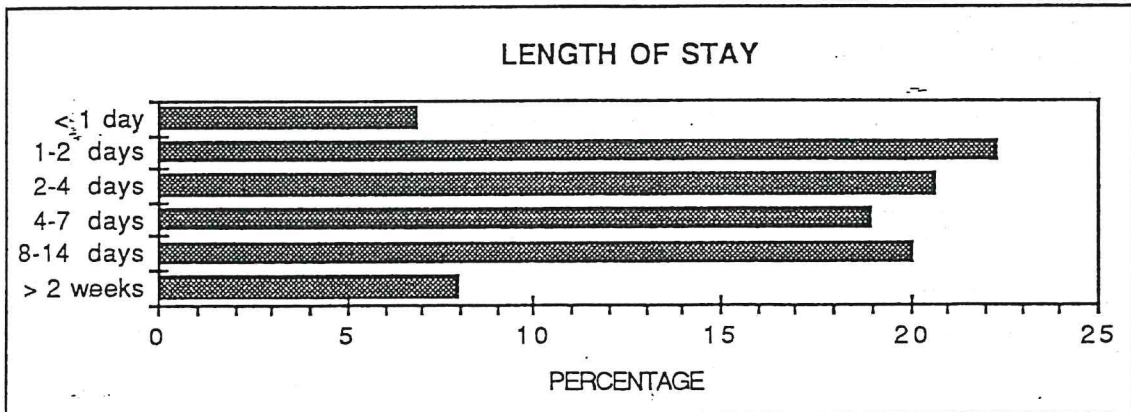
### Implication for Management

Nearly half of the respondents used four wheel drive vehicles to visit the World Heritage Area, which is probably a reflection of the availability of four wheel drive tracks in the Area. Four wheel drive tracks need to be of sufficient quality to ensure users stay on the tracks. The high participation in four wheel driving highlights the need for monitoring and education/information to minimise adverse impacts of these activities.

## 6. LENGTH OF STAY

The amount of time that surveyed visitors stayed in the World Heritage Area varied from 1 day to more than two weeks with the average length of stay being 5 days and the most popular length of stay being 1-2 days. In relation to planned and actual length of stay 46.5% of people surveyed stayed as long as planned, with 5.2% leaving earlier than planned and 8% staying longer than planned (40.3% failed to respond to this question). Reasons for leaving early included bad weather and the high fees at Steep Point.

Figure 8





### Implication for Management

The survey shows that visitors stay for a broad range of time periods. Therefore when providing facilities consideration must be given to short term and longer term visitor needs. Consideration should also be given to encouraging visitors to stay longer, to experience more of the Area (eg. by more pre-visit and on-site information and by providing an increased range of destinations to visit in the Area).

## 7. DO YOU INTEND VISITING THE SHARK BAY WORLD HERITAGE AREA AGAIN?

The majority of people surveyed indicated that they intended visiting the Shark Bay World Heritage Area again (78.7%), with 21.3% indicating they would not return.

Reasons for returning	Percentage
1. want to see more places in Shark Bay/spend more time in the area	16.1
2. great fishing/fishing	16.1
3. have been coming to Shark Bay for years	8.6
4. area of unspoiled/uncommercialised beauty	8.0
5. great weather	8.0
6. peace, quiet	6.3

Reasons for not returning	Percentage
1. live too far away	11.5

### Implications for Management

Visitors want to return to Shark Bay to see more of the Area. It is important that information is available to them so they are aware of sites they can visit. Fishing is an important attraction to visitors and management of waters of the World Heritage Area needs to ensure that current fishing levels are sustainable.

## 8. WHAT DO YOU CONSIDER TO BE THE SPECIAL FEATURES AND/OR VALUES OF THE WORLD HERITAGE AREA?

Response	Percentage
1. dolphins/human interaction with the dolphins	28.0
2. undeveloped/unspoiled natural environment	21.3
3. fauna/wildlife/marine life	20.8
4. fishing	18.5
5. stromatolites	16.6
6. coastline/beaches	14.7
7. scenery, landscape	13.7
8. flora/wildflowers	12.3
9. Shell Beach	12.3

### **Implications for Management**

The dolphin-human interaction at Monkey Mia is considered an important feature of the World Heritage Area. This shows the need to ensure that management of dolphin interaction protects the dolphins and quality of experience.

The unspoiled natural environment of the Area is an important feature to users. The maintenance of these qualities is therefore important.

The fauna/marine wildlife is a major attraction for users. It is important that management protects the fauna of the Area and that information and opportunities are provided to cater for this interest.

## **9. HOW CAN THE AREAS BE IMPROVED?**

### **9.1 Monkey Mia**

55% of people surveyed indicated possible improvements to Monkey Mia Reserve. Of these; 28% felt that Monkey Mia should be left as it is with no more development; 9.5% indicated that there should be more information, displays and signs; 8.6% felt that the Reserve is too commercialised; 8.6% thought that the rangers at Monkey Mia needed more training in how to deal with the public and 8.6% felt that the fees were too high.

### **9.2 François Peron National Park**

36.5% of people surveyed indicated possible improvements to François Peron National Park. Of these; 24.7% felt that the road to the homestead needed to be improved and roads and tracks in general needed to be upgraded; 18.2% thought the Park should be left as it is and not over commercialised; 10.4% indicated that there should be control programs for feral animals and weeds and 10.4% felt there should be more information, signs and education on the Park.

### **9.3 Hamelin Pool**

36.5% of people surveyed indicated possible improvements to Hamelin Pool. Of these; 31.2% felt that there should be a boardwalk built over the stromatolites; 22.1% felt that there should be better signposting and information at the stromatolites; 18.2% indicated that roads should be maintained or improved; 14.3% felt that people should be stopped from walking over the stromatolites and 13% thought that Hamelin Pool should be left as it is.

### **9.4 The waters of Shark Bay**

36% of people surveyed indicated that there should be improvements to the management of the marine environment of Shark Bay. Of these; 18.4% felt it could be improved by having greater policing of fishing (bag limits and fish sizes) or by having more patrol officers; 11.8% indicated that education signs or brochures should be provided at boat ramps; 10.5% felt that they should be left as they are and 9.2% thought that there should be more fishing restrictions.

### **9.5 Shell Beach**

33.2% of people surveyed indicated possible improvements to Shell Beach Conservation Park. Of these; 45.7% felt that vehicle access needed to be restricted or zoned to stop people driving on the beach; 17.1% thought that Shell Beach should be left as it is and needed no improvement and 10% indicated there should be shelter provided for picnics and shade.

### 9.6 Steep Point

23.2% of people surveyed indicated possible improvements to Steep Point. Of these; 24.5% felt that this area should be left as it is and 16.3% indicated that the road should be improved.

### 9.7 South Peron

17.1% of people surveyed indicated possible improvements to South Peron. Of these; 27.8% felt that South Peron should be left as it is; 16.7% felt there should be updating and an increase of information displays and 16.7% indicated that there should be controls on four wheel drives.

### 9.8 Gladstone to Carnarvon coastline

11.4% of people surveyed indicated possible improvements to the coastline between Gladstone and Carnarvon. Of these; 29.2% felt that this area should be left as it is and 12.5% felt that the rubbish should be cleaned up and toilets supplied.

### 9.9 Useless Loop

11.4% of people surveyed indicated possible improvements to Useless Loop. Of these; 25% felt that this area should be left as it is; 12.5% objected to commercial enterprise having control over the area; 12.5% wanted more access to the town and 8.3% felt the Clough bar should be opened up for fishing.

### 9.10 Other Shark Bay Islands

10.9% of people surveyed indicated possible improvements to the other Shark Bay Islands. Of these; 39.1% felt that the islands should be left as they are and 13% indicated that Dirk Hartog Island should be revoked by the Government and reserved as National Park.

### 9.11 Heirisson Prong

8.1% of people surveyed indicated possible improvements to Heirisson Prong. Of these; 58.8% felt that this area should be left as it is.

### 9.12 Bernier Island

7.6% of people surveyed indicated possible improvements to Bernier Island. Of these; 56.2% felt that the island should be left as it is and 18.7% felt that there should be day access to the island only.

## Implications for Management

The comment 'leave it as it is' was consistently mentioned in many areas. There may be a need to limit developments in some areas to preserve the 'unspoiled natural environment and remoteness' that users consider to be an important value in the Area.

There was a request for more information generally throughout all sites. Provision of brochures, information boards, maps and signs should be considered a high priority in the Area.

Upgrading and improved maintenance of roads, such as the road to Peron Homestead, tracks in François Peron National Park and Hamelin Pool road, should be considered.



Many users felt that the waters of the World Heritage Area would be better managed by greater policing of fishing and provision of information. There may be a need for greater enforcement presence on the waters of the Shark Bay World Heritage Area.

## 10. HOW CAN MANAGEMENT BE IMPROVED?

### 10.1 Visitor Services/Information

44.1% of people surveyed responded to this question. Of these; 32.3% felt there was a need for more information about World Heritage, history, safety, conservation and more signs. 22.6% indicated that visitor services/information were adequate as they were.

### 10.2 Facilities

37% of people surveyed responded to this question. Of these; 42.3% felt that facilities were not needed and that they were already adequate. 15.4% thought toilets should be supplied.

### 10.3 Conservation

35.5% of people surveyed responded to this question. Of these; 20% felt there should be greater control of feral animals and weeds; 16% indicated a need for controls on four wheel drives; 10.7% felt the area should be left as it is; 9.3% suggested educating people through the use of signs and information and 9.3% suggested increasing the number of walk tracks.

### 10.4 Fishing

33.2% of people surveyed responded to this question. Of these; 37.1% felt there needed to be greater policing and control of fishing (sizes and bag limits) with more patrol officers. 12.9% indicated that bag limits should be decreased and minimum sizes increased, 11.4% felt that fishing should be restricted and 11.4% felt there should be more information and education about fishing.

### 10.5 Other

11.8% of people surveyed responded to this question. Of these; 12.5% felt that there should be more involvement of local residents in management; 8.3% felt that there should be stiffer penalties for littering; and 8.3% indicated a need to upgrade roads.

## Implications for Management

Consider providing more information at sites throughout the World Heritage Area that includes topics such as World Heritage, history, safety and conservation.

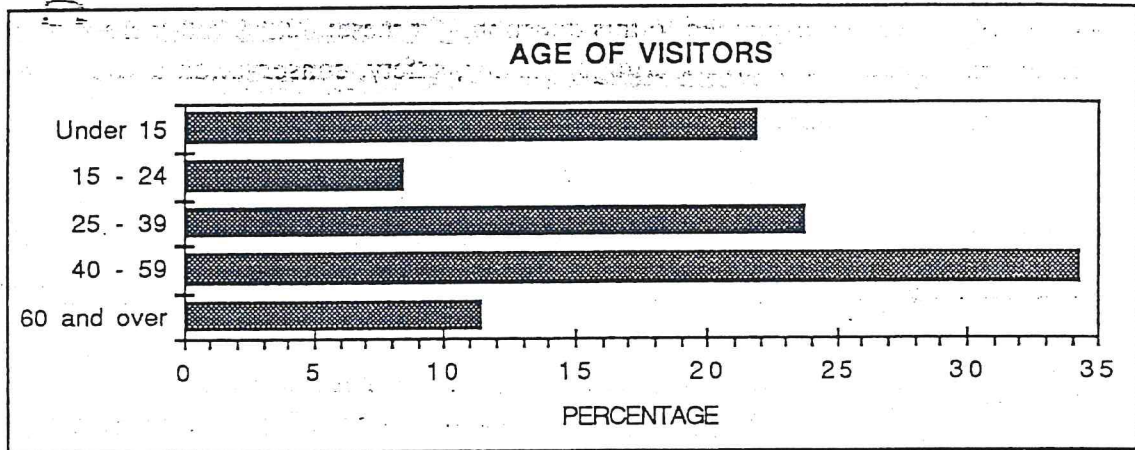
Where required, design and implement control programs for feral animals and weeds for affected areas.

Many users felt that the waters of the World Heritage Area would be better managed by greater policing of fishing. There may be a need for greater enforcement presence on the waters of the Shark Bay World Heritage Area and a need for reduced bag limits and increased minimum sizes. When developing new information resources, consider including education material on fishing where it is appropriate.

## 11. AGE OF VISITORS

The majority of visitors surveyed in the Shark Bay World Heritage Area were between 40 and 59 years of age (34.3%), followed by between 25 and 39 years of age (23.8%) and under 15 years of age (21.9%) (Figure 8).

Figure 9



### Implications for Management

The Area attracts users within a wide age range. Facilities and information need to be able to cater for this wide range where appropriate.

## 12. ORIGIN OF USERS

76.8% of visitors surveyed live within Western Australia, 17.1% came from interstate and 5.2% came from overseas.

Of those that live in Western Australia;

- 29.9% were from the Perth metropolitan area; and
- 28.4% from country areas in the state.
- 17.5% were residents in the Shark Bay World Heritage Area;

### Implications for Management

Information provided will need to be in a form that is effective for overseas and interstate visitors.

As most users came from outside the World Heritage Area, it may be beneficial for information about the Area to be readily available from external sources, such as CALM offices and tourist information centres in Western Australia and other outlets throughout Australia.

### 13. BOAT USAGE IN THE WATERS OF SHARK BAY

37% of people surveyed used a boat in the World Heritage Area.

The majority of people that use a boat in the Area participate in line fishing (64.1%) or sightseeing (24.4%). The most popular areas for linefishing are Cape Inscription, Herald Bight, Cape Lesueur, northern end of Bernier Island, Steep Point and Useless Loop (Figure 10). The most popular area for sightseeing by boat is Steep Point (Figure 11).

Other less popular activities mentioned were;

- wildlife watching which was focused on the waters around Steep Point
- netting focused on the eastern shore of Peron and on the Wooramel Coast
- crabbing focused on the eastern shore of Peron.

#### Implications for Management

Marine activities occur in a number of areas. Management (enforcement, information, facilities, etc.) should focus on these sites to maximise public enjoyment and minimise adverse impacts of these activities.

Many of these popular areas, eg. Steep Point, are remote from a management presence. Provision of information is crucial in these areas.



Figure 10

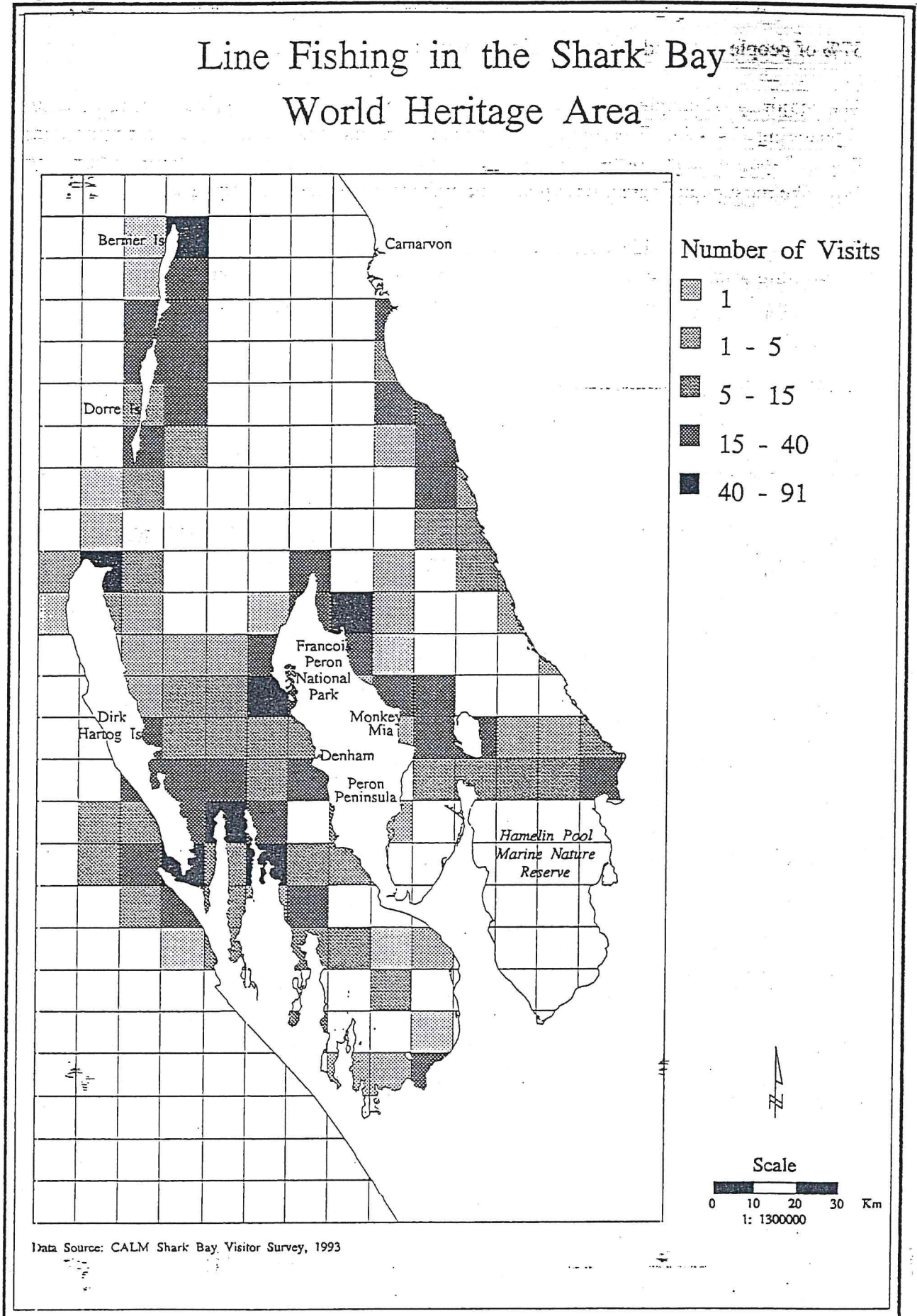
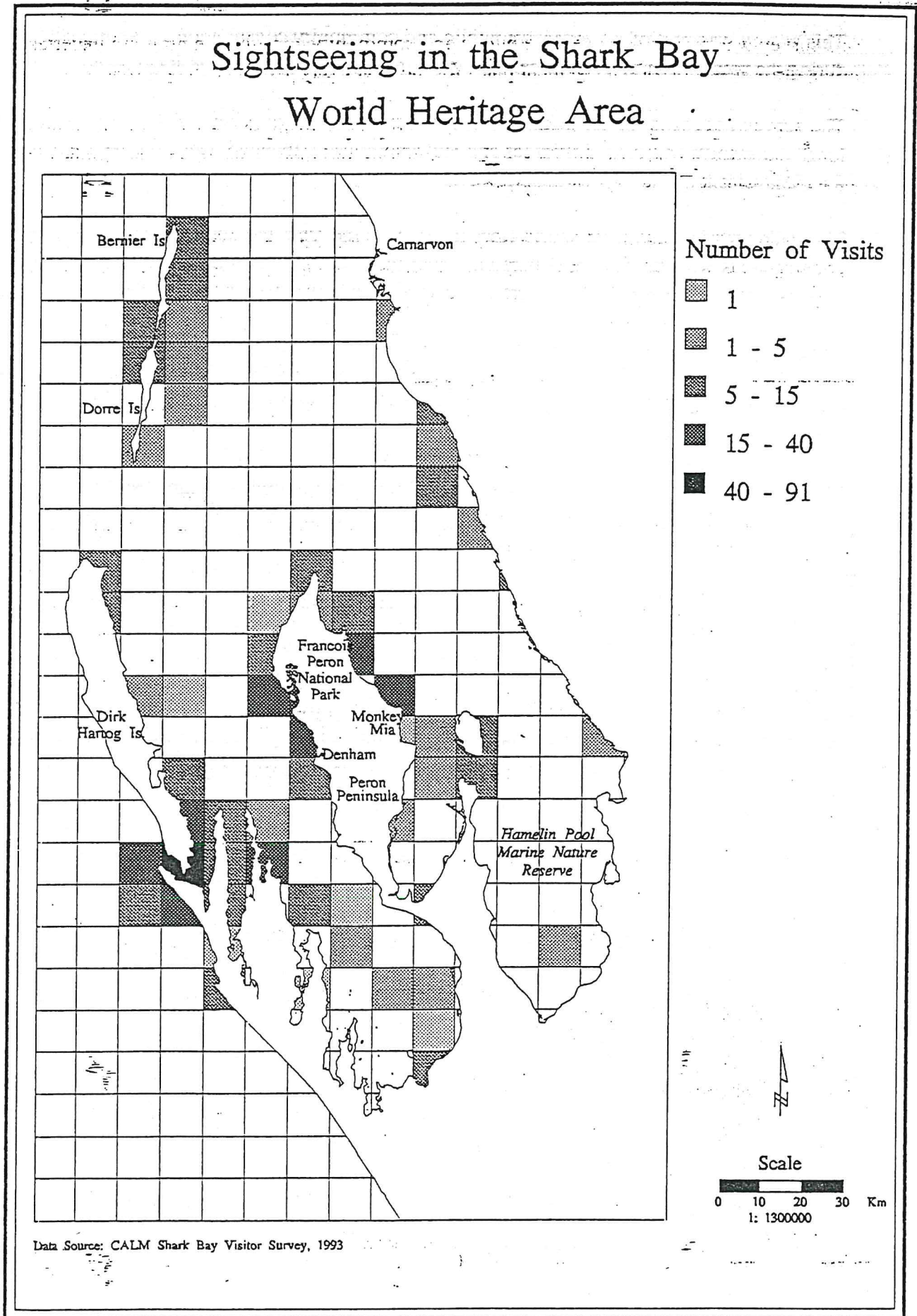


Figure 11





## CONCLUSIONS

This survey was part of the extensive public and community consultation program undertaken during the preparation of management plans for the Shark Bay World Heritage Area.

The survey sought to gather information about the people using the Area, patterns of usage, local community and visitor attitudes and expectations and management, and the implications for management of the World Heritage Area.

The majority of users of the World Heritage Area came from the Perth metropolitan area and country areas within Western Australia. Most visitors travelled by car or 4WD vehicle and stayed on average 5 days. Most users of the area were between 25 and 59 years old.

Areas of highest visitation were Monkey Mia, François Peron National Park, Shell Beach and Hamelin Pool. Popular marine areas were the waters off Steep Point and Useless Loop, and to a lesser extent, Dirk Hartog Island, Monkey Mia, Cape Peron and Faure, Bernier and Dorre Islands.

The most popular land-based activities were viewing the dolphins, sightseeing, photography and picnicking/barbecuing. Four wheel driving was also popular with local residents. Fishing was the most popular water-based activity.

Regular repeat visits were common amongst local residents, but most visitors surveyed were on their first visit. The majority of visitors indicated that they would like to return to the area at some time.

Most visitors and local residents considered the natural attributes as the most important features of Shark Bay. In particular, the human/dolphin interaction at Monkey Mia, the undeveloped and unspoilt natural environment and the flora and fauna were regarded as special values. Fishing was also considered an important feature of the bay.

A range of suggestions to improve management, protect areas and enhance visitors' experiences were made. The most strongly suggested improvement was to leave areas as they are, without further development. The main other suggestions were to provide more information, displays and signs about the area; to restrict vehicle access onto Shell Beach; to provide a boardwalk over the stromatolites; to control feral animals and weeds; and to upgrade roads to the Peron homestead and the stromatolites. Local residents also requested more involvement in management of the area.

Concern was expressed about the current level of policing and control on fish catches and the limited number of fisheries officers in the area. Users indicated a strong desire for greater policing of fishing with more patrol officers.

The survey was successful and provided a good profile of the visitors using the World Heritage Area and visitation patterns. Although some results may have been influenced by the availability of survey forms and the popularity of some areas, they provide a guide as to how visitors see the priorities for future management of the area.



Shark Bay World Heritage Area Survey

There are many implications for management which arise from the survey results. This information will be used by CALM and the Fisheries Department in planning and management of the Shark Bay World Heritage Area.



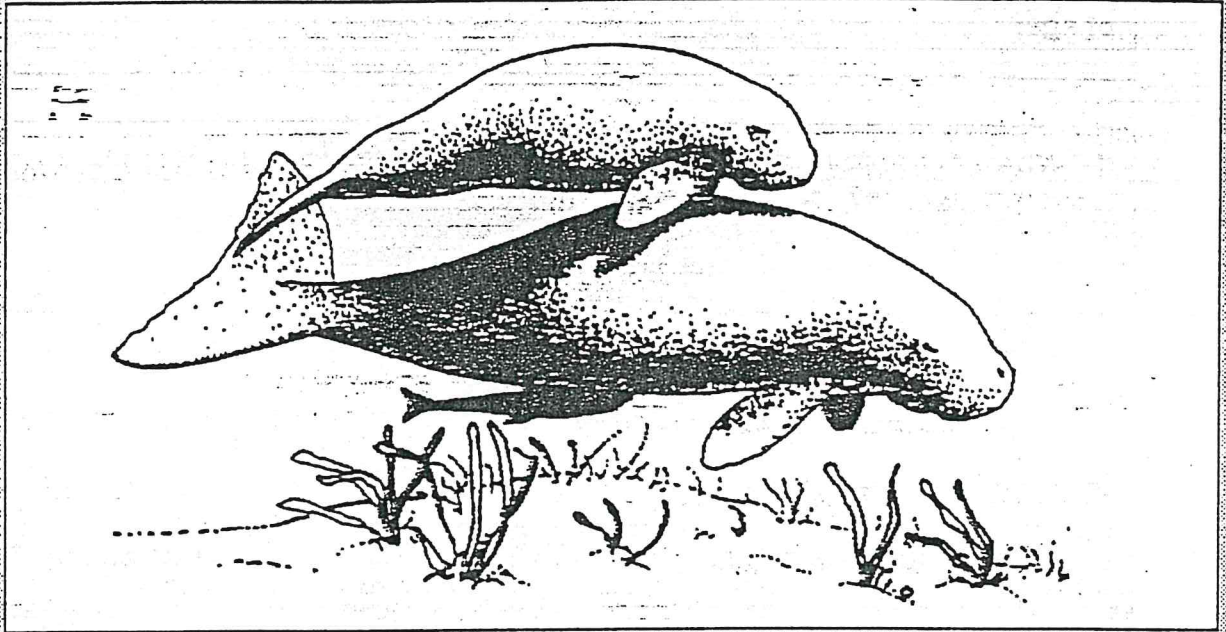


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AND FISHERIES DEPARTMENT OF WESTERN AUSTRALIA

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## SHARK BAY WORLD HERITAGE AREA SURVEY

CALM and the Fisheries Department are working together to produce a series of management plans for the Shark Bay World Heritage Area. This survey is designed to gather information about how people use the Area, and what they think about it. Your responses will assist the Planning Team in preparation of management plans for the lands and waters of Shark Bay.

Please return this questionnaire to the CALM office or Tourist Information Centre at Denham, Fisheries Department at Denham or Carnarvon, or to the boxes provided at the various distribution points (where you obtained the form). If you wish, mail the form addressed to:

The Regional Manager  
Department of Conservation and Land Management  
P O Box 72  
GERALDTON W A 6530  
Attention: Regional Planning Officer

If you have any queries about this survey please contact the CALM District Office in Knight Terrace, Denham on (099) 481208.

The questionnaire is confidential.

Thank you for your help.



Department of Conservation  
and Land Management



World Heritage



Fisheries Department



If in a group, only 1 person from the group should fill out a survey form. This person should be the one with the closest birthday to the present date, who is over 15 years of age.

Today's Date \_\_\_\_\_

1. Which of the following activities did you undertake in the Shark Bay World Heritage Area? (see map on page 10)

(tick one or more)		(tick one or more)	
Land Based		Water Based	
Viewing dolphins	73.9	Swimming	57.9
Picnicking/Barbecuing	49.6	Sailboarding	2.8
Bushwalking	41.2	Sailing	9.5
Shore-based Fishing	40.7	Power Boating	28.0
Birdwatching	35.5	Scuba Diving	3.3
Sightseeing	69.2	Snorkelling	17.5
Filming/Photography	57.8	Water Skiing	0
Drawing/Painting/Sketching	3.3	Line Fishing	45.5
Environmental Study	9.0	Net Fishing	16.1
Camping	41.2	Spearfishing	3.3
Aerial Scenic Flights	2.4	Lobster Fishing	5.2
Four Wheel Driving	40.7	Spiritual Experiences	6.1
Other (please specify)	7.6	Other (please specify)	7.1


What was your main activity?

Sightseeing	26.0%
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What was your main activity?

Line Fishing	27.0%
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2. In the last 12 months how many times have you visited the following land areas and what activities did you participate in? (See map on page 10)

(tick one for each site listed)

	No Visit	First Visit	2-10 times	10 times or more	Main Activity/Activities	Not s
Monkey Mia	14.7	51.2	17.5	3.8	45.0	12
François Peron National Park	23.7	28.4	12.3	2.4	29.4	32
South Peron	32.7	15.6	8.5	0.9	18.0	42
Shell Beach	19.9	41.2	15.6	1.9	31.7	21
Hamelin Pool (Stromatolites)	23.2	43.1	8.5	1.4	27.0	23
Gladstone	38.4	6.2	5.7	0	9.9	49
Gladstone to Carnarvon Coastline	37.4	9.5	7.1	2.3	13.3	43
Useless Loop	33.2	7.1	6.2	1.9	13.7	51
Heirisson Prong	37.0	1.4	6.2	1.9	8.5	53
Steep Point	31.3	9.5	11.8	2.8	18.0	44
Bernier Island	39.3	0.5	5.2	0.9	7.6	54
Other Shark Bay Islands	36.0	4.7	4.3	1.4	8.1	53
Other (please name)						
18 places named	0	3.8	7.6	5.7		
	1.	2.	3.	4.	5.	

3. Are you a resident of the Shark Bay World Heritage Area?

(tick one)

- No  82.5 1. Please go to Q 4
- Yes  17.5 2. Please go to Q 7



4. What method of transport have you used to visit the Shark Bay World Heritage Area on this visit?

	(tick one)	Not Stated
Car/Van	47.7 1.	1.1
Four Wheel Drive	49.4 2.	
Bus/Coach	5.7 3.	
Motorbike	0 4.	
Bicycle	0 5.	
Aircraft	2.3 6.	
Commercial watercraft e.g. Hovercraft	3.4 7.	
Private Boat	7.5 8.	
Other (please specify)	1.7 9.	

5a. On this visit how many days did you stay or do you plan to stay in the Shark Bay World Heritage Area?

	(tick one below)	(tick one below)
	Stayed	Planned to stay
Less than 1 day	6.9 1.	2.9 7.
1-2 days	22.4 2.	14.4 8.
2-4 days	20.7 3.	10.3 9.
4-7 days	19.0 4.	14.9 10.
8-14 days	20.1 5.	13.2 11.
More than 2 weeks	8.0 6.	6.3 12.
not stated	4.0	37.9



## 5b. If you left Shark Bay earlier than planned, please explain below.

1. Weather	1.7%
2. Fees at Steep Point are too high	1.7%

## 6. Do you intend visiting Shark Bay World Heritage Area again?

(tick one)

Yes 78.7 1.

No 21.3 2.

## Please explain why :

1. Want to see more places in Shark Bay/spend more time	16.1%
2. Great fishing	16.1%
3. Have been coming to Shark Bay for years	8.6%
4. Area of unspoiled/uncommercialised beauty	8.0%
5. Great weather	8.0%

## 7. What do you consider to be the special features and/or values of the Shark Bay World Heritage Area?

1. Dolphins/human interaction with the dolphins	28.0%
2. Undeveloped/unspoiled natural environment	21.3%
3. Fauna/wildlife/marine life	20.8%
4. Fishing	18.5%
5. Stromatolites	16.6%
6. Coastline/beaches	14.7%



8. How do you think the areas you have visited can be improved to protect these areas and to provide appropriate experiences for visitors?

The waters of Shark Bay (Use grid reference on Map on page 10 if needed):	
1. Greater policing on fish catches/more patrol officers	18.4%
2. Education signs or brochures provided at boat ramps	11.8%
3. Waters should be left as they are	10.5%
4. Fishing should be restricted	9.2%
<b>Monkey Mia:</b>	
1. Monkey Mia should be left as it is	28%
2. More information, displays and signs	9.5%
3. Reserve is too commercialised	8.6%
4. Rangers need more training in dealing with the public	8.6%
<b>Francois Peron National Park:</b>	
1. Improve road to homestead	24.7%
2. Leave the Park as it is	18.2%
3. Control programs for feral animals and weeds	10.4%
4. More information, signs and education	10.4%
<b>South Peron:</b>	
1. Should be left as it is	27.8%
2. Update and increase information displays	16.7%
3. Controls on four wheel drives	16.7%
<b>Shell Beach:</b>	
1. Restrict vehicle access to stop driving on beach	45.7%
2. Shelter for picnics and shade	10.0%

continued on page 7



## 8. cont'd How do you think the areas you have visited can be improved?

<b>Hamelin Pool (Stromatolites):</b>	
1. Boardwalk over the stromatolites	31.2%
2. Better signposting and information on stromatolites	22.1%
3. Roads maintained/improved	18.2%
4. Stop people walking over the stromatolites	14.3%
<b>Gladstone to Carnarvon Coastline:</b>	
1. Should be left as it is	29.2%
2. Rubbish be cleaned up and toilets supplied	12.5%
<b>Useless Loop:</b>	
1. Should be left as it is	25%
<b>Heirisson Prong:</b>	
1. Should be left as it is	58.8%
<b>Steep Point:</b>	
1. Should be left as it is	24.5%
2. Road be improved	16.3%
<b>Bernier Island:</b>	
1. Should be left as it is	56.2%
2. Day access to the island only	18.7%



## 8. cont'd How do you think the areas you have visited can be improved?

## Other Shark Bay Islands:

1. Should be left as it is	39.1%
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2. Dirk Hartog Island be revoked by Government and reserved as National Park	13.0%
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Other (please name):	7.1%
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## 9. How do you believe the management of the Shark Bay World Heritage Area can be improved? Please explain briefly in the space provided.

## Facilities :

1. Facilities are not needed/already adequate	42.3%
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2. Toilets should be provided	15.4%
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## Visitor Services/Information :

1. More information about World Heritage, history, conservation	32.3%
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2. Visitor services/information are adequate	22.6%
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Fishing : 1. Greater policing with more patrol officers	37.1%
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2. Bag limits decreased and sizes increased	12.9%
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3. Fishing should be restricted	11.4%
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## Conservation:

1. Greater control of feral animals and weeds	20.0%
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2. Controls on four wheel drives	16.0%
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Other: 1. More involvement of local residents in management	12.5%
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2. Stiffer penalties for littering	8.3%
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3. Upgrade roads	8.3%
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10. If you are with a group, how many are within the following age groups?

(Write a number in the appropriate box/boxes)

	Males	Females
Under 15	37.4	34.6
15 - 24	13.3	14.7
25 - 39	42.2	36.0
40 - 59	66.8	46.0
60 and over	22.7	15.2

If with an organisation,  
please name

3.3

11. What is your age group?

(tick one) Not stated

Under 15 years	1.4	1.	2.4
15 - 24 years	8.5	2.	
25 - 39 years	30.3	3.	
40 - 59 years	38.4	4.	
60 years and over	19.0	5.	

12. Where do you usually live?

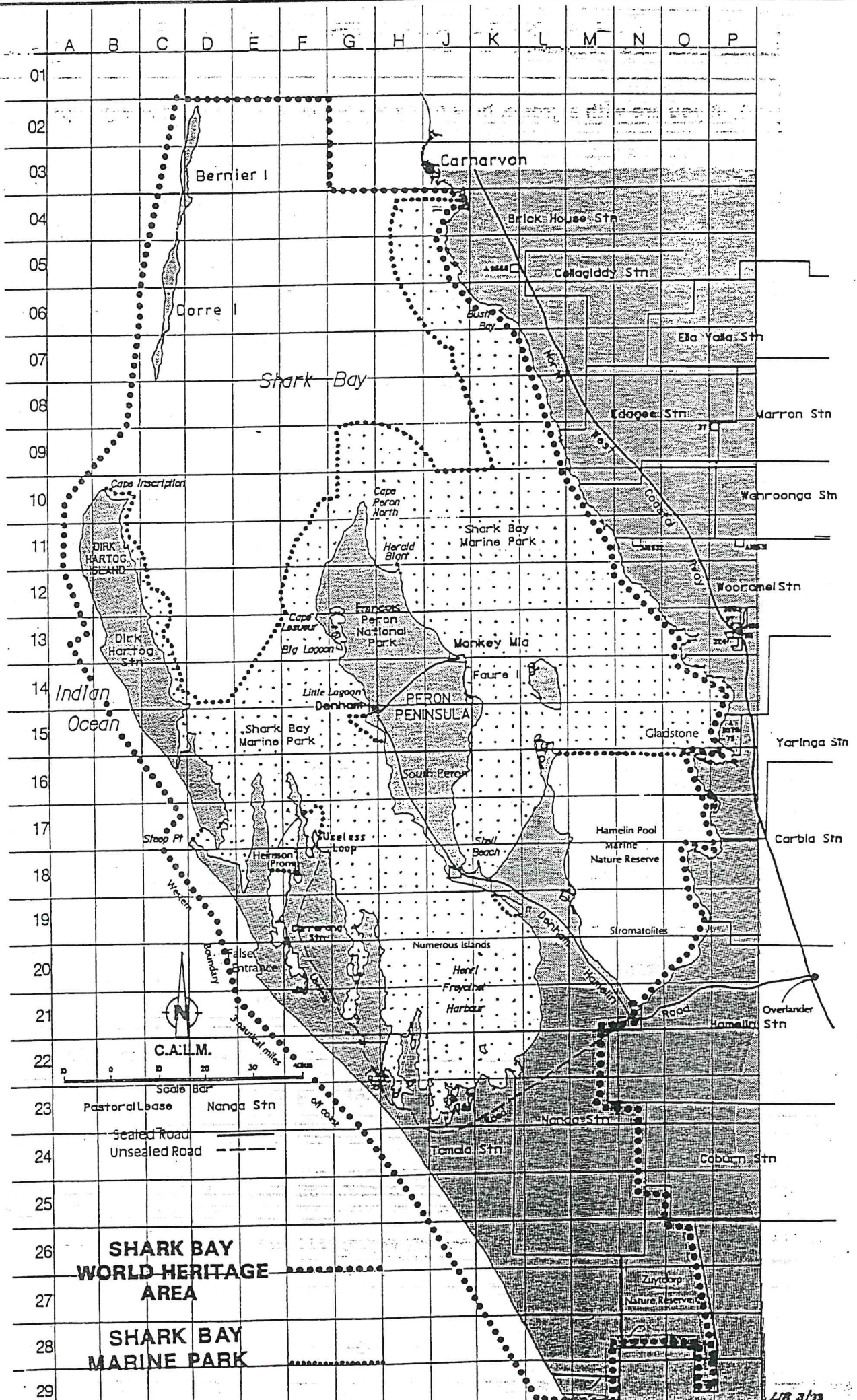
Town

Postcode

Country  
(if overseas)







SHARK BAY WORLD HERITAGE AREA SURVEY

13. If you used a boat in the Shark Bay World Heritage Area, which areas did you visit and what activities did you participate in? Please use the grid reference on the map to indicate which areas you have visited.

(tick one for each site listed)

(tick one or more for each site visited)

		First Visit	2-10 times	10 times or more	Line Fishing	Spear-fishing	Diving	Sight-seeing	Other - Please specify
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1.		2.	3.	4.	5.	6.	7.	8.	9.

THANK YOU FOR YOUR TIME AND HELP.

