

State of the Fisheries Report

2001/2002



Department of Fisheries
Government of Western Australia



Fish for the future



**To the Hon. Kim Chance MLC
Minister for Agriculture,
Forestry and Fisheries**

Sir

In accordance with Section 263 of the *Fish Resources Management Act 1994*, I submit for your information and presentation to Parliament the report *State of the Fisheries* which forms part of the Annual Report of the Department of Fisheries WA for the financial year ending 30 June 2002.

A handwritten signature in blue ink that reads "P. P. Rogers". The signature is fluid and cursive.

Peter P Rogers

Edited by Dr J. W. Penn

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based at the WA Marine Research Laboratories

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GLOSSARY

OF ACRONYMS

ADF	Aquaculture Development Fund
AIMWTMF	Abrolhos Islands and Mid West Trawl Managed Fishery
AQIS	Australian Quarantine and Inspection Service
BRD	bycatch reduction device
CAES	catch and effort statistics
CALM	Conservation and Land Management, Department of
CPUE	catch per unit effort
CW	carapace width
DEPM	daily egg production method
DOLA	Department of Land Administration
EA	Environment Australia
EGPMAC	Exmouth Gulf Prawn Management Advisory Committee
ENA	extended nursery area
ENSO	El Niño/Southern Oscillation
EPA	Environmental Protection Authority
ERLMF	Esperance Rock Lobster Managed Fishery
ESD	ecologically sustainable development
FHPA	fish habitat protection area
FRDC	Fisheries Research and Development Corporation
GAB	Great Australian Bight
GIS	geographic information system
GPS	global positioning system
GVP	gross value of production
IFM	Integrated Fisheries Management
IMP	interim management plan
IQF	individually quick frozen
ITE	individually transferable effort
ITQ	individually transferable quota
IUCN	International Union for the Conservation of Nature and Natural Resources
JANSF	Joint Authority Northern Shark Fishery

JASDGDLF	Joint Authority Southern Demersal Gillnet and Demersal Longline Managed Fishery
MAC	management advisory committee
MOU	Memorandum of Understanding
MOP	mother-of-pearl
MSC	Marine Stewardship Council
NBPMF	Nickol Bay Prawn Managed Fishery
NCP	National Competition Policy
NDSMF	Northern Demersal Scalefish Managed Fishery
NHT	Natural Heritage Trust
NPF	Northern Prawn Fishery
PIAC	Pearling Industry Advisory Committee
RLIAC	Rock Lobster Industry Advisory Committee
RPA	reef protected area
SBPMAC	Shark Bay Prawn Management Advisory Committee
SBSMAC	Shark Bay Scallop Management Advisory Committee
SCEF	South Coast Estuarine Fishery
SRR	spawning stock–recruitment relationship
SWFRAC	South West Freshwater Research and Aquaculture Centre
SWTMF	South West Trawl Managed Fishery
TAC	total allowable catch
TPSA	tiger prawn spawning area
TSC	total sustainable catch
VFAS	Voluntary Fisheries Adjustment Scheme
VFLO	Voluntary Fisheries Liaison Officer
VMS	Vessel Monitoring System
WAMTC	WA Maritime Training Centre
WANCSF	WA North Coast Shark Fishery
WASQAP	WA Shellfish Quality Assurance Program
WCDGDLIMF	West Coast Demersal Gillnet and Demersal Longline Interim Managed Fishery
WCRLMF	West Coast Rock Lobster Managed Fishery

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EXECUTIVE DIRECTOR'S OVERVIEW



The *State of the Fisheries* document is designed as an essential supplement to the Annual Report to Parliament and provides a more detailed level of information to support the Department of Fisheries' non-financial performance measures. By summarising management changes, compliance activities and research data including stock assessments and breeding stock levels, this document provides a valuable reference point for Western Australian fisheries of major importance to the commercial and recreational sectors. Information relevant to the State's developing aquaculture industries and the Department's Fish and Fish Habitat Protection Program is also provided.

This year's *State of the Fisheries Report* has continued in the format established in 2000/01, reflecting the Department's commitment to apply the principles of ecologically sustainable development (ESD) to the management of Western Australian fisheries. The individual fishery status reports are now providing an annual 'report card' on ESD performance for all of the State's major commercial fisheries and some recreational fisheries.

These reports indicate that the majority of the State's fish stocks are in a healthy condition and are being exploited at sustainable levels. The southern pilchard stocks, which were severely depleted as a result of an exotic virus attack in 1999 and of concern last year, are now showing signs of a good recovery. The remaining commercial fishery of serious management concern is the southern and west coast demersal gillnet and longline fishery for shark, which is responding to the Department's management, but is also being impacted by other offshore fisheries not under Western Australian jurisdiction. Negotiations are continuing to address these management concerns.

Although the reports reflect the success of the Department's historical efforts in managing the major commercial fisheries and specialised recreational fishing, continuing population growth and improvements in fishing technology are increasing the pressures on our fish stocks. These emerging management issues are being addressed through the current initiatives to develop arrangements for integrated fisheries management (IFM) and guidelines for resource sharing between the fisheries sectors. Resolution of these issues will however require an ongoing commitment to gathering accurate data on the catch

and fishing activities by each sector each year.

To this end, the status reports are now providing, wherever possible, first estimates of recreational and commercial catch shares to identify priority areas for IFM. Similarly, the bioregional overviews for commercial and recreational fishing this year are for the first time providing detailed statistics on Departmental activities in relation to ensuring fishers' compliance with the management arrangements for each fishery.

I would like to take this opportunity to acknowledge the dedication and professionalism demonstrated by all Divisions of the Department in ensuring that the important data recorded in this volume were collected and utilised to maintain our fisheries. Both commercial and recreational fishers are also to be commended for their high degree of support for the Department of Fisheries management programs which conserve the State's fisheries resources.

A handwritten signature in blue ink that reads "P. P. Rogers".

Peter P. Rogers
EXECUTIVE DIRECTOR

EDITOR'S OVERVIEW



State of the Fisheries reports in detail on the activities and impacts of the commercial and recreational fishing sectors which utilise the wild fish stocks in Western Australia. In addition, the status of the developing aquaculture industries is recorded to enable the public of Western Australia to follow the development of this emerging sector. The work of the Fish and Fish Habitat Protection Program, which provides environmental coordination for the Department's fisheries management activities and habitat reserves, is also reported to complete the coverage of the Department's responsibilities.

To enable this comprehensive report on the management status of the State's fisheries to be compiled each year, a high degree of collaboration is necessary between the users of the fish resources and the Department's Divisions of Fisheries Research and Fisheries Management Services. I am pleased to report that the level of cooperation and collaboration continued to be excellent in 2001/02 and is the major factor which enables sustainable harvest levels from our fish stocks to be assessed each year. All commercial vessels provide valuable monthly records of catches and fishing activities, enhanced by the voluntary contribution of more detailed data through research logbook programs and access to vessels by researchers for catch monitoring purposes. Similarly, the recreational fishing community characteristically responds positively to the regular surveys of its fishing activities, and actively contributes to the success of management and research, particularly through the Voluntary Fisheries Liaison Officer program. Aquaculture research and development information reported in *State of the Fisheries* also relies heavily on collaboration with aquaculturists who provide access to farms and facilities for experimental projects. Data from all of these sources, together with the fishery-independent research projects which are used to validate and enhance fishery data, provide the scientific basis for management and aquaculture development of the State's fish resources.

For this 2001/02 edition of *State of the Fisheries*, the report is again arranged to reflect each sector's fishing activities within each of the State's six

bioregions (Overview Figure 1). For each fishery, the status reports are structured to provide an annual ecologically sustainable development (ESD) assessment for each fishery under the following headings:

- Fishery description
- Retained species
- Non-retained species
- Ecosystem effects
- Social effects
- Economic effects
- Fishery governance
- External factors.

These ESD assessments indicate that the majority of the State's fish stocks are being harvested at sustainable levels and that few fisheries are at risk of significantly impacting on the marine environment. This assessment reflects the high level of management control historically applied to the State's major commercial fisheries and the positive support by industry for sustainable management initiatives.

These *State of the Fisheries* assessments are now being linked to comprehensive ESD and risk assessment reports being generated for the major export fisheries in response to the requirements of the Federal *Environment Protection and Biodiversity Act 1999*. During 2001/02, the Department has begun the process of submitting detailed reports to Environment Australia on all the major commercial fisheries, and anticipates that most export fisheries will be assessed by the end of 2003. The annual *State of the Fisheries* documentation has proved invaluable to this Environment Australia process and provides the ongoing assessments needed to underpin the Department's annual performance reporting commitments to the Western Australian Parliament.

While *State of the Fisheries* helps meet these statutory requirements, the volume also provides a ready reference document for interested fishers and members of the public

EDITOR'S OVERVIEW (cont.)

wishing to better understand the performance of our fisheries over time. The document is also available on the Department of Fisheries website at <http://www.fish.wa.gov.au/res/index.html>.

In using this volume, readers should note that the individual status reports relate to the last full year of production from the relevant fishery and aquaculture sectors. Owing to the time required for the process of data gathering, validation and analysis, this period is the 2000/01 financial year or the 2001 calendar year. Similarly, the statistics on compliance and educational activities by Fisheries Officers are also for 2000/01, following the introduction that year of a new, more comprehensive system for collection of regional activity data. In contrast, the information relevant to the Department's management planning activities relates to the most recent year (2001/02) and provides an indication of actions flowing from the assessments of the state of the stocks in the previous year.

Preparation and validation of the extensive array of information contained within this report is a significant task to which many Department of Fisheries staff contribute through each year. I would like to take this opportunity to thank my colleagues in the Fisheries Management Services and Fisheries Research Divisions for their extensive contributions. Special thanks are also due to my editorial assistant, Ms Fran Head, who has carried out the task of compilation and copy-editing, and my publications officer, Mrs Sandy Clarke, who has undertaken the layout and production of the volume.



Dr J.W. Penn
DIRECTOR – FISHERIES RESEARCH



OVERVIEW FIGURE 1

Map of Western Australia showing the general boundaries of the bioregion areas referred to throughout this document.