

MARINE MANAGEMENT SUPPORT CENTRAL WEST COAST

CENTRAL WEST COAST MARINE BIODIVERSITY AND CONSERVATION PROGRAM: COMMUNITY EDUCATION AND INTERPRETATION PROGRAM IN THE JURIEN BAY MARINE PARK AND SURROUNDING MID WEST REGION

Final Report: MMS/CWC/JBMP-82/2004

A collaborative project between CALM's Marine Conservation Branch and Moora District Office

A project jointly funded by the Natural Heritage Trust via the Northern Agricultural Catchment Council and the Department of Conservation and Land Management

> Prepared by K. Fitzgerald, K. P. Bancroft & L. Butcher Marine Conservation Branch

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







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SUMMARY

The Community Education and Interpretation Program was developed and implemented for the JBMP and the surrounding Mid West region. The program aimed to raise awareness of:

- 1) the ecological and social values of the area;
- 2) the need and ways to ensure these values are conserved;
- 3) the creation of the Jurien Bay Marine Park (JBMP);
- 4) the new restrictions on commercial and recreational activities as a result of the implementation of marine park zoning and other management strategies; and
- 5) the role of effective natural resource management (NRM) for the marine environment of the Central West Coast (CWC).

This was achieved through the development and implementation of a communication plan, which included participating in community events and workshops and displays, the Central West Coast Schools Program and the development and distribution various educational materials including:

- 1) DVDs;
- 2) educational posters;
- 3) web-based products;
- 4) power point presentations; and
- 5) brochures.

Overall, thousands of people in the CWC visited education/interpretation stands at various events, attended workshops, participated in the schools program and received educational products. Feedback from those participants indicated that a high proportion were already aware of the newly declared JBMP and were generally in support of the management strategies that are associated with the marine park.

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1 BACKGROUND

The Jurien Bay region of the CWC has a unique marine environment worthy of conservation status. Over the next few years it is expected that there will be a significant increase in commercial and recreational usage of the areas marine natural resources. In order to manage the human usage that currently exists and/or may eventuate in the near future and to conserve the region's marine environment, the area between Green Head and Wedge was gazetted as the JBMP on 31 August 2003. The park's indicative management plan (Department of Conservation and Land Management 2000b) is due to be transformed into the finalised JBMP Management Plan in early 2005 (Department of Conservation and Land Management 2004).

Ongoing community education and awareness-raising on the role of effective NRM for the marine environment of the CWC is a fundamental strategy for conservation of the marine ecological and social values of this area. The newly established marine park provided an effective spatial context through which to communicate NRM issues. The JBMP indicative management plan identified high priority issues for marine education (Department of Conservation and Land Management 2000b).

This project involved the development and implementation of a communication plan (Appendix I) which prescribed:

- (a) a community education and interpretation program for JBMP;
- (b) a marine community monitoring education and awareness campaign; and
- (c) a media plan.

The communication plan raised awareness of the local community, stakeholders, and visitors to the region on:

- (i) the ecological and social values of the area; and
- (ii) the need and ways to ensure these values are conserved.

This project was delivered in collaboration with CALM's MCB and Moora District, the Northern Agricultural Catchment Council (NACC), the Department of Fisheries (DoF), Shire of Dandaragan, key stakeholders and local community groups, facilitating an integrated approach towards the planning, management and conservation of the area. By working in conjunction with the Marine Community Monitoring Program (MCMP), this project also aimed to build community capacity to encourage public participation in NRM of the marine environment.

This project facilitated the following related initiatives:

- the overarching Central West Coast Marine Biodiversity and Conservation Program (CWCMBCP);
- the Natural Heritage Trust (NHT2) CoastCare funded MCMP;
- the Department's statewide community awareness program for marine conservation; and
- the draft JBMP Management Plan (objectives and work plan requirements) (Department of Conservation and Land Management, 2004).

2 OBJECTIVES

To develop and implement a community education and interpretation program for JBMP, to raise awareness on:

- a) the ecological and social values of the area; and
- b) the need and ways to ensure these values are conserved.

These objectives have been met by:

- a) development and implementation of a communication plan;
- b) development and distribution of educational materials; and
- c) participation in community events and displays and the coordination of the CWC Schools Program and various workshops.

3 EDUCATION MATERIAL

3.1 Posters

Two educational posters were designed featuring the ecological values of JBMP and the CWC:

- 1. Jurien Bay Marine Park: A unique blend of tropical and temperate plants and animals (Figure 1)
- 2. Jurien Bay Marine Park: Beautiful islands and magnificent coastlines (Figure 2)

Twenty five sets were printed, laminated and distributed to the following schools, shire offices and businesses:

Shire of Dandaragan
Eneabba Primary School
Dongara District High School
Mingenew Primary School
Moora Primary School
Badgingarra Primary School
Jurien Bay District high School
CALM Jurien District
Dandaragan Primary School
Carnamah District High School

Sandpiper Tavern
Three Springs Primary School
Ardross Estate
St Josephs Primary School
Leeman Primary School
Cervantes Primary School
Shire of Coorow
Lancelin Primary School
Coorow Primary School

Pinnacles Tourism Centre

Jurien Bay Marine Park Beautiful islands and magnificent coastlines Marine conservation reserves:

Entrusted to the Marine Parks and Reserves Authority and managed by the Department of Conservation and Land Management on behalf of the community.



Figure 1. Educational poster: "Beautiful islands and magnificent coastlines".

MPRA

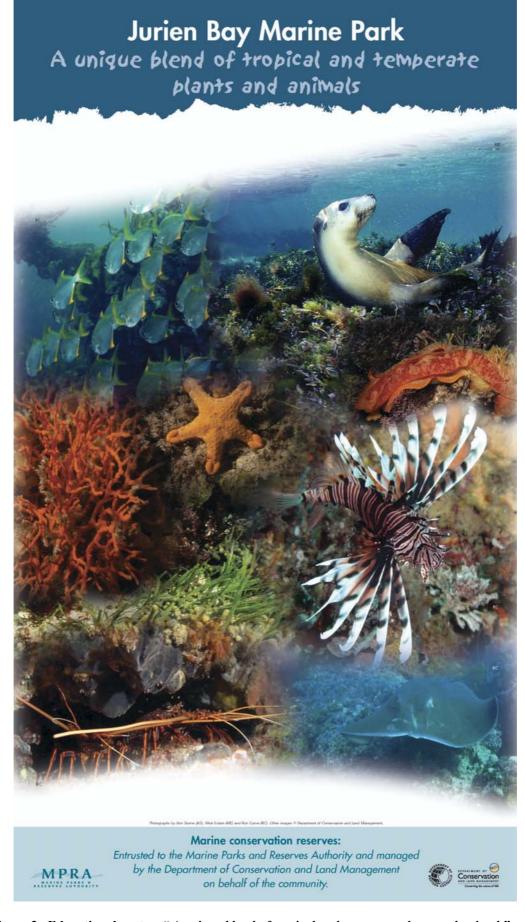


Figure 2. Educational poster: "A unique blend of tropical and temperate plants and animals"

3.2 Brochures

3.2.1 Your guide to Jurien Bay Marine Park

The brochure "Your guide to Jurien Bay Marine Park" was designed as a management tool for the newly gazetted marine park, informing people of the zoning scheme, management of the park and highlighting the ecological and social values of the CWC (Appendix II).

3.2.2 Jurien Bay Marine Park: User guide

The brochure "Jurien Bay Marine Park: User guide" has been designed as a user specific brochure and has been produced in conjunction with the DoF and DPI. The brochure provides information in an easy to use format for recreational visitors to the marine park. It provides more detailed information on:

- a) management zones;
- b) on-water and shore-based zone markers;
- c) where you can fish;
- d) how to care for the marine environment and island nature reserves in the marine park;
- e) bag and size limits for the most common recreational fish species; and
- f) basic boating information and regulations.

It is designed to give the amateur fishermen the basic information they need to recreate in the JBMP, and provide it in a format which allows them to store and use it as a reference guide, while out on the water (Appendix III).

NB. At the time of printing this report, this brochure was in it final stages of proofing and it was anticipated to be printed by May 2005.

3.3 **DVD**

The "Discover Jurien Bay Marine Park" DVD features footage of both underwater and aerial footage from the park (Figure 3). Thirty copies were produced and were distributed to shires, schools and the public and were played at various events including the launch of Jurien Bay Marine Park, Blessing of the Fleet, Jurien and Cervantes Easter Fairs and the 2nd WA State Coastal Conference (Geraldton). A second DVD was also produced specifically for the Central West Coast Schools Program in conjunction with the MCMP. The DVD featured underwater footage of JBMP illustrating the high marine biodiversity in the coastal waters of the CWC and demonstrated how one can monitor the marine environment.

3.4 POWER POINT PRESENTATIONS

A power point presentation aimed at students was created for the Central West Coast Schools Program (Appendix IV). The information presented in the talk included:

a) the marine plants and animals of the CWC and the State, in terms of biodiversity and endemism;

- b) the seven generic management strategies used by CALM to manage marine parks (education, surveillance and enforcement, monitoring, public participation, research, intervention);
- c) the zoning scheme; and
- d) how students can protect and conserve their marine environment.

3.5 WEB BASED PRODUCTS

A site was set up on CALM's Naturebase website dedicated to JBMP within the new marine conservation section (Figure 4):

(http://www.calm.wa.gov.au/national_parks/marine/jurien/index.html)

The site provides information on park management, zoning, ecological and social values of the CWC, visitor information and other articles relating to the park.

4 MEDIA STATEMENTS

Over the course of the program 30 media releases were published in various newspapers including "Central Midlands & Coastal Advocate", "The Advocate", "Midwest Mail Times" and "North Coast Times" community paper (Table 1; Appendix V).

The "JBMP Update" a regular input to the regional papers, was published in four local papers including:

- Jurien's "Cray Tales";
- Leeman's "Shag Island News";
- Cervantes' "Pinnacles Express"; and
- Green Head's "The Green Scene".

This update informed readers of the current CWCMBCP projects and related events and included facts about ecological and social values of the marine park and the CWC. In addition over ten press releases were circulated outlining CWCMBCP projects that were being conducted in the CWC (Appendix VI).

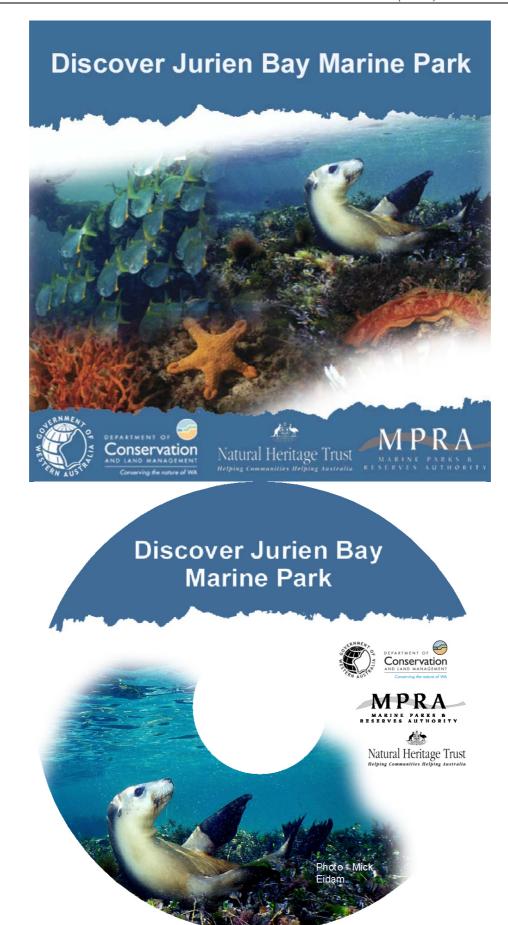


Figure 3. Educational products: "Discover Jurien Bay Marine Park" DVD cover

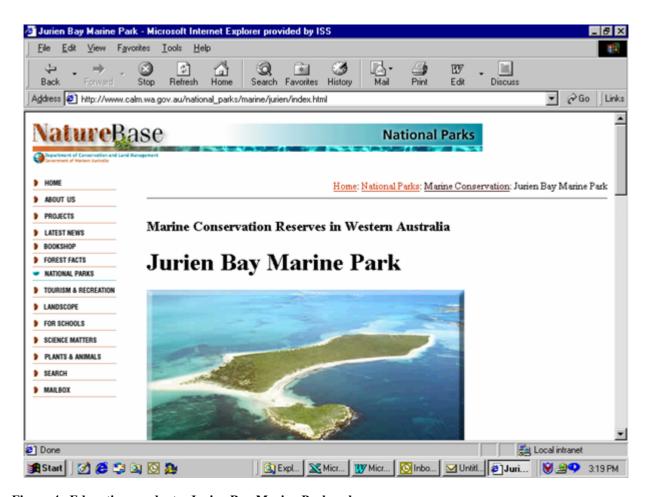


Figure 4. Education products: Jurien Bay Marine Park web page

Table 1. List of media releases

Paper	ARTICLE	DATE OF ARTICLE	CONTACT
Central Midlands & Coastal Advocate	"Marine education for Moora students"	11 th November, 2004	Media Monitors
Cray Tales	JBMP Update – "Dibblers – Endangered Islanders and Marine Park Zone Markers"	September, 2004	Kerry Green (9652 1496)
The Green Scene	JBMP Update – "Dibblers – Endangered Islanders and Marine Park Zone Markers"	September, 2004	Julie Taylor (9953 1128)
Snag Island News	JBMP Update – "Dibblers – Endangered Islanders and Marine Park Zone Markers"	September, 2004	Sharon McNeil (9953 1682)
Pinnacles Express	JBMP Update – "Dibblers – Endangered Islanders and Marine Park Zone Markers"	September, 2004	Yvonne Caddy (9652 7130)
Midwest Mail	Beachcombing workshop	19 th August, 2004	Media Monitors
Central Midlands & Coastal Advocate	"Combing the coast at Cervantes"	August, 2004	Media Monitors
Pinnacles Express	JBMP Update – "Wet Weed Workshop, Breeding Season for Sea Lions and School Education Program"	7 th July, 2004	Yvonne Caddy (9652 7130)
Cray Tales	JBMP Update – "Wet Weed Workshop, Breeding Season for Sea Lions and School Education Program"	7 th July, 2004	Kerry Green (9652 1496)
The Green Scene	JBMP Update – "Wet Weed Workshop, Breeding Season for Sea Lions and School Education Program"	7 th July, 2004	Julie Taylor (9953 1128)
Snag Island News	JBMP Update – "Wet Weed Workshop, Breeding Season for Sea Lions and School Education Program"	7 th July, 2004	Sharon McNeil (9953 1682)
Central Midlands & Coastal Advocate	"Marine Education Program Visits St Joseph's School"	24 th June, 2004	Di Broad (9651 1992)
Midwest Mail	"Student Knowledge Impresses Officers"	17 th June, 2004	Roanna Edwards (9956 1000)
Cray Tales	JBMP Update – "New marine officer arrives, Busy Easter for JBMP and Understanding water quality"	15 May, 2004	Kerry Green (9652 1496)
The Green Scene	JBMP Update – "New marine officer arrives, Busy Easter for JBMP and Understanding water quality"	15 May, 2004	Julie Taylor (9953 1128)
Snag Island News	JBMP Update – "New marine officer arrives, Busy Easter for JBMP and Understanding water quality"	15 May, 2004	Sharon McNeil (9953 1682)
Pinnacles Express	JBMP Update – "New marine officer arrives, Busy Easter for JBMP and Understanding water quality"	15 May, 2004	Yvonne Caddy (9652 7130)

PAPER	Article	DATE OF ARTICLE	CONTACT
Central Midland & Coastal Advocate	"Marine officers appointed to Jurien Bay Marine Park"	29 th April, 2004	Media Monitors
Midwest Mail	"Seal helped home"	22 nd January, 2004	Media Monitors
Central Midlands & Coastal Advocate	"Leeman Kids Learn About Marine Environment"	4 th December, 2003	Media Monitors
Midwest Mail Times (Geraldton)	"Quick Note Marine Education"	3 rd December, 2003	Media Monitors
The Advocate	"Sea rescue at Jurien Bay	27 th November 2003	Media Monitors
Midwest Mail	"Marine park project gains young recruits"	27 th November 2003	Media Monitors
Central Midlands & Coastal Advocate	"Marine park 'taken' to local schools"	27 th November, 2003	Media Monitors
Midwest Mail	"Marine park study"	20 th November, 2003	Media Monitors
Central Midlands & Coastal Advocate	"CALM's display proves popular"	6 th November	Media Monitors
Central Midlands & Coastal Advocate	"Blessing of fleet features marine display"	30 th October, 2003	Media Monitors
North Coast Times Community	"Seal cut free from a death sentence"	28 th October, 2003	Media Monitors
Central Midlands & Coastal Advocate	"Tasmanian scientists excited at marine park's diversity"	23 rd October, 2003	Media Monitors
Central Midlands & Coastal Advocate	" Marine biodiversity survey for Jurien Bay"	16 th October, 2003	Media Monitors
Government of Western Australia, Media Statement	"Marine biodiversity survey for Jurien Bay"	10 th October, 2003	Ministers Office (9220 5050)

5 EDUCATION OPPORTUNITIES

5.1 CENTRAL WEST COAST SCHOOLS PROGRAM

The aim of this program was to work with schools within the CWC region, which either lived in proximity to or visited the JBMP. The objective was to raise awareness of social and ecological values of the CWC focusing on the JBMP and how to conserve these values, and provide opportunity for the community to become actively involved in various marine education/monitoring activities.

Fifteen schools were visited in November and December 2003, and June and September 2004 (Figure 5). Forty four talks were give and approximately 1,130 students participate in the program (Table 2).

Table 2. A list of schools that participated in the CWC Schools Program and their details

School	STUDENTS CLASSES	DATE VISITED (NUMBER OF TALKS; STUDENTS)	CONTACT DETAILS
Jurien Bay SHS	8, 9, 10's	25/11/03 (3; 110)	Jason Bartell (9652 1014)
Leeman Primary	6 and 7's	26/11/03 (1; 40)	Dorothy McKee (9953 1083)
Dongara DHS	5, 6, 7, 8 and 10's	2/12/03 (4; 150)	Peta Beutel (9927 1179)
Three Springs Primary	6 and 7's	27/11/03 (1; 30)	Noelene Little, Kerry Muther (9954 1076)
Mingenew Primary	4, 5, 6 and 7's	27/11/03 (2; 70)	Roma Parker (9928 1062)
Badgingarra Primary School	5, 6 and 7's	1/12/03 (1; 20)	Shane Harris (9652 9060)
Eneabba Primary	2 – 7's	3/6/04 (1; 18)	Chris Clayton (9955 1021)
Carnamah DHS	3 – 10°s	4/6/04 (6; 140)	Keith Chambers (9951 1266)
Coorow Primary	1 – 7's	14/6/04 (3; 60)	Beverly Innes (9952 1043)
Cervantes Primary	3 – 7's	15/6/04 (2; 40)	Natalie Dennis (9652 7024)
Jurien DHS	3 – 7's	16/6/04 (5; 110)	Anthony Miller (9652 1014)
Moora Primary	3 – 7's	17/6/04 (4; 90)	Peter Pindlebury (9651 1297)
St Joseph's Primary - Moora	1 – 7's	18/6/04 (4; 100)	Lyla Forte (9651 1132)
Dandaragan Primary School , in cooperation with West- Midlands NRMO's (NACC)	1-7s	21/9/04 (3:51)	May Wilkinson (9651 4017)
Lancelin Primary School , in cooperation with West-Midlands NRMO's (NACC)	1-7s	25/9/04 (4:100)	Ian Herbert (9655 1077)
	Total	44 talks; 1129students	

Information presented included a power point presentation (Appendix IV) on the marine plants and animals of the CWC and the State, in terms of biodiversity and endemics, the need for protection and marine parks as a solution for marine conservation and human usage management. Children received a brochure pack including:

- a) "Your guide to Jurien Bay Marine Park" (Appendix II);
- b) "Recreational fishing guide. West coast region" (Department of Fisheries 2003);
- c) "Sea lions and fur seals" (Department of Conservation and Land Management undated); and
- d) a marine community monitoring refrigerator magnet.

Children were encourage to open the JBMP brochure to the map and were taken through the zoning scheme and explained which zones were what and what they were permitted to do in each zone, drawing on analogies with day to day experiences. Information was presented on how CALM

manages marine parks on a day to day basis and the children were introduced to the seven generic management strategies:

- a) education;
- b) surveillance and enforcement;
- c) monitoring;
- d) public participation;
- e) research; and
- f) intervention.

The importance of monitoring was also explained and a short DVD of underwater footage was shown to the children to highlight biodiversity in the region and how monitoring is conducted.

At the end of the presentation the children participate in a "What am I competition". Instead of individual prizes as all children were enthusiastic, the class received:

- a) the "Beachcombers Guide to SW Beaches" Field Guide (Department of Conservation and Land Management 1997);
- b) a CD ROM "Marine Life in Western Australia" (Department of Conservation and Land Management 1998);
- c) a set of JBMP posters (Figures 1 & 2); and
- d) if requested, they also received the DVD "Discover Jurien Bay Marine Park" (Figure 3).

5.1.1 Feed back

At the end of each presentation teachers were asked to fill in a survey form (Appendix VII). The survey was used:

- a) to gauge the teacher's knowledge of the park;
- b) to see whether they would like their students to participate in future marine education programs and monitoring; and
- c) to determine the effectiveness of the presentations.

Comments from the teachers surveyed included:

"I was impressed at every level with these presenters. Such lovely manner mixed with knowledge. Interesting and informative, sorry cant help you improve, YOU'RE GREAT!" Carnamah District High, year 5/6

"Fantastic presentation, visuals excellent and students responded positively. Well done!" Moora Primary School, Ronnie Samson, year 4/5

"Well prepared, clear and interesting. Good work!"

Eneabba Primary, Gene Croft, year 3/4/5/6/7

"Talk and resources were great. Well done!"

Jurien Bay District High School, year 4/5

"Was a really worthwhile, fantastic presentation!"

St Joseph's Moora, Jill Short

"Resources and aides were excellent! Students were very involved. Thoroughly enjoyable!"

Coorow Primary, Beverley Innes, year 1 and 2

"Kate and Lee were very good. Even at the end of the day Kate very professionally handled the different technologies. Kids loved the youthfulness!"

Carnamah District High, year 10

"The Yrs 3/4/5 were enthralled and the talk generated considerable group/class discussions!"

Coorow Primary School, Patricia Johns, years 3,4 and 5

"You spoke well to the Pre-primary group. The kids were fascinated by the pictures. Great job!"

St Joseph's Primary School, Kellie Garth, Pre-primary.

"The children benefited greatly from the very visual presentation. Thankyou!"

Cervantes Primary School, Natalie Dennis, years 5,6 and 7.

5.2 OPPORTUNISTIC EVENTS

Eight events were attended over the course of the program including the Blessing of the Fleet, Easter Fairs, a conference and workshops run by CALM's district staff at Jurien (Table 3). Overall these events proved very successful with approximately two thousand people overall visiting the stands and attending the workshops etc (Figure 6). A high number of those community members were already aware and in support of the marine park.

Table 3. List of opportunistic education opportunities

EVENTS	DATES
Blessing of the Fleet	6 th November 2003
2 nd WA State Coastal Conference (Geraldton)	19 th November – 21 st November, 2003
Hilary's Boat Show	March , 2004
Cervantes 40 th Celebration	2003
Jurien Easter Fair	10 th April, 2004
Cervantes Easter Fair	10 th April, 2004
Weed Workshop	6 th August, 2004
Schools Touch Pool	1 st –5 th November
Blessing of the Fleet	6 th Nov 2004

5.2.1 Blessing of the Fleet 2003 (Celebrating the opening of crayfish season)

The Blessing of the Fleet marks the opening of the crayfishing seasons, and is one of the most celebrated events in Jurien Bay. CALM's interactive display included the two JBMP posters (Figures 1 & 2) and JBMP zoning map, various brochures including "Your guide to Jurien Bay Marine Park" (Appendix II), "Discover Jurien Bay Marine" DVD (Figure 3), a "What am I competition" and a touch table, where children had the opportunity to see, touch and smell different marine species.

Face painting was the main feature of the display and children were able to choose their own design (rock lobster, seagrass, sea lion, roseate tern or dhufish) and received a fact sheet on their chosen marine animal or plant (Appendix VIII). A colouring in sheet was also available with the same ecological values and helium balloons were also given out on the day.

5.2.2 2nd WA State Coastal Conference (Focus on multiple-use of the state's coastal and marine resources)

This unmanned display included the two JBMP posters (Figure 1 & 2) and the JBMP zoning map, the "Discover Jurien Bay Marine Park" DVD (Figure 3) which was played continuously over the three days and various brochures including "Your guide to Jurien Bay Marine Park" (Appendix II) and the "Landscope" article on JBMP (Clews et al. 1998).

5.2.3 Cervantes 40th celebration (40th anniversary of settlement) and the Hillarys Boat Show

These two displays were very simplistic with the two JBMP posters (Figures 1 & 2), the JBMP zoning map and the brochure "Your Guide to Jurien Bay Marine Park" (Appendix II).

5.2.4 Jurien and Cervantes Easter Fair

This display with the two JBMP posters (Figures 1 & 2) and various brochures including "Your guide to Jurien Bay Marine Park" brochure (Appendix II) and the DVD "Discover Jurien Bay Marine Park" (Figure 3) was also played continuously. A human usage survey was conducted through-out the day and participants received a MCMP magnet, JBMP pen and JBMP brochure.

5.2.5 Weed workshop

This workshop was run in conjunction with NACC, the WA Herbarium and CALM. Twenty-five people attended this workshop including two from the WA Herbarium, three district staff from CALM, locals from Badgingarra, Dandaragan, Cervantes and Jurien Bay, including people from the Jurien Bay Herbarium. The day commenced with a talk by Kevin Crane (Marine Park Coordinator, JBMP, Moora District, CALM) introducing marine plants and their ecology.

The group then made there way to Hangover Bay and Kanga Point where Dr. Neville Marchant (Manager, CALM Science Herbarium), and Gina Broun (Rare Flora Conservation Officer, Moora District, CALM) introduced the group to specimen collecting. After beachcombing the group returned to Cervantes CALM office where Dr. Marchant demonstrated and assisted the group on how to mount and processes marine plant specimens.

5.2.6 School Marine Activities Program

Over 200 students from Jurien Bay, Cervantes, Badgingarra, Leeman, Moora and Eneabba participated in the School Marine Activities Program which was based on the Exploring Coastal Waters kit (Exploring Coastal Waters, 2000). Children had the opportunity to see and touch different marine



Figure 5. School children participating in the schools program



Figure 6. Children and adults participating in the various workshops and events held by CALM.

species first hand, while learning about the unique adaptations to the marine environment and the important role they play in marine food chains.

A flotsam and jetsam activity introduced students to the impacts of rubbish on the marine environment, where it comes from, and what we can do to reduce it. A final activity introduced students to limestone formations and how our islands and limestone cliffs are formed.

The children were also given an activity booklet "Exploring Coastal Waters" (Department of Conservation and Land Management 2000)(Appendix IX), DoF stickers, "Your guide to Jurien Bay Marine Park" brochure (Appendix II), "Sea lion and fur seal" brochure (Department of Conservation and Land Management undated) and the "Recreational Fishing Guide - West Coast region" brochure (Department of Fisheries 2003).

5.2.7 Blessing of the fleet 2004

This interactive display included a touch pool, where children had the opportunity to see and touch different marine species, the two JBMP posters (Figures 1 & 2), the JBMP zoning map and a new zoning poster to inform users of the new land and water based markers (Appendix X), "Your guide to Jurien Bay Marine Park" brochure (Appendix II), "Sea lion and fur seal" brochure (Department of Conservation and Land Management undated) and the "Recreational Fishing Guide - West Coast region" brochure (Department of Fisheries 2003).

6 VOLUNTEER PROGRAM

As part of the community education and involvement component of the CWCMBCP, the public was encourage to become involved in as many different aspects of the project as possible. People were invited to register their interest as volunteers with the District at public events (Appendix XI), through local media releases (JBMP Update) and word of mouth. Some of our registered volunteers included high school and tertiary students, retired fishermen, local business people and volunteer groups, from Jurien Bay, Cervantes, and Green Head.

The main programs volunteers were involved with included:

- a) The Baseline Water Quality Monitoring Program;
- b) The Human Usage Monitoring Program;
- c) assisting CALM staff with displays at local fairs and festivals; and
- d) the Schools Activity Programs.

7 DATA MANGEMENT

7.1 EDUCATION PRODUCTS

MCB has continued to develop a statewide MIS to support the planning and establishment of new marine conservation reserves such JBMP and the operational management of the existing marine reserve systems. All products produced under the CWCMBCP: Community Education and Interpretation Program in the JBMP and surrounding Mid West region are stored within the MIS system including posters, brochures, DVD's and power point presentations. The JBMP webpage is located with CALM's Naturebase website and can be located through the following URL address:

http://www.calmweb.calm.wa.gov.au/drb/ncd/mcb/rep_pap.htm.

7.2 REPORT

Hard copies of this report will be held at the following locations:

- 1. MCB, Department of Conservation and Land Management, 47 Henry Street, Fremantle, Western Australia, 6160. Ph: (08) 9336 0100 Fax: (08) 9430 5408.
- 2. Woodvale Library, Science and Information Division, Ocean Reef Road, Woodvale, Western Australia, 6026. Ph: (08) 9405 5100 Fax: (08) 9306 1641.
- 3. Archives, Woodvale Library, Science and Information Division, Ocean Reef Road, Woodvale, Western Australia, 6026. Ph: (08) 9405 5100 Fax: (08) 9306 1641.

The MCB holds digital copies of Marine Management Support (MMS) or Marine Reserve Implementation (MRI) reports at the following locations:

- 1. The MCB Server: Sharedata on 'Calm-frem-1' [T:\144-Marine Conservation Branch\Shared Data\Current_MCB_reports\MMS\MMS_8204]
- 2. MCB Server full backup DAT tape: [T:\144-Marine Conservation Branch\Shared Data\Current_MCB_reports\MMS\MMS_8204]
- 3. CD-ROM held at MCB
- 4. CD-ROM with the archived hard copy of the report held at the Woodvale Library, Science and Information Division, Ocean Reef Road, Woodvale, Western Australia, 6026. Ph: (08) 9405 5100 Fax: (08) 9306 1641.

8 REFERENCES

- Clews, M., Simpson, C.J. and Rose, D. (1998). A view of the Bay. Landscope, Volume 14 (2). pp.43-47. Spring 1998-99. Department of Conservation and Land Management, Perth, Western Australia.
- Department of Conservation and Land Management (undated). Sea lions and fur seals. Brochure. Department of Conservation and Land Management, Perth, Western Australia.
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- Department of Conservation and Land Management (2000a). Exploring Coastal Waters. Department of Conservation and Land Management, Perth, Western Australia. 285p.

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- Department of Conservation and Land Management (2004) Draft Jurien Bay Marine Park Management Plan 2003-2013, Department of Conservation and Land Management, Perth, Western Australia.
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APPENDICES

APPENDIX I. COMMUNICATION PLAN

MISSION

Developing community support is critical to the effective management of the JBMP. The level of public compliance in relation to management controls in the park will be directly related to the level of understanding of the values of the marine park and the reasons for regulation of activities in the park. Education and communication programs will need to initially raise awareness of the creation of the marine park and new restrictions on commercial and recreational activities as a result of the implementation of zoning and other management strategies. Other important and ongoing education programs will be required to minimise human impacts on the ecological values along with appropriate education and interpretation infrastructure (eg. walk/ or dive trails, interpretive centre) should be considered where appropriate.

COMMUNICATION OBJECTIVES

To develop and implement a community education and interpretation program for the CWC, focusing on JBMP, to raise awareness on:

- a) ecological and social values; and
- b) ways to ensure these values are conserved.

The program was designed with a focus on JBMP in the CWC and used methods that can be applied to other marine management areas across the state.

TARGET AUDIENCE

The target audience for this communication plan is widespread, from local community members to Australia-wide tourism bodies. Stakeholders, commercial and recreational coastal and marine users, tourists and visitors to the CWC and surrounding areas, are all targeted through this campaign.

KEY MESSAGES

The table below identifies key values and management strategies as identified by the JBMP Indicative Management Plan. These values can be specifically targeted by the communication plan, but should also incorporate other natural resource management issues.

Summary of key messages from the Jurien Bay Marine Park Indicative Management Plan.

MESSAGE	VALUE	MGT Priority
Ecological values	Seagrass	(H-KMS)
	Sea Birds	(H)
	Sea Lions	(H)
	Intertidal Reef Platforms	(H)
	Macro-algal Communities	(M)
	Geomorphology	(L)
	Cetaceans and turtles	(L)
Social Values	Recreational Fishing	(H-KMS)
	Scientific Research	(H)
	Education	(M)
	Indigenous Heritage	(M)
	Maritime Heritage	(L)
Generic Management Strategies	Zoning	(H-KMS)
2	Public participation	(M)

STRATEGIES FOR IMPLEMENTATION

Strategies for the implementation of the communication plan will be comprised of three major elements:

- 1. education and interpretation program;
- 2. a marine community monitoring program; and
- 3. a media plan.

Many of these programs will operate inclusive of each other.

1. Education and interpretation programs

Management signage (i.e. Zoning)

Management signage is to be installed at all major access points to the marine park, including the Jurien Bay Marina, boat ramps and major beach access points. Signage will incorporate educational messages about a range of marine park issues, including zoning, access and closed-access to islands, suitable behaviour around mammals (eg, Australian sea lions and whales), and other site specific information.

Interpretive signage and information shelters

The objective of the interpretive signage is to provide educational messages to visitors to the region about the environmental, social and cultural values of the marine park. It allows people who may not necessarily go into the marine park to learn about its history and unique characteristics of the animals and plants found within. The information will be provided in four-panel information shelters and trailside signage located at strategic high use areas such as along coastal walk trails and/or lookouts.

Educational posters

The posters should provide the viewer with a graphical presentation of the diversity of species and values associated with the marine park and be distributed to local businesses, shire offices and tourist bureaus. The posters should also be distributed to schools during talks and presentations.

Web-based information

The JBMP webpage on CALM's Naturebase website is to include up-to-date information on the marine park's history and management, and its environmental and social values and downloadable formats of all available brochures on the marine park and current zoning maps. The webpage should also include up-to-date information on planned activities, such as holiday programs or marine community monitoring programs.

Brochures and publications

Brochures and publications on zoning, ecological and social values of the marine park should be developed in collaboration with DoF and Department of Planning and Infrastructure (DPI) to be encouraged. Brochures and Publications will be pro-actively distributed to inland centres, Geraldton and Perth tourist information outlets, local businesses (i.e. caravan parks, hotels) and local governments. A user-specific brochure for recreational fishermen will help make the information available in an easy to read and useable format for anglers out on the water and along the coast.

Community awareness events

Interactive displays at community events should be coordinated to provide the local community with information on the natural resources of the CWC, the gazettal of the JBMP, research occurring in the area, zoning and ecological and social values of the marine park. Events should include Blessing of the Fleet (Jurien Bay), Easter Shows (Jurien Bay, Cervantes), inland Agricultural Shows, Community Workshops, School Programs, shopping centres displays and school holiday activity programs.

Products for talks and education

Additional material for education talks, workshops and programs should be produced to reinforce the messages and values of the JBMP such as DVD's, CD-ROMS, power point presentations and children activity books. These products should be aimed at school groups, CALM Bushrangers, visiting University and TAFE groups, and community education/presentation nights.

Public awareness survey

An evaluation questionnaire and report aligned with the CWCMBCP: Human Usage Monitoring Program is to be used to obtain feedback from the community as to the effectiveness and relevance of the education and interpretation program.

2 Marine Community Monitoring Program

The CWCMBCP: Education and Interpretation Program is to be run in conjunction with the NHT2 CoastCare funded MCMP, with specific links to schools programs and children's activity programs. The collaboration will allow interested schools and other community groups (local herbarium, Friends of... groups) to participate in structured marine monitoring programs devised by the MCMP, in areas on the CWC and in the JBMP.

3 Media plan

The media plan should incorporate radio interviews, press releases and articles in local community newspapers to inform the public of the current CWCMBCP projects and related events and provided information on the ecological and social values of the park and the CWC.

Radio/Television

Radio and television appearances should include documentaries and news stories on the CWC and the JBMP, incorporating interviews with marine park and MCB staff, current research, tourism opportunities in the area, and social and ecological values of the marine park.

Press Releases

Press release should be prepared and distributed to local, regional, state and Australian newspapers and media outlets. Dependent on the scale of distribution, media releases should go through appropriate channels, such as MCB and CALM's Corporate Relations Unit. Internal publications such as Marine Conservation Matters newsletter, Conservation News and Landscope should also be utilised.

Articles in local community papers

Information and updates on local community orientated projects can be published using local community papers at Cervantes, Jurien bay, Green Head and Leeman. This will maintain a close relationship with the community fostering local community input into management and increasing the level of community ownership of the marine park. A bi-monthly update can be utilised to publicise locals on upcoming events, invite them to participate in monitoring programs, update them on current works programs in the park and raise awareness of issues and values in the marine park.

The media plan should primarily relate to the programs and subprograms of the CWCMBCP and ecological and social values, but also extend to other topics, including, but not restricted to;

- a) baseline water quality monitoring in the CWC focusing on JBMP
- b) determining and databasing human usage levels and patterns in the CWC focusing on JBMP;
- c) implementation of a Marine Information System (MIS) for the CWC;
- d) implementation of the Community Education and Interpretation Program for the CWC
- e) implementation of the JBMP Sign Plan;
- f) research projects in the marine park;
- g) recreation zone advisory committee;
- h) community awareness events (eg. community workshops, schools program);
- i) changed role of visitors and increase in tourism;
- j) installation of zone markers and moorings;
- k) appointment of new staff:
- 1) environmental differences since the creation of the marine park; and
- m) monitoring programs.

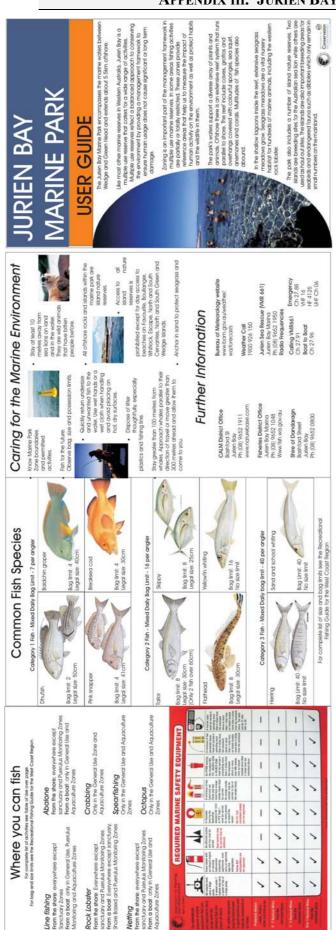
EVALUATION

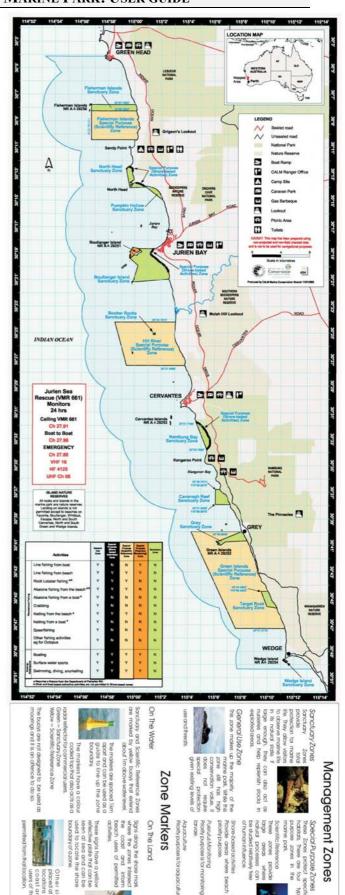
A public awareness survey should be conducted to obtain feedback from the community on the effectiveness/relevance of the campaign. The JBMP Indicative Management Plan (CALM, 2004) indicates a short-term target of 50% of visitors aware of the marine park, its values and the restrictions applying to the area, and a long-term target of 90% of visitors aware of the existence of the park its values and the restrictions applying to the area.

APPENDIX II. YOUR GUIDE TO JURIEN BAY MARINE PARK

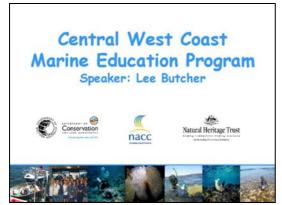


APPENDIX III. JURIEN BAY MARINE PARK: USER GUIDE





APPENDIX IV. SCHOOLS PROGRAM POWER POINT PRESENATION













Central West Coast







Extends from Perth to Kalbarri.

It is very unique part of the coastline due to the diversity of both tropical and temperate plants and animals.

The Leeuwin Current.



Jurien Bay Marine Park

The Central West Coast is too big to declare its whole coastline a marine park, so instead the Government has declared an area that best represents the marine biodiversity of the Central West Coast - The Jurien Bay Marine Park. The JBMP is a representative area of the Central West Coast.



Jurien Bay Marine Park

- Seagrass and Seaweed
- Fish
- · Seabirds
- Sea-lions
- · Commercial Fishing
- · Snarkelling and Diving
- · Indigenous Heritage
- · Geomorphology
- · Water Quality
- Invertebrates
- · Recreational Fishing
- · Scientific Research
- · Whales and Turtles

- Beach-walking, boating, swim and surfing
- · Maritime Heritage
- Education
- · Intertidal Reef Platforms
- · Wildlife Interaction · Aquaculture
- · Seascapes



How do we manage Marine Parks?

Using many different management tools and strategies, and using many different people.



1. Education & Interpretation







2. Research & Monitoring









3. Public Participation







4. Surveillance & Enforcement





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5. On-ground Management



Injured and stranded mammal rescues







6. Zoning

The JBMP has three multiple-use zones

- ·Sanctuary zones
- •Special Purpose zones
- -Special Purpose (Aquaculture)
- -Special Purpose (Shore-based activities)
- -Special Purpose (Puerulus monitoring)
- -Special Purpose (Scientific reference)
- •General Use zones
- •Take out your Maps!



What can we all do to care for our Marine Environment?

- ·Know your park, the boundaries, the regulations, the zones and the permitted uses in them.
- •Understand how your activities maybe affecting the marine park.
- ·Take your litter home with you when you leave.
- Avoid disturbing or feeding marine wildlife e.g. birds, sea lions.
- •Observe fishing restrictions, bag limits, size limits etc.



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APPENDIX V. PRESS RELEASES





Central Midlands & Coastal Advocate

Thursday 11/11/2004

Page: 3

Section: General News

Region: Moora WA Circulation: 15,000

Type: Regional Size: 198.01 sq.cms. Published: Weekly Brief: CALM (P)

1 6 NOV 2004

CALM FREMANTLE

Marine education for Moora students

LAST week, upper primary school children swapped the classroom for the beach and headed out to Jurien Bay where CALM Marine Conservation Officer Lee Butcher instructed them in the wonders of marine habitat.

Schools from Moora, Cervantes, Encabba, Badgingarra, Jurien Bay and Leeman participated in marine educational activities run by the Department of Conservation and Land Management (CALM).

Marine Park Coordinator, Kevin Crane said activities included a marine discovery pool, where students had the opportunity to get up close and personal with the marine species found in the Jurien Bay Marine Park.

Mr Crane said they learnt about some of the special adaptations of the plants and animals and also relationships between species and their habitats.

An activity called flotsam and jetsam introduced children to the impacts of rubbish on our marine wildlife.

"Entanglements, injury and death to sea lions, fur



Touch pools: CALM Marine Conservation Officer Lee Butcher introduced students from St Joseph's School, Moora to the wonders of marine habitat.

seals, scabirds and other wildlife are an all too common sight in our coastal waters," Mr Crane said.

said.

"By taking more care when on the beach or in the water we can all ensure the amount of rubbish entering the marine environment is minimised," he said.

CALM have been taking an active role in the marine education of children in the region as part of their education and community participation programs.

"These activities follow visits to schools by CALM in the past 12 months to give talks on the marine environment," Mr Crane said. "These ongoing education programs also continue to foster close relationships between CALM and the Education Department to the benefit of all people along the Central West Coast.

"It will be these children who will be the future custodians of our wonderful marine environment."

1. Chris 2. Steven + file 2. NPA =2/11/04

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September 2004, Volume 1, 3rd Edition

JBMP

Jurien Bay Marine Park

Update





What's happening in WA's newest Marine Park?

The JBMP Update lets you know what's happening in your Jurien Bay Marine Park, the state's newest marine conservation reserve. Find out about scientific research, marine conservation and management, community activities, and interesting facts about our unique and precious marine environment.

Dibblers - Endangered Islanders

Students from UWA are close to finishing a twoyear field study on the Dibbler, Parantechinus apicalis, a small, endangered marsupial on two islands in the JBMP. It was once believed the Dibbler could be found all over the South west, from Shark Bay to Israelite Bay. Its distribution now, however, is confined to only two surviving natural populations, one of which is on Boullanger and Whitlock Islands, and the other near Fitzgerald River. The islands' population is believed to have survived due to its isolation from key environmental threats found on the mainland, such as predation from foxes, feral cats and dogs, and competition for food from rabbits. However, Dibblers on Boullanger and Whitlock may be under threat from large numbers of house mice. It is believed house mice compete with the Dibbler for limited resources on the islands, such as food and habitat. At the conclusion of the study, by Annabelle Stewart, valuable information on the ecology of the Dibbler and its competitive relationship with the house mice will be utilised to improve management and protection of this endangered species, to ensure it doesn't join the already large list of extinct WA marsupials.

Marine Park Zone Markers

People who have been out on the water lately may have noticed the appearance of yellow Zone Markers. The markers indicate the boundaries of the Sanctuary and Special Purpose (Scientific Reference) zones within JBMP. The markers are placed 1km apart and

fishers will be able to line these up determine the zone boundary. They also incorporate a radar reflector for commercial users. No fishing is permitted in Sanctuary Zones and only rock lobster fishing is permitted in Special Purpose (Scientific Reference) zones. Details on the



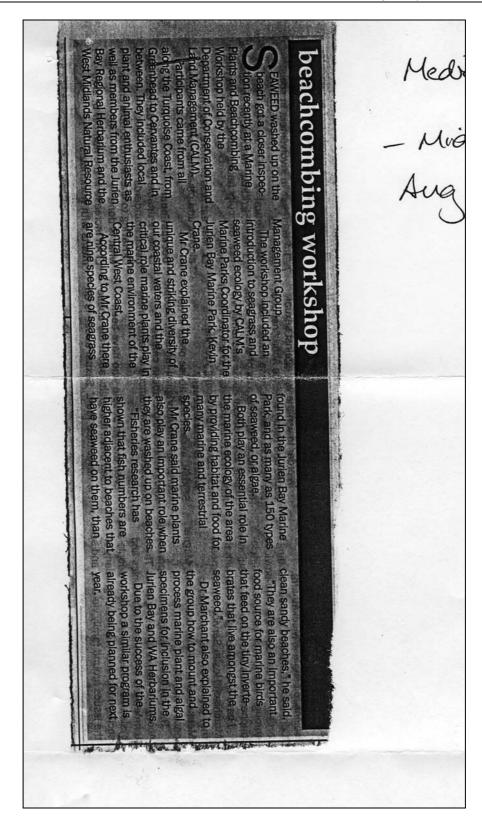
location of the zones can be found in the JBMP brochure. These are available from many businesses adjacent to the Marine Park, the CALM offices in Cervantes and Jurien Bay or we can post one out to you.

Interesting marine facts...

The JBMP has only nine species of marine plants. In comparison, the nearby Lesueur National Park is home to more than 1000 known species of terrestrial plants!

If you are interested in participating in water quality, human usage or other Marine Community Monitoring Programs, please contact Lee Butcher, Marine Conservation Officer, on 9652 1911. You can also register your interest by visiting the CALM district office in Jurien Bay and filling in a registration form available at the front desk.

For more information on CALM visit our website at www.NatureBase.com.au



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Page 1 of 2





Page: 4 Section: General News

Region: Moora WA Circulation: 15,000

Type: Regional Size: 376.08 sq.cms. Published: Weekly

Combing the coast at dune systems. ervantes

SEAWEED washed up on the beach got a closer inspection recently at a Marine Plants and Beachcombing Workshop held by the Department

of Conservation and Land Management (CALM).
Participants came from all along the Turquoise Coast, from Green Head to Cervantes and in

They included local plant and animal enthusiasts as well as members of two local environmental groups, the Jurien Bay Regional Herbarium and the West Midlands Natural Resource Management Group.

The workshop began with an introduction to scagrass and seawced ecology by CALM's Marine Parks Coordinator for the Jurien Bay Marine Park. Kevin Crane.

Mr Crane explained the unique and striking diversity of the coastal waters and the critical role marine plants play in the marine environment of the Central West Coast.

Participants then hit the beach at Kangaroo Point, south of Cervanies to find out about the types of marine plants that grow locally.

Mr Crane and Dr Neville Marchant of the WA Herbarium, fielded questions about all manner of creatures that wash up on beaches. They explained the different roles that plants play from the ocean floor, in the reef platform, up the beach and into the There are nine species of seagrass found in the Jurien Bay Marine Park, and as many as 150 types of seaweed or algae.

Both play an essential role in the marine ecology of the area by providing habitat and as a food source for hundreds of different marine and terrestrial

The Western Rock Lobster is an example of one such species, relying on seagrass meadows as a nursery area during its early development stages.

Without healthy seagruss mendows, there would not he a commercial rock lobster industry along the central west coast.

Marine plants also play an important role when

they are washed up on beaches.

Fisheries research has shown that fish numbers are higher adjacent to beaches that have seaweed on them, than clean sandy beaches. They are also an important food source for marine birds that feed on the tiny invertebrates that live amongst the seaweed.

Back at the CALM shed in Cervantes, Dr Marchant demonstrated how to mount and process marine plant and algal specimens for inclusion in the Jurien Bay and WA Herbariums.

The day was successful with plans for a follow up workshop during summer to compare the plants and algae found at a different time of year.

So if you're interested and live near the coast, keep an eye out for flyers for the next workshop to be held later in the year.

Kevi Crane Keik Hockey

Good to see publicity for this aspect of marrie park values. Well done

Quiller DIRECTOR REGIONAL SERVICES

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7th July 2004, Volume 1, 2nd Edition



Jurien Bay Marine Park

Update





What's happening in WA's newest Marine Park?

The JBMP Update lets you know what's happening in your Jurien Bay Marine Park, the state's newest marine conservation reserve. Find out about scientific research, marine conservation and management, community activities, and interesting facts about our unique and precious marine environment.

Wet Weeds Workshop

Do you know the difference between seagrass and seaweed? Do you often walk along the beach and find things you can't identify? CALM is running a workshop for people interested in learning more about what they find on the Activities for the day will include beachcombing with CALM staff, learning about seaweeds and seagrasses and their ecology, and the importance of sand dunes. Dr Neville Marchant from the WA Herbarium will also be along to show us how to collect and mount marine plants for inclusion in our own local herbarium. We will meet at the CALM office in Cervantes Light Industrial Area at 9.30am on Friday 6th August, and then head to the beach. Bring along a hat and bucket, and if you're really game some snorkeling gear. For more information and to register for the workshop contact the CALM office in Jurien Bay or Cervantes.

Breeding Season for Sea Lions

This 2004 autumn/winter period coincides with the breeding season for the rare and specially protected Australian Sea Lion. For this reason extra caution should be used if you encounter these animals on land or in the water. The females and their pups form a strong bond, and mothers have been known to vigorously defend their pups and territory when people have strayed too close. During this time ensure that you stay clear of Beagle, North Fisherman's and Buller Islands, which are breeding islands. Remember that sea lions are wild animals:

- · Do not try to touch or feed sea lions.
- Do not approach within 4 m on land and 10m in the water.
- Never position yourself between a sea lion and the water.

School Education Program

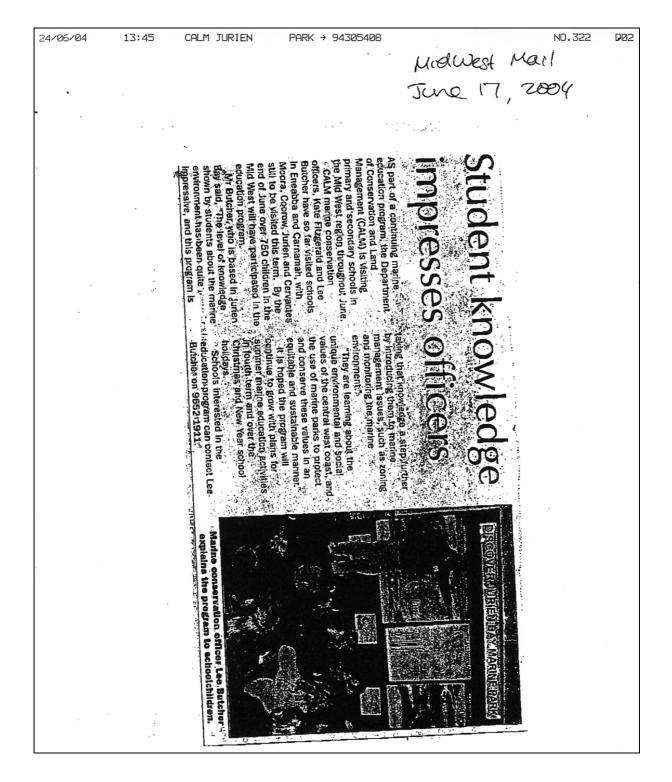
Over 750 school children throughout the Midwest have now participated in CALM's marine education program. Teachers and students learnt about marine plants and animals and other values of the Central West Coast. They were also introduced to marine management issues, such as zoning and monitoring the marine environment. CALM hopes to extend the program over the coming summer with fourth term and school holiday activities planned.

Interesting marine facts...

Orange Roughy, a deep-sea finfish, can live up to 150 years of age! They don't start breeding until they are 20 years old.

If you are interested in participating in water quality, human usage or other Marine Community Monitoring Programs, please contact Lee Butcher, Marine Conservation Officer, on 9652 1911. You can also register your interest by visiting the CALM district office in Jurien Bay and filling in a registration form available at the front desk.

For more information on CALM visit our website at www.NatureBase.com.au



15 May 2004, Volume 1, 1st Edition







What's happening in WA's newest Marine Park?

This is the first edition of a bi-monthly update of what's happening in your Jurien Bay Marine Park (JBMP), the state's newest marine protected area. Find out about scientific research, marine conservation and management, community activities, and interesting facts about our unique and precious marine environment.

New marine officers arrive

Kevin Crane has been appointed as the Marine Parks Coordinator, while Lee Butcher has been appointed as a Marine Conservation Officer. For the past 3 years, Kevin has been based in the Shark Bay District responsible for the management of the Shark Bay Marine Park and the Hamelin Pool Marine Nature Reserve. He brings a wealth of experience and knowledge of marine conservation and management to the region.

Busy Easter for JBMP

The Easter break was an extremely busy period for the Turquoise Coast, with huge numbers of visitors flocking to the region to enjoy the attractions of the coast and surrounding areas. CALM conducted aerial surveys and face-to-face interviews over

the course of the weekend to collect information on how people use and enjoy the environment. The support and cooperation from marine park users (local and visiting) was fantastic over the Easter holiday weekend, and greatly appreciated by interviewers.

Understanding water quality

A water quality monitoring program is in full swing in the Jurien Bay Marine Park, to collect baseline water quality data. Community members are invited to participate in these programs so if you would like a day on the water assisting researchers, please contact us. This program is run by CALM in collaboration with the Department of Environment and the NHT, with strong support from the Northern Agricultural Catchment Council.

Interesting marine facts...

Nudibranchs (shell-less marine snails) can use stinging cells from Jellyfish they eat, for self-defence against other marine predators. If are interested in participating in the water quality, human usage or other Marine Community Monitoring Programs, please contact Lee Butcher, Marine Conservation Officer, on 9652 1911. You can also register your interest by visiting the CALM district office in Jurien Bay and filling in a registration form available at the front desk.

For more information on CALM visit our website at www.NatureBase.com.au

Marine officers appointed to **Jurien Bay Marine Park**

THE start of 2004 has been an exciting time for the Department of Conservation and Land Management (CALM) and the Jurien Bay Marine Park.

It has seen the arrival of two dedicated marine officers to the state's newest marine park.

Kevin Crane has been appointed as the Marine Parks Coordinator for the Jurien Bay Marine Park, ile Lee Butcher has

n appointed the Marine Conservation Officer.

For the past three years Mr Crane has been based in the Shark Bay District responsible for the management of the Shark Bay Marine Park and the Hamelin Pool said he was very

Marine Nature Reserve.

Previous to this, he spent six years working in Perth's three metropolitan marine parks.

Needless to say, Mr. Crane brings a wealth of and experience knowledge of marine conservation and management to the region.

After studying in far north Queensland, Mr Butcher returned to Western Australia to start a career with CALM, working in the East Kimberley region as an pperations officer.

When the opportunity to move to Jurien Bay as a Marine Conservation Officer arose Mr Butcher interested.

"The Central West Coast is such a unique part of the WA coastline, and the opportunity to get involved in the marine conservation and management in the region, at such an early stage of the marine park is very exciting."

The addition of the new staff allows the district to start implementing the marine park management plan and building the operational capability of the region.

Meanwhile, water quality and human usage monitoring programs are already in full swing under funding from CALM, the Department of Environment and the

Natural Heritage Trust, with strong support from the Northern Agricultural Catchment Council.

CALM aims to develop baseline data for the region, providing an essential comparison for future water quality. Human usage data is

being collected through aerial surveys and faceto-face interviews.

Identifying user patterns and impacts in the marine park is an essential component of marine conservation management,
To this end, the

response and support from marine park users (local and visiting) was fantastic over the Easter holiday weekend.

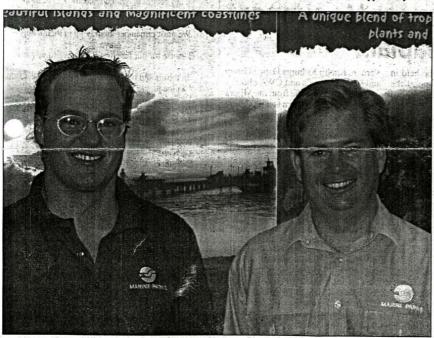
The opportunity exists

for members of the local community to participate in both the water quality and human usage · monitoring programs.

If you are a interested, or would like more please Moora information contact the District's Marine Conservation Officer, Lee Butcher on 9652

You can also register your interest by visiting the CALM district office in Jurien Bay and filling in a registration form available at the front





New CALM Marine Conservation Officers based in Jurien Bay Lee Butcher (left) and







2 9 JAN 2004 RECEIVED CALM FREMANTLE



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Midwest Mail Thursday 22/1/2004 General News Page 3 Circulation: 21,750

Size: 649.25 sq.cms.

Brief: CALM (P) Page 1 of 2

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Seal helped home

Report: Ben Creagh

AS the mercury rose toward the high 30s earlier this month, staff from the Shire of Coorow Leeman office and members of the public helped Jurien's Department of Conservation and Land Management (CALM) with an unusual task.

A 2.6m female southern elephant seal had become disoriented and found her way off the beach onto a gravel track heading towards Green Head.

District wildlife officer Adam Meyer said high temperatures meant the seal would have overheated and died if it wasn't relocated back into the water quickly.

"Luckily four CALM staff were returning to Jurien after attempting to help an Australian sea lion pup that had a hard plastic ring caught around its neck on North Fisherman's Island," Mr Meyer said.

Southern elephant seals are an Antarctic species that are not common to our shores, but have been known to venture as far north as Exmouth's Ningaloo Reef.

The species varies in size, with females reaching a weight of up to 350kg and around 2.6m in length, although larger elephant seals have been

recorded.

"The seals come ashore in summer and autumn to moult," Mr Meyer said.

"This timing is consistent with past records and the animal's choice to haul out near Green Head. The moult involves shedding of hair attached to sheets of surface skin cells."

Initially, rescuers tried to walk the animal back to the beach using a specially designed push pole.

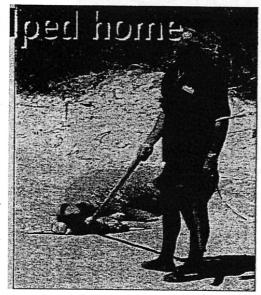
But these attempts proved unsuccessful as she was determined to cover herself in dirt from the road to cool off.

Luckily, thanks to Coorow ranger Doug Van Bavel, the Green Head fast attack vehicle was brought in to cool the animal with water while Shire loader operator Robert Haddleton made his way down from Leeman.

Once all hands were on deck the seal was wrapped in a purpose made 'Wally' net and loaded into a dolphin sling.

The seal was chained to the Shire loader and taken back to the cool waters of the Indian Ocean.

CALM Jurien said that without the help of Shire of Coorow the exercise would not have run so smoothly. The elephant seal has since been sighted on beaches around Green Head.



John Edwards attempts to sway the southern elephant seal toward the beach



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CALM FREMANTL

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Brief: CALM (P)

Central Midlands & Coastal Ad (1) Dr Chris Simpson - Fremantle General News Page 8

Circulation: 15,000 Size: 159.72 sq.cms. Circulate to:

- (2) Bronwyn Humphrey
- (3) Liz Moore
- (4) Cathy Birch
- (5) Kevin Kenneally

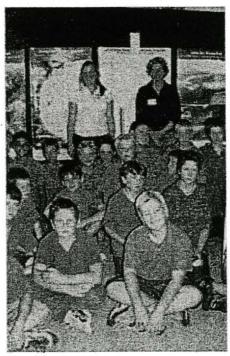
Leeman kids learn about marine environment

IT WASN'T hard to keep the attention of the Leeman Primary School Year 5/6 boys class last week as two officers from the Department of Conservation and Land Management (CALM) explained the newlycreated Jurien Bay Marine Park and what the various zones meant.

Living on the coast most of the young people had a story to relate which indicated an awareness of their environment and in particular their marine environment.

The visit to the school is part of an education campaign designed to help children understand how the marine park is managed.

Marine Education Officer Suzanne Gattrell encouraged children to get to know their marine park and understand what can and can't be done in the various designated zones.



Marine Education Officer Suzanne Gattrell and Marine Conservation Officer Karen Wheeler visited Leeman Primary School last week.

"We want children to understand how their activities could impact marine

environment and to get involved in helping to protect their local environment," she said.





Brief: CALM (P)

Mid-West Times (Geraldton) Wednesday 3/12/2003 General News Page 6

Circulation: 19,700 Size: 31.76 sq.cms.

Quick note...

MARINE EDUCATION

MORE than 300 local students learned more about the marine environment when CALM officers visited schools last week to talk about the newly created Jurien Bay marine park.

park.
CALM's marine
conservation
manager Chris
Simpson said the
students were very
keen to learn about
the marine
environment.

"Hopefully this will help them understand how important the Jurien Bay marine park is to WA." O 8 DEC 2003

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MOORA Districts Conservation and Land Management (CALM) staff at Jurien Bay, responded quickly to save the life of a small Australian sealion entangled in heavy netting last week.

The animal was reported by volunteers from two of the local Sea Rescue Groups who were assisting CALM officers in work being carried out in the newly declared Jurien Bay Marine Park.

The animal was seen struggling in the shallows around Favourite Island.

Nature Conservation Coordinator for the district Rebecca Carter, said the two-year-old pup would have died as a result of the entanglement, with the weight of the netting far greater than that of the animal.

"District staff have been trained in the use of specialist tools, designed to safely deal with this type of entanglement and it is a very rewarding experience to see a successful result," she said.

"These sealions are regarded as one of the world's rarest species which makes it important for us to act quickly where it is obvious that there has been a human influence in the animals distress."

Ms Carter said after the initial capture, it took some twenty minutes to cut through the layers of net that had become tightly knotted around the pup's neck.

"The result was a good one with the pup last seen, heading at speed back to the sea where she swam under water to safety before raising her head back to shore in what the team hopes was a gesture of thanks," she said.

Reports of entangled and distressed marine

Shire president hurt in farm accident

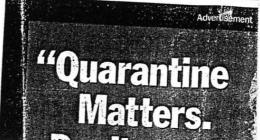
PRESIDENT of the Shire of Moora, Councillor Michael Bates was seriously injured in a farm accident at Mukinbudin on the weekend.

A silo he was standing on collapsed underneath him crushing his leg, ribs and pelvis.

The 70 tonne silo was full of lupins

He was taken to Kununoppin hospital where he was stabilised before being transferred to Royal Perth Hospital by the Flying Doctor Service.

His condition is serious but stable.







Brief: CALM (P)

Midwest Mail Thursday 27/11/2003 General News Page 5

Size: 174.48 sq.cms.

Marine park project gains young recruits

MORE than 300 local school children are learning more about their marine environment

Over the next couple of weeks, Department of Conservation and Land Management officers will visit primary and secondary schools in the Mid West region to talk about the newly-created Jurien Bay Marine Park.

The first school visited was

Jurien Bay Senior High School on Tuesday. Yesterday, the workshop was at Leeman Primary School.

Three Springs Primary School and Mingenew Primary School will be visited today.

Badgingarra Primary School and Dongara District High School are scheduled for visits next week.

CALM's Marine Conservation Branch manager Chris Simpson said children from Years 5-10 would be the focus of the school education campaign.

"Generally, children are very keen to learn about the marine environment and our talk and local underwater video footage will help them to understand just how important the Jurien Bay Marine Park is to WA," he said

"We're also keen for them to understand how the marine

park is managed and that it has major sea lion and sea bird breeding areas, plus a beautiful temperate reef with many plants and animals."

Dr Simpson hoped many local children would become involved in helping to protect their coastal environment.

Jurien Bay Marine Park incorporates the central west coast between Wedge Island and Green Head.

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Brief: CALM (P)

Central Midlands & Coastal Advocate Thursday 27/11/2003 General News Page 2

Circulation: 15,000 Size: 115.20 sq.cms.

Marine park 'taken' to local schools

MORE than 300 local school children will learn more about the marine environment over the next couple of weeks.

Department of Conservation and Land Management (CALM) officers will visit primary and secondary school in the northern agricultural region to talk about the newlycreated Jurien Bay Marine Park.

Schools to be visited will be Jurien Bay District High School, Leeman Primary School, Three Springs Primary School, Mingenew Primary School, Badgingarra Primary School and Dongara District High School.

CALM's Marine Conservation Branch Manager Dr Chris Simpson said children from Years 5 to 10 would be the focus of their school education campaign.

"Generally, children are very keen to learn about the marine environment and our talk and local underwater video footage will help them to understand just how important the Jurien Bay Marine Park is to Western Australia," he said.

"We're also keen for them to understand how the marine park is managed and that it has major sea lion and seabird areas, plus a beautiful temperate reef with many plants and animals."

Dr Simpson said he hoped many local children would become involved in helping to protect their local environment.

Jurien Bay Marine Park was announced August 31, 2003 and covers the section of the central west coast between Wedge Island and Green Head and encompasses islands in the area.

CALM's marine school education program is being funded by the Federal Government's Natural Heritage Trust.

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Brief: CALM (P)

Central Midlands & Coastal Advocate Thursday 30/10/2003

General News Page 8 Circulation: 15,000 Size: 93.48 sq.cms.

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Blessing of fleet features marine display

WITH the lobster fishing season soon to open Jurien Bay will celebrate the Blessing of the Fleet this weekend.

Festivities will be held at Dobbyn Park and include entertainment and games for children, the state rope coiling championship, dingy dash and the sail past of fishing boats.

One special feature this year will be the interactive marine display by the Department of Conservation and Land Management.

The Discover Jurien Bay Marine Park display will feature marine critters, face painting, a touch table, a 'what am I?' competition plus information about the local marine environment.

CALM's Marine Conservation Branch manager Dr Chris Simpson said the display would also provide information on the newly-created Jurien Bay Marine Park.

"Jurien Bay is the state's newest marine park and CALM is keen to work with the local community to raise awareness about the uniqueness of the park and let people know how they can help care for it," he said.

"Part of the process is about helping people become informed about boundaries, regulations, zones and the uses permitted in the park and CALM staff will be at the Dobbyn Park display to answer questions and provide information."

A new brochure, Your Guide to Jurien Bay Marine Park, has been produced by CALM and is available in local shops and venues throughout the region and from CALM's Jurien Bay office.





Brief: CALM (P) Page 1 of 2

Central Midlands & Coastal Advocate Thursday 6/11/2003

General News Page 13

Circulation: 15,000 Size: 397.64 sq.cms. 1. Chan of glister
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CALM's display proves popular

THE Department of Conservation and Land Management's display at this year's Blessing of the Fleet in Jurien Bay was well received with many members of the community discovering more about their local marine and terrestrial environment.

CALM's District Manager Keith Hockey said the interactive display was a real success and that people were amazed at the variety of marine treasures that could be found on local beaches from sand dollars to cowry shells.

"The ability to see and touch a carpet python as well as a red tailed black cockatoo, courtesy of CALM Wildlife Carer, Yvonne Varris was also a treat that many of the visitors enjoyed, " Mr Hockey said.

The local herbarium volunteer group who assist CALM in recording and identifying the

magnificent plant species that are so abundant in this area of the State managed to whet the appetites of visitors interested in the abundant flora of the district.

With the beautiful photos displayed around the marquee it became obvious why the Jurien/Cervantes surrounds is such a popular area for wildflower enthusiasts.

A wide range of conservation initiatives were on display for all to see. Researches from the University of WA gave an insight into their activities as regards to bringing the rare dibbler back from the brink of extinction through captive breeding and translocation to areas adjacent to Jurien Bay.

"The give away balloons which depicted the rare Australian Sea lion, which breeds and feeds within the marine park, were very popular with the children and really added to the festive feel of the day," Mr

hockey said.

Through out the day children had their faces painted with sea lions, western rock lobsters, terns, dhu fish and seagrass as well as thorny devils and cockatoosmany of the local marine and terrestrial animals and plants which the conservation areas aim to protect.

Over 50 people entered the 'what am I' competition.

The unidentified object was a port jackson shark egg case and the lucky winner was Ryan Rowe of Cervantes, who will receive a copy of CALM's book Wonders of Western Australian Waters - the Marine Life of South-Western Australia.

Jurien Bay Marine Park covers the section of the central west coast between Wedge Island and Green Head.

Mr Hockey said members of CALM staff were on hand to answer any queries and that people found the information about the newly established marine park useful and comments were very positive.

Funding for the display and activities at Dobbyn Park was provided by CALM and the Commonwealth Government's Natural Heritage Trust with all who assisted in the day volunteering their time for a great community activity.

A new brochure, Your guide to Jurien Bay Marine Park, has been produced by CALM and is available in local shops and venues throughout the region and from CALM's Jurien Bay office.

More information on the park is available by phoning 9652 1911 or from CALM's website www.naturebase.net/ national_parks/marine/ jurien/



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CALM FREMANTLE

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Brief: CALM (P)

Midwest Mail Thursday 20/11/2003 General News Page 3

Size: 70.05 sq.cms.

Marine park study

SCIENTISTS from the Department of Conservation and Land Management (CALM) and the Tasmanian Aquaculture and Fisheries Institute surveyed the biodiversity of the Jurien Bay Marine Park recently.

CALM marine ecologist Kevin Bancroft said the survey had revealed an unusual mix of temperate and tropical species, including several marine species found far from their usual habitats.

"It's actually been quite exciting - we've now got our first record of the western blue groper this far north and we found a tropical sea grass species that usually only occurs in northern areas like Shark Bay, Ningaloo and the Pilbara," Mr Bancroft said.

"We also found a tropical species of sea slug that has never been recorded so far south.

"The diversity was just fabulous."

The survey was part of research of the social and ecological values of the State's newest marine park.

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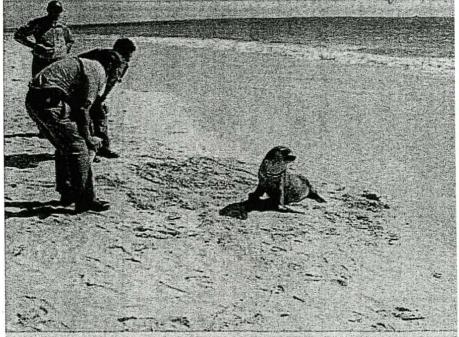
Brief: CALM (P)

North Coast Times Community Tuesday 28/10/2003

General News Page 5

3 D OCT 2003

Size: 274.58 sq.cms.



The seal gives Wildlife officer Doug Couchran (closest to camera) and AQWA marine mammal specialist Adam Williams a look at its injured neck after they had cut free the cord. Wildlife officer Matt Warnock looks on in the background.

Seal cut free from a death sentence

A REST on Perth's northern suburbs beaches last week proved a life-saving move for a sub antarc-tic fur seal.

The female seal, which would have travelled hundreds of kilometres on the winter ocean currents before arriving in Perth, had a nylon cord wrapped tightly around its neck when it was spot-ted by Whitfords Beach walkers on Thursday.

Department of Conservation and Land Management wildlife officer Doug Coughran said the

seal surely would have died had officers not been able to trap it and remove the cord, which was beginning to be covered over by skin

and fur.
"The quarter-inch nylon cord was probably from commercial fishing gear and I'd say she picked it up when she was a lot smaller,"

Mr Coughran said.

"They are very inquisitive and she probably would have been playing with it and it just slipped over her nack." over her neck.
"It would have eventually

killed her for sure."

The seal, which hails from a group of sub Antarctic islands between WA and South Africa, would likely remain around the metropolitan coast until returning

for home.

Mr Coughran said about dozen similar seals showed up in Perth each year.

smaller seal is recovering at AQWA after coming ashore near Mandurah last month, severely emancipated, dehydrated and with an injured flipper.





Brief: CALM (P) Excellento

Central Midlands & Coastal Advocate Thursday 23/10/2003
General News Page 6
Circulation: 15,000
Size: 284.25 sq.cms.

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Tasmanian scientists excited at marine park's

diversity

INFORMATION gathered by marine scientists from the newly dedicated Jurien Bay Marine Park will set the baseline for future marine studies of the area

Tasmanian marine scientists Dr Neville Barrett and Dr Graham Edgar along with Kylic Ryan, Andy Darbyshire and Kevin Bancroft from Conscrvation and Land Management's Marine Conservation Branch say they are excited by the

diversity of the newly dedicated Jurien Bay Marine Park where they have recently spent eight days surveying the scientific reference and sanctuary zones.

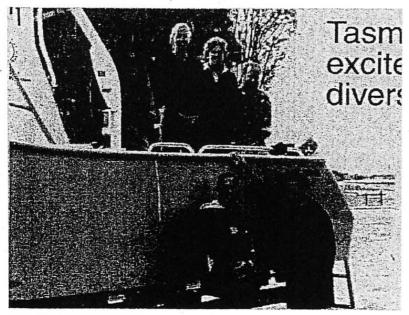
"It's exciting out there, there is a difference in seaweed species from the northern part of the marine park to the southern is amazing," Dr Barrett said.

"It is a fantastic location to survey corals, algae, sea grasses and fish.'

He said it was critical to set up baseline surveys, to get in at the start of the marine park's dedication.

"The information we gather from this and previous surveys done before the dedication will give us a comparison for the future.

"We need to understand the variations and to record the changes through time," he said.



Left: Taking part in the survey of the Jurien Bay marine park is (back) Tim Daly Department of the Environment, Kylie Ryan CALM, Karen Wheeler CALM Conservation Branch, Dr Graham Edgar University of Tasmania (front) Dr Neville Barrett University of Tasmania and Kevin Bancroft CALM Conservation Branch.



Brief: CALM (P)

Central Midlands & Coastal Advocate Thursday 16/10/2003 General News Page 3

Circulation: 15,000 Size: 152.87 sq.cms.

Marine biodiversity survey for Jurien Bay

SCIENTISTS from the habitats within the Department Conservation and Land Management and the Tasmanian Aquaculture and Fisheries Institute. University of Tasmania have last week begun a survey of the biodiversity of the Jurien Bay Marine Park.

Environment Minister Judy Edwards said the survey was part of ongoing research and monitoring of the social and ecological values of the State's newest marine park and was an essential element for effective management of the park.

'The survey will baseline provide information on the biodiversity of marine

various management zones in the park and, over the longer-term, assess the effectiveness of the zoning scheme for the conservation of these communities," Edwards said.

"It also will build on information collected during two previous surveys in 1999 and 2000 and will provide a yardstick as to the condition of the marine environment before the management zones in park are implemented."

The Minister said the survey was being funded through the Strategic Research Fund for the Marine Environment - a joint initiative of the

State Government and CSIRO - and the Department of Conservation and Land Management.

The project involved gathering information on the abundance and size of fish as well as bottom-dwelling lifeincluding forms, western rock lobsters, other invertebrates and

"The results of the survey will contribute to the understanding of the relative abundance of fish species in the marine park so that human impacts in the park can be better understood and managed," Dr Edwards

"The survey also will

provide additional information that will assist in assessing whether fishing for rock lobster in shallow coastal areas has other impacts on noncommercial marine species."

The survey is being carried out by Dr Graham Edgar and Dr Neville Barrett of the Tasmanian Aquaculture and Fisheries Institute, University of Tasmania and Kevin Bancroft and Karen Wheeler of CALM's Marine Conservation Branch.

Other collaborative agencies include the Department of Environment

A copy for your w/o

Government of Western Australia Media Statement









The Hon. Judy Edwards MLA

Minister for the Environment

Statement Released: 10-Oct-2003

Portfolio: Environment

Marine biodiversity survey for Jurien Bay

10/10/03

Scientists from the Department of Conservation and Land Management and the Tasmanian Aquaculture and Fisheries Institute, University of Tasmania have this week begun a survey of the biodiversity of the Jurien Bay Marine Park.

Environment Minister Judy Edwards said the survey was part of ongoing research and monitoring of the social and ecological values of the State's newest marine park and was an essential element for effective management of the park.

"The survey will provide baseline information on the biodiversity of marine habitats within the various management zones in the park and, over the longer-term, help assess the effectiveness of the zoning scheme for the conservation of these communities," Dr Edwards said.

"It also will build on information collected during two previous surveys in 1999 and 2000 and will provide a yardstick as to the condition of the marine environment before the management zones in the park are implemented."

The Minister said the survey was being funded through the Strategic Research Fund for the Marine Environment - a joint initiative of the State Government and CSIRO - and the Department of Conservation and Land Management.

The project involved gathering information on the abundance and size of fish as well as bottom-dwelling life-forms, including western rock lobsters, other invertebrates and algae.

"The results of the survey will contribute to the understanding of the relative abundance of fish species in the marine park so that human impacts in the park can be better understood and managed," Dr Edwards said.

"The survey also will provide additional information that will assist in assessing whether fishing for rock lobster in shallow coastal areas has other impacts on non-commercial marine species."

The survey is being carried out by Dr Graham Edgar and Dr Neville Barrett of the Tasmanian Aquaculture and Fisheries Institute, University of Tasmania and Kevin Bancroft and Karen Wheeler of CALM's Marine Conservation Branch. Other collaborative agencies include the Department of Environment and CSIRO.

Minister's office: 9220 5050

Comment

Back to Statements list

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APPENDIX VI. MEDIA STATEMENTS

Central West Coast Marine Biodiversity Conservation Program

CALM Encourages Marine Education in Midwest Schools - Media Release

Throughout June, the Department of Conservation and Land Management (CALM) is visiting primary and secondary schools in the Mid West region as part of a continuing marine education program. The program involves talking to students about the marine environment of the central west coast, and the state's newest marine park, the Jurien Bay Marine Park.

The marine education program was started late last year as part of the Central West Coast Marine Biodiversity Conservation Program and CALM's Marine Community Monitoring Program. It is funded by the Natural Heritage Trust's Coastcare Program and supported by the Northern Agricultural Catchment Council.

CALM Marine Conservation Officers, Kate Fitzgerald and Lee Butcher have so far visited schools in Eneabba and Carnamah, with Moora, Coorow, Jurien and Cervantes still to be visited this term. By the end of June over 750 children in the Mid West will have participated in the education program.

Lee Butcher, who is based in Jurien Bay said, "The level of knowledge shown by students about the marine environment has been quite impressive, and this program is taking that knowledge a step further by introducing them to marine management issues, such as zoning and monitoring the marine environment."

"They are learning about the unique environmental and social values of the central west coast, and the use of marine parks to protect and conserve these values in an equitable and sustainable manner."

With strong support from the Jurien Bay Marine Park's new marine officers, it is hoped the program will continue to grow with plans for summer marine education activities in fourth term and over the Christmas and New Year school holidays.

If your school or class is interested in participating in the Jurien Bay Marine Park education program, please contact Lee Butcher at CALM in Jurien Bay on 9652 1911.

Media Contact: Lee Butcher 9652 1911

Email: leeb@calm.wa.gov.au

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Media Release

Department of Conservation and Land Management

MARINE EDUCATION ON THE BEACH

Last week, upper primary school children swapped the classroom for the beach and headed out to Jurien Bay. Schools from Moora, Cervantes, Eneabba, Badgingarra, Jurien Bay and Leeman participated in marine educational activities run by the Department of Conservation and Land Management (CALM).

Activities included a marine discovery pool, where students had the opportunity to get up close and personal with the marine species found in the Jurien Bay Marine Park. They learnt about some of the special adaptations of these plants and animals and also relationships between species and their habitats.

An activity called Flotsam and Jetsam introduced children to the impacts of rubbish on our marine wildlife. Entanglements, injury and death to Sea Lions, Fur Seals, Seabirds and other wildlife are an all too common sight in our coastal waters. By taking more care when on the beach or in the water we can all ensure the amount of rubbish entering the marine environment is minimised.

CALM have been taking an active role in the marine education of children in the region as part of their education and community participation programs. These activities follow visits to schools by CALM in the past 12 months to give talks on the marine environment.

These ongoing education programs also continue to foster close relationships between CALM and the Education Department to the benefit all people along the Central West Coast. It will be these children who will be the future custodians of our wonderful marine environment.

Enquires; Lee Butcher

9652 1911

leeb@calm.wa.gov.au





Conserving the nature of WA

Release

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Central West Coast Marine Biodiversity and Conservation Program Update

Projects involved in the Central West Coast Marine Biodiversity and Conservation Program (CWCMBCP) are in full swing in the Jurien Bay Marine Park.

The Department of Conservation and Land Management (CALM) has already completed several water quality monitoring surveys, with support from the Department of Environment, the Commonwealth Government's Natural Heritage Trust and the Northern Agricultural Catchment Council. These surveys are conducted on a seasonal, monthly and weekly basis and aim to develop a comprehensive understanding of the baseline water quality of the region.

Over the busy Easter weekend, CALM staff and volunteers put in a huge effort as part of the Human Usage Monitoring Program, conducting face-to-face interviews, aerial surveys, and field counts. This data, supplemented with information collected by Department of Fisheries and local sea rescue groups will be entered into the Marine Information System.

Public participation in the activities of the CWCMBCP is considered an important component and local community members have been encouraged to become involved in the management and conservation of the Jurien Bay Marine Park.

Contact: Lee Butcher, Marine Conservation Officer, Jurien Bay Marine Park Email: leeb@calm.wa.gov.au

Contact: Kevin Bancroft, Marine Ecologist, Marine Conservation Branch Email: kevinb@calm.wa.gov.au

Phone: (08) 9389 8644 Fax: (08) 9389 8296 Internet: www.naturebase.net

JBMP





Jurien Bay Marine Park

Dedicated Marine Officers for Jurien Bay Marine Park - Media Release

The start of 2004 has been an exciting time for the Department of Conservation and Land Management (CALM) and the Jurien Bay Marine Park. It has seen the arrival of two dedicated marine officers to the state's newest marine park.

Kevin Crane has been appointed as the Marine Parks Coordinator for the Jurien Bay Marine Park, while Lee Butcher has been appointed as the Marine Conservation Officer. For the past 3 years, Kevin has been based in the Shark Bay District responsible for the management of the Shark Bay Marine Park and the Hamelin Pool Marine Nature Reserve. Previous to this, he spent 6 years working in Perth's three metropolitan marine parks. Needless to say, Kevin brings a wealth of experience and knowledge of marine conservation and management to the region.

After studying in far north Queensland, Lee returned to Western Australia to start a career with CALM, working in the East Kimberley region as an Operations Officer. When the opportunity to move to Jurien Bay as a Marine Conservation Officer arose, Lee was very interested.

"The Central West Coast is such a unique part of the WA coastline, and the opportunity to get involved in the marine conservation and management in the region, at such an early stage of the marine park is very exciting."

The addition of the new staff allows the district to start implementing the marine park management plan and building the operational capability of the region. Meanwhile, water quality and human usage monitoring programs are already in full swing under funding from CALM, the Department of Environment and the Natural Heritage Trust, with strong support from the Northern Agricultural Catchment Council.

CALM aims to develop baseline data for the region, providing an essential comparison for future water quality.

Human usage data is being collected through aerial surveys and face-to-face interviews. Identifying user patterns and impacts in the marine park is an essential component of marine conservation management. To this end, the response and support from marine park users (local and visiting) was fantastic over the Easter holiday weekend.

The opportunity exists for members of the local community to participate in both the water quality and human usage monitoring programs. If you are a interested, or would like more information please contact the Moora District's Marine Conservation

Officer, Lee Butcher on 9652 1911. You can also register your interest by visiting the CALM district office in Jurien Bay and filling in a registration form available at the front desk.

COMBING THE COAST

Seaweed washed up on the beach got a closer inspection recently at a Marine Plants and Beachcombing Workshop held by the Department of Conservation and Land Management (CALM).

Participants came from all along the Turquoise Coast, from Greenhead to Cervantes and in between. They included local plant and animal enthusiasts as well as members of two local environmental groups, the Jurien Bay Regional Herbarium and the West Midlands Natural Resource Management Group.

The workshop began with an introduction to seagrass and seaweed ecology by CALM's Marine Parks Coordinator for the Jurien Bay Marine Park, Kevin Crane. Kevin explained the unique and striking diversity of our coastal waters and the critical role marine plants play in the marine environment of the Central West Coast.

Participants then hit the beach at Kangaroo Point, south of Cervantes to find out about the types of marine plants that grow locally. Mr Crane and Dr Neville Marchant of the WA Herbarium, fielded questions about all manner of creatures that wash up on our beaches. They explained the different roles that plants play from the ocean floor, in the reef platform, up the beach and into the dune systems.

There are nine species of seagrass found in the Jurien Bay Marine Park, and as many as 150 types of seaweed, or algae. Both play an essential role in the marine ecology of the area by providing habitat and as a food source for hundreds of different marine and terrestrial species.

The Western Rock Lobster is an example of one such species, relying on seagrass meadows as a nursery area during its early development stages. Without healthy seagrass meadows, there would not be a commercial rock lobster industry along the central west coast.

Marine plants also play an important role when they are washed up on beaches. Fisheries research has shown that fish numbers are higher adjacent to beaches that have seaweed on them, than clean sandy beaches. They are also an important food source for marine birds that feed on the tiny invertebrates that live amongst the seaweed.

Back at the CALM shed in Cervantes, Dr Marchant demonstrated how to mount and process marine plant and algal specimens for inclusion in the Jurien Bay and WA Herbariums.

The day was successful with plans for a follow up workshop during summer to compare the plants and algae found at a different time of year. So if you're interested and near the coast, keep an eye out for flyers for the next workshop to be held later in the year.

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Conserving the nature of WA

Release

27 October 2003

Discover Jurien Bay Marine Park

This year's Blessing of the Fleet festivities in Jurien Bay on November 1 will feature an interactive marine display by the Department of Conservation and Land Management.

The 'Discover Jurien Bay Marine Park' display, to be set up in Dobbyn Park, will feature marine critters, face-painting, a touch table, a 'what am I?' competition plus information about the local marine environment.

CALM's Marine Conservation Branch manager Dr Chris Simpson said the display also would provide information about the newly-created Jurien Bay Marine Park.

"Jurien Bay is the State's newest marine park and CALM is keen to work with the local community to raise awareness about the uniqueness of the park and let people know how they can help care for it," he said.

"Part of this process is about helping people become informed about boundaries, regulations, zones and the uses permitted in the park and CALM staff will be at the Dobbyn Park display to answer questions and provide information."

Jurien Bay Marine Park covers the section of the central west coast between Wedge Island and Green Head and includes the islands in the area.

The WA Government's marine park program includes new reserves in the Pilbara, in the waters off the Leeuwin-Naturaliste coastline from Geographe Bay to Hardy Inlet and in the Walpole and Nornalup Inlets on the State's south coast, as well as extensions to the Ningaloo Marine Park.

Funding for the marine display and activities at Dobbyn Park has been provided by CALM and the Commonwealth Government's Natural Heritage Trust.

A new brochure – Your guide to Jurien Bay Marine Park – has been produced by CALM and is available in local shops and venues throughout the region and from CALM's Jurien Bay office.

More information on the park is available by phoning 9652 1911 or from CALM's website at www.naturebase.net/national_parks/marine/jurien/index.html

Media contact: Dr Chris Simpson 9336 0100

Phone: (08) 9389 8644 Fax: (08) 9389 8296 Internet: www.naturebase.net





Conserving the nature of WA

Release

3 November 2003

Discover Jurien Bay Marine Park

The 'Discover Jurien Bay Marine Park' display at this year's Blessing of the Fleet was well received with many members of the community discovering more about their local marine environment.

CALM's Marine Education Officer Suzanne Gattrell said the interactive display was a real success and that people were amazed at the variety of marine treasures which could be found on local beaches from sand dollars to cowry shells.

'The give away balloons which depicted the rare Australian Sea lion, which breeds and feeds within the marine park, were very popular with the children and really added to the festive feel of the day' she said.

Through out the day children had their faces painted with sea lions, western rock lobsters, terns, Dhu fish and seagrass – many of the local marine animals and plants which the park aims to protect.

Over 50 people entered the 'what am I?' competition. The unidentified object was a Port Jackson Shark egg case and the lucky winner is Ryan Rowe of Cervantes, who will receive a copy of CALM's book 'Wonders of Western Australian Waters – the Marine Life of South-Western Australia.'

Jurien Bay Marine Park covers the section of the central west coast between Wedge Island and Green Head.

Suzanne said people found the information about the newly established marine park useful and comments were very positive - members of CALM staff were also on hand to answer any queries about the park zoning.

Funding for the marine display and activities at Dobbyn Park has been provided by CALM and the Commonwealth Government's Natural Heritage Trust.

A new brochure – *Your guide to Jurien Bay Marine Park* – has been produced by CALM and is available in local shops and venues throughout the region and from CALM's Jurien Bay office.

More information on the park is available by phoning 9652 1911 or from CALM's website at www.naturebase.net/national_parks/marine/jurien/index.html

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Conserving the nature of WA

Release

Jurien Bay Marine Park Background Water Quality Survey - MEDIA RELEASE

Marine scientists from the Department of Conservation and Land Management will be in Jurien Bay Marine Park next week to begin a collaborative project with the Department of Environment and Marine and freshwater Research Laboratory to measure the background water quality of the marine environment.

This survey is part of the Central West Coast Marine Biodiversity and Conservation Program that will develop a baseline understanding of water quality for the region. It is being funded by CALM and the Commonwealth Government's Natural Heritage Trust, with the strong support of the Trust's Northern Agricultural Catchment Council.

The objectives of the survey is to characterise the seasonal and spatial (N to S, E to W) variation of water quality in Jurien Bay Marine Park by measuring the nutrients and chlorophyll-a concentrations in the marine environment.

The project aims to identify key sites and key water quality parameters required for long term monitoring of water quality and to provide baseline water quality datasets in areas where proposed development may have an impact on the water quality of the Jurien Bay Marine Park.

CALM Marine Conservation Branch marine ecologist Kevin Bancroft said that this is the first comprehensive water quality survey to be conducted in the Central West Coast.

"This survey will help ascertain background information, which is important and essential for comparison of future water quality." he said

The survey is being led by Kevin Bancroft of CALM's Marine Conservation Branch, Kevin Crane and Lee Butcher of CALM's Moora District Office and a member of the community will also be participate in the survey. Other Collaborative agencies include the Department of Environment and the Marine and Freshwater Research laboratory.

Water samples will be taken at 5 major morphological regions including sheltered and exposed nearshore areas, deep and shallow lagoons and deep offshore. The sites have been selected away from any potential human impacts from existing and future development.

This type of survey will be carried out over summer, autumn and winter/spring this year. Each survey will be conducted over a 5 day period. Amongst these surveys will be a number of other water quality surveys which are designed to monitoring existing and potential impacts from human activities.

Look out for the Department of Environment's research vessel "DEP1" which will be used for the survey.

Media contact: Kevin Bancroft 9336 0102

Phone: (08) 9389 8644 Fax: (08) 9389 8296 Internet: www.naturebase.net





Conserving the nature of WA

Release

Jurien Bay Marine Park Water Quality Survey - Media Release

The Department of Conservation and Land Management (CALM) will be conducting their second water quality monitoring survey in Jurien Bay Marine Park on 24 March. This survey aims to develop a baseline understanding of water quality for the region.

The survey is being conducted in collaboration with the Department of Environment and is funded by CALM and the Commonwealth Government's Natural Heritage Trust, with the strong support of the Northern Agricultural Catchment Council.

CALM's Marine Conservation Branch marine ecologist Kevin Bancroft will lead the survey team. Kevin said "that this is the first comprehensive water quality survey to be conducted in the Central West Coast and is unique in that members of the local community have been invited to participate".

"This survey will help ascertain background information, which is important and essential for comparison of future water quality." he said

CALM plans to undertake further water quality surveys which will be conducted on a seasonal, monthly and weekly basis, so keep an eye out for the Department of Environment's research vessel "DEP1" which will be used for the surveys.

Media contact: Kevin Bancroft 9336 0102

Phone: (08) 9389 8644 Fax: (08) 9389 8296 Internet: www.naturebase.net





Conserving the nature of WA

Release

Jurien Bay Marine Park Toxicant Monitoring Survey - MEDIA RELEASE

Marine scientists from the Department of Conservation and Land Management. the Department of Environment and CSIRO's Centre for Advanced Analytical Chemistry will be in Jurien Bay Marine Park early next month to begin a collaborative project to monitor the marine environment for toxics.

This survey is part of the Central West Coast Marine Biodiversity and Conservation Program that will develop a baseline understanding of water quality for the region. It is being funded by CALM, the Department of Environment and the Commonwealth Government's Natural Heritage Trust.

The Jurien Bay Marine Park Management Plan prepared by CALM guides future management of the area and has identified toxics from spills, anti-fouling paints, agricultural activities and urban stormwater as potential pressures on the environmental quality of the park.

The objectives of the survey are to characterise background concentrations of a range of contaminants including hydrocarbons, pesticides and heavy metals.

CALM Marine Conservation Branch ecologist Kevin Bancroft said concentrations of contaminants in marine waters were generally very low world-wide and below normal laboratory detection limits.

"But very little is known of the natural background levels in the waters off the WA coast," he said.

"During the survey we will be measuring toxics below normal detection limits that will enable us to determine the relevance of the national water quality guidelines to the central west coast of WA."

The survey is being led by Mr Bancroft and Kevin McAlpine of the Department of Environment.

Water samples will be taken at 10 'reference' sites where there is minimal human activity and four 'monitoring' sites near developed areas within the marine park.

The survey will provide essential baseline water quality information that will help to conserve the marine values of the Jurien Bay Marine Park so that people have clean, unpolluted waters in which to sail, fish and swim.

"It also will help facilitate ecologically sustainable development of marine-based industries, coastal development and recreation in the area," Mr Bancroft said.

Media contact: Kevin Bancroft 9336 0102

Phone: (08) 9389 8644 Fax: (08) 9389 8296 Internet: www.naturebase.net



MINISTER FOR THE ENVIRONMENT

MEDIA STATEMENT

Attention: News Editor/Chief of Staff

DATE

Marine biodiversity survey for Jurien Bay

Scientists from the Department of Conservation and Land Management and the Tasmanian Aquaculture and Fisheries Institute, University of Tasmania will begin a survey of the biodiversity of the Jurien Bay Marine Park next week.

Environment Minister Dr Judy Edwards said the survey was part of ongoing research and monitoring of the social and ecological values of the State's newest marine park and was an essential element for effective management of the park.

"The survey will provide baseline information on the biodiversity of marine habitats within the various management zones in the park, and, over the longer-term, help assess the effectiveness of the zoning scheme for the conservation of these communities." Dr Edwards said.

"It also will build on information collected during two previous surveys in 1999 and 2000 and will provide a yardstick to the condition of the marine environment before the management zones in the park are implemented."

Dr Edwards said the survey was being funded through the Strategic Research Fund for the Marine Environment and the Department of Conservation and Land Management.

The project involves gathering information on the abundance and size of fish as well as bottom-dwelling biota, including western rock lobsters, other invertebrates and algae.

"The results of the survey will contribute to the understanding of the relative abundance of fish species in the marine park so that human impacts in the park can be better understood and managed," Dr Edwards said.

"The survey also will provide additional information that will assist in assessing whether fishing for rock lobster in shallow coastal areas has other impacts on non-commercial marine species."

The survey is being carried out by Dr Graham Edgar and Dr Neville Barrett of the Tasmanian Aquaculture and Fisheries Institute, University of Tasmania and Kevin Bancroft and Karen Wheeler of CALM's Marine Conservation Branch. Other Collaborative agencies include the Department of Environment and CSIRO.

Media contacts: Minister's Office - Mike Edmondson 9220 5050

CALM – Kevin Bancroft 9336 0100

APPENDIX VII. SCHOOLS PROGRAM SURVEY FORM

1. Does / has your school ever engaged in marine studies, lessons or classes as part of the school curriculum (e.g. courses on the marine environment, boating or fishing activities etc?)	Yes	No				
If yes, please describe:	Comments	:				
2. If no, would your school be interested in participating in a Marine Studies Course, <i>if</i> such a course was made available through the Education Department?	Yes	No				
3. In your opinion how useful was the information provided, as a means:a) to inform students of the marine biodiversity and conservation values of JBMP?	Excellent	Very	Good	Average	Poor	
b) to inform students about how we manage human usage of the marine environment (e.g. activities, zoning etc.)?	Excellent	Very	Good	Average	Poor	
4. Was the content of the talk suitable for:a) years 4 to 6'ers	Excellent	Very	Good	Average	Poor	
b) years 7 to 10's	Excellent	Very good	Good	Average	Poor	
If no, please tell us why?	Comments	:				
5. Would your school utilise a resource that encourages community (e.g. student) participation to monitor the marine environment?	Yes	No				
Resource: Marine Community Monitor Program and Manual? and/or	Comments	:				
Resource: Exploring Coastal Waters						
Copies of both available from Lee Butcher						
6. Any other comments?	Comments	:				
School name:						
Teachers name (optional):						
Class taken: Yr/s. 1 2 3 4 5 6 7 8 9 10 (please circle)						

Thank you for taking part in this brief survey

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APPENDIX VIII. FACE PAINTING FACT SHEETS



Interesting facts about the Australian Sea Lion

- They are one of the rarest seal species in the world, There are 12,000 left in the wild and they are only found in Australia,
- Males are dark brown in colour, they can grow up to 2.5 metres in length and weigh between 350 to 400 kilograms.
- Females are greyish cream in colour, they are generally 1.5 metres in length and weigh up to 120 kilograms.
- They like eating squid, lobster, fish, octopus, cuttlefish and rock lobster.
- They can 'walk' on all four flippers and can be very dangerous, so watch them from a distance.
- They breed on Buller and North Fisherman Islands and produce one pup every 18 months.
- They usually dive to around 60m and can hold their breath for 4 minutes.





Interesting facts about the Western Rock Lobster Western Rock Lobster

- They are invertebrates which means they do not have a backbone
- Female's produce between 300,000 to 500,000 eggs.
- After hatching the larvae drifts in the ocean up to 1500 kilometres off the coast of WA.
- Young lobster drift back to shallow coastal areas and settle on reefs and in seagrass meadows in water up to 20 metres deep.
- At 5 years of age lobsters move to deeper reefs away from the shore in water up to 200 metres deep.
- The western rock lobsters can live up to 20 years and weigh up to 5kg.
- Adult lobsters eat molluscs, worms, small crustaceans, seaweed and seagrass.
- Octopus, snapper, jewfish, sea lions, sharks and humans like to eat lobsters.



Interesting facts about the Dhufish

- temperate, subtropical and tropical species of fish. Due to the Leeuwin Current there are both warm-
- There are at least 250 species of fish that occur in Jurien Bay Marine park.
- The western dhufish is one of many finfish species in the Jurien Bay Marine Park.
- juveniles (young fish) have 6 black stripes along their body. They can grow up to 1.2m in length and weigh up to Dhufish have a black line through the eye and the 32 kilograms but they usually grow to 80cm and
- They are predatory reef dwelling fish and occur in water between 5-200m in depth.

weigh up to 8 kilograms.





Interesting facts about the Roseate Tern

- seabirds that occur in the Jurien Bay Marine Park. The Roseate Tern is one of at least 15 species of
- threatened species uses the islands for breeding. Tropical birds like the Roseate tern which is a
- They are the smallest tern with a length of 38cm and a wing span of 26cm.
- They dive from 2-10m above the water for small fish They nest in sand or in small cleared patches among usually in deep waters.
- They have a clutch of 1-3 eggs which are cream with black and grey spots. rough coral debris .
- They make a 'chu-ick' sound.
- All the seabird breeding colonies are protected from feral cat and foxes which are their main predator



Conservation
AND LAND MANAGEMENT
CONSERVING THE ROBURE OF WA DEPARTMENT OF



Interesting facts about Seagrass

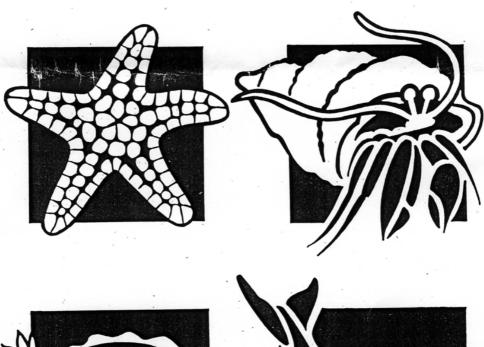
- There are 9 species of seagrass and hundreds of species of algae within the marine park.
- Seagrass meadows cover 25% of the Jurien Bay Marine Park.
- Seagrass is a primary producer which means that it uses light energy from the sun to grow.
- Seagrass meadows are an important habitat and nursery area for many marine animals including the western rock lobster.
- Seagrass traps and binds sand and sediment with its large root system, which keeps the water clear so other pants can grow on the ocean floor.
- Seagrass provides a home for special organisms called epiphytes such as algae which is food for grazers such as snails.
- Seagrass is damaged by moorings and anchors.



APPENDIX IX. EXPLORING COASTAL WATERS

(Department of Conservation and Land Management 2000a)

Exploring Coastal Waters

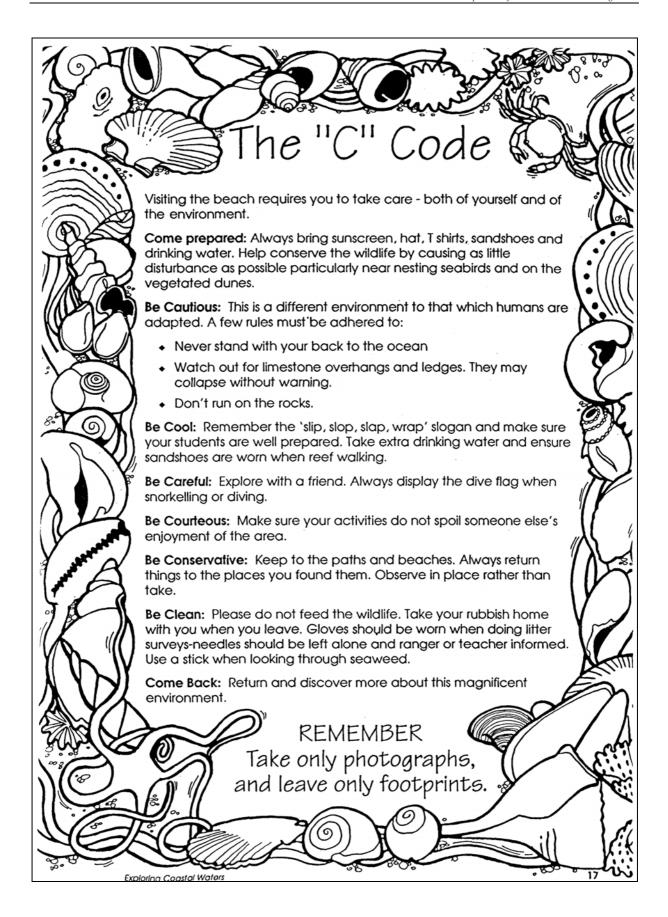








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WORD PUZZLE OF JURIEN BAY MARINE PARK

Q S E Α G R Α S S ı 0 Ρ Α S ı W Ε R T U T 0 Υ R P I C Α L Ν D Ε Ε W ı F R L U N T D ٧ В Т T R T Ε P T Μ Ε R Α Ε S E Α Н N S E Α L ı 0 Ν Q 0 R M ٧ U R F U W M E S 0 R Ν G. E S T M D D Α S F M Α R I В E N U P ı I С R Ν C W 0 0 0 R Α ı E T D В L ı 0 C F Α Κ С U Т S В U Α R S Ρ Ε C В Ν 0 R Α Н I В L Α 0 E 0 Ε Α Α Ţ В Α K R Ε Ε Z Z Ν Ν L В L N U Κ D Α 0 L L С Ρ Ε T Ε В S Α G R В L 0 R Ν Н Р M K Α S Α Н Ε Ν T Ε Ν G Ε F U Т G R 0 Р Ε R Ε D L ı U 0 Н C Α T U Α R Υ M Ε Κ D

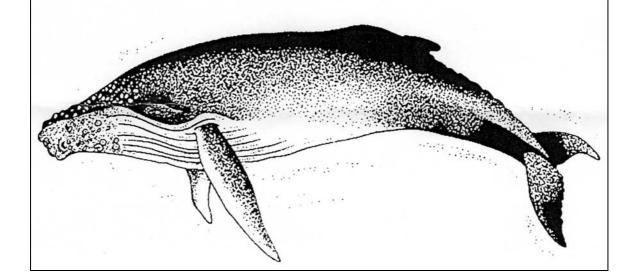
Look for the words in **bold** they are hidden amongst the letters

- 1. Intertidal zone
- 2. Turban shell
- 3. Reef
- 4. Sea lion
- 5. Balchin groper
- 6. Marine park
- 7. Ocean
- 8. Humpback whale
- 9. Tropical
- 10. Algae

- 11. Cowrie
- 12. Seabirds
- 13. Seagrass
- 14. Temperate
- 15. Sponges
- 16. Sanctuary zone
- 17. Leeuwin current
- 18. Nudibranch
- 19. Coral
- 20. Turtle

QUERKY MARINE FACTS

- The Lungs of a Humpback whale are about the size of a VW combi van.
 Their calves are born 5 metres in length and weigh 1.5 tonnes, about the size of a small car, they feed daily on 240 litres of milk and can gain 45kg in a day.
- All wrasses begin life as females and can then turn into males. If a
 dominant male disappears then a female will turn into a male and
 change colour.
- Nudibranchs can ingest the undischarged stinging cells of another animal like a jellyfish and then use them for their own defence.
- When a large fish needs it scales looked after they go to cleaning stations, where small fish called cleaner wrasse live. They pick the pests from the fishes body and clean wounds. Sometimes the cleaner goes inside the fishes gill slits and mouth and even cleans the teeth.



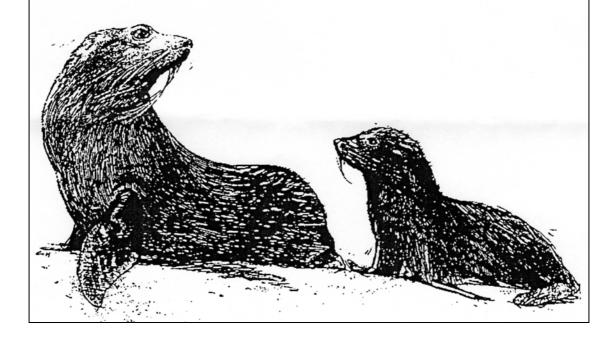
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MORE QUERKY MARINE FACTS

 Rubbish thrown into the sea or left on a beach may still be there in 1000 years. Here are some examples of how long it takes for things to degrade.

Glass bottles 1000 years
Plastic bottles 100 years
Aluminum cans 50-100 years
Plastic bags 5-20 years
Fishing line 1-5 years

- A sea star captures it's prey and pulls it apart with its tube feet, they
 then push out their stomach and covers the pry with its digestive
 organs. When the meal is eaten the stomach is pulled back into its
 body.
- Sea lions are marvelous divers and spend their time at sea feeding close to the seabed in depths that can exceed 300 metres.



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SECRET WEAPONS

These 3 marine animals all have different ways of using venom to catch prey or defend themselves. Cross out the letters that appear 3 times or more, then write the letters in order and you will find out how each one injects venom

ARCLF
TIANR
RCSPA ___

RETSC

MEKIO

SULTE

IKHED

ALKRS

SIELT

SIWBO

OMEWI

CWIMW

MCIMW

OKSIC

Lionfish

Coneshell

Octopus

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Quick Quiz

- 1. Is a sea anemone a plant or an animal?
- 2. Do seagrasses flower?
- 3. What is the largest animal on earth?
- 4. What are primary producers?
- 5. How do starfish digest their food?
- 6. Seagrasses have roots, what do seaweeds have?
- 7. What state government department is responsible for managing WA's marine parks?
- 8. Omnivores eat what?
- 9. What percentage of the earth is covered by water?
- 10. What is the main difference between gastropods and bivalves?
- 11. What country has the largest expanses of seagrass?
- 12. Is a sponge an animal or a plant?
- 13. Why is vegetation important on sand dunes?
- 14. What are the three colours of seaweed?
- 15. Which fish has a lure at the top of its head to attract prey?

Answers:

- 1. An animal
- 2. Yes
- 3. The Blue Whale
- 4. Organism's that make their own food using the sun's energy
- 5. Prise the shell apart with their arms, plop out their stomach onto flesh, digest the flesh and return to stomach through their mouth
- 6. Holdfasts
- 7. CALM
- 8. Plants and Animals
- 9. 72%
- 10. Gastropods have one shell, bivalves have two
- 11. Australia
- 12. An animal
- 13. Holds sand in place, preventing it from being washed or swept away
- 14. Green, brown and red
- 15. The Angler Fish



APPENDIX X. ZONING POSTER

Jurien Bay Marine Park Zoning Scheme

The installation of on-water, yellow zone markers in the Jurien Bay Marine Park is now complete. The new markers indicate the boundaries of Sanctuary and Scientific Reference Zones within the Marine Park.

The yellow markers (Figure 1) are clearly distinguishable on the water and will allow fisherman to determine the boundary of a zone. The markers are spaced 1 km apart with the first marker starting 500m offshore. They have a colour-coded top (Sanctuary green, Scientific Reference is yellow) that also acts as a radar reflector.





The on-water markers are complemented by shore-based boundary markers located where zone boundaries intersect with the coastline (Figure 2). These markers are large, yellow-reflective squares and allow people on the water to line up the markers right through to the shore.

Sanctuary Zones are managed solely for nature conservation as well as low-impact recreation and tourism. No fishing is permitted in these zones. In Scientific Reference Zones only rock lobster fishing is permitted. 80% of the Park remains open to all types of fishing.





Further details on the Jurien Bay Marine Park, the location of zones and the permitted activities in each zone can be found in the Jurien Bay Marine Park Brochure. These are available from the CALM offices in Cervantes and Jurien Bay, and many local businesses and accommodation houses along the Central West Coast.







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APPENDIX XI. VOLUNTEER FLYERS AND REGISTRATION FORM



Marine Community Monitoring in the Jurien Bay Marine Park

Human Usage Monitoring in the Jurien Bay Marine Park

Why monitor human usage in the Jurien Bay Marine Park? Visitor usage surveys are conducted to assess what people are doing (e.g. diving, fishing or snorkeling) and where in the marine environment they are doing it (e.g. specific islands, bays, near-shore or offshore areas).

This information is important to facilitate marine conservation and management of the environment for all users of the Marine Park.

Aerial surveys, coastal patrols from boats and vehicles, and face-to-face interview surveys will be conducted to collate information on visitor usage in the marine park.

Can I get involved?

Yes. CALM will be conducting human usage surveys over the coming months, and there are opportunities for interested members of the community to participate.

What will my role or tasks be?

If you participate in an aerial survey, you will spend the day (5 hours) in a light aircraft, assisting staff to record information on human activities in the park. For participants of the field surveys, you will act as an interviewer helping to collect information from users of the marine park. These face-to-face interviews will be conducted along the length of the park (Wedge to Greenhead) throughout the year.

What do I need to do to get involved?

To participate in the program you must;

- 1. complete a CALM 'Community Involvement Program Volunteer Registration Form' and return it to the Marine Conservation Officer, Lee Butcher at CALM District Office in Jurien Bay (by fax, mail or in person)
- 2. be capable of spending up to 5 hours in a light aircraft for aerial surveys.
- 3. have good communication skills, for interviewing marine park users.
- 4. have a keen interest in the marine environment and its conservation.

For more details on Human Usage Monitoring in the Jurien Bay Marine Park, or other marine conservation programs in your local community please contact the District Marine Conservation Officer, Lee Butcher on 9652 1911.

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Marine Community Monitoring in the Jurien Bay Marine Park

Baseline Water Quality Monitoring in the Jurien Bay Marine Park

Why monitor the water quality of the Jurien Bay Marine Park?
Baseline water quality monitoring is an important management tool used to assess the state or health of marine waters and therefore the marine environment.

Obtaining this information provides baseline concentrations for each parameter at the time the sample was collected. Variations from these concentrations in the future might signify a decline in water quality (e.g. if hydrocarbon and pesticide levels increase significantly), or even an improvement if concentrations drop significantly.

Can I get involved?

Yes. ČALM is conducting water quality monitoring runs over the coming months and there are opportunities for interested members of the community to participate in these activities.

What will my role or tasks be?

You will be required to spend a full day out on the CALM boat 'Caretta' performing a range of tasks including;

- · collecting water samples down to 30 metres below sea level
- · operating and recording data from specialist equipment
- · general assistance for CALM and other staff

What do I need to do to get involved?

To participate in the program you must;

- 1. complete a CALM 'Community Involvement Program Volunteer Registration Form' and return it to the Marine Conservation Officer, Lee Butcher at CALM District Office in Jurien Bay (by fax, post or in person).
- 2. be capable of spending up to 10 hours on a boat.
- 3. have a reasonable level of fitness.

Important Information

Some of the tasks to be performed on the boat are quite physical and people should be aware that a moderate level of fitness is required. If you feel you are not physically capable of participating but are still very interested in participating in marine conservation, please have a talk with the Marine Conservation Officer. There are plenty of other ways to care for your marine environment.

For more details on Baseline Water Quality Monitoring in the Jurien Bay Marine Park or other marine conservation programs in your local community please contact the District Marine Conservation Officer, Lee Butcher on 9652 1911.

DEPARTMENT OF CONSERVATION & LAND MANAGEMENT

FORM CLM 205

COMMUNITY INVOLVEMENT PROGRAM VOLUNTEER REGISTRATION FORM

Please print clearly and fill out all details Title: Mr/Mrs/Miss/Ms Surname: Male / Female Given Names: Address: Post Code: Postal Address: Telephone: Work Home Mobile Email Address: Applicants should be over 16 years of age or contact Volunteer Coordinator Date of Birth: Please advise of special skills/qualifications or interests you have Please describe what task/activity you would like to do Are you currently with/or If yes, please specify which Group/Project previously been with a volunteer group or project? Yes / No Do you speak another language? Yes / No If yes, please specify which language Which of the following best describes your main usual activity? Full time or self employment Student Full time home duties Part time employment Unemployed Day / Evening / Weekend - Mon / Tues / Wed / Thur / Fri / Sat / Sun Are you on Workers Compensation or Sick Leave Yes / No Is there any reason why you would be restricted in some areas of volunteer work eg. back injury If yes please specify Yes / No Would you like to receive information regarding volunteering with Australian Conservation Volunteers 1 1 Applicants Signature Date The Volunteer Coordinator Please return this form to: Department of Conservation & Land Management Locked Bag 104 Bentley WA 6983

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Phone 9334 0251