

**RECOMMENDED MANAGEMENT  
ARRANGEMENTS FOR THE GASCOYNE  
COMMERCIAL 'WETLINE' FISHERY**

*A Report to the Minister for Fisheries prepared by the  
West Coast and Gascoyne Management Planning Panel*

---

FISHERIES MANAGEMENT PAPER No. 205

---

Published by  
Department of Fisheries  
168 St. Georges Terrace  
Perth WA 6000

January 2006

ISSN 0819-4327



Recommended Management  
Arrangements for the Gascoyne  
Commercial 'Wetline' Fishery

Prepared by the  
West Coast and Gascoyne Management Planning Panel

January 2006

Fisheries Management Paper No. 205  
ISSN 0819-4327



## CONTENTS

---

<b>LETTER TO THE MINISTER FROM THE WEST COAST AND GASCOYNE MANAGEMENT PLANNING PANEL.....</b>	<b>5</b>
<b>SECTION 1 FOREWORD.....</b>	<b>7</b>
<b>SECTION 2 SUMMARY OF RECOMMENDATIONS.....</b>	<b>9</b>
<b>SECTION 3 REVIEW PROCESS.....</b>	<b>12</b>
3.1 MANAGEMENT PLANNING PANEL - TERMS OF REFERENCE.....	12
3.2 MANAGEMENT PLANNING PANEL MEMBERSHIP.....	12
3.3 CONSULTATION.....	13
<b>SECTION 4 BACKGROUND.....</b>	<b>15</b>
4.1 WHAT IS ‘WETLINING’?.....	16
4.2 TYPES OF ‘WETLINING’.....	17
4.3 PROFILE OF DEMERSAL LINE FISHING IN THE GASCOYNE.....	17
4.4 KEY ISSUES FOR MANAGEMENT.....	18
4.4.1 <i>Status of demersal scalefish stocks</i> .....	18
4.4.2 <i>Shark Bay Snapper Managed Fishery (SBSMF)</i> .....	19
4.4.3 <i>Non-selective nature of line fishing and incidental mortality</i> .....	20
4.4.4 <i>Latent effort and potential mobility of commercial effort</i> .....	20
4.4.5 <i>Cost of management</i> .....	23
<b>SECTION 5 GASCOYNE DEMERSAL WETLINE FISHERY.....</b>	<b>25</b>
5.1 OBJECTIVES FOR MANAGEMENT.....	25
5.2 SCALEFISH MANAGEMENT ARRANGEMENTS.....	25
5.3 FISHERY BOUNDARIES.....	26
5.4 MANAGEMENT ZONES.....	28
5.5 INDIVIDUAL TRANSFERABLE EFFORT MANAGEMENT.....	29
5.6 SETTING THE TACC FOR PINK SNAPPER.....	30
5.7 SETTING A TARGET COMMERCIAL CATCH FOR ‘OTHER’ (NON-SNAPPER) DEMERSAL SPECIES.....	30
5.7.1 <i>Inner-shelf zone</i> .....	30
5.7.2 <i>Outer-shelf zone</i> .....	31
5.8 DETERMINING AN APPROPRIATE CATCH PER UNIT OF EFFORT (CPUE).....	32
5.9 INITIAL CALCULATION OF EFFORT UNITS (BOAT FISHING DAYS).....	33
5.10 ONGOING REVIEW OF EFFORT DAYS.....	34
5.11 MINIMUM UNIT HOLDINGS.....	34
5.12 VESSEL MONITORING SYSTEM (VMS).....	35
5.13 NOMINATION TO FISH.....	36
5.14 PERMITTED FISHING METHODS.....	37
5.15 PROCESSING AT SEA.....	38
5.16 THE TAKE OF SHARKS.....	39
5.17 PINK SNAPPER SIZE LIMIT.....	39
<b>SECTION 6 GASCOYNE INSHORE NET FISHERY.....</b>	<b>41</b>
6.1 PROFILE OF GASCOYNE INSHORE NET FISHERY.....	41
6.2 MANAGEMENT ARRANGEMENTS.....	41

<b>SECTION 7</b>	<b>SCALEFISH TAKE BY COMMERCIAL FISHERS WHO DO NOT GAIN ACCESS TO THE GASCOYNE DEMERSAL SCALEFISH FISHERY.....</b>	<b>43</b>
7.1	CONSIDERATIONS .....	43
7.2	MINORITY REPORT .....	44
7.3	CATCH REPORTING .....	44
7.4	EXISTING PROHIBITION ON COMMERCIAL FISHERS HOLDING RECREATIONAL FISHING LICENCES .....	45
<b>GLOSSARY</b> .....		<b>47</b>
<b>APPENDIX 1</b>	<b>SUBMISSIONS.....</b>	<b>49</b>
	SUBMISSIONS RECEIVED 2003 .....	49
	SUBMISSIONS RECEIVED 2005 .....	50

**LETTER TO THE MINISTER FROM THE WEST COAST AND  
GASCOYNE MANAGEMENT PLANNING PANEL**

---

**Wetline Review  
West Coast & Gascoyne Management Planning Panel**

---

Hon Jon Ford JP MLC  
MINISTER FOR FISHERIES; the KIMBERLEY,  
PILBARA AND GASCOYNE  
14<sup>th</sup> Floor, May Holman Centre  
32 St Georges Tce  
PERTH WA 6000

Dear Minister

On behalf of the West Coast & Gascoyne Management Planning Panel I have pleasure in presenting to you the Panel's final recommendations with regard to the management of the West Coast and Gascoyne scalefish fisheries.

Yours sincerely



David Smith  
Chairman  
West Coast & Gascoyne Management Planning Panel



## SECTION 1 FOREWORD

Western Australia’s scalefish stocks, while low in productivity by world standards, provide an important resource for both commercial and recreational fisheries. The level of fishing activity by both of these sectors has increased in recent years and represents a potential threat to the long-term sustainability of demersal/reef species, such as pink snapper, in the Gasoyne region.

If scalefish stocks are to be managed sustainably in the future it is important that a more integrated approach encompassing all user groups is adopted. The recently announced Integrated Fisheries Management (IFM) initiative involves the setting of a total harvest level in each fishery that allows for an ecologically sustainable level of fishing, and the allocation of explicit catch shares for use by each of the principal user groups (Figure 1).

The new integrated approach will therefore demand more effective management arrangements to contain the ‘take’ of each user group within their specified catch allocations. This is an essential first step in the introduction of a new integrated management system within which allocation issues can be addressed.

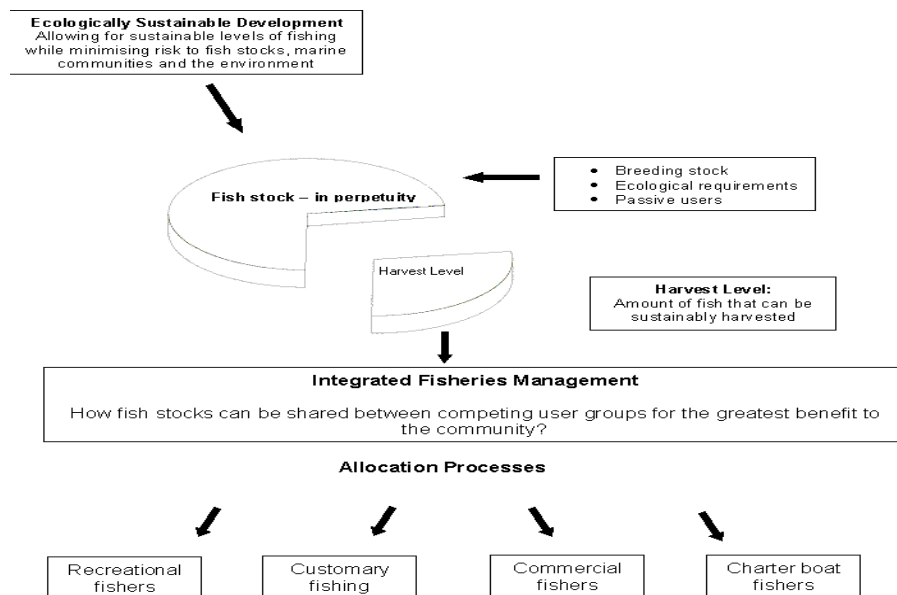


Figure 1 Integrated Fisheries Management and ESD

The development of such arrangements has already commenced in the recreational sector with the introduction of a limited entry management framework for fishing tour operators (charter boat sector) and the implementation of new recreational management arrangements for the West Coast and Gascoyne bioregions. These initiatives have seen a reduction in recreational bag limits for vulnerable species and the introduction of a state-wide recreational possession limit.

The ‘Wetline Review’ was established to implement an effective management framework for the commercial scalefish sector. It must be stressed at the outset that this review is focussed on the take of scalefish by the commercial sector. The levels of use between the various user groups in the Gascoyne region will be examined under the new IFM initiative.





## **SECTION 2            SUMMARY OF RECOMMENDATIONS**

---

- 1) Separate management arrangements should be introduced which establish two distinct fisheries in the Gascoyne bioregion:
  - a) A line fishery targeting demersal/reef scalefish species; and
  - b) An inshore net fishery (excluding the area of the existing Shark Bay Beach Seine and Mesh Net Fishery) called the Gascoyne Inshore Net Fishery.
- 2) The following management objectives apply to the Gascoyne demersal and inshore fisheries:
  - a) The exploitation of fish stocks is conducted in a manner consistent with the principles of Ecologically Sustainable Development.
  - b) The management framework provides mechanisms that can contain the commercial scalefish catch within a prescribed allocation under an Integrated Fisheries Management framework.
  - c) The management arrangements should be compatible with encouraging the supply of a high-quality scalefish product to markets and the maximisation of returns through processes such as value adding.
  - d) The management arrangements must be effective and as simple as possible to minimise the cost of management, including research and compliance.
- 3) The *Shark Bay Snapper Management Plan 1994* should be revoked and a new management framework, the Gascoyne Demersal Scalefish Fishery, be introduced that encompasses all fishing for demersal scalefish species in the Gascoyne.
- 4) The Gascoyne Demersal Scalefish Fishery encompass the waters between latitudes 26°30'S and 23°07'S (Point Maud).
- 5) The waters between latitude 23°07'S (Point Maud) and latitude 21°56'S (Tantabiddi Well), extending out to the 200 mile nautical boundary of the Australian Fishing Zone, be explicitly defined as a commercial fishing enclosure under the *Fish Resources Management Regulations 1995*.
- 6) The management framework for the proposed Gascoyne Demersal Scalefish Fishery should establish two separate zones:
  - a) an inner-shelf zone extending out to a line of best fit based on the 150-metre depth contour; and
  - b) an outer-shelf zone extending from the 150-metre line to a line of best fit, based on the 250-metre depth contour.
- 7) Potential fishing opportunities in waters outside the 250-metre depth boundary be available to WA Fishing Boat Licence holders on application through the Developing New Fisheries process.
- 8) A review of the Developing New Fisheries process be undertaken with a view to simplifying it and making it less onerous on applicants.
- 9) Management of the Gascoyne Demersal Scalefish Fishery be based on an Individual Transferable Effort (ITE) system (with units of 'boat fishing days') that also incorporates Individual Transferable Quota (ITQ) for pink snapper.

- 10) The need for a separate quota management system for pink snapper should be reviewed once the pink snapper stocks have recovered.
- 11) No operator be permitted to fish in the Gascoyne Demersal Scalefish Fishery unless they hold an unexhausted pink snapper ITQ.
- 12) All fishing operations cease when ITE units or pink snapper ITQ units are exhausted, whichever occurs first.
- 13) The initial calculation of fishing days for the inner-shelf zone of the Gascoyne Demersal Scalefish Fishery should be the sum of:
  - a) the number of days determined necessary to catch the TACC of pink snapper; and
  - b) the number of days determined necessary to catch the target commercial catch of other (non-pink snapper) demersal species.
- 14) The initial calculation of boat fishing days for the outer-shelf zone be based on the number of days determined necessary to catch the target commercial catch of goldband snapper.
- 15) The total allowable effort for each zone should be reviewed biennially and adjusted to ensure the target commercial catch is able to be met.
- 16) A minimum unit holding of pink snapper units (in accordance with the level determined at the time of implementation) be required in order to be eligible to operate in the Gascoyne Demersal Scalefish Fishery.
- 17) The Gascoyne Demersal Scalefish Fishery be managed under a vessel monitoring system (VMS) with all authorized boats required to have an automatic location communicator (ALC) fitted.
- 18) Boats operating in the deepwater areas under approval from the Developing New Fisheries process also be required to operate under a vessel monitoring system (VMS) to ensure compliance issues can be addressed around the outer boundary. Boats operating under this arrangement should be prohibited from landing demersal species targeted in the Gascoyne Demersal Scalefish Fishery.
- 19) The only permitted gear for use in the Gascoyne Demersal Scalefish Fishery be handlines and droplines.
- 20) Legal definitions describing handlines and droplines be developed that contain the following elements:
  - a) Handline being a fishing line that is weighted at one end and has not more than the prescribed number of hooks attached.
  - b) Dropline being a fishing line with no more than the prescribed number of hooks attached and when used for fishing is anchored by a weight, buoyed at the surface and deployed vertically through the water. A minimum of one buoy, with a minimum diameter of 200 mm, must be attached to the line. The buoy should be

marked with the vessel's LFB number, in lettering at least six centimetres high and one centimetre wide.

- 21) A maximum of five handlines and five droplines be on board a boat at any one time.
- 22) A maximum number of 30 hooks (or gangs of hooks) be permitted on any handline or dropline.
- 23) Operators in the Gascoyne Demersal Scalefish Fishery be permitted to land whole fish only (fish may be gilled and gutted). Exceptions to this should be made by way of application for at-sea processing licences and assessed carefully on their merits.
- 24) There be a prohibition on the use of metal traces on lines in the Gascoyne Demersal Scalefish Fishery.
- 25) The minimum legal size limit for pink snapper in the Gascoyne Demersal Scalefish Fishery be reviewed with input from relevant stakeholders.
- 26) The Gascoyne Inshore Net Fishery be managed predominately by limited entry, supplemented by gear restrictions and provisions for future spatial and temporal closures if required.
- 27) Fishing methods be limited to the use of haul net, gillnet and seine net in the Gascoyne Inshore Net Fishery. Further definitions around permitted gear should be developed in consultation with those fishers who gain access to the inshore fishery.
- 28) Catch levels in the Gascoyne Inshore Net Fishery should be monitored and specific effort constraints implemented should catch levels begin to increase beyond historical levels. Consideration should be given to formalising these levels as 'trigger points' for future management action.
- 29) The Gascoyne Demersal Scalefish Managed Fishery be required to report the catch of scalefish on a 'trip-by-trip' basis prior to landing.
- 30) The Gascoyne Demersal Scalefish Managed Fishery be required to report the take of scalefish on a 10 nautical mile by 10 nautical mile scale.
- 31) Validation surveys be carried out on scalefish catch returns to ensure the data is robust for decision making.
- 32) Fisheries legislation be amended to permit holders of Commercial Fishing Licences to apply for a Recreational Fishing Licence for abalone and rock lobster, provided they do not operate in the respective commercial managed fishery. Fishing activity requiring a recreational licence should not be permitted to be undertaken from a commercial fishing boat.

## **SECTION 3            REVIEW PROCESS**

---

The Minister for Fisheries established two panels to conduct a review of ‘wetline’ fishing in the West Coast and Gascoyne bioregions:

- A Management Planning Panel (the Panel) appointed to develop the specific management arrangements for the fishery; and
- A Commercial Access Panel appointed to devise a fair and equitable method of determining who will have access to the fishery and their level of allocation.

This is the first time a two-panel system has been used in a review in WA. This approach, which was suggested by the WA Fishing Industry Council (WAFIC), was taken to separate the task of determining the management arrangements for the fishery (which requires extensive input from commercial fishers) from the task of access and allocation (which may benefit from a more independent analysis of fairness and equity issues).

### **3.1            Management Planning Panel - terms of reference**

The Panel’s terms of reference were:

“To provide advice and recommendations to the Minister for Fisheries on matters related to the future management of the ‘wetline’ commercial fisheries in the West Coast and Gascoyne bioregions of Western Australia by:

- Incorporating the decision by the Minister for Fisheries on access criteria for the West Coast and Gascoyne into the management planning process.
- Providing recommendations on the most appropriate management arrangements for the ‘wetline’ commercial fisheries in the West Coast and Gascoyne Regions, including whether there should be sub-zones within either of the Regions.
- Reviewing relevant data on ‘wetline’ fishing in Western Australia provided by the Executive Director of Fisheries, including biological parameters of key target species.
- Reviewing models for the management of the West Coast and Gascoyne ‘wetline’ commercial fisheries put forward by the Executive Director of Fisheries and others.
- Ensuring the management arrangements for the commercial sector are compatible with those of the recreational and charter sectors and capable of supporting the Integrated Fisheries Management process.
- Considering the proposed objectives of the fishery in the development of management arrangements and providing recommendations on objectives for management.
- Providing advice on resourcing requirements for the management of the fishery and potential fee charging arrangements for licence holders.”

### **3.2            Management Planning Panel membership**

The Panel was established by the Minister for Fisheries and comprised an independent chairman and six members.

Chair	Mr David Smith	
Members	Mr Doug Rogers	Commercial Fisher
	Mr Steve Lodge	Commercial Processor
	Mr Neil Dorrington	Commercial Fisher
	Mr Gary Finlay	Commercial Fisher

	Mr Norman Halse Dr Lindsay Joll	Recreational Fisher Department of Fisheries
Observers <sup>1</sup>	Dr Nic Dunlop Mr Guy Leyland Mr Frank Prokop Mr John Looby	Conservation Council of WA Western Australian Fishing Industry Council Recfishwest Department of Fisheries

### 3.3 Consultation

The consultation process to date has included:

- A letter of 3 November 1997 to all FBL holders, advising that the (then) Minister had asked that the Department undertake an assessment of fishing activity against FBLs (that is, in the 'wetline' fishery). In addition, it advised that a benchmark date of 3 November 1997 set by the Minister in relation to the recognition of history within the fishery.
- The then Minister's address at the WAFIC AGM in September 2001 which raised the issue of wetline management, and sought the WAFIC's view on the rate at which this should be progressed.
- An article by Guy Leyland in the *ProWest* January/February 2002 edition on the WAFIC's view on progressing the matter of wetline management.
- A Ministerial media statement on 11 July 2002 formally announcing plans to review the management of the 'wetline' sector of WA's commercial fishing industry.
- An article in the *ProWest* January/February 2003 edition about the Minister having formally agreed to the process for the wetline review, including information about the roles of the two panels.
- A Ministerial media statement on 11 April 2003 announcing the creation of two panels to provide advice on proposed access and management arrangements for WA's commercial wetline fisheries.
- An article in the first edition of *Western Fisheries* in 2003 about the start of the review of commercial 'wetlining', commencing in the West Coast and Gascoyne regions, including information about the composition and role of each of the two panels.
- A letter of 23 June 2003 to all FBL holders re validation of catch records, which advised about the establishment of two Panels to undertake a review of WA's commercial wetline fishery. A copy of the Minister's media statement of 11 April 2003 was included with the letter.

---

<sup>1</sup> Observers were able to contribute to discussions at the invitation of the Chair, however were not able to participate in the determination of panel decisions.

- Advertisements explaining the review and extending an invitation for any interested persons to make initial written submissions on matters the panels should consider as part of the review were placed in *The West Australian* (on 12 and 13 September 2003), the *Geraldton Guardian*, *Northern Guardian* and the *Augusta-Margaret River Mail* (on the 17<sup>th</sup> September 2003), and the *Bunbury/South West Times* (on 18 September 2003).
- Information about the review was placed on the Department of Fisheries' website, including an invitation to make an initial written submission in September 2003. There is also provision to send a submission direct from the site.
- An invitation to make an initial submission was placed on the *Citizenscape and Consultation Catalogue* section of the Department of Premier and Cabinet's website, with a direct link to the Department of Fisheries' website in September 2003.
- Presentation to all WA boat brokers on 19 September 2003.
- A letter of 26 September 2003 to all peak industry bodies, including professional fishermen's associations, explaining the review and extending an invitation to make initial written submissions on matters they believe the Panel should consider as part of the review.
- Posters about the review, released in early October 2003, displayed in all regional and district offices of the Department, as well as at major wetfish processing establishments. Also, the same posters were displayed at meetings of the annual rock lobster coastal tour in the week beginning 13 October 2003.
- An article in the September/October 2003 edition of *ProWest*.
- A letter (as per the 26 September letter to industry bodies) to all FBL holders on 8 October 2003.
- The advertisement repeated in *The West Australian* of 25 October 2003.
- Meetings held in Dongara, Geraldton, Kalbarri and Carnarvon by the Commercial Access Panel in February 2004 providing an opportunity for interested associations and individuals to provide their views to the Panel on issues such as access and allocation.
- Meetings in Bunbury, Busselton and Fremantle by the Commercial Access Panel in May 2004.
- Discussion papers released in January 2005 by the Management Planning Panel and Commercial Access Panel outlining a proposed management arrangements for a four-month public comment period. The comment period closed 29 April.

## SECTION 4 BACKGROUND

---

Before September 1983, there was no constraint on the issue of commercial Fishing Boat Licences (FBLs) in Western Australia. Any person submitting a competent application was granted a new FBL. It gave the holder an authorisation to use a boat for commercial fishing.

Provided that person also held a Commercial Fishing Licence (CFL) or a Professional Fishing Licence (PFL) as it was then called, the licensed boat could be used in fishing operations to take any fish<sup>2</sup> for commercial sale, unless there was an existing constraint under fisheries legislation preventing the licence holder from operating within a managed fishery, operating in a specific area or taking a specific fish species.

On 5 September 1983, the then Minister for Fisheries announced an immediate freeze on all new applications to enter the fishing industry via an FBL, noting that ‘the government and industry are increasingly being faced with the consequences of excess fishing capacity in areas such as ... the inshore fisheries on shark, dhufish and other reef fish species ...’.

Ultimately this led to the *Ministerial Policy Guidelines for Entry into the Western Australian Fishing Fleet* being adopted in 1984. The main thrust of the guidelines was a permanent cap on the total number of registered fishing boats in the WA fishing industry. Thus from 1984 onwards, people wishing to enter into the commercial fishing industry could only do so by purchasing an existing FBL.

At this time there were only five managed fisheries in the State, but progressively the majority of WA’s fisheries have been brought under management and now there are over 30 managed fisheries and a variety of fishing prohibitions. This has reduced the range of activities available to the holder of an unrestricted FBL, to the extent that ‘wetlining’ is the last major commercial activity available to an FBL holder who does not hold a Managed Fishery Licence (MFL).

The concept of managing the wetline fishery is not new. A discussion paper released by the Department of Fisheries in 1985 ‘*Arrangements for entry to all fisheries off and along the West Coast*’ proposed the establishment of a managed handline fishery and a managed dropline fishery on the west coast of WA.

On 3 November 1997, the Department of Fisheries (then called “Fisheries WA”) announced that a study would be undertaken into the activities associated with the ‘unrestricted’ WA FBL (i.e. an FBL with no restrictive conditions in addition to the standard conditions), commonly known as ‘wetline’ or ‘open access’ fishing and its associated wetline fishery. The then Minister for Fisheries set a benchmark date of 3 November 1997 for fishing history within the wetline fishery.

This benchmark date was announced following concerns that large numbers of operators who did not normally participate in wetlining were gearing up to gain ‘history’ in the fishery following the commencement of negotiations between the Department of Fisheries and WAFIC over future management of wetline fishing. The media release noted: ‘No wetline

---

<sup>2</sup> ‘fish’ mean an aquatic organism of any species (excluding aquatic mammals, aquatic reptiles, aquatic birds, and amphibians). It therefore includes all species taken commercially by fishers including crustaceans, molluscs, squid and octopus as well as scalefish.

fishing history after this date would be considered in the development of any new arrangements for the fishery'. At the same time, it was announced that 3 November 1997 would be a benchmark date for all open access fisheries where benchmark dates had not previously been announced. At the time, a letter was also sent to all FBL holders which noted that '.... fishing history after 3 November may not be taken into account'.

In March 2000, the Department of Fisheries released Fisheries Management Paper No. 134 *Management Directions for WA's Coastal Commercial Finfish Resources* that proposed:

- Scalefish stocks no longer automatically should be available for take by all commercial fishing boat licence holders.
- A dedicated small-scale commercial fishery for scalefish should be established, with clear entry criteria, and an appropriate limit on the number of operators in each bioregion.
- The basis for managing the scalefish fishery should be the allocation of Total Allowable Effort for commercial fishers, complemented by appropriate controls on recreational catches<sup>3</sup>.

In July 2002, the then Minister for Fisheries announced that a review of wetline fishing would be undertaken. Two panels, a Management Planning Panel and a Commercial Access Panel, were appointed in 2003 to undertake the review.

#### **4.1 What is 'wetlining'?**

In terms of fisheries legislation, there is currently no such activity as 'wetline' fishing. The term 'wetlining' is generally applied to fishing activities undertaken under the authority of a CFL used in conjunction with an FBL.

Permitted fishing activities are any activity (which may include fishing for certain species, using certain gear, or operating in certain areas), which is not otherwise prohibited by other legislation (such as a management plan, regulations, or Section 43 Order). Typically, wetlining involves the catching of scalefish using handline or dropline, but may also involve the use of nets in inshore areas to target species such as mullet or whiting.

The nature of wetlining, in terms of the species targeted and gear that can be used, can therefore vary between regions, depending upon the existing managed fisheries in a particular region.

An FBL is sometimes referred to by commercial fishers as an 'open west coast licence' or 'wetline licence', which has promoted a perception that wetline fishing is a separately managed (and licensed) activity. It is likely that boat brokers initially coined these terms, however they are now widely used.

Indeed some fishers believe that an FBL carries some form of endorsement, or confers some form of right, to take scalefish rather than just being the residual permissible activities arising from holding an FBL.

---

<sup>3</sup> New recreational limits were introduced for the West Coast and Gascoyne bioregions on 1 October 2003, which included revised bag limits and a 20kg possession limit.



## 4.2 Types of ‘wetlining’

While the majority of wetline activity along the Gascoyne is based around dropline and handline fishing for demersal scalefish species, the use of gillnet, haul net and beach seine fishing (for mullet, herring, whiting etc) is also still carried out by some fishers outside the Shark Bay Beach Seine and Mesh Net Fishery.

Although some operators engage in both types of fishing, they are two distinctly different fishing operations. In effect, the wetline fishery can be separated into these two distinct fisheries:

- A line fishery targeting demersal/reef scalefish species such as pink snapper<sup>4</sup>; and
- An inshore net fishery targeting species such as mullet, herring and whiting (in the ‘open access’ area outside the Shark Bay Beach Seine and Mesh Net Fishery) called the Gascoyne Inshore Net Fishery.

A few residual fishing activities will remain available to CFL holders, however other activities that remain unmanaged (e.g. drop netting for crabs) may be the subject of other management reviews and will not be discussed in this paper.

### Recommendation

- 1) Separate management arrangements should be introduced which establish two distinct fisheries in the Gascoyne bioregion:
  - a) A line fishery targeting demersal/reef scalefish species; and
  - b) An inshore net fishery (excluding the area of the existing Shark Bay Beach Seine and Mesh Net Fishery) called the Gascoyne Inshore Net Fishery.

## 4.3 Profile of demersal line fishing in the Gascoyne

Between 1997 and 2001 a total of 159<sup>5</sup> different FBLs reported a wetline catch of demersal species in the Gascoyne bioregion, although, on average, around 40 boats wetlined in any given year (Table 1). Increasing catches in recent years highlight the emergence of goldband snapper as a target species in the deepwater areas of the region.

---

<sup>4</sup> The demersal line fishery will not permit the take of species already managed separately, such as mackerel and shark (please note data represented in this paper are generally exclusive of mackerel and shark catch).

<sup>5</sup> This figure does not include pink snapper catches by fishers operating in the Shark Bay Snapper Managed Fishery.

Year	Total Wetline Catch (tonnes)	Total No. of FBLs
1990-91	86	42
1991-92	177	37
1992-93	261	40
1993-94	162	33
1994-95	98	39
1995-96	82	36
1996-97	87	41
1997-98	143	54
1998-99	171	44
1999-00	182	42
2000-01	232	50
2001-02	287	42
2002-03	464	48

Table 1 Total demersal wetline catch in the Gascoyne bioregion and the number of boats reporting wetline catch from 1990-91 to 2002-03.

## 4.4 Key issues for management

### 4.4.1 Status of demersal scalefish stocks

The Gascoyne demersal wetline fishery targets a range of demersal scalefish species. The key species reported from the Gascoyne bioregion during 2002-03 comprised goldband snapper (263 tonnes), emperors or lethrinids (34 tonnes), pink snapper (caught outside the Shark Bay Snapper Managed Fishery [SBSMF] - 33 tonnes), cod (23 tonnes), mulloway (16 tonnes) and red emperor (15 tonnes).

#### *Pink snapper*

The oceanic pink snapper stock in the Gascoyne region is currently considered over exploited. The over exploited status of pink snapper is considered to result largely from low recruitment levels in the late 1990s, most likely as a result of environmental factors.

An assessment carried out in 2003 also indicated that the calculated yield and predicted commercial catch, as a result of studies in the early 1980s, might have been too high. An assessment of this stock completed in the mid-1980s estimated the maximum sustainable annual yield to be around 600 tonnes.

The average commercial catch during the past 15 years has, however, only been approximately 500 tonnes. The 600 tonne value was probably an over-estimate of the long-

term sustainable yield and even at 500 tonnes the stock appears to have been fished at unsustainable levels during a period of decline in recruitment.

### *Goldband snapper*

The catch of goldband snapper in the Gascoyne rose rapidly from almost zero in 1999 to 190 tonnes in 2002 and 301 tonnes in 2003. No stock assessment is available for this fishery, however, the status of the stock can be estimated based on catch and effort data and knowledge of this species in the Pilbara and Kimberley demersal fisheries (of which goldband snapper is an important component).

The grounds where goldband snapper have been found to be abundant in the Gascoyne are mostly between 23° and 24° South latitude, in depths of 150-200 metres. The area of this ground is small in relation to the areas where goldband snapper are found in the Pilbara and Kimberley.

It is likely these high catches were possible because it was an unfished stock. The Department of Fisheries now believes that the sustainable yield was probably exceeded in 2002 and that the stock was further depleted by the continued high catches in 2003. If no action is taken to reverse the increasing catch trend, it will probably result in a stock collapse.

#### **4.4.2 *Shark Bay Snapper Managed Fishery (SBSMF)***

The development of management arrangements for demersal wetlining activity in the Gascoyne is somewhat complicated by the fact that the predominant commercial scalefish species in the region, pink snapper, is already subject to formal management arrangements.

The SBSMF is located in the waters of the Indian Ocean between latitudes 23°34'S and 26°30'S and in the waters of Shark Bay north of Cape Inscription. It operates on the oceanic stock of snapper, which is distinct from the inner Shark Bay stocks.

While the SBSMF extends over most of the Gascoyne region, there is 30-miles of water between the northern boundary of the fishery and Point Maud (which forms the southern boundary of the Point Maud to Tantabiddi Well closure to commercial fishing). In this 30-miles, wetliners can take any species of fish including pink snapper.

This pink snapper catch, although from the same stock taken in the SBSMF, is not currently acquitted against the pink snapper TACC, nor is it subject to its own TAC. Furthermore, until last year it was also possible for wetliners to enter the waters of the SBSMF to take species other than pink snapper. There is a need to address all issues around the mortality of pink snapper in the region if the problem is to be remedied.

### *Shark Bay Snapper Working Group*

As an initial measure to address the over exploitation of pink snapper, the Minister immediately implemented a 40 per cent reduction in the TACC for the 2003-04 managed

fishery season. The Minister also established the Shark Bay Snapper Working Group to recommend remedial management options for the SBSMF. The Snapper Working Group proposed a series of management arrangements to deal with immediate pink snapper stock concerns, most of which have been implemented, including:

- A Section 43 order to prevent non-snapper MFL holders line fishing within the boundaries of the SBSMF (in order to address incidental mortality of pink snapper);
- An additional landing port for pink snapper at Coral Bay to improve the integrity of quota monitoring. Boats operating out of Coral Bay must now have either pink snapper quota or an Automatic Location Communicator (ALC) (to enable monitoring via the Department of Fisheries' Vessel Monitoring System [VMS]); and
- VMS to monitor all SBSMF boats and improve integrity around quota monitoring (by preventing boats unloading at undesignated ports). A consumption rate will also be introduced (at 50 fishing days for each 100 units of quota inside the 200 m depth contour and 100 days outside the 200 m depth contour) to prevent line fishing, and inevitable snapper mortality, when quota is exhausted.

The Panel did not engage directly with the Working Group, nor comment on the Working Group's recommendations because they were primarily directed at resolving issues in the SBSMF. However the Panel, in the course of its deliberations over long-term management solutions for demersal scalefish stocks in the Gascoyne, considered the Working Group's advice and findings.

#### **4.4.3 *Non-selective nature of line fishing and incidental mortality***

Due to the non-selective nature of line fishing (that is, wetliners targeting other species will invariably catch pink snapper and *vice versa*) it is difficult to manage the activities of these groups in isolation.

Since 11 June 2004, operators have had to buy/lease pink snapper quota to continue fishing within the SBSMF or restrict their activity to the 30 miles between the northern boundary of the snapper managed fishery to Point Maud. However, the take of pink snapper outside the boundary of the managed fishery is not acquitted against the managed fishery's TACC or subject to its own.

A further contributing factor is the level of additional fishing mortality from 'discards' (with preliminary research indicating the majority of pink snapper do not survive after being raised from the depths in which commercial fishers generally operate). Given the current depleted state of pink snapper stocks, all of these components of pink snapper mortality are impacting on the long-term sustainability of stocks in the region.

#### **4.4.4 *Latent effort and potential mobility of commercial effort***

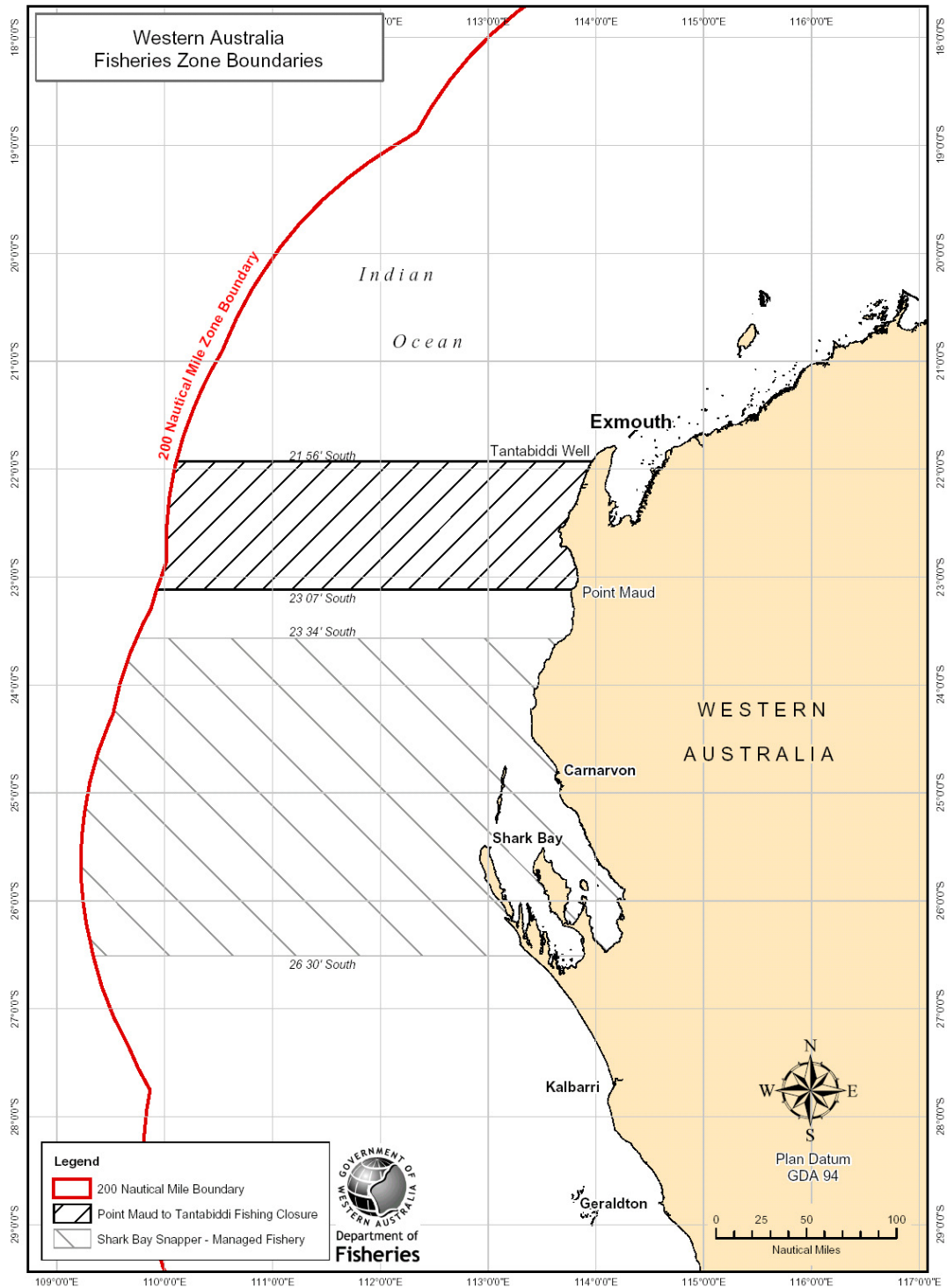
The *State of the Fisheries Report 2002-03* identified the high latent effort as a key threat to the sustainability of the wetline fishery, noting many boats with the potential to wetline currently do not do so or only catch very small amounts. This is perhaps not as much of an issue in the Gascoyne compared to the West Coast region, because there are a number of 'disincentives' to new boats, including restrictions on the take of pink snapper and the limited availability of moorings in Coral Bay.

However, the increase in catches of goldband snapper has seen a number of boats commence operating in the deeper waters of the Gascoyne and the Panel was concerned with an increasing number of boats 'gearing up' for deepwater fishing. A key outcome of this review must be a cap on the level of commercial effort that can be expended on scalefish stocks.

The potential for this effort to be focussed on specific areas also requires consideration. Once management arrangements are put into place for the wetline fishery, fishers may seek to maximise returns, which may involve seeking areas with high catch rates, resulting in the threat of localised or serial depletion of stocks.

Catch rates in the Gascoyne are variable between inshore areas and deep waters. Catch rates are also variable for pink snapper, peaking in winter months when fish are aggregating to spawn and decreasing when fish are more dispersed.

Figure 2 The location of the existing Shark Bay Snapper Managed Fishery and the 'Point Maud to Tantabiddi Well' fishing closure.



#### **4.4.5 Cost of management**

Funding for commercial fisheries management has traditionally been sourced from the Government's Consolidated Fund (CF) but an increasing proportion of total revenue is raised from commercial fishers via licence fees and charges. The major commercial fisheries are funded on full cost recovery principles, where the monies raised are dedicated to the management (administration, policy and legislation, compliance and research) of those fisheries.

The level of contribution from the CF has remained fairly constant over the past five years, however with increasing operational costs, particularly in regional areas of the State, this represents a decline in 'real' funding. This has major implications for scalefish fisheries because they are low in value and the majority of services in these fisheries are funded by CF. It is these fisheries, which have the highest recreational participation for which limited information is available, that are the focus of resource sharing debates and at the most risk of overexploitation.

Currently, a wetliner in the Gascoyne pays an annual fee of \$315 (plus a \$67 application fee) to renew a WA FBL. Operators in the SBSMF pay this renewal fee for their FBL and an additional renewal fee for their managed fishery license (MFL).

The SBSMF is a minor commercial fishery and, as such, its MFL fees are determined on the basis of a small percentage of the fishery's gross value of product (GVP). The fee is comprised of a cost recovery component and a Development and Better Interest Fund (DBIF) contribution. The DBIF contribution is 0.65 per cent of the fishery's GVP and the cost recovery component of the fee is an agreed percentage (in consultation with WAFIC) of the fishery's GVP used to subsidise the cost of managing the fishery (currently 2.825 per cent).

For 2004/05 this calculation resulted in operators in the SBSMF paying an access fee of \$15.16 per unit (with a minimum unit holding of 100).

Both the IFM Report (Fisheries Management Paper No. 165) and the draft report of the Fisheries Statutory Management Authority Advisory Committee (November 2003) identified that the shift to cost recovery and comparative decline in CF funding has reduced the flexibility of the Department of Fisheries in being able to deal with pressing issues, which increasingly are in the scalefish fisheries.

The IFM report recognized that while there may be further opportunities for some increased cost recovery contributions, when the wetline fishery is brought under effective management, given the comparatively low economic value of the minor commercial fisheries, it is very unlikely that cost recovery will be able to meet full funding requirements.

It is important that management arrangements for the wetline fishery are kept as simple as possible to minimise management costs (while still providing an effective control on commercial catch). The Panel considers it difficult to address issues around the future costs of management at this time.

Management costs will depend on the number of boats with access to the fishery, which will be a consequence of both the Minister's determinations around the findings of the Commercial Access Panel and a likely period of economic restructure once management arrangements are introduced.



## **SECTION 5 GASCOYNE DEMERSAL WETLINE FISHERY**

---

### **5.1 Objectives for management**

The Panel considers it important that a set of clear objectives is adopted to provide a basis for developing management arrangements for the wetline fishery.

#### **Recommendation**

- 2) The following management objectives apply to the Gascoyne demersal and inshore fisheries:
  - a) The exploitation of fish stocks is conducted in a manner consistent with the principles of Ecologically Sustainable Development.
  - b) The management framework provides mechanisms that can contain the commercial scalefish catch within a prescribed allocation under an integrated fisheries management framework.
  - c) The management arrangements should be compatible with encouraging the supply of a high quality scalefish product to markets and the maximisation of returns through processes such as value adding.
  - d) The management arrangements must be effective and as simple as possible to minimise the cost of management, including research and compliance.

### **5.2 Scalefish management arrangements**

A primary consideration in the development of new management arrangements for demersal species in the Gascoyne must be the current risk to the long-term sustainability of pink snapper and goldband snapper stocks. Management arrangements must adequately protect these stocks from over exploitation, as well as provide an effective management framework that is capable of controlling total catch levels across all scalefish species.

Because of the distribution of pink snapper stocks throughout the Gascoyne and the non-selective nature of line fishing, the Panel believes the only viable option for effectively managing pink snapper and other scalefish stocks in the Gascoyne is to revoke the existing *Shark Bay Snapper Management Plan 1994* and introduce a more complete management framework that encompasses all demersal scalefish species. This way, pink snapper mortality from outside the existing SBSMF boundaries and deep-water areas will be accounted for under the management and compliance framework and the TACC will not be undermined by operators landing pink snapper outside the SBSMF.

Therefore, after extensive deliberation the Panel recommends the *Shark Bay Snapper Managed Fishery Management Plan* be revoked and the Gascoyne Demersal Scalefish Fishery be implemented as the single management framework to encompass all commercial fishing for demersal scalefish stocks (including pink snapper) within the Gascoyne bioregion.

## Recommendation

- 3) The *Shark Bay Snapper Management Plan 1994* should be revoked and a new management framework, the Gascoyne Demersal Scalefish Fishery, be introduced that encompasses all fishing for demersal scalefish species in the Gascoyne.

## 5.3 Fishery boundaries

The Panel noted that the Department of Fisheries has shifted to a regional approach for recreational scalefish management and is of the view that a similar move by the commercial sector would allow for more effective targeted management, based on the distribution and abundance of scalefish stocks and different human usage patterns.

Regional management will also provide a spatial scale of management, which will provide a level of comparability with the recreational fishing sector in which to examine the allocation of scalefish resources.

The Panel notes the regional recreational fishing boundaries but considers it necessary to apply different boundaries for the management of the commercial scalefish fisheries to better reflect existing management plans and fishing activities and the distribution of fish stocks. Although there was some concern in submissions that having different commercial and recreational boundaries would cause problems in the IFM process, the Panel expects IFM to be focused on a small scale and not necessarily restricted to these boundaries.

In this regard, it was noted that commercial fishing in the Gascoyne is already delineated in the south by the southern boundary of the SBSMF (latitude 26°30'S) and in the north by the southern boundary of the Point Maud (23°07'S) to Tantabiddi Well (21°56'S) commercial fishing closure.

This fishing closure was implemented in the early 1970s in anticipation of the declaration of the Ningaloo Marine Park. The closure has been administered ever since by licence condition number 16 '*Not to engage in fishing between Point Maud and Tantabiddi Well*' on all WA FBLs. At the time of its implementation the State Government only had control over fisheries out to three nautical miles. Since then, the *Offshore Constitutional Settlement 1995* (OCS) has given the State control of a range of fishing activities out to 200 nautical miles.

On the basis of the distribution of fishing activity and the composition of catch, the Panel believes there is considerable merit in treating the area north of the Tantabiddi Well closure as part of the Pilbara region rather than the Gascoyne. While this closure remains legally binding as a licence condition, the Panel believes it should be explicitly defined in the *Fish Resources Management Regulations 1995* as a closure to commercial line fishing (and other commercial fishing activities).

## Recommendation

- 4) The Gascoyne Demersal Scalefish Fishery encompass the waters between latitudes 26°30'S and 23°07'S (Point Maud).

- 5) The waters between latitude  $23^{\circ}07'S$  (Point Maud) and latitude  $21^{\circ}56'S$  (Tantabiddi Well), extending out to the 200 nautical mile boundary of the Australian Fishing Zone, be explicitly defined as a commercial line fishing closure under the *Fish Resources Management Regulations 1995*.

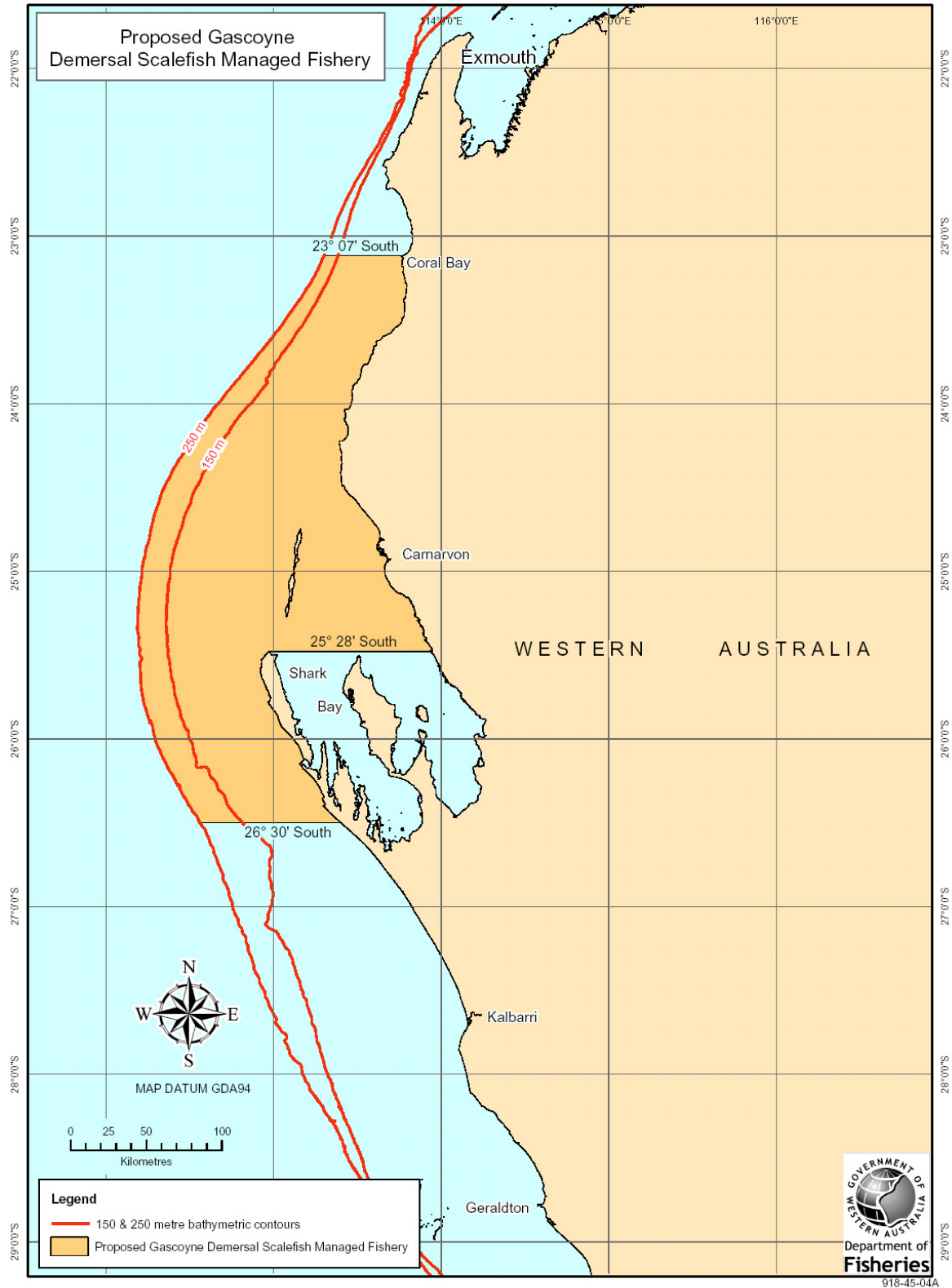


Figure 3 The proposed boundaries of the Gascoyne Demersal Scalefish Fishery

## 5.4 Management zones

The Panel believes it is important that the new management framework provides the capacity to separately manage effort on the pink snapper and goldband snapper stocks.

In order to effectively manage the key species in the region, the Panel considered the natural stock distribution. Traditionally most pink snapper fishing and wetlining for other species has taken place inside the 150-metre depth contour, but more recently a deepwater fishery for goldband snapper and rosy jobfish has taken fishers further offshore.

The Panel therefore proposes that two management zones be established within the Gascoyne:

- An inner-shelf zone extending out to a line of ‘best fit’ to the 150m depth contour (which will encompass the majority of activity in the current snapper managed fishery and wetlining for other inner-shelf demersal scalefish species).
- An outer-shelf zone extending from the 150m depth contour out to a line of ‘best fit’ based on the 250m depth contour (which will encompass fishing for species such as goldband snapper and rosy jobfish).

The Panel notes that there may be potential for the development of deepwater fisheries beyond 250m and does not consider it appropriate to limit deepwater access to only those with Gascoyne Demersal Scalefish Fishery access. For reasons of equity, this opportunity should be potentially available to any WA FBL holder.

A number of submissions called for formal management of this deepwater area (recognising that this area is currently regulated under the *Shark Bay Snapper Fishery Management Plan 1994*) to prevent overcapitalisation and the deferral of access and allocation decisions.

The Department’s ‘Development of New Fisheries’ (DNF) application process was implemented to assess the development of unexploited fisheries such as ‘deepwater’ fisheries. This helps to ensure that any development of fishing on deepwater stocks proceeds in a controlled manner.

The Panel is concerned that the DNF process is quite complex for applicants and may be time consuming and costly to the degree that it may deter applicants. It recognises the process does serve to ensure fishers investigate such opportunities fully and make informed decisions before embarking on a venture, but it suggests that the DNF process be reviewed with the aim of simplifying it so as not to deter potential applicants.

### Recommendations

- 6) The management framework for the proposed Gascoyne Demersal Scalefish Fishery should establish two separate zones:
  - a) An inner-shelf zone extending out to a line of ‘best fit’ based on the 150 metre depth contour; and
  - b) An outer-shelf zone extending from the 150 metre line to a line of ‘best fit’ based on the 250 metre depth contour.

- 7) Potential fishing opportunities in waters outside the 250 metre depth boundary be available to WA FBL holders on application through the Developing New Fisheries process.
- 8) A review of the Developing New Fisheries process be undertaken with a view to simplifying it and making it less onerous on applicants.

## 5.5 Individual Transferable Effort Management

The Panel considers that an Individual Transferable Effort (ITE) management system would provide the best framework for managing the multi-species scalefish fishery because it is a flexible tool that allows catch rates to be monitored and management arrangements adjusted easily as required.

Setting target catches is extremely difficult with a multi-species fishery in circumstances where limited information is available for key target species, so the Panel feels that ITE systems can provide greater insurance for key stocks as they can 'adapt' to changes in stock levels and catch rates. Catches decrease when fish abundance and catch per unit effort (CPUE) decreases, and *vice versa*, so the system can 'track' natural fluctuations in fish stocks.

If the target commercial catch is inadvertently set too high and the fishery is overexploited, the CPUE will decline and the target catch will not be achieved. If such instances occur, the target catch can be reset and the time access reduced. Furthermore, the Panel notes that for multi species fisheries, the data demands can be reduced under an ITE system by concentrating on identified 'at risk' species.

However, the Department of Fisheries' Research Division advice is to maintain the Individual Transferable Quota (ITQ) management framework for pink snapper, at least until pink snapper stocks have recovered to historic levels. ITEs are not always ideal for the management of schooling or aggregating species (such as pink snapper) because the CPUE of operators targeting these species is not a good indicator of abundance.

The Panel recognises that an ITE system alone couldn't afford the level of protection required to rebuild pink snapper stocks at this time.

This makes the integration of pink snapper management with other stocks problematic and following consideration of the broad options outlined in Fisheries Management Paper No. 189 (FMP 189), the Panel recommends an ITE-based system covering all demersal scalefish that incorporates the quota for pink snapper.

That is, pink snapper stocks continue to be managed under a catch quota administered by ITQ (with the catch quota applying to the entire Gascoyne region) and all other stocks will be managed by way of an ITE system based upon effort units of 'fishing days'.

In order to integrate these two management systems, eligible operators would need to be allocated a number of days sufficient to take their quota of pink snapper, plus an additional number of days allocated for the take of 'other' scalefish. Each operator will then have both a pink snapper quota and a total number of fishing days in which to take that quota (and other scalefish species).

Whichever expires first, the pink snapper quota or the total number of days, will trigger the end of fishing operations. However, it is important to note that all units will be transferable (including provisions for temporary transfers), so there will be provision for any remaining days or snapper quota to be bought, leased or sold.

The Panel recommends that in the longer term, once pink snapper stocks have recovered, further consideration should be given as to whether pink snapper can be incorporated into the ITE system and the pink snapper quota system abolished.

### **Recommendations**

- 9) Management of the Gascoyne Demersal Scalefish Fishery be based on an Individual Transferable Effort (ITE) system (with units of ‘boat fishing days’) that also incorporates Individual Transferable Quota (ITQ) for pink snapper.
- 10) The need for a separate quota management system for pink snapper should be reviewed once the pink snapper stocks have recovered.
- 11) No operator be permitted to fish in the Gascoyne Demersal Scalefish Fishery unless they hold an unexhausted pink snapper ITQ.
- 12) All fishing operations cease when ITE units or pink snapper ITQ units are exhausted, whichever occurs first.

## **5.6 Setting the TACC for pink snapper**

A TACC is already set for pink snapper under the *Shark Bay Snapper Management Plan 1994*.

The Panel recognises that the Department of Fisheries will continue to calculate a pink snapper TACC based on the best available information (for the continued rebuilding of the pink snapper stock) under the new management framework.

## **5.7 Setting a Target Commercial Catch for ‘other’ (non-snapper) demersal species**

### ***5.7.1 Inner-shelf zone***

Determining the initial target commercial catch is problematic in this area because without stock assessments on all non-snapper species the Department is reliant on catches and catch rates.

Catch rates are different for wetliners and pink snapper MFL holders, and in the case of the latter, catch rates also vary seasonally. For this reason, the target commercial catch for both groups needs to be determined separately, before being combined into one initial target commercial catch.

MFL holders' catch returns indicate the catch rate of 'other' (non-snapper) demersal species equates to about 15 per cent of their total pink snapper catch. That is, this year the quota for pink snapper was set at 338 tonnes which would result in the snapper MFL group's component of the target commercial catch being 51 tonnes.

The Department of Fisheries Research Division considered the historical catches of wetline operators and provided the Panel with a high, medium and low risk option for wetliners' component. The Panel recommends the medium risk option because it excludes the most recent data where catches have increased markedly (probably to unsustainable levels) but is more generous than the low risk option and would therefore result in a greater number of boat fishing days for the initial allocation.

Therefore, the Panel recommends the initial target commercial catch (for non-snapper species) be based on catch levels between 1995 and 2001, which results in a total of 117 tonnes (66 tonnes for the wetline component and 51 tonnes for the MFL component).

It is important to note that this target commercial catch is the initial catch only. The target commercial catch will be reviewed against stock sustainability on an annual basis. Furthermore, if the overall catch (including commercial, recreational and charter) was considered to be at an unsustainable level, the Panel noted that the impacts of all sectors accessing these stocks would need to be reviewed.

### **5.7.2 Outer-shelf zone**

The catch of goldband snapper in the Gascoyne rose rapidly from almost zero in 1999 to 190 tonnes in 2002 and 301 tonnes in 2003. Therefore historic catches cannot be used reliably as a basis for determining a TCC in the deepwater zone.

Anecdotally, the average size of goldband snapper being taken is decreasing. Research scientists consider the current level of fishing is not sustainable and needs significant reduction.

Fisheries scientists are concerned about the long-term sustainability of goldband snapper stocks, based on current levels of activity. The Department of Fisheries' Research Division estimates that a comparable goldband snapper fishery in the Pilbara would yield a sustainable long term catch of 100 tonnes.

Fishers targeting goldband snapper offshore also catch a mix of pink snapper and other species. Given the current catch rates in this deep-water fishery, it is estimated that a catch of 100 tonnes of goldband snapper will result in a catch of approximately 60-80 tonnes of mixed deepwater species (comprising 40 - 50 tonnes of red emperor, spangled emperor and cod and around 20 - 30 tonnes of pink snapper).

A target catch of 100 tonnes of goldband snapper will therefore result in a total catch of some 160 - 180 tonnes in this outer-shelf zone.

The Panel recommends that the initial number of effort days allocated to the outer shelf zone be calculated on a target commercial catch of 100 tonnes of goldband snapper. The catch of 'other' demersal species taken incidentally will therefore be accounted for within the

goldband snapper effort allocation. The proportional catch composition will need to be reviewed annually to ensure it does not alter significantly.

## 5.8 Determining an appropriate Catch Per Unit of Effort (CPUE)

Determining an appropriate CPUE rate for the initial calculation of effort days is problematic because catch rates are different for wetliners and pink snapper MFL holders, and in the case of the latter, catch rates also vary seasonally. For example, the catch rates for snapper MFL holders are highest during the peak pink snapper season in June and July when the pink snapper are aggregating.

Catch records indicate fishers average 581 kg/day in June-July, 367 kg/day in May and August, 192 kg/day from January to April and 154 kg/day from September to December. In addition, snapper MFL holders catch between 50-120 kg/day of other scalefish. Wetliners not targeting pink snapper catch an average of 140 kg of scalefish per day in the inner shelf zone.

One way to manage the variation in catch rates of different species at different times of the year, and between inner and outer shelf areas, is to set a standard off-peak catch rate and apply a differential ‘consumption rate’ factor at different times of year and in different areas (Table 2). For example, on average, it takes 2,300 off-peak boat fishing days to take 400 tonnes of pink snapper from the inner-shelf zone (400 tonnes of pink snapper is representative of the sustainable level of catch for the region once the stock has recovered from its current depleted level).

Because pink snapper spawn in aggregations in June and July (and are therefore easier to catch) it would be necessary to reduce the number of days available to operators so that the ‘spare’ days are not turned into fishing days (which will inevitably result in incidental mortality of pink snapper). However, rather than vary each licence holder’s entitlement on an *ad hoc* basis, the Panel recommends a mechanism of seasonally variable consumption rates to apply to all licensees. This can be monitored automatically using a vessel monitoring system (VMS).

Month	CPUE of pink snapper (kg/day)	Consumption Rate Factor	Effort required (Off-peak boat fishing days)
January through April	192	1.25	1840
May & August	367	2.38	966
June & July	581	3.77	610
September through December	154	1	2300

Table 2 Indicative seasonal consumption rate factors to achieve a target catch of 400 tonnes of pink snapper in the Gascoyne

For example, each ‘boat fishing day’ is consumed at a rate of 3.77 days in June and July, while during May and August each fishing day is consumed at 2.38 days. With the stock at its current depleted level, it will take 1955 off-peak boat fishing days to take the current snapper quota of 338 tonnes. Consumption rate factors would stay the same to reflect the peak and off-peak seasons.



This system allows for consumption rates to be varied on a spatial as well as a temporal basis. For example, where tighter management controls are required for the protection of goldband snapper, a day's fishing in the outer-shelf zone may be consumed at one and a half, two or even three fishing days.

It is important to note that if all fishers chose to fish their total allocation of days in the peak pink snapper period, the target catch of other demersal scalefish species would not be taken. Alternatively, if all fishers chose to operate in the off-peak pink snapper period, they would take more than the target catch of 'other' species. If fishing practices change significantly, the system can be easily amended to account for these changes.

## **5.9 Initial calculation of effort units (boat fishing days)**

The aim of an effort-based system is to allocate an appropriate number of fishing days that will allow the target commercial catch to be caught each year. This number of fishing days can be adjusted annually, either upward (if the target catch is not reached) or downward (if the target catch is exceeded), assuming there is no sustainability issue.

The number of effort days allocated for the take of demersal species in the Gascoyne must incorporate both the number of days required to catch the TACC of pink snapper and an appropriate number of days to allow the target commercial catch of other demersal species to be taken.

Furthermore, the allocation of effort units (boat fishing days) must be made separately for the inner-shelf zone and the outer-shelf (or deepwater) zone. Effort units cannot be transferred between zones because this would cause the maximum effort limits, and hence the target catch, to be exceeded.

This system does not preclude operators being granted access to both zones or operators purchasing access to both zones.

An important component of an effort system must be the integrity of the defined fishing units, in this case 'boat fishing days'. In this regard, any level of fishing must be regarded as a 'fishing day' and there can be no provision for persons to appeal that a day was lost due to bad weather, mechanical problems, etc.

While the overall calculation of effort days must make sufficient allowance for such factors, the primary focus of the scheme must remain on achieving the target commercial catch, irrespective of whether it takes a larger or smaller pool of days to achieve this.

A number of submissions perceived 'days fished' as an occupational safety and health issue, under the belief that operators will be required to fish 24-hour days to achieve a viable catch (or make the most of their allocation). It is important to note that the initial calculation of days is based on the current activity/effort of fishers (i.e. not 24-hour days) and automatically includes fishing days lost to bad weather, mechanical problems, etc.

In fact, should operators work 24 hour days under the new management arrangements, then the number of days will be reduced the following year to account for the reduced number of

days required to take the snapper TACC. The Panel does recognise that the first year is likely to see some rationalisation of the managed fleet with people trading units (days or quota).

## **5.10 Ongoing review of effort days**

It is important to recognise that the total number of fishing days and consumption rate factors will be reviewed on an ongoing basis and, if necessary, adjusted to ensure the target commercial catch is met. In practice, this means that if the target commercial catch is not being met, the number of fishing days would be increased (or consumption rate factors reduced) in the following year.

On the other hand, if the target catch was exceeded, the total number of days available would be reduced (provided the variations in catch are not due to changes in abundance or status of stocks, in which case the target catch level may need to be amended).

The review process will involve the Department of Fisheries preparing a discussion paper for consultation with stakeholders including:

- Biological assessment of major stocks;
- Determination of target catch for the commercial fishery;
- Catch per unit of effort (CPUE) and consumption rates for following year; and
- An estimate of total fishing days.

The Executive Director will determine the target catch and effort, as well as approve any necessary amendments to the management plan. The Panel suggests that this review should occur at least every two years.

## **Recommendations**

- 13) The initial calculation of fishing days for the inner-shelf zone of the Gascoyne Demersal Scalefish Fishery should be the sum of:
  - a) The number of days determined necessary to catch the TACC of pink snapper; and
  - b) The number of days determined necessary to catch the target commercial catch of other (non-pink snapper) demersal species.
- 14) The initial calculation of boat fishing days for the outer-shelf zone be based on the number of days determined necessary to catch the target commercial catch of goldband snapper.
- 15) The total allowable effort for each zone should be reviewed biennially and adjusted to ensure the target commercial catch is able to be met.

## **5.11 Minimum unit holdings**

The *Shark Bay Snapper Fishery Management Plan 1994* currently specifies that a minimum of 100 units of pink snapper quota must be held to be eligible to operate in the Shark Bay Snapper Managed Fishery. The Panel believes that this requirement should continue under the new arrangements, noting that the temporary transfer of units of entitlement will be permitted.

## Recommendation

- 16) A minimum unit holding of pink snapper units (in accordance with the level determined at the time of implementation) be required in order to be eligible to operate in the Gascoyne Demersal Scalefish Fishery.

### 5.12 Vessel Monitoring System (VMS)

The Panel considers the best way to manage the boundaries and monitor the level of fishing effort is through the use of a VMS. VMS provides the Department of Fisheries with real time monitoring of vessels by using a combined global positioning system (GPS) and satellite communication unit (called an automatic location communicator [ALC]) that is fitted to each vessel. Data on the vessel's position, speed and course are regularly reported to a land station in Perth.

Because this data also comes with time and date information, it can also be used as a clock to measure the amount of time a boat spends in an area.

In order to be able to ensure compliance with regional and fishery boundaries and to underpin the 'days fished' management tool, the Panel believes the electronic, satellite-based VMS provides the most cost effective option. This will be particularly important for deepwater operators under the DNF program, given that accessing the deepwater zone (beyond 250m) will mean traversing the managed fishery in order to reach their fishing grounds.

Given the likely cost in undertaking exploratory fishing offshore, the Panel does not believe that VMS requirements will represent a significant additional imposition.

A vessel operating under the VMS requires both an ALC (which provides automated position reports) and computer capacity to send messages to and receive messages from the Fisheries Monitoring Station. The cost of this hardware varies, depending on the type of equipment, the supplier and the installer. Generally though, a transceiver will cost in the vicinity of \$4,500 (although there are different models that may cost slightly more or less).

The Department of Fisheries is considering mandating the use of a single type of unit, the Inmarsat Mini C (*Model Number 3026S*), or alternatively permitting the use of units that have capabilities equal to or greater than the Mini C.

Along with other benefits, the Mini C, and other new generation technologies, will greatly simplify the VMS installation process. The Department of Fisheries is working towards changes in legislation that will permit installation to be undertaken by licensed electricians, rather than the current system of "authorised persons", and this will have obvious benefits in terms of cost and time saving.

A data terminal (or computer) can vary greatly in cost, depending on the user's requirements, but a basic model to conduct basic transmission will cost from \$600. Units such as the Mini C can use a PC or a simple message pad. The message pad can be pre-configured for a standard suite of messages and is well suited to smaller craft that are more exposed to the elements.

Currently, the costs involved in sending position reports to the Fisheries Monitoring Station and in receiving messages are borne by the Department of Fisheries. The costs incurred by any communications to other parties are the responsibility of the vessel operator.

The current cost of sending a message via the VMS is \$0.72 per 256 bits (approximately \$0.01 per character). There is also an initial activation fee of \$55.00.

Any costs involved with technical repairs to the VMS unit are the responsibility of the operator. Although this will incur a significant one-off payment, the Panel believes that the installation of VMS is the only way to ensure the integrity of scalefish management in the Gascoyne.

VMS is currently used in the Northern Demersal Scalefish Fishery, Pilbara Trap Fishery, Pilbara Trawl Fishery, Shark Bay Prawn Fishery, Shark Bay Scallop Fishery, Exmouth Gulf Prawn Fishery, Kimberley Prawn Fishery, and the Abrolhos Islands and Mid-West Trawl Fishery.

Although there was initially some resistance among fishers, the response to VMS has been generally positive in all these fisheries. In particular, fishers have identified improved safety and communication as a benefit of having VMS, as well as a confidence that all fishers are obeying the rules. VMS is also considered an important business management tool by those fishers who are required to use it.

### **Recommendations**

- 17) The Gascoyne Demersal Scalefish Fishery be managed under a vessel monitoring system (VMS) with all authorized boats required to have an automatic location communicator (ALC) fitted.
- 18) Boats operating in the deepwater areas under approval from the Developing New Fisheries process also be required to operate under a vessel monitoring system (VMS) to ensure compliance issues can be addressed around the outer boundary. Boats operating under this arrangement should be prohibited from landing demersal species targeted in the Gascoyne Demersal Scalefish Fishery.

### **5.13 Nomination to fish**

Some fishers who gain access to the Gascoyne Demersal Scalefish Fishery will also hold other managed fishery licences (MFLs). It is therefore necessary that Gascoyne Demersal Scalefish Fishery MFL holders 'nominate' which fishery they are operating in before they leave port.

A nomination system is used in other fisheries throughout the State and is typically carried out by phone, fax or VMS. This is particularly important in an ITE fishery because effort days need to be accounted for. The Panel does not believe that this should be a significant imposition on operators because a scalefish fishing trip requires planning anyway, including provisions of ice sufficient to ensure a quality product.

Some submissions suggested that nominating to participate in the demersal scalefish fishery would be a significant imposition on operations. Operators that typically conduct two or more types of fishing in one day perceive the nomination system as onerous.

For example, a mackerel permit holder will typically handline and/or dropline for demersal species and opportunistically troll for mackerel in a single day. This is still possible under the recommended management arrangements because scalefish is proposed to operate under an effort-based system and mackerel is intended to be managed by catch quota.

If these operators are active in both fisheries on the same day they will be presumed to be using one fishing day from their demersal scalefish entitlement (even if they spend only a portion of that day fishing for mackerel).

#### **5.14 Permitted fishing methods**

In order to manage a fishery effectively using input controls, it is important to regulate the catching capacity of the fleet because fishers are likely to act to maximise the value of their allocation of effort units, which (coupled with technological advancements) will result in an increase in effective effort.

Effective effort (and therefore catching capacity) is a product of nominal fishing effort and:

- Efficiency of gear (e.g. type of gear);
- Amount of gear;
- Efficiency of boat (e.g. loading capacity, engine power, range, technology); and
- Efficiency of crew (e.g. knowledge and ability of skipper).

Each of these factors can be regulated to control effective effort and catching capacity. The Panel considers that in this case it is impractical to control the efficiency of a boat, the number of crew or the use of power-assisted gear because it is difficult to police, increases compliance costs and raises occupational health and safety considerations.

However, the Panel does recommend that some general limits be placed on the type and amount of fishing gear permitted.

The methods currently available to wetline fishing (where they are not prohibited by virtue of other management arrangements) include handline, dropline, trolling, squid jigging, wading, lift net, polling, gillnet, beach seine, and haulnetting. In general there are no controls on the quantities of these gears which may be used, or their characteristics (except nets). Thus currently, any quantity of droplines, handlines, and number of hooks may be used.

The Panel recommends the gear permitted in the demersal fishery be limited to handlines and droplines. The Panel also considers a cap on the maximum number of lines on a boat is necessary to 'standardise' a unit of fishing effort, to a degree.

The Panel believes a minimum of three handlines and three droplines are needed for most operators to be viable, and providing for 'spare gear' to cover breakage/loss, recommends five handlines and five droplines be permitted.

It is also recommended that there be a maximum number of hooks, or sets of hooks<sup>6</sup>, permitted on each line. The Panel recognises that a large number of hooks is generally only used in deep water where target species could be at different heights in the water column and does not necessarily want to restrict this practise. As a result, the Panel therefore recommends 30 hooks be permitted per line.

### Recommendations

- 19) The only permitted gear for use in the Gascoyne Demersal Scalefish Fishery be handlines and droplines.
- 20) Legal definitions describing handlines and droplines be developed that contain the following elements:
  - a) Handline being a fishing line that is weighted at one end and has not more than the prescribed number of hooks attached.
  - b) Dropline being a fishing line with no more than the prescribed number of hooks attached and when used for fishing is anchored by a weight, buoyed at the surface and deployed vertically through the water. A minimum of one buoy, with a minimum diameter of 200 mm, must be attached to the line. The buoy should be marked with the vessel's LFB number, in lettering at least six centimetres high and one centimetre wide.
- 21) A maximum of five handlines and five droplines be on board a boat at any one time.
- 22) A maximum number of 30 hooks (or gangs of hooks) be permitted on any handline or dropline.

### 5.15 Processing at sea

The Panel notes that the general practice among wetline fishers is to land whole fish to optimise the quality of the product. This practice also has the benefit of ensuring that compliance with size limits can be monitored.

The Panel encourages this practise and recommends the new management arrangements permit the landing of whole fish only. Exceptions to this should be made by way of application and assessed individually on their merits.

The Department of Fisheries Seafood Quality Management Initiative (SQMI), in association with industry and WAFIC, produced the *WA Quality Scalefish Guide*. The guide is an excellent tool for fishermen to use in ensuring 'best practice' in handling, storage, labelling and transportation of their product.

The guide contains detailed guidelines on all aspects of on-board handling of catch, a temperature template and a checklist. Adherence to these guidelines should result in the best quality fish. Furthermore, completion of the check list and temperature template may provide evidence of attention to food safety and food quality issues for buyers.

---

<sup>6</sup> Provision for the use of ganged hooks was also deemed necessary, as these were important depending upon the type of bait used.

### **Recommendation**

- 23) Operators in the Gascoyne Demersal Scalefish Fishery be permitted to land whole fish only (fish may be gilled and gutted). Exceptions to this should be made by way of application for at-sea processing licences and assessed carefully on their merits.

### **5.16 The take of sharks**

The Panel recognises that there is immediate concern over the sustainability of some shark stocks and that separate management processes are underway to reduce fishing effort on these stocks.

Arrangements are intended primarily to protect adult dusky and whiskery sharks, which are considered over exploited. The Minister is considering additional management measures to conserve threatened shark stocks by reducing overall fishing effort and by implementing further prohibitions, including the introduction of maximum size limits for some species and temporal/area closures.

While these issues will be addressed through specific shark fishery management processes, the Panel believes responsible practice can be easily addressed by prohibiting the use of metal traces on lines in the fishery.

### **Recommendation**

- 24) There be a prohibition on the use of metal traces on lines in the Gascoyne Demersal Scalefish Fishery.

### **5.17 Pink Snapper Size Limit**

As an additional measure to mitigate incidental mortality of pink snapper, some industry members have recommended a reduction in the legal minimum size limit from 41 cm to 38 cm. The Panel heard anecdotal evidence that fish between 38 cm and 41 cm may make a significant proportion of the commercial catch.

While preliminary evidence is such that the post-capture mortality rate of undersized snapper is high, the Department of Fisheries confirms that the proportion of the catch that is undersized varies with recruitment strength. The strong 2000 year-class that started to enter the fishery in 2004 will have grown sufficiently to be greater than 41 cm in length by the 2005 season. For this reason, the Panel does not consider this an immediate issue and recommends the legal minimum size limit of pink snapper be reviewed in consultation with key stakeholders at a later date, following the completion of the mortality study currently being undertaken by the Department of Fisheries.

**Recommendation**

- 25) The minimum legal size limit for pink snapper in the Gascoyne Demersal Scalefish Fishery be reviewed with input from relevant stakeholders.



## SECTION 6 GASCOYNE INSHORE NET FISHERY

### 6.1 Profile of Gascoyne Inshore Net Fishery

Ten different licensees net fished outside the Shark Bay Beach Seine and Mesh Net Fishery (SBBSMNMF) between 1999-00 and 2000-01 (Table 3). Most of this activity was carried out around Carnarvon and the catch was predominantly taken by gillnet, haul net and beach seine.

Year	Inshore Catch (t)	No of Boats
1990-91	10	4
1991-92	15	3
1992-93	23	4
1993-94	22	5
1994-95	7	3
1995-96	31	3
1996-97	32	4
1997-98	53	6
1998-99	46	6
1999-00	69	7
2000-01	27	8
2001-02	31	7
2002-03	18	4

*Table 3 Gascoyne inshore wetline catch and number of boats that reported wetline catch from 1990-91 to 2002-03*

In any year, between three and eight operators report taking inshore pelagic fish with nets (outside the SBBSMNMF). These wetliners have taken between 20 and 70 tonnes in recent years.

In comparison, the SBBSMNMF has 11 licensees and takes around 300 tonnes of scalefish (a mixed catch of whiting, sea mullet, tailor, and yellowfin bream). The Department of Fisheries' Research Division considers this fishery's catches to be within acceptable ranges and therefore that the fishery is being exploited sustainably.

As such, the Panel has no immediate concern for the wetline net fishery north of the SBBSMNMF and considers the numbers of fishers and the total scalefish catch sustainable at present.

### 6.2 Management arrangements

The major concern is that, following the introduction of management for the demersal wetline fishery, those not gaining access may move inshore and significantly increase catch and effort in the inshore net fishery. Clearly, management of the inshore net fishery is essential.

However, given the nature of the fishery, the introduction of complex or overly restrictive management arrangements would be difficult to justify on financial, environmental or social grounds.

The Panel considers the most simple and cost-effective management arrangements for the inshore fishery to be a limited entry system with gear controls. By capping the number of operators and having defined permitted fishing gear, the Panel believes there is currently no need to have any further restrictions on time fished, the amount of catch or the species taken.

In the future it may be necessary to determine an appropriate catch level for the inshore fishery to ensure sustainability and develop more sophisticated management arrangements to achieve this. Furthermore, it may be useful to establish 'trigger points' of total catch for further management action. These catch targets should be developed in consultation with those licence holders that gain access to the fishery.

### **Recommendations**

- 26) The Gascoyne Inshore Net Fishery be managed predominately by limited entry, supplemented by gear restrictions and provisions for future spatial and temporal closures if required.
- 27) Fishing methods be limited to the use of haul net, gillnet and seine net in the Gascoyne Inshore Net Fishery. Further definitions around permitted gear should be developed in consultation with those fishers who gain access to the inshore fishery.
- 28) Catch levels in the Gascoyne Inshore Net Fishery should be monitored and specific effort constraints implemented should catch levels begin to increase beyond historical levels. Consideration should be given to formalising these levels as 'trigger points' for future management action.

## **SECTION 7      SCALEFISH TAKE BY COMMERCIAL FISHERS WHO DO NOT GAIN ACCESS TO THE GASCOYNE DEMERSAL SCALEFISH FISHERY**

---

### **7.1      Considerations**

One of the most contentious issues surrounding the development of a management plan for the wetline fisheries has been whether fishers who do not have access to the managed fishery should be permitted to continue taking scalefish for personal consumption. The Panel gave this matter detailed consideration and a range of matters were discussed (Fisheries Management Paper No. 190).

The Panel proposed, in FMP 190, that commercial fishers outside the managed fishery should be permitted to take scalefish for personal consumption. However, the Panel revised its position following the submission period and now recommends that only operators licensed in the managed commercial scalefish fishery should be permitted to land scalefish.

The Panel believes that allowing scalefish take outside the managed fishery would:

- Undermine the integrity of the managed fishery.
- Potentially threaten sustainability of stocks.
- Increase the cost of management by increasing the requirements of the compliance, research and management programs.
- Result in inequities between managed fisheries (i.e. a rock lobster/abalone MFL holder could take scalefish but a scalefish MFL holder couldn't take rock lobster/abalone from their fishing boat).
- Be inconsistent with previous management processes whereby only those who had a history of catching a certain species, operating in a certain area or using a certain type of fishing gear could continue to do so under formal management arrangements.

Furthermore, should this scalefish take be permitted, it may require an amendment to the *Fish Resources Management Act 1994* (FRMA). While persons operating under the authority of a MFL in one fishery may be exempted from the provisions of another management plan (e.g. the take of deep sea crabs by rock lobster fishers is exempted from the *West Coast Deep Sea Crab Interim Management Plan 2003*) there is no power under the FRMA to exempt all FBL holders from the provision of a management plan.

Restricting the take of scalefish to only those persons authorised to operate in a particular fishery is fundamental to ensuring the catch in the managed fishery can be contained to a sustainable level. It also allows for management arrangements to be devised that can take into account a range of other factors, such as quality of product and market considerations.

The Panel was of the view that any measures that may provide either an opportunity or an incentive to maximise these catches would present a risk to compliance, and more importantly to the overall commercial take and sustainability of stocks. Given the relatively low abundance of key demersal scalefish species and the large number of fishing boats in the State, the potential catch from persons outside the fishery could easily become a significant proportion of the overall catch.

Prohibiting the landing of fish by operators outside the managed fishery is also the simplest and most cost-effective management option. While some inspections would be required to ensure no scalefish were taken by persons who were not operating under the authority of a licence, these inspections would be quick (because there would be no requirement to monitor the number/size of fish taken) and any infringement would be clear.

From a compliance perspective, this option is the lowest risk in terms of minimising possibility for illegal activity – as soon as fish can be legitimately landed there is an increased potential for black market activity. This arrangement is also consistent with other managed fisheries.

It is important to note that the Department of Fisheries has proposed bycatch provisions which are designed to be included in existing management plans. Therefore, there is likely to be provision for the take of scalefish in fisheries such as the one for rock lobster where fish are taken as bycatch in pots.

## **7.2 Minority report**

It is important to note a minority of the Panel did not consider that a prohibition on scalefish take outside the managed fishery was appropriate (or at least acceptable to industry generally) and voted to recommend all FBLs outside the managed scalefish fishery be permitted to take a small quantity of scalefish for personal consumption.

## **7.3 Catch reporting**

Fundamentally, it is important that all fish taken, by all sectors, are accounted for and that catch reports are accurate, in terms of being able to assess the status of stocks and set a sustainable level of catch. In the context of this review, it is important that commercial catches are monitored.

The Panel suggests that the Department of Fisheries provides separate catch return forms for reporting catch on a ‘trip-by-trip’ basis rather than the current monthly reporting system. This will provide more timely data and improve the accuracy of the data provided for monitoring and stock assessment purposes.

In addition, the current 60 nautical miles by 60 nautical miles catch reporting blocks are of inadequate resolution to provide meaningful information to study the spatial distribution of catch and effort on any significant scale.

The Panel recommends that the Department of Fisheries adopt 10 nautical mile by 10 nautical mile blocks for reporting purposes. Currently, recreational and charter boat catch and effort data is reported on a five nautical mile by five nautical mile basis. This resolution has proved to be extremely useful, without placing too much burden on tour operators or recreational fishers.

Furthermore, the Panel considers that the validation of current catch records is inadequate and considers it essential that a survey be undertaken to validate the managed fishery catch returns.

## Recommendations

- 29) The Gascoyne Demersal Scalefish Managed Fishery be required to report the catch of scalefish on a 'trip-by-trip' basis prior to landing.
- 30) The Gascoyne Demersal Scalefish Managed Fishery be required to report the take of scalefish on a 10 nautical mile by 10 nautical mile scale.
- 31) Validation surveys be carried out on scalefish catch returns to ensure the data is robust for decision making.

## 7.4 Existing prohibition on commercial fishers holding Recreational Fishing Licences

Whilst outside the formal terms of reference, the issue of Commercial Fishing Licence (CFL) holders being prohibited from applying for recreational licences was of concern to the Panel.

Currently, a CFL holder can catch recreational bag limits of species that do not require a recreational licence (e.g. crabs or mackerel) if fishing from a private recreational vessel (i.e. not a commercial fishing boat). However fisheries legislation prohibits the holders of CFLs from being able to hold a Recreational Fishing Licence (RFL). This effectively excludes all commercial fishers from being able to catch those species for which an RFL is required.

The Panel feels this is inequitable and recommends that fisheries legislation should be amended to permit holders of CFLs to obtain RFLs for fisheries in which they are not authorised to operate commercially. For example, a commercial rock lobster fisher should be permitted to hold a recreational abalone licence but not a recreational rock lobster licence.

Such a change however, would require that the fishery in which a CFL holder is able to operate must be shown on the CFL. The recommendation to allow CFL holders to obtain RFLs was reached on the clear understanding that catch taken under a recreational licence *cannot* be sold and must be taken in accordance with recreational fishing rules.

A further issue was whether these RFLs should be able to be used from a commercial fishing boat. The Panel considered that because of the efficiencies of a commercial fishing boat and the fact these recreational licences could be used every day, this may create a significant increase in recreational fishing effort and therefore should be permitted from a recreational vessel only.

## Recommendation

- 32) Fisheries legislation be amended to permit holders of Commercial Fishing Licences to apply for a Recreational Fishing Licence for abalone and rock lobster, provided they do not operate in the respective commercial managed fishery. Fishing activity requiring a recreational licence should not be permitted to be undertaken from a commercial fishing boat.



## GLOSSARY

---

Term	Meaning
AFZ	Australian Fishing Zone
ALC	Automatic Location Communicator
CAESS	Catch and Effort Statistics System
CAP	Commercial Access Panel
CF	Government's Consolidated Fund
CFL	Commercial Fishing Licence
CPUE	Catch per Unit Effort
DBI(F)	Development and Better Interest (Fund)
DNF	Developing New Fisheries – Departmental process by which people can apply to be exempted from existing fisheries legislation in order to develop a new fishery
Dropline	A fishing line used for targeting scalefish, anchored by a weight, buoyed at the surface and deployed vertically through the water
FAS	Fisheries Adjustment Scheme
FBL	Fishing Boat Licence
FRMA	Fish Resources Management Act 1994
FRMR	Fish Resources Management Regulations 1995
FWA	Fisheries Western Australia (now Department of Fisheries)
GPS	Global Positioning System
GVP	Gross Value Of Product
Handline	A fishing line which is attached to a boat, weighted at one end, and used to take scalefish species
IFM	Integrated Fisheries Management
ITE	Individual Transferable Effort
ITQ	Individual Transferable Quota
LEF	Limited Entry Fishery (now Managed Fishery)
LFB	Licensed Fishing Boat
LFR	Licensed Fish Receiver
MF	Managed Fishery (formerly Limited Entry Fishery)
MFL	Managed Fishery Licence
MPP	Management Planning Panel
OCS	Offshore Constitutional Settlement
SQMI	Seafood Quality Management Initiative
TAC	Total Allowable Catch
TACC	Total Allowable Commercial Catch
TCC	Target Commercial Catch
TAE	Total Allowable Effort
VMS	Vessel Monitoring System
WAFIC	WA Fishing Industry Council
Wetline	A term generally applied to any fishing activity undertaken under the authority of a Commercial Fishing Licence (CFL) or Fishing Boat Licence (FBL) which is not otherwise prohibited by other legislation (such as a management plan, regulations, or Section 43 Order).





## **APPENDIX 1 SUBMISSIONS**

---

### **Submissions received 2003**

RL & MA Alexander  
Brent Avery  
David Barton (Sabrina Fishing Co)  
Todd Bennett (AMB Holdings Pty Ltd)  
Ken Bentley  
Mark Billings  
Sam Binder  
Eric Buehrig  
RE Carr  
Barry Carter  
Terry Cockman (Tebco Fishing Co)  
Merv Collinson  
John Craike  
Tom Donaldson  
M Dove, L Lambeth & R Mitchell  
Geoff Dowsett & Sharon McAuliffe (Shazbut Fishing Co)  
Ray Dunstan  
WH & DJ Dyson  
JR Farrell  
AG Fiocco  
Daniel Fisher  
Morrie Fisher  
Neil Flynn  
Ian Fowler  
Peter Glass  
John Godenzi  
Phil de Grauw (Sabea Fishing Co)  
J & D Groesslinger  
Mark Grove  
David Harrington  
Philip Harrington  
Ron Heberle  
Glenn Hill  
J Horwood  
Tony Jurinovich (Kajuree Fishing Co.)  
Indre Kirsten  
Sam Koncurat  
AD Kongras  
Kybret Pty Ltd (Jan & Stephen Hughes)  
David Lake  
SA Macdonald  
SC McCaskie  
Ken McClements  
Dave Miller  
PJ Moore & Son, Phillip Moore, Paul Moore  
Garry Peters

Alex Petrelis  
Denis Ritchie  
Rob (recreational fisher)  
John M Robertson  
Craig Scott  
A Sharp  
Pat Shinnick  
Ian Stagles  
E J Toomey  
David Wells  
Simon Wells  
Andrew Woodley-Page  
G Woodley-Page  
Peter Shaw & Melissa Zerbe (Ningaloo Experience)  
Australian Anglers Association (WA Division) Inc  
Central West Coast Professional Fishermen's Ass.  
Geraldton Abrolhos Wetliners Association  
Geraldton Professional Fishermen's Association Inc.  
Kalbarri Snapper Fishermen's Association  
Myalup Beach Caravan Park & Indian Ocean Retreat  
Offshore Angling Club of WA Beach Branch (Inc)  
Onslow Professional Fishermans Association Inc.  
Recfishwest  
Surf Casting and Angling Club of WA (Inc.)  
Western Australian Fishing Industry Council  
Western Australian Professional Shell Fishermen's Association

### **Submissions received 2005**

Kal Abdullah  
TJ & FM Adams  
RL & MA Alexander  
Austell Pty Ltd  
Bruce W Ayling  
Russell & Sarah Baker  
Chris Barton & family (Sabrina Fishing Co)  
David Barton (Sabrina Fishing Co)  
C & J Basile – G & C De Leo  
Todd Bennett  
Darren Blom  
Julie Blom  
Kevin & Juanita Brewer & family  
Geoff Bury  
John Cabarrus  
Warwick Cantrall  
RE Carr  
Barry Carter (Breaksea Nominees Pty Ltd)  
J, B & T Cockman (Tebco Fishing Company)  
Jeffrey Cooke

Robert Cooper  
John Craike  
Steven Dawe  
LR, ME & DJ Dixon  
GJ Dowsett & SM McAuliffe  
Dulzurah Pty Ltd  
Ray Dunstan  
Jan & Max Duthie  
WH & DJ Dyson  
Martin Edwards  
Elphick Fishing  
PA & DM Emmerson  
JR Farrell  
Hugh Gilbert  
Peter Glass  
Phil de Grauw (Sabea Fishing Co)  
WC Harvey  
Kim & Susan Hastings  
Roley Hawkins  
Louis M Hayler  
Glenn Hill  
Laura Hooton (Texcoast Pty Ltd)  
HA Jackman  
John Horwood  
Tony Jurinovich  
Jurinovich Superannuation Fund  
Kevin Kelly  
Shirley Kelly  
Graham Kennedy  
Sam Koncurat  
David Lake  
Jason MacDonald  
Stan MacDonald  
Ken Major  
LE & GE Martin  
B McClymans  
Raymond McDonald  
RR & KJ McGregor  
Brian McTaggart  
Paul Moore  
Peter Moore  
Phillip Moore  
Geoff & Faye Myers  
Scott Shane Newman  
Graeme Otterson (Otto's Fishing Company)  
Aaron Papandroulakis (Aristos Seafood Trading)  
Garry Peters  
Stephen Powell  
Peter Prideaux  
Raymond Prior

Raymond Ruby (Dorre Island Fishing Co)  
Alan Rule  
Les Rule  
John C Servaas  
John Sexton  
John Shaw  
Peter Shaw (Ningaloo Experience)  
Pat Shinnick  
Cindy Lucas & Trevor Smith  
Antonino Spinella  
Trevor Sutcliffe  
Chris Taylor (Fraser's Restaurant)  
Murray Turner  
Jamie Waite  
Kelvin Warburton  
Peter Warrilow  
RJ Wilson  
John Wise  
DA & JL Wren  
Justin Wright  
R & P Yukich  
Abalone Industry Association of WA  
Aquarium Specimen Collectors Association of WA Inc.  
Australian Anglers Association (WA Division) Inc  
Combined submission from 16 south-west FBL holders  
Coral Bay Professional Fishing Association  
Department of Fisheries  
Dongara Professional Fisherman's Association  
Integrated Fisheries Allocation Advisory Committee  
Kalbarri Snapper Fishermens Association  
Nickol Pay Professional Fishers Association Inc.  
Onslow Professional Fisherman's Association Inc.  
Recfishwest  
Shark Bay Prawn Trawler Operators Association Inc.  
Shark Bay Snapper Fishermen's Association  
South Coast Licensed Fishermen's Association Inc.  
Western Australian Fishing Industry Council  
Western Australian Professional Shell Fishermen's Assoc (Inc)  
Zone C Professional Fishermen's Association

## **FISHERIES MANAGEMENT PAPERS**

---

- No. 1** The Report of the Southern Western Australian Shark Working Group. Chairman P. Millington (1986)
- No. 2** The Report of the Fish Farming Legislative Review Committee. Chairman P. Rogers (1986)
- No. 3** Management Measures for the Shark Bay Snapper 1987 Season. P. Millington (1986)
- No. 4** The Esperance Rock Lobster Working Group. Chairman A. Pallot (1986).
- No. 5** The Windy Harbour - Augusta Rock Lobster Working Group. Interim Report by the Chairman A. Pallot (1986)
- No. 6** The King George Sound Purse Seine Fishery Working Group. Chairman R. Brown (1986)
- No. 7** Management Measures for the Cockburn Sound Mussel Fishery. H. Brayford (1986)
- No. 8** Report of the Rock Lobster Industry Advisory meeting of 27 January 1987. Chairman B. Bowen (1987)
- No. 9** Western Rock Lobster Industry Compensation Study. Arthur Young Services (1987)
- No. 10** Further Options for Management of the Shark Bay Snapper Fishery. P. Millington (1987)
- No. 11** The Shark Bay Scallop Fishery. L. Joll (1987)
- No. 12** Report of the Rock Lobster Industry Advisory Committee to the Hon Minister for Fisheries 24 September 1987. (1987)
- No. 13** A Development Plan for the South Coast Inshore Trawl Fishery. (1987)
- No. 14** Draft Management Plan for the Perth Metropolitan Purse Seine Fishery. P. Millington (1987)
- No. 15** Draft management plan, Control of barramundi gillnet fishing in the Kimberley. R. S. Brown (1988)
- No. 16** The South West Trawl Fishery Draft Management Plan. P. Millington (1988).
- No. 17** The final report of the pearling industry review committee . F.J. Malone, D.A. Hancock, B. Jeffriess (1988)
- No. 18** Policy for Freshwater Aquaculture in Western Australia. (1988)
- No. 19** Sport Fishing for Marron in Western Australia - Management for the Future. (1988)
- No. 20** The Offshore Constitutional Settlement, Western Australia 1988.
- No. 21** Commercial fishing licensing in Western Australia. (1989)
- No. 22** Economics and marketing of Western Australian pilchards. SCP Fisheries Consultants Pty Ltd (1988)
- No. 23** Management of the south-west inshore trawl fishery. N. Moore (1989)
- No. 24** Management of the Perth metropolitan purse-seine fishery. N. Moore (1989)
- No. 25** Rock Lobster Industry Advisory Committee report to the Minister for Fisheries November 1988. (1989)
- No. 26** A report on marron fishing in Western Australia. Chairman Doug Wenn MLC (1989)
- No. 27** A review of the Shark Bay pearling industry. Dr D.A.Hancock, (1989)
- No. 28** Southern demersal gillnet and longline fishery. (1989)
- No. 29** Distribution and marketing of Western Australian rock lobster. P. Monaghan (1989)
- No. 30** Foreign investment in the rock lobster industry. (1989)
- No. 31** Rock Lobster Industry Advisory Committee report to the Hon Minister for Fisheries September 1989. (1989)
- No. 32** Fishing Licences as security for loans. P. Rogers (1989)
- No. 33** Guidelines for by-laws for those Abrolhos Islands set aside for fisheries purposes. N. Moore (1989)
- No. 34** The future for recreational fishing - issues for community discussion. Recreational Fishing Advisory Committee (1990)
- No. 35** Future policy for charter fishing operations in Western Australia. P. Millington (1990)
- No. 36** Long term management measures for the Cockburn Sound restricted entry fishery. P. Millington (1990)
- No. 37** Western rock lobster industry marketing report 1989/90 season. MAREC Pty Ltd (1990)

- No. 38** The economic impact of recreational fishing in Western Australia. R.K. Lindner, P.B. McLeod (1991)
- No. 39** Establishment of a registry to record charges against fishing licences when used as security for loans. P. Rogers. (1991)
- No. 40** The future for Recreational Fishing - Forum Proceedings. Recreational Fishing Advisory Committee (1991)
- No. 41** The future for Recreational Fishing - The Final Report of the Recreational Fishing Advisory Committee. Recreational Fishing Advisory Committee (1991)
- No. 42** Appendix to the final report of the Recreational Fishing Advisory Committee. (1991)
- No. 43** A discussion of options for effort reduction. Southern Gillnet and Demersal Longline Fishery Management Advisory Committee (1991)
- No. 44** A study into the feasibility of establishing a system for the buy-back of salmon fishing authorisations and related endorsements. (1991)
- No. 45** Draft Management Plan, Kimberley Prawn Fishery. (1991)
- No. 46** Rock Lobster Industry Advisory Committee, Chairman's report to the Minister. (1992)
- No. 47** Long term management measures for the Cockburn Sound restricted entry fishery. Summary of submissions and final recommendations for management. P. Millington (1992)
- No. 48** Pearl oyster fishery policy guidelines (Western Australian Pearling Act 1990) Western Australian Fisheries Joint Authority (1992)
- No. 49** Management plan, Kimberley prawn fishery. (1992)
- No. 50** Draft management plan, South West beach seine fishery. D.A. Hall (1993)
- No. 51** The west coast shark fishery, draft management plan. D.A. Hall (1993)
- No. 52** Review of bag and size limit proposals for Western Australian recreational fishers. F.B. Prokop (May 1993)
- No. 53** Rock Lobster Industry Advisory Committee, Chairman's report to the Minister for Fisheries. (May 1993)
- No. 54** Rock Lobster Industry Advisory Committee, Management proposals for 1993/94 and 1994/95 western rock lobster season (July 1993)
- No. 55** Rock Lobster Industry Advisory Committee, Chairman's report to the Minister for Fisheries on management proposals for 1993/94 and 1994/95 western rock lobster seasons (September 1993)
- No. 56** Review of recreational gill, haul and cast netting in Western Australia. F. B. Prokop (October 1993)
- No. 57** Management arrangements for the southern demersal gillnet and demersal longline fishery 1994/95 season. (October 1993)
- No. 58** The introduction and translocation of fish, crustaceans and molluscs in Western Australia. C. Lawrence (October 1993)
- No. 59** Proceedings of the charter boat management workshop (held as part of the 1st National Fisheries Manager Conference). A. E. Magee & F. B. Prokop (November 1993)
- No. 60** Bag and size limit information from around Australia (Regulations as at September 1993) F. B. Prokop (January 1993)
- No. 61** Economic impact study. Commercial fishing in Western Australia Dr P McLeod & C McGinley (October 1994)
- No. 62** Management arrangements for specimen shell collection in Western Australia. J. Barrington, G. Stewart (June 1994)
- No. 63** Management of the marine aquarium fish fishery. J. Barrington (June 1994)
- No. 64** The Warnbro Sound crab fishery draft management plan. F. Crowe (June 1994)
- No. 65** Not issued
- No. 66** Future management of recreational gill, haul and cast netting in Western Australia and summary of submissions to the netting review. F.B. Prokop, L.M. Adams (September 1994)
- No. 67** Long term management strategies for the Western Rock Lobster Fishery. (4 volumes) Evaluation of management options Volume 1. B. K. Bowen (September 1994)
- No. 68** Long term management strategies for the Western Rock Lobster Fishery. (4 volumes) Economic efficiency of alternative input and output based management systems in the western rock lobster fishery, Volume 2. R.K. Lindner (September 1994)

- No. 69** Long term management strategies for the Western Rock Lobster Fishery. (4 volumes) A market-based economic assessment for the western rock lobster industry, Volume 3. Marec Pty Ltd (September 1994)
- No. 70** Long term management strategies for the Western Rock Lobster Fishery. (4 volumes) Law enforcement considerations, Volume 4. N. McLaughlan (September 1994)
- No. 71** The Rock Lobster Industry Advisory Committee Chairman's Report, October 1994, The Western Rock Lobster Fishery - Management proposals for the 1994/95 and 1995/96 seasons (November 1994)
- No. 72** Shark Bay World Heritage Area draft management plan for fish resources. D. Clayton (November 1994)
- No. 73** The bag and size limit review: new regulations and summary of submissions. F. Prokop (May 1995)
- No. 74** Report on future management options for the South West trawl limited entry fishery. South West trawl limited entry fishery working group (June 1995)
- No. 75** Implications of Native Title legislation for fisheries management and the fishing industry in Western Australia. P. Summerfield (February 1995)
- No. 76** Draft report of the South Coast estuarine fishery working group. South Coast estuarine fishery working group. (February 1995)
- No. 77** The Offshore Constitutional Settlement, Western Australia. H. Brayford & G. Lyon (May 1995)
- No. 78** The Best Available Information - Its Implications for Recreational Fisheries Management. Workshop at Second National Fisheries Managers Conference, Bribie Island Queensland. F. Prokop (May 1995)
- No. 79** Management of the Northern Demersal Scalefish Fishery. J. Fowler (June 1995)
- No. 80** Management arrangements for specimen shell collection in Western Australia, 1995. J. Barrington & C. Campbell (March 1996)
- No. 81** Management Options (Discussion Paper) for the Shark Bay Snapper Limited Entry Fishery. Shark Bay Snapper Limited Entry Fishery Working Group, Chaired by Doug Bathgate (June 1995)
- No. 82** The Impact of the New Management Package on Smaller Operators in the Western Rock Lobster Fishery R. Gould (September 1995)
- No. 83** Translocation Issues in Western Australia. Proceedings of a Seminar and Workshop held on 26 and 27 September 1994. F. Prokop (July 1995)
- No. 84** Bag and Size Limit Regulations From Around Australia. Current Information as at 1 July 1995. Third Australasian Fisheries Managers Conference, Rottne Island. F. Prokop (July 1995)
- No. 85** West Coast Rock Lobster Fishery Management Plan 1995 - Draft for Public Comment. Edited by M. Moran (August 1995)
- No. 86** A Review of Ministerial Policy Guidelines for Rock Lobster Processing in Western Australia from the Working Group appointed by the Minister for Fisheries and chaired by Peter Rich (December 1995)
- No. 87** Same Fish - Different Rules. Proceedings of the National Fisheries Management Network Workshop held as part of the Third Australasian Fisheries Managers Conference. F. Prokop
- No. 88** Balancing the Scales - Access and Equity in Fisheries Management - Proceedings of the Third Australasian Fisheries Managers Conference, Rottne Island, Western Australia 2 - 4 August 1995. Edited by P. Summerfield (February 1996)
- No. 89** Fishermen's views on the future management of the rock lobster fishery. A report. Prepared on behalf of the Rock Lobster Industry Advisory Committee by The Marketing Centre. (August 1995)
- No. 90** A report on the issues effecting the use of the Dampier Archipelago. Peter Driscoll, Landvision Pty Ltd (March 1996)
- No. 91** Shark Bay World Heritage Property - Management Paper for Fish Resources. Kevin A Francesconi (September 1996)
- No. 92** Pearling and Aquaculture in the Dampier Archipelago - Existing and Proposed Operations. A report for public comment. Compiled by Ben Fraser (September 1996)
- No. 93** Shark Bay World Heritage Property - Summary of Public Submissions to the Draft Management Plan for Fish Resources. Kevin A Francesconi (September 1996)
- No. 94** Rock Lobster Industry Advisory Committee Report - Management arrangements for the Western Rock Lobster Fishery for the 1997/98 season. Frank Prokop (May 1997)
- No. 95** Australian Salmon and Herring Resource Allocation Committee. P McLeod & F Prokop (*in press*)

- No. 96** Summary Report of the Freshwater Aquaculture Taskforce (FAT) by Chris Wells (*in press*)
- No. 97** Not used.
- No. 98** A Pricing Policy for Fisheries Agencies - Standing Committee on Fisheries and Aquaculture Management Committee. P Millington (March 1997)
- No. 99** Management of the South Coast Purse Seine Fishery. J Fowler, R Lenanton, Kevin Donohue, M Moran & D Gaughan. (n.d.)
- No. 100** The Aquaculture of non-endemic species in Western Australia - Redclaw crayfish (*Cherax quadricarinatus*). Tina Thorne (June 1997)
- No. 101** Optimising the worth of the catch - Options and Issues. Marec Pty Ltd (September 1997)
- No. 102** Marine farm planning and consultation processes in Western Australia. Dave Overall (August 1997)
- No. 103** Future management of the aquatic charter industry in Western Australia by the Tour Operators Fishing Working Group (September 1997).
- No. 104** Management of the Houtman Abrolhos System (draft). Prepared by the Abrolhos Islands Management Advisory Committee in conjunction with Fisheries Western Australia (October 1997)
- No. 105** Plan for the Management of the Houtman Abrolhos Fish Habitat Protection Area (draft). Prepared by the Abrolhos Islands Management Advisory Committee in conjunction with Fisheries Western Australia (October 1997)
- No. 106** The impact of Occupational Safety and Health on the management of Western Australian Fisheries. Cameron Wilson (*in press*)
- No. 107** The Aquaculture of non-endemic species in Western Australia - Silver Perch (*Bidyanus bidyanus*). Tina Thorne (June 1997)
- No. 108** Issues affecting Western Australia's inshore crab fishery - Blue swimmer crab (*Portunus pelagicus*), Sand crab (*Ovalipes australiensis*). Cathy Campbell (September 1997)
- No. 109** Abalone Aquaculture in Western Australia. Cameron Westaway & Jeff Norriss (October 1997)
- No. 110** Proposed Voluntary Fishery Adjustment Scheme - South Coast Purse Seine Managed Fishery Report by Committee of Management (October 1997)
- No. 111** Management Options for Pilbara Demersal Line Fishing. Gaye Looby (December 1997)
- No. 112** Summary of Submissions to Fisheries Management Paper No. 108 - issues affecting Western Australia's inshore crab fishery. Compiled by Cathy Campbell (April 1998)
- No. 113** Western Rock Lobster Management - Options and Issues. Prepared by Kevin Donohue on behalf of the Rock Lobster Industry Advisory Committee. (June 1998)
- No. 114** A Strategy for the Future Management of the Joint Authority Northern Shark Fishery. Prepared by Tim Bray and Jo Kennedy. (June 1998)
- No. 115** Guidelines for granting Aquaculture Leases. Prepared by Fisheries WA, the Aquaculture Development Council & the Aquaculture Council of WA. (July 1998)
- No. 116** Future Management of the Aquatic Charter Industry in Western Australia - Final Report. By the Tour Operators Fishing Working Group (September 1998)
- No. 117** Management of the Houtman Abrolhos System. Prepared by the Abrolhos Islands Management Advisory Committee in conjunction with Fisheries Western Australia. (December 1998)
- No. 118** Plan for the Management of the Houtman Abrolhos Islands Fish Habitat Protection Area (Schedule 1)
- No. 119** Access to Wildstock for Aquaculture Purposes (not published)
- No. 120** Draft Management Plan for Sustainable Tourism at the Houtman Abrolhos Islands. Prepared by LeProvost, Dames and Moore for the Abrolhos Islands Management Advisory Committee in conjunction with Fisheries WA. (December 1998)
- No. 121** Future Directions for Tourism at the Houtman Abrolhos Islands - Draft for Public Comment. Prepared by LeProvost, Dames and Moore for the Abrolhos Islands Management Advisory Committee in conjunction with Fisheries WA. (December 1998)
- No. 122** Opportunities for the Holding/Fattening/Processing and Aquaculture of Western Rock Lobster (*Panulirus cygnus*). A discussion paper compiled by Fisheries WA. (November 1998)
- No. 123** Future directions for the Rock Lobster Industry Advisory Committee and the Western Rock Lobster Managed Fishery. A discussion paper prepared by Kevin Donohue on behalf of the Rock Lobster Industry Advisory Committee. (December 1998)



- No. 124** A Quality Future for Recreational Fishing in the Gascoyne. Proposals for Community Discussion. A five-year management strategy prepared by the Gascoyne Recreational Fishing Working Group (May 1999).
- No. 125** Changes to Offshore Constitutional Settlement Arrangements; North West Slope Trawl Fishery and Western Deepwater Trawl Fishery. A discussion paper by Fiona Crowe and Jane Borg (May 1999)[not published]
- No. 126** The South Coast Estuarine Fishery. A discussion paper by Rod Pearn and Tony Cappelluti. (May 1999)
- No. 127** The Translocation of Barramundi. A discussion paper by Makaira Pty Ltd.[July 1999]
- No. 128** Shark Bay Pink Snapper Managed Fisheries in WA
- No. 129** Review of the Western Australian Pilchard Fishery 12 - 16 April 1999. Prepared by K.L. Cochrane, Fisheries Resource Division, Food and Agriculture Division of the United Nations (November 1999)
- No. 130** Developing New Fisheries in Western Australia. A guide to applicants for developing fisheries Compiled by Lucy Halmarick (November 1999)
- No. 131** Management Directions for Western Australia's Estuarine and Marine Embayment Fisheries. A strategic approach to management (November 1999)
- No. 132** Summary of Submissions to Fisheries Management Paper No. 126 - The South Coast Estuarine Fishery - A Discussion Paper. Compiled by Rod Pearn (November 1999)
- No. 133** Abalone Aquaculture in Western Australia, A Policy Guideline (December 1999)
- No. 134** Management Directions for WA's Coastal Commercial Finfish Fisheries. Issues and proposals for community discussion (March 2000)
- No. 135** Protecting and Sharing Western Australia's Coastal Fish Resources. The path to integrated management. Issues and proposals for community discussion (March 2000)
- No. 136** Management Directions for WA's Recreational Fisheries (March 2000)
- No. 137** Aquaculture Plan for the Houtman Abrolhos Islands (April 2000)
- No. 138** Information on Quota Management of Rock Lobster Fisheries in South Australia, Tasmania and New Zealand. By Kevin Donohue and Eric Barker (May 2000)
- No. 139** A Quality Future for Recreational Fishing on the West Coast. Proposals for Community Discussion. A five-year management strategy prepared by the West Coast Recreational Fishing Working Group (June 1999)
- No. 140** Aquaculture Plan for the Recherche Archipelago, Western Australia. (June 2000)
- No. 141** Fish Protection Measures in Western Australia (June 2001)
- No. 142** Fisheries Environmental Management Plan for the Gascoyne Region (June 2002)
- No. 143** Western Rock Lobster. Discussion paper for seasons 2001/2002 and 2002/2003 (July 2000)
- No. 144** The Translocation of Brown Trout (*Salmo trutta*) and Rainbow Trout (*Oncorhynchus mykiss*) into and within Western Australia. Prepared by Jaqueline Chappell, contributions from Simon Hambleton, Dr Howard Gill, Dr David Morgan and Dr Noel Morrissy. (*not published, superseded by MP 156*)
- No. 145** The Aquaculture of non-endemic species in Western Australia - Silver Perch (*Bidyanus bidyanus*). As amended October 2000. Tina Thorne. This replaces Fisheries Management Paper No. 107.
- No. 146** Sustainable Tourism Plan for the Houtman Abrolhos Islands (February 2001)
- No. 147** Draft Bycatch Action Plan for the Shark Bay Prawn Managed Fishery (Full Report) (April 2002)
- No. 148** Draft Bycatch Action Plan for the Shark Bay Prawn Managed Fishery (Summary Report) (April 2002)
- No. 149** Final Plan of Management for the Lancelin Island Lagoon Fish Habitat Protection Area (March 2001)
- No. 150** Draft Plan of Management for the Cottesloe Reef Proposed Fish Habitat Protection Area (April 2001)
- No. 151** Inventory of the Land Conservation Values of the Houtman Abrolhos Islands (July 2003)
- No. 152** Guidelines for the Establishment of Fish Habitat Protection Areas (June 2001)
- No. 153** A Five-Year Management Strategy for Recreational Fishing on the West Coast of Western Australia. Final Report of the West Coast Recreational Fishing Working Group (August 2001).

- No. 154** A Five-Year Management Strategy for Recreational Fishing in the Gascoyne. Final Report of the Gascoyne Recreational Fishing Working Group (September 2001)
- No. 155** Plan of Management for the Cottesloe Reef Fish Habitat Protection Area (September 2001)
- No. 156** The Translocation of Brown Trout (*Salmo Trutta*) and Rainbow Trout (*Oncorhynchus mykiss*) into and within Western Australia (June 2002)
- No. 157** Policy for the Implementation of Ecologically Sustainable Development for Fisheries and Aquaculture within Western Australia. By W.J. Fletcher (May 2002)
- No. 158** Draft Plan of Management for the Miaboolya Beach Fish Habitat Protection Area (March 2002)
- No. 159** The Translocation of Barramundi (*Lates calcarifer*) for Aquaculture and Recreational Fishery Enhancement in Western Australia. By Tina Thorne.
- No. 160** The Introduction and Aquaculture of Non-endemic Species in Western Australia: the 'Rotund' Yabby *Cherax rotundus* and the All-male Hybrid Yabby. A Discussion Paper. (June 2002)
- No. 161** Plan of Management for the Miaboolya Beach Fish Habitat Protection Area (September 2002)
- No. 162** Reseeding of grazing gastropods and bivalves into the marine environment in Western Australia – a discussion paper. By Jane Borg.
- No. 163** Review of recreational take of coral in Western Australia – a discussion paper October 2002.
- No. 164** Report of the Mackerel Independent Advisory Panel to the Executive Director, Department of Fisheries, on criteria for access to, and management arrangements for, the proposed Mackerel Fishery (Interim) Management Plan (November 2002)
- No. 165** Report to the Minister for Agriculture, Forestry and Fisheries by the Integrated Fisheries Management Review Committee (November 2002)
- No. 166** Fisheries Statutory Management Authority Inquiry. A background paper (February 2003)
- No. 167** Draft Fisheries Environmental Management Plan for the Northern Region (*in press*)
- No. 168** Aboriginal Fishing Strategy: Report to the Minister for Agriculture, Forestry and Fisheries by the Hon E. M. Franklyn QC, Chairman of the Aboriginal Fishing Strategy Working Group (May 2003)
- No. 169** Hardy Inlet discussion paper (February 2004)
- No. 170** Management of the proposed Geographe Bay Blue Swimmer and Sand Crab Managed Fishery. By Jane Borg and Cathy Campbell (August 2003)
- No. 171** Draft Aquaculture Plan for Shark Bay (April 2004)
- No. 172** Draft Aquaculture Plan for Exmouth Gulf (April 2004)
- No. 173** Draft Plan of Management for the proposed Point Quobba Fish Habitat Protection Area (August 2003)
- No. 174** Translocation of Golden Perch, Murray Cod and Australian Bass into and within Western Australia for the Purposes of Recreational Stocking, Domestic Stocking and Commercial and Non-commercial Aquaculture (December 2003)
- No. 175** Fish Stock and Fishery Enhancement in Western Australia - a discussion paper. By Jane Borg (February 2004)
- No. 176** Fish Stock and Fishery Enhancement in Western Australia - a summary report. By Jane Borg (February 2004)
- No. 177** Fisheries Environmental Management Plan for the Gascoyne Region (*in press*)
- No. 178** Draft Plan of Management for the Kalbarri Blue Holes Fish Habitat Protection Area (March 2004)
- No. 179** A Draft Policy for the Translocation of Brown Trout (*Salmo trutta*) and Rainbow Trout (*Oncorhynchus mykiss*) into and within Western Australia for the Purposes of Recreational Stocking, Domestic Stocking and Commercial and Non-Commercial Aquaculture (August 2004)
- No. 180** The Sustainable Management of Western Australia's Temperate Shark Fisheries (July 2004).
- No. 181** A Quality Future for Recreational Fishing in the Pilbara/Kimberley. Proposals for Community Discussion. A five-year strategy for managing the recreational component of the catch, prepared by the Pilbara/Kimberley Recreational Fishing Working Group (July 2004)
- No. 182** A Quality Future for Recreational Fishing in the Southern Region of WA. Proposals for Community Discussion. A five-year strategy for managing the recreational component of the catch, prepared by the Southern Recreational Fishing Working Group (July 2004)
- No. 183** Final Report of the Fisheries Statutory Management Authority Advisory Committee. Published by the Department of Fisheries (*in press*)

- No. 184** South West Beach Seine Management Discussion Paper
- No. 185** Plan of Management for the Point Quobba Fish Habitat Protection Area (July 2004)
- No. 186** Management of the West Coast Rock Lobster Fishery - Advice to Stakeholders on Resource Sustainability Matters. (*in press*)
- No. 187** Proposals for community discussion on the future management of pink snapper fishing in Cockburn Sound and surrounding waters. (October 2004).
- No. 188** Plan of Management for the Kalbarri Blue Holes Fish Habitat Protection (*in press*).
- No. 189** Proposed Management Arrangements for the Gascoyne Commercial 'Wetline' Fishery. A Discussion Paper Prepared By The West Coast And Gascoyne Wetline Review Management Planning Panel (January 2005).
- No. 190** Management Arrangements for the West Coast Commercial 'Wetline' Fishery. A Discussion Paper Prepared By The West Coast And Gascoyne Management Planning Panel (January 2005).
- No. 191** Access And Allocation Arrangements For The Commercial 'Wetline' Fisheries, Proposals For Discussion. A Report To The Minister For Fisheries Prepared By The Commercial Access Panel (January 2005).
- No. 192** Integrated Fisheries Management Report - Western Rock Lobster Resource (February 2005).
- No. 192A** A Sustainable Future for Recreational Fishing in the Cocos (Keeling) Islands. Proposals for Community Discussion on a Five-Year Strategy for Managing the Recreational and Subsistence Catch (March 2005).
- No. 193** A Five-Year Management Strategy for the Pilbara/Kimberley Region of Western Australia (June 2005).
- No. 194** A Five-Year Management Strategy for the South Coast Region of Western Australia (June 2005).
- No. 195** Nature and Extent of Rights to Fish in Western Australia (June 2005).
- No. 196** The Aquaculture of Live Rock , Live Sand, Coral and Associated Products (*in press*).
- No. 197** Proposed Implementation of Sea Lion Exclusion Devices in the Western Rock Lobster Fishery (June 2005). *Internet publication*.
- No. 198** A Quality Future for the Recreational Marron Fishery – Proposals for Community Discussion. A Draft Five-Year Strategy to Ensure the Long Term Sustainability of the Marron Fishery. Produced by the RFAC Recreational Freshwater Fisheries Stakeholder Sub-Committee (September 2005).
- No. 199** Management of the Proposed South Coast Trawl Fishery (*in press*).
- No. 200** Integrated Fisheries Management Draft Allocation Report for the Western Rock Lobster Resource (*in press*).
- No. 201** The Minister for Fisheries' Decisions in Response to the Final Report of the Pilbara/Kimberley Recreational Fishing Working Group (Fisheries Management Paper No. 193) (September 2005).
- No. 202** The Minister for Fisheries' Decisions in Response to the Final Report of the South Coast Recreational Fishing Working Group (Fisheries Management Paper No. 194) (September 2005).
- No. 203** Western Rock Lobster Fishery. Ecological Risk Assessment 2005 Report (July 2005). *Internet publication*.
- No. 204** Integrated Fisheries Management Report. Abalone Resource (*in press*) (August 2005).
- No. 205** Recommended Management Arrangements for the Gascoyne Commercial 'Wetline' Fishery. Prepared by the West Coast and Gascoyne Management Planning Panel (September 2005).