



**Australian Government**

**Australian Fisheries Management Authority**

## **Bass Strait Central Zone Scallop Fishery**

**Five Year Strategic Research Plan  
2022-26**



## Contents

Introduction .....3

Research framework .....4

AFMA’s Strategic Research Plan.....5

BSCZSF research priorities 2022-26 .....6

Version	Updates	Approver
1.0	Replaces BSCZSF Five Year Strategic Research Plan 2017-21	Heather Johnston

## Introduction

The [Fisheries Administration Act 1991](#) provides that AFMA is to establish priorities in respect of research relating to fisheries and arrange for the undertaking of such research. This is supported by the [Bass Strait Central Zone Scallop Fishery Management Plan 2002](#) (Management Plan) performance criteria that cost effective and high quality research (including independent research) is carried out in relation to the fishery in accordance with a five-year strategic research plan.

This Bass Strait Central Zone Scallop Fishery (BSCZSF) Strategic Research Plan 2022-26 (Strategic Research Plan) was developed by AFMA in consultation with the BSCZSF Resource Assessment Group (ScallopRAG) and the BSCZSF Management Advisory Committee (ScallopMAC) and identifies areas of high priority research for the BSCZSF for the period 2022 to 2026.

This Strategic Research Plan identifies the research priorities for the fishery over the next five years to:

- assist with the pursuit of the management objectives for the BSCZSF, which are consistent with AFMA's objectives; and
- enable the effective implementation and appraisal of management arrangements.

This Strategic Research Plan provides the framework for identifying annual research priorities for the BSCZSF. The annual research statement should consider the cost-effectiveness, priority and timeframe for undertaking the work. Where research has already been funded the annual research statement should identify this, including the source of funding.

This Strategic Research Plan and annual research statements are used by:

- the AFMA Research Committee (ARC) at its annual November meeting to develop the ARC annual research call made in early December
- the ARC to recommend priorities to the Commonwealth Fisheries Research Advisory Committee (ComRAC) for potential Fisheries Research and Development Committee (FRDC) funding
- FRDC in making its annual call for research expressions of interest in May each year.

This Strategic Research Plan aims to address AFMA's strategic research programs in [AFMA's Strategic Research Plan for 2017-22](#), outlined below.

# Research framework

## Roles

### Resource Assessment Groups

The main function of Resource Assessment Groups (RAGs) is to peer review scientific data and information and provide advice to AFMA on the status of fish stocks, sub-stocks, species (target and non-target species) and the impact of fishing on the marine environment.

The Management Plan provides that RAGs give advice in relation to stock status, research needs, the environment and economics of the fishery.

ScallopRAG provides scientific advice to the BSCZSF.

### Management Advisory Committees

Management Advisory Committees (MACs) are the main advisory bodies to AFMA. They provide advice on a range of matters, including fisheries management arrangements, research, compliance, and management costs.

The MACs provide a link between AFMA and those with an interest in the fishery with members from commercial industry, fisheries management, the scientific community, the recreational sector, the environment/conservation sector and, in some instances, state governments.

MACs provide a broad perspective on management options and are a forum where issues relating to a fishery are discussed, problems identified, and possible solutions developed. The MACs consider the advice of RAGs and provide recommendations to the AFMA Commission based on how the options will contribute to meeting the overall objectives for a particular fishery and the pursuit of AFMA's legislative objectives.

ScallopMAC provides management advice to the BSCZSF.

### AFMA Research Committee

The ARC considers essential research priorities that contribute to improved management for fisheries. As part of its role the committee also:

- develops research priorities for Commonwealth fisheries in conjunction with MACs that are consistent with AFMA's management needs and objectives specified in the *Fisheries Administration Act 1991* and *Fisheries Management Act 1991*;
- approves five-year fishery research plans for individual fisheries managed by AFMA;
- advises the AFMA Commission on the allocation of AFMA research funds and accounts and reports against their use;
- monitors biological and economic indicators in Commonwealth fisheries, with an emphasis on sustainability indicators and economic efficiency; and,
- liaises with research providers and funding agencies to make sure AFMA's research priorities are given appropriate weight in the wider allocation of research funds.

The ARC now has a more strategic role in providing strategic advice to the AFMA Commission:

- on major fishery and cross fishery research issues affecting Commonwealth fisheries to support AFMA in meeting its objectives and other legislative requirements;
- on the strategic directions for research relevant to AFMA's information needs; and
- recommending research priorities and projects for potential FRDC funding.

## Fisheries Research and Development Corporation

The FRDC is a co-funded partnership between its two stakeholders, the Australian Government and the fishing industry.

The FRDC's role is to plan and invest in fisheries research, development and extension (RD&E) activities in Australia. This includes providing leadership and coordination of the monitoring, evaluating and reporting on RD&E activities, facilitating dissemination, extension and commercialisation. The FRDC achieves this through coordinating government and industry investment, including stakeholders to establish and address RD&E priorities. In addition, the FRDC monitors and evaluates the adoption of RD&E to inform future decisions.

In July 2020 the FRDC released its [Fisheries Research and Development Corporation R&D Plan 2020-2025](#). This plan outlines FRDC investment that will be targeted to achieve five outcomes:

1. Growth for enduring prosperity
2. Best practices and production systems
3. A culture that is inclusive and forward thinking
4. Fair and secure access to aquatic resources
5. Community trust, respect and value.

FRDC is currently updating the process for identifying, assessing and funding priorities; details are available on their website: [www.frdc.com.au](http://www.frdc.com.au).

## The research process

For information on prioritising research, calling for and assessing proposals, please view the research timeline at the [AFMA website](#) ('Environment and Research' – 'Science and Research' – 'Advice for Researchers').

## AFMA's Strategic Research Plan

AFMA has four research programs, which are directed to pursuing AFMA's legislative objectives. These support the BSCZSF research priorities and are listed below.

### Program 1 – Fishery stocks, biology and the marine environment

- Collect appropriate information to support stock assessments.
- Explore alternative species assessment methods and models.

- Assess the impacts of fishing on the marine environment.

## Program 2 – Economic and Social

- Development of underutilised fisheries resources.
- Develop the social and economic aspects of commercial, recreational and Indigenous fishing.
- Develop coordinated approach on major fishery and cross fishery economic issues.

## Program 3 – Development

- Management development to reduce complexity and promote economic certainty.
- Compliance methodologies to deter illegal fishing and invest in processes and technologies for more cost effective compliance arrangements.

## Program 4 – Evaluation

- Monitor and evaluate effectiveness of existing management strategies.

For further information on AFMA’s research programs, refer to the [AFMA Strategic Research Plan 2017-22](#)

# BSCZSF research priorities 2022-26

## Fishery stocks, biology and the marine environment

### Fishery Assessments

- Undertake biomass assessments as provided for under the BSCZSF Harvest Strategy.
- Monitor protected species interactions; develop approaches to obtaining a better understanding of the level of interactions and consider measures that may reduce protected and high risk species interactions
- Investigate alternative tools to monitor scallop biomass.
- Investigate a proxy for a limit reference point (LRP)

### Stock structure and fish biology

- Develop methods to validate aging techniques of commercial scallops
- Further explore differences in stock structure and recruitment, including stock dynamics and connectivity between regional stocks or populations (e.g. east-west stocks).

### Climate change and adaptive management

- Investigate options for cost effective collection of fishing related climate and oceanographic data, adequate to support the evaluation of environmental drivers on BSCZSF stocks.
- Develop methods to incorporate the potential impacts of climate change on scallop distribution, abundance and productivity in biomass assessments and harvest strategies.

## Gear and technology

- Selectivity: examine the extent of selectivity of dredges and its effect on discard rates and survival of discards.
- Gear technology: examine potential improvements in the efficiency of gear including consideration of precision harvesting techniques, bycatch reduction and handling.

## Economic and social

### Maximising economic returns to the community

- Further develop an economic analysis framework to support the harvest strategy.

### Risk-cost-catch

- Consider the risk-cost-catch framework in the context of implementing management measures and the cost-effectiveness of stock assessments.

## Development

### Management development to reduce complexity and promote economic certainty

- Streamline and automate the collection of fisheries data.
- Consider cost-effective alternatives to current monitoring and data collection programs to improve collection of key fishery data, including catch and discards of target and bycatch species and interactions with protected species.

## Evaluation

### Monitor and evaluate effectiveness of management strategies

- Conduct evaluations of the BSCZSF Harvest Strategy.
- Ensure data is of a sufficient quantity and quality to support and evaluate management arrangements.