



FISHERIES
WESTERN AUSTRALIA



State of the Fisheries Report

2000-2001





**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 Fisheries WA for the financial year ending 30 June 2001.

Peter P Rogers
EXECUTIVE DIRECTOR

Edited by Dr J. W. Penn

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based at the WA Marine Research Laboratories

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ISSN 1446 - 5906 (print)
ISSN 1446 - 5914 (online)
ISSN 1446 - 5922 (CD)

Cover photographs:
(top) The Department of Fisheries' new 23m research vessel
Naturaliste, constructed and launched in 2001.
Photo courtesy Tenix Defence Pty Ltd (shipbuilders).
(bottom) Reef habitat at the Houtman Abrolhos Islands.
Photo: Clay Bryce



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Glossary of Acronyms

ADF	Aquaculture Development Fund	JASDGDLF	Joint Authority Southern Demersal Gillnet and Demersal Longline Managed Fishery
AFMA	Australian Fisheries Management Authority	LML	legal minimum length
AIMWTMF	Abrolhos Islands and Mid West Trawl Managed Fishery	MAC	management advisory committee
AQIS	Australian Quarantine and Inspection Service	MOP	mother-of-pearl
ATSIC	Aboriginal and Torres Strait Islander Commission	MSC	Marine Stewardship Council
BRD	bycatch reduction device	NDSMF	Northern Demersal Scalefish Managed Fishery
CAES	catch and effort statistics	NPF	Northern Prawn Fishery
CALM	Conservation and Land Management, Department of	OAG	Office of the Auditor General
CPUE	catch per unit effort	PIAC	Pearling Industry Advisory Committee
DEPM	daily egg production method	RFAC	Recreational Fishing Advisory Committee
ENA	extended nursery area	RLIAC	Rock Lobster Industry Advisory Committee
EPA	Environmental Protection Authority	RPA	reef protected area
ERA	environmental risk assessment	SCEF	South Coast Estuarine Fishery
ERLMF	Esperance Rock Lobster Managed Fishery	SRR	spawning stock-recruitment relationship
ESD	ecologically sustainable development	SWFRAC	South West Freshwater Research and Aquaculture Centre
FBL	fishing boat licence	TAC	Total allowable catch
FEMR	fisheries environmental management review	TSC	Total sustainable catch
FHPA	fish habitat protection area	VFAS	Voluntary Fisheries Adjustment Scheme
FRDC	Fisheries Research and Development Corporation	VFLO	Voluntary Fisheries Liaison Officer
GAB	Great Australian Bight	VMS	Vessel Monitoring System
GPS	global positioning system	WADGDLMAC	WA Demersal Gillnet and Demersal Longline Management Advisory Committee
GVP	gross value of production	WAMTC	WA Maritime Training Centre
IMP	interim management plan	WANCSF	WA North Coast Shark Fishery
IQF	individually quick frozen	WASQAP	WA Shellfish Quality Assurance Program
ITE	individual transferable effort	WCDGDLIMF	West Coast Demersal Gillnet and Demersal Longline Interim Managed Fishery
IUCN	International Union for the Conservation of Nature and Natural Resources	WCRLMF	West Coast Rock Lobster Managed Fishery
JANSF	Joint Authority Northern Shark Fishery		

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Executive Director's Overview



Department of Fisheries Executive Director,
Peter Rogers

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 aquaculture industries and the Department's Fish and Fish Habitat Protection Program is also provided.

In keeping with the Department's significant 2000/2001 initiative to begin implementation of ecologically sustainable development (ESD) principles in fisheries management, this year's *State of the Fisheries* has been extensively restructured. The document now reflects the nationally developed ESD reporting framework and provides, where available, assessments of the ESD performance of fisheries activities under Western Australian jurisdiction.

These reports for 2000/2001 indicate that the majority of the State's fish stocks are in a healthy condition, and although fully exploited are producing catches at sustainable levels. The exceptions to this in 2000/2001 continued to be the southern pilchard stocks which are now showing good signs of recovery from the exotic virus attack which occurred in 1998/99. The recovery of these severely depleted stocks has however been assisted by timely management action which resulted in low or zero quotas being set for the 2000 season.

While the overall status of our fish stocks reflects the Department's historical success in managing the major commercial fisheries and recreational activities, the continuing growth in population will inevitably require a more holistic approach to fisheries management and aquaculture development. This will require that the

Department continue to undertake its extensive research and monitoring projects to ensure that there is a strong scientific basis underpinning our future integrated management initiatives. Similarly, the policy development and field management activities reported here are essential to ensure that all fishers understand the reasons for, and comply with, the controls necessary to sustain our fisheries resources in the future.

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.

Peter P. Rogers
EXECUTIVE DIRECTOR

Editor's Overview



Director - Fisheries Research, Dr Jim Penn

***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.**

For all of the fisheries resources management programs covered by this report to be successful, a high degree of cooperation is necessary between the users of the State's fish resources and the Department's Divisions of Fisheries Research and Fisheries Management Services. The level of cooperation and collaboration between fishers and Department of Fisheries staff is excellent, and continues to be a major factor in keeping the harvest from our fish stocks at sustainable levels. Of particular value is the contribution of all commercial vessels in providing monthly records of catches and fishing effort, and the completion of daily research logbooks and other voluntary records by about 500 skippers. These data are of great value in monitoring both the commercial fisheries and a variety of recreationally important fish stocks. The Department's Recreational Fisheries Program is also strongly supported by the Volunteer Fisheries Liaison Officers, who provide recreational fishing education, and together with recreational fishers contribute significant data to the recreational fisheries monitoring projects. Similarly, aquaculturists work actively with the Department's staff and support research and development programs to enhance their emerging industries. Data from all of these sources, together with fishery-independent research and monitoring projects, provide the scientific basis for fisheries management in Western Australia.

For this 2000/2001 edition of *State of the Fisheries*, the now bioregionally based document has again been significantly restructured to accommodate the national ecologically sustainable development (ESD) reporting and assessment processes foreshadowed last year. This restructuring now provides more comprehensive ESD-based status reports incorporating information under the following headings:

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

In relation to the important new 'ecosystem effects' section, the approach adopted has been to provide a high, medium, low or negligible 'risk' rating on the impact of fishing based on the Research Division's expert knowledge of the fishery, as a first step. This is in keeping with a formal ESD risk assessment process now under way for our major export fisheries, which will ultimately be used to meet the requirements of the Federal *Environmental Protection and Biodiversity Conservation Act 1999*.

Further refinements to the catch reporting in 2000/2001 include provision for the first time of data on the commercial catches, primarily of finfish, taken under 'wetline' fishing arrangements rather than under individual managed fisheries. Such catches are those taken by any Western Australian licensed fishing vessel, using methods such as handlining or droplining which are not subject to specific management regulation. These data, together with catches by vessels operating in specifically licensed fisheries, now provide a fully comprehensive reporting of all commercial catches in Western Australia.

In addition, the estimated recreational catch share in each managed commercial fishery has been included wherever relevant and comparable creel survey data are available. This additional information is in keeping with the needs of ESD reporting and is starting to provide the data which will be needed to support the Integrated Fisheries Management initiative now in progress.

The major purpose of this report, however, is to provide detailed information on the status of individual fisheries across the State which underpins key performance indicators (PIs) for the Department presented in the Annual Report to Parliament. These PIs relate particularly to the sustainability of the State's fish stocks and include measures of breeding stock levels and catch projections for all major commercial stocks. The more detailed individual fishery status reports also incorporate information on historical trends in catches and fishing activities. This information allows the reader to better assess the performance of the fisheries or industries covered, and provides a summary of information available



to the Office of the Auditor General, which provides an independent third-party audit of the Department's PIs.

State of the Fisheries, published each year as a companion to the Department of Fisheries' Annual Report to Parliament, has been produced annually since 1994/95, and now provides an ongoing record of the performance of the fisheries and fishing industries of Western Australia for general reference purposes. The document is also available on the Department of Fisheries website at <http://www.wa.gov.au/westfish/res/index.html>.

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 difficult task of compilation and copy-editing, and to my publications officer, Mrs Sandy Clarke, who has undertaken the layout and production of the volume.



Dr J.W. Penn
DIRECTOR - FISHERIES RESEARCH

Note: In July 2001, the name of the organisation changed from Fisheries WA to the Department of Fisheries, in line with Government policy. As this document reports on the year to 30 June 2001, prior to the change, the name 'Fisheries WA' has been retained throughout the body of the report.



BIOREGION FIGURE 1

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