

**MARINE MANAGEMENT SUPPORT  
CENTRAL WEST COAST**

**MARMION MARINE PARK COMMUNITY AWARENESS  
SURVEY RESULTS:  
26 APRIL 2003**

**Data Report: MMS/CWC/MMP-74/2003**

A collaborative project between Marine Conservation Branch and Swan Coastal District.

**Prepared by  
Melissa Mazzella  
Marine Conservation Branch**

**June 2003**



**Marine Conservation Branch  
Department of Conservation and Land Management  
47 Henry St, Fremantle  
Western Australia, 6160**



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## **ACKNOWLEDGEMENTS**

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**SUMMARY**

A series of educational signs were installed along the cliff-top promenade overlooking the Marmion Marine Park during October to December 2002. The signs were established to increase, in the short-term, public awareness of Marmion Marine Park and the marine reserve system in general. In the long-term term, the signs are part of an on-going program to foster local community stewardship of Marmion Marine Park and to continue to build a public constituency for marine conservation in the State. To assess the short-term effectiveness of this project, two public surveys were carried out before (12 October 2002) and after (26 April 2003) the signs were installed to assess the changes in community knowledge and attitudes. This report presents the results of the latter survey.

The surveys found that most respondents visited the park at least weekly, lived locally and used it mainly for swimming or walking along the promenade and beach. The number of people who were aware of the existence of the park rose from 49% to 57%, and of the park's extent (i.e. Trigg Island to Burns Rocks) from 13% to 33%. The number of people who knew the Department was the lead management agency rose from 46% to 68% and who were aware of the Marine Parks and Reserves Authority from 3% to 8%. The signs appeared to be effective in raising people's awareness of the marine park. For example, of the 51% who had noticed the signs, 72% named the park correctly. In comparison, of the 49% who had not noticed the signs, only 38% named the park correctly.

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## 1 INTRODUCTION

The Marine Conservation Branch (MCB) aims to build a constituency for marine conservation in Western Australia as a part of a broader public awareness program of marine protected areas and marine conservation in general. The design and installation of coastal interpretive signage for Marmion Marine Park is one project that stems from this public awareness program. A total of 30 signs were installed along the recently upgraded dual-use pathway that runs adjacent to Marmion Marine Park after the first survey (12 October 2002). Sign locations are indicated in Mazzella (2003).

Because more than two million recreational users frequent Marmion Marine Park annually, it is an ideal location to improve the community's awareness of marine conservation in WA and to assess the effectiveness of related public awareness initiatives. The signage is part of an on-going program to foster local community stewardship of Marmion Marine Park by increasing public awareness of the park and marine reserve system in general. To assess the short-term effectiveness of this project, public surveys were carried out before (12 October 2002) and after (26 April 2003) the signs were installed to assess changes in community knowledge and attitudes.

This second survey (26<sup>th</sup> April 2003) together with the baseline survey (12<sup>th</sup> October 2002), will help to gauge the effectiveness of new interpretive and educational signage. The results of these surveys serve a dual purpose:

- (i) they will contribute to the human usage information requirements of the review of the Marmion Marine Park Management Plan (Department of Conservation and Land Management, 1992), and
- (ii) they will assess the effectiveness and success of new interpretive and educational signage on these issues.

Surveys such as these are advantageous as they not only provide an opportunity to gauge current awareness but also provide a platform from which management decisions involving educational and interpretive strategies can be made.

## 2 OBJECTIVES

This survey had the following objectives.

1. Assess the community's current awareness of:
  - a) WA marine conservation reserves;
  - b) the Department of Conservation and Land Management (CALM);
  - c) the Marine Parks and Reserves Authority; and
  - d) the signage installed along the promenade of the Marmion Marine Park.
2. Obtain data from users after the installation of interpretive signage, to assess any changes that have resulted in the community's awareness of 1(a-d), above.
3. Obtain the demographics of the population sample.

### 3 MATERIALS AND METHODS

#### 3.1 Questionnaire

The survey consisted of twelve questions (Appendix 1) with the first eight repeated from the previous survey and a further four (questions 9-12) added.

In respect of the objectives, the questions were designed to gauge:

- knowledge and awareness of coastal users along Marmion Marine Park in respect to:
  - public awareness of marine conservation reserves in Western Australia (1a);
  - awareness of the Department's role (1b);
  - awareness of the role of the MPRA (1c);
- awareness of the new interpretive signage (1d);
- the influence and effectiveness that signage has on community awareness (2);
- the demographic's of participants (3); and
- the nature of activities conducted in or adjacent to Marmion Marine Park (3).

The survey was also designed to:

- account for other possible influences on awareness; and
- provide an opportunity for participants to provide general feedback in relation to the Government's marine conservation framework.

#### 3.2 SURVEY TEAM AND LOCATIONS AT WHICH INTERVIEWS WERE CONDUCTED

The survey team consisted of two volunteers, one member of staff from the Marine Conservation Branch and two members of staff from the Swan Coastal District. All interviewers carried identification such as a name badge containing a Department of Conservation and Land Management logo, and/or a Departmental hat and/or Departmental clothing.

Interviewers were divided into two teams, with one team covering the Marine Park extent north of Hillarys Beach and the other covering the area south. Points randomly selected along the coast to interview people included areas around Trigg Island, Bennion Beach, Mettams Pool, North Beach, Hillarys Beach, Mullaloo Beach, Shenton Avenue, Ocean Reef and Burns Beach. Survey participants were approached individually by interviewers between approximately 9:00am and 3:00pm on Saturday 26 April, 2003.

#### 3.3 SURVEY METHOD

Questions 1 and 2 were put directly to participants with no direction from interviewers. For question 3, a choice of 4 possible answers was provided by reading each to participants. In relation to questions 4 and 5, the survey data constituted recording whether the participants either answered the respective question correctly or incorrectly. Questions 6 to 8 also provided multiple choice answers. Questions 9 to 11 were recorded as a yes or no response. For question 12, participants were asked to provide comments.

## 4 RESULTS

A total of 76 people were interviewed for the survey, as summarised in Table 1. For results of the pre-signage survey refer to the data report by Mazzella (2003).

**Table 1: Marmion Marine Park community awareness survey of 26/04/03 - summary results**

Question 1: Can you name a marine park in WA?						
	Ningaloo	Rowley Shoals	Shark Bay	Swan Estuary	Shoalwater Is	Marmion
%	68	0	5	1	4	57

  

Question 2 (b): If they named Marmion then - Where does Marmion Marine Park Extend to?		
	Correct	Not correct
%	33	67

  

Question 3: Who manages marine parks in WA?					
	Fisheries	CALM	DEP	EPA	not recorded
%	20	68	4	4	4

  

Question 4: What does EPA mean?		
	Correct	Not correct
%	75	25

  

Question 5: What does MPRA mean?		
	Correct	Not correct
%	8	92

  

Question 6: How often do you visit the area?						
	First	Daily	Weekly	Monthly	Yearly	Other
%	2.6	50	32.9	6.6	2.6	5.3

  

Question 7: What activities do you do here?										
	Swim	Sightsee	Picnic	Fishing	Snorkel	Dive	Run	Walk	Surf	Other
%	51	3	3	12	13	1	14	70	30	29

  

Question 8 (a): Are you female or male?			
	Female	Male	not recorded
%	36	63	1

  

Question 8 (b): To which age group do you belong to?						
	<15	15-24	25-30	31-39	40-59	60 +
%	1.3	7.9	6.6	15.8	48.7	19.7

  

Question 8 (c): From where are you visiting?					
	local	Perth metro	WA country	Interstate	Overseas
%	72.4	21.1	1.3	3.9	1.3

  

Question 9: Are you aware of the new signs along the dual pathway?		
	Yes	No
%	51	49

  

Question 10: Did you receive a letter about the new signs? (Note: only applicable to local residents)		
	Yes	No
%	1	99

  

Question 11: Did you see the Department of Conservation and Land Managements display at the Hillarys Boat Show?		
	Yes	No
%	7	93

  

Question 12: Do you have any comments about marine conservation (i) in general, (ii) ways to improve public awareness and (iii) what would encourage the community to become more involved in marine conservation?  
Comments recorded and attached as appendix 2.

### 4.1 QUESTION 1: CAN YOU NAME A MARINE PARK IN WESTERN AUSTRALIA?

Of those surveyed, 55% could name Marmion Marine Park and 68% could name Ningaloo Marine Park. Only 10% were able to name one or more of Shark Bay, Swan Estuary or Shoalwater Island marine parks. No participant named Rowley Shoals Marine Park.

**4.2 QUESTION 2 (B): IF THEY NAME MARMION THEN ASK: WHERE DOES MARMION MARINE PARK EXTEND TO?**

Thirty-three percent of participants could correctly state the extent of Marmion Marine Park.

**4.3 QUESTION 3: WHO MANAGES MARINE PARKS IN WA?**

Sixty-eight percent of participants believed that the Department of Conservation and Land Management managed marine parks, where as 20% believed the responsible agency to be the Department of Fisheries. One percent of participants thought that more than one of the four Government departments (i.e. Department of Fisheries, Department of Conservation and Land Management, Department of Environmental Protection and the Environmental Protection Authority) were responsible for the management of marine parks in Western Australia. Four percent could not or did not associate any of the four Departments as managers of marine parks.

**4.4 QUESTION 4: WHAT DOES THE EPA MEAN?, AND QUESTION 5: WHAT DOES THE MPRA MEAN?**

Seventy-five percent were able to expand on the EPA (Environmental Protection Authority) acronym, whereas only eight percent were able to expand on the MPRA (Marine Parks and Reserves Authority).

**4.5 QUESTION 6: HOW OFTEN DO YOU VISIT THIS AREA?, QUESTION 7: WHAT ACTIVITIES DO YOU DO HERE?, QUESTION 8: (A) ARE YOU FEMALE OR MALE?, (B) TO WHICH AGE GROUP DO YOU BELONG? AND (C) FROM WHERE ARE YOU VISITING?**

Fifty percent of participants said they visited the area daily and 33% said they visited the area weekly. Seventy percent said they visited the area to walk and 51% said they visited the area to swim. On average, each respondent participated in approximately two activities. Sixty-three percent of respondents were male. Forty-nine percent were aged 40-59 years. Seventy-two percent of participants said they lived locally and 21% within the metropolitan area.

**4.6 QUESTION 9: ARE YOU AWARE OF THE NEW SIGNS ALONG THE DUAL USE PATHWAY?**

Fifty-one percent of participants said they were aware of the new signs along the dual use pathway adjacent to Marmion Marine Park.

**4.7 QUESTION 10: DID YOU RECEIVE A LETTER ABOUT THE NEW SIGNS?**

Only one percent of participants said they received a letter about the new signs.

#### 4.8 QUESTION 11: DID YOU SEE THE DEPARTMENT OF CONSERVATION AND LAND MANAGEMENT'S DISPLAY AT THE HILLARYS BOAT SHOW?

Only seven percent saw the Department of Conservation and Land Management's display at the Hillarys Boat Show.

#### 4.9 QUESTION 12: DO YOU HAVE ANY COMMENTS ABOUT MARINE CONSERVATION: (I) IN GENERAL, (II) WAYS TO IMPROVE PUBLIC AWARENESS, (III) WHAT WOULD ENCOURAGE THE COMMUNITY TO BECOME MORE INVOLVED IN MARINE CONSERVATION?

Responses to question 12 (Appendix 2) were overall positive for marine conservation. The responses can be grouped into a few selected categories, as done in Table 2.

##### *(i) in general*

Most comments (38) were explicitly positive towards marine conservation.

##### *(ii) ways to improve public awareness*

A total of 65 participants gave feedback of constructive mechanisms or strategies in relation to the management of the marine environment and on ways to improve public awareness.

##### *(iii) what would encourage the community to become more involved in marine conservation?*

A total of 59 participants suggested constructive mechanisms or strategies in relation to the management of the marine environment that would encourage the community to become more involved in marine conservation.

**Table 2: Comments for question 12 placed into selected categories.**

	<b>(i)</b>	<b>(ii)</b>	<b>(iii)</b>
Constructive mechanisms or strategies in relation to management of the marine environment.	20	65	59
Comments that were explicitly positive towards marine conservation.	38	4	-
Other general comments about marine conservation.	6	-	4
<b>Total</b>	<b>64</b>	<b>69</b>	<b>64</b>

#### 4.10 RAW DATA

The raw data that were collected in this survey are presented in Appendix 3.

**5 DISCUSSION****5.1 QUESTIONS 1: CAN YOU NAME A MARINE PARK IN WESTERN AUSTRALIA? AND 2 (B): IF THEY NAME MARMION THEN ASK: WHERE DOES MARMION MARINE PARK EXTEND TO?**

Participants able to name Marmion Marine Park increased by eight percent and Ningaloo Marine Park by 19%. No such increase in apparent awareness was reflected in participant responses in relation to Shoalwater Islands, Swan Estuary, Shark Bay and Rowley Shoals marine parks.

Of the participants who named Marmion Marine Park there was an increase of 20% in those who were able to correctly state the extent of the park. It is notable that the extent 'Trigg Island to Burns Rocks' is written at the top of all of the new signs.

On the basis of these results, there would appear to have been an increase in awareness of Marmion Marine Parks, plausibly attributed to the educational and interpretive value of the new signs.

**5.2 QUESTION 3: WHO MANAGES MARINE PARKS IN WA?**

Sixty-eight percent correctly stated that CALM manages marine parks in Western Australia. Twenty percent answered the Department of Fisheries. Encouragingly, this reflects a 22% increase in people able to name CALM as managers. This result may possibly be attributed to the CALM logo on all signs, an inference further supported by the similar increase in the number participants able to name the extent of Marmion Marine Park.

**5.3 QUESTION 4: WHAT DOES THE EPA MEAN?, AND QUESTION 5: WHAT DOES THE MPRA MEAN?**

The participants able to expand on the EPA acronym rose by 30%. One might speculate that this increase could be due to the recent spate of publicity surrounding the Environmental Impact Assessment (EIA) for the proposed development at Ningaloo and the change in Chairperson of the EPA.

Participants able to expand on the MPRA acronym rose from three percent to only eight percent. This increase is low when compared to the increase in those able to name the CALM as managers of marine parks. Note that there is an MPRA logo on all signs. The results appear to indicate that the MPRA has a lower profile than the EPA.

**5.4 QUESTION 6: HOW OFTEN DO YOU VISIT THIS AREA?**

In the first survey, most participants visited weekly (39%) compared to 29% daily, in the second survey 33% visited weekly and 50% visited daily. It is not possible to infer whether this increase in percentage of people who visited daily influences the 'awareness' aspect of any of the questions.

## **5.5 QUESTION 7: WHAT ACTIVITIES DO YOU DO HERE?**

Walking rose by 20% and picnicing decreased by 15%. The average number of activities each survey participant participated in was just over two for both surveys. A correlation can be seen between the older population trend and the number of walkers. There did not appear to be much change in the overall intensity of activities by users.

## **5.6 QUESTION 8: (A) ARE YOU FEMALE OR MALE?, (B) TO WHICH AGE GROUP DO YOU BELONG? AND (C) FROM WHERE ARE YOU VISITING?**

The female:male (36:63) ratio remained approximately the same for both surveys, again perhaps suggesting that more males frequent the coast than females.

On the day of this survey there was a surf competition being held at South Trigg beach and this may have led to a short-term change in the spread of the age demographic.

Visitation between the two surveys was very similar to the first survey, with only a six percent increase in local visitors and only a four percent decrease in country visitors.

## **5.7 QUESTION 9: ARE YOU AWARE OF THE NEW SIGNS ALONG THE DUAL USE PATHWAY?**

Question 9 attempted to gauge the proportion of participants that are aware of the new signs. Approximately half (51%) of participants were aware of these signs and this was an encouraging result. Out of this 51%, the same percentage were able to name Ningaloo Marine Park than those from the group that were not aware of the new signs, indicating perhaps that the messages in signs do not influence people's general level of awareness of marine issues outside Marmion Marine Park. In contrast, a greater percentage of the participants who are aware of the new signs were able to name Marmion Marine Park than those not aware of the new signs. This points to the value of the new signage in changing awareness of the adjacent marine park.

The results appear to suggest that people were more likely to correctly name the extent of the park if they had seen the signs. This suggests perhaps that participants aware of the new signs tended to have greater awareness than those not aware of the new signs and that signage had an influence on peoples awareness.

In contrast, the new signs did not seem to influence peoples' ability to expand on the MPRA acronym suggesting perhaps that the MPRA aspect of the signage may need to be made more prominent.

## **5.8 QUESTION 10: DID YOU RECEIVE A LETTER ABOUT THE NEW SIGNS?**

In November, approximately 300 letters (Appendix 4), were either placed in the letter boxes of people living along west coast drive or handed out to people around where the signs are located. The letters contained information about the CALM's marine role and about the new signs. This question was put to local residents to see if they received information about marine conservation that can be found on the signs from an outside source. The results indicate than only a small proportion (one percent) of the total surveyed had received a letter suggesting this measure was ineffective in increasing awareness of those who visit the beach and boardwalk.

## **5.9 QUESTION 11: DID YOU SEE THE DEPARTMENT OF CONSERVATION AND LAND MANAGEMENT'S DISPLAY AT THE HILLARYS BOAT SHOW?**

Similarly to question 10, question 11 aimed to gauge if awareness was improved via the CALM display at the Hillarys Boat Show (8<sup>th</sup>-9<sup>th</sup> February 2003). As only a low percentage of those surveyed visited saw the display, it is deemed not to have had a marked impact on awareness of those who visit the beach and boardwalk.

## **5.10 QUESTION 12: DO YOU HAVE ANY COMMENTS ABOUT MARINE CONSERVATION: (I) IN GERNERAL, (II) WAYS TO IMPROVE PUBLIC AWARENESS, (III) WHAT WOULD ENCOURGAE THE COMMUNITY TO BECOME MORE INVOLVED IN MARINE CONSERVATION?**

The responses to question 12 indicate that people are generally aware of the marine environment. Community members want to help 'protect' the environment if they knew how they could. The respondents suggested many constructive mechanisms or strategies (Appendix 2) including educating the community through advertising, signage and hands on activities for example, strategies that will give them the chance to 'make a difference'. It is notable that no one was overtly negative towards marine conservation.

## **6 CONCLUSION**

The surveys found that most respondents visited the park at least weekly, lived locally and used it mainly for swimming or walking along the promenade and beach. The number of people who were aware of the existence of the park rose from 49% to 57%, and of the park's extent (i.e. Trigg Island to Burns Rocks) from 13% to 33%. The number of people who knew the Department was the lead management agency rose from 46% to 68% and who were aware of the Marine Parks and Reserves Authority from 3% to 8%. The signs appeared to be effective in raising people's awareness of the marine park. For example, of the 51% who had noticed the signs, 72% named the park correctly. In comparison, of the 49% who had not noticed the signs, only 38% named the park correctly.

The surveys appear to have increased people's general awareness of the marine conservation objectives of management of the marine park. The results suggest that the use of educational and interpretive signage has influenced the awareness and knowledge of coast users along the dual-use pathway adjacent to Marmion Marine Park. It supports the use of signage as an effective tool in raising community awareness of marine conservation and, with particular reference to these signs, the name and extent of Marmion Marine Park and the Department as managers of marine parks in WA.



## **REFERENCES**

Department of Conservation and Land Management (1992). Marmion Marine Park Management Plan: 1992-2002, Department of Conservation and Land Management, Perth, Western Australia.

Mazzella, M.N. (2003). Marmion Marine Park community awareness survey results: 12 October 2002. Data report: MMS/CWC/MMP-71/2003. January 2003. Unpublished Report.

**APPENDICES**

**APPENDIX 1 MARMION MARINE PARK PUBLIC AWARENESS SURVEY**

**Marmion Marine Park public awareness survey 2**

**1. Can you name a marine park in Western Australia?**

Ningaloo	_____	Swan Estuary	_____
Rowley Shoals	_____	Shoalwater	_____
Shark Bay	_____	Marmion	_____

**2. a) Can you name a marine park in the Metro area?**

Swan Estuary \_\_\_\_\_  
 Shoalwater \_\_\_\_\_  
 Marmion \_\_\_\_\_

**b) If they name Marmion then ask: Where does Marmion Marine Park extend to?**

\_\_\_\_\_

**3. Who manages marine parks in WA?**

a) Department of Fisheries \_\_\_\_\_  
 b) Department of Conservation and Land Management \_\_\_\_\_  
 c) Department of Environmental Protection \_\_\_\_\_  
 d) Environmental Protection Agency \_\_\_\_\_

**4. What does the EPA mean?**

\_\_\_\_\_

**5. What does the MPRA mean?**

\_\_\_\_\_

**6. How often do you visit this area?**

First visit	Monthly
Daily	Yearly
Weekly	Other _____

**7. What activities do you do here?**

Swim	Dive
Sightsee	Run
Picnic	Walk
Fish	Surf
Snorkel	Other _____

**8. a) Are you? Female / Male**

**b) To which age group do you belong?**

Under 15	31-39
15-24	40-59
25-30	60 & over

**c) From where are you visiting?**

- Live locally
- WA Perth Metro region
- WA Country
- Interstate (which state?) \_\_\_\_\_
- Overseas (which country?) \_\_\_\_\_

**9. Are you aware of the new signs along the dual pathway?**

Yes \_\_\_\_\_ No \_\_\_\_\_

**10. Did you receive a letter about the new signs? (NOTE: applicable to locals only)**

Yes \_\_\_\_\_ No \_\_\_\_\_

**11. Did you see the Department of Conservation and Land Management's display at the Hillary's Boat Show?**

Yes \_\_\_\_\_ No \_\_\_\_\_

**12. Do you have any comments about Marine Conservation:**

- In general

\_\_\_\_\_

- Ways to improve public awareness

\_\_\_\_\_

- What would encourage the community to become more involved in marine conservation

\_\_\_\_\_

**APPENDIX 2 RESPONSES TO QUESTION 12 AS PER PARTICIPANT RESPONSES****Question 12: Do you have any comments about Marine Conservation****(i) in general**

*Constructive mechanisms or strategies re: management of the marine environment. (20)*

1. penalties for abuse of the marine environment
2. too many fisherman - more restrictions
3. protected areas
4. protects seals and dolphins
5. protect pristine environment
6. to have bait clearing areas near ramps and bins
7. to maintain fish bag limits, size limits etc.
8. bag limits
9. rules are good e.g. abalone
10. abalone - disagree with season - shouldn't have allowed it at all
11. more fisheries inspectors on
12. number of fisheries monitoring should be increased
13. too many undersized fish and crabs are taken
14. keep 4WD out of sand dunes
15. pick up rubbish
16. increase public awareness
17. more awareness
18. tv should be used to promote marine conservation
19. noticed improvements, signs etc.
20. biology teachers to teach kids about marine conservation

*Comments that were explicitly positive towards marine conservation. (38)*

1. important (3)
2. necessary, good thing and needed
3. more of it (4)
4. great (3)
5. great idea, like the way the beach has been protected
6. great thing
7. marine parks in WA - great
8. excellent
9. good job being done at the moment (4)
10. good (5)
11. good coastline/shoreline (2)
12. necessary (2) and effective
13. pretty good in regards to revegetation and dune rehabilitation
14. nice clean ocean
15. essential
16. keep it up
17. positive
18. more should be done
19. in support of it
20. happy about it
21. healthy and diverse
22. access to good snorkelling

*Other comments about marine conservation. (6)*

1. oppose to marina development
2. against Ningaloo proposal
3. more artificial reef
4. non-commercialisation
5. there is not a lot of public awareness
6. boardwalk linking Trigg-Scarborough carpark through dunes

**(ii) ways to improve public awareness***Constructive mechanisms or strategies re: management of the marine environment. (65)*

1. anti swimming with sea lion policy - CALM is too controlling
2. actions by authorities
3. abalone season not in conservation areas
4. heavy fines
5. fines for polluters
6. to have a CALM presence
7. it's CALM's job
8. advertising
9. signage becomes common after a long time
10. mail drops about marine conservation
11. surveys to get people thinking about marine conservation (3)
12. continual presence of the Department
13. display signs about marine conservation
14. changing signs, so they don't become boring
15. signage along the coastline
16. enough signs
17. more signs about marine conservation
18. signs a good idea
19. signs closer to beaches
20. more signs
21. signage (3)
22. more information along pathway around seats
23. more signs to tell people what's going on
24. low impact stuff like signs
25. advertise (3) through newspaper paper (local or State) (3) and tv (6) radio (1)
26. publicity campaigns about marine conservation
27. POSTCARDS WA i.e. from a tourism point of view
28. literature at tourism bureau
29. free booklets available at newsagencies
30. leaflet, not just locally
31. maps on internet - eco tourism
32. posters
33. invite to the lab to see what people do
34. have talks about marine conservation
35. volunteers doing talks
36. conduct tourist operations by CALM - glass bottom boats
37. displays like at the boat show
38. more school programs - more awareness
39. teach kids - tell parents
40. activities for kids
41. don't need to
42. marketing
43. media

44. point things out regularly
45. surf lifesaving clubs
46. sponsorship
47. more education about rubbish
48. pictures of what it looks like in other cities and here so people can appreciate what we have
49. more honesty about what's going on with conservation

*Comments that were explicitly positive towards marine conservation. (4)*

1. pretty good at the moment - public (locally) is aware
2. make people aware first
3. it is necessary
4. common sense

**(iii) what would encourage the community to become more involved in marine conservation?**

*Constructive mechanisms or strategies re: management of the marine environment. (59)*

1. total ban on fishing for six months
2. more rangers
3. commercial fishing have a limit on number caught
4. fines
5. harsher penalties
6. fisherman, general public waste of time
7. stop abalone fishing hammering reef
8. more publicity + advertising (2)
9. education (2)
10. awareness (2)
11. more aware of upcoming events then maybe more participate more often
12. schools and youth group activities
13. clean up day
14. family days
15. school kid groups e.g. waterwise, recycling as teachers have more ability/chance to get kids involved
16. hands on activities
17. beach activities for kids
18. awareness of what's at risk if you don't conserve
19. awareness education program
20. advertise more (3) at shops (2)
21. promote caring
22. giving people a role
23. hold more events
24. know what goes wrong
25. knowledge and education
26. promote appreciation
27. issue like Ningaloo have educated people about how fragile the marine areas are
28. crayfish information
29. promote beaches
30. school groups going out - kids
31. more outreach programs like VFLO's
32. disaster - scare people into it (too late)
33. showing e.g. barrier reef as example of what could happen if not preserved
34. more awareness - things are suffering
35. more activities therefore more awareness of environment they are in
36. awareness of what will happen if no conservation
37. awareness on how people can become involved

38. more awareness of need for conservation
39. awareness of what is happening
40. awareness of what would be lost
41. increasing awareness of non-destructive behaviour/activities
42. move people to be more aware of destructive behaviour - make it culturally unacceptable
43. surfing program ECU (provides a platform of understanding) i.e. not just surfing
44. sports in area
45. more boardriders clubs
46. advertising things to promote what CALM does
47. movable displays in areas
48. knowledge
49. if marine conservation effects them
50. activities
51. don't think you can its up to people
52. see by doing certain things e.g. rubbish leads less wildlife

*Other comments about marine conservation (4).*

1. if its on your doorstep
2. if things get worse people will be encouraged to become more involved
3. stop hypocrisy and people will be encouraged
4. money put into marine conservation











Marmion Marine Park public awareness survey 26/04/03 - Raw data

		Question 1						Question 2 (b)		Question 3				Question 4		Question 5		Question 6						Question 7						Question 8 (a)		Question 8 (b)						Question 8 (c)				Question 9	Question 10	Question 11								
Participants		Ningaloo	Rowley Shoals	Shark Bay	Swan Estuary	Shoalwater	Marmion	Y	N	Fisheries	CALM	DEP	EPA	Y	N	Y	N	First	Daily	Weekly	Monthly	Yearly	Other	Swim	Sightsee	Picnic	Fish	Snorkel	Dive	Run	Walk	Surf	Other	Female	Male	<15	15-24	25-30	31-39	40-59	60+	Local	Perth metro	WA country	Interstate	Overseas	new signs	letter	boat show			
		59	1								1				1			1						1 week daily	1							1			1					1						SA	1					
60														1		1	1																					1		1												
61	1					1		1		1				1		1			1												1																					
62	1								1					1		1			1												1	1																				
63						1		1		1				1		1			1												1		cycle																			
64	1					1		1		1				1		1			1											1																						
65	1					1	1			1				1		1			1											1		sail																				
66	1				1	1				1				1		1			1								1			1	walk dog								1													
67	1					1		1		1				1		1			1								1			1							1															
68										1				1		1	1															take kids to park																				
69	1					1	1			1				1		1			1										1																							
70									1					1		1						every 2nd day								1	1																			1		



## APPENDIX 4 MARMION MARINE PARK LETTER

*MARINE PROTECTED AREAS ~ keeping something in reserve ~***EDUCATIONAL SIGNS  
MARMION MARINE PARK****WE NEED YOUR HELP**

The Marine Parks and Reserves Authority and the Department of Conservation and Land Management are, on behalf of the Government and people of Western Australia, establishing a statewide network of marine protected areas (MPA) to help conserve the unique marine biodiversity of our State and to ensure human uses of our marine resources are sustainable. Marmion Marine Park, on your doorstep, is an important part of the MPA network and has over 2 million day visits each year. Community support and co-operation is essential for effective management of the marine park and is developed through education and public participation programs.

As you may be aware a number of educational signs have been set into the limestone wall along the coastal promenade that borders the Marmion Marine Park. The Department of Conservation and Land Management, as managers of the marine park, seeks your assistance in maintaining this educational program. **Please phone the Department on 93360111** if any of the signs near your house are vandalized or damaged.

*MARINE PROTECTED AREAS ~ keeping something in reserve ~*



# MARMION MARINE PARK

## WE NEED YOUR HELP

