

A FIVE-YEAR MANAGEMENT STRATEGY FOR
RECREATIONAL FISHING
IN THE GASCOYNE REGION
OF WESTERN AUSTRALIA

Final report of the
Gascoyne Recreational Fishing Working Group

FISHERIES MANAGEMENT PAPER NO. 154

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A Five-Year Management Strategy for
Recreational Fishing
in the Gascoyne Region
of Western Australia
Final Report: August 2001

Compiled by Ian Curnow and Nathan Harrison
on advice from the Gascoyne Region
Recreational Fishing Working Group

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SECTION 1 FOREWORD

The development of this strategy represents a key step in securing the future quality of recreational fishing in the Gascoyne. I believe this is the first time in Australia that the aspirations of the recreational fishing sector have been articulated into a single document outlining their views for future management.

During this process, it soon became clear to members of the Gascoyne Recreational Fishing Working Group that the task of managing fisheries - and in particular, recreational fisheries - is not easy. While the vast majority of fishers share the vision of being able to enjoy quality fishing in the future, there are many different views on what is required to get there.

This situation is compounded by a scarcity of information on many recreational fish species, which requires a precautionary approach in management decisions. However, the implementation of recommendations on 'information for management' will provide essential data for future reviews.

The recommendations contained within this paper were reached after careful consideration of the public submissions provided in response to the working group's discussion paper *A Quality Future for Recreational Fishing in the Gascoyne* (Fisheries Management Paper 124).

The working group would like to thank everyone who forwarded submissions on the discussion paper and attended public meetings to provide input. The wide variety of comments and views expressed reflect the diverse nature of the recreational fishing sector. I believe this range of views was also well represented by the various members of the working group.

The group was involved in much vigorous debate and I was pleased that consensus was reached on the majority of recommendations. Where 100 per cent agreement was not possible, the final recommendation certainly had the support of the vast majority of members.

The challenge for the working group was to devise measures that have strong community support, but more importantly, contribute effectively to sustainable fisheries and maintaining or improving the quality of recreational fishing. A long-term outlook is required if we are to achieve these goals.

While a small number of submissions were resistant to any change, I believe the majority of fishers and the wider community recognise that this is not realistic in our changing world – far more people are fishing, and an increasing population, growing tourism and coastal developments are impacting on the environment, habitats and fish stocks.

A key theme identified throughout the review was the need to manage all impacts on fish resources if we are to ensure sustainability. Recreational fishing cannot be considered in isolation from commercial fishing, aquaculture, Aboriginal interests, and the creation of marine reserves.

However, at the same time, the “don't change our rules until you change theirs” attitude

will continue to prevent progress towards implementing a truly integrated management framework. In the absence of such a framework, resource sharing will continue to be an idealistic vision.

Bringing recreational fishing in the Gascoyne under a regional plan is an essential 'first step' for resource sharing to begin. A Gascoyne management strategy will provide a framework for achieving sustainable management by helping to ensure that effective controls are in place on the recreational fishing sector.

This strategy will complement the regional management approach being adopted for the fishing and aquatic charter industry and aquaculture sectors. Commercial fisheries, by and large, also fit within these boundaries and a regional framework will enable comparability between the sectors, at a scale where resource-sharing issues can be addressed.

This document should be read in conjunction with the initial report (Fisheries Management Paper No. 124), which contains detailed discussion on the working group's draft proposals. Where these proposals received widespread support and their position has not changed, the group has not reiterated this rationale. However, in instances where there was widespread community comment on particular issues, or where the group has changed their initial proposals, new discussion is included.

This final report was delayed more than the working group anticipated, due to a number of factors. However, as the first review of this type undertaken, I believe the process involved considerably more groundwork and hopefully has paved the way for subsequent reviews.

A number of issues arose following the release of the discussion paper by the West Coast Recreational Fishing Working Group on recreational fishing on WA's west coast (Fisheries Management Paper No. 139). Most notably, there were calls for consistency in management between regions to facilitate angler education (addressed in Section 4.4).

Perhaps some controls require state-wide consistency (such as fishing methods, filleting at sea, and possession limits) while still allowing tools such as bag limits and closures, based around species biology and stock assessment, to be tailored to specific circumstances in each region. These circumstances may include: the variety and abundance of fish species; level of recreational fishing pressure; level of commercial fishing pressure; indigenous fishing; marine parks; and other factors, which may differ dramatically between regions.

Finally, I would like to thank all members of the Gascoyne Recreational Fishing Working Group for their efforts. I hope the process will be evolutionary and this strategy will continue to be refined, as information on recreational fishing is compiled and as community values change over time. A five-yearly review cycle is recommended to assess the effectiveness of this strategy, in the light of changes in stock abundance and fishing pressure.

This strategy is an essential 'first step' towards incorporating a vision for recreational fishing along with those of the commercial, aquaculture and other sectors into an integrated management framework which will ensure healthy fisheries in this new millennium.

Doug Bathgate

Chair – Gascoyne Recreational Fishing Working Group

SECTION 2 SUMMARY OF RECOMMENDATIONS

2.1 Guiding Principles for Management

Recommendation 1 - Key Principles for Recreational Fisheries Management

Recreational fisheries management in the region should be based on the following key principles:

- A key aim should be to ensure that the biodiversity of fish communities and their habitats and sustainability of fish stocks are preserved.
- Fisheries management should be proactive and recognise projected increases in fishing pressure.
- Management should be based on the best available information and where the necessary information is unavailable a precautionary approach, which seeks to minimise risk to fish stocks and habitat, should be adopted.
- Fishing rules should acknowledge that equitable access to fishing opportunities across recreational user groups is important.
- The value of recreational fishing should be recognised and given proper weight in all planning processes.
- Fishing rules should be kept simple and, where possible and practical, made uniform across the region.
- Recreational fishing rules should be designed to limit the total recreational catch, as well as protect fish at vulnerable stages in their life cycle.
- The benefits from further management on the total recreational catch should flow back to the recreational sector and be reflected in improved fishing quality and sustainability.

2.2 Term of Plan and Review

Recommendation 2 - Five-Year Review

This regional management strategy should be reviewed every five years. Changes to recreational fisheries management within this period should occur only if there is compelling evidence that indicates a critical threat to the sustainability of fish stocks.

2.3 Information for Management

Recommendation 3 - Major Catch Survey

- 3 (a) A major recreational catch survey should be undertaken every year for a minimum of three years to establish a baseline data set on recreational fishing in the Gascoyne.

- 3 (b) The catch survey should be repeated every five years at a minimum to provide detailed information about the spatial and temporal distribution of recreational activity and catches on which to base management decisions.

Recommendation 4 - Annual Data Collection Program

Fisheries Officers and volunteers collect data on a number of key indicator species as part of their patrols to provide an index of trends in recreational fishing in the years between five-year catch surveys.

Recommendation 5 - Volunteer Angler Logbook Program

The Department of Fisheries expand the voluntary anglers' logbook program in the Gascoyne Region to provide additional monitoring between major catch surveys.

Recommendation 6 - Research Planning

Research projects on recreational fishing must address identified management needs and research results communicated to client groups in a timely manner.

Recommendation 7 - Priorities for Research

Research on the following key recreational species in the Gascoyne be undertaken to provide information on species biology and stock structure. Predictive fisheries stock assessment models and, where practical, indices of recruitment, should then be developed for these key species:

- Pink snapper (*Pagrus auratus*).
- Spangled emperor (*Lethrinus nebulosus*).
- Black snapper (blue-lined emperor – *Lethrinus laticaudis*).
- Red emperor (*Lutjanus sebae*).
- Baldchin groper (*Choerodon rubescens*).
- Spanish mackerel (*Scomberomorus commerson*).
- Cods – estuary, Rankin (*Epinephelus coides*, *Epinephelus multinotatus*).
- Coral trout (*Plectropomus* spp.).
- Black spot tuskfish (*Choerodon schoenleinni*).
- Mulloway (*Argyrosomus hololepidotus*).

Research programs should also be established to gain information on:

- Mortality associated with the catch and release of demersal species and the effectiveness of size limits as a management tool for these species.
- Mortality of Spanish mackerel and other identified species taken on light fishing gear.
- Identification of key fish habitat and nursery areas in the region.
- Continuation of stock assessment of pink snapper in the eastern and western gulfs of Shark Bay.

Recommendation 8 - Fishing Quality Indicators

The Department of Fisheries should develop a range of ‘fishing quality indicators’ based on angler surveys to identify and monitor trends in fishing quality in the region which can be used to review the effectiveness of management strategies.

These indicators should encompass fishing quality, diversity and the value associated with the recreational fishing experience. They should incorporate information such as: average daily catch; range of species caught; average size of key species; and a measure of enjoyment or value of the fishing experience, as well as economic data such as expenditure per fishing day/trip.

2.4 Protecting Vulnerable Fish and Managing the Recreational Catch

Recommendation 9 - Bag Limits

- 9 (a) A mixed daily bag limit of seven Prize Fish, 10 Key Angling Fish, and 30 Table Fish apply to recreational fishers in the Gascoyne, as specified in the daily bag limit table.
- 9 (b) The take of live coral, live rocks and live specimen shells should be prohibited.

RECOMMENDATION 9 GASCOYNE RECREATIONAL DAILY BAG LIMITS			
<i>Protected fish (generally state-wide)</i>	<i>Prize Fish Mixed bag 7 applies</i>	<i>Key Angling Fish Mixed bag of 10 applies</i>	<i>Table fish Mixed bag of 30 applies</i>
Humphead maori wrasse Leafy sea dragon Pink snapper (eastern gulf of Shark Bay only) Potato cod Whale shark Great white shark Grey nurse shark	Species limits as noted Barramundi 1 Billfish (sailfish, swordfish, marlin) 1 Coral trout 1 Coronation trout 1 Coronation cod 1 ***** Amberjack Bonefish 2 Cobia 2 Cods – rankin, estuary 2 Dhuffish, WA 2 Groper & Tuskfish 2 Kingfish, yellowtail 2 Mackerel, spanish, and wahoo 2 Mulloway, northern 2 Mulloway 2 Parrotfish 2 Pearl perch 2 Pink snapper (Wstn gulf) 2 Red emperor 2 Samsonfish 2 Sharks 2 Tuna – sth, nth bluefin, yellowfin, bigeye, dogtooth 2	Species limits as noted Barracuda 4 Cods – otherl 4 Jobfish 4 Mahi mahi 4 Mangrove jack 4 Spangled emperor 4 Tunas (other) 4 ***** Mackerel, shark and school 6 NW snapper (<i>Lethrinus</i> spp.) 6 Pink snapper 6 Queenfish 6 Sea perch 6 Tailor 6 Trevally 6	Dart Garfish Gurnard Longtoms Milk fish Mullet Tarwhine Whiting *All fish not in other categories except baitfish

BAITFISH, CRUSTACEANS AND SHELLFISH

Many crustaceans and shellfish are highly prized for their eating qualities, and susceptible to local depletion. Baitfish, while abundant, should not be taken in commercial quantities or in such quantities that recreational fishers waste them.

<i>Species</i>	<i>Daily bag limit</i>	<i>Boat limit</i>
Baitfish (including fish of the Family Clupeidae and Engraulidae)	9 litres (plastic bucket)	
Rock lobster	8 (not more than 4 tropical rock lobster)	16 (not more than 8 tropical rock lobster)
Crabs – blue manna	20	40
– mud	5 (possession limit)	10
– other	10	20
Prawns	9 litres (plastic bucket)	
Octopus, squid, cuttlefish	15	30
Abalone	20 (possession limit)	
Shellfish (taken for consumption or bait)	Mixed bag of 50	
Live coral, rocks	Protected	
Live specimen shells	Protected	

Recommendation 10 - Possession and Trip Limits

- 10 (a) A person may not have in their possession at any time more than the following quantities of finfish (excluding commercially taken fish and baitfish):
- 20 kg of fillets; or
 - 10 kg of fillets plus one day's bag limit of Prize, Key Angling and Table fish; or
 - two days' bag limit of Prize, Key Angling and Table fish.
- 10 (b) A possession limit of two days' bag limit should apply to all other fish including baitfish, crustaceans and shellfish.
- 10 (c) The Department of Fisheries should develop tighter controls to prevent fishers circumventing the possession limit by transporting large quantities of fish or fillets out of the region.

Recommendation 11 - Boat Limits

The effectiveness of boat limits as a management tool for recreational fishing should be assessed by the Recreational Fishing Advisory Committee, in consultation with Recfishwest, the charter industry and the wider recreational fishing community.

Pending this outcome, the use of boat limits should be re-examined as a strategy in the Gascoyne Region.

Recommendation 12 - Size Limits

- 12 (a) The minimum size limit for black snapper (blue-lined emperor) should be increased to 32cm to help protect breeding stocks. This limit should be reviewed upon completion of the research project now being undertaken on black snapper in Shark Bay.
- 12 (b) The minimum size for pink snapper in the western gulf of Shark Bay should be increased to 50cm to protect a larger proportion of the breeding stock.
- 12 (c) The maximum size for cod should be reduced to 1 metre.

Recommendation 13 (a) - Shark Bay Western Gulf Pink Snapper

- 13 (a1) A bag limit of two pink snapper, with a minimum size of 50cm and a limit of one fish over a maximum size limit of 70cm, should apply within the western gulf of Shark Bay.
- 13 (a2) A six-week closure to fishing for pink snapper to protect spawning aggregations should apply:
- between 15 June to 31 July in Denham Sound; and
 - between 1 August and 15 September in Freycinet Estuary.

Recommendation 13 (b) - Shark Bay Eastern Gulf Pink Snapper:

The eastern gulf should remain closed to fishing for snapper until research indicates that the target breeding stock of 100 tonnes is reached. When reopened, the following management is suggested:

- A bag limit of two pink snapper, with a minimum size limit of 50cm and a limit of one fish over a maximum size of 70cm, should apply in the eastern gulf of pink snapper.
- A six - eight week closure to protect spawning snapper should be implemented from 1 June each year to protect spawning aggregations and assist the rebuild of stocks.

Recommendation 14 - Line Fishing

- 14 (a) All recreational anglers, both shore and boat fishers, be limited at any one time to a maximum of two rods or two handlines, or a combination of one rod and one hand line, with no more than three hooks or gangs of hooks attached to each line.
- 14 (b) The use of set lines by recreational fishers be banned.

Recommendation 15 - Net Fishing

- 15 (a) Set and haul netting continue to be permitted in the region as a means of targeting mullet, provided it is not incompatible with other values/uses. Set netting should not be allowed within 500m of all creeks, in identified nursery areas or areas where a high level of conflict with other users occurs. As new areas that fall under these criteria are identified by the Department of Fisheries, a prohibition of netting should be implemented.
- 15 (b) Miaboolia Beach should be closed to set and haul netting in recognition of its importance as a nursery area for tailor and whiting.
- 15 (c) Throw nets be permitted in the region as a means of collecting baitfish only (except in 'no fishing' zones, such as sanctuary zones and fish protection areas).

Recommendation 16 - Filleting at Sea

- 16 (a) As daily bag and size limits are to remain important management tools in recreational fishing management, filleting at sea should not be permitted in the Gascoyne Region.
- 16 (b) In line with existing Shark Bay rules, mackerel may be processed at sea by filleting if the skin is left attached to permit identification.

2.5 Resource Sharing*Recommendation 17 - Important Recreational Fishing Areas*

The following areas should be recognised as being of prime importance as recreational fisheries and should be the focus of any resource sharing negotiations with commercial sector:

- Area extending from the high water mark to a distance of 3 nm off-shore from 24^o 42' south extending north to the boundary of the Gascoyne Region (near the Ashburton River).
- Eastern inner gulf of Shark Bay.
- Western inner gulf of Shark Bay.

Future management decisions such as those affecting resource allocation and access should give prime consideration to recreational fishing values in these areas. The importance of these fishing areas to recreational fishers must also be given due consideration in all planning/development processes.

Recommendation 18 - Recreational Fishing Only Areas

The following key sites should be designated as 'recreational fishing only' areas and

commercial line fishing for finfish species should be prohibited in them:

- *Carnarvon area*
One-Mile Jetty – to a distance of 100m around the jetty.
Coral Patch (25°15.812 S, 113° 46.845 E) – to a distance of 1nm.
Tyre Reef/Lady Joyce wreck (25°02.788 S, 113°32.390 E) – to a distance of 1nm.
- *Exmouth area*
Y Island
Muiron Islands – this was not raised in the Gascoyne discussion paper (Fisheries Management Paper No. 124) and will require further discussion with the commercial fishing sector.
- *Shark Bay area*
Bernier/Dorre Islands – the zone identified in the ‘Shark Bay World Heritage Property - Management Paper for Fish Resources’ (Fisheries Management Paper No. 91) as a recreational fishing only area.
Steep Point – extending 800m from the shore.

Recommendation 19 - Management of Total Finfish Take

- 19 (a) To complement the new recreational management arrangements and prevent any unmanaged shift in resource shares, ‘open access’ commercial fishing for finfish species should be brought under management.
- 19 (b) An integrated regional management plan should be developed to ensure a share of fish resources are allocated to the recreational sector to protect the quality of recreational fishing the Gascoyne region.

Recommendation 20 - Aboriginal Fishing

Management issues involving traditional, cultural, and subsistence fishing in the region should be addressed as part of the Aboriginal Fishing Strategy.

2.6 Improving the Quality of Recreational Fishing

Recommendation 21 - Low Impact Wilderness Fishing Experiences

The Department of Fisheries should consult with landowners from Gnaraloo and Waroora stations, and Dirk Hartog Island, to identify trial areas to be promoted as wilderness recreational fishing areas. Education strategies should promote a low take philosophy and the trials should be monitored to assess benefits and community support.

Recommendation 22 - Fishery Enhancement

- 22 (a) Future approvals for the establishment of artificial reefs should consider requirements for a monitoring program to evaluate impacts on fish populations.
- 22 (b) A trial restocking program for pink snapper should be undertaken in Shark Bay, provided it can be demonstrated that it presents no major risks to the remaining snapper population and that monitoring programs can be put in place to assess the likely effectiveness of restocking.

Recommendation 23 - Identify and Protect Key Fish Habitats

As a priority, the Department of Fisheries should take steps to identify important fish habitat areas and Government should implement safeguards to ensure that these are protected from environmental degradation.

Recommendation 24 - Bycatch

Bycatch action plans should be introduced for all commercial fisheries in the Gascoyne Region. Implementing bycatch plans for the Shark Bay Prawn Fishery, Shark Bay Scallop Fishery and the Exmouth Gulf Prawn Fishery should be a priority.

Recreational fishing methods that are wasteful and indiscriminate should not be permitted and community awareness programs should encourage recreational fishers to carefully release undersize and unwanted fish.

2.7 Improving Community Stewardship of Fish Resources

Recommendation 25 - Community Education and Awareness

A regional communications strategy for recreational fishing in the Gascoyne should be implemented to educate fishers about recreational fishing management, fishing ethics, conservation issues and conservation-oriented fishing behaviour, and research initiatives. This strategy should include the production of a comprehensive regional guide on recreational fishing.

Recommendation 26 - Additional Patrol Capacity

Additional resources should be dedicated to compliance in the Gascoyne including additional Fisheries Officers to provide:

- (i) A more visible and effective enforcement capacity.
- (ii) Education programs throughout the region.
- (iii) Coordination of an expanded Volunteer Fisheries Liaison Officer (VFLO) program.

As a minimum, the working group recommends that an additional four patrols (eight Fisheries Officers) be based in the Gascoyne for six months each year to cover the peak visitor season.

2.8 Community Consultation

Recommendation 27 - Recreational Fishing Representation

The Department of Fisheries should ensure representation of recreational fishing interests on all planning processes/committees in the region.

Recommendation 28 - Regional Recreational Fishing Advisory Committees

The Recreational Fishing Advisory Committee (RFAC) should review the role and structure of Regional RFACs in the context of regional management, with a view to rationalising and improving the efficiency of these arrangements.

2.9 Providing Adequate Resources for Improved Management

Recommendation 29 - Funding for Additional Management

- 29 (a) The Government should provide an additional ongoing financial commitment to meet the requirements of implementing this plan and funding management needs for recreational fishing state-wide.
- 29 (b) If Government does not agree to an additional commitment, the Minister for Fisheries must examine all options for securing proper funding. This must include the question of whether to introduce a state-wide recreational fishing licence and an examination of social equity issues (applicability, cost, concessions).
- 29 (c) Such a review should be predicated by a commitment from the State Government that:
 - (i) Funding from any new recreational licensing should be directed to the Recreational Fishing Trust Fund and used exclusively for recreational fishing.
 - (ii) It will not diminish the level of Government contribution to recreational fishing from Consolidated Funds.

SECTION 3 MEMBERSHIP AND TERMS OF REFERENCE

3.1 Membership

The Minister for Fisheries appointed the Gascoyne Recreational Fishing Working Group to develop proposals for a recreational fisheries management strategy for the region.

The working group is comprised of members representing a range of interests including tourism, conservation, commercial fishing and recreational fishing (including representatives of the three Regional Recreational Fishing Advisory Committees (RRFACs) in the Gascoyne Region), fisheries management and general community interests.

Chairman

Mr Doug Bathgate Gascoyne Development Commission

Committee members

Mr Rob Cooper	Carnarvon Regional Recreational Fishing Advisory Committee
Mr Andrew Cribb	Department of Fisheries
Mr Les Fewster	Denham RRFAC
Mr Ned Kelly	Exmouth RRFAC
Mr Russel McCarthy	Community representative
Mr Peter Meecham	Community representative
Mr Richard Patty	Commercial fishing industry
Mr Les Rochester	Recfishwest representative
Mr Craig Shankland	Conservation interests
Mr Kieran Wardle	Tourism interests
Mrs Kay Webber	Recreational Fishing Advisory Committee

Executive Officer

Mr Ian Curnow Department of Fisheries

3.2 Terms of Reference

1. To identify the key issues and development opportunities facing recreational fisheries in each region.
2. To prepare a draft five-year recreational fishery management strategy for the region, consistent with the strategic directions identified in the Coalition [Liberal/National Party] Fisheries Policy and the Recreational Fisheries Program business plan.

3. To identify management and resourcing needs, and possible funding strategies, for implementation of the plan.
4. To conduct extensive public consultation, including key stakeholders.
5. To make final recommendations to the Minister for Fisheries for the management of recreational fisheries over five years within that region.

SECTION 4 OVERVIEW OF PUBLIC SUBMISSIONS

The Gascoyne Recreational Fishing Working Group was pleased with the public response to the discussion paper *A Quality Future for Recreational Fishing in the Gascoyne*.

A total of 753 submissions were received – about 50 per cent from respondents in the Perth metropolitan area and 20 per cent from within the Gascoyne Region. A list of all individuals or organisations that provided a submission is contained in Appendix A.

The majority of individual submissions utilised the pro-forma response sheet. Most of the 25 submissions from organisations and some individuals provided detailed written submissions.

Organisations which responded included:

- Denham, Carnarvon and Exmouth Regional Recreational Fishing Advisory Committees.
- Recfishwest.
- 11 fishing clubs.
- five commercial fishing organizations.
- Department of Conservation and Land Management (CALM).
- Shark Bay Shire Council.
- Conservation Council of WA.
- Yamatji Aboriginal Corporation.

The working group considered all comments and took into account the frequency with which issues were raised, as well as discussing the validity of comments. The group also considered views and issues raised at a number of meetings held around the State, which included those at Carnarvon, Denham, Mandurah, Brookton and a number of venues in Perth.

A numerical summary of comments received against each of the proposals contained in the discussion paper is provided in Appendix B.

SECTION 5 ISSUES AND RECOMMENDATIONS

5.1 Key Principles for Recreational Fisheries Management

It is essential that in establishing a five-year recreational fishing strategy, a set of key principles to guide management decisions is clearly identified.

The current set of state-wide recreational rules is largely based on social standards and the limited biological information available when these rules were set in 1992. There have been considerable changes since then, both in increasing recreational fishing effort and the wider pressures imposed by a growing population and coastal development. This has led to increasing demands for changes to fisheries management at a local level.

While Western Australia's fish stocks are still in a relatively healthy condition, most stocks are being fished at their maximum and we have reached the point where the total catch by all users of the resource must be controlled. From the recreational sector's point of view, fishing rules must be designed to ensure sustainability and preserve fishing quality.

An essential element of this task is effectively limiting the total recreational catch, particularly as the sector continues to grow. If this is not achieved, we will see a continuing trend of declining fishing quality, both in the size of fish and numbers available for capture.

Clearly, for any benefits to be realised by the recreational sector, it is also necessary to manage the commercial take.

It is important that fisheries management take into account the biological characteristics of fish species, their abundance, and the level of fishing pressure on them. A key element of this plan is to encourage fishing across a range of species, permitting a higher catch of more robust species while limiting the take of vulnerable species.

In the past, management of recreational fisheries has tended to be reactive, focusing on issues once they reach a critical level. If we are to maintain healthy fisheries, it is important that management must recognise projected increases in fishing pressure as well as the impacts of planned developments in the region, which may increase the number of visitors or focus fishing pressure in certain areas.

Management controls need to be revised in the light of new information about fish species and stocks (i.e. their biological characteristics, abundance and level of fishing pressure on them). It will be some time before applicable information is available on many popular species targeted by recreational fishers.

In the absence of such knowledge, it is important that fisheries managers adopt a precautionary approach. This is in contrast with the existing situation, in which management may be subject to intense scrutiny to justify conservative management decisions that have been made without extensive research to support this need.

Management tries to accommodate a wide range of recreational aquatic user groups, with different values/requirements. These include local residents, visitors, boat-based fishers,

shore-based fishers, charter boat clients, spear fishers, game fishers seeking trophy fish, or fishers seeking a wilderness experience in which a pristine environment may be just as important as fishing quality.

A growing number of recreational fishers are not interested in obtaining their permitted bag limit, focusing instead on quality and enjoyment of their fishing and retaining a fish or two for a fresh meal. These fishers do not see bag limits as a target.

A key challenge for future management is to recognise and accommodate this range of values amongst recreational fishers, along with those of non-consumptive users of the aquatic resource, such as non-fishing recreational divers.

The vast majority of submissions (ranging between 89-99 per cent for each principle) recognised these requirements and agreed or strongly agreed with all of the key principles for recreational fisheries management proposed in the Gascoyne discussion paper (*Fisheries Management Paper No. 124*).

Recommendation 1 - Guiding Principles for Recreational Fisheries Management

Recreational fisheries management in the region should be based on the following key principles:

- A key aim should be to ensure that the biodiversity of fish communities and their habitats and sustainability of fish stocks are preserved.
- Fisheries management should be proactive and recognise projected increases in fishing pressure.
- Management should be based on the best available information and where the necessary information is unavailable a precautionary approach, which seeks to minimise risk to fish stocks and habitat, should be adopted.
- Fishing rules should acknowledge that equitable access to fishing opportunities across recreational user groups is important.
- The value of recreational fishing should be recognised and given proper weight in all planning processes.
- Fishing rules should be kept simple and, where possible and practical, made uniform across the region.
- Recreational fishing rules should be designed to limit the total recreational catch, as well as protect fish at vulnerable stages in their life cycle.
- The benefits from further management on the total recreational catch should flow back to the recreational sector and be reflected in improved fishing quality and sustainability.

5.2 Term of Plan and Review

There was strong support in the public submissions received (89 per cent of the total) for a proposed five-yearly review of this strategy.

Of the 11 per cent of submissions which disagreed with the proposal, many believed that five years was too long and suggested three years may be more appropriate, given the rate of change in the region. The working group believed this would not be practical because frequent reviews would stretch resources and the overall picture would become confusing if rules were changed too frequently.

The working group also noted that new catch survey information on which to base the review was likely to be available only every five years for the region, based on current resourcing.

Recommendation 2 - Five-Year Review

This regional management strategy should be reviewed every five years. Changes to recreational fisheries management within this period should occur only if there is compelling evidence that indicates a critical threat to the sustainability of fish stocks.

5.3 Information for Management

5.3.1 Data Collection

Public submissions indicated strong support (85 per cent of the total) for undertaking a regular major recreational catch survey, recognising that information on the recreational take was fundamental for management.

Of those who disagreed, many disputed the accuracy of surveys, noting sentiments along the lines of “I wasn’t interviewed so the catch figures can’t be right”. This highlighted the need for research results to be published in a timely manner, informing fishers not only of results, but how such surveys are undertaken. The Gascoyne Recreational Fishing Working Group also believes community participation in research programs, where practical and appropriate, would assist in this regard.

Regular and timely communication of results from research would encourage other anglers to participate in voluntary logbook programs and surveys. A number of voluntary logbook holders have remarked that they submit returns, but are unaware of the survey results that have been made possible by their provision of this information.

While recognising that this issue is in part linked to limitations on resources, the working group believed it was important it be addressed. Many recreational fishers are interested in the results of research surveys, particularly those who participate in research programs. Catch survey results must be available and widely disseminated as soon as possible. It is also important that updated catch information is available immediately before subsequent reviews of the Gascoyne recreational fishing strategy.

The majority of submissions (92 per cent of the total) supported the need for annual data collection programs, recognising the importance of accurate information on which management decisions can be based. Furthermore, they agreed that Fisheries Officers and volunteers should collect data, noting this would be an economical way to obtain information.

Some respondents also noted that this would increase interaction with fishers and fill a valuable education role. It was also suggested that schools and clubs could contribute to the research effort, provided it did not affect the integrity or quality of data collected.

Similarly, there was good support for expansion of the volunteer angler logbook program. Sixteen per cent of those opposed to this proposal expressed concerns about bias in such data, suggesting that only enthusiastic - and possibly more skilled - anglers complete surveys. However, analysis of research results can take into account such bias, and the working group believes it would provide useful additional information to monitor trends between major catch surveys.

The discussion paper noted the need for research on important recreational species and there was good support (89 per cent of the total submissions) for this proposal.

In addition to essential biological and stock assessment information on the proposed key species, the working group noted a range of other concerns and issues raised at public meetings and in submissions. These included:

- The need for continuation of current stock assessment research on pink snapper stocks within Shark Bay.
- The mortality associated with the catch and release of demersal species.
- The mortality rates of Spanish mackerel and other species released after being caught/played on light fishing gear.

The importance of identifying and protecting key fish habitat and nursery areas was also recognised to counter pressures from increasing population growth and coastal developments.

Recommendation 3 - Major Catch Survey

- 3 (a) A major recreational catch survey should be undertaken every year for a minimum of three years to establish a baseline data set on recreational fishing in the Gascoyne.
- 3 (b) The catch survey should be repeated every five years at a minimum to provide detailed information about the spatial and temporal distribution of recreational activity and catches on which to base management decisions.

Recommendation 4 - Annual Data Collection Program

Fisheries Officers and volunteers collect data on a number of key indicator species as part of their patrols to provide an index of trends in recreational fishing in the years between five-year catch surveys.

Recommendation 5 - Volunteer Angler Logbook Program

The Department of Fisheries expand the voluntary anglers' logbook program in the Gascoyne Region to provide additional monitoring between major catch surveys.

Recommendation 6 - Research Planning

Research projects on recreational fishing must address identified management needs and research results communicated to client groups in a timely manner.

Recommendation 7 - Priorities for Research

Research on the following key recreational species in the Gascoyne be undertaken to provide information on species biology and stock structure. Predictive fisheries stock assessment models and, where practical, indices of recruitment, should then be developed for these key species:

- Pink snapper (*Pagrus auratus*).
- Spangled emperor (*Lethrinus nebulosus*).
- Black snapper (blue-lined emperor – *Lethrinus laticaudis*).
- Red emperor (*Lutjanus sebae*).
- Baldchin groper (*Choerodon rubescens*).
- Spanish mackerel (*Scomberomorus commerson*).
- Cods – estuary, Rankin (*Epinephelus coides*, *Epinephelus multinotatus*).
- Coral trout (*Plectropomus* spp.).
- Black spot tuskfish (*Choerodon schoenleinni*).
- Mulloway (*Argyrosomus hololepidotus*).

Research programs should also be established to gain information on:

- Mortality associated with the catch and release of demersal species and the effectiveness of size limits as a management tool for these species.
- Mortality of Spanish mackerel and other identified species taken on light fishing gear.
- Identification of key fish habitat and nursery areas in the region.
- Continuation of stock assessment of pink snapper in the eastern and western gulfs of Shark Bay.

5.3.2 Fishing Quality Indicators

In the absence of detailed information on the biology of species or status of many stocks, management has tended to be reactive as problems arise. The Gascoyne Recreational Fishing Working Group proposed that a range of fishing quality indicators should be developed to monitor recreational fishing in the Gascoyne and used to measure the effectiveness of management. The proposal was supported in a majority of submissions.

The working group believes that information should be collected on a range of significant species that are recognised as important fishing attractions in the Gascoyne. This grouping of ‘significant species’ should incorporate a mix of ones that are highly sought by boat, dinghy and shore-based fishers and include:

- pink snapper
- black snapper
- spangled emperor
- red emperor
- baldchin groper
- Spanish mackerel
- estuary cod
- coral trout
- whiting
- trevally

Quality and diversity indicators should encompass a range of factors including: the level of fishing activity; fishing success of anglers; the relationship of catches to bag limits; the range and number of species caught per trip; and the range of sizes for each key species caught. Value indicators should encompass participation levels in recreational fishing, the number of days fished, and expenditure by fishers.

This information could be collected by Fisheries Officers and VFLOs during patrols and also incorporated into other surveys (e.g. phone polls).

Recommendation 8 - Fishing Quality Indicators

The Department of Fisheries should develop a range of ‘fishing quality indicators’ based on angler surveys to identify and monitor trends in fishing quality in the region which can be used to review the effectiveness of management strategies.

These indicators should encompass fishing quality, diversity and the value associated with the recreational fishing experience. They should incorporate information such as: average daily catch; range of species caught; average size of key species; and a measure of enjoyment or value of the fishing experience, as well as economic data such as expenditure per fishing day/trip.

5.4 Protecting Vulnerable Fish and Managing the Recreational Catch

5.4.1 Regional Review Process

The Gascoyne Recreational Fishing Working Group noted from comments in a number of submissions and at public meetings that the purpose of this review is not clearly understood.

The major aims of the regional review process are to:

- Review the appropriateness of current controls, given the significant growth in recreational fishing.
- Ensure that effective controls are in place on the recreational fishery that contribute to sustainable management.
- Position recreational fishing so it can be incorporated into an integrated management framework in which resource sharing issues can be addressed.

One of the major drivers of the Gascoyne review is to clearly define - for the first time - the objectives of recreational fishing management in the region and provide guiding principles and priorities for management during the term of this and subsequent strategies.

5.4.2 Reviewing Appropriateness of Current Controls

The current set of state-wide bag limits, which have been in place since the early 1990s, are essentially 'social limits'. That is, they are largely based on what was deemed at the time to be a fair and reasonable catch and are not expressly linked to the biology or abundance of species or the level of fishing pressure.

Recreational fishing has undergone significant growth over the past decade, both in the number of participants and fishing effort. Participation has more than doubled from 287,000 (in 1987) to an estimated 600,000 fishers. Perhaps more significantly, people are fishing more often and over the same period (i.e. 1987 to today) effort has more than tripled, from three million fishing days to 10 million fishing days.

Even assuming participation and effort rates remain constant, the recreational fishing sector will continue to grow with population increases (Figure 1).

Fishing effort in the Gascoyne Region is also significant. Preliminary results from the 1998-99 creel survey (Sumner, Williamson and Malseed) indicate the numbers of days fished by recreational fishers in the Gascoyne were:

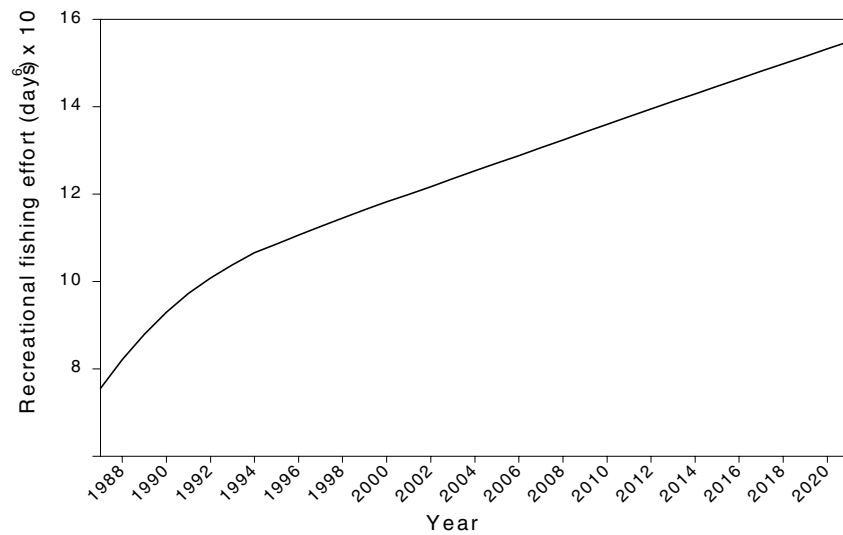
<i>Type of fishing</i>	<i>(No. of days fished a year)</i>
Fishing from boats launched at boat ramps:	119,000
Fishing from small dinghies launched across beach	69,000
Fishing from shore:	<u>204,000</u>
TOTAL	392,000

If each of these recreational fishers had caught their daily bag limit of fish - or even the limit for a particular species - on every one of these fishing days, the total numbers of fish caught would have far exceeded the size of fish stocks in the entire Gascoyne Region. This figure is consistent with information from earlier surveys that indicate that the Gascoyne attracts between six and ten per cent of the total population of recreational fishers in the State each year.

Charter boat effort is not included in these figures, but preliminary estimates from applications for fishing boat charter licences indicate that there are 28 vessels based permanently in the region and a further 55 which access the area seasonally.

In recent years, anecdotal reports (Weaver 1998) point to declining fishing quality, particularly in key visitor areas. The impact of over-fishing by recreational fishers on pink snapper stocks in Shark Bay is well known (Fisheries WA 2000) and increasing pressure from recreational fishing in the Gascoyne has seen the implementation of separate rules in Ningaloo in 1992 and Shark Bay in 1997. The proposal for a large-scale development at Mauds Landing (Coral Bay) would undoubtedly generate a significant increase in fishing pressure.

Figure 1 Future projection of recreational fishing effort



Assumptions

1. The mean number of days fished per recreational fisher is 18 per year (Baharthah and Sumner 1999).
2. For years 1987 to 1999, the participation rate was estimated by fitting a curve to the participation rates for 1987, 1994, 1997 and 1999. After 1999, the participation rate was assumed to be constant and was set to the rate of 0.34 estimated by Baharthah and Sumner 1999.
3. The population projections were based on Australian Bureau of Statistics (1998b).

The distribution of this effort across the region and by fishing type (boats launched from ramps, beach launched dinghies or shore fishers) is provided in Figure 2.

Figures 2(a-d) Distribution of recreational fishing effort in the Gascoyne.

Figure 2a

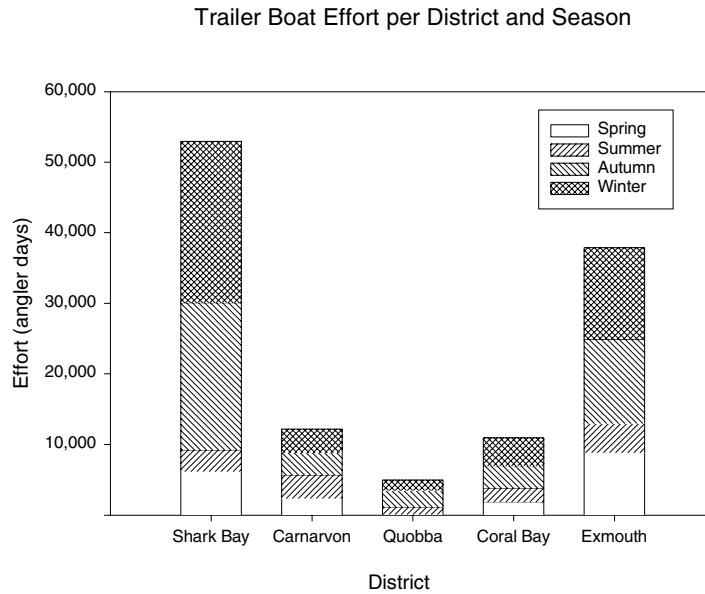


Figure 2b

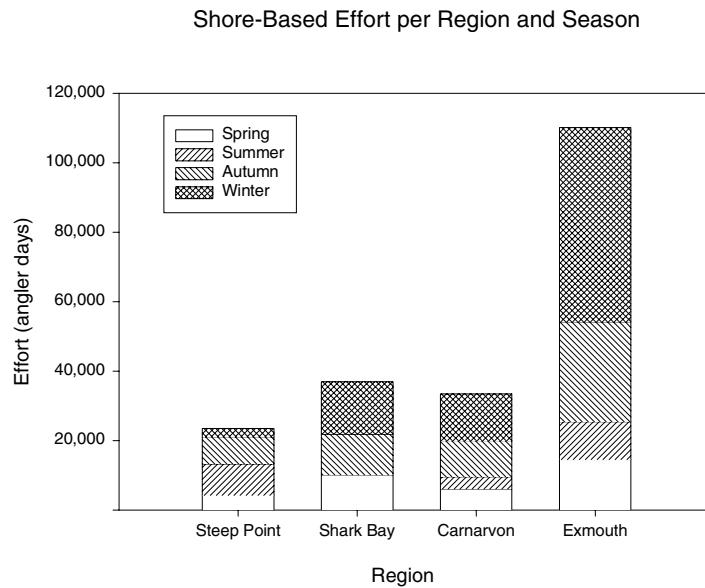


Figure 2c

Shore-launched Boat Effort per Region and Season

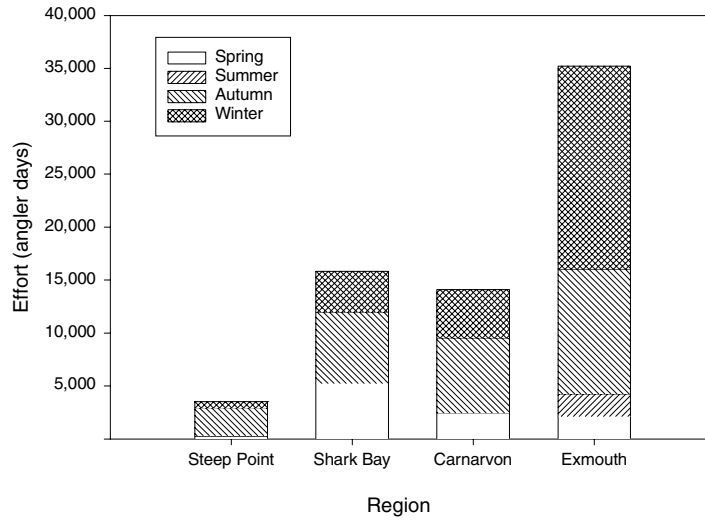
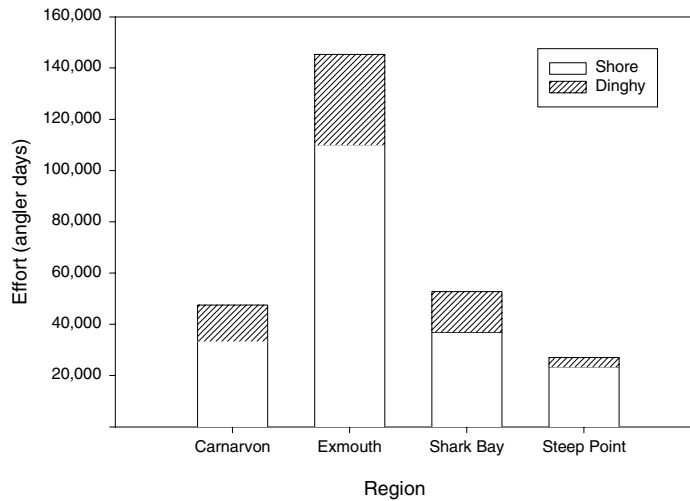


Figure 2d

Shore-based and Dinghy-based Effort per Region



5.4.3 Ensuring Recreational Fishery Controls Contribute to Sustainable Management

There is a clear need to shift the focus of recreational fisheries management from widely accepted ‘social limits’ to a more effective set of controls that contain the recreational catch within an integrated management approach aimed at long term sustainability.

The new approach will need to incorporate principles of Ecologically Sustainable Development (ESD) and consider a range of biological (stock status), ecological (ecosystem requirements) and social (resource shares reflecting community values) factors.

Bag limits are one of the major tools used to help control the recreational fisheries catch. As such, the primary basis for a recreational bag limit framework should be an assessment of the level of risk of over exploitation of each species.

For recreational bag limits and other controls to be effective, they must be based on an assessment of the level of risk of over exploitation of fish species. This risk assessment should incorporate a range of factors including:

- abundance;
- distribution;
- biology (fecundity, growth rates);
- behavioural traits (e.g. aggregations); and
- level of targeting by fishers (eating/fishing qualities).

It will also need to take into account the impacts of other user groups on the fish stock.

Species at a high level of risk will require intensive management, including greater research and the use of more restrictive tools that contain the recreational catch. This already occurs in the Perth metropolitan abalone fishery where fishers are restricted to a total of nine hours fishing each year (comprised of six fishing days, each of one and a half hours duration) in addition to possession and minimum size limits.

In some instances, management may need to establish and maintain a Total Allowable Recreational Catch (TARC), particularly for high-risk species. It is likely that this scenario will become more common in the future and a range of more restrictive management tools may be required to achieve this.

In the extreme this could involve the issue of limited numbers of tags or licences. For example, following registration or purchase of a licence, fishers would be issued a prescribed number of tags – one tag equates to one fish.

Such a system is used overseas for game hunting and is also used in recreational fisheries in Canada and the United States. While the most effective combination of controls should be adopted for each region, this must be balanced against the need to keep recreational controls as simple as possible.

The working group noted concerns that if each regional review was to develop a completely different bag limit structure, the state-wide system of bag limits could become extremely complex and make education and compliance difficult, particularly given the large and diverse nature of the recreational fishing sector.

The working group believes that a standard template for bag limits should be developed, which can be adapted to suit each region. It has recommended that a three-tiered bag limit structure be adopted, and species categorised based on whether stocks are at a high, medium or low risk of over exploitation.

Fish in high risk categories will likely require a higher level of management (in terms of research and controls required to contain the catch to sustainable levels) than those categorised as low risk (Table 1). A fourth category, which includes those species that are currently totally protected, would complete the framework.

In order for the benefits of regional management to be realised, numerical limits associated with each category (both mixed bags and individual species limits) may vary between regions, depending on abundance and level of fishing pressure. Bag limits for a particular species may have to be lower in regions where there is more fishing pressure or pronounced impacts on habitat/environment, which affect abundance.

The risk of over exploitation of various species will change over time and management will need to be reviewed in light of future changes in stock status, fishing pressure, environmental conditions, and community opinion on the best use of a particular fish stock.

Ideally, the establishment of biological reference points for particular species, which trigger predetermined management actions, is required. However, in reality this information will not be available for all species and it may be some time before it is collected for many species.

A range of alternative management triggers may need to be developed in the absence of such data – such as trends in effort, catch, catch structure, catch composition and change in stock structure, fishing practices and social values.

Realistically, it will be some time before much of this information is known for many species, but with a risk assessment management framework in place, information can be added as knowledge increases.

5.5 Incorporating Recreational Fishing into an Integrated Management Framework

There is a clear need to develop integrated management to counter inevitable pressure on fish stocks from a growing population and increasing coastal development. The broader issue of how fish resources can be best managed and shared between competing users must also be dealt with if we are to ensure the sustainability and quality of WA's fisheries.

Before we can look at dividing up access to available fish resources between user groups, we need to establish a basis for comparability between the different sectors. While

commercial fisheries management plans already operate in defined areas, this is difficult under the current state-wide system of management for recreational fisheries.

The Department of Fisheries believes a regional approach will be better able to link management to the biology and distribution of fish stocks, and use of those stocks by the recreational and commercial fishing sectors. This will enable the determination of sustainable catch levels and allocation of catch shares in line with management priorities in each region.

The implementation of the Gascoyne recreational fishing management strategy is therefore a key 'first step' in this process.

Table 1 Risk management framework for recreational fisheries management

GROUP	RISK (vulnerability to overexploitation)	Nature of risk	CONTROLS (which may be required)	Level of management needed
PROTECTED FISH	Very high		Total protection Individual	
CATEGORY 1 Low abundance Low catch rates Slow-growing, long-lived Low fecundity Behavioural traits (eg distribution – inshore/offshore, aggregations, Highly valued eating/fishing qualities Offshore, reef species	High		Size limits Species bag limits Mixed bag limits Possession limits Gear restrictions Licences Quotas	←
CATEGORY 2 Medium abundance Valued eating/fishing qualities Inshore species	Medium		Size limits Species bag limits Mixed Bag limits Possession limits Gear restrictions Licences	Catch quota - TARC
CATEGORY 3 High abundance High catch rates Fast growing High fecundity Inshore/estuarine species	Low		Size limits Species bag limits Mixed bag limits Gear restriction	Catch quota - TARC <div style="border: 1px solid black; padding: 2px; display: inline-block;">Cost of research and management</div>

NOTE: The specific characteristics and tools listed in the table are indicative only (and should not be seen as mutually exclusive)

5.6 Managing the Recreational Catch

5.6.1 Bag Limits

The initial Gascoyne recreational fishing discussion paper (Fisheries Management Paper No. 124) proposed a new bag limit table be applied uniformly across the region. A two-tiered structure was proposed in the discussion paper, comprised of Prize Fish (with a mixed daily limit of seven fish) and Table Fish (mixed daily bag limit of 30 fish).

This structure was supported in 56 per cent of submissions. Comments by respondents who did not support the structure, along with working group’s response, are summarised below in Table 2.

Table 2 Common views raised by submissions opposed to changing current bag limits

Comment	Working Group response
<i>Don't need to change current bag limits if possession limit introduced.</i>	<ul style="list-style-type: none"> Disagree – noting there are already four sets of different rules in Gascoyne and targeting of single species will still lead to localised depletion, particularly for demersal or resident reef species. A new bag limit structure that focuses on the status of stocks and vulnerability of species to over fishing is required.
<i>Seven Prize Fish insufficient each day – total Prize Fish bag limit should be 10 fish or 13 fish (each category added 1+2+4+6).</i>	<ul style="list-style-type: none"> Bag limit of seven Prize Fish a day is ample for recreational needs – particularly given the large size of these species in Gascoyne. Catch survey data shows that the vast majority of fishers do not catch seven Prize Fish in one day. This limit also helps share the recreational catch more evenly among all fishers. Key Angling Fish and Table Fish can be taken in addition to Prize Fish category.
<i>Too confusing, need simpler structure.</i>	<ul style="list-style-type: none"> Agree with principle that structure should be as simple as possible. However, working group had difficulty simplifying structure while still adequately protecting vulnerable species from over fishing. Structure must encourage fishing across a range of species to avoid local depletion issues.
<i>Table Fish daily bag limit should be 40 or 50.</i>	<ul style="list-style-type: none"> Working group believes 30 Table Fish provided more than enough fish for a number of fresh feeds, and will help share available catch among all recreational fishers. The addition of a new category, Key Angling Fish, provides additional flexibility in this regard.
<i>Need to cover cost of holiday.</i>	<ul style="list-style-type: none"> Working group clearly disagreed – recreational fishing is not a commercial activity and enjoyment should be the primary motivation. If paying for the ‘trip’ was the rationale for fishing in the Gascoyne, it would be far cheaper to stay at home and buy fish. Given increasing pressures on fish stocks, we cannot afford to have a minority of fishers taking excessive amounts of fish based on the premise that they need to do this to ‘pay’ for their holiday”.

Alternatively, some respondents believed the proposed bag limits were still too liberal, noting:

- The proposed bag limits still allow for excessive catches of fish and wastage.
- The proposed bag limits are still too high: catching two to four of the relatively large fish readily available in the Gascoyne is ample for a daily feed and allows fishers to accumulate some fish to take home.
- A lower bag limit will ensure continued good fishing in the years to come.

As indicated above, there are wide-ranging views among the recreational sector on fishing controls and the challenge for fisheries management is to accommodate the majority of these views where possible. However, the primary aim must be to ensure an *effective* set of controls, which in conjunction with management of commercial fisheries and other user groups ensures sustainability of fish stocks.

The working group believes that the current bag limits for many species are too high, given the significant growth in recreational fishing effort in the Gascoyne. Fishers rarely achieve these limits for the proposed categories of Prize Fish, Key Angling Fish and Table Fish (see Figure 3).

Even in the Carnarvon area (where state daily bag limits apply which currently allow for eight Prize Fish plus eight Reef Fish), the 1998/99 Gascoyne catch survey (Sumner, Williamson and Malseed, *in press*) indicates that only about 15 per cent of boat fishers catch more than seven fish per day (as per the Prize Fish category/bag limit proposed for the Gascoyne Region in this document – see Appendix C).

To be effective, bag limits must relate to achievable catches by the majority of fishers.

Figures 3(a - f) Average number of fish kept daily by recreational fishers in the Gascoyne by category and location

Figure 3a Average number of Prize Fish kept daily by recreational boat fishers in the Gascoyne

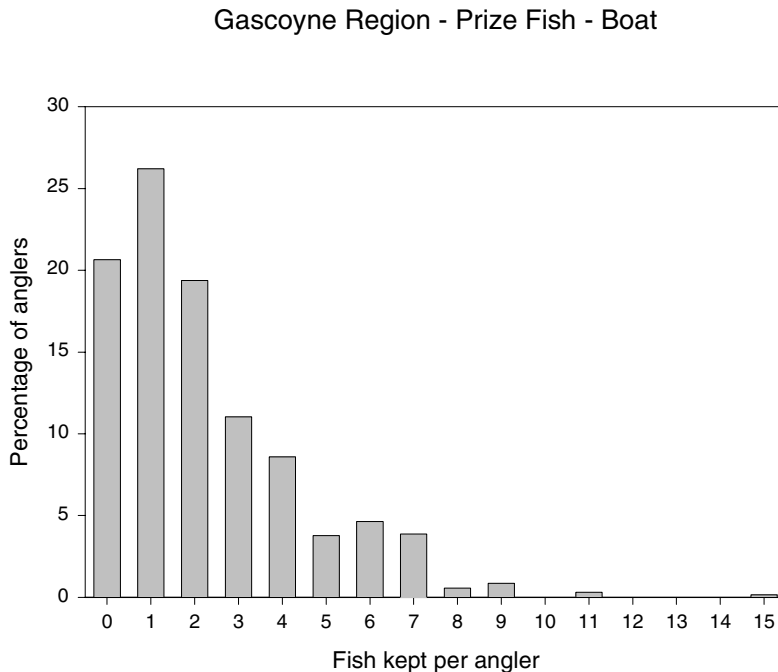


Figure 3b Average number of Prize Fish kept daily by recreational dinghy fishers in the Gascoyne

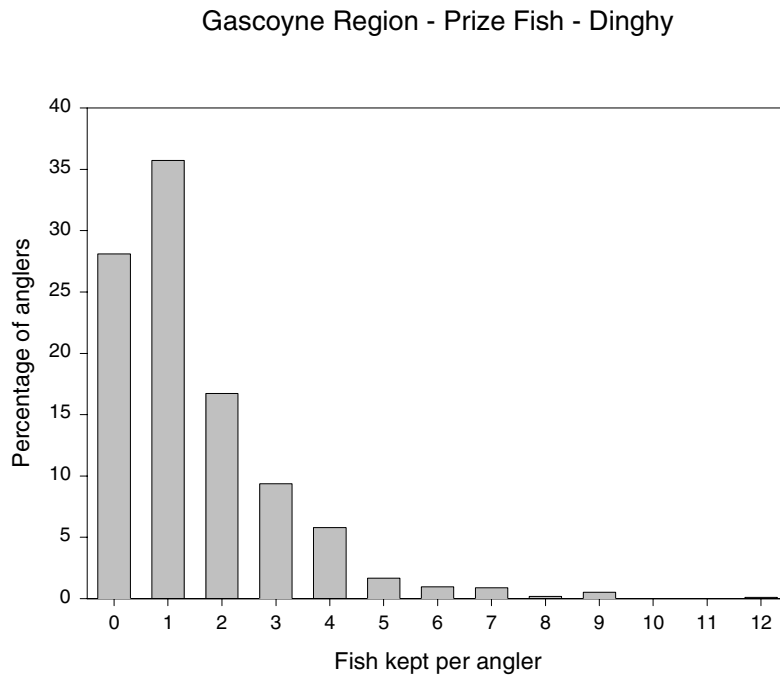


Figure 3c Average number of Prize Fish kept daily by recreational shore-based fishers in the Gascoyne.

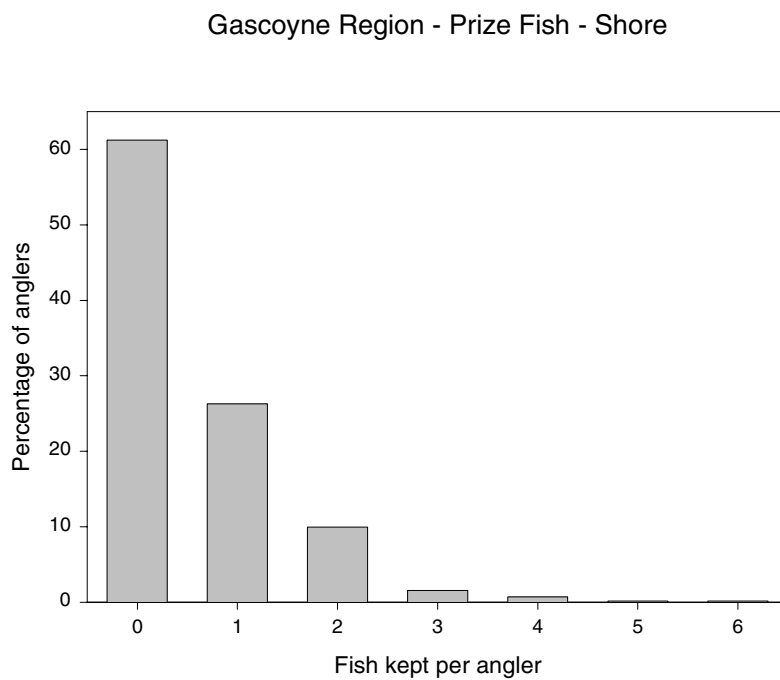


Figure 3d Average number of Key Angling Fish kept daily by recreational shore-based fishers in the Gascoyne

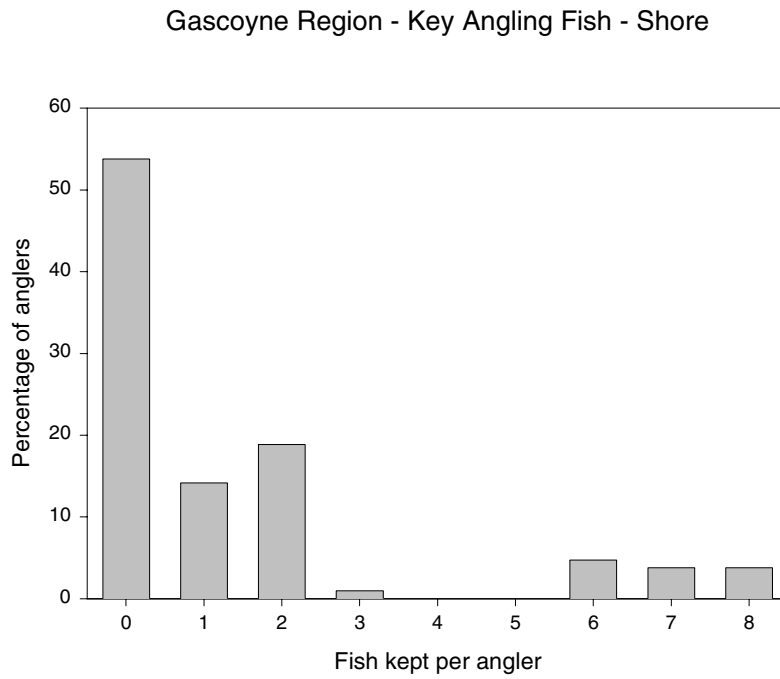


Figure 3e Average number of Table Fish kept daily by recreational boat fishers in the Gascoyne

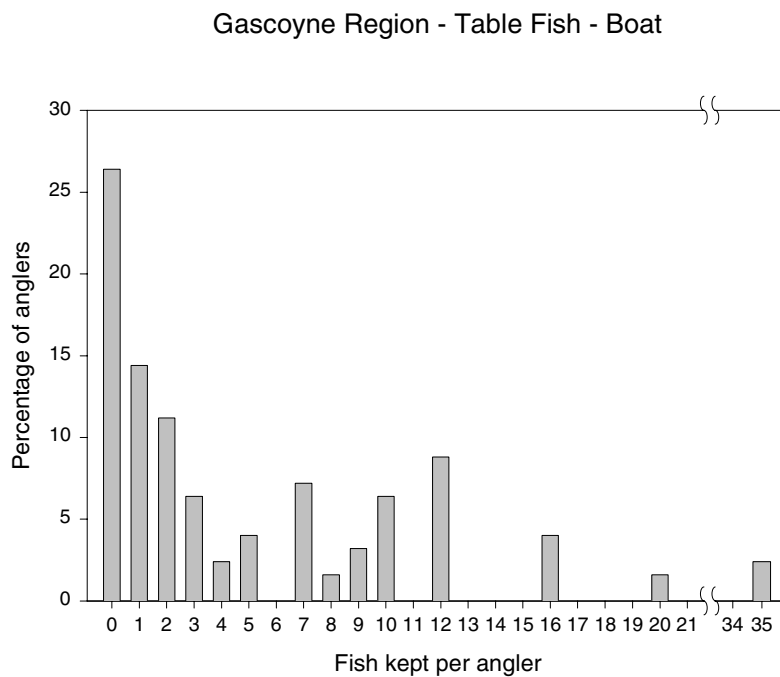
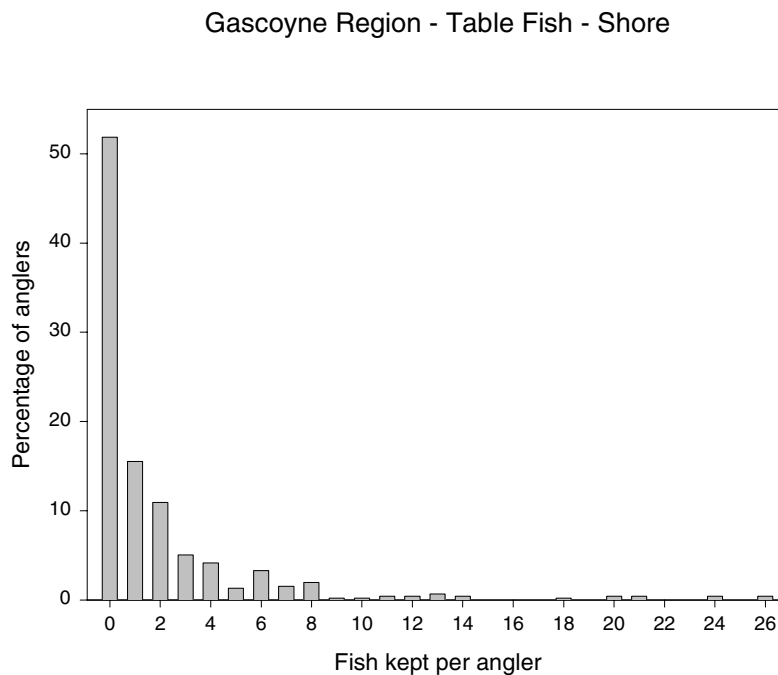


Figure 3f Average number of Table Fish kept daily by recreational shore-based fishers in the Gascoyne



5.6.2 Species Limits

It is important that fisheries management takes into account the biology of species, their abundance and fishing pressure on them. A key element of this proposed management strategy is to encourage fishing across a *range* of species, permitting a higher take of robust species and limiting the take of vulnerable species.

Species bag limits provide an important tool to avoid over-fishing by ensuring that fishers cannot target all their effort on a single species. The collapse of pink snapper stocks in the eastern gulf of Shark Bay provides a stark example of what can happen fishers concentrate on catching a single type of fish.

A number of submissions to the Gascoyne Recreational Fishing Working Group did not support the proposed reduction in species bag limit for many species from four to two, unless there was data to show why this should happen. It will be some time before comprehensive information on the recreational fish catch is available, but the 1998/99 Gascoyne catch survey (Sumner, Williamson and Malseed, *in press*) clearly illustrates that current bag limits are not achievable by the vast majority of recreational fishers.

It is important to recognise that the species limits now in place are not set explicitly on any biological basis (perhaps with the exception of the new pink snapper limits in Shark Bay, as considerable research has been carried out on the inner gulf stocks in this area). Furthermore, in the last decade participation in recreational fishing state-wide has doubled and effort (days fished) more than tripled.

These trends, coupled with advances in fishing technology (i.e. in boats, electronic fishing aids, braided line and chemically-sharpened hooks), mean the recreational catch is likely to have increased significantly during this period.

The proposal to reduce the bag limits of many key species (e.g. Spanish mackerel, spangled emperor and pink snapper) would not affect the majority of fishers because they do not catch these limits anyway (see Figures 4a-d). Similarly, the proposed reduction in pink snapper daily bag limits (outside inner gulfs of Shark Bay) from eight to six fish would affect about 15 per cent of anglers. However, reducing species bag limits in size will align them more with achievable catches, so that these limits can actually be used as a catch management measure.

Regular collection of information on the recreational catch (see Recommendation 3) will enable comparisons to be made with the commercial catch, and future management decisions may then be made on the basis of the combined catch so as to ensure sustainability and maximise the community benefit from the use of fish resources in the region.

It should be noted that both the number of fishers and number of days fished in the Gascoyne are predicted to increase and the recreational catch will therefore continue to grow until the limits of the sustainable take of fish are reached or exceeded. However, the total catch will be shared among a larger number of participants – resulting in reduced fishing quality for individual anglers and perceptions of diminished fish stocks. Future increases in recreational catch will require further management of recreational fisheries or, alternatively, a shift in resource shares negotiated with the commercial fishing sector.

Figures 4(a - e) Average daily take of key species by recreational fishers

Figure 4a Average daily take of narrow-barred Spanish mackerel by recreational boat fishers in the Gascoyne

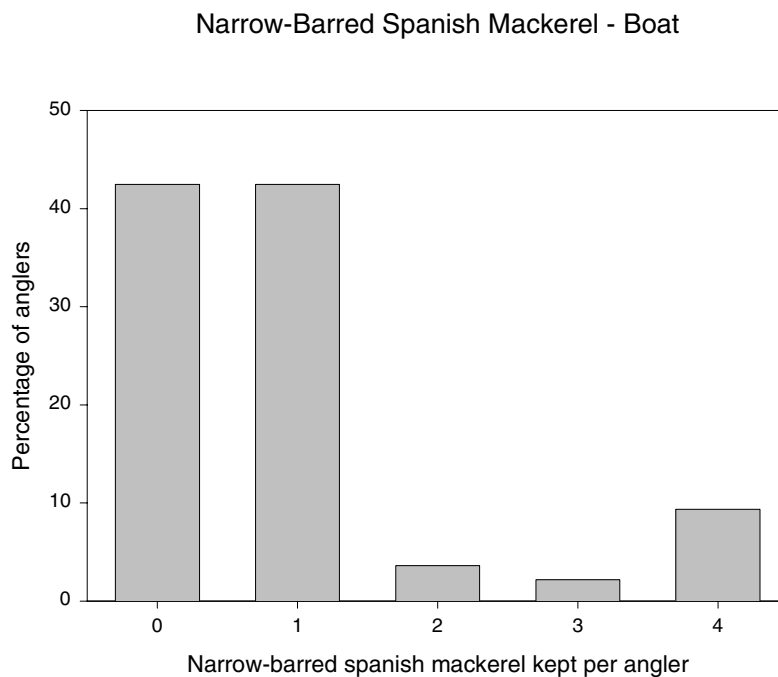


Figure 4b Average daily take of pink snapper in Shark Bay's western gulf by recreational boat fishers

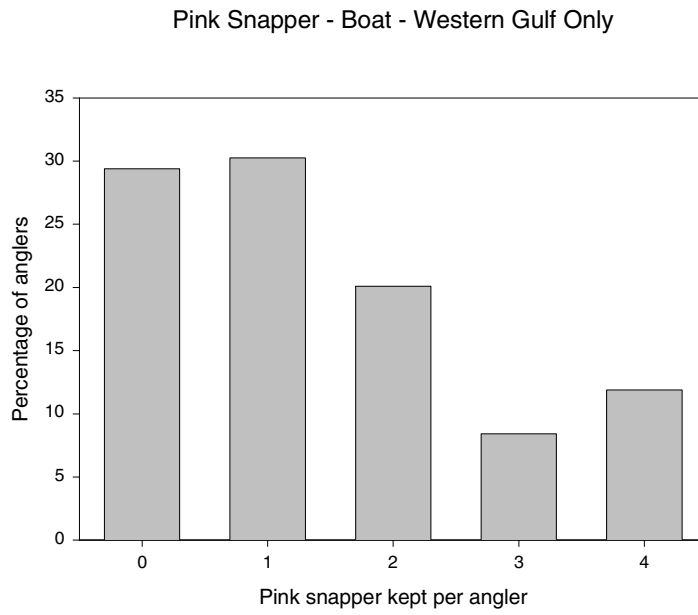


Figure 4c Average daily take of pink snapper outside of the inner gulfs of Shark Bay by recreational boat fishers in the Gascoyne

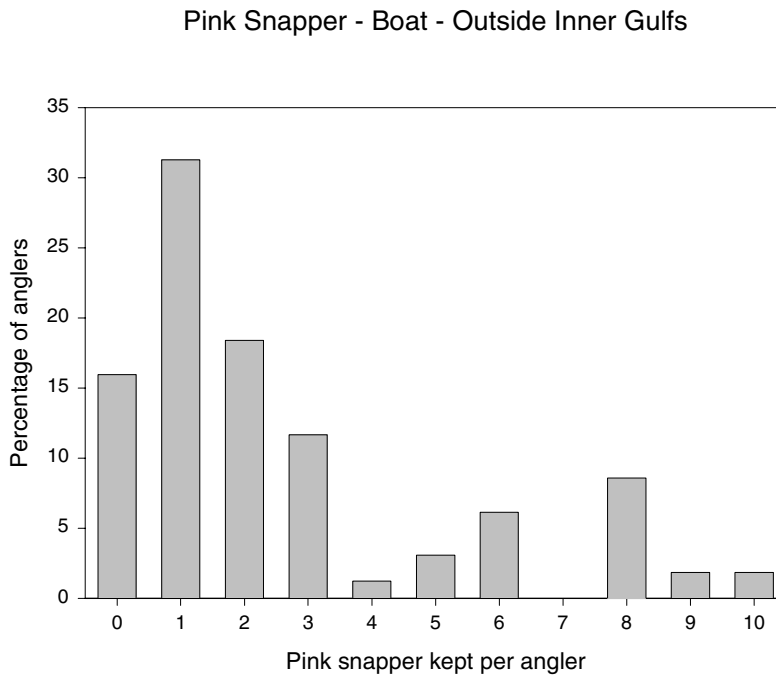


Figure 4d Average daily take of spangled emperor by recreational boat fishers in the Gascoyne

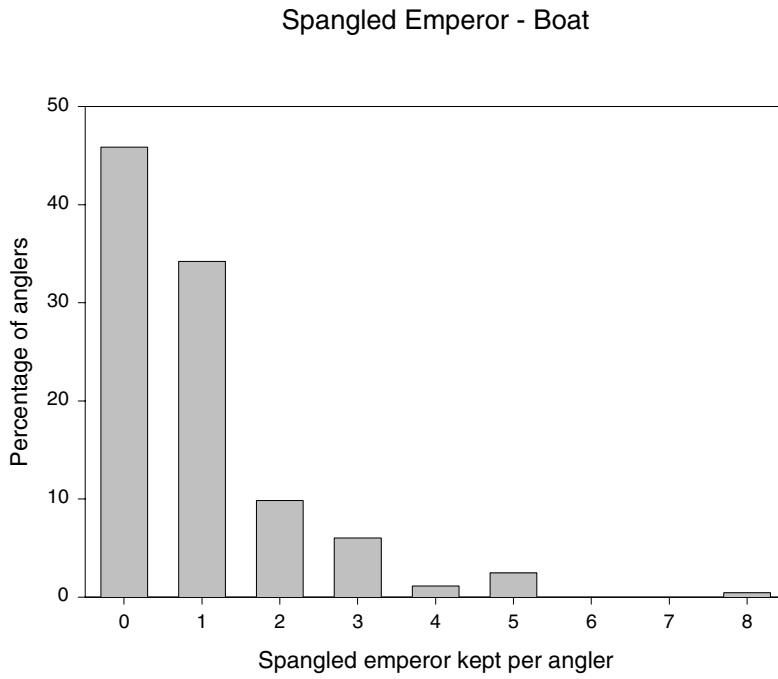
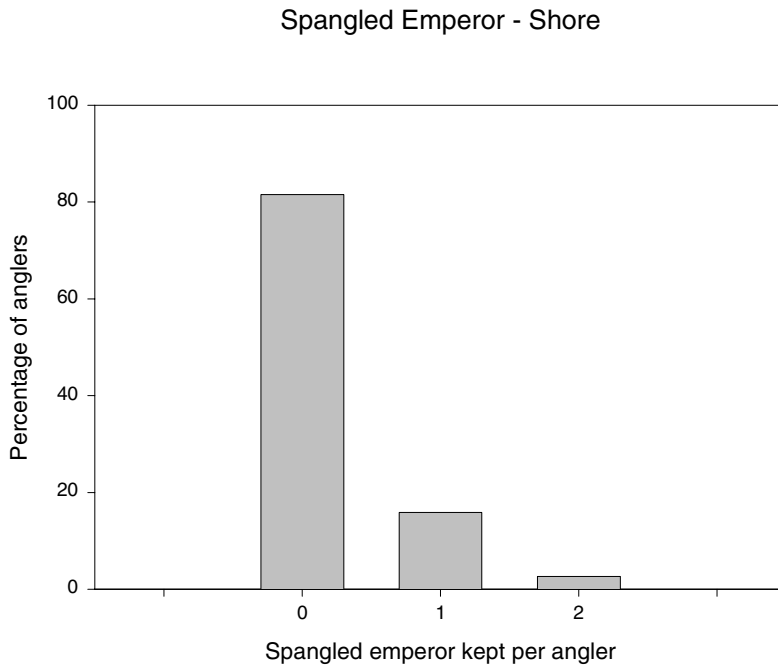


Figure 4e Average daily take of spangled emperor by recreational shore-based fishers in the Gascoyne



Recommendation 9 - Bag Limits

- 9 (a) A mixed daily bag limit of seven Prize Fish, 10 Key Angling Fish, and 30 Table Fish apply to recreational fishers in the Gascoyne, as specified in the daily bag limit table.
- 9 (b) The take of live coral, live rocks and live specimen shells should be prohibited.

BAITFISH, CRUSTACEANS, SHELLFISH		
Many crustaceans and shellfish are highly prized for their eating qualities, and susceptible to local depletion. Baitfish, while abundant, should not be taken in commercial quantities or in such quantities that recreational fishers waste them.		
Species	Daily bag limit	Boat limit
Baitfish (including fish of the Family Clupeidae and Engraulidae)	9 litres (plastic bucket)	
Rock lobster	8 (not more than 4 tropical rock lobster)	16 (not more than 8 tropical rock lobster)
Crabs – blue manna – mud – other	20 5 (possession limit) 10	40 10 20
Prawns	9 litres	
Octopus, squid, cuttlefish	15	30
Abalone	20 (possession limit)	
Shellfish (taken for consumption or bait)	Mixed bag of 50	
Live coral, rocks	Protected	
Live specimen shells	Protected	

5.6.3 Possession and Trip Limits

There is no doubt that in the past Western Australians enjoyed the luxury of catching large quantities of fish on fishing trips and giving significant quantities away to friends and extended family members. The Gascoyne Recreational Fishing Working Group believes this practice is no longer sustainable, due to the increasing pressures on our fish stocks. An effective method of controlling the recreational take must be implemented to ensure sustainable stocks and fishing quality in the future.

The working group recognises that daily bag limits alone cannot effectively constrain the total recreational catch. Participation rates are increasing, as are the average number of days fished each year by recreational fishers, resulting in a significant increase in the potential number of bag limits which can be taken.

Possession limits specify the total number or weight of fish or fillets people may have in their possession at any given time. As such, they provide a more effective way than daily bag limits of controlling the amount of fish that can be taken by each fisher.

The working group proposed a possession limit as a key tool to control the total catch of the recreational sector. This proposal, which was supported by 59 per cent of submissions, suggested a 'Ningaloo-style' possession limit in the Gascoyne of:

- 17 kg of fillets; or
- 10 kg of fillets plus one day's bag limit of whole fish; or
- two days' bag limit of whole fish.

The three options of fillets and/or whole fish provide flexibility so that recreational fishers can choose how to store their catch.

Of the 40 per cent of submissions that disagreed with the proposed possession limit, the major comments made in them (and the associated working group responses) were:

Comment	Working Group response
<i>Possession limits are unfair on visitors, particularly on once-a-year fishers.</i>	Proposed limit of 20 kg provides 100 large servings (200 g) of fish. For a family of four, this represents one meal a week for six months.
<i>Possession limits are not large enough – one or two large mackerel equals 20kg of fillets.</i>	Anything above 20 kg promotes wastage. The option remains for fishers to treat mackerel as ‘parts’ of whole fish – and retain 10 kg of the limit for fillets of other fish species.
<i>17kg is a weekly amount – which is unfair on visitors who stay for several months.</i>	A possession limit is the amount of fish in possession at one time. It therefore represents a ‘take-home amount’ at the end of a visit. In all likelihood, visitors could enjoy many more fresh fish meals than 17 kg while on holiday and may still take this amount of fish home.
<i>A fisher could catch the possession limit in one day – what to do for rest of holiday?</i>	The choice remains with the fisher as to whether to keep every legal-sized fish caught or only keep a few fish each day and reach the limit over a number of days. We believe possession limit is very equitable as each fisher is limited to same ceiling, irrespective of length of their holiday.
<i>Locals can catch this quantity all-year-round.</i>	Gascoyne residents would still be restricted to the same possession limit at any one time as visitors. There is less incentive for ‘locals’ to catch this amount as they have greater opportunity to catch fresh fish.
<i>Rules should take into account how many days people fish each year.</i>	The total potential recreational catch exceeds availability of fish. Lack of effective management will result in depletion and stock collapse.
<i>Possession limit will deter visitors and impact on tourism.</i>	Concerns in relation to reduced visitor numbers and deterring holidaymakers were not realised when a possession limit was introduced as a management tool in the Ningaloo Marine Park. Furthermore, many now believe its introduction has improved fishing quality, which now attracts visitors to the area.

Alternatively, a number of submissions that supported this proposal indicated that the proposed limits were still too high and noted:

- The possession limit still allows for an excessive take, particularly if more than one person in a family takes this limit.
- A 10 kg possession limit would offer a higher level of protection and still provide an ample quantity of fish.
- Lower limits would help ensure that the quality of fishing is maintained.

Some submissions that disagreed with the proposed possession limit suggested a range of options between 20-35 kg as being a more acceptable level. In contrast, the majority of working group members believed that a possession limit that was appreciably higher than the proposed 17 kg would not sufficiently contain the recreational take and fail to deal with local depletion and fishing quality issues.

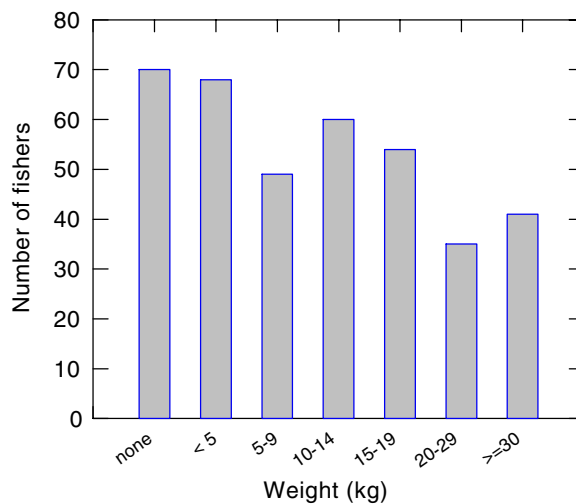
However, based on these representations, the working group agreed to amend its initial recommendation from 17 kg to a 20 kg possession limit. While Ningaloo Marine Park already has a 17 kg limit in place, the 3 kg increase in the Gascoyne Region would be compensated by lower daily bag limits on vulnerable species. Further, the working group believed that the overall benefits to fish stocks across the Gascoyne Region by having a possession limit outweighed this small increase.

At same time, the working group recognised that the proposed bag and possession limits should clearly be seen as a maximum take. Education programs should continue to focus on “taking only what you need” and enjoying the fishing experience. Achieving the bag or possession limit should not be regarded as measure of success or used as a target by fishers.

These limits should be seen as a maximum and a ceiling to prevent excessive individual take. If recreational pressure continues to increase in future years, a total catch management program may become necessary. There is no doubt the potential recreational take already exceeds the size of the region’s fish stocks many times over (e.g. 50,000 fishers x 20 kg possession limit = 1,000,000 kg of fillets, or 2,000-3,000 tonnes of whole fish!).

A 1996 survey of recreational fishing activity in the Gascoyne (Sumner and Steckis, *in press*) showed that 80 per cent of recreational fishers took home less than 19kg of fillets.

Figure 5 Number of fishers taking home fish/fillets from Gascoyne Region in previous trips by weight category - (n= 337)



As fishing pressure continues to increase, the continuing question for management is whether the community believes a ‘skewed’ recreational catch is appropriate or whether the total recreational catch should be shared more evenly among fishers. Lower limits may increase the opportunity for occasional fishers (generally less-skilled) to catch a fish.

The working group noted that compliance issues also need to be considered for a possession limit to be effective. A possession limit will not restrict the take and the accumulation of fish if anglers transport fish out of the designated area and continue to amass a second or third possession limit.

'Possession' is defined under the *Fish Resources Management Act 1994* as: "includes having under control in any place, whether for the use or benefit of the person in relation to whom the term is used or another person, and whether or not another person has the actual possession of custody of that thing in question."

Under this definition, someone who consigns fish to transport is still considered to be "in possession" of the fish, so a person cannot legally accumulate another possession limit. However, this may be difficult to enforce and the working group believes the legislation may need to be tightened to ensure it remains effective.

Recommendation 10 - Possession and Trip Limits

- 10 (a) A person may not have in their possession at any time more than the following quantities of finfish (excluding commercially taken fish and baitfish):
 - 20 kg of fillets; or
 - 10 kg of fillets plus one day's bag limit of Prize, Key Angling and Table fish; or
 - two days' bag limit of Prize, Key Angling and Table fish.
- 10 (b) A possession limit of two days' bag limit should apply to all other fish including baitfish, crustaceans and shellfish.
- 10 (c) The Department of Fisheries should develop tighter controls to prevent fishers circumventing the possession limit by transporting large quantities of fish or fillets out of the region.

5.6.4 Boat Limits

Submissions from Recfishwest, several fishing clubs and a number of individuals suggested the use of boat limits to help protect fish stocks. Some of these submissions emphasised that catches from charter boats in particular need to be constrained.

The Recfishwest submission proposed a *pro rata* limit, depending on the number of fishers aboard a boat:

Number of fishers	Bag limits per boat
1	1
2 – 4	2
5 – 9	3
10 – 16	4
17 +	5

The Gascoyne Recreational Fishing Working Group considered that such a proposal represented a significant variation from those put forward in the discussion paper *A Quality Future for Recreational Fishing in the Gascoyne* (Fisheries Management Paper 124). At the same time, it acknowledged that there may be advantages in boat limits as a management tool, and these should be assessed state-wide for possible future use.

The working group noted that the whole recreational fishing catch (incorporating both private and charter vessels) should be managed. Charter boats provide boat fishing opportunities for individual recreational fishers who do not have their own vessels. While there is a perception that charter boats have a disproportionate impact, it was also suggested that the impact of a single charter vessel may not be any different from the cumulative effect of six or so smaller recreational vessels.

With the implementation of licensing for charter boats, catch logbooks will be completed by their operators as part of the licence conditions. These logbooks will provide the information necessary to assess the impact of charter vessels and make a comparison with other components of the recreational catch.

In the past 10 years, dramatic improvements in fishing technology have had a significant impact on the way people fish, particularly from boats. Small, inexpensive high-quality fish-finding and navigational equipment is now readily available. This situation has resulted in a significant change in boat fishing practices - instead of just carrying out random 'drifts', boat anglers use the technology to actively search for and target reef habitats and aggregating fish.

Fishing technology will continue to improve and help anglers to target fish even more accurately. This will have an increasing impact on fish stocks, particularly demersal and reef species, and boat limits may need to be applied to other species in the future.

Recommendation 11 - Boat Limits

The effectiveness of boat limits as a management tool for recreational fishing should be assessed by the Recreational Fishing Advisory Committee, in consultation with Recfishwest, the charter industry and the wider recreational fishing community.

Pending this outcome, the use of boat limits should be re-examined as a strategy in the Gascoyne Region.

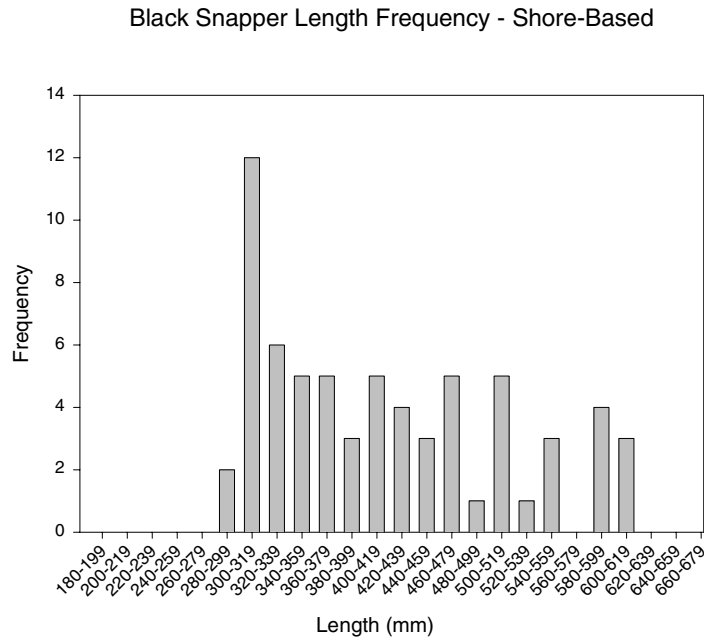
5.6.5 Size Limits

The working group proposed amending the size limits for a number of fish species in the Gascoyne.

A proposal to increase the minimum size limit for black snapper (blue-lined emperor) to 35 cm to protect breeding stocks was supported in 68 per cent of submissions. Of those who disagreed, many suggested this would discriminate against inshore fishers because they believed few black snapper of this size were encountered by these fishers.

Catch survey data indicated that while shore-based fishers caught far fewer black snapper than those on boats, they still caught black snapper of a range of sizes (see Figure 6).

Figure 6 Size of black snapper caught by shore-based recreational fishers



The working group noted that a research project into the biology of black snapper is underway in Shark Bay that will provide information on size at maturity. Black snapper are heavily targeted right across the Gascoyne and comprise a high proportion of the recreational catch (see Appendix C).

On this basis, the working group believes the current minimum size for black snapper of 28 cm should be increased in the interim as a precautionary measure and has consequently recommended that it be increased to 32 cm. Once the results of the Shark Bay research project into black snapper biology are available, the group believes that this size should be reviewed and adjusted to reflect the size that black snapper attain at sexual maturity.

The working group also proposed that the minimum size limit for pink snapper in the western gulf of Shark Bay be increased to 50 cm to protect breeding stocks. This was seen as essential to ensure that a high proportion of the stock has the opportunity to breed before capture. [This change has since been implemented by the Department of Fisheries in response to over-fishing of the stock.]

The discussion paper also suggested that the minimum size limit for pink snapper should be increased to 50 cm in the entire Gascoyne Region, to standardise rules and promote fishing quality. There was significant opposition to this proposal, particularly as the commercial fishery operates on a 41 cm minimum size limit for pink snapper.

However, it was noted that the commercial pink snapper fishery is ‘capped’ by a quota and commercial fishers would not be able to ‘absorb’ numbers of pink snapper between 41 and 49 cm, as feared by some respondents. Given limited support for this proposal, and the healthy status of the pink snapper fishery in the Gascoyne as a whole, the working group no longer supports amending the minimum size limit.

The proposal to reduce the maximum size limit for cod to one metre was supported in 64

per cent of submissions. Cod are slow-growing and the working group believes fish of this large size should be protected.

The discussion paper also suggested that a maximum size limit of 70 cm should be introduced to protect reef and demersal species (allowing fishers to take only one fish over 70 cm from each species each day). About half (51 per cent) of submissions supported this proposal.

A range of issues were raised in discussing this proposal, including how would it apply to commercial fishers, mortality factors with regard to demersal and reef fish species in deep water, and the possible impact on stock composition for fish species which undergo sex change during their life cycle.

Some submissions indicated support in principle for larger minimum sizes and the use of 'slot limits' to promote recreational fishing quality, but it was noted that there would be no benefit if it did not also apply to the commercial fishing sector.

The working group believes that there could be potential benefits for such a measure in areas where only recreational fishing was permitted. However, more information on species biology is needed to ensure that there are no unintended implications. Consequently, this proposal is not supported at this stage but may warrant consideration as a tool to enhance fishing quality in the future if substantial recreational fishing-only waters are developed.

As a general principle, the working group considers that as further research is undertaken and new information becomes available, size limits as they apply to both the recreational and commercial fishing sectors should be reviewed to reflect the sizes of fish species at sexual maturity.

A number of submissions suggested that changes in size limits should be made only if they apply equally to the commercial fishing sector. The working group supported this view and said the following recommendations should be the basis of discussion with the commercial sector and not introduced unless they apply equally.

However, it was noted that there may be a role for differential size limits between the sectors if competition was prevented by other management measures (e.g. quotas or effort restrictions on the commercial fish catch).

Recommendation 12 - Size Limits

12 (a) The minimum size limit for black snapper (blue-lined emperor) should be increased to 32cm to help protect breeding stocks. This limit should be reviewed upon completion of the research project now being undertaken on black snapper in Shark Bay.

12 (b) The minimum size for pink snapper in the western gulf of Shark Bay should be increased to 50cm to protect a larger proportion of the breeding stock.

12 (c) The maximum size for cod should be reduced to 1 metre.

5.6.6 Shark Bay Pink Snapper

The pink snapper stocks in the inner gulfs of Shark Bay are genetically separate from each other and the wide-ranging ocean stock. As these inner gulf stocks do not interbreed or 'top up' each other through migration, they are vulnerable to over-fishing and must be managed independently of each other and the oceanic stock.

The oceanic stock of pink snapper appears to be in healthy condition and supports a large commercial fishery (the Shark Bay Snapper Managed Fishery produces 550 tonnes of pink snapper annually).

Managing pink snapper stocks in the inner gulfs of Shark Bay has been a major and complex management issue in the Gascoyne Region for a number of years, and has attracted significant components of the total recreational fishing funding spent on management, research and compliance in WA.

Western Gulf

The Gascoyne Recreational Fishing Working Group's discussion paper *A Quality Future for Recreational Fishing in the Gascoyne* (Fisheries Management Paper No. 124) proposed that a bag limit of two pink snapper, with a minimum size of 50cm and a limit of one fish over a maximum size limit of 70cm, should apply in the western gulf of Shark Bay.

Though 50 per cent of submissions agreed with this proposal, a high proportion (24 per cent) provided a 'don't know' response. Many of the latter group said that this decision should be made by the Department of Fisheries, based on the best information available.

Approximately 26 per cent of respondents believed existing arrangements (daily bag limit of four, minimum size of 45cm, limit of two fish over 70cm) should continue and change should not occur until research proved conclusively that the stocks were in danger.

A common concern expressed at public meetings and in submissions was the impact of the commercial fishing sector, both through targeted take of adult fish and trawler bycatch of juvenile snapper.

The only commercial fishermen entitled to take pink snapper within the inner gulfs of Shark Bay are those from the Shark Bay Beach Seine Managed Fishery. While some commercial managed fishery licence holders (e.g. Shark Bay trawlers) may take a small quota of oceanic pink snapper under the Shark Bay Managed Snapper Fishery plan, these cannot be taken from within the inner gulf area

The issue of juvenile snapper being taken by trawlers was also raised in many submissions. The working group noted that trawlers could operate only in limited areas within Shark Bay and during specified periods. The group said the impacts of trawlers must be assessed and any bycatch issue addressed (refer Recommendation 24).

The working group recognised that this was a major management issue in the region and

arranged a briefing with the Department of Fisheries to gain a detailed understanding of the Shark Bay snapper research program and seek advice on the likely implications of a range of management proposals.

Key background information noted by the working group included:

- All available information indicates that the western gulf pink snapper stock is a resident population (there is no evidence to suggest the pink snapper in Denham Sound are oceanic stock).
- The capture of many undersize pink snapper in Denham Sound has led many anglers to dispute the population estimates. The working group noted that the presence of undersize fish does not conflict with spawning biomass estimates that are based on the abundance of adult (legal size) fish. The current stock structure of many fish at just under legal size (which is supported by data from a recreational catch survey) indicates a heavily fished population, with very few large fish remaining. The majority of fish are being taken as they reach legal size. A similar pattern occurred in the eastern gulf before its closure.
- The Gascoyne catch survey indicated that the recreational take of pink snapper in the western gulf was 38 tonnes over a 12-month period.
- There is a small commercial take of pink snapper in the inner gulfs by the Shark Bay Beach Seine and Mesh Net Managed Fishery of about three to seven tonnes annually.

The following key management issues were discussed in detail by the working group and formed the basis for the recommended management measures.

- Continuation of a 38-tonne recreational take is not sustainable, given a 100-tonne spawning biomass estimate. A sustainable take should be based on 20-25 per cent of spawning stock (i.e. 20-25 tonnes in this case), therefore, the *total* take in the western gulf needs to be reduced by about half.
- There is a need to not only maintain the current spawning population at a sustainable level, but also to increase it so as to increase the number of fish available for capture – that is, improve the fishery.
- The total number of recreational fishers in the western gulf is not constrained, making it impossible to effectively limit the total catch using bag limits alone.
- Catch survey work indicates that recreational fishing effort is significant, reaching about 39,000 angler days in the western gulf each year. If each of these days resulted in the capture of one snapper, this could equate to about 80 tonnes of fish.
- The working group has recommended increasing the minimum size limit of pink snapper in the western gulf from the current 45 cm to 50 cm. This is seen as key measure to protect the western gulf pink snapper breeding stock, particularly given the age/size structure of the population (the fishery is currently operating on capture of fish as they reach legal size - increasing the legal minimum size will protect a higher proportion of breeding stock).
- Even with a bag limit of one, fishers can still fish every day and accumulate fish over a number of days (particularly in the Gascoyne, where many of fishers are visitors).
- When fish are found in spawning aggregations, it is likely that fishers will take the bag limit.

- Closures are an effective option for protecting species such as pink snapper, which are extremely vulnerable to over-fishing when they aggregate to spawn. For a closure to be effective it must be designed to provide protection to breeding stocks, either through timing or the actual size of the area closed (i.e. the peak holiday season in Shark Bay unfortunately coincides with the time when snapper aggregate there to breed and are easy-to-catch).

Based on these considerations, the working group has tried to formulate a package that will reduce the recreational take of pink snapper in the western gulf of Shark Bay by about 50 per cent.

It should be noted that catch is effectively constrained in a number of WA recreational fisheries. For example, the marron and abalone fisheries use a combination of bag limits and seasonal closures to contain catch to sustainable levels. Overseas, some fisheries are managed using the issue of tags or permits, which restrict individual recreational fishers to a specified number of fish and thus effectively constrain the total catch.

These options may be required in the future for pink snapper in Shark Bay if recreational effort continues to exceed stock estimates.

Another key issue noted by the working group involved recreational fishers catching oceanic pink snapper outside the inner gulfs – where different bag and size limits apply – and wanting to transport them back into Denham. This is currently permitted for clients on charter boats.

These exemptions require the specified operators to gain a separate permit from the local Department of Fisheries office for each trip. Though this arrangement raised a number of perception and equity issues, it had the advantage of removing fishing pressure from the Shark Bay inner gulfs.

The working group discussed the potential to expand this to encompass all recreational fishers. However, this situation raises obvious compliance problems: for example, ensuring that fishers are, in fact, only taking snapper from outside the inner gulfs.

Recommendation 13 (a) - Shark Bay Western Gulf Pink Snapper

13 (a1) A bag limit of two pink snapper, with a minimum size of 50cm and a limit of one fish over a maximum size limit of 70cm, should apply within the western gulf of Shark Bay.

13 (a2) A six-week closure to fishing for pink snapper to protect spawning aggregations should apply:

- between 15 June to 31 July in Denham Sound; and
- between 1 August and 15 September in Freycinet Estuary.

Eastern Gulf

The Gascoyne Recreational Fishing Working Group's discussion paper *A Quality Future for Recreational Fishing in the Gascoyne* (Fisheries Management Paper 124) proposed that a daily bag limit of two pink snapper, coupled with restricted fishing times and minimum and maximum size limits, may be an appropriate management approach in the eastern gulf once the target breeding stock of 100 tonnes is reached.

Again, a significant proportion of the submissions (26 per cent) provided a "don't know" response, believing management should be based on the most up-to-date research advice. A similar proportion of submissions (24 per cent) disagreed, believing that the stocks had recovered and the eastern gulf should be open for fishing. Many of these submissions noted that large numbers of pink snapper were being caught that were only just under the legal minimum size.

The working group noted advice from fisheries scientists that undersize fish do not form part of the spawning stock estimate and the stock structure – large numbers of fish under legal size reflects overfishing. Therefore the group believes that the eastern gulf closure should remain in place until the pink snapper stock structure shows good representation across all age classes.

When the eastern gulf is reopened to fishing for pink snapper, a seasonal closure should be introduced to protect spawning snapper aggregations and assist the rebuild of stocks. With the introduction of a seasonal closure the current no-fishing area north of Faure Island, which is costly and difficult to enforce, could be removed. Future fishing controls must clearly relate to stock biomass estimates.

Research results from 1999 indicate that the eastern gulf pink snapper spawning stock has increased to an estimated 45 tonnes, which represents a good increase on five tonnes that was estimated to remain made before the gulf was closed to fishing for pink snapper in 1998. Based on these results, it is likely the 100-tonne target could be reached by 2003, assuming constant recruitment. The research program set up by the Department of Fisheries should continue, in order to monitor the rebuild.

Recommendation 13 (b) - Shark Bay Eastern Gulf Pink Snapper:

The eastern gulf should remain closed to fishing for snapper until research indicates that the target breeding stock of 100 tonnes is reached. When reopened, the following management is suggested:

- A bag limit of two pink snapper, with a minimum size limit of 50cm and a limit of one fish over a maximum size of 70cm, should apply in the eastern gulf of pink snapper.
- A six - eight week closure to protect spawning snapper should be implemented from 1 June each year to protect spawning aggregations and assist the rebuild of stocks.

5.6.7 Permitted Gear

Line fishing

The current regulations prescribe different rules for shore and boat-based fishers. Shore-based anglers are restricted to a limit of two rods or hand-lines per fisher. This limit was introduced to prevent anglers from 'staking out' large areas of shoreline, particularly at popular fishing locations.

Boat-based anglers are not restricted in the number of lines they can use, as it was considered there is a practical limit to the number of lines a boat fisher (or boat fishers) can manage at one time.

The working group accepted this rationale, but felt the regulations could be simplified and any arguments of inequity addressed by introducing a two-line limit for all fishers. Given there are normally a number of anglers on a boat, it is unlikely a two-line limit per person would impact on most boat fishers.

The proposal to reduce the number of lines used by boat-based recreational fishers to bring them into in line with current rules for shore fishers was strongly supported, with 75 per cent of submissions in agreement.

Of the 23 per cent of submissions that did not agree with the proposal, many were unclear that the limit applied to the use - not the possession - of two lines. A number of these submissions also raised the issue that if bag and possession limits are the major control for recreational fishing, what is the difference if boat fishers used two, three or four rods?

Other issues raised included some fishers desire to use a bottom rig, mid-water rig and surface rig (which could require the use of three lines), while game fishers frequently ran five to six lines (although in this regard the working group noted there were generally more than one fisher on-board a game fishing boat).

While the working group recognised these views, they also noted recent worldwide developments with animal welfare lobby groups and on a national level the development of a national code and guidelines for animal welfare. The working group believe consideration must be given to the number of rods a fisher could manage at one time if a multiple hook-up occurred.

The working group felt limiting all recreational fishers to a maximum of two lines at a time would not only standardise the rules for shore and boat-based fishers, but also represent a responsible position by the recreational fishing sector on animal welfare grounds.

With regard to use of set lines, 86 per cent of submissions supported banning them, believing they were not acceptable as a recreational fishing method.

Recommendation 14 - Line Fishing

14 (a) All recreational anglers, both shore and boat fishers, be limited to the use at any one time of a maximum of two rods, or two handlines, or combination of one rod and one hand line, with no more than three hooks or gangs of hooks attached to each line.

14 (b) The use of set lines by recreational fishers be banned.

Spear fishing

The working group initially proposed that spear fishing using compressed air be banned in the Gascoyne Region. This proposal was supported by 63 per cent of submissions.

Those submissions that did not agree with the proposal noted it was inequitable, as spear fishers have the same ethic as line fishers ‘to catch a feed for oneself and enjoy experience along the way’. A number of submissions appeared to misunderstand this proposal, believing it would applying to all spear fishing – not just while using compressed air.

There was a wide disparity in views between respondents who commented on this proposal as indicated below.

Agree with proposed ban	Disagree with proposed ban
<ul style="list-style-type: none"> Fish too easy to spear on compressed air. 	<ul style="list-style-type: none"> No evidence presented to substantiate greater impact.
<ul style="list-style-type: none"> Compressed air should only be used for photography and pleasure diving - unsporting for spear fishing. 	<ul style="list-style-type: none"> Spearing is highly selective – it is easier on air to ensure no undersize or unwanted fish are taken.
<ul style="list-style-type: none"> Too easy to target species like tuskfish and coral trout. 	<ul style="list-style-type: none"> Equity principle - same bag and trip limits should apply to all fishers irrespective of method.
<ul style="list-style-type: none"> Prohibit all spear fishing in specific areas. 	<ul style="list-style-type: none"> Unethical fishers will use any fishing method available to over-exploit fish.
	<ul style="list-style-type: none"> Divers ‘on air’ are limited by bottom times and cumbersome gear.
	<ul style="list-style-type: none"> ‘Free-divers’ are more adept at taking fish than those using air.
	<ul style="list-style-type: none"> Spear fishing is currently low impact as it is undertaken by very small number of people.
	<ul style="list-style-type: none"> The new bag limit structure addresses concerns on targeting resident fish by all fishers.

The working group noted there was no substantive evidence in the Gascoyne Region to indicate spear fishers using compressed air were having any additional effect on fish stocks in comparison to other forms of recreational fishing. Results from the Gascoyne catch survey indicated there are comparatively few spear fishers (both free-diving and compressed air) compared to other forms of fishing, totalling under two per cent of recreational fishing activity). It was also considered that the majority of keen spear fishers do not use compressed air anyway.

Enforcement difficulties were also raised and the working group noted it would be largely impossible to determine whether fish were taken with or without the use of compressed air. While this situation could be addressed by making it an offence to be in possession of compressed air breathing apparatus and fish at the same time, this would also prevent people from being able to enjoy a dive and go fishing on the same trip.

Given the current low numbers of spear fishers and the lack of any information to suggest they are having a greater impact on fish populations, the working group considered that spear fishing using compressed air should continue to be a permitted means of fishing in the region.

Net fishing

The Gascoyne recreational fishing discussion paper (Fisheries Management Paper No. 124) proposed that set netting should be banned throughout the Gascoyne Region and haul netting should only be permitted in specified areas. This was supported by 68 per cent of all submissions, which is perhaps not surprising as only a relatively small proportion of fishers use nets.

The majority of submissions disagreeing with the proposal noted that netting was the only way to catch mullet and this was a popular activity in the Gascoyne. The working group also noted that the total fishing effort is a lot lower in the Gascoyne area than the West Coast.

On this basis, the working group believe netting should be allowed to continue as a means of targeting mullet, provided nets are attended and checked and cleaned at least hourly. Netting should not be allowed in creeks or in any areas identified as important fish nursery areas, or where a high level of conflict with other user groups occurs. Only mesh sizes appropriate for targeting mullet should be permitted.

The issue of recreational netting - in particular set netting - is controversial and the working group consider it should be re-examined at the five-year review of the management strategy. Alternative measures such as reducing net length or amending net drop should be examined at this time.

Recommendation 15 - Net fishing

- 15 (a) Set and haul netting continue to be permitted in the region as a means of targeting mullet, provided it is not incompatible with other values/uses. Set netting should not be allowed within 500m of all creeks, in identified nursery areas or areas where a high level of conflict with other users occurs. As new areas which fall under these criteria are identified by the Department of Fisheries, a prohibition on netting should be implemented.
- 15 (b) Miaboolia Beach should be closed to set and haul netting in recognition of its importance as a nursery area for tailor and whiting.
- 15 (c) Throw nets be permitted in the region as a means of collecting baitfish only (except in 'no fishing' zones such as sanctuary zones and fish protection areas).

5.6.8 Filleting at sea

In the Gascoyne recreational fishing discussion paper (Fisheries Management Paper No. 124) the working group proposed that filleting at sea should not be permitted in the Gascoyne Region.

Sixty one per cent of submissions supported the proposal, noting that it would be impossible to enforce bag and (in particular) size limits if filleting was permitted. A number of respondents noted that encouraging people to use communal filleting tables also helped 'pressure' them to comply with size limits.

Of the 36 per cent of submissions which disagreed with the proposal, most believed that filleting at sea should be permitted, provided skin is left on to permit identification of fish. A key issue raised in many submissions was the lack of filleting tables and disposal mechanisms on-shore, particularly for tourists staying at caravan parks (of which many do not permit filleting on-site).

A number of other submissions also identified benefits in returning fish remains to the food chain. It was suggested that Fisheries Officers could estimate the size of fish from a fillet, although the working group noted this would not provide sufficient evidence to prosecute persons for taking undersize fish.

One option suggested was to allow fillets that were equal or greater in size than the minimum size limit. The working group recognised merit in this idea, but it was also noted that frozen fillets could shrink or curl and become impossible to measure.

A number of submissions suggested that filleting at sea should be permitted on overnight trips only, as storage over a number of days became an issue. Such situations occur on charter boats where cold storage space can be limited, in relation to the numbers of fisher on-board.

One suggestion was that skippers of charter boats could be made responsible for ensuring size limits were met, but at present there was no way to enforce this requirement. The working group believe this option could be enforced as a charter vessel licence condition. This would provide a clear incentive for the skipper to ensure size restrictions were adhered to.

The working group discussed this issue in great detail and noted that disposal of fish remains can create a number of problems on-shore, particularly in areas where there are no disposal mechanisms.

The working group believes the role of size limits would become increasingly important as fishing pressure grew and the average size of fish decreased towards the minimum legal size. For example, in Denham Sound very few large pink snapper are taken and the majority of fish are caught are at or below legal size, i.e. a large proportion of the recreational catch is returned.

To protect juvenile fish, the working group believe it is important that Fisheries Officers have the capacity to enforce minimum sizes at boat ramps and therefore filleting at sea should not be permitted.

To provide an opportunity for fishers to keep their catches in quality condition when staying on islands, the working group believe enforcement of the minimum size should be at the point where the fish are first landed. Once a catch has been landed on the island where the fisher is staying, the working group believe the fish should be allowed to be processed, before being transported to the mainland when the fisher returns home.

Recommendation 16 – Filleting at sea

16 (a) As daily bag and size limits are to remain important management tools in recreational fishing management, filleting at sea should not be permitted in the Gascoyne Region.

16 (b) In line with existing Shark Bay rules, mackerel may be processed at sea by filleting if the skin is left attached to the fish so as to permit identification.

5.7 Resource Sharing

The Gascoyne Recreational Fishing Working Group noted from submissions and public meetings that many recreational fishers believe the activities of the commercial fishing sector are having a significant impact on fish stocks and the quality of the recreational fishery in the region. Many respondents believed the commercial catch of finfish from inshore waters was directly affecting the abundance of fish available for recreational take, particularly near regional centres and key holiday destinations.

A common perception was that commercial fishers could catch what they wanted and took significantly larger volumes of fish than the recreational sector, and that commercial operations should be reviewed before imposing restrictions on recreational fishing was considered. In contrast, it was noted by other interests that the current management of recreational fishing does not constrain the total recreational catch or effort. The number of recreational fishers continues to grow, while existing fishers can potentially accumulate daily bag limits over extended periods (i.e. one bag limit every day over the period of a holiday).

It is important that the total impact on fish stocks from both the commercial and recreational fishing sectors are considered when developing future fisheries management. The working group believes this review should be seen as a ‘first step’ in bringing the recreational catch under effective management.

5.7.1 Commercial Fishing in the Gascoyne

The working group noted that commercial fishing is one of the major industries in the Gascoyne and plays an important part in the region's economy. It also provides an essential community service in supplying local markets with fresh seafood.

The group concluded that despite the perception of some respondents, there did not appear to be any major resource sharing issues with the major commercial fisheries in the region. A summary of commercial fisheries that operate in the Gascoyne, and likely concerns, is provided (see Table 2).

Table 2 Concerns of recreational fishers on commercial fisheries in the Gascoyne

Commercial fishery	Concerns of recreational sector
Shark Bay Prawn Managed Fishery	Bycatch, habitat damage
Shark Bay Scallop Managed Fishery	
Exmouth Gulf Prawn Managed Fishery	
Shark Bay Snapper Managed Fishery	Recreational catch needs to be accounted for when setting TAC.
Abalone (Zone 1) Managed Fishery	
Marine Aquarium Fish Managed Fishery	
Specimen Shell Managed Fishery.	
Exmouth Gulf Beach Seine Fishery	
Shark Bay Beach Seine and Mesh Net	Potentially of concern if commercial fishers chose to target large quantities of pink snapper.
Aquaculture sites and pearl farms in Shark Bay and Exmouth Gulf	Potential concern in future if large numbers of new sites are developed in localised areas
Wetline fishery	Concern over significant escalation in mackerel catch. Potential for similar unmanaged expansion in wetline fishery given 'open access' nature of fishery, creating shift in resource shares. Of particular concern are the inshore stocks around key centres and impacts on high-quality fishing 'wilderness' areas, such as the relatively isolated coastline between Carnarvon and Coral Bay.

The major concern of recreational fishers is open access wetline fishing that enables any WA licensed fishing boat to catch finfish in the Gascoyne region. The total number of commercial fishing vessels in WA is restricted and, on a state-wide basis, the number has decreased to about 1,363 boats (from 1,600 in 1989).

While in practice only about 400 of these boats actually wetline around the State in any one year, the working group is concerned that there is nothing to prevent any of these boats from wetline fishing in the Gascoyne Region if they choose.

There has been a significant increase in the commercial Spanish mackerel catch in the region – from two tonnes to 38 tonnes annually – and anecdotal reports of increasing wetline activity on near-shore reefs for prized species such as red emperor and baldchin groper around Gnaraloo and Coral Bay in recent years.

The Department of Fisheries is developing an interim management plan for the commercial mackerel fishery which proposes controls including restricting the number of operators permitted to fish for mackerel, based on historical catches.

However, at the same time, recreational catch estimates indicate that the take of Spanish

mackerel by this sector is of a similar magnitude to the commercial one. This situation lends support to a proposed reduction in the recreational bag limit for Spanish mackerel.

Recreational fishers are concerned over the potential for similar unmanaged increases in commercial effort on other finfish species, resulting in a shift in resource share, local depletion of stocks in some areas, or a reduction in fishing quality (either through a decline in the size of fish being caught or in frequency of catch).

The working group’s discussion paper (Fisheries Management Paper 124) proposed that commercial fishing should be capped at historic levels and possibly reduced where recent increases in effort had effected a resource shift. These proposals had good support in submissions, which is not surprising given that the vast majority were from recreational fishers. The most common comments raised, from both recreational and commercial perspectives, are summarised in Table 3.

Table 3 Common views raised in submissions on resource sharing

Recreational viewpoints	Commercial viewpoints
Commercial fishers have much more impact on fish stocks than recreational fishers.	Commercial sector is only one being controlled at present.
Why should recreational fishers be burdened with greater restrictions because of commercial over-fishing?	Commercial and recreational fishing should be treated equally. No cap on commercial fishing unless the recreational take is also reduced.
Commercial wetline activity is largely unconstrained.	Commercial wetline activity needs to be managed.
If commercial fishing was properly controlled, we wouldn’t need recreational fishing priority areas.	Both sectors target the same fish stock – we need to manage total take. If you reduce the pressure on stocks from one sector, the other will simply take up the slack.
Drops in recreational bag limits are useless if there is no change to unlimited take by commercial wetliners.	The number of recreational fishers is getting larger and the recreational catch is increasing.
Exclusion zones of 20 nm radius from all regional centres for commercial wetline fishing and trawling. 10 nm radius exclusion zones for charter boats and land-based fishing tour operators.	Fresh fish is needed for sale in the Gascoyne.
Quotas are needed for commercial fishers.	
Recreational bag limits are always reduced while commercial catches increase. There is a need to manage total take of fish. If you reduce the pressure on fish stocks by one group, the pressure will be taken up by others.	
Recreational bag limits always go down, while commercial catches increase.	
Historic commercial catch levels may be too high and need reducing.	
Resource benefits must go to all community, not just commercial fishers.	
Commercial boats should be restricted from operating immediately adjacent to key recreational fishing areas, e.g. One-Mile Jetty, Steep Point.	
No control of the commercial catch by wetline sector.	
You can’t reduce recreational catches and not cap the commercial take – it should also be reduced.	
Escalating wetline take of highly sought-after species such as Spanish mackerel is creating shift in resource use, affecting quality of recreational fishing and possibly threatening sustainability of stocks.	

5.7.2 Important Recreational Fishing Areas

There were widespread concerns among recreational fishers expressed in submissions about competition for available catch and loss of access. This was evident in strong support for related proposals in the discussion paper, with 90 per cent of respondents supporting the concept of recreational priority areas and recognition of the importance of these areas in marine planning and coastal development.

The proposal for recreational priority areas was seen by the commercial industry as a direct threat to all forms – both existing and proposed – of commercial fishing and aquaculture. Other submissions said these proposals were trying to circumvent existing processes, such as aquaculture planning or marine park planning processes.

This was not the intention of the Gascoyne Recreational Fishing Working Group and requires clarification. The purpose of the priority area proposal was to highlight the traditional and increasing importance of these areas to recreational fishers and identify priorities for future resource sharing debates. It was not intended to be a unilateral erosion of rights for existing managed fisheries. However, it should be recognised that any expansion in these commercial activities may restrict access, creates a shift in resource share or impact on recreational fishing quality in the region.

Both the commercial and recreational catch must be contained if we are to maintain sustainable stocks in face of increasing pressures on fish resources. Specific management should be developed in close consultation with the commercial and recreational sectors and, where possible, resource shares made explicit.

The composition and terms of reference of the working group were directed towards recreational fisheries management. The group acknowledged that it was clearly not in a position to make unilateral decisions on commercial fisheries or aquaculture management. However, the group does have a responsibility to highlight those areas of concern to the recreational sector as a basis for further discussion/negotiation on resource sharing issues.

Any broader-based recommendations which impact on the commercial and other sectors will obviously require further negotiation with those sectors. In particular, any findings on resource sharing issues will need to be considered in the context of existing resource sharing processes on a case-by-case basis, or deferred within the context of the findings from the newly established Integrated Fisheries Management initiative.

Obviously a key long-term outcome required from integrated fisheries management is the development of a focused decision-making process that allows all interest groups to participate, exposes all relevant information to public scrutiny, and provides a fair means of making recommendations to Government on the use of fish resources.

Recommendation 17 - Important Recreational Fishing Areas

The following areas should be recognised as being of prime importance as recreational fisheries and should be the focus of any resource sharing negotiations with commercial sector:

- Area extending from the high water mark to a distance of 3 nm off-shore from 24⁰ 42' south extending north to the boundary of the Gascoyne Region (near the Ashburton River).
- Eastern inner gulf of Shark Bay.
- Western inner gulf of Shark Bay.

Future management decisions such as those affecting resource allocation and access should give prime consideration to recreational fishing values in these areas. The importance of these fishing areas to recreational fishers must also be given due consideration in all planning/development processes.

5.7.3 Recreational Fishing Only Areas

Through the public meetings carried out to stimulate discussion and provide information about the review of recreational fishing in the Gascoyne, the working group recognised that resource sharing was not just related to “catch shares”, but included competition in space and time for access to specific areas of fish stocks by various user groups.

In some instances, total catch shares may not be as much of a concern to recreational fishers as catch shares within specific areas (generally, in inshore waters).

Consequently, the working group believed that the simple assignment of ‘catch quotas’ to each sector may not actually resolve resource sharing issues in some fisheries - even if these have reliable stock assessment, allocated shares and a comprehensive monitoring program in place.

The working group identified a number of sites in the Gascoyne that are particularly important to the recreational fishing sector. It was proposed that access to these sites for fishing should only be granted to recreational fishers. This proposal was supported by about 80 per cent of submissions.

No submissions were received from the commercial sector opposing these specific sites, though some were against the general principle, believing it was an erosion of commercial fishing rights.

Recommendation 18 - Recreational Fishing Only Areas

The following key sites should be designated as ‘recreational fishing only’ areas and commercial line fishing for finfish species should be prohibited in them:

- *Carnarvon area*
One-Mile Jetty – to a distance of 100m around the jetty.
Coral Patch (25°15.812 S, 113° 46.845 E) – to a distance of 1nm.
Tyre Reef/Lady Joyce wreck (25°02.788 S, 113°32.390 E) – to a distance of 1nm.

- *Exmouth area*
Y Island
Muiron Islands – this was not raised in the Gascoyne discussion paper (Fisheries Management Paper No. 124) and will require further discussion with the commercial fishing sector.
- *Shark Bay area*
Bernier/Dorre Islands – the zone identified in the ‘Shark Bay World Heritage Property - Management Paper for Fish Resources’ (Fisheries Management Paper No. 91) as a recreational fishing only area.
Steep Point – extending 800m from the shore.

5.7.4 Future Consideration of Resource Sharing Issues

It is critical that any resource sharing is carried out within the context of sustainable fisheries. The Gascoyne Recreational Fishing Working Group believes that resource sharing should be based on a clear set of principles and processes, and a sound understanding and recognition of the relative social and economic values for each fish species, fishery or area in question.

The working group was concerned that while there is separate management for different sectors of the commercial fishery in the Gascoyne, such management does not necessarily take into account the cumulative impact on the finfish resource.

Similarly, current management for the recreational fishing sector does not constrain the total recreational catch or effort. Without management of the total catch from any fish stock, sustainability becomes a key issue.

The working group believes that there should be a more integrated approach to finfish management. This must take into account the total impact on fish stocks by all user groups, and include a process to resolve resource sharing issues in a balanced manner.

This process must also provide for future equitable reallocations of fish resources between user groups in the Gascoyne.

The need for a proper resource sharing process and the allocation of sufficient resources for the long-term management of WA’s key finfish stocks was strongly supported by the working group.

The State Government has begun a process to develop an integrated fisheries management approach. Proposals for discussion include resolution of resource sharing and allocation issues, with the aim of reducing social conflict and maximising community benefits from the use of key fish stocks.

Recommendation 19 - Management of Total Finfish Take

- 19 (a) To complement the new recreational management arrangements and prevent any unmanaged shift in resource shares, 'open access' commercial fishing for finfish species should be brought under management.
- 19 (b) An integrated regional management plan should be developed to ensure a share of fish resources are allocated to the recreational sector to protect the quality of recreational fishing the Gascoyne region.

5.7.5 Customary Fishing by Aboriginal People

The Gascoyne Recreational Fishing Working Group believes that there is uncertainty over what Aboriginal people can and cannot do as traditional users of fish resources. In particular, the distinction between traditional or customary fishing and Aboriginal people undertaking recreational fishing is poorly defined.

In the past, members of the Aboriginal community have practised customary fishing to provide fish for their community and provision should be made to allow this to continue. However, sustainability must be paramount and the working group believes that no-one should be allowed to keep undersize fish, use illegal fishing gear, fish within closed areas or undertake any activity which may threaten fish stocks.

Customary fishing has been formally recognised in New Zealand, where in certain specified circumstances such as traditional ceremonies, Maoris may obtain a permit that allows them to exceed recreational bag limits and collect fish for the whole community. At other times, Maoris respect the general recreational fishing bag limits.

The working group noted that the Department of Fisheries is involving Aboriginal interests, commercial and recreational users and other relevant groups in the development of an Aboriginal Fishing Strategy, in recognition of the traditional, cultural and subsistence fishing values placed on fish resources by Aboriginal people.

As part of this process, a clear position on customary fishing will be developed in consultation with Aborigines and the wider community.

Recommendation 20 - Aboriginal Fishing

Management issues involving traditional, cultural, and subsistence fishing in the region should be addressed as part of the Aboriginal Fishing Strategy.

5.8 Improving the Quality of Recreational Fishing

5.8.1 Low Impact Wilderness Fishing Experiences

Several sites were identified in the Gascoyne discussion paper (Fisheries Management Paper No. 124) as having the potential to be explicitly managed to retain ‘wilderness’ recreational fishing qualities. These included Gnaraloo and Waroora stations and Dirk Hartog Island.

This proposal was supported in 66 per cent of submissions. A number of these noted that such areas would be successful, and values protected, only if commercial fishing was prohibited and recreational fishing was limited to ‘catch and release’ techniques, or extremely low possession limits were imposed.

Submissions not supporting the proposal suggested that it would promote expensive fishing holidays that only the wealthy could enjoy. Others believed that special limits in these areas would make fishing rules confusing in the Gascoyne, and that the identification of these areas would itself lead to over-exploitation.

The working group believes there is considerable merit in offering additional protection to areas that offer a unique fishing experience, both in quality of fishing and the environment itself. The group fears this type of opportunity will be lost in the Gascoyne unless such areas are established soon.

Given the level of opposition to this proposal, the working group suggested that trial areas be established and education strategies formed to promote a low-take philosophy in them. The areas should be monitored so that possible benefits and levels of public support can be evaluated.

Recommendation 21 - Low Impact Wilderness Fishing Experiences

The Department of Fisheries should consult with landowners from Gnaraloo and Waroora stations, and Dirk Hartog Island, to identify trial areas to be promoted as wilderness recreational fishing areas. Education strategies should promote a low-take philosophy and the trials should be monitored to assess benefits and community support.

5.8.2 Fisheries Enhancement

Artificial reefs/FADs

Fish Aggregating Devices (FADs) provide boating anglers with the opportunity to catch species that are otherwise difficult to locate and catch in the open ocean. A FAD is simply a structure, commonly an anchored buoy, which can be used as a habitat by small fish and, in turn, attracts larger pelagic species.

Artificial reefs are structures or formations put on the seabed to increase or concentrate populations of fish or other marine plants and animals. Such structures may be of particular value in areas like Carnarvon, where there are limited suitable natural features for fishing. For example, the artificial Lady Joyce/Tyre Reef at Carnarvon has proven very popular with anglers.

While the potential appeal of FADs to recreational fishers is obvious, their impact on fish stocks is uncertain. These structures aggregate both fish and fishing activity and may serve to increase fishing pressure without necessarily increasing the available fish stocks.

The working group supports the establishment of limited numbers of structures in appropriate areas, but believes there should be research into the effects of artificial reefs on fish stocks if they are to become widespread.

Stock Enhancement

Though preventative management should always remain the primary tool to protect wild stocks, the working group believes the feasibility of marine stock enhancement should be examined. It may have the potential to play an important role in restoring wild stocks, particularly in instances where they have been severely depleted.

It is important to recognise that putting large numbers of fish in the water does not necessarily mean there will ultimately be more fish to catch. A wide range of environmental factors may influence the survival of juvenile fish. Given the limited funding available for recreational fisheries management, it is important that costs/benefits be determined before any large-scale stocking is undertaken.

In this regard, the working group supports the establishment of a trial stocking program in Shark Bay so that the costs/benefits can be assessed for pink snapper.

Restocking should certainly not be seen as an alternative management tool, but as an additional measure to aid recovery of stocks. The working group believes information returned from the Shark Bay trial will be valuable in assessing the potential of this tool to restore depleted populations in other areas.

However, it is important that funding for such a project does not compromise existing management priorities in the Gascoyne region.

Recommendation 22 - Fishery Enhancement

- 22 (a) Future approvals for the establishment of artificial reefs should consider requirements for a monitoring program to evaluate impacts on fish populations.
- 22 (b) A trial restocking program for pink snapper should be undertaken in Shark Bay, provided it can be demonstrated that it presents no major risks to the remaining snapper population and that monitoring programs can be put in place to assess the likely effectiveness of restocking.

5.8.3 Identification and Protection of Key Fish Habitats

The importance of marine embayments, estuarine areas and inshore seagrass beds in the life cycle of many fish species is widely recognised. Therefore it is essential that these areas be protected from degradation caused by coastal development and agricultural, industrial and domestic pollution.

The Gascoyne Recreational Fishing Working Group is concerned that sufficient resources have not been devoted to the identification and protection of important fish habitats.

Priority must be given in marine planning to identifying and protecting habitats important to fish stocks, such as breeding grounds or nursery areas. The importance of this issue is clearly evidenced by very strong support (94 per cent) for it in submissions.

Submissions raised concerns over the impacts of dredging, trawling, release of ballast water, coastal development and other activities on these areas. Obviously, the identification of important fish habitat areas is a fundamental 'first step' in assessing their impacts. The working group considers that this is a priority and believes the Government should take steps to establish a comprehensive database on important fish habitats in the Gascoyne Region.

Where coastal developments are approved, it is essential that monitoring programs assess the impacts of these developments. Where impacts are detected, any remedial action required should be at the developer's expense.

Recommendation 23 - Identify and Protect Key Fish Habitats

As a priority, the Department of Fisheries should take steps to identify important fish habitat areas and Government should implement safeguards to ensure that these are protected from environmental degradation.

5.8.4 Bycatch

In the discussion paper (Fisheries Management Paper No. 124), the Gascoyne Recreational Fishing Working Group supported the current development of bycatch action plans for major fisheries in the Gascoyne including the Shark Bay Prawn Fishery, Shark Bay Scallop Fishery and the Exmouth Gulf Prawn Fishery.

The working group believes the commercial fishing industry should be encouraged to fit suitable bycatch reduction devices and develop more environmentally friendly methods of fishing, which minimise impact on habitat and non-target species.

The working group recognised that bycatch also occurs in recreational fishing. It believes that wasteful and indiscriminate recreational fishing methods are not appropriate and fishers must be encouraged to release undersize and excess fish.

There was very strong support for those proposals (94 per cent of submissions), and the majority of comments were directed towards trawling and bycatch issues. In particular, concern was expressed that development of Bycatch Reduction Devices (BRDs) may focus on marine turtles and large fish and ignore the potential 'take' of large quantities of small fish and squid and the possible implications for other species and the wider ecosystem.

A submission from the commercial fishing industry noted that trawling occurs only in specific areas and that the vast majority of the coastline around the State is closed to trawling.

Bycatch action plans for the Shark Bay Prawn Fishery, Shark Bay Scallop Fishery and the Exmouth Gulf Prawn Fishery are expected to be released for public comment this year. Implementing effective plans as soon as possible for these and other commercial fisheries in the Gascoyne should be a priority.

Comments about recreational bycatch focused on some anglers taking large quantities of unwanted small fish that do not have a minimum legal size limit (e.g. whiting). Where there are no size limits, anglers should be educated about the possible impact on fishing quality of removing small fish. Future reviews may need to consider introducing size limits for some species on the basis of improving fishing quality, rather than simply on a biological basis.

Other respondents suggested more education was required on the best methods for releasing fish. Anglers should also try to use appropriate hook sizes, consider barb-less hooks, and avoid the use of trebles on ganged hooks. The working group believes this information should be incorporated into the Gascoyne Recreational Fishing Guide (see Recommendation 25).

Recommendation 24 - Bycatch

Bycatch action plans should be introduced for all commercial fisheries in the Gascoyne Region. Implementing bycatch plans for the Shark Bay Prawn Fishery, Shark Bay Scallop Fishery and the Exmouth Gulf Prawn Fishery should be a priority.

Recreational fishing methods that are wasteful and indiscriminate should not be permitted and community awareness programs should encourage recreational fishers to carefully release undersize and unwanted fish.

5.8.5 Fish Replenishment Areas and Eco-tourism

The Gascoyne recreational fishing discussion paper (Fisheries Management Paper No. 124) proposed a trial 'fish replenishment area' around Broadhurst Reef and a five-year monitoring program to evaluate possible benefits.

There was strong support for the trial fish replenishment area concept, but it was qualified for this particular area.

It was noted there are already a number of sanctuary areas throughout the Gascoyne that could be used for this purpose. Alternatively, there may be better opportunities in existing closed areas or soon-to-be established areas in other parts of the state (e.g. Jurien Marine Park), particularly given the limitations on research funding.

As a principle, it is important that where closed areas are established, their purpose is explicitly stated and monitoring programs ascertain their effectiveness in meeting objectives. The working group believes an assessment of the real impacts of these areas for fish stocks could be jointly undertaken by the Department of Fisheries and CALM.

5.9 Improving Community Stewardship of Fish Resources

5.9.1 Community Education and Awareness

With the future quality of recreational fishing largely dependent on the majority of the public abiding by fishing rules voluntarily, the Gascoyne Recreational Fishing Working Group believes it is important that a structured communications and community education plan be developed for the Gascoyne.

Public support for recreational fishing controls and voluntary compliance are particularly important, given the limited resources available for compliance activity and the vast areas of coastline available to recreational fishers in WA.

The communications and community education plan should seek to help develop a broad community recognition of the value of recreational fishing, as well as promote community support for responsible fishing behaviour and key management initiatives. Such a plan should seek to ensure that the recreational fishing community is properly informed of management decisions, and given a clear lead on the values and attitudes which will assist in sustaining fish stocks.

The plan should identify key target groups, strategies to keep each group informed, and performance indicators to assess its effectiveness. A focus must be to deliver educational messages to recreational fishers when they are fishing – which is when they are most receptive to conservation messages. Fisheries Officers and VFLOs must play a key role.

A comprehensive regional fishing guide to replace the wide range of brochures and leaflets produced by the Department of Fisheries should be a key element in the communications plan. This proposal had strong support (89 per cent) in submissions.

This regional fishing guide could be widely available through tackle shops and tourist outlets, and would offer significant opportunities to promote key educational messages, as well as being attractive for commercial sponsors and advertisers. Revenue generated through sponsorship/advertising should cover the cost of publication or provide additional funds for other educational activities.

Practical educational tools such as measuring gauges, fish rulers, adhesive bag limit guides and boat ramp and fishing venue signs are also essential in getting messages across to anglers, where - and when - it is most relevant.

This regional guide should be supported by effective regional and state-wide advertising and media communication strategies. More widespread use of media was supported by 73 per cent of submissions.

Those against the proposal were concerned that such a guide would be expensive and a waste of money. However, the working group believes that it could provide considerable benefits in maintaining and improving voluntary compliance. This will be particularly important during initial implementation of the Gascoyne recreational fishing management strategy.

Fifty four per cent of submissions supported a proposal for a regional community education officer to coordinate and develop community education programs. Most submissions that disagreed with the proposal believed that such a new position was not justified and would be an unnecessary cost.

It was suggested that existing Fisheries Officers could cope with this function, but the working group believed it was more important to maximise time spent in the field by Fisheries Officers rather than assigning them to other duties.

The working group recognised that Volunteer Fisheries Liaison Officers (VFLOs) had been successful in promoting a strong conservation ethic among recreational fishers throughout WA. Community feedback from a variety of sources indicated that the VFLO Program had achieved a significant impact in leading a change in community attitudes and values.

The working group believed strongly that the focus of VFLOs in the Gascoyne should remain on beach-front education of recreational fishers, but there was also scope for volunteers to assist in collecting research information on catches and community fishing behaviour.

A proposal that the VFLO Program should be enhanced in the Gascoyne received widespread support (75 per cent of submissions). A major criticism concerned the possible assignment of an officer to coordinate this role, believing it was an unnecessary expense or represented a 'job for the boys'. This coordination role is essential for an effective volunteer program, but the working group recognised concerns over funding implications.

The working group believed that the appointment of a dedicated recreational fisheries policy officer for the region could be achieved by a reallocation of existing Department of Fisheries resources. This officer could be responsible for a range of functions including overseeing implementation of the Gascoyne recreational fishing strategy; planning and coordinating community education activities; providing leadership and support to the VFLO Program; and fostering community support for these initiatives, including the identification of sponsorship opportunities.

This position could also provide executive support for regional recreational representative groups; liaise with fishing clubs and other organisations on recreational fishing matters; and represent recreational fishing interests in other marine and coastal planning processes.

Recommendation 25 - Community Education and Awareness

A regional communications strategy for recreational fishing in the Gascoyne should be implemented to educate fishers about recreational fishing management, fishing ethics, conservation issues and conservation-oriented fishing behaviour, and research initiatives. This strategy should include the production of a comprehensive regional guide on recreational fishing.

5.9.2 Compliance

The Gascoyne Recreational Fishing Working Group noted that significant gaps exist in the geographic spread of the Department of Fisheries' recreational fishing compliance capacity, and that compliance resources were not keeping pace with growth in recreational fishing or development in the Gascoyne region (e.g. plans for Coral Bay). These demands often compete against other compliance activities required for commercial fishing, aquaculture and enforcement of marine park zonings (e.g. sanctuary areas).

To resolve this issue, the working group said additional resources should be dedicated to recreational fishing compliance in the region. Such resources should be linked to the scale and urgency of management demands generated by the Gascoyne recreational fishery.

As an initial step, a baseline field contact rate for compliance and the VFLO Program should be established of between 5 and 10 per cent per cent of all recreational fishing trips. Peer education and communications theory indicates that a direct contact rate of 10 per cent should have a flow-on educational benefit to at least a further 40 per cent of participants, and also significantly improve community confidence in management, as well as increasing the detection rate of illegal activity.

The working group recognised that even with adjustments to current operational priorities, existing resources within the Department of Fisheries' Recreational Fisheries Program would not be sufficient to achieve anything near a 10 per cent contact-to-trip ratio for most recreational fisheries. This is an issue that requires serious consideration by Government and the community in the provision of recurrent funding to ensure effective recreational fisheries management.

Additional resources are needed to ensure that fisheries compliance capacity keeps pace with increasing participation and effort in recreational fishing in the Gascoyne. As a minimum, it is proposed that an additional four patrols (eight Fisheries Officers) should be based in the Gascoyne during the peak visitor season to provide a more visible and effective enforcement capacity.

This proposal was supported in 67 per cent of submissions. The majority of those who disagreed were concerned about where funding would come from – some believing that the proposal was designed to support licensing for recreational fishing.

A smaller number said WA was becoming a 'police state' and fisheries enforcement was not required. However, this view was contrary to the majority of comments – there were

frequent observations in submissions and at public meetings about a lack of Fisheries Officers seen in the field.

The working group believed the Department of Fisheries should continue to explore options for cost-effective compliance (e.g. transferring staff between regions to meet seasonal demands and using mobile patrols). Ultimately, additional compliance is expensive (an estimated \$100,000 per officer for equipment, accommodation, and office space costs in regional areas), and more funding will be required to achieve it.

Recommendation 26 - Additional Patrol Capacity

Additional resources should be dedicated to compliance in the Gascoyne including additional Fisheries Officers to provide:

- (i) A more visible and effective enforcement capacity.
- (ii) Education programs throughout the region.
- (iii) Coordination of an expanded Volunteer Fisheries Liaison Officer (VFLO) program.

As a minimum, the working group recommends that an additional four patrols (eight Fisheries Officers) be based in the Gascoyne for six months each year to cover the peak visitor season.

5.10 Community Consultation

The Gascoyne Recreational Fishing Working Group strongly supported close consultation with the recreational fishing community. This is focused predominantly through the Recreational Fishing Advisory Committee (RFAC), Recfishwest, and three Regional RFACs (representing Exmouth, Carnarvon and Denham).

The working group identified a number of important roles a representative recreational group should undertake including:

- Oversee implementation of the Gascoyne Recreational Fishing Management Strategy.
- Conduct five-yearly reviews of this plan.
- Provide advice on community education.
- Develop sponsorship for regional projects.
- Provide advice on funding priorities for recreational fishing in the region.
- Provide advice to the Minister for Fisheries and the Department of Fisheries on recreational fisheries management matters in the region.
- Represent recreational fishing interests in other processes.

With the implementation of the Gascoyne Recreational Fishing Management Strategy, the working group has proposed the establishment of a single regional council. The group said this would be more effective at assessing competing funding priorities across the region on fisheries research, compliance capacity, and promotion of community awareness than the existing mechanism. A regional council would be better placed to establish strong links with local government and planning and development authorities, and ensure that recreational fishing interests are strongly represented.

This proposal was supported in 66 per cent of submissions. The major concerns raised by respondents who disagreed were that a regional council would add another bureaucratic layer and was a function that the three RRFACs already undertook.

The working group said there should be effective formal consultation between Government and recreational fishers. Whether this was best achieved through the existing RRFAC network or a single regional council was an issue that was relevant state-wide, and required further consideration.

It was important, too, that recreational fishers be recognised as stakeholders in marine and coastal development planning. Potential impacts of proposed developments must be carefully assessed, not only with regard to important habitat or nursery areas, but should also take into account the issue of increasing fishing pressure in particular areas as a result of infrastructure developments (new roads, boat ramps, marinas, tourist resorts). Associated potential impacts of development, such as anchor damage to coral reefs and pollution, should also be considered.

Population growth will increase pressure on marine resources, and it is inevitable that integration of aquatic management will be necessary to ensure socially equitable and ecologically sustainable multiple-use of marine waters.

The working group urges that a comprehensive marine planning and management strategy should be developed for the Gascoyne Region to cope with the expanding use and development of the marine environment, and to reduce conflict between interest groups, including commercial and recreational fishing, aquaculture, conservation groups and the petroleum and transport industries.

While the Department of Fisheries is consulted at a state planning level, the working group believes there would be significant benefits in establishing formal links between recreational fishing groups and regional planning bodies such as the Gascoyne Development Commission.

Recommendation 27 - Recreational Fishing Representation

The Department of Fisheries should ensure representation of recreational fishing interests on all planning processes/committees in the region.

Recommendation 28 - Regional Recreational Fishing Advisory Committees

The Recreational Fishing Advisory Committee (RFAC) should review the role and structure of Regional RFACs in the context of regional management, with a view to rationalising and improving the efficiency of these arrangements.

5.11 Providing Adequate Resources for Management

The Gascoyne Recreational Fishing Working Group previously identified that proper funding for recreational fishing management would be a critical factor in whether or not WA maintains quality recreational fisheries in the next decade.

Funding is required for management, research, education, consultation and compliance. None of these key responsibilities are currently funded to a level that can meet the increasing demands for management caused by a growing population and declining environmental quality.

The working group is concerned that fishing quality will continue to decline if additional resources are not applied. Once fish stocks are depleted or collapsed, there is no alternative but management aimed at stock recovery, such as the closure of fisheries.

The concept of a regional recreational fishing licence was raised in the discussion paper, but this was clearly not supported by a majority of respondents (67 per cent). A key objection was that if there was a regional licence, fishers would be required to purchase licences for up to four different regions.

Other respondents were totally opposed to a charge for something that has traditionally been free. The reality is that recreational fishing has never been 'free' – government has covered the community's share of management costs through an annual contribution from the Consolidated Fund of about \$5.5 million.

Another common view was that licensing represented another tax on the community. Respondents said that fishers already paid taxes on fuel and tackle, and these funds should be directed to fisheries management.

The working group noted a number of past attempts by the State Government to secure a levy through the general sales tax system to help fund recreational fisheries management. These attempts have been rejected by the Commonwealth Government on administrative grounds. State taxation powers do not allow for the introduction of such a levy at the state level.

Respondents said that they did not trust the Government to use licence revenue for recreational fisheries management. They feared that the Government would reduce its existing contribution to the effect that no new funding would be available for additional research, education and management to benefit the recreational fishery.

5.11.1 How Much Funding is Required?

The working group believes that additional funding of about \$600,000 is required for an effective recreational fishing management program in the Gascoyne. This should go towards:

- Research (recreational catch survey, biology, stock assessment)
\$150,000

- Additional eight part-time Fisheries Officers (including equipment, vehicles)
\$400,000
- Community awareness (brochures, media, school programs, VFLOs)
\$60,000

Additional revenue would also provide an opportunity to fund projects jointly with other organisations for facilities such as fish cleaning tables, boat ramps and improved access.

5.11.2 Where to from here?

The working group is concerned that if the State Government's Consolidated Fund contribution remains constant, the existing service to recreational fisheries management will diminish in the face of increasing business costs (that is, as the real costs of compliance and research rises).

At current funding levels, the growth of knowledge and management is likely to be slower than the rate of decline in recreational fisheries. Without extra funding, the next recreational catch survey in the Gascoyne will not be collected until 2004, with repeat surveys each five years. If a major crisis occurs that diverts funds, it is feared that the surveys could be collected even later.

Significant resources have already been dedicated to pink snapper research in Shark Bay and this has required a diversion of compliance, education and management resources for recreational fishing from other areas of the State, particularly the Perth metropolitan area.

The budget for recreational fisheries management for 1999/2000 was \$7 million state-wide. An estimated \$1.6 million is contributed by 60,000 recreational fishers who obtain licences for rock lobster, abalone, marron, netting and freshwater fishing. Most resources are dedicated to management of marine finfish fisheries, but the vast majority of anglers who target finfish directly contribute little or nothing to the maintenance of the resource on which they rely.

The working group noted several funding options for future recreational fisheries management, including:

- Increase the level of Government funding.
- Institute a resource rent on commercial sector
- Recover a percentage of the GST spent on fishing gear
- Institute more general licensing for recreational fishers
- Institute a levy on use of public boat ramps and a contribution from developers of marinas and industrial developments which impact on the quality of recreational fishing
- No change and decreasing servicing and management

To fund proposals within the Gascoyne Recreational Fishing Management Strategy and secure a funding stream that will track participation rates, the working group believes that the most realistic option would be a combination of the above. Increased contributions by user groups could be supplemented through a greater contribution from Government. However, the group said that there were varying levels of community support for a general

recreational fishing licence and also a political reluctance to introduce such a licence.

The group noted that an angling licence would provide a secure funding source that tracked participation. It would also provide an accurate database of participants and enable data collection from licence holders.

After considering various options, the working group's preference is for the State Government to increase funding for recreational fisheries management. An allocation of \$10 million state-wide is suggested for the next three financial years. From this point, the Government contribution to management should be on the basis of five per cent of the direct economic impact of recreational fishing on the economy (\$299 million is currently directly generated through the economy by this sector).

If the choice is not to increase funding in line with the above proposal, the working group believes the State Government should consider introducing a general state-wide recreational fishing licence. This may not be popular with all fishers, but the harsh alternative is that without additional funding, the quality of recreational fishing in WA will continue to decline.

The State Government has indicated that it is not be prepared to introduce a general angling licence. However, if additional funds are not forthcoming from Consolidated Funds, this issue will still require widespread discussion. Such a debate must encompass a range of issues, such as:

- Cost/affordability.
- Who would need a licence?
- Exemptions for children and pensioners.
- Other discounts.
- What types of fishing or areas would require a licence – for all fishing, or only for certain species?
- Accessibility of buying a licence - its availability to visitors and tourists and in remote areas.

If an angling licence was introduced, the working group believes strongly that all revenue from it should go into the Recreational Fishing Trust Fund (RFTF) and applied specifically to recreational fisheries management. This fund is already in place and revenue from existing abalone, rock lobster, netting, marron and freshwater licences is directed to it and used exclusively for recreational fishing.

Further, in the interest of equity if a recreational licence were to be introduced, all sectors of the commercial fishing industry should pay the management cost of their components of the fishery in proportion to their use.

Recommendation 29 - Funding for Additional Management

- 29 (a) The Government should provide an additional ongoing financial commitment to meet the requirements of implementing this plan and funding management needs for recreational fishing state-wide.

- 29 (b) If Government does not agree to an additional commitment, the Minister for Fisheries must examine all options for securing proper funding. This must include the question of whether to introduce a state-wide recreational fishing licence and an examination of social equity issues (applicability, cost, concessions).
- 29 (c) Such a review should be predicated by a commitment from the State Government that:
- (i) Funding from any new recreational licensing should be directed to the Recreational Fishing Trust Fund and used exclusively for recreational fishing.
 - (ii) It will not diminish the level of Government contribution to recreational fishing from Consolidated Funds.

APPENDIX A NAMES OF INDIVIDUALS AND ASSOCIATIONS WHO FORWARDED SUBMISSIONS TO THE GASCOYNE RECREATIONAL FISHING WORKING GROUP

Abbott, Ronald
 Adam, R H
 Agland, Ron
 Alder, Jackie
 Aldred, Steven
 Allen, J
 Ameduri, Warren
 Anderson, Eric
 Anderson, Noreen
 Angwin, Neil
 Antulov, F A
 Appleby, H
 Aquaculture Council of
 WA
 Ariti, Joe
 Arnold, H G
 Ashworth, L
 Aspland, Peter
 Asplin, Colin
 Asplin, Jake
 Asplin, Katherine
 Asplin, Marge
 Asplin, Mary
 Asplin, Michelle
 Asplin, Shane
 Atcheson, R R
 Attwood, Luke
 Aubrey, Andrew
 Australian National
 Sportfishing Assoc
 (WA) Inc
 Azzopardi, Joe
 Babarskas, Peter
 Back, Linda
 Backhouse, T A
 Baddeley, Peter and
 Linda
 Bader, Robert
 Baggetta, Charlie
 Bail, L J
 Bailey, Colin

Bailey, Kenneth and
 Barbara
 Barbara, Peter
 Barber, Clinton
 Barbetti, Lou
 Baronie, Francis
 Bartholomaeus, Neil
 Bartleet, A
 Bartlett-Torr, Errol
 Bartlett-Torr, Maureen
 Barton, Harry
 Bassett, Jeffrey
 Baston, K C
 Batchelor, D J
 Batchelor, D R B
 Batchelor, Edna
 Bauer, Dave
 Bauer, R F
 Bayliss, D
 Beal, Jeff
 Beck, Ron
 Bedell, Steve
 Beecroft, Chris
 Bell, A H
 Bell, Ronald
 Bell, William
 Bennetts, John
 Best, Kevin
 Betts, Paul
 Beurteaux, N
 Beyeler, H
 Bianchi, Phil
 Bird, David and
 Margaret
 Bird, Joy
 Black, Ken
 Black, M G
 Blackman, Ralph
 Blake, Arenia
 Bloffwitch, John
 Bloffwitch, Judith

Blood, David
 Blyth, Peter
 Boating Industry
 Association of WA
 Bohan, Mark
 Bond, Graeme
 Boogaard, Sue, Henry &
 Family
 Booth, W
 Bowden, Donald
 Bowden, Peter
 Bowditch, Peter
 Boyle, Lindsay and Ann
 Bradshaw, Bruce
 Braithwaite, Peter
 Bray, P D
 Brierty, Kelly
 Brierty, Mike
 Brierty, Mitchell
 Brierty, Noreen
 Brierty, Stuart
 Briggs, Colin
 Brown, E T
 Brown, F J
 Brown, K J
 Brown, R J
 Brown, Ross
 Brown, T E
 Bruce, Eva & Family
 Bryant, Raymond Henry
 Bullard, Steven
 Bullock, I W
 Bunbury Angling Club
 Bunce, E E
 Burgin, Mick
 Burrows, J
 Burton, Kim
 Bury, Geoff
 Buss, Keith
 Butler, Charles
 Campbell, Joan

Campbell, Lyn
 Campbell, Ron
 Cape Seafarms Pty Ltd
 Caraher,
 Care, Raphael
 Carger, Rhonda
 Carnarvon RRFAC
 Carter, Douglas Herbert
 Castle, Rodney
 Chambers, Cliff, Liz, Ben &
 Karli
 Chambers, P R
 Chaplin, William
 Chipperfield, P A
 Churley, Alan
 Clark, W J
 Clarke, Diane
 Clayton, Kim
 Clegg, James
 Cockram, E J
 Cole, N W
 Collard, Peter
 Collins, L
 Collins, Rod
 Collins, Ross
 Collins, S T R
 Colville, Robert
 Combe, D R
 Conservation Council of
 WA
 Cook, Ian
 Cook, W
 Coote, Peter
 Cope, Gary
 Costins, Paul
 Cotterell, Kevin
 Cowan, Andrew
 Cox, Clayton
 Coyne, Gary
 Crane, E H
 Craster, John
 Cribb, Andrew
 Crisp, Christine
 Crisp, Peter
 Croasdale, Ian
 Crommelin, Keven
 Cumming, David
 Curtis, P S
 Cutten, Ron
 D'Adamo, Gino

Daniels, Matthew
 Dartnall, Stephen
 Davidson, Rob
 Davies, John
 Dawe, L
 Dawes, L B
 Dawes-Smith, Cameron
 Dawson, Haydn
 D'cruz, Craig
 de Beer, Charles
 Deebie, Paul
 Deering, Brian
 Deering, Gary
 Dehlman, Des
 den Boer, Jack
 Denham Fisherman's
 Association
 Denham RRFAC
 Denham, Edward
 Denham, Jason
 Denham, Valmae
 Dennen, L
 Department of
 Conservation and
 Land Management
 D'Errilio, Remo
 Desmond, Paul
 Dews, Len
 Doo, Norma
 Doubikin, John
 Dranczuk, Felix
 Drury, Nigel
 Dryden, C A
 Duffield, John
 Duffy, Shaun
 Dumbrell, Brian
 Dumbrell, Graham
 Dunsire, Paul
 Dyer, Laurie
 Dyson, David
 Dyson, William
 Earle, Eddy
 Eastman, Ian
 Edney, Brian
 Elliott, R L
 Ellul, Raphael
 Epding, Trevor
 Evans, Lorraine and
 Brian
 Evans, Peter

Evans, Reva
 Evans, Steve
 Exmouth RRFAC
 Fabiscar, Charles
 Farrell, Marc
 Faulkner, H
 Fawcett, Sue
 Fearnley, Ian
 Fernie, Brian
 Ferrell, D K & M J
 Fewster, Arthur
 Finch, D
 Fitzhardinge, Bob
 Fitzhugh, W
 Ford, W L
 Hayward, M L
 Heldhouse, Col
 Helmrich, G
 Henderson, R
 Hepburn, Alex
 Hepburn, George
 Hepburn, Sandra
 Hiley, Peter
 Hill, R J & J
 Hillary, Agnes
 Hillary, Alana
 Hillary, Elanie
 Hillary, Glen
 Hillary, Hilton
 Hillary, Joy
 Hillary, Kelly
 Hillary, Kristy
 Hillary, Liam
 Hillary, Monique
 Hillary, Paige
 Hillary, Paul
 Hillary, Russell
 Hillary, Vicky
 Hodyl, Peter
 Hogan, John
 Holm, Robert
 Holman, George
 Holmes, Don
 Home, David
 Home, M R
 Hood, Stephen
 Horn, Felicity
 Hort, Gordon
 Horvath, Joe
 Horwood, Angus

Houghton, G J
 Hoult, Garry
 Howard, Robert J
 Howley, Fred
 Howley, Glen
 Howley, Kay
 Huck, Christopher
 Hudson, Ric
 Hughes, Janet
 Hughes, Kevin
 Hukin, Harry
 Humbert, M
 Humphrey, R F
 Hunter, Aaron
 Hutchinson, Robert
 Hutton, B
 Hyde, G C
 Ingle, Robert (Bob)
 Inland Fishing Club
 Ivkovic, Nick, Slavica,
 Stiven and Aleksandar
 Jackman, Ron
 James, Audrey
 James, Pat
 James, Russel
 Jamieson, A H & O W
 Jamieson, E & B
 Jamieson, Max & Sara
 Jeff Bubb Ocean Quest
 Charters
 Jelly, Keith
 John, Arthur
 Johns, Doug
 Johnson, Andrew
 Johnson, Mark
 Johnson, Mike
 Johnston, S A
 Jolley, Ed
 Jones, Barry
 Jones, Geoff
 Karniewicz, Ric
 Kay, Keith
 Kazakoff, Les
 Kearney, Christine
 Kearney, David
 Kearney, Paul
 Kempton, Andrew
 Kennedy, John
 Kennett, Doug
 Kenworthy, W

Kerr, Mark
 Kerr, William
 Kerwin, Rob
 Kerwin, Ryan
 Keys, N R
 Keys, Peter
 King, Lorna
 King, Troy
 Kirk, Geoff
 Kirkby, Lionel
 Kirton, Kenneth
 Knight, Mitchell
 Knight, Stacy
 Knight, Steven
 Korner, J
 Kostanich, Stan
 Kraus, John
 Kucer, Niko
 Kuring, John
 Lake, Peter
 Lambert, Ray
 Larke, Keith
 Larsen, Stuart
 Lawer, Bill
 Lawrence, Bruce
 Lederer, R
 Lee, Frank J
 Lega, Billy
 Leishman, David
 Leitch, John
 Leyte, Ross
 Liddelow, Graeme
 Liddelow, M
 Limbourne, Ronald
 Lindsay, R
 Llewellyn, David
 Lofts, Michael
 Longbottom, L J
 Lord, Tracey
 Low, Christine
 Low, Paul
 Loxton, Brian
 Luke, Greg
 Mack, Peter
 Mackerel Island Pty Ltd
 Macpherson, Bruce &
 Lyn
 Macrae, Kenneth
 Maitre, Ivan
 Major, Francis

Mandy, Lindsay
 Mangelsdorf, Greg
 Manolas, G A
 Marmion Angling & Aquatic
 Club
 Marns, Steven
 Marquis, R
 Marriott, Basil
 Marsh, Matthew
 Marshall, Gary
 Marshall, N & GM
 Martin, Dean
 Master, Ridwan
 Matheson, Norman
 Mathews, Ron
 Mattew, John
 Mavrantonis, Kit
 Mayfield, C G
 McBride, Garry
 McConigley, John
 McGrath, Ray
 McIntosh, J M
 McKenna, John
 McKenzie, Les
 McLaughlin, Joe
 McLaughlin-Todd,
 Donald
 McMahan, Norm
 McPherson, Rob
 Meagher, Roy D
 Meecham, R
 Meecham, R K
 Meek, G & R
 Melville Amateur
 Angling Club Inc
 Merry, Frank
 Messrs McDonald,
 McLoughlin &
 Cunneen
 Metropolitan RRFAC
 Meyers, Nicole
 Micallef, Pierre
 Miezi, Ilmar
 Miller, C J
 Miller, Robert
 Misko, Horace
 Mitchell, Bob
 Mitcheson, Barry
 Mitcheson, Susan
 Moloy, C W

Moore, A J
 Moore, Matthew
 Moore, P
 Moore, Phillip
 Moore, Shayne
 Moran, David
 Moroney, Paul
 Morris, Jeffrey
 Morris, Wayne
 Morrison, Peter
 Moyle, Geoff
 Mt Barker Offshore Angling
 Club
 Murdoch, Wayne
 Murphy, S P
 Murray, Don
 Murray, Jill
 Murray, John
 Napier, J C
 Nash, Ted
 Neenan, Allan
 Nelson Marine Pty Ltd
 Neve, Frederick
 Newbound, Eric
 Newby, Bernard
 Nielsen, Henning
 Nixon, Graham
 Northampton Angling
 Club
 Nunn, Robert
 Nutley, S
 Nylander, Ken
 O'Bree, Brian
 Olivieri, Albert
 Omond, Anne
 Omond, Glenn
 Onderwater, Sonja
 Orr, Errol
 O'Ryan, Phillip
 O'Ryan, Phillip
 Osborne, Cliff
 Outram, J
 Outram, M
 Outram, Wyane
 Ovens, Peter
 Overton, C C
 Paini, Joseph & Melba
 Pakay, Nick
 Palmer, Brian
 Palmer, G D G

Palmer, Wayne
 Papadopoulos, Louis
 Parker, Eric
 Parker, F W
 Paterson, Maximum
 Patience, Chris
 Pattinson, Richard
 Pattinson, Robert
 Pavicic, R
 Peacock, Alan
 Peak, Toby
 Pearce, Rod
 Pearce, Vicki
 Pearson, Petra
 Pedulla, Rob
 Pember, Jason
 Penrose, John
 Perfect, Garry
 Perry, M G
 Perth Divers Sub Aqua
 Club Inc
 Piccoli, Arnold
 Pickering, Greg
 Pielow, Brian
 Pitt, N G
 Pitt, W A
 Platcher, Frederick
 Platcher, Rita
 Plummer, A E
 Pollard, David
 Pollitt, J K
 Pollitt, Y F
 Porter, John
 Potter, Karen
 Poultney, M L
 Powell, Peter
 Power, Brian
 Prestedge, E R
 Prior, Philip
 Pullella, Joe
 Quinn, Norman
 Quinns Rocks Fishing
 Club
 Rainnie, Robert Ian
 Raven, W J
 Recfishwest,
 Redmond, Dennis
 Redwood, David
 Reid, Steve
 Research Division,

Riccardi, Serge
 Roberts, Rod
 Robinson, David
 Robinson, Laurie
 Robinson, S C
 Rodger, Peter
 Roelofsen, Grant
 Rogers, Trevor
 Rogie, Stewart
 Rooney, John
 Rose, John
 Roso, Zelko
 Ross, Andrew
 Rothnie, Ian
 Rout, John
 Russell, G A
 Ryan, Gary
 Ryan, Vic
 Ryder, Gerard
 Sampson, Cheryl
 Sampson, John
 Sanders, Ross
 Scafidi, Joe
 Schmidt, Douglas
 Schofield, Nigel
 Scott, F
 Sears, Ted
 Seeley, Mark
 Seidel, R W
 Shankland, Craig and
 Jessie
 Shark Bay Prawn
 Trawler Operators'
 Association Inc
 Sharpe, Peter
 Shaw, Jack
 Shaw, M
 Shaw, Peter
 Shaw, R E
 Shaw, Ron
 Shire of Shark Bay
 Simmons, A J
 Simmons, Georgie
 Simpson, Chris
 Skellett, Christine
 Slater, Lylia
 Slater, P G
 Smalpage, F E
 Smith, Bill
 Smith, D S & M

Smith, Edmund	Tomlinson, Peter	Wilkins, Sheryl
Smith, Peter	Tonkin, T	Wilkinson, G T
Smith, Rohan	Trembath, Shayne	Williams, D A
Smith, Rusty	Trow, Jack	Williams, G R & I A
Smith, S	Truman, Barry	Williams, H G
Snook, Brian	Tupper, Jeff	Williams, R D & M L
South Suburban Angling Club Inc	Turner, R D	Williams, Toby & Susan
Speed, Peter	Turner, Ron	Willis, J G
Spicer, Shane	Turner, Trevor	Willis, Paul
Stagles, Arthur	Turvey, Michael	Willm, Christian
Stagles, Ian	Upton, John	Wills, Robert
Stamp, Edwin	Vagg, Kim	Wilson, Mathew
Steadman, David	Vagg, Wayne	Wines, Anita
Steck, Ian	Vaisey, Barry	Wines, Glenn
Stein, Wally	van Blommestein, David	Wines, Jay
Stevens, A H T	Vernon, R	Wines, Trent
Stock, F	Verseg, Peter	Winfield, Graeme
Stocker, Lance	Vincent, Philip	Winfield, R R
Streeton, R J F	WA Undersea Club	Winfield, W J
Stretch, John	Waite, Jamie	Wissell, Wayne
Stuchbury, Ron	Wake, Diane	Withers, Grant
Sulenta, Len	Wake, Kevin	Wood, A
Sullivan, J	Walker, Graeme	Wood, Bernard
Sumption, Roberta	Walkey, Chris	Wood, Brian
Sumption, Trevor	Wall, Stephen	Wood, Chelsea
Surf Casting and Angling Club of WA Inc	Walling, Glen	Wood, D
Suton, Tyson	Walters, Bernard	Wood, Peter
Swannell, Robert	Want, Arthur	Wood, Phil
Sweetman, B J	Warburton, John & Shirley	Wood, R
Sweetman, Kim	Warner, Marcelle	Wood, T
Szijarto, Paul	Warnett, F A	Woodcock, Kim
Tapper, Ross & Jim	Wass, Don	Woodhams, Ivan
Tatton, W	Watson, G H	Woodley, Carl
Taylor, Bob	Watt, Peter	Woodward, R F & I S
Teede, T	Webb, Chris	Woolfitt, Karen and Wayne
Templeton, W & L	Webb, Garry	Woolley, Mike
Thomas, Craig	Webb, M J	Wright, Barrie
Thomas, Ralph	Webb, R A	Wright, Delys
Thomas, T R	Webstrer, Geoff	Wright, Harold
Thomas, Trevor	Wedding, Tim	Wright, Peter
Thompson, Cary	Westralian Shells,	Wroth, R M
Thompson, John	White, George	Wylie, Eric
Thornton,	White, Ken	Yamatji Land and Sea Council
Tickle, Phil	White, Troy	Yates, Bruce
Tippett, Kevin	Whitfield, Colin	York, Anthony
Tisdell, Bruce	Whitfords Sea Sports Club	Zatas, Chris
Tognolini, M	Whitnell, W E	Zerbe, Melissa
Tomlinson, Peter	Wiggins, Deane	

APPENDIX B SUMMARY OF SUBMISSIONS RECEIVED IN RESPONSE TO DISCUSSION PAPER ‘A QUALITY FUTURE FOR RECREATIONAL FISHING IN THE GASCOYNE’ (FISHERIES MANAGEMENT PAPER NO. 124)

This summary of submissions is based numerically on submissions received – it does not attempt to weight submissions received from clubs and individuals. All of the comments raised in the various submissions were reviewed by the Gascoyne Recreational Fishing Working Group, who considered not only the frequency but also the validity of issues raised.

Some of the totals may not always equal 100 per cent, due to the rounding-up of decimals.

B1 Guiding Principles for Management

Proposal 1 – Key Principles for Recreational Fisheries Management

The working group felt it was important that recreational fisheries management in the region be based on the following key principles:

- A key aim should be to ensure that the biodiversity of fish communities and sustainability of fish stocks are preserved.

<i>Strongly agree</i>	<i>Agree</i>	<i>Don't know</i>	<i>Disagree</i>	<i>Strongly disagree</i>
54%	45%	1%	<1%	0%

- Fisheries management should be pro-active and recognise projected increases in fishing pressure.

<i>Strongly agree</i>	<i>Agree</i>	<i>Don't know</i>	<i>Disagree</i>	<i>Strongly disagree</i>
41%	54%	2%	1%	1%

- Management should incorporate a precautionary approach and seek to minimise risk to fish stocks.

<i>Strongly agree</i>	<i>Agree</i>	<i>Don't know</i>	<i>Disagree</i>	<i>Strongly disagree</i>
35%	58%	3%	3%	2%

- Fishing rules should acknowledge that equitable access to fishing opportunities across recreational user groups is important.

<i>Strongly agree</i>	<i>Agree</i>	<i>Don't know</i>	<i>Disagree</i>	<i>Strongly disagree</i>
46%	51%	1%	1%	1%

- The value of recreational fishing should be clearly recognised and given proper weight in all planning processes.

<i>Strongly agree</i>	<i>Agree</i>	<i>Don't know</i>	<i>Disagree</i>	<i>Strongly disagree</i>
65%	34%	1%	<1%	<1%

- Fishing rules be kept simple and, where possible and practical, made uniform across the region.

<i>Strongly agree</i>	<i>Agree</i>	<i>Don't know</i>	<i>Disagree</i>	<i>Strongly disagree</i>
57%	34%	1%	6%	1%

- Recreational fishing rules should be designed to limit the total recreational catch, as well as protect fish at vulnerable stages in their life.

<i>Strongly agree</i>	<i>Agree</i>	<i>Don't know</i>	<i>Disagree</i>	<i>Strongly disagree</i>
40%	48%	2%	5%	6%

- The benefits from controls on the total recreational catch should flow back to the recreational sector and be reflected in improved fishing quality and sustainability.

<i>Strongly agree</i>	<i>Agree</i>	<i>Don't know</i>	<i>Disagree</i>	<i>Strongly disagree</i>
45%	50%	3%	1%	1%

B2 Term of Plan and Review

Proposal 2 – Five-year Review

This regional management strategy should be reviewed every five years. Changes to recreational fisheries management within this period should only occur if there is compelling evidence that indicates a critical threat to the sustainability of fish stocks.

<i>Strongly agree</i>	<i>Agree</i>	<i>Don't know</i>	<i>Disagree</i>	<i>Strongly disagree</i>
36%	52%	2%	7%	4%

B3 Information for Management

Proposal 3 – Major Catch Survey

A major recreational catch survey should be undertaken every year for a minimum of three years to establish a baseline data set on recreational fishing in the Gascoyne.

<i>Strongly agree</i>	<i>Agree</i>	<i>Don't know</i>	<i>Disagree</i>	<i>Strongly disagree</i>
34%	51%	5%	6%	5%

The catch survey should be repeated every five years at a minimum to provide detailed information about the spatial and temporal distribution of recreational activity and catches on which to base management decisions.

<i>Strongly agree</i>	<i>Agree</i>	<i>Don't know</i>	<i>Disagree</i>	<i>Strongly disagree</i>
29%	56%	6%	6%	3%

Proposal 4 – Annual Data Collection Program

Fisheries officers and volunteers should collect data on a number of key indicator species as part of their patrols to provide an index of trends in recreational fishing in the years between five-year catch surveys.

<i>Strongly agree</i>	<i>Agree</i>	<i>Don't know</i>	<i>Disagree</i>	<i>Strongly disagree</i>
31%	61%	2%	4%	2%

Proposal 5 – Volunteer Angler Logbook Program

Fisheries WA [Department of Fisheries] should expand the voluntary angler’s logbook program in the Gascoyne region to provide additional monitoring of trends among highly successful recreational fishers.

<i>Strongly agree</i>	<i>Agree</i>	<i>Don't know</i>	<i>Disagree</i>	<i>Strongly disagree</i>
23%	54%	8%	8%	8%

Proposal 6 – Priority Species for Research

Undertake research on the following key recreational species in the Gascoyne (in order of priority) to provide information on species biology and stock structure. Predictive fisheries stock assessment models and, where practical, indices of recruitment, should then be developed for these key species.

- Pink snapper (*Pagrus auratus*)
- Spangled emperor (*Lethrinus nebulosus*)
- Black snapper (blue-lined emperor - *Lethrinus laticaudis*)
- Red emperor (*Lutjanus sebae*)
- Baldchin groper (*Choerodon rubescens*)
- Spanish mackerel (*Scomberomorus commerson*)
- Cods - estuary, Rankin (*Epinephelus coides*, *Epinephelus multinotatus*)
- Coral trout (*Plectropomus maculatus*)
- Black spot tuskfish (*Choerodon schoenleinni*)
- Mulloway (*Argyrosomus hololepidotus*)

<i>Strongly agree</i>	<i>Agree</i>	<i>Don't know</i>	<i>Disagree</i>	<i>Strongly disagree</i>
29%	60%	6%	4%	1%

Proposal 7 – Fishing Quality Indicators

Fisheries WA [Department of Fisheries] develop a range of ‘fishing quality indicators’ based on angler surveys to identify trends in fishing quality in the region and assist in the review of the effectiveness of this strategy.

<i>Strongly agree</i>	<i>Agree</i>	<i>Don’t know</i>	<i>Disagree</i>	<i>Strongly disagree</i>
18%	57%	14%	8%	3%

These indicators should cover fishing quality, diversity and the value associated with the fishing experience.

<i>Strongly agree</i>	<i>Agree</i>	<i>Don’t know</i>	<i>Disagree</i>	<i>Strongly disagree</i>
20%	55%	12%	10%	3%

B4 Protecting Vulnerable Fish and Managing the Recreational Catch

Proposal 8 (a) - Possession and Trip Limits

The proposed possession/trip limit for the Gascoyne is that a person may have at any time no more than:

- 17 kg of fillets; or
- 10 kg of fillets plus one days bag limit of whole fish; or
- Two days bag limit of whole fish.

<i>Strongly agree</i>	<i>Agree</i>	<i>Don’t know</i>	<i>Disagree</i>	<i>Strongly disagree</i>
31%	28%	2%	11%	29%

A possession limit of two days bag limit should apply to all other fish including baitfish, crustaceans and shellfish.

<i>Strongly agree</i>	<i>Agree</i>	<i>Don’t know</i>	<i>Disagree</i>	<i>Strongly disagree</i>
26%	30%	3%	12%	29%

B5 Bag Limit Structure

A bag limit of seven Key Angling Fish and 30 Table Fish should be implemented in the Gascoyne (as detailed in table)

<i>Strongly agree</i>	<i>Agree</i>	<i>Don’t know</i>	<i>Disagree</i>	<i>Strongly disagree</i>
26%	30%	3%	13%	28%

Proposal 9- Size Limits

The minimum size limit for black snapper (blue-lined emperor) be increased to 35cm to protect breeding stocks.

<i>Strongly agree</i>	<i>Agree</i>	<i>Don't know</i>	<i>Disagree</i>	<i>Strongly disagree</i>
35%	33%	6%	12%	13%

The minimum size limit for pink snapper in the western gulf of Shark Bay be increased to 50 cm to protect breeding stocks.

<i>Strongly agree</i>	<i>Agree</i>	<i>Don't know</i>	<i>Disagree</i>	<i>Strongly disagree</i>
28%	27%	11%	19%	15%

The minimum size limit for pink snapper be increased to 50 cm in the entire Gascoyne Region to standardise rules and promote fishing quality.

<i>Strongly agree</i>	<i>Agree</i>	<i>Don't know</i>	<i>Disagree</i>	<i>Strongly disagree</i>
27%	24%	10%	19%	19%

The maximum size limit for cod be reduced to 1 metre.

<i>Strongly agree</i>	<i>Agree</i>	<i>Don't know</i>	<i>Disagree</i>	<i>Strongly disagree</i>
26%	38%	14%	10%	12%

A maximum size limit of 70 cm be introduced for reef and demersal species, allowing fishers to take only one fish of each species over 70 cm in length each day. This limit will not apply to the following pelagic species: amberjack, barracuda, cobia, mackerel, mahi mahi, samson fish, sharks, tuna, yellow tail kingfish.

<i>Strongly agree</i>	<i>Agree</i>	<i>Don't know</i>	<i>Disagree</i>	<i>Strongly disagree</i>
23%	28%	8%	18%	24%

Proposal 10 - Shark Bay Pink Snapper**Proposal 10 (a) - Western Gulf**

A bag limit of two, with a minimum size of 50cm and a limit of one fish over a maximum size limit of 70cm. These arrangements should apply to the area south of a line drawn west from Eagle Bluff (113°58'E, 26°10'S) across to the point to (113°45'E, 26°17'S) protect the known areas of major spawning activity.

<i>Strongly agree</i>	<i>Agree</i>	<i>Don't know</i>	<i>Disagree</i>	<i>Strongly disagree</i>
23%	28%	24%	15%	11%

Proposal 10 (b) - Eastern Gulf

A bag limit of two, coupled with restricted fishing times and minimum and maximum size limits is an appropriate management approach once the target breeding stock of 100 tonnes is reached.

<i>Strongly agree</i>	<i>Agree</i>	<i>Don't know</i>	<i>Disagree</i>	<i>Strongly disagree</i>
17%	33%	26%	15%	9%

B6 Fishing Methods

Proposal 11 – Filleting at Sea

As daily bag and size limits are to remain important management tools in recreational fishing management, filleting at sea should not be permitted in the Gascoyne Region.

<i>Strongly agree</i>	<i>Agree</i>	<i>Don't know</i>	<i>Disagree</i>	<i>Strongly disagree</i>
31%	30%	4%	12%	24%

Proposal 12 – Line Fishing

- All recreational anglers, both shore and boat fishers, be limited to a maximum of two rods, two handlines, or combination of one rod and one hand line, with no more than three hooks or gangs of hooks attached to each line.

<i>Strongly agree</i>	<i>Agree</i>	<i>Don't know</i>	<i>Disagree</i>	<i>Strongly disagree</i>
40%	35%	2%	10%	13%

- The use of set lines by recreational fishers be banned.

<i>Strongly agree</i>	<i>Agree</i>	<i>Don't know</i>	<i>Disagree</i>	<i>Strongly disagree</i>
58%	28%	4%	4%	6%

Proposal 13 – Spear Fishing

It is proposed that spear fishing be prohibited by persons using artificial breathing apparatus and that existing restrictions on spear fishing for vulnerable species continue in areas of high conservation value, such as specified areas in Ningaloo Marine Park.

<i>Strongly agree</i>	<i>Agree</i>	<i>Don't know</i>	<i>Disagree</i>	<i>Strongly disagree</i>
41%	22%	6%	9%	23%

Proposal 14 – Net Fishing

It is proposed that:

- (a) The use of set nets by recreational fishers be prohibited in the Gascoyne.

<i>Strongly agree</i>	<i>Agree</i>	<i>Don't know</i>	<i>Disagree</i>	<i>Strongly disagree</i>
52%	16%	6%	10%	16%

- (a) Haul netting be permitted in specified netting areas only.

<i>Strongly agree</i>	<i>Agree</i>	<i>Don't know</i>	<i>Disagree</i>	<i>Strongly disagree</i>
22%	37%	8%	11%	22%

- (a) Throw nets be permitted throughout the region (except 'no fishing' zones such as sanctuary zones and fish protection areas).

<i>Strongly agree</i>	<i>Agree</i>	<i>Don't know</i>	<i>Disagree</i>	<i>Strongly disagree</i>
34%	51%	7%	3%	5%

B7 Improving Recreational Fishing Quality

Proposal 15 – Recreational Fishing Priority Areas

Management decisions such as those affecting resource allocation and access should give prime consideration to recreational fishing values in these areas. Other uses such as commercial fishing and aquaculture should be of a type and level compatible with recreational fishing values for the area.

The following areas have been identified as possible recreational fishing priority areas:

- Area extending from the high water mark to a distance of 3nm off shore from 24° 42' south extending north to the boundary of the Gascoyne Region (near Ashburton River).

<i>Strongly agree</i>	<i>Agree</i>	<i>Don't know</i>	<i>Disagree</i>	<i>Strongly disagree</i>
30%	38%	26%	3%	2%

- Eastern inner gulf of Shark Bay.

<i>Strongly agree</i>	<i>Agree</i>	<i>Don't know</i>	<i>Disagree</i>	<i>Strongly disagree</i>
33%	40%	23%	2%	2%

- Western inner gulf of Shark Bay.

<i>Strongly agree</i>	<i>Agree</i>	<i>Don't know</i>	<i>Disagree</i>	<i>Strongly disagree</i>
33%	40%	23%	2%	2%

Proposal 16 – Recreational Fishing Only Areas

A number of specific areas have been identified as key recreational fishing sites. It is proposed the following areas be designated as ‘recreational fishing only’ areas and commercial line fishing for finfish species should be prohibited.

Proposal 16 (a) - Carnarvon area

One Mile Jetty - to a distance of 100m around the jetty

<i>Strongly agree</i>	<i>Agree</i>	<i>Don't know</i>	<i>Disagree</i>	<i>Strongly disagree</i>
49%	32%	15%	3%	2%

Coral patch - (25°15.812'S, 113°46.845'E) to a distance of 1nm

<i>Strongly agree</i>	<i>Agree</i>	<i>Don't know</i>	<i>Disagree</i>	<i>Strongly disagree</i>
47%	33%	18%	1%	<1%

Tyre Reef/Lady Joyce wreck - (25°02.788'S, 113°32.390'E) to a distance of 1nm

<i>Strongly agree</i>	<i>Agree</i>	<i>Don't know</i>	<i>Disagree</i>	<i>Strongly disagree</i>
48%	32%	19%	1%	<1%

Proposal 16 (b) - Exmouth area

Y Island

<i>Strongly agree</i>	<i>Agree</i>	<i>Don't know</i>	<i>Disagree</i>	<i>Strongly disagree</i>
48%	30%	20%	2%	<1%

Proposal 16 (c) - Shark Bay area

Bernier/Dorre Islands - this area was identified in the ‘Shark Bay Management Paper for Fish Resources’ (Fisheries Management Paper No 91) as a recreational fishing only area.

<i>Strongly agree</i>	<i>Agree</i>	<i>Don't know</i>	<i>Disagree</i>	<i>Strongly disagree</i>
48%	31%	19%	2%	1%

Steep Point - extending 800m from the shore.

<i>Strongly agree</i>	<i>Agree</i>	<i>Don't know</i>	<i>Disagree</i>	<i>Strongly disagree</i>
51%	33%	12%	2%	2%

Proposal 17 – Fish Replenishment Areas and Eco-tourism - Broadhurst Reef

Broadhurst Reef in the western inner gulf of Shark Bay was identified as a habitat for many juvenile fish species, including pink snapper, and would serve as a possible trial site for a fish replenishment area. It is also a popular dive site relatively close to Denham, and a closure to fishing would enhance its use for ecotourism.

It is proposed that a trial ‘fish replenishment area’ be established around Broadhurst Reef and a five-year monitoring program be implemented to evaluate the effect of no fishing areas as a means of enhancing fish populations.

<i>Strongly agree</i>	<i>Agree</i>	<i>Don't know</i>	<i>Disagree</i>	<i>Strongly disagree</i>
29%	41%	24%	4%	1%

Proposal 18 – Low Impact Wilderness Fishing Experiences

Several sites were identified as having the potential to be explicitly managed to retain ‘wilderness’ recreational fishing qualities.

These included:

- Coastal fishing on Gnoraloo and Waroora Stations.
- Dirk Hartog Island.

It is proposed Fisheries WA [Department of Fisheries] identifies specific areas to be managed for high quality recreational fishing and implement appropriate management arrangements and community education strategies on a trial basis to determine both the level of community support and potential for retaining wilderness fishing values in these areas.

<i>Strongly agree</i>	<i>Agree</i>	<i>Don't know</i>	<i>Disagree</i>	<i>Strongly disagree</i>
24%	42%	16%	12%	7%

Proposal 19 – Resource Sharing and Commercial Fishing

In addition to the initiatives outlined in proposals 13-16, a range of management initiatives are required to preserve the benefits of improved management of the recreational sector. These include:

- Commercial activity should be capped at historic levels and no new commercial activity permitted in key recreational areas or fisheries.

<i>Strongly agree</i>	<i>Agree</i>	<i>Don't know</i>	<i>Disagree</i>	<i>Strongly disagree</i>
57%	34%	4%	3%	2%

- In the medium-to-longer term, commercial fishing for some key finfish species in these areas should be phased out through negotiation or compensation as appropriate.

<i>Strongly agree</i>	<i>Agree</i>	<i>Don't know</i>	<i>Disagree</i>	<i>Strongly disagree</i>
54%	36%	6%	3%	2%

- The significance of ‘recreational fishing priority areas’ should be recognised in other marine planning processes.

<i>Strongly agree</i>	<i>Agree</i>	<i>Don't know</i>	<i>Disagree</i>	<i>Strongly disagree</i>
55%	37%	4%	1%	2%

Proposal 20 - Fishery Enhancement

Proposal 20 (a) - Artificial Reefs

Future approvals for establishment of artificial reefs should require a monitoring program to evaluate impacts on fish populations.

<i>Strongly agree</i>	<i>Agree</i>	<i>Don't know</i>	<i>Disagree</i>	<i>Strongly disagree</i>
33%	50%	9%	6%	1%

Proposal 20 (b) - Stock Enhancement

A trial restocking program be undertaken in the eastern gulf of Shark Bay provided it can be demonstrated that it presents no major risks to the remaining population and that monitoring programs be put in place to assess the likely effectiveness of restocking.

<i>Strongly agree</i>	<i>Agree</i>	<i>Don't know</i>	<i>Disagree</i>	<i>Strongly disagree</i>
35%	49%	8%	4%	4%

B8 Protection of Fish Habitats

Proposal 21 – Identify and Protect Key Fish Habitats

As a priority, Fisheries WA [Department of Fisheries] should take steps to identify important fish habitat areas and Government ensure that these are protected from environmental degradation.

<i>Strongly agree</i>	<i>Agree</i>	<i>Don't know</i>	<i>Disagree</i>	<i>Strongly disagree</i>
50%	44%	4%	2%	0%

Proposal 22 – Recreational Fishing Representation

Fisheries WA [Department of Fisheries] should ensure representation of recreational fishing interests on all planning processes/committees in the region.

<i>Strongly agree</i>	<i>Agree</i>	<i>Don't know</i>	<i>Disagree</i>	<i>Strongly disagree</i>
57%	39%	2%	1%	0%

Proposal 23 - Bycatch

Bycatch action plans be introduced for all commercial fisheries in the Gascoyne region. Recreational fishing methods that are wasteful and indiscriminate should not be permitted

and community awareness programs should encourage recreational fishers to carefully release undersize and unwanted fish.

<i>Strongly agree</i>	<i>Agree</i>	<i>Don't know</i>	<i>Disagree</i>	<i>Strongly disagree</i>
59%	35%	1%	1%	4%

B9 Improving Community Stewardship of Fish Resources

Proposal 24 – Regional Fishing Guide

A comprehensive regional guide to recreational fishing in the Gascoyne be produced to educate fishers about recreational fishing management arrangements, fishing ethics, conservation issues and conservation-oriented fishing behaviours.

<i>Strongly agree</i>	<i>Agree</i>	<i>Don't know</i>	<i>Disagree</i>	<i>Strongly disagree</i>
39%	50%	3%	7%	2%

Proposal 25 – Annual Media Campaign

An annual media campaign should be implemented to promote recreational fishing and fishing ethics in the Gascoyne Region.

<i>Strongly agree</i>	<i>Agree</i>	<i>Don't know</i>	<i>Disagree</i>	<i>Strongly disagree</i>
28%	45%	12%	11%	4%

Proposal 26 – Community Education Officer

A regional Community Education Officer be appointed to coordinate and develop community education programmes.

<i>Strongly agree</i>	<i>Agree</i>	<i>Don't know</i>	<i>Disagree</i>	<i>Strongly disagree</i>
22%	32%	14%	24%	9%

Proposal 27 – Additional Patrol Capacity

That an additional four patrols (eight Fisheries Officers) be based in the Gascoyne to provide a more visible and effective enforcement capacity in the region.

<i>Strongly agree</i>	<i>Agree</i>	<i>Don't know</i>	<i>Disagree</i>	<i>Strongly disagree</i>
34%	33%	9%	15%	9%

Proposal 28 – Enhanced Volunteer Program

The VFLO program should be enhanced in the Gascoyne and a dedicated Fisheries WA [Department of Fisheries] officer assigned to coordinate the program in the region.

<i>Strongly agree</i>	<i>Agree</i>	<i>Don't know</i>	<i>Disagree</i>	<i>Strongly disagree</i>
33%	42%	8%	14%	3%

Proposal 29 – Regional Recreational Fisheries Council

A Regional Recreational Fisheries Council be established to oversee the implementation and operation of the Gascoyne recreational fishing management strategy.

<i>Strongly agree</i>	<i>Agree</i>	<i>Don't know</i>	<i>Disagree</i>	<i>Strongly disagree</i>
25%	41%	16%	11%	7%

B10 Providing Adequate Resources for Improved Management

Proposal 30 – Regional Finfish Licence

30 (a) A regional finfish licence be introduced in the Gascoyne and the revenue dedicated to implementing enhanced management, compliance and research programs for recreational fisheries.

<i>Strongly agree</i>	<i>Agree</i>	<i>Don't know</i>	<i>Disagree</i>	<i>Strongly disagree</i>
12%	18%	3%	17%	50%

30 (b) The fee structure for the Gascoyne regional licence should be:

Lifetime licence	\$500
Three year	\$55
Annual	\$20
Monthly (28 days)	\$14
Weekly (seven days)	\$10

<i>Strongly agree</i>	<i>Agree</i>	<i>Don't know</i>	<i>Disagree</i>	<i>Strongly disagree</i>
13%	17%	4%	16%	51%

APPENDIX C RECREATIONAL FISHING CATCH INFORMATION

The following information is taken from the 1998/99 Gascoyne recreational fishing catch survey (*A 12-month Survey of Recreational Fishing in the Gascoyne Region of WA during 1998/99* by Sumner, Williamson and Malseed, *in press*).

Note that those fish species which are classified by the Department of Fisheries as 'Prize Fish' and 'Table Fish' are listed in the table for Recommendation 9 in Section 2.4 of the main part of this document.

Figure 1 Average number of Prize Fish kept daily by shore-based anglers at Carnarvon during 1998/99

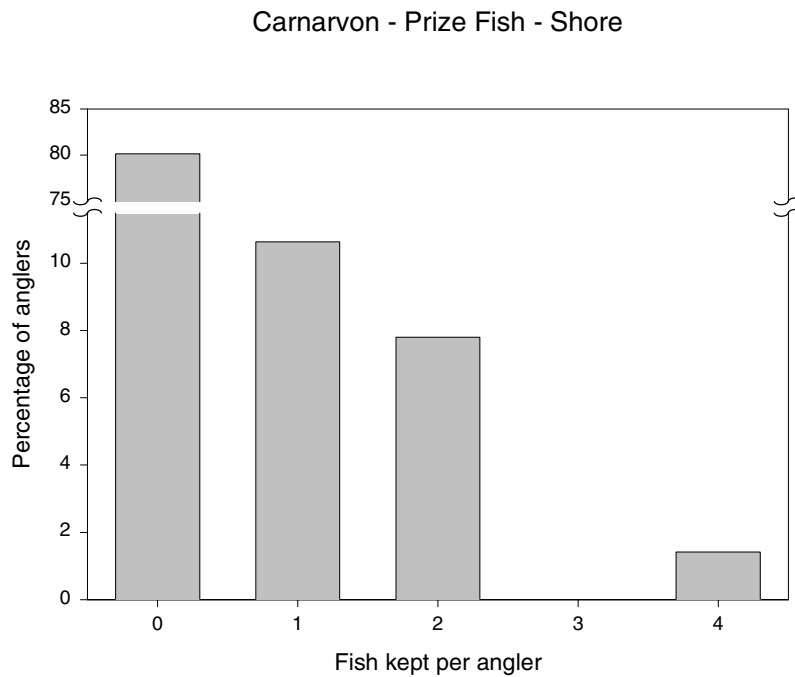


Figure 2 Average number of Prize Fish kept daily by shore-based anglers at Exmouth during 1998/99

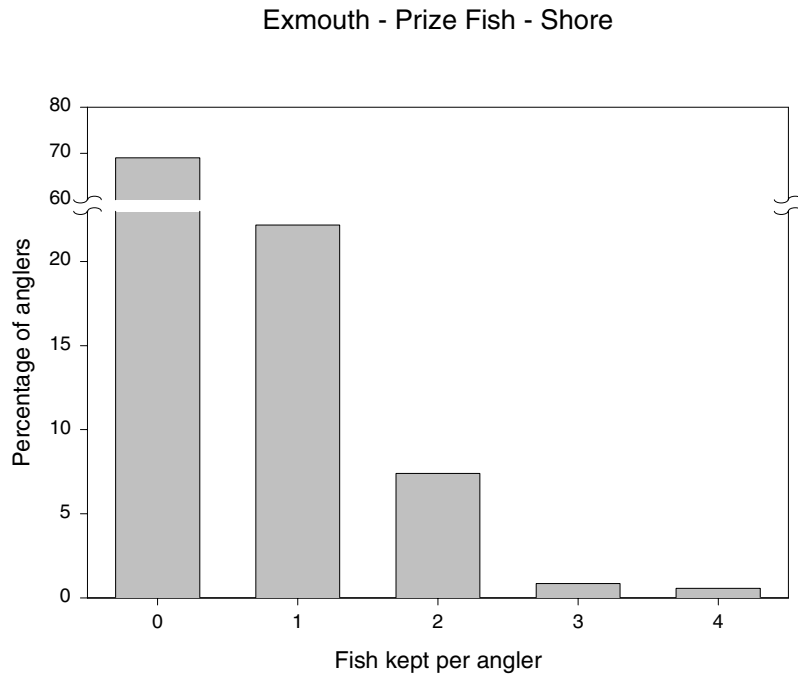


Figure 3 Average number of Prize Fish kept daily by shore-based anglers at Steep Point during 1998/99

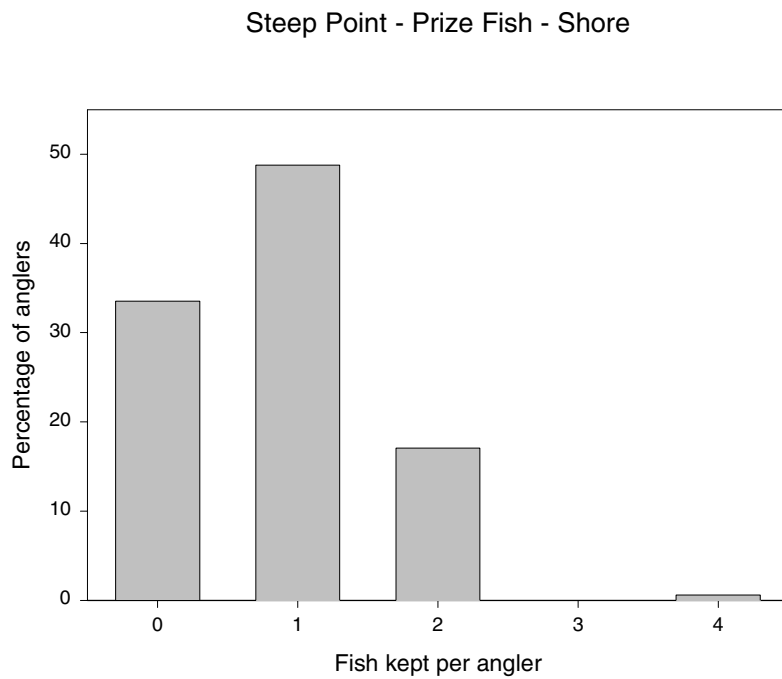


Figure 4 Average number of Table Fish kept daily by shore-based anglers at Carnarvon during 1998/99

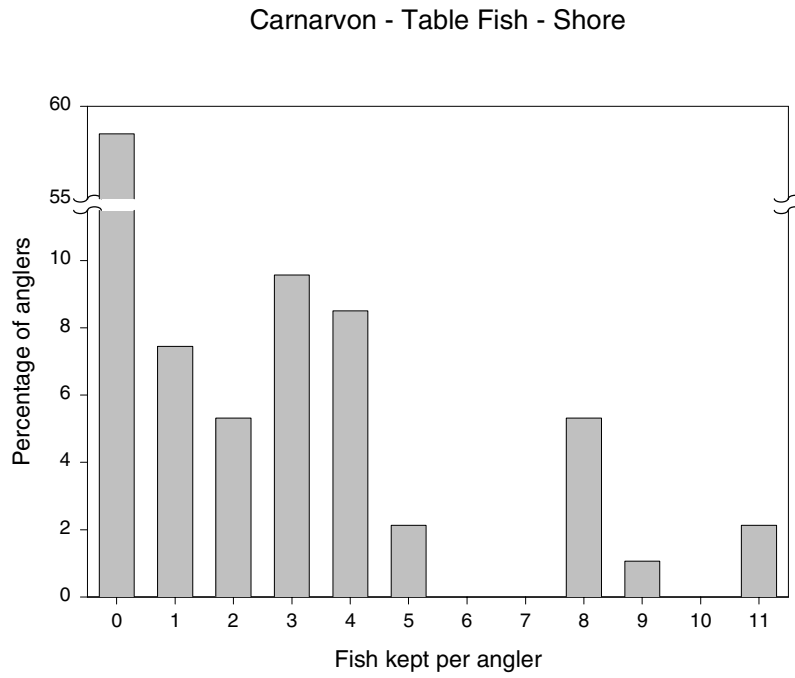


Figure 5 Average number of Table Fish kept daily by shore-based anglers at Exmouth during 1998/99

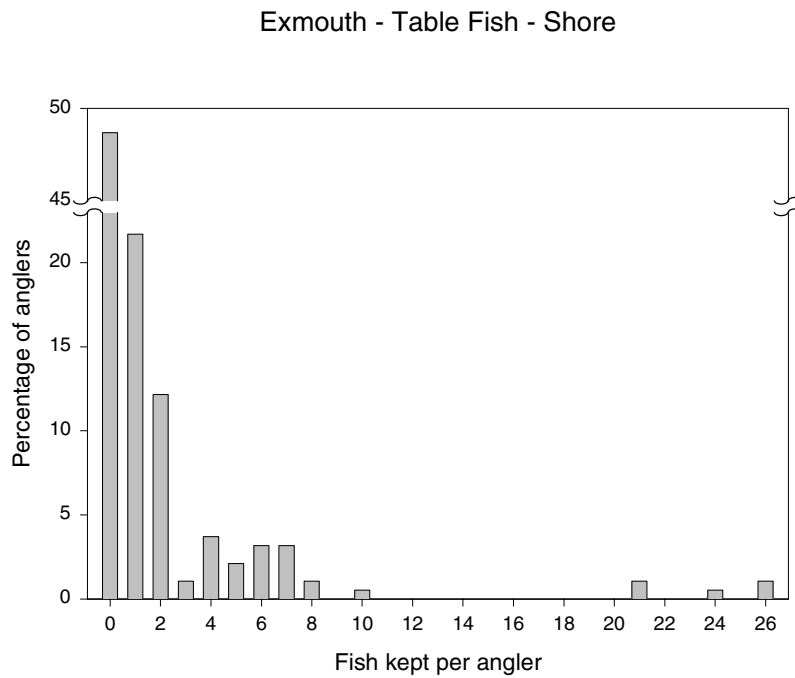


Figure 6 Average number of Table Fish kept daily by shore-based anglers at Shark Bay during 1998/99

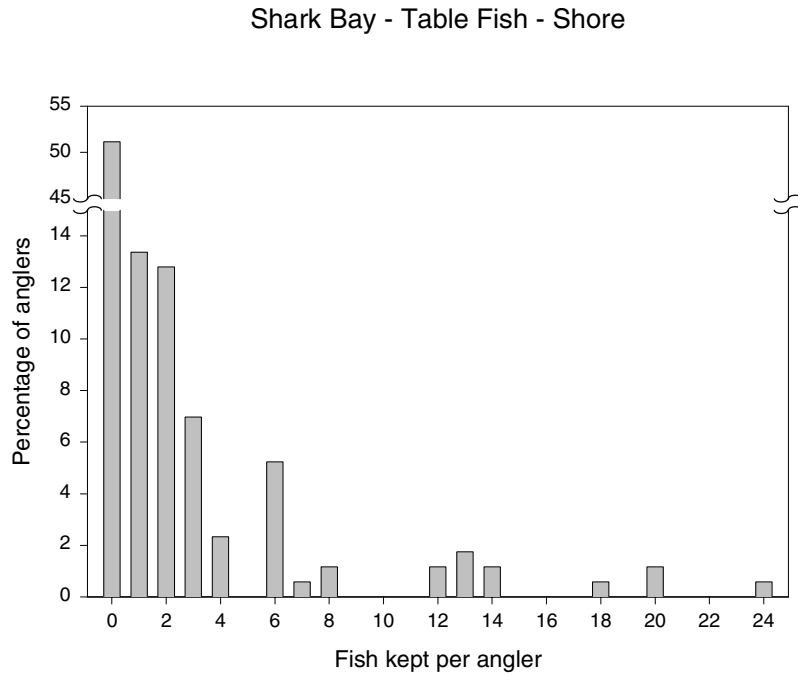


Figure 7 Average number of Prize Fish kept daily by dinghy-based anglers at Exmouth during 1998/99

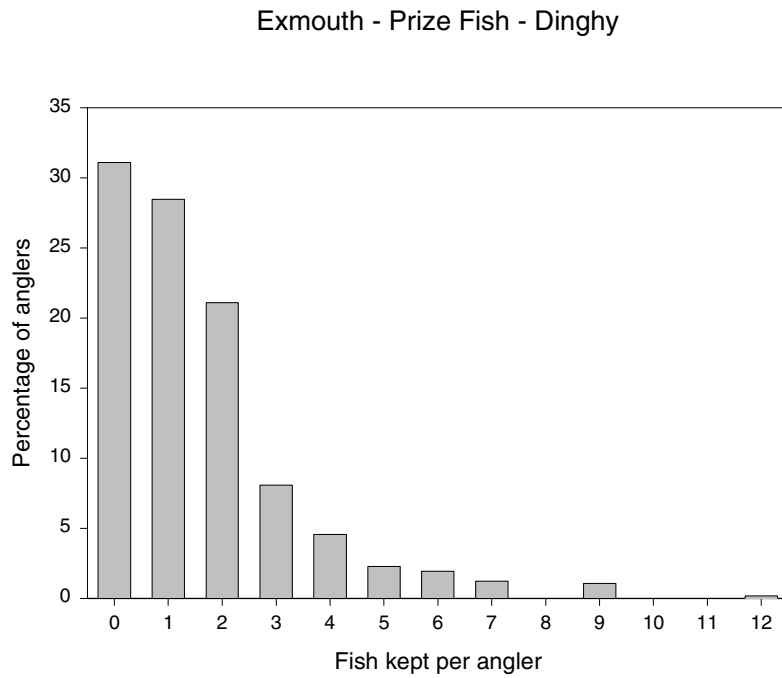


Figure 8 Average number of Prize Fish kept daily by dinghy-based anglers at Shark Bay during 1998/99

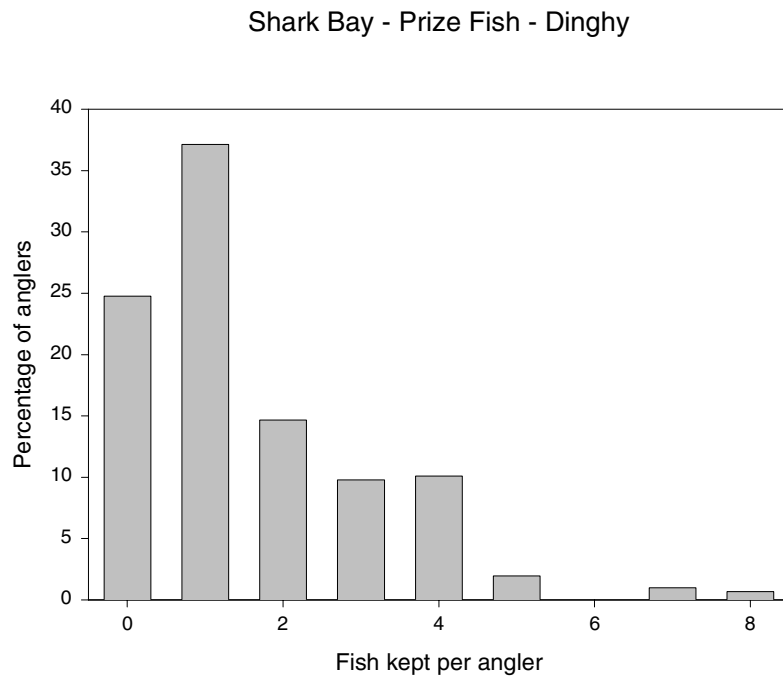


Figure 9 Average number of Prize Fish kept daily by boat-based anglers in Carnarvon during 1998/99

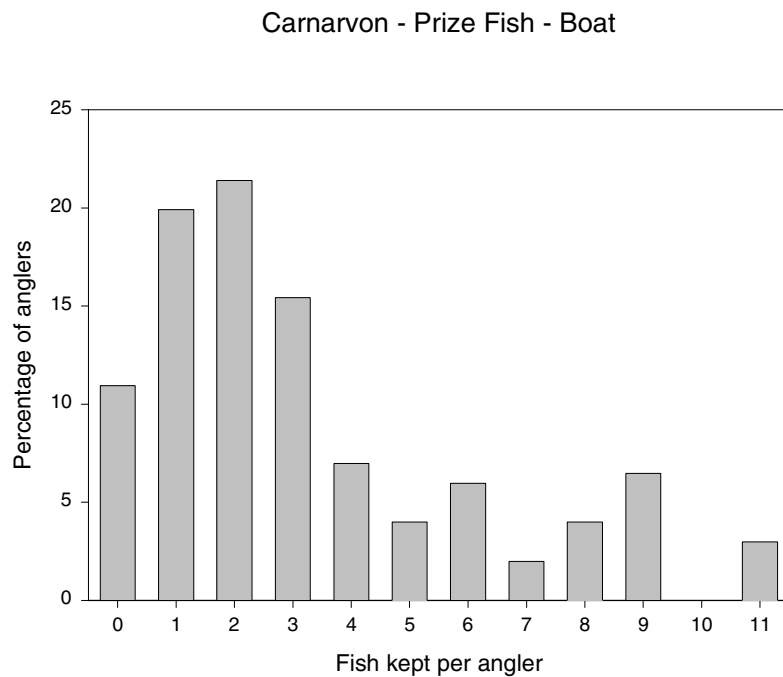


Figure 10 Average number of Prize Fish kept daily by boat-based anglers at Coral Bay during 1998/99

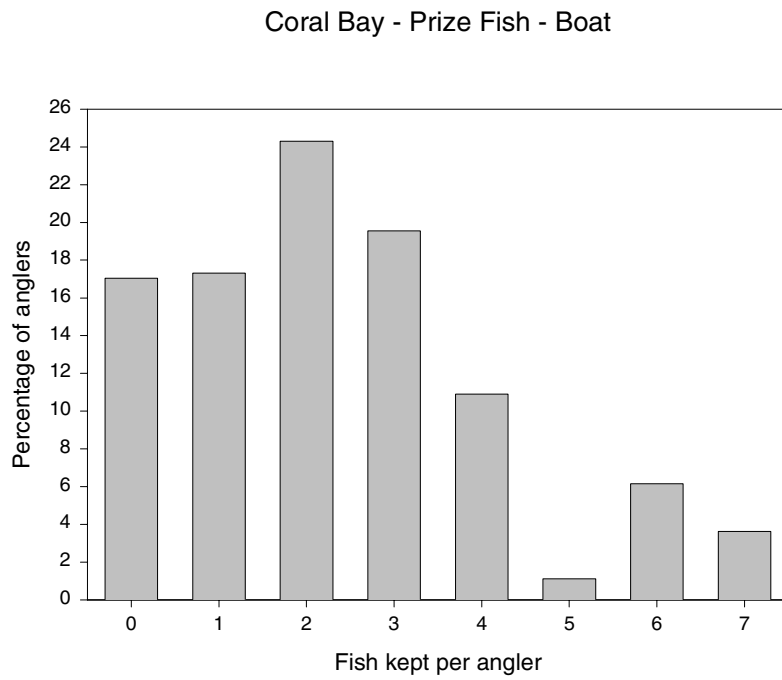


Figure 11 Average number of Prize Fish kept daily by boat-based anglers in Exmouth during 1998/99

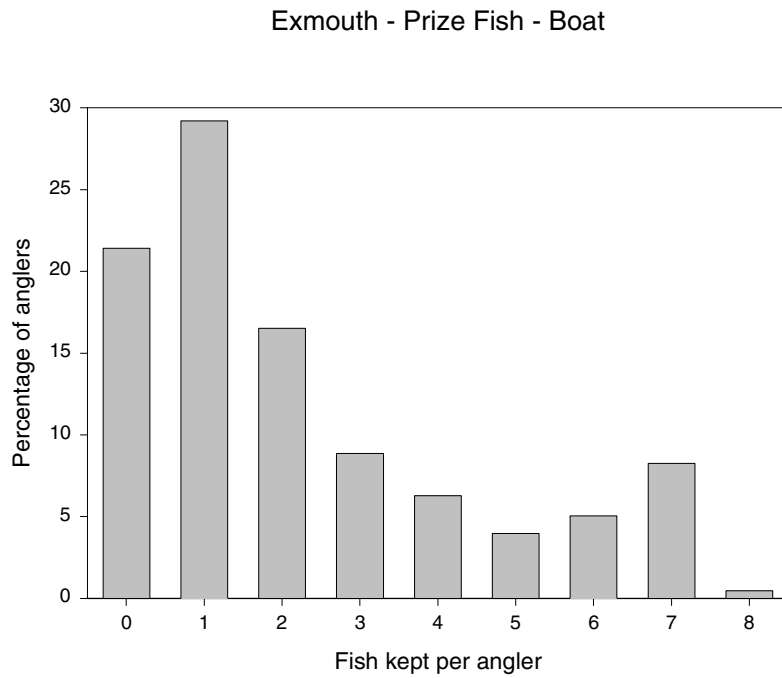
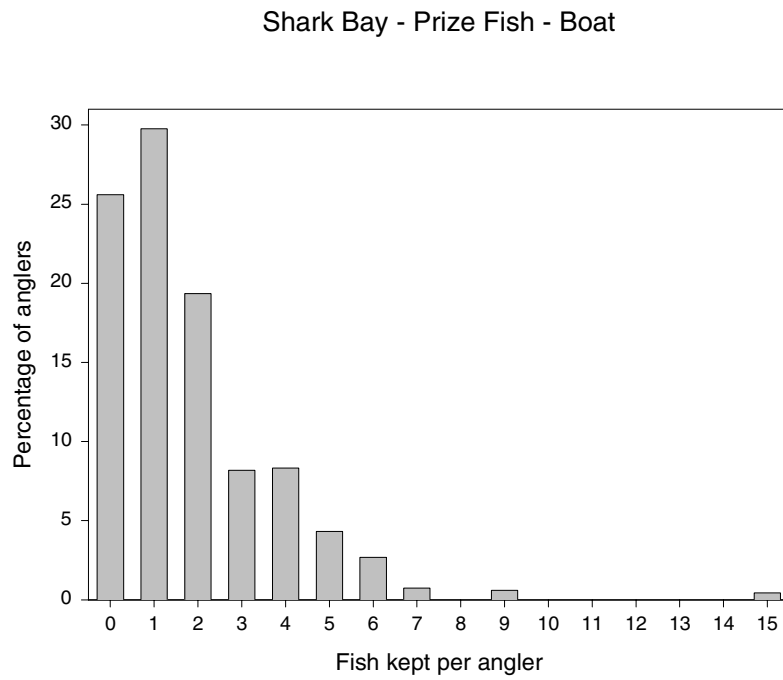
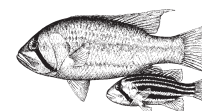


Figure 12 Average number of Prize Fish kept daily by boat-based anglers at Shark Bay during 1998/99



APPENDIX D CURRENT BAG AND SIZE LIMITS

STATE BAG AND SIZE LIMITS



Prize fish - 4 of each species, total mixed bag 8

Prize fish are highly sought after for catching or eating qualities and some are vulnerable to overfishing.

Billfish such as marlin, sailfish and swordfish (*Xiphiidae* and *Istiophoridae* spp) **mixed bag of 4**

Cobia (*Rachycentron canadus*)

Cods (*Serranidae* family) **mixed bag of 4** (inc. Harlequin fish and Breaksea cod) Fish over 1200mm or 30kg are protected

Coral Trout (*Plectropomus* spp) [450mm]

Dhufish,WA (*Glaucosoma hebraicum*) [500mm]

Mackerel, wahoo (*Acanthocybium solandri*) and **Spanish, broad-barred** [750mm] **Spanish narrow-barred** (*Scomberomorus* spp) [900mm]

Mackerel, shark (*Grammatocynus bicarinatus*) **Spotted and Old school** (*Scomberomorus* spp) [500mm]

Mahi mahi (dolphinfish - *Coryphaena hippurus*)

Mulloway (*Argyrosomus hololepidotus*) and **Northern mulloway** (*Protonibea diacanthus*) **combined bag of 4** [450mm]

Queenfish (*Scomberoides commersonianus*)

Salmon, Australian (*Arripis truttaceus*) [300mm]

Samson fish (*Seriola hippos*) [600mm]

Sharks (all species except protected species) **mixed bag of 4**

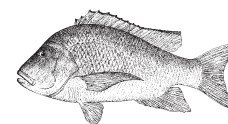
***Trout, brown & rainbow combined** (*Salmo trutta* and *Oncorhynchus mykiss*) see separate guide for details of fishing rules

Tuna, Southern bluefin (*Thunnus maccoyii*)

Yellowtail kingfish (*Seriola lalandi*)

Reef fish - mixed bag 8

Reef fish are usually resident species and are highly vulnerable to overfishing.



Emperor, red (*Lutjanus sebae*) [410mm]

Groper & tuskfish excluding western blue groper (baldchin *C. rubescens*, blue tuskfish *C. cyanodus* & black spot tuskfish *C. shoeneinii*) [400mm]

Snapper, pink (*Pagrus auratus*) Special rules apply in Shark Bay and Perth metro area – contact the Department of Fisheries [410mm]
In Wilson Inlet, minimum size is [280mm]

Snapper, North-west (*Lethrinus* spp) and all other *Lethrinus* species [280mm]

Snapper, queen (blue morwong *Nemadactylus valenciennesi*) [410mm]

Spangled emperor *Lethrinus nebulosus* [410mm]

Key angling & sport fish - 8 per fisher

An important protection category - cobbler and tailor stocks have both declined in recent years, with fish often caught before spawning.



Black bream (in Swan/Canning River) (*A.butcheri*) [250mm total length]

Bonito (*Sarda orientalis*, *Cybiosarda elegans*)

Cobbler (*Cnidoglanis macrocephalus*) [430mm total length]

Tailor (*Pomatomus saltatrix*) [250mm]

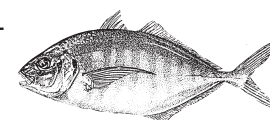
Mangrove jack (*Lutjanus argentimaculatus*)

Fingermark bream (*Lutjanus russelli*)

Giant threadfin salmon (*Eleutheronema tetradactylum*)

Table fish - 20 per fisher

This group contains many of WA's most popular angling species and bag limits are crucial for maintaining future stocks.



Bream, black, (outside Swan/Canning River) (**Northwest black and yellowfin** (*A.butcheri*, *A. palmaris*, *A. latus*) [250mm]

Flathead (*Platycephalus* spp) [300mm] and **flounder** (*Pseudorhombus* spp) (combined) [250mm]

Leatherjackets (<i>Monacanthidae</i> family)	[250mm]
Pike (<i>Dinolestes lewini</i>) [280mm] and snook (<i>Sphyraena novaehollandiae</i>) (combined)	[330mm]
Skipjack trevally (<i>Pseudocaranx spp</i>)	[200mm]
Snapper, red (<i>Centroberyx spp</i>)	[230mm]
Tarwhine (silver bream)(<i>Rhabdosargus sarba</i>)	[230mm]
Threadfin (bluenose salmon) Northern, Gunther's and black-finned salmon (<i>Polydactylus spp</i>)	
Whiting, King George (<i>Sillaginodes punctata</i>) [250mm]	[South coast east of Pt D'Entrecasteaux - 280mm]

Bread & butter fish - 40 per fisher - no legal size

Baitfish of the sardine and anchovy families (Clupeidae and Engraulididae - mulies, whitebait, scaly mackerel, anchovies), redfin perch, goldfish, carp and tilapia are NOT in this category. Popular 'bread and butter' species are all fish not listed in other categories including: garfish (Hyporhamphus spp), Australian herring, (Arripis georgianus), blue mackerel, (Scomber australasicus,) sea and yellow eye mullet (Mugil cephalus, Aldrichetta forsteri) and western sand, school and yellowfin whiting, (Sillago spp).

Shellfish - 2 litres

WA's delicious shellfish are often slow-growing and extremely vulnerable to overpicking from inshore reefs. A mixed bag of 2 litres of whole edible shellfish applies unless a separate bag limit is specified.



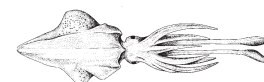
***Abalone, Greenlip and brownlip** see separate guide for details of fishing rules

***Abalone, Roe's** see separate guide for details of fishing rules

Mussels bag limit 9 litres

Cephalopods and Echinoderms

Squid, octopus, cuttlefish combined bag limit 15 per fisher, boat limit 30



Sea urchins daily bag limit 40 closed season applies

Crustacea

WA's crustaceans make fine dining during open seasons but a licence is needed for marron and lobster.

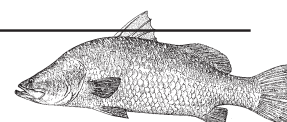


Crab, mud	bag limit 10 combined	green [150mm] brown [120mm]
Crab, blue manna	bag limit 24, boat limit 48 (min. 2 people)	[127mm]
Cherabin	bag limit 9 litres	gear restrictions apply
*Marron	see separate guide for details of fishing rules	
Prawns, king and school	bag limit 9 litres	closed season Swan River & Mandurah
*Western and Southern Rock lobster	see separate guide for details of fishing rules	

Special bag limits

Individual bag limits may be set as a conservation strategy for species considered rare or vulnerable to overfishing.

Barramundi (*Lates calcarifer*) - **possession limit 5** (only one rod to be used at any one time) [550mm]
in lower Ord River **possession limit 1**, none over 800mm



Groper, Western blue (*Achoerodus gouldi*) - **daily bag limit 1** [400mm]

Protected species These species are totally protected and may not be taken

Potato cod (*Epinephelus tukula*)

Leafy seadragon (*Phycodurus eques*)

Whale shark (*Rhiniodon typus*)

Great white shark (*Caracharodon carcharias*)

Humphead maotri wrasse (*Cheilinus undulatus*)

Grey nurse shark (*Cheilinus undulatus*)



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APPENDIX F FISHERIES MANAGEMENT PAPERS

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

- No.36** Long term management measures for the Cockburn Sound restricted entry fishery. P. Millington (1990).
- No.37** Western rock lobster industry marketing report 1989/90 season. MAREC Pty Ltd (1990).
- No.38** The economic impact of recreational fishing in Western Australia. R.K. Lindner, P.B. McLeod (1991).
- No.39** Establishment of a registry to record charges against fishing licences when used as security for loans. P. Rogers. (1991)
- No.40** The future for Recreational Fishing - Forum Proceedings. Recreational Fishing Advisory Committee (1991)
- No.41** The future for Recreational Fishing - The Final Report of the Recreational Fishing Advisory Committee. Recreational Fishing Advisory Committee (1991).
- No.42** Appendix to the final report of the Recreational Fishing Advisory Committee. (1991)
- No.43** A discussion of options for effort reduction. Southern Gillnet and Demersal Longline Fishery Management Advisory Committee (1991).
- No.44** A study into the feasibility of establishing a system for the buy-back of salmon fishing authorisations and related endorsements. (1991)
- No.45** Draft Management Plan, Kimberley Prawn Fishery. (1991)
- No.46** Rock Lobster Industry Advisory Committee, Chairman's report to the Minister (1992)
- No.47** Long term management measures for the Cockburn Sound restricted entry fishery. Summary of submissions and final recommendations for management. P. Millington (1992).
- No.48** Pearl oyster fishery policy guidelines (Western Australian Pearling Act 1990). Western Australian Fisheries Joint Authority (1992).
- No.49** Management plan, Kimberley prawn fishery. (1992)
- No.50** Draft management plan, South West beach seine fishery. D.A. Hall (1993).
- No.51** The west coast shark fishery, draft management plan. D.A. Hall (1993).
- No.52** Review of bag and size limit proposals for Western Australian recreational fishers. F.B. Prokop (May 1993).
- No.53** Rock Lobster Industry Advisory Committee, Chairman's report to the Minister for Fisheries. (May 1993)
- No.54** Rock Lobster Industry Advisory Committee, Management proposals for 1993/94 and 1994/95 western rock lobster season (July 1993).
- No.55** Rock Lobster Industry Advisory Committee, Chairman's report to the Minister for Fisheries on management proposals for 1993/94 and 1994/95 western rock lobster seasons (September 1993).
- No.56** Review of recreational gill, haul and cast netting in Western Australia. F. B. Prokop (October 1993).
- No.57** Management arrangements for the southern demersal gillnet and demersal longline fishery 1994/95 season. (October 1993).
- No.58** The introduction and translocation of fish, crustaceans and molluscs in Western Australia. C. Lawrence (October 1993).
- No.59** Proceedings of the charter boat management workshop (held as part of the 1st National Fisheries Manager Conference). A. E. Magee & F. B. Prokop (November 1993).
- No.60** Bag and size limit information from around Australia (Regulations as at September 1993) F. B. Prokop (January 1993).
- No.61** Economic impact study. Commercial fishing in Western Australia Dr P McLeod & C McGinley (October 1994)
- No.62** Management arrangements for specimen shell collection in Western Australia. J. Barrington, G. Stewart (June 1994)
- No.63** Management of the marine aquarium fish fishery. J. Barrington (June 1994)
- No.64** The Warnbro Sound crab fishery draft management plan. F. Crowe (June 1994)
- No.65** Not issued
- No.66** Future management of recreational gill, haul and cast netting in Western Australia and summary of submissions to the netting review. F.B. Prokop, L.M. Adams (September 1994)

- No.67** Long term management strategies for the Western Rock Lobster Fishery. (4 volumes) Evaluation of management options Volume 1. B. K. Bowen (September 1994)
- No.68** Long term management strategies for the Western Rock Lobster Fishery. (4 volumes) Economic efficiency of alternative input and output based management systems in the western rock lobster fishery, Volume 2. R.K. Lindner (September 1994)
- No.69** Long term management strategies for the Western Rock Lobster Fishery. (4 volumes) A market-based economic assessment for the western rock lobster industry, Volume 3. Marec Pty Ltd (September 1994)
- No.70** Long term management strategies for the Western Rock Lobster Fishery. (4 volumes) Law enforcement considerations, Volume 4. N. McLaughlan (September 1994)
- No.71** The Rock Lobster Industry Advisory Committee Chairman's Report, October 1994, The Western Rock Lobster Fishery - Management proposals for the 1994/95 and 1995/96 seasons (November 1994)
- No.72** Shark Bay World Heritage Area draft management plan for fish resources. D. Clayton (November 1994)
- No.73** The bag and size limit review: new regulations and summary of submissions. F. Prokop (May 1995)
- No.74** Report on future management options for the South West trawl limited entry fishery. South West trawl limited entry fishery working group (June 1995)
- No.75** Implications of Native Title legislation for fisheries management and the fishing industry in Western Australia. P. Summerfield (February 1995)
- No.76** Draft report of the South Coast estuarine fishery working group. South Coast estuarine fishery working group. (February 1995)
- No.77** The Offshore Constitutional Settlement, Western Australia. H. Brayford & G. Lyon (May 1995)
- No.78** The Best Available Information - Its Implications for Recreational Fisheries Management. Workshop at Second National Fisheries Managers Conference, Bribie Island Queensland. F. Prokop (May 1995)
- No.79** Management of the Northern Demersal Scalefish Fishery. J. Fowler (June 1995)
- No.80** Management arrangements for specimen shell collection in Western Australia, 1995. J. Barrington & C. Campbell (March 1996)
- No.81** Management Options (Discussion Paper) for the Shark Bay Snapper Limited Entry Fishery. Shark Bay Snapper Limited Entry Fishery Working Group, Chaired by Doug Bathgate (June 1995)
- No.82** The Impact of the New Management Package on Smaller Operators in the Western Rock Lobster Fishery R. Gould (September 1995)
- No.83** Translocation Issues in Western Australia. Proceedings of a Seminar and Workshop held on 26 and 27 September 1994. F. Prokop (July 1995)
- No.84** Bag and Size Limit Regulations From Around Australia. Current Information as at 1 July 1995. Third Australasian Fisheries Managers Conference, Rottneest Island. F. Prokop (July 1995)
- No.85** West Coast Rock Lobster Fishery Management Plan 1995 - Draft for Public Comment. Edited by M. Moran (August 1995)
- No.86** A Review of Ministerial Policy Guidelines for Rock Lobster Processing in Western Australia from the Working Group appointed by the Minister for Fisheries and chaired by Peter Rich (December 1995)
- No. 87** Same Fish - Different Rules. Proceedings of the National Fisheries Management Network Workshop held as part of the Third Australasian Fisheries Managers Conference. F. Prokop
- No. 88** Balancing the Scales - Access and Equity in Fisheries Management - Proceedings of the Third Australasian Fisheries Managers Conference, Rottneest Island, Western Australia 2 - 4 August 1995. Edited by P. Summerfield (February 1996)
- No. 89** Fishermen's views on the future management of the rock lobster fishery. A report. Prepared on behalf of the Rock Lobster Industry Advisory Committee by The Marketing Centre. (August 1995)
- No. 90** A report on the issues effecting the use of the Dampier Archipelago. Peter Driscoll, Landvision Pty Ltd (March 1996)
- No. 91** Shark Bay World Heritage Property - Management Paper for Fish Resources. Kevin A Francesconi (September 1996)

- No. 92** Pearling and Aquaculture in the Dampier Archipelago - Existing and Proposed Operations. A report for public comment. Compiled by Ben Fraser (September 1996)
- No. 93** Shark Bay World Heritage Property - Summary of Public Submissions to the Draft Management Plan for Fish Resources. Kevin A Francesconi (September 1996)
- No. 94** Rock Lobster Industry Advisory Committee Report - Management arrangements for the Western Rock Lobster Fishery for the 1997/98 season. Frank Prokop (May 1997)
- No. 95** Australian Salmon and Herring Resource Allocation Committee. P McLeod & F Prokop (*in press*)
- No. 96** Summary Report of the Freshwater Aquaculture Taskforce (FAT) by Chris Wells (*in press*)
- No. 97** (*in press*)
- No. 98** A Pricing Policy for Fisheries Agencies - Standing Committee on Fisheries and Aquaculture Management Committee. P Millington (March 1997)
- No. 99** Management of the South Coast Purse Seine Fishery. J Fowler, R Lenanton, Kevin Donohue, M Moran & D Gaughan.
- No. 100** The Aquaculture of non-endemic species in Western Australia - Redclaw crayfish (*Cherax quadricarinatus*). Tina Thorne (June 1997)
- No. 101** Optimising the worth of the catch - Options and Issues. Marec Pty Ltd (September 1997)
- No. 102** Marine farm planning and consultation processes in Western Australia. Dave Everall (August 1997)
- No. 103** Future management of the aquatic charter industry in Western Australia by the Tour Operators Fishing Working Group (September 1997)
- No. 104** Management of the Houtman Abrolhos System (draft). Prepared by the Abrolhos Islands Management Advisory Committee in conjunction with Fisheries Western Australia (October 1997)
- No. 105** Plan for the Management of the Houtman Abrolhos Fish Habitat Protection Area (draft). Prepared by the Abrolhos Islands Management Advisory Committee in conjunction with Fisheries Western Australia (October 1997)
- No. 106** The impact of Occupational Safety and Health on the management of Western Australian Fisheries. Cameron Wilson (*in press*)
- No. 107** The Aquaculture of non-endemic species in Western Australia - Silver Perch (*Bidyanus bidyanus*). Tina Thorne (June 1997)
- No. 108** Issues affecting Western Australia's inshore crab fishery - Blue swimmer crab (*Portunus pelagicus*), Sand crab (*Ovalipes australiensis*). Cathy Campbell (September 1997)
- No. 109** Abalone Aquaculture in Western Australia. Cameron Westaway & Jeff Norriss (October 1997)
- No. 110** Proposed Voluntary Fishery Adjustment Scheme - South Coast Purse Seine Managed Fishery. Report by Committee of Management (October 1997)
- No. 111** Management Options for Pilbara Demersal Line Fishing. Gaye Looby (December 1997)
- No. 112** Summary of Submissions to Fisheries Management Paper No. 108 - issues affecting Western Australia's inshore crab fishery. Compiled by Cathy Campbell (April 1998)
- No. 113** Western Rock Lobster Management - Options and Issues. Prepared by Kevin Donohue on behalf of the Rock Lobster Industry Advisory Committee. (June 1998)
- No. 114** A Strategy for the Future Management of the Joint Authority Northern Shark Fishery. Prepared by Tim Bray and Jo Kennedy. (June 1998)
- No. 115** Guidelines for granting Aquaculture Leases. Prepared by Fisheries WA, the Aquaculture Development Council & the Aquaculture Council of WA. (July 1998)
- No. 116** Future Management of the Aquatic Charter Industry in Western Australia - Final Report. By the Tour Operators Fishing Working Group (September 1998)
- No. 117** Management of the Houtman Abrolhos System. Prepared by the Abrolhos Islands Management Advisory Committee in conjunction with Fisheries Western Australia. (December 1998)
- No. 118** Plan for the Management of the Houtman Abrolhos Islands Fish Habitat Protection Area (Schedule 1)
- No. 119** Access to Wildstock for Aquaculture Purposes (not published)

- No. 120** Draft Management Plan for Sustainable Tourism at the Houtman Abrolhos Islands. Prepared by LeProvost, Dames and Moore for the Abrolhos Islands Management Advisory Committee in conjunction with Fisheries WA. (December 1998)
- No. 121** Future Directions for Tourism at the Houtman Abrolhos Islands - Draft for Public Comment. Prepared by LeProvost, Dames and Moore for the Abrolhos Islands Management Advisory Committee in conjunction with Fisheries WA. (December 1998)
- No. 122** Opportunities for the Holding/Fattening/Processing and Aquaculture of Western Rock Lobster (*Panulirus cygnus*). A discussion paper compiled by Fisheries WA. (November 1998)
- No. 123** Future directions for the Rock Lobster Industry Advisory Committee and the Western Rock Lobster Managed Fishery. A discussion paper prepared by Kevin Donohue on behalf of the Rock Lobster Industry Advisory Committee. (December 1998)
- No. 124** A Quality Future for Recreational Fishing in the Gascoyne. Proposals for Community Discussion. A five-year management strategy prepared by the Gascoyne Recreational Fishing Working Group (May 1999)
- No. 125** Changes to Offshore Constitutional Settlement Arrangements; North West Slope Trawl Fishery and Western Deepwater Trawl Fishery. A discussion paper by Fiona Crowe and Jane Borg (May 1999)[not published]
- No. 126** The South Coast Estuarine Fishery. A discussion paper by Rod Pearn and Tony Cappelluti. (May 1999)
- No. 127** The Translocation of Barramundi. A discussion paper by Makaira Pty Ltd.[July 1999]
- No. 128** Shark Bay Pink Snapper Managed Fisheries in WA
- No. 129** Review of the Western Australian Pilchard Fishery 12 - 16 April 1999. Prepared by K.L. Cochrane, Fisheries Resource Division, Food and Agriculture Division of the United Nations (November 1999)
- No. 130** Developing New Fisheries in Western Australia. A guide to applicants for developing fisheries Compiled by Lucy Halmarick (November 1999)
- No. 131** Management Directions for Western Australia's Estuarine and Marine Embayment Fisheries. A strategic approach to management (November 1999)
- No. 132** Summary of Submissions to Fisheries Management Paper No. 126 - The South Coast Estuarine Fishery - A Discussion Paper. Compiled by Rod Pearn (November 1999)
- No. 133** Abalone Aquaculture in Western Australia, A Policy Guideline (December 1999)
- No. 134** Management Directions for WA's Coastal Commercial Finfish Fisheries. Issues and proposals for community discussion (March 2000)
- No. 135** Protecting and Sharing Western Australia's Coastal Fish Resources. The path to integrated management. Issues and proposals for community discussion (March 2000)
- No. 136** Management Directions for WA's Recreational Fisheries (March 2000)
- No. 137** Aquaculture Plan for the Houtman Abrolhos Islands (April 2000)
- No. 138** Information on Quota Management of Rock Lobster Fisheries in South Australia, Tasmania and New Zealand. By Kevin Donohue and Eric Barker (May 2000)
- No. 139** A Quality Future for Recreational Fishing on the West Coast. Proposals for Community Discussion. A five-year management strategy prepared by the West Coast Recreational Fishing Working Group (June 1999)
- No. 140** Aquaculture Plan for the Recherche Archipelago, Western Australia. (June 2000)
- No. 141** Fish Protection Measures in Western Australia (July 2000) *in press*
- No. 142** Fisheries Environmental Management Plan for the Gascoyne Region (*in press*)
- No. 143** Western Rock Lobster. Discussion paper for seasons 2001/2002 and 2002/2003 (July 2000)
- No. 144** The Translocation of Brown Trout (*Salmo trutta*) and Rainbow Trout (*Oncorhynchus mykiss*) into and within Western Australia. Prepared by Jaqueline Chappell, contributions from Simon Hambleton, Dr Howard Gill, Dr David Morgan and Dr Noel Morrissy. (*in press*)
- No. 145** The Aquaculture of non-endemic species in Western Australia - Silver Perch (*Bidyanus bidyanus*). As amended October 2000. Tina Thorne. This replaces Fisheries Management Paper No. 107.
- No. 146** Sustainable Tourism Plan for the Houtman Abrolhos Islands (February 2001)
- No. 147** Draft Bycatch Action Plan for the Shark Bay Prawn Managed Fishery (Full Report)

- No. 148** Draft Bycatch Action Plan for the Shark Bay Prawn Managed Fishery (Summary Report)
- No. 149** Final Plan of Management for the Lancelin Island Lagoon Fish Habitat Protection Area (March 2001)
- No. 150** Draft Plan of Management for the Cottesloe Reef Proposed Fish Habitat Protection Area (April 2001)
- No. 151** Review of the Land Conservation Values of the Houtman Abrolhos Islands (May 2001)
- No. 152** Guidelines for the Establishment of Fish Habitat Protection Areas (June 2001)
- No. 153** A quality future for Recreational Fishing on the West Coast of Western Australia. A five-year management strategy prepared by the West Coast Recreational Fishing Working Group (August 2001)
- No. 154** A quality future for Recreational Fishing in the Gascoyne. A five-year management strategy prepared by the Gascoyne Recreational Fishing Working Group (August 2001)
- No. 155** Final Plan of Management for the Cottesloe Reef Proposed Fish Habitat Protection Area (*in press*)

RECREATIONAL FISHING MANAGEMENT STRATEGY FOR THE GASCOYNE

MINISTER'S INITIAL RESPONSES TO FINAL REPORT OF THE GASCOYNE RECREATIONAL FISHING WORKING GROUP (FISHERIES MANAGEMENT PAPER No. 154)

**The Honorable Kim Chance, MLC,
Minister for Agriculture, Forestry and Fisheries**

OCTOBER 2001



1. INTRODUCTION

In the last ten years, participation in recreational fishing in WA has more than doubled. In 1987 an estimated 287,000 people fished each year. This year, in 2001, over 600,000 people will go fishing.

People are also fishing more regularly and effort has increased from three million angler days to around 10 million angler days. It is important that we manage for this increasing fishing effort and for the future challenges that lie ahead.

To ensure recreational fishing in WA has a bright future, a series of regional management strategies are being developed which have the following objectives:

1. Review the appropriateness of current controls, given the significant growth in recreational fishing.
2. Ensure effective management is in place for the recreational fishing sector that contributes to the sustainability of WA's fish stocks.
3. Position recreational fishing so it can be incorporated into an integrated management framework in which resource sharing issues can be addressed.

The regional reviews for the Gascoyne and West Coast are now complete and I would like to thank all members of the working groups for their effort in what has been a complex and challenging task.

I have met with the Chairmen of both working groups and discussed their findings in detail. I have also carefully considered the public feedback provided on both draft strategies. In particular, I noted the wide range of community views expressed in the 2010 submissions received on both discussion papers. I also noted the strong support for the vast majority of recommendations in both reports.

After careful consideration of the Gascoyne Recreational Fishing Working Group's recommendations, I have decided to release my initial responses to the recommendations for a period of public comment. It is important that my initial responses are read in conjunction with the Final Report of the Gascoyne Recreational Fishing Working Group (Fisheries Management Paper No. 154).

This document focuses on managing the recreational catch, which attracted the greatest amount of comment in submissions. My response to the other working group recommendations is provided as Appendix 1.

With regard to those recommendations on resource sharing, a number of major initiatives have been undertaken, including a recent \$8 million buy-out of commercial fishing licenses. A process to develop a new integrated management framework is also well underway.

The Government is committed to developing a new management approach for our fisheries that incorporates economic, social and environmental considerations. Within this broad context of 'ecologically sustainable development', or ESD, the issue of how fish resources can be best shared between competing users requires consideration.

Resource sharing issues are complex and the Integrated Fisheries Management Review Committee is currently examining alternative management frameworks and principles for allocating fish stocks to ensure maximum benefit to the community. Until these processes are complete, each sector will continue to be managed responsibly within current catch ranges.

Kim Chance MLC
MINISTER FOR AGRICULTURE, FORESTRY AND FISHERIES

2. MAKING A SUBMISSION

After careful consideration I have decided to release my initial response to the recommendations of the Gascoyne Recreational Fishing Working Group's final report (Fisheries Management Paper No. 154) for public comment. Because my response differs somewhat from the draft discussion paper (Fisheries Management Paper No. 124) circulated for public comment, I am providing a final opportunity for interested parties to raise any new information or issues for my consideration by 7 December 2001.

Please note I have reviewed the existing public submissions. Further submissions should contain new or additional information that has not already been provided.

When making a submission, please reference the number of each strategy you wish to comment on. Clearly describe the subject you wish to address and suggest alternative ways to resolve the issues identified in the strategy. For example, as there are many different views on what the bag limit for a particular species or group of fish should be, a response therefore of "I think the bag limit should be X" is insufficient. Clear reasons must be included in your response so your views can be properly considered.

Submissions are welcome until 7 December 2001 and should be addressed to the Minister for Fisheries and sent to the following address:

Recreational Fishing Regional Review
Locked Bag 39
Cloisters Square Post Office
PERTH WA 6850

If you require additional information, please contact Nathan Harrison from the Department of Fisheries on 9482 7368.

3. STRATEGIES FOR PROTECTING VULNERABLE FISH AND MANAGING THE RECREATIONAL CATCH

3.1 Bag and size limits

A consistent approach using a three-tiered bag limit framework will be introduced for all regions, based on an assessment of risk of overexploitation of each species or stocks within that region (Category 1 fish require a high level of protection, Category 2 fish require moderate protection and Category 3 fish require lower levels of protection).

If additional management controls are deemed necessary for species currently in a lower category, the species should be generally 'promoted' into a higher risk category.

Where revised minimum size limits are proposed, changes will be negotiated with the commercial fishing industry prior to my final determination.

Strategy G1 Bag and Size Limits - Category 1 Fish

This strategy refers to Recommendation 9 and 12 in the Final Report of the Gascoyne Recreational Fishing Working Group (Fisheries Management Paper No. 154).

The following table represents my response in relation to Category 1 fish.

Category 1 Fish – total mixed daily bag limit of seven			
Category 1 fish are considered to have the highest risk of overexploitation. Many fish in this category have low catch rates and levels of abundance, while others may be highly valued for their fishing and eating qualities. Many Category 1 fish are slow growing and mature at four years-plus. For these reasons, Category 1 fish require a high degree of protection. (NOTE: * denotes proposed change to current management)			
<i>Species</i>	<i>Species bag limit</i>	<i>Size limit</i>	<i>Other controls</i>
Barracuda	4		
Barramundi	1*	550mm	
Billfish (sailfish, swordfish, marlin)	1*		
Blue lined emperor (black snapper)	6*	320mm*	
Bone fish	2*		
Cobia	2*		
Cods - other	4*		Max. size 1.2m
Cods - Rankin, estuary	2*		Max. size 1.2m
Coral trout	1*	450mm	
Coronation cod	1*		
Coronation trout	1*		
Dhufish	2*	500mm	
Groper & Tuskfish	2*	400mm	
Job fish	4*		
Kingfish, yellowtail	2*		
Mackerel, shark and school	6*	500mm	
Mackerel, spanish, and wahoo	2*	900/750mm	
Mahi mahi	4		
Mangrove jack	4*		
Mulloway	2*	450mm	
Mulloway, northern	2*	450mm	
NW snapper (<i>lethrinus</i> spp)	6*	280mm	
Parrot fish	2*		
Pearl Perch	2*		
Pink snapper	6*	410mm	
Pink snapper (west gulf Shark Bay)	2	500mm	One fish over 70cm
Queenfish	6*		
Red Emperor	2*	410mm	
Samson fish/Amberjack	2*		
Sea Perch	6*		
Sharks	2*		
Spangled Emperor	4*	410mm	
Tailor	6*	250mm	
Trevally - golden, giant	2*		
Tuna – sth, nth bluefin, yellowfin, bigeye,	2*		
Tunas (other)	4*		

Strategy G2 Bag and Size Limits - Category 2 Fish

This strategy refers to Recommendation 9 in the Final Report of the Gascoyne Recreational Fishing Working Group (Fisheries Management Paper No. 154).

The following table represents my response in relation to Category 2 fish.

Category 2 Fish – total mixed daily bag limit of 10		
Category 2 fish have a moderate risk of overexploitation. Many fish in this category have moderate catch rates and levels of abundance. Category 2 fish are mostly found in inshore and estuarine areas, are highly sought after by recreational fishers and mature at three to four years.		
<i>Species</i>	<i>Size limit</i>	<i>Other controls</i>
Bream - north-west, black & yellow fin	250mm	
Fingermark bream		
Flathead	300mm	
Flounder	250mm	
Goat fish		
Leatherjacket	250mm	
Threadfin salmon		
Trevally – skipjack	200mm	
other		

Strategy G3 Bag and Size Limits - Category 3 Fish

This strategy refers to Recommendation 9 in the Final Report of the Gascoyne Recreational Fishing Working Group (Fisheries Management Paper No. 154).

The following table represents my response in relation to Category 3 fish.

Category 3 fish – total mixed bag limit of 30		
Category 3 fish have a lower risk of overexploitation. Fish in this category generally have higher catch rates and levels of abundance and are mainly found inshore. These fish have a widespread distribution and mature at two-plus years. Category 3 fish include all fish not listed in other categories except baitfish of the sardine and anchovy families (clupeidae and engraulididae), redfin perch, goldfish, carp and tilapia.		
<i>Species</i>	<i>Size limit</i>	<i>Other controls</i>
Dart		
Gardies		
Gurnard		
Longtoms		
Milk fish		
Mullet		
Tarwhine	230mm	
Whiting		
*All fish not in other categories except baitfish		

Strategy G4 Bag limits - Crustaceans

This strategy refers to Recommendation 9 in the Final Report of the Gascoyne Recreational Fishing Working Group (Fisheries Management Paper No. 154)

(NOTE: * denotes proposed change to current management)

Crustaceans		
<i>Species</i>	<i>Bag limit</i>	<i>Other controls</i>
Prawns, king & school	9 litres	
Rock lobster	8 (not more than 4 tropical rock lobster)	Boat limit of 16 (not more than 8 tropical rock lobster).
Crabs - blue swimmer (manna)	20*	Boat limit of 40*
mud	5 (possession limit)	Boat limit of 10
other	10	Boat limit of 20*

Strategy G5 Bag Limits - Shellfish

This strategy refers to Recommendation 9 in the Final Report of the Gascoyne Recreational Fishing Working Group (Fisheries Management Paper No. 154).

Shellfish and sea urchins		
<i>Species</i>	<i>Bag limit</i>	<i>Other controls</i>
Shellfish and sea urchins taken for consumption or bait	Mixed bag limit of 50	
All other coral and live rock		++Protected

NOTES: Abalone is a licensed recreational fishery and managed separately.
++I have announced a temporary ban on the take of live coral and rocks encrusted with living organisms while the Department of Fisheries investigates long-term management options. The collection of specimen shells will be included as part of this review.

Strategy G6 Bag limits - Cephalopods

This strategy refers to Recommendation 6e in the Final Report of the West Coast Recreational Fisheries Working Group (Fisheries Management Paper No. 154) and should apply to the Gascoyne Region.

Cephalopods		
<i>Species</i>	<i>Bag limit</i>	<i>Other controls</i>
Squid, octopus, cuttlefish	Combined bag limit 15 per fisher, boat limit 30	

Strategy G7 Landing of Whole Fish

This strategy refers to Recommendation 16 in the Final Report of the Gascoyne Recreational Fishing Working Group (Fisheries Management Paper No. 154). This proposal will be applied state-wide.

On a state-wide basis, filleting or dismembering of fish at sea should not be permitted, so as to allow enforcement of bag and size limits. Fish can be gilled and gutted but must be landed in a whole form. If a fishing trip involves an overnight stay on an island, fish landed on an island may be filleted and then transported back to the mainland.

Mackerel may be filleted at sea provide the skin is left on to permit identification.

Strategy G8 Possession Limits for the Gascoyne Region

This strategy refers to Recommendation 10 in the Final Report of the Gascoyne Recreational Fishing Working Group (Fisheries Management Paper No. 154) and will be applied state-wide.

- 20kg of fillet or parts of fish, or
- 10kg of fillet plus one day's bag limit of whole fish, or
- Two days bag limit of whole fish

Strategy G9 Accumulation of Fish at Sea

This strategy was included in the Final Report of the West Coast Recreational Fishing Working Group (Fisheries Management Paper No. 153) and should be applied state-wide.

No accumulation of fish should be permitted above the recommended possession limit of whole fish. On this basis, Regulation 20(2) of the *Fish Resources Management Regulations 1995*, which allows people to accumulate specific species of fish while living on board a boat, will be repealed.

Strategy G10 Closures to Fishing

This strategy refers to Recommendation 13 in the Final Report of the Gascoyne Recreational Fishing Working Group (Fisheries Management Paper No. 154).

The eastern gulf of Shark Bay should remain closed to fishing for snapper until research indicates the target spawning stock of 100 tonnes is reached. When reopened, management will need to be based on sustainability requirements.

Strategy G11 Set and Haul Net Fishing

This strategy refers to Recommendation 15 in the Final Report of the Gascoyne Recreational Fishing Working Group (Fisheries Management Paper No. 154).

My view is that set, haul and throw nets should be permitted in the region as a means of targeting mullet and baitfish. However, netting should not be allowed in the following areas because of their potential impact on fish nursery areas:

- within 500m of the mouth of any creek/river.
- within the waters of the proposed Miaboolia Beach Fish Habitat Protection Area.

Strategy G12 Changes to Legal Fishing Gear

This strategy refers to Recommendation 14 in the Final Report of the Gascoyne Recreational Fishing Working Group (Fisheries Management Paper No. 154).

My view is that unattended set lines should be prohibited. Attendance should be defined as, "recreational fishers must be within 10 metres of any line which is being fished".

The legal permitted fishing methods would be drafted as regulations within the *Fish Resources Management Regulations 1995*.

Appendix 1 – Ministerial response to recommendations

Please note the full recommendations of the Gascoyne Recreational Fishing Working Group are contained in their final report (Fisheries Management Paper No. 154).

Working Group Recommendation	Minister's Response
Recommendation 1 – Key Principles for Management	The guiding principles of management identified in the Final Report of the West Coast Recreational Fishing Working Group (Fisheries Management Paper No. 153) should be adopted across all regions.
Recommendation 2 - Term of the Strategy	Regional recreational fishing management strategies should be developed as 10 year plans, with an interim review every 5 years.
Recommendations 3 to 8 - Biology, Catch and Fisheries Performance	Recommendations 2 to 5 should form the basis of priorities for research. The level of research during the term of the plan will be subject to statewide priorities and the availability of funds
Recommendations 9 to 16	These recommendations are covered in the strategies I have outlined in the beginning of the document.
Recommendation 17 to 19 - Resource Sharing	<p>I have noted all recommendations on resource sharing and the level of support by recreational fishers. I believe these recommendations accurately represent the views of recreational fishers and should be considered in a resource sharing process. Resource sharing issues will need to be resolved through either the Integrated Fisheries Management framework under development, or the marine reserves planning process.</p> <p>Due to their importance as recreational fishing platforms, I approve a prohibition on commercial fishing of 100m around all jetties in the State.</p>
Recommendation 20 - Aboriginal Fishing	Management issues involving traditional, cultural and subsistence fishing are being addressed by the Aboriginal Fishing Strategy.
Recommendation 21 – Low Impact Wilderness Fishing Experiences	This concept should be further developed in consultation with stakeholder groups.
Recommendation 22 – (a) Artificial Reefs - (b) Stock Enhancement	22(a) approved. 22(b) I note that a trial restocking of snapper in the Shark Bay is already underway.
Recommendation 23– Identify Important Fish Habitat Areas for Protection	The creation of reserve or no-take areas will need to be considered as part of the marine reserves planning process and State budget priorities.

Recommendation 24 – Bycatch Action Plans for the Commercial Fisheries in the Gascoyne Region.	I note that plans are already under development.
Recommendation 25 - Regional Communications Strategy for the Gascoyne Region	The development of a regional communications strategy will need to be considered in the context of current budget approvals.
Recommendation 26 - Additional Compliance and Education Resources	Proposals on providing additional patrol capacity for the Gascoyne Region will need to be considered in the context of current budget approvals. Efficiency gains from the Government reform agenda may assist with regional servicing for recreational fisheries management.
Recommendation 27 – Department of Fisheries to Ensure Representation of Recreational Fishing Interests on all Planning Process/Committees.	I note this proposal.
Recommendation 28 – Review the Role of Regional RFACs	To ensure adequate and effective community consultation in the development of recreational fisheries management arrangements, the Recreational Fishing Advisory Committee will proceed with a review on the adequacy of current consultative structures and report back on its findings. Major stakeholders including Recfishwest will be consulted as part of the review.
Recommendation 29 – Funding for Recreational Fisheries Management	Funding for the future management of recreational fisheries needs to be considered in the context of the State Government budget process. The Government’s policy is that no saltwater angling licence will be introduced in this term. The Integrated Fisheries Management Review Committee will be reporting in part on funding issues associated with future finfish management.