

**RECOMMENDED MANAGEMENT
ARRANGEMENTS FOR THE WEST COAST
COMMERCIAL 'WETLINE' FISHERY**

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

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**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
14th 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 dhufish and pink snapper in the West Coast.

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.

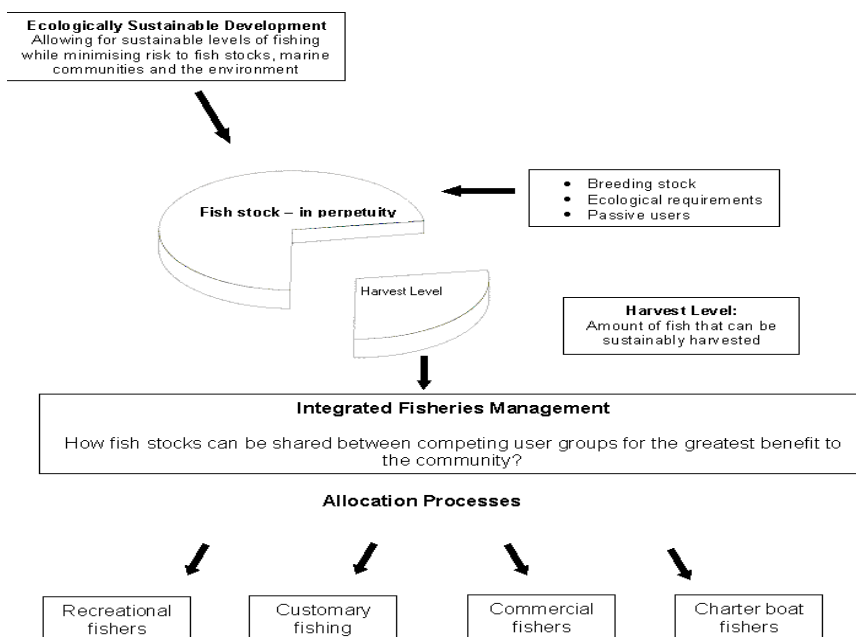


Figure 1 Integrated Fisheries Management and ESD

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 West Coast region will be examined under the new IFM initiative.

SECTION 2 SUMMARY OF RECOMMENDATIONS

- 1) Separate management arrangements be introduced which establish two distinct fisheries in the West Coast bioregion:
 - a) A line fishery targeting demersal/reef scalefish species called the West Coast Demersal Scalefish Fishery; and
 - b) An inshore beach net fishery in coastal waters north of Moore River.
- 2) The following management objectives apply for the West Coast Demersal Scalefish Fishery:
 - 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) That the West Coast Demersal Scalefish Fishery encompass the waters south of 26°30'S and west of the point where 115°30' E intersects the southern coast of WA (near Black Point).
- 4) That a line of best fit based on the 250 metre isobath be implemented as an outer boundary of the West Coast Demersal Scalefish Fishery and wetline fishing be prohibited in waters outside of the 250 metre outer boundary.
- 5) Access to deepwater areas outside of the 250 metre boundary in the West Coast bioregion should be potentially open to any Fishing Boat Licence (FBL) holder through the Developing New Fisheries (DNF) process.
- 6) A review of the Developing New Fisheries (DNF) process be undertaken with a view to simplifying it.
- 7) That four principal management zones be initially established in the West Coast bioregion:
 - a) Kalbarri (26°30'S to 28°S);
 - b) Mid-West (28°S to 31°S);
 - c) Metropolitan (31°S to 33°S); and
 - d) South-West (33°S to 115°30'E).
- 8) The West Coast Demersal Scalefish Fishery management framework should incorporate a capacity to create or amend zones as required to better meet management requirements.
- 9) The Department of Fisheries take steps towards ensuring consistent and accurate reporting of scalefish catches at the Abrolhos Islands.

- 10) Management of the West Coast Demersal Scalefish Fishery be based on a unitised, Individual Transferable Effort (ITE) system, with gear restrictions and zoning. The framework should also provide for the option of spatial closures, temporal closures, or sub zones as required to address management issues (such as preventing localised depletion of key species).
- 11) Management of the West Coast Demersal Scalefish Fishery be based on an Individual Transferable Effort (ITE) system, with units of 'boat fishing days' for the Kalbarri, Mid-West and Metropolitan zones and 'line days' for the South West zone.
- 12) The initial target commercial catch be determined on the average commercial catch recorded in each of the four management zones during the period 1996-97 to 2000-01. On this basis, the Department of Fisheries' Research Division advice is that the initial target commercial catch for the West Coast Demersal Scalefish Fishery be 757 tonnes, which, based on historic distribution of catch during this period, should be allocated between zones as follows:
 - a) Kalbarri 193 tonnes
 - b) Mid-west 350 tonnes
 - c) Metropolitan 116 tonnes
 - d) South-west 98 tonnes(These catches are recommended for the purpose of initial allocation only and are to be reviewed on a regular basis).
- 13) The catch per unit effort (CPUE) in kg/day for determining the initial capacity of the West Coast Demersal Scalefish Fishery be estimated on the basis of the annual average (over the three most recent years) of the top five fishers (by total wetline catch) in each management zone.
- 14) The initial calculation of effort be determined by dividing the target commercial catch in each management zone by the average catch per unit of effort (CPUE) in each zone.
- 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) The West Coast Demersal Scalefish Fishery should be managed under a Vessel Monitoring System (VMS) with all authorized boats required to have an Automatic Location Communicator (ALC) fitted.
- 17) Boats operating in the deepwater or outer zone under approval from the Developing New Fisheries process also be required to operate under a Vessel Monitoring System (VMS) to ensure compliance around the outer boundary. Boats operating under this arrangement should be prohibited from landing demersal species targeted in the West Coast Demersal Scalefish Fishery.
- 18) The only permitted gear for use in the fishery be handlines and droplines.
- 19) A maximum of five handlines and five droplines be on-board a boat at any one time in the Kalbarri, Mid-West, and Metropolitan zones.

- 20) The maximum number of handlines and droplines on board a boat in the South West zone must be the number of lines nominated for use at that time (and be less than the prescribed maximum).
- 21) A maximum number of 30 hooks (or gangs of hooks) be permitted on any handline or dropline.
- 22) Legal definitions describing handlines and droplines be developed that contain the following elements:
 - a) 'Handline' means a fishing line which is weighted at one end and has not more than the prescribed number of hooks attached.
 - b) 'Dropline' means a fishing line with no more than the prescribed number of hooks attached and when used for fishing is anchored by a weight at one end, buoyed at the surface and deployed vertically through the water. A minimum of one buoy, with a minimum diameter of 200mm, 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.
- 23) Operators in the West Coast 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) Metal traces should not be permitted to be used on any gear in the West Coast Demersal Scalefish Fishery.
- 25) The following management objectives apply for the West Coast Inshore Net Fishery:
 - 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.
- 26) The West Coast 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 in the West Coast Inshore Net Fishery be limited to the use of hand haul net, gillnet and seine net. Further definitions around permitted gear should be developed in consultation with those fishers who gain access to the inshore fishery.
- 28) Catch levels from the West Coast Inshore Net Fishery should be monitored and specific effort constraints be 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 West Coast Demersal Scalefish Managed Fishery be required to report the catch of scalefish on a 'trip-by-trip' basis prior to landing.
- 30) The West Coast 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 Western Australia. This approach, which was suggested by the Western Australian 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 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	Recreational Fisher
	Dr Lindsay Joll	Department of Fisheries
Observers ¹	Dr Nic Dunlop	Conservation Council of WA
	Mr Guy Leyland	Western Australian Fishing Industry Council
	Mr Frank Prokop	Recfishwest
	Mr John Looby	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 of Fisheries 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 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 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 (then) 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

¹ 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.

wetline fishery. A copy of the (then) Minister's media statement of 11 April 2003 was included with the letter.

- 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 the 12 and 13 September 2003), the *Geraldton Guardian*, *Northern Guardian* and the *Augusta-Margaret River Mail* (on the 17 September 2003), and the *Bunbury/South West Times* (on the 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 fisher'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 of Fisheries, 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 Fishing Boat Licence 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 the proposed management arrangements for a four-month public comment period. The comment period closed 29 April.

- Information sessions presented by the Department of Fisheries, facilitated by WAFIC, were conducted in Jurien Bay, Dongara, Geraldton, Fremantle, Mandurah, Bunbury, Augusta, Albany, Kalbarri, Carnarvon and Ledge Point during the submission period.

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.

The FBL 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 fish² 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, 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.

On 3 November 1997 the Department of Fisheries 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 a ‘wetline’ or ‘open access’ fishing licence 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 the wetline fishery 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

² ‘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.

wetline 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:

- That scalefish stocks no longer automatically 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 catches³.

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 Commercial Fishing Licence (CFL) used in conjunction with an Fishing Boat Licence (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, may therefore vary between regions, depending upon the existing managed fisheries in that 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.

³ 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 West Coast 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. 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 dhufish and pink snapper⁴ called the West Coast Demersal Scalefish Fishery; and
- An inshore net fishery targeting species such as mullet, herring and whiting (in the 'open access' area north of Moore River)⁵ called the West Coast Inshore Net Fishery.

A few residual fishing activities will remain available to CFL holders, but 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 be introduced which establish two distinct fisheries in the West Coast bioregion:
 - a) A line fishery targeting demersal/reef scalefish species called the West Coast Demersal Scalefish Fishery; and
 - b) An inshore beach net fishery in coastal waters north of Moore River.

4.3 Profile of demersal line fishing activity in the West Coast bioregion

In recent years on the West Coast, some 220 to 260 boats have reported wetlining in any given year. A total of 506 FBLs reported a wetline catch of demersal species in the West Coast region over the period 1991-2003 (Table 1).

⁴ 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).

⁵ Inshore netting south of Moore River is managed under the *West Coast Beach Bait and Fish Net Fishery*.

Year	Total Wetline Catch (tonnes)	No. of Boats
1990-91	569	192
1991-92	567	174
1992-93	515	156
1993-94	565	147
1994-95	656	165
1995-96	735	178
1996-97	678	194
1997-98	783	237
1998-99	722	237
1999-00	717	227
2000-01	834	219
2001-02	942	256
2002-03	1002	261

Table 1 Demersal wetline catch and the number of boats reporting wetline catch in the West Coast bioregion from 1990-91 to 2002-03.

Over the past decade there have been increased rates of exploitation of scalefish stocks, particularly dhufish, through increased fishing efficiency (technology) and increased effort in both numbers of boats and days fished. Moving to hydraulic and electric winches with automated triggers for reeling-in has enabled boats to increase the number of lines and hooks used on their boats.

Similarly, technology and increasing participation have also led to an increase in recreational effort on the same stocks. A catch survey undertaken in 1996-97 on the West Coast estimated that recreational fishers caught about 132 tonnes of dhufish (46 per cent of total catch), 27 tonnes of pink snapper (10.5 per cent of total catch) and 23 tonnes of baldchin groper (44 per cent of total catch). A national survey undertaken in 2000-01 indicates these catches may be significantly greater and the recreational catch may be a greater proportion of the total scalefish catch.

The Gascoyne and West Coast regional recreational reviews have resulted in changes to recreational fisheries management (including reduced bag limits and the introduction of a scalefish possession limit). The wetline review is focussed toward implementing a more effective management framework for the commercial sector and to prevent further growth in this sector.

A number of other major fishery reviews have been undertaken in recent years including the implementation of management for the charter boat sector, a review of the commercial mackerel fishery, reviews of the South Coast and West Coast commercial estuarine fisheries and the development of an Aboriginal fishing management strategy. Each of these reviews is aimed toward putting sectoral management on a similar footing and to put in place the appropriate frameworks and controls in which inter-sectoral and intra-sectoral allocation issues can proceed.

4.4 Key issues for management

4.4.1 Status of West Coast demersal scalefish stocks

Stocks of key demersal scalefish species, according to *State of the Fisheries 2003-04*, are already fully exploited in the West Coast bioregion. In recent years, there has been an 18 per cent increase in the number of boats wetlining and a 30 per cent increase in effort. A detailed analysis of the status of demersal scalefish stocks is summarised in the Department of Fisheries '*State of the Fisheries Report 2003-04*.'

Current effort levels are considered unsustainable in the long term and most stakeholders now agree that intensive management of scalefish stocks is a matter of urgent and growing importance. Anecdotal reports suggest localised depletion is also becoming an increasing concern for key scalefish species such as dhufish and pink snapper, particularly in areas highly utilised by both the recreational and commercial fishing sectors.

The Department of Fisheries Research Division estimates a sustainable catch range for the commercial sector of 558 to 798 tonnes (based on the mean from catches for the period 1990-91 to 1999-2000 using 80 per cent confidence limits). The Panel is of the view that the management arrangements developed for scalefish should be capable of managing catch outcomes to meet this target.

4.4.2 Highly variable levels of wetlining activity

Around half of the FBLs that reported wetlining in the West Coast bioregion from 1990-91 to 2002-03 reported less than one tonne of demersal wetline catch and around half of those actually took less than 300 kg of demersal wetline catch. 85 per cent of FBLs that reported catching less than one tonne between 1990 and 2001 were packaged with at least one Managed Fishery Licence (MFL) or exemption to participate in a developing new fishery in May 2003.

While 1,350 FBLs currently have the ability to take scalefish, it is not possible to determine which of those boats will conduct wetline activity in any given year. These highly variable levels of wetlining activity means that it is near impossible to manage the commercial scalefish take without a formal management framework.

4.4.3 High latent effort

The Panel recognises that many boats with the potential to wetline currently do not do so or only catch very small amounts. As indicated in section 4.4.1, demersal scalefish stocks are fully utilised and there has been a mobilisation of effort in recent years that has resulted in an increase in catch. This high latent effort therefore represents a very real threat to the sustainability of fishery.

Although about 250 boats go wetlining on the West Coast each year, potentially any one of 1,350 FBLs in WA could choose to go wetlining in this region. An immediate concern is the 700 or so FBLs based on the West Coast. While only about a quarter of these boats wetline in

any given year, if only another 100 boats decided to wetline and caught one tonne each, this would represent a significant increase in the overall commercial catch.

Submissions indicate concern that a reduced beach price for rock lobster, or changes to rock lobster management arrangements, may lead to an increased number of boats wetlining on the West Coast. Dhufish in particular, given their large size and relatively high landed value, make an attractive proposition to supplement other fishing activities (particularly where operating costs are already being met through the other fishing activity).

A key outcome of this review must therefore be the introduction of a management framework that can effectively cap the level of the commercial catch of scalefish stocks.

4.4.4 Potential mobility of commercial fleet

The potential for effort to be focussed on specific areas also requires consideration in this review. A number of submissions expressed concern over ‘transient’ boats, particularly larger vessels in recent years, moving into localised areas, fishing intensively for a few weeks and then moving on when catch rates decline.

This has the potential to become a bigger issue once management arrangements are put into place for the wetline fishery. Fishers will seek to maximise returns, which may involve boats seeking to fish areas with best catch rates. If excessive effort can be focussed in these areas, it may result in localised depletion, and possibly the serial depletion, of stocks.

4.4.5 Accuracy of catch returns

A total of 506 boats reported a wetline catch at least once over the period 1991 to 2001. A number of anecdotal comments suggest that many small catches of scalefish were not recorded, particularly prior to the announcement of the benchmark date.

While some operators have started recording these catches since 1997, concerns were also raised that some operators may now be ‘over recording’ catches in an attempt to compensate for not recording catches earlier. The Panel was concerned about the inaccuracies in the existing catch data set and believes it is a key issue that must be addressed because accurate catch and effort data is essential for good fisheries management.

4.4.6 Cost of management

Funding for commercial fisheries management comes from a mixture of sources. The primary source prior to the commencement of cost recovery arrangements for commercial fisheries was the Government’s Consolidated Fund (CF). A significant proportion of the cost of management is now raised from commercial fishers via licence fees and charges.

The State’s six major commercial fisheries are funded on full cost recovery principles and the revenue raised is dedicated to the management (administration, management, compliance and research) of those fisheries. However, the fee paid by minor commercial fisheries 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 gross value of product (GVP) and the cost recovery component of the fee is an agreed percentage (in consultation with WAFIC) of the fishery's GVP (currently 2.825 per cent) used to subsidise the cost of managing the fishery. The contribution of minor commercial fisheries does not cover the cost of management for these fisheries.

The level of contribution from the CF has remained fairly constant over the past five years, but with increasing operational costs, particularly in regional areas of the State, there has been a decline in 'real' funding. This has major implications for scalefish fisheries because they are relatively low in value and the majority of services in these fisheries are funded by the CF.

It is these fisheries which have the highest recreational participation, and for which there is only limited information available, that are the focus of resource sharing debates and at the most risk of overexploitation.

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 are found increasingly 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.

MFL fees for the West Coast Demersal Scalefish Fishery, at least initially, will be determined on the basis of a small percentage of the fishery's GVP, as with all minor commercial fisheries. For this reason, 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 considered it was unable to address issues around the future costs of management at this time. Management costs will depend on the number of boats that are in 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 WEST COAST DEMERSAL SCALEFISH FISHERY

5.1 Objectives for management

The Panel considers it important that a set of clear objectives is adopted as the basis for developing management arrangements for the West Coast Demersal Scalefish Fishery.

Recommendation

- 2) The following management objectives apply for the West Coast Demersal Scalefish Fishery:
 - 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 Fishery boundaries

The Department of Fisheries has shifted to a regional approach for scalefish management to allow for more effective, targeted management, based on the distribution and abundance of scalefish stocks and different human usage patterns. The use of regions will also provide a spatial scale of management that will give a level of comparability with the recreational fishing sector, in which to examine the allocation of scalefish resources.

The Panel notes while regional boundaries have been adopted for recreational fishing, it was necessary to adopt some different boundaries for the commercial sector, in order to take into account existing commercial fishing practices. 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.

The Panel recommends that the northern boundary for the West Coast region be set at 26°30'S to coincide with the existing southern boundary of the Shark Bay Snapper Managed Fishery. This boundary already largely delineates commercial fishing activity in this area.

The Panel recommends the southern boundary be Black Point (115°30' E) because it is remote (which is important for compliance purposes) and it also appears to provide a good delineation between the natural distributions of common species in the area.

A major area of discussion by the Panel was whether an outer boundary should also be defined for the wetline fishery or if the fishery should extend out to the 200 nautical mile boundary of the Australian Fishing Zone (by virtue of the Offshore Constitutional Settlement

[OCS]). Under this scenario, only fishers with access to the West Coast Demersal Scalefish Fishery would be able access deepwater areas to explore possible scalefish fishing opportunities.

The Panel recognises that the major aim of the wetline review is to control the take of key demersal/reef scalefish species that are the primary target of the wetline fishery (and also the recreational boat fishery). Therefore, any outer boundary must clearly encompass the biological distribution of these stocks.

This is particularly important from sustainability and compliance perspectives because it would be undesirable to have people landing demersal scalefish species within the boundary of a managed fishery and being able to claim they caught them outside the boundary.

There is concern over the exploitation of deepwater stocks on the West Coast, as there is in the Gascoyne and other regions, so it is important to ensure that any future growth in commercial fishing activity on deepwater stocks is developed in a controlled manner to avoid continued open access resulting in future management problems. However, the Panel does not believe it appropriate to limit potential access to any future deepwater fisheries to only those with managed fishery access.

The Panel considers the opportunity to explore this outer deepwater ‘development’ zone should be available to any FBL holder through an application process.

The outer distribution of the key stocks is thought to approximate the 250-metre depth isobath (noting that the Department of Fisheries’ catch data provides little information on the stocks’ outer distribution due to the large 60 nautical mile spatial scale of Catch and Effort Statistics System [CAESS] blocks) and the Panel recommends a line of ‘best fit’ to this depth contour form the outer boundary of the managed demersal scalefish fishery.

Several years ago, the Department implemented a Developing New Fisheries (DNF) process to deal with the development of unexploited fisheries. It allows for the monitoring and control of fishing expansion in a sustainable manner.

Some members of the Panel considered that this process can be quite time consuming and costly to a degree that it may deter applicants. Conversely, it was noted the process does serve to ensure fishers investigate such opportunities fully and make informed decisions before embarking on a venture that may not be commercially viable or may impact undesirably on deep water stocks.

Since the Panel considers that potential access to the deepwater zone should be available to all FBL holders, it is important that the DNF process does not impede this opportunity. The Panel therefore suggests that the DNF process be reviewed, with the aim of simplifying it so as not to unnecessarily deter potential applicants.

The only effective way to manage an at-sea boundary is by the use of a Vessel Monitoring System (VMS). This means that operators accessing the deepwater through the DNF process will also need to be monitored by the VMS if the compliance program is to have integrity.

This is particularly important given that operators accessing the deepwater zone will have to traverse the wetline managed fishery in order to reach their fishing grounds. Given the likely

cost in undertaking exploratory fishing offshore, the Panel does not believe imposing a VMS requirement will represent a significant imposition (see section 5.10 for VMS cost estimates).

Recommendations

- 3) That the West Coast Demersal Scalefish Fishery encompass the waters south of 26°30'S and west of the point where 115°30' E intersects the southern coast of WA (near Black Point).
- 4) That a line of best fit based on the 250 metre isobath be implemented as an outer boundary of the West Coast Demersal Scalefish Fishery and wetline fishing be prohibited in waters outside of the 250 metre outer boundary.
- 5) Access to deepwater areas outside of the 250 metre boundary in the West Coast bioregion should be potentially open to any Fishing Boat Licence holder through the Developing New Fisheries process.
- 6) A review of the Developing New Fisheries process be undertaken with a view to simplifying it.

5.3 Management zones

The Panel recognises there are major differences within areas of the West Coast region, in both species composition of catches as well as average catch rates. For example, the catch rate or catch per unit effort (CPUE), for the highest catching wetline boats in the area around Kalbarri is about 340 kg per fishing day, comprised mainly of pink snapper (39 per cent), lethrinids ('North West snapper') (35 per cent) and dhufish (8 per cent).

The best wetline boats in the Perth metropolitan area average about 150 kg per day, comprising mostly dhufish (29 per cent), samson fish (25 per cent) and pink snapper (19 per cent). In the South West, the top few wetline boats averaged 125 kg per fishing day, comprised mostly of dhufish (26 per cent), bight redfish (23 per cent), samson fish (17 per cent), skipjack trevally (16 per cent) and pink snapper (14 per cent).

Furthermore, the Department of Fisheries' Research Division advises that there is likely to be a number of distinct sub-stocks of dhufish along the West Coast. This is also likely to also be the case for other demersal species and a single management framework is unlikely to provide the necessary level of protection to fish stocks from localised overfishing.

The Panel therefore believes it is necessary to create a number of management zones within the West Coast Demersal Scalefish Fishery. It was noted that zones will also assist in providing a better framework in which resource sharing issues can be addressed in the future.

In examining the best location for zone boundaries the Panel has considered:

- Catch rates by CAESS block;
- Species composition by block;
- Levels of fishing pressure including recreational pressure; and
- The best framework for addressing future resource sharing concerns.

The zones recommended by the Panel are:

1. Kalbarri - (26°30'S to 28°S)

The catch composition in this zone is predominantly pink snapper and lethrinids. Catches and catch rates of these species are much higher in this area compared to any other area within the West Coast bioregion. Locally-based fishers have major concerns over the long-term impact of this level of fishing on the sustainability of scalefish stocks.

2. Mid-West - 28°S to 31°S (including the Abrolhos Islands)

Geraldton, Dongara and Jurien have relatively similar Catch Per Unit Effort (CPUE) figures for all species (including dhufish and pink snapper). The catch composition in this sub-region is primarily pink snapper, dhufish and baldchin groper.

The Panel found it difficult to assess catch rates, composition and fishing pressure at the Abrolhos Islands because of discrepancies in catch reporting. On this basis, the Panel does not recommend a separate zone for the Abrolhos, but does believe it is important that the Department of Fisheries address this reporting issue, so the level of catch and the need for zoning in the Abrolhos can be reviewed in the future.

3. Metropolitan - 31°S to 33°S

The Perth metropolitan zone has a relatively consistent pink snapper catch rate across the Lancelin, Perth and Mandurah CAESS blocks. The catch composition in this zone is primarily pink snapper, dhufish and samson fish. These blocks are also the focus of high recreational fishing pressure. The establishment of a separate zone here will enable the management of localised depletion of popular line-caught fish and will be beneficial in providing data for resource sharing discussions in this area.

4. South West - 33°S to 115°30'E

This zone has high commercial catches of skipjack trevally, hapuka and bight redfish, in addition to the pink snapper, dhufish and samson fish also found in the Perth metropolitan sub-region. Skippy, hapuka and bight redfish dominate two blocks in this area and have shown a rapid increase in recent years.

By zoning the West Coast, it is also possible to address the potential issue of fishers seeking to optimise their allocation of 'days' by operating in the high catch rate areas. The transfer of fishing effort to key 'hot spots' may lead to localised stock depletion or create resource sharing concerns, both within the commercial sector and with the recreational sector.

The Panel therefore believes it is important that the management framework has the capacity to control the distribution of fishing effort within the region. The framework must also contain an ability to implement closed areas or seasons to protect breeding stocks.

This is likely to become an important management tool in the future, particularly as more information on key target species such as dhufish and pink snapper becomes known. The Panel considers it important that future management arrangements provide the necessary flexibility to amend zones and establish new zones (such as the Abrolhos Islands or further division within the Metropolitan zone) if required in the future.

Recommendations

- 7) That four principal management zones be initially established in the West Coast bioregion:
 - a) Kalbarri (26°30'S to 28°S);
 - b) Mid-West (28°S to 31°S);
 - c) Metropolitan (31°S to 33°S); and
 - d) South-West (33°S to 115°30'E).
- 8) The West Coast Demersal Scalefish Fishery management framework should incorporate a capacity to create or amend zones as required to better meet management requirements.
- 9) The Department of Fisheries take steps towards ensuring consistent and accurate reporting of scalefish catches at the Abrolhos Islands.

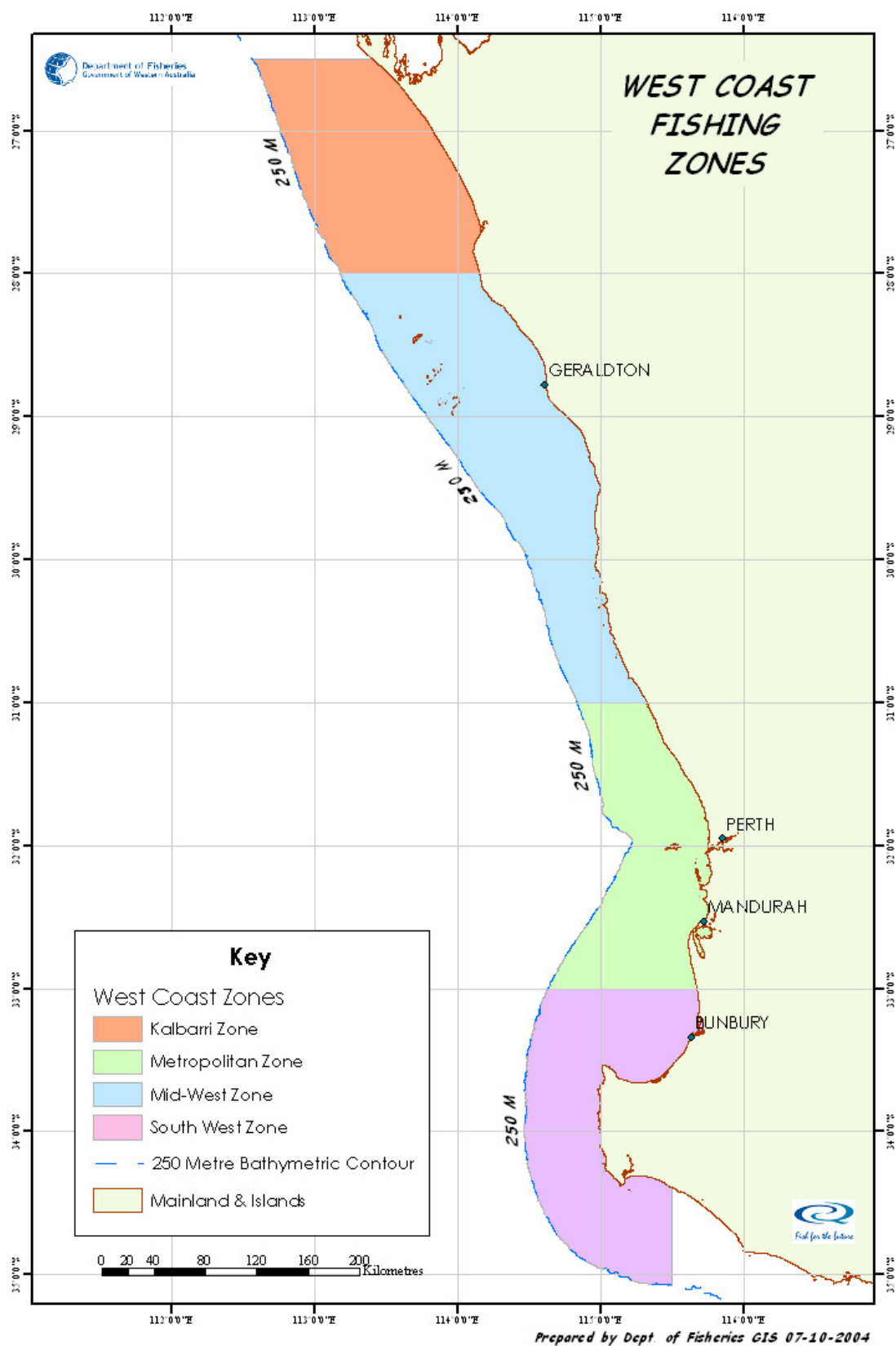


Figure 2 Recommended management zones for the West Coast Demersal Scalefish Fishery.

5.5 Individual Transferable Effort management

The Panel's detailed considerations around the broad management options for the wetline fishery (namely, limited entry, individual transferable quota [ITQ] and individual transferable effort [ITE]) is outline in Fisheries Management Paper No. 190 (FMP 190).

The Panel recommends an ITE management system because of the multi-species nature of the fishery, the lack of detailed biological and stock assessment information on scalefish stocks, the variation in the levels of fishing activity between participants (which includes both full-time and part-time operators) and the large number of landing points utilised along the West Coast.

This is a more cost-effective management regime and the Panel recognises that the scalefish fishery is a comparatively low value commercial fishery with only a limited capacity for operators to contribute towards the cost of management.

An ITE system involves setting a target commercial catch, but instead of catch units, the entitlement is expressed in units of time and/or gear that could be expected to take that level of catch. The Panel believes that ITE systems offer greater flexibility for the management of multi-species fisheries such as demersal scalefish. The system allows catch rates to be monitored and management arrangements to be adjusted easily as required, particularly as operators become more efficient.

Setting catch quotas is extremely difficult with a multi-species fishery, particularly where limited information is available for key target species. The Panel felt 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 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.

Although there will still be research costs and stock assessment of key species will remain a high priority, the level of 'ground-truthing' and real-time management of catch and disposal records that is necessary under ITQ management systems is less imperative under an ITE system. ITEs are also less expensive than ITQs in terms of management, compliance and administration costs.

The data demands can be reduced by focussing the system on identified 'at risk' species and monitoring of fishing effort (both time and area closures) can be effectively addressed through the use of VMS, obviating the need for significant at-sea regional compliance.

Recommendation

- 10) Management of the West Coast Demersal Scalefish Fishery be based on a unitised, Individual Transferable Effort (ITE) system, with gear restrictions and zoning. The framework should also provide for the option of spatial closures, temporal closures, or

sub zones as required to address management issues (such as preventing localised depletion of key species).

5.6 Individual Transferable Effort units

As with ITQs, the total allowable effort limit is shared among eligible fishers. An effort limit may be set in a number of ways including:

- Total number of days that can be fished;
- Maximum quantity of gear (nets, lines, traps, etc) allowed in the fishery; or
- A combination of gear and units that defines a maximum number of gear units or lines that can be used on any day and a total allocation of fishing days (such as trap or line days, as in the Northern Demersal Scalefish Fishery or Pilbara Trap Fishery).

The Panel considers an ITE system with units of ‘boat fishing days’ to be the most appropriate model for managing the Kalbarri, Mid-West, and Metropolitan zones of the West Coast Demersal Scalefish Fishery (FMP 190).

However, submissions received from the South West zone indicated that the proposed ‘days fished’ model in FMP 190 was not appropriate to their zone. The nature of the South West fishery is such that there are less ‘fishable’ days in a year than in the aforementioned three zones and the quantity of gear used on any fishing day is higher compared to other areas on the West Coast.

Where operators in Kalbarri may operate a maximum of five droplines (if at all), operators in the South West claim they need to operate up to 15 droplines per day to be viable. For this reason, the Panel recommends the South West zone be managed under a gear/time ITE system with units of ‘line days’.

The Panel recommends a total number of ‘line days’ be allocated to the South West and shared among eligible fishers, as per the Minister’s decision on access and allocation. Individual fishers can then decide how to exercise their allocation by either nominating to use a large amount of lines over fewer fishing days or fewer lines over more fishing days.

The aim of an effort-based system is to allocate an appropriate number of ‘boat fishing days’ or ‘line days’ that will allow the target commercial catch to be caught each year. The number of boat fishing day units, or line day units, can be adjusted annually either upward (if the catch is low) or downward (if the catch is high) as required.

Recommendation

- 11) Management of the West Coast Demersal Scalefish Fishery be based on an Individual Transferable Effort (ITE) system with units of ‘boat fishing days’ for the Kalbarri, Mid-West and Metropolitan zones and ‘line days’ for the South West zone.

5.7 Setting the Target Commercial Catch

In order to estimate the total number of boat fishing days or line days that should be permitted in each zone of the wetline fishery, it is necessary to estimate both a target commercial catch for the wetline fishery and a Catch Per Unit Effort (CPUE).

Current research projects to develop a quantitative stock assessment of key demersal species on the West Coast will not be available until 2006-07. Therefore, any target commercial catch set in the meantime must be based on the best available information.

Given that fishing activity and fish abundance can vary between years for a variety of reasons, the Panel considered that average catches over a number of years should be used in determining a target catch for the commercial fishery.

The Department of Fisheries' Research Division presented the Panel with three options (high, medium and low risk) for consideration (FMP 190). The Panel recommends the 'medium risk option' of setting the target commercial catch based upon the average commercial wetline catch of all species over the five-year period from 1996-97 to 2000-01.

The target commercial catch for the West Coast Demersal Scalefish Fishery is therefore about 757 tonnes (or 193 tonnes for the Kalbarri zone, 350 tonnes for the Mid-West zone, 116 tonnes for the Metropolitan zone and 98 tonnes for the South West zone).

The Panel favours this option because it excludes the most recent data where catches have increased to unsustainable levels, but still includes some post-1997 catch which is expected to be more reflective of actual catches (i.e. includes small 'take home' catches that may not have been recorded pre-benchmark).

While this will ensure a sustainable level of fishing for 'traditional' species (snapper, dhufish), the Panel recognises the fact that it does not account for the emergence of new species, particularly in the South West zone where catches of bight redfish and hapuku have recently risen. The average catch of bight redfish has increased from 12 tonnes (between 1996-97 and 2000-01) to 49.7 and 47.7 tonnes in 2001-02 and 2002-03, respectively.

However, in considering these catches, the Panel acknowledges that very little is known on the biology of these species and, as such, no extra allowance should be given for the recent increases in catches at the implementation of the plan. Should the fishery for these species continue to be productive, the recommended management framework will allow for effort levels to be adjusted accordingly.

It is important to note that the recommendation to base the target commercial catch on average catch from 1996-97 to 2000-01 is applicable only for the initial allocation of effort. The target catch will continue to be reviewed against stock sustainability as further information on the status of scalefish stocks becomes available.

Recommendation

- 12) The initial target commercial catch be determined on the average commercial catch recorded in each of the four management zones during the period 1996-97 to 2000-01. On this basis, the Department of Fisheries' Research Division advice is that the initial

target commercial catch for the West Coast Demersal Scalefish Fishery be 757 tonnes, which based on historic distribution of catch during this period, should be allocated between zones as follows:

- a) Kalbarri 193 tonnes
- b) Mid-west 350 tonnes
- c) Metropolitan 116 tonnes
- d) South-west 98 tonnes

(These catches are recommended for the purpose of initial allocation only and are to be reviewed on a regular basis).

5.8 Determining an appropriate Catch Per Unit Effort (CPUE)

The Panel does not believe it appropriate to adopt an average catch rate (for determining effort days) across the West Coast region because of the variations in both species composition of catches and catch rates between zones. If an average rate is applied to the Metropolitan blocks, it would result in a much lower number of days available for allocation – and in the target commercial catch level not being reached.

Conversely, if an average rate is applied to the Kalbarri blocks, a significant amount of additional effort would be created in these blocks which may be unsustainable.

There is currently a wide variation in wetlining activity and efficiency between boats and because wetlining is not a formally managed activity, catch return data submitted by many fishers is limited in its ability to provide accurate data on wetline effort.

A major limitation in existing CAESS data is that wetline fishing effort reported by fishers in managed fisheries is not necessarily distinguishable from fishing effort in their managed fishery. For example, a rock lobster Managed Fishery Licence holder may record 30 fishing days in a given month with only an incidental scalefish catch, making it impossible to determine how much time was actually spent wetlining as opposed to rock lobster fishing.

Clearly the use of such data distorts wetline effort figures and cannot be used to determine CPUE rates.

Under an effort-based system, it must be assumed that all fishers will seek to maximise their efficiency to optimise their catch within their allocated number of fishing days. For this reason, the Panel believes only catch and effort data for ‘efficient’ operators should be used to calculate CPUE figures.

In many instances, these boats are ‘wetline-only’ boats, but may also include other managed fishery boats that concentrate on wetlining at certain times of the year, when the managed fishery is not operating.

In terms of calculating CPUE, the Panel feel it is important to use the most recent information as this best represents current fishing technology and practices.

The Panel considered using the averages of the top five, ten or twenty boats in each management zone (FMP 190) and recommends the CPUE (in kg/day) for determining the capacity of the West Coast Demersal Scalefish Fishery be estimated on the basis of the annual

average (over the three most recent years) of the top five fishers (by total wetline catch) in each management zone. These calculations should be based on the three most recent years of data to ensure the current level of efficiency is accounted for.

Recommendation

- 13) The Catch Per Unit Effort (CPUE) in kg/day for determining the initial capacity of the West Coast Demersal Scalefish Fishery be estimated on the basis of the annual average (over the three most recent years) of the top five fishers (by total wetline catch) in each management zone.

5.9 Initial calculation of effort days

The total allowable effort measured in fishing days is determined by dividing the target commercial catch in each management zone by the average CPUE in each zone.

$\text{Effort units (boat fishing days or line days)} = \frac{\text{target commercial catch}}{\text{Average CPUE}}$

An important component of an effort system must be the integrity of the defined fishing units, in this case ‘boat fishing days’ (or ‘line days’ for the South West). 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 the top five fishers in each zone (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 system, the number of days would be reduced the following year to account for either the resulting catch increase (above the target commercial catch) or the resulting low catch rates (same catch over greater effort), whichever the case may be.

The Panel does recognise that the first couple of years under the management plan is likely to see some rationalisation of the managed fleet, with people trading units (boat fishing days or line days) to either build their entitlements or ‘sell out’ of the managed fishery.

Zone	Target commercial catch (tonnes) (Average catch 1996-97 to 2000-01)	CPUE (kg/day) (Average 1999-00 to 2001-02⁶)	Total Allowable Effort ⁷
Kalbarri	193	357	541 boat fishing days
Mid West	350	199	1,758 boat fishing days
Metro	115	150	766 boat fishing days
South west	98	125	784 line days
Total	756	208	3,850

Table 2 The Total Allowable Effort (TAE) for each sub-zone.

The Panel recommends that the South West be managed by way of ‘line days’. The target commercial catch for this zone is estimated at 98 tonnes and, based on the 1999-00 to 2001-02 CPUE for the zone, this equates to 784 line days (assuming five handlines and five droplines).

That is, at 10 handlines and 10 droplines per boat, the number of fishing days would be halved to 392.

The total number of days available in this zone will be allocated to individuals based on the Minister’s determinations (around the findings of the Commercial Access Panel) and a likely period of economic restructure. How individuals choose to use their days will be based on a gear nomination system.

For example, if allocated 50 line days in the South West zone of the West Coast Demersal Scalefish Fishery, an operator may choose to fish five handlines and five droplines for his total allocation of 50 days. Alternatively, he may choose to nominate to fish with 10 handlines and 10 droplines for 25 days.

5.10 Ongoing review of effort units

It is important to recognise that the total number of fishing days may be adjusted in the future 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 days would be increased in the following year.

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

The review process must be undertaken in full consultation with stakeholders and detailed in a paper for the Executive Director’s consideration. The paper should include:

1. Biological assessment of stocks;

⁶ Excludes mackerel and shark catches because they are under separate management arrangements.

⁷ Assumes 5 handlines and 5 droplines per boat.

2. Determining the target catch for the commercial fishery;
3. Reviewing the CPUE for the following year; and
4. Calculating the total number of boat fishing days or line days to be made available.

Furthermore, the target commercial catch may be adjusted to meet the requirements of any allocation decisions under the Integrated Fisheries Management (IFM) review of scalefish fisheries.

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

Recommendations

- 14) The initial calculation of effort be determined by dividing the target commercial catch in each management zone by the average Catch Per Unit of Effort (CPUE) in each zone.
- 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.

5.12 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. A VMS provides the Department of Fisheries with real-time monitoring of boats by using a combined global positioning system (GPS) and satellite communication unit (called an automatic location communicator [ALC]) that is fitted to each boat.

Data on a boat's position, speed and course are regularly reported to a land station in Perth and, because this data also comes with time and date information, it can 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 Developing New Fisheries program, given that accessing the deepwater zone (beyond 250 metres) 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 VMS will represent a significant additional imposition.

A boat operating under the VMS requires both an ALC (which provides automated position reports) and computer capacity to send and receive messages to and from the Department of 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 the mandating of a single type of unit, the Inmarsat Mini C (*Model Number 3026S*), or alternatively of 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 model to conduct basic transmission will cost from \$600. Units such as the Mini C can use a personal computer or a simple message pad. The message pad can be pre-configured for a standard suite of messages and is much better suited than a personal computer for smaller craft that are more exposed to the elements.

Currently, the costs involved in sending position reports to the Department of Fisheries' monitoring station and 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 unit are the responsibility of the operator. Although this is a significant one-off payment, the Panel believes that the VMS is the only way to ensure the integrity of scalefish management in the West Coast.

The 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 general response to the VMS has been positive in all these fisheries.

In particular, fishers have identified improved safety and communication as a benefit of having the VMS, as well as a confidence that all fishers are obeying the rules. It is also considered an important business management tool by those fishers who are required to use it.

Recommendations

- 16) The West Coast Demersal Scalefish Fishery should be managed under a Vessel Monitoring System (VMS) with all authorized boats required to have an Automatic Location Communicator (ALC) fitted.
- 17) Boats operating in the deepwater or outer zone under approval from the Developing New Fisheries process also be required to operate under a Vessel Monitoring System (VMS) to ensure compliance around the outer boundary. Boats operating under this arrangement should be prohibited from landing demersal species targeted in the West Coast Demersal Scalefish Fishery.

5.13 Nomination to fish

Some fishers who gain access to the West Coast Demersal Scalefish Fishery will also be Managed Fishery Licence (MFL) holders in other fisheries. It is therefore necessary that West Coast Demersal Scalefish Fishery MFL holders ‘nominate’ which fishery(s) 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 will 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 will be a significant imposition. 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). Likewise, a dual rock lobster and demersal scalefish MFL holder will be required to nominate to enter the demersal scalefish fishery, even if the intent is to spend only a portion of the day line fishing.

Basically, it will be illegal to land any species for which the operator is not licensed or has not nominated to catch.

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. This is because fishers will still act to maximise the value of their effort allocation, 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 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 some general limits 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 handlining, droplining, trolling, squid jigging, wading, lift netting, polling, gillnetting, beach seining, and haul netting. In general, there are no controls on the quantities of these gear types 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 that the gear permitted in the demersal fishery be limited to handlines and droplines. The Panel also recommends a cap on the maximum number of lines on a boat to help 'standardise' to some degree a unit of fishing effort.

It was suggested that in the interests of economic viability, a minimum of three handlines/three droplines would be needed, however an allowance for additional spare gear to cover breakage/loss should also be taken into account.

The Panel recommends that five handlines and five droplines be permitted on-board each eligible boat in the Kalbarri, Mid-West and Metropolitan zones. The maximum gear permitted in the South West zone should be closer to 10 or 15 handlines and droplines, but this should be resolved at a later date with operators who are eligible to fish in that zone.

It is also recommended that there be a maximum number of hooks, or sets of hooks⁸, 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. It therefore recommends 30 hooks be permitted per line.

Recommendations

- 18) The only permitted gear for use in the fishery be handlines and droplines.
- 19) A maximum of five handlines and 5 droplines be on board a boat at any one time in the Kalbarri, Mid-West, and Metropolitan zones.
- 20) The maximum number of handlines and five droplines on-board a boat in the South West zone must be the number of lines nominated for use at that time (and be less than the prescribed maximum).
- 21) A maximum number of 30 hooks (or gangs of hooks) be permitted on any handline or dropline.
- 22) Legal definitions describing handlines and droplines be developed that contain the following elements:
 - a) 'Handline' means a fishing line which is weighted at one end and has not more than the prescribed number of hooks attached.

⁸ Provision for the use of ganged hooks was also deemed necessary, as these were important depending upon type of bait used.

- b) 'Dropline' means a fishing line with no more than the prescribed number of hooks attached and when used for fishing is anchored by a weight at one end, buoyed at the surface and deployed vertically through the water. A minimum of one buoy, with a minimum diameter of 200mm, 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.

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 believes this practice should be encouraged and the new management arrangements should generally allow for 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 the Western Australian Fishing Industry Council, has produced the *WA Quality Scalefish Guide*. The guide is an excellent tool for fishers 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 product. Furthermore, completion of the check list and temperature template may provide evidence for buyers of attention to food safety and food quality issues.

Recommendation

- 23) Operators in the West Coast 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 Take of shark

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 the issue of responsible fishing practice can be easily addressed by prohibiting the use of metal traces on lines in the fishery.

Recommendation

- 24) Metal traces should not be permitted to be used on any gear in the West Coast Demersal Scalefish Fishery.

5.17 Research requirements for West Coast demersal scalefish stocks

A Fisheries Research and Development Corporation (FRDC) funded research project to study the stock structure of dhufish and pink snapper populations along the West Coast to determine the appropriate geographical scale for management commenced in July 2003. As well as investigating intermixing of these regional populations, regional variation in age structure and timing of reproduction will be examined in both species and information on the biological parameters for lower west coast pink snapper will be collected.

The research project includes funding for a PhD student (Murdoch University) studying reproductive biology, age and growth of pink snapper on the lower west coast. Research into regional populations will provide age-based stock assessments for dhufish and pink snapper in late 2006.

Another research project is currently underway to provide information on dhufish and pink snapper on the West Coast and develop a quantitative stock assessment for them. This project will incorporate catch data from all user groups and provide a sustainable target catch level for the scalefish fishery. A review of existing catches taken by recreational and commercial groups may be required in light of existing catches levels or through an integrated management process.

This work leads into a new FRDC-funded project on spawning aggregations of several west coast species including WA dhufish, pink snapper and samson fish, which began in July 2004.

A research project on mortality rate of returned fish is also currently underway and preliminary results indicate that the mortality of demersal species such as pink snapper and dhufish increases with depth. These findings will be assessed against a tagging study that is in progress.

The FRDC-funded project on post-release mortality of demersal fish species has been extended to December 2006. The collaborative tagging programme with the Australian National Sportsfishing Association –WA will determine the effect of three release methods (simple, vented and shotline) on the longer-term mortality of released undersize dhufish, snapper, baldchin groper and breaksea cod.

Preliminary assessments of other major demersal species in the West Coast bioregion will continue to be refined, as the commercial data set is improved and additional biological information becomes available. In the interim, the fishery will continue to be monitored annually using data from the Department of Fisheries' Catch and Effort Statistics System (CAESS).

SECTION 6 WEST COAST INSHORE NET FISHERY

6.1 Objectives for management

The Panel recommends that the same objectives developed for the West Coast Demersal Scalefish Fishery apply to the West Coast Inshore Net Fishery.

Recommendation

- 25) The following management objectives apply for the West Coast Inshore Net Fishery:
- 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.

6.2 Profile of West Coast Inshore Net Fishery

A number of commercial fishers in WA use haul nets, gillnets and beach seine nets to target inshore species such as Australian herring, mullet, whiting and garfish outside of existing managed fisheries.

Currently, there is a prohibition on all beach seine activity between Black Point (115°30' E) south of Augusta through to Cape Bouvard and the inshore netting activity that does exist in this area is under a management review. In addition, the waters between Tim's Thicket north to Moore River are regulated under the *West Coast (Beach Bait Fish Net) Limited Entry Fishery*.

Therefore, all inshore net fishing activity in the West Coast bioregion north of Moore River is currently considered 'wetline' fishing because it is not under formal management arrangements and therefore falls within the terms of reference for this review.

The number of net fishers operating each year and total catch levels in this open access fishery has not changed significantly since 1990-91. The annual catches taken by these fishers range from a few kilograms to over 15 tonnes.

Inshore fishing operations potentially take place in areas of high interaction with the general recreational fishers and other coastal users because of their requirement for beach access. Although the level of interaction appears to be minimal at present in the area north of Moore River, as WA's population and access to coastal locations increase, the level of interaction will also grow.

6.3 Management arrangements

The major concern is that, following the introduction of management for the demersal wetline fishery, those fishers 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 West Coast 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 in the West Coast Inshore Net Fishery be limited to the use of hand haul net, gillnet and seine net. Further definitions around permitted gear should be developed in consultation with those fishers who gain access to the inshore fishery.
- 28) Catch levels from the West Coast Inshore Net Fishery should be monitored and specific effort constraints be 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 WEST COAST 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 (see 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 Managed Fishery Licence holder could take scalefish but a scalefish Managed Fishery Licence holder couldn't take rock lobster/abalone from their fishing boat); and
- 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 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 the possibility for illegal activity – as soon as fish can be legitimately landed by operators outside of those licensed in the managed commercial scalefish fishery 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 that for rock lobster, where fish are taken as bycatch in pots.

7.2 Minority report

It is important to note that 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 that holders of Fishing Boat Licences 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 accurate catch returns are made, 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 mile by 60 nautical mile 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 West Coast Demersal Scalefish Managed Fishery be required to report the catch of scalefish on a 'trip-by-trip' basis prior to landing.
- 30) The West Coast 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 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 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.

However, such a change would require that the fishery in which a CFL holder was able to operate was 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 Recreational Fishing Licences 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 (catch rate)
DBI(F)	Development and Better Interest (Fund)
DNF	Developing New Fisheries – Departmental of Fisheries 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	<i>Fish Resources Management Act 1994</i>
FRMR	<i>Fish Resources Management Regulations 1995</i>
FWA	Fisheries Western Australia (now Department of Fisheries)
GPS	Global Positioning System
GVP	Gross Value Of Product
Handline	A fishing line that 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).

SUBMISSIONS

Submissions received in 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
EJ 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 in 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)
H A 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)
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