

Status of key Australian fish stocks reports 2012. The inaugural process of production and lessons learned.



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Department of Primary Industries

Northern Territory Government



**Australian Government
Australian Fisheries Management Authority**



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1 NON TECHNICAL SUMMARY

2011/513

Status of key Australian fish stocks reports. The inaugural process of production and lessons learned.

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OBJECTIVES:

1. To produce the first *Status of key Australian fish stocks reports* (listed as National Fishery Status Reports in FRDC application objective) in 2012.

NON TECHNICAL SUMMARY:

OUTCOMES ACHIEVED TO DATE

The project outputs have contributed to or will lead to the following outcomes:

1. Improved confidence in status determination / sustainability of fish stocks around Australia. The project will also improve awareness of the sustainability of Australian fish stocks, better inform the buying patterns of Australian seafood consumers, better inform seafood certification processes and seafood chooser guides, and potentially increase the demand in existing markets where stocks are found to be sustainable.
2. Presentation of a unique stock by stock assessment wherever possible improving resolution of stock status for each species included.
3. Greater consistency in stock status determination, and improved collaboration and communication between jurisdictions on issues relating to stock status determination. South Australia, the Northern Territory, Victoria, Tasmania and Queensland have indicated they are likely to adopt the agreed national reporting framework for their jurisdictional reports.
4. The reports may act as a catalyst to improve the process of fisheries data collection. The reports also emphasize the potential benefits of adopting more consistent policies across jurisdictions, e.g. the national harvest strategy framework.
5. The project was supported by the Australian Fisheries Management Forum and the reports have been received well by the fishing industry, seafood consumers, policy makers and the broader community.
6. The production of the first edition of the reports has provided a catalyst for discussions on how to secure the longevity of national status reporting.
7. The project has identified areas for improvement including where uncertainties exist due to a lack of data, and where joint assessments are required to determine biological stock status.

The *Status of key Australian fish stocks reports* are available on www.fish.gov.au, or in hard copy version from ABARES. Whilst the *Status of key Australian fish stocks reports* themselves are in essence the final report for this project, the current document has been designed to address any remaining 'final report' requirements, to provide an outline of the methodology that was used to produce the status reports, and to identify areas for development in future editions. Appendix 3 provides a brief summary of findings from the *Status of key Australian fish stocks reports*.

What was produced

The objective of producing the first *Status of key Australian fish stocks reports* was achieved in December 2012. The reports provide the first national, scientifically robust status assessments for key Australian fish stocks. They include 49 species chapters, each describing the distribution of stocks around the country and providing stock status classifications at the biological stock level where possible. The species chapters also include some species specific preliminary information on fishing methods, management measures, vessels numbers, catch quantities, the effects of fishing on the marine environment and environmental factors that can affect fish stocks.

The introductory chapter to the reports provides background information on Australian fisheries and fisheries management, and outlines the national framework on which stock status assessments were made. Information is also provided on the main fishing methods utilised around Australia. The reports provide a key information source on Australia's fisheries management performance for both domestic and international stakeholders.

National framework

The national *Status of key Australian fish stocks reports* rely on a consistent reporting framework to assess the biological sustainability of key wild caught fish stocks (appendix 4). In short, for the key fish stocks the reports examine whether the abundance of fish (or biomass) and the level of harvest from the stock are sustainable. The framework was designed and agreed on by the *Status of key Australian fish stocks reports* Advisory Group.

Traditionally, fishery status reporting has been undertaken separately within each Australian jurisdiction for commercial wild-capture fisheries. The jurisdictional reports use differing terminology and reference points to classify fish stocks. The agreed national reporting framework for the *Status of key Australian fish stocks reports* improves consistency in reporting across jurisdictions and also allows for shared stocks (those that span the waters of more than one jurisdiction) to be assessed as single biological stocks. This recognises the biological boundaries of fish stocks rather than manmade boundaries of management units or jurisdictions.

Lessons learned from the initial production process

Key lessons learned during the production process include the importance of ensuring:

- shared ownership with all jurisdictions and authors involved

- sufficient resourcing, including realistic costings and timeframes
- effective mechanisms for communication among all project collaborators
- the provision of clear instructions on drafting
- a flexible approach (in the first edition), to enable the evolution of the product as it is developed
- broad stakeholder feedback on reporting frameworks early in the planning phase.

Future editions

The first edition of the *Status of key Australian fish stocks reports* is the first step towards national fishery-wide reporting, that may provide additional classifications against other aspects of ecologically sustainable development, such as the effects of fishing on the marine environment, economic performance, governance and social good. Future editions of the *Status of key Australian fish stocks reports* are also envisaged to consider a larger number of species. The possibility of including additional species chapters and updating existing chapters between formal editions of the *Status of key Australian fish stocks reports* will be discussed by the projects Advisory Group in 2013.

Planning for the next edition of the *Status of key Australian fish stocks reports* and companion national fishery status reports (providing fishery level assessments) is scheduled to begin in 2013.

KEYWORDS: biomass, fisheries, fishing mortality, fish stock, national, stock, stock status assessment

2 ACKNOWLEDGEMENTS

The *Status of key Australian fish stocks reports 2012* project was initiated by the FRDC and the Australian Bureau of Agricultural and Resource Economics and Sciences, with endorsement by the Australian Fisheries Management Forum, which comprises the heads of the fisheries management organisations in all Australian states and the Northern Territory. The project was co-funded by the FRDC; ABARES; the Institute for Marine and Antarctic Studies, Tasmania; the Department of Primary Industries, New South Wales; the Department of Fisheries, Western Australia; the Department of Primary Industry and Fisheries, Northern Territory; the Department of Primary Industry, Victoria; the Department of Primary Industries and Regions, South Australia; the Department of Agriculture, Fisheries and Forestry, Queensland; and the Commonwealth Scientific and Industrial Research Organisation (CSIRO).

3 BACKGROUND

In Australia, marine fish stocks are managed separately by Commonwealth, states and the Northern Territory. While some jurisdictions have historically worked together to produce joint stock assessments on various shared stocks, prior to the production of the *Status of key Australian fish stocks reports*, 'fishery status reports' were not produced on a national level. Instead, separate reports were produced by a number of jurisdictions often providing assessments for species at a management unit or jurisdiction level as opposed to a biological stock level. The traditional fishery status reports vary in the scope and depth of information included; and differences exist in terminology and benchmarking (i.e. setting of management targets and limits for stock biomass and fishing mortality). Without a nationally consistent approach it is difficult for stakeholders to judge the state of individual fish stocks and as a result generalisations are made for many species using information from individual jurisdictions or from overseas stocks.

The segmented approach, which differs from one jurisdiction to the next, makes it difficult for stakeholders to make comparisons or assessments of the state of individual fish stocks and species. In addition, the Australian Government's State of the Environment Report 2011 identified that the lack of a nationally integrated approach inhibits effective marine management.

Foremost among the many issues is the lack of an integrated national system for assessment and reporting of marine condition. Without an integrated and genuinely national system of multilevel governance for conservation and management, it will be difficult to properly maintain the natural wealth of our oceans in the face of the challenges ahead.

The approach of producing national *Status of key Australian fish stocks reports* is particularly pertinent given increasing interest from stakeholders in more scientifically robust assessments of the sustainability of seafood. The

Status of key Australian fish stocks reports proposal was developed by ABARES in collaboration with the state/the Northern Territory jurisdictions and CSIRO, at the invitation of the FRDC following discussions with, and support by, AFMF.

The FRDC Board approved funding for the planning phase of this project on 26 August 2011. The planning phase involved the production of a scoping document, outlining ABARES recommended approach, and the running of two jurisdictional planning workshops. Key outcomes from the planning phase include the selection of the key species to be covered by the reports; agreement by all jurisdictions on terminology and benchmarking for stock status determinations; allocation of roles and responsibilities across jurisdictions; and agreement on the reports template.

On 29 November 2011 the FRDC board approved investment for the production of the first *Status of key Australian fish stocks reports*.

4 NEED

Prior to the production of the *Status of key Australian fish stocks reports* there was a need for a consolidated, scientifically robust, national report on the status of key wild catch Australian fish stocks, focusing on commercial and recreational target species. The national status reports were required for providing an easy to access, consistent national picture of fish stock sustainability, focusing on separate biological stocks rather than management units or jurisdictions. The reports cater to the growing interest of fisheries stakeholders in the sustainability of seafood products and also to the interest of international organisations looking to assess Australia's fisheries management performance. Through previous collaborations different jurisdictions had demonstrated their capacity to work constructively together to achieve common goals (e.g. joint stock assessments for shared stocks). However, the differences in scope, depth, terminology and benchmarking in jurisdictionally based *Fishery status reports* made it difficult to readily compare the status of stocks across jurisdictions and build a coherent national status of key species.

The *Status of key Australian fish stocks reports* is not promoted as an eco-labelling guide but rather as a scientifically robust instrument designed to simplify comparison of the status of key wild capture fish stocks around Australia both within and among jurisdictions. This information is available for the general public, policy makers and industry to make informed decisions in relation to the sustainability of various stocks. The reports also provide an important and accurate information source for international organisations (e.g. FAO). The process of producing these reports helped improve communication between the jurisdictions, leading to a better understanding of the status determinations made by each jurisdiction and how these compare. One of the main outcomes achieved is the convergence on a common system of benchmarking and terminology for use across jurisdictions. In addition, the process has increased collaboration between different jurisdictions in respect to stock status assessment.

5 OBJECTIVES

“To produce the first National Fishery Status Reports”.

The name of the reports was subsequently changed to the “*Status of key Australian fish stocks reports*” to better describe the specific focus on fish stock status.

The objective of producing these reports was achieved with online publication on www.fish.gov.au on 11 December 2012.

6 METHODS

The methods section provides detail on both the planning and production phases of the *Status of key Australian fish stocks reports*. In planning for future editions of the reports examination and refinement of the materials provided to guide authors in drafting chapters will be important.

These documents include:

- The agreed stock status terminology / framework (Appendix 4).
- The agreed species template (Appendix 5).
- Recommended stock status language document (Appendix 6).
- Description of how to name stocks (Appendix 7).

Where the documents listed above were amended by the Advisory Group and recirculated during the drafting process the most up to date versions are included as appendix items.

6.1 Presentation of concept to AFMF – April 2011

A paper outlining the project concept for the *Status or key Australian fish stocks reports* (Appendix 8) was presented to the Australian Fisheries Management Forum (meeting no 25) on 28 April 2011. On the basis of this paper AFMF endorsed the development of the reports as an FRDC project.

6.2 Initial planning workshops

An Advisory Group for the *Status of key Australian fish stocks reports* project was established in the second half of 2011, comprising heads of fisheries research agencies from all Australian jurisdictions, along with representatives from the CSIRO and the FRDC. Prior to FRDC providing full approval for the project, two Advisory Group planning workshops were conducted.

Workshop 1

Prior to the first workshop ABARES prepared and circulated a scoping document (Appendix 9) outlining a recommended format and approach for producing the reports.

The first workshop focused on: 1) which species to include; 2) stock status terminology; 3) stock status reference points; 4) responsibilities; and 5) report design. The main decisions made by the Advisory Group during this workshop are listed below:

1. Hundreds of species are caught and sold from Australia's wild-capture fisheries. The *Status of key Australian fish stocks reports* covers 49 key species (or species complexes). Species were selected by the Advisory Group primarily on the basis of their contribution to Australian fisheries; they represent over 80 per cent of the value and 70 per cent of the annual catch volume. They also reflect the wide diversity of species found in Australian fisheries and markets, including shellfish, crustaceans (such as prawns and crabs), squid, finfish and sharks. They cover species from the tropical waters of northern Australia to the temperate waters of the south, and species caught on the high seas.
2. It was agreed that the classification framework for assessing stock status be based on current biomass, fishing pressure, and management response.
3. It was agreed that 'recruitment overfished' would be the biological benchmark for determining whether or not a stock is overfished. The point at which a stock is considered to be recruitment overfished is the point where the spawning stock biomass has been reduced through catch, so that average recruitment levels are significantly reduced.
4. Lead jurisdictions were appointed for each species. The lead agency from these jurisdictions accepted responsibility to collaborate with relevant support jurisdictions with common species and compile the information required to determine stock status.
5. A species template was presented and refined. Five species were selected to trial the template. The results from these trials were presented at workshop 2.

The agenda and agreed outcomes from workshop 1 can be found in Appendix 10.

Workshop 2

Workshop two focused on: 1) evaluating species chapter case studies; identifying any difficulties in how the drafting process worked and any proposed changes; 2) confirming the report content and the roles and responsibilities of jurisdictions; and 3) confirming budgetary requirements and in-kind contributions.

For each of the species chosen for inclusion in the reports, the Advisory Group identified 'lead' and 'support' jurisdictions for drafting species chapters. Support jurisdictions were jurisdictions that were not taking the lead on a species chapter but that had stocks of that species harvested in their waters. Stock status determination was to be undertaken in a collaborative manner, involving teams of relevant experts from the jurisdictions in which the stocks are managed. This process aimed to ensure that the researchers engaged in studying and assessing these species were responsible for the status assessment. For stocks that are shared by multiple jurisdictions, the lead

jurisdiction was to be responsible for facilitating a process and discussion to determine the overall status for the stocks.

The agenda and agreed outcomes from workshop 2 can be found in Appendix 10.

6.3 Production of the Status of key Australian fish stocks reports

The production process for the *Status of key Australian fish stocks reports* was designed to achieve:

- Collaboration between jurisdictions with shared stocks
- Broad ownership of the reports by all those involved in their production
- Consistency in reporting styles / terminology / benchmarks across all jurisdictions
- Production of scientifically robust stock status assessments with a transparent evidence base and links to references used for classifying stocks
- Awareness and engagement by management agencies across Australia.

The first edition of the *Status of key Australian fish stocks reports* presents data up to 2010—the most recent data and assessments available at the time of publishing across all Australian jurisdictions with marine fisheries. No single database currently exists for fisheries to compile data from all Australian jurisdictions. Hence, the required data was submitted to ABARES by each jurisdiction separately. The difficulty in accumulating data from so many sources highlights the potential benefits of developing a single central data base for Australian fisheries data.

The production process of the *Status of key Australian fish stocks reports* was coordinated by ABARES. In each of the other collaborating jurisdictions Advisory Group members, and in some cases ‘team leaders’ working directly for the Advisory Group members, were responsible for managing chapter drafting, cross jurisdictional collaborations, and review and sign off of all relevant chapters.

A number of documents were forwarded to the Advisory Group to help facilitate the drafting process with authors in their jurisdictions (Appendix 4, 5, 6 and 7). These were working documents that were altered when required as a result of decisions made by the Advisory Group. The Advisory Group was responsible for the circulation of these materials to the authors in their departments and for explaining the process to be used for drafting the chapters.

In addition to the documents listed above, agendas and agreed outcomes documents from each of the Advisory Group workshops held during the production process are included in appendix 10. The agreed outcomes documents were circulated to the Advisory Group and team leaders following each workshop to help guide them in their coordination responsibilities. They

outlined the main decisions made in the workshops, and any agreed alterations to production process, species template etc.

An initial project timeline for production was compiled in December 2011 and updated frequently throughout the project. It was initially estimated that the production phase would take approximately 8 months, commencing 12 December 2011 with the launch of the reports in electronic version scheduled for approximately 17 August 2012. The initial estimate was four months short of the final production time. The reports were released online on 11 December 2012, one year after drafting commenced.

The production process is outlined below and includes an indication of the time required to complete each phase. The time estimates are averages, a small number of the more challenging chapters lagged behind these averages throughout the production process.

Initial Drafting – 2 Dec 2011 to 14 May 2012

The initial drafting phase for the bulk of the species chapters took approximately 5.5 months. This involved lead jurisdictions drafting the chapters in collaboration with support jurisdictions. The drafts were cleared by Advisory Group members and then sent to ABARES. A reasonable proportion of the mapping and graphing data required for the chapters were also provided to ABARES during this time.

ABARES consistency review – 14 May 2012 to 25 June 2012

This process took around one month to complete. In order to standardise the chapters produced by each jurisdiction ABARES carried out a consistency review following provision of the first drafts. For most chapters this was an iterative process with communication between ABARES and the authors from other jurisdictions. The majority of outstanding mapping and graphing data for the species chapters were also provided during this time.

ABARES technical review & AFMF comments – 25 June 2012 to 23 August 2012

This phase took around two months to complete. Following incorporation of the changes resulting from ABARES consistency review, leads and supporting jurisdictions provided the chapters back to ABARES for technical review. The technical review was undertaken by a separate team of ABARES staff from those involved in the consistency review, and focused on the adequacy of evidence provided for attributing stock status classifications.

The draft version of each species chapter that was supplied to ABARES for technical review was also circulated to AFMF for comment by fisheries managers in each jurisdiction. Ideally the chapters would have been circulated to AFMF after the completion of the technical review but given the tight time constraints associated with ensuring production was complete within 2012 the Advisory Group decided to run these processes simultaneously.

Once all comments from both the technical review and from AFMF had been addressed by ABARES and leads and supports, the Advisory Group members signed off on the chapters and provided them to ABARES, ready for the FRDC external peer review.

FRDC external review and revision – 23 August 2012 to 9 October 2012

The FRDC external peer review and revision took just over 1.5 months to complete. On 23 August 2012 ABARES provided all of the species chapters to FRDC. Following comment by the FRDC reviewers the chapters were returned to ABARES on 20 September 2012. Wherever possible changes were addressed directly by ABARES. Comments relating to higher level issues that pragmatically could not be dealt with in the 2012 edition of the *Status of key Australian fish stocks reports* were recorded as discussion points for the planning phase of future editions but not addressed in the chapters. All remaining comments were forwarded back to the relevant lead and support jurisdictions to be addressed.

By 9 October 2012 all comments had been addressed and lead and support jurisdictions had provided cleared final versions of the chapters back to ABARES for copy editing.

Copy editing, design phase and final ABARES clearance – 9 October 2012 to 11 December 2012

The copy editing, design, final clearance phase of the project took approximately two months to complete. Feedback from fisheries stakeholders at an FRDC Common Language Group meeting on Monday 12 November 2012 lead to the classification terminology ‘sustainably fished’ being changed to ‘sustainable stock’. This change was made as a result of considering the Common Language Group feedback, and discussion with AFMF and the *Status of key Australian fish stocks reports* Advisory Group. This highlighted the need to ensure wider fisheries stakeholder consultation earlier in the process for future editions of the *Status of key Australian fish stocks reports* and potential companion national fishery status reports.

Briefing

Leading up to and following the launch of the reports ABARES, FRDC and Advisory Group members briefed key fisheries stakeholders. There was also significant investment in generating information for and interest from the general Australian public about the release. Formal briefing notes and a presentation were developed and provided to the Advisory Group for use in briefings. These aimed to ensure clarity and consistency around the key messages.

In addition FRDC sort engagement from key fisheries industry stakeholders to spread the word of the reports’ release. The reports were used as a case study for FRDC media training (conducted in New South Wales, Queensland, Victoria, South Australia and Western Australia in November 2012). Stakeholders, including researchers, fishers and executives attended this training. The briefing material from the project was used as a case study, with the focus on how to effectively inform audiences about the reports.

The reports were launched by Senator the Hon. Joe Ludwig, Minister for Agriculture, Fisheries and Forestry, on 11 December 2012.

7 RESULTS/DISCUSSION

7.1 Summary of findings from the reports

As outlined previously the current FRDC final report has been designed primarily to provide an outline of the methodology that was used to produce the reports, and to identify areas for further development in future editions.

While the current report focuses on process, a brief summary of the main findings presented in the *Status of key Australian fish stocks reports* is included in appendix 3. For more detailed information on the specific stock status assessments for each species please view the complete *Status of key Australian fish stocks reports 2012* at www.fish.gov.au.

7.2 Comments on the production process

The production process for the *Status of key Australian fish stocks reports* was agreed upon by the *Status of key Australian fish stocks reports* Advisory Group during planning workshops in late 2011. The production process worked best when:

- the authors were provided with the agreed stock status terminology / framework before they commenced drafting
- the authors were provided with the correct species template before they commenced drafting
- the authors were provided with an explanation of the project rationale and production process
- details of the decisions made by the Advisory Group at official workshops and out of session were provided to the authors.

ABARES would recommend revisiting the project management framework used in the production of these reports with the aim of determining ways to better ensure all individuals working on the project are provided with required materials and guidance in a timely manner during the drafting and review process.

A number of authors have voiced their desire to provide input into the reporting framework for future editions of the reports. ABARES would recommend providing authors with an opportunity to comment on the proposed framework before the template is signed off on. ABARES would also recommend ensuring that the main coordinating agency visit and speak directly with all authors to ensure that they are familiar with what is being requested of them and with who they can contact if and when questions arise.

7.3 Key lessons learned and issues identified from the initial production process

- Ensuring that the *Status of key Australian fish stocks reports* were scientifically robust was one of the main aims throughout the production

process. This was achieved through a series of reviews culminating in an external technical peer review process facilitated by FRDC. A number of jurisdictions have indicated that having an external peer review of the species chapters of the *Status of key Australian fish stocks reports* was one of the greatest strengths of the process. This review added a level of scrutiny not traditionally applied to jurisdictional reports and helped ensure the integrity of the final product.

- One of the greatest challenges was ensuring effective mechanisms for communication among the 80 plus scientists (across 8 jurisdictions) involved in the production team. It will be important to revisit this issue and refine these mechanisms for future editions of the reports.
- Early engagement with authors and leadership from the Advisory Group members, or their nominated team leader, contribute to ensuring the production process can progress as efficiently as possible.
- Resourcing requirements were much higher than originally estimated for all jurisdictions involved in the project. The actual in-kind contribution by most collaborators is likely to have been closer to 75-80% rather than the original 50% agreed. Estimating more realistic time lines and budgets will be an important part of the process for producing future reports. It has been acknowledged by a number of jurisdictions that eventually the whole production process will be funded by the jurisdictions, however, determining more accurate estimates of the project cost, project resourcing and likely requirement for in-kind contribution will still be important regardless of where funding is sourced.
- It is important to align jurisdictional frameworks with the national framework where possible in order to help minimise the extra work required for each jurisdiction to produce the national reports. This alignment will also help to minimise confusion among stakeholders resulting from each jurisdiction reporting against different criteria/frameworks. To date South Australia, the Northern Territory, Victoria, Tasmania and Queensland have indicated that they are likely to adopt the national reporting framework/reporting style for their jurisdictional reports.
- A number of members of the projects Advisory Group indicated that the data presented in the first edition of the *Status of key Australian fish stocks reports* could have been more up to date. Because of the age of data used there was a mismatch between many jurisdictional reports from 2012 (which reported on 2011 data) and the *Status of key Australian fish stocks reports* (which reported on 2010 data). In future efforts should be made to use more recent data. Mechanisms may need to be put in place to ensure this is available across all jurisdictions. This could include the development of a centralised national fisheries statistics database.
- The production and timely circulation of documentation such as the classification framework, the agreed species template and the recommended stock status language document play a critical role in ensuring success and efficiency in the production process.
- That production of reports incorporating such a large number of jurisdictions and individual contributors requires a flexible approach which allows concepts and project design to evolve in real time as issues are identified and solutions are proposed and adopted.

- That it is important to keep management informed of project progress, arising issues, and status outcomes of the reports.
- Broader fishery stakeholder input should have been sought for the reporting framework (including definitions, criteria and principles) before the commencement of drafting. This process occurred late in the production process for the inaugural *Status of key Australian fish stocks reports* and resulting changes had a significant impact on the final stages of the copy-editing and design process. The FRDC Common Language Group may offer an appropriate forum for seeking broader stakeholder input.
- It was also highlighted throughout the process that improved access to accurate recreational and Indigenous fishing data will be important for making more accurate assessments of fish stock status for stocks from which significant catch is taken by these sectors.
- It is important to provide high quality, well designed briefings around the time the reports are released. The briefings provided by ABARES, FRDC, other Advisory Group members and other key fisheries stakeholders around the country were critical to the success and uptake of the reports.

7.4 Feedback from reviewers and other stakeholders

The external review process which was coordinated by FRDC resulted in the generation of a number of suggestions by reviewers. As indicated above comments relating to higher level issues that could not be pragmatically dealt with in the 2012 edition of the *Status of key Australian fish stocks reports* were recorded as discussion points for the planning phase of future reports but not addressed in the chapters. These comments will be collated by ABARES and presented to the Advisory Group for discussion at review and future planning workshops in 2013 (see ‘further development’ below). In addition any comments from other stakeholders on the content or design of the inaugural reports will also be discussed at the planning workshops.

8 BENEFITS AND ADOPTION

The end users of the *Status of key Australian fish stocks reports* will be interested members of the public, policy makers, managers, fishers and seafood consumers.

The potential impacts of this project will be to:

- 1) improve awareness of the sustainability of Australian fish stocks
- 2) better inform Australian seafood consumers
- 3) better inform seafood chooser guides
- 4) potentially increase the demand in existing markets where stocks are found to be sustainable
- 5) focus management resources on gathering required data to resolve classification for stocks classed as undefined in the 2012 status reports
- 6) focus research on improving understanding of the delineation of biological stocks where stock structure is currently unknown
- 7) help focus efforts on stocks/fisheries where there are clear management issues.

9 FURTHER DEVELOPMENT

The Australian Government is currently considering the recommendations from the House of Representatives Standing Committee on Agriculture, Resources, Fisheries and Forestry report, Netting the benefits: Inquiry into the role of science for the future of fisheries and aquaculture (released November 2012). The report includes the recommendation:

Recommendation 2: The Committee recommends that the Australian Government continue to publish a consolidated stock report for all Australian fisheries on a regular basis, after the initial publication of such a report in 2012, in consultation with State and Territory governments.

The inaugural *Status of key Australian fish stocks reports* focus on the status of targeted fish stocks. In the future, companion national fishery status reports are envisaged to provide broader assessments of Australian fisheries, potentially providing classifications based on broader ecosystem impacts of fishing (such as bycatch), social good, economic performance and governance. Future editions of the *Status of key Australian fish stocks reports* are also envisaged to consider a larger number of species, and to tackle the issue of developing a nationally agreed target level for stock status assessments. One of the largest challenges facing the ongoing production of these reports is the identification of an appropriate way to provide ongoing resources (funding and personnel) to the production process in each of the jurisdictions involved.

The scope of future editions of the *Status of key Australian fish stocks reports*, and companion national fishery status reports is scheduled to be reviewed in 2013. This workshop will focus on the lessons learned from producing the first edition of the *Status of key Australian fish stocks reports* and developing a process for producing future reports.

Overarching aims of this workshop will be:

- Identifying the strengths, weaknesses and lessons learned from the production process used for the *Status of key Australian fish stocks reports* 2012.
- Commencing planning discussions on the production of future editions of the *Status of key Australian fish stocks reports*.
- Commencing planning discussions on the production of companion national fishery stats reports, examining other aspects of ecologically sustainable development, such as the effects of fishing on the marine environment, economic performance, governance and social good.

Prior to the workshop feedback will be sought from authors of the 2012 *Status of key Australian fish stocks reports*. If possible before the workshop

feedback will also be sought from industry, NGOs and policy makers on the impacts of the reports.

More specifically, with respect to the *Status of key Australian fish stocks reports* this workshop and pre workshop meetings with authors will provide an opportunity:

- for chapter authors to voice their opinions on what did and did not work during the inaugural production process (pre workshop meetings).
- to review the production process used to generate the first edition of the *Status of key Australian fish stocks reports*. An important part of this process will be determining the views of the Advisory Group on what did and did not work.
- to review the longevity of the project and the potential for future funding. This will include reviewing the costing structure used to produce the first *Status of key Australian fish stocks reports* and discussing how to make this more equitable in the future.
- to review recommendations received from external reviewers and other stakeholders; including suggestions of potential changes to the species chapter template used in the 2012 *Status of key Australian fish stocks reports*.
- to review the classification framework used in the 2012 reports. Specifically considering:
 - a. the concept of developing a nationally agreed target reference point for assessment of stock status.
 - b. the criteria for classifying stocks as overfished
 - c. the provision of clearer rationale for classifying stocks as undefined
- to decide whether to update the *Status of key Australian fish stocks reports* species template for the next edition—based on reviewer and stakeholder feedback, and on the potential incorporation of a target reference point—or whether to make no changes for the next edition and develop a new template for edition three.
- to commence work to update the current *Status of key Australian fish stocks reports* species template based on reviewer and stakeholder feedback; and on incorporation of a target reference point (if required for edition 2).
- to decide on timing of the second edition of the *Status of key Australian fish stocks reports* and commence the development of an agreed ‘production process’ and draft timeline for production.
- to identify research requirements (and identify the potential for future research) to properly classify stocks listed as undefined in the 2012 *Status of key Australian fish stocks reports*.
- to identify research requirements (and identify the potential for future research) to determine the delineation of biological stocks where management unit or jurisdiction level reporting was used in the 2012 *Status of key Australian fish stocks reports*.
- to decide on species to be included in next edition of the *Status of key Australian fish stocks reports*, and revisit the criteria used to include

species. Criteria may also be placed on the selection of specific stocks from each species.

- to discuss mechanisms that may be put in place to help ensure more current data can be used in the second edition.
- to examine the feasibility of adding new species chapters to the *Status of key Australian fish stocks reports* and updating current species chapters with new data between editions using the current framework and reporting layout.

With respect to the companion national fishery status reports this workshop is likely to provide an opportunity:

- to decide on the potential timing for the first edition of the companion national fishery status reports and commence work on the development of an agreed 'production process' and draft timeline for production.
- To potentially commence work on the development of a reporting template for future companion national fishery status reports.
- to identify which additional aspects of Ecologically Sustainable Development (ESD) of fisheries to add to companion national fishery status reports, i.e. broader ecosystem impacts of fishing, economic performance, governance and/or social good. The Advisory Group will need to prioritise this list and identify which aspects to address in the first edition of the reports.
- to decide on an appropriate way to establish advisory groups of relevant experts for development of classification frameworks for broader ecosystem impacts of fishing, economic performance, governance and/or social good.

In addition, feedback will be sought from end users of the first edition of the *Status of key Australian fish stocks reports*.

10 PLANNED OUTCOMES

- Improved confidence in status determination / sustainability of stocks around Australia.
- Presentation of a unique stock by stock assessment improving resolution of stock status for each species included.
- In the long term the reports will lead to greater consistency in stock status determination, data collection, and the potential development / implementation of a national Harvest Strategy Policy, as well as greater collaboration and communication between jurisdictions.

11 CONCLUSION

The objective of producing the first *Status of key Australian fish stocks reports* has been successfully achieved with online publication on www.fish.gov.au on 11 December 2012. The reports were produced over a 24 month period with

around 12 months of planning followed by 12 months of drafting. Drafting work commenced in December 2012. The reports provide the first national, scientifically robust stock status assessments for key Australian fish stocks. They focus on 49 wild-caught species (or species complexes) that contribute over 80 per cent of the value and 70 per cent of the annual catch volume of Australian wild-capture fisheries. The reports represent a significant step towards a national approach to reporting for Australian fisheries. They have been developed with the involvement of fisheries research agencies from all jurisdictions. The reports provide a key information source for fishers, seafood consumers, policy makers and the broader community. They will also inform the broader international community about Australia's fisheries management performance.

Planning for future editions of the *Status of key Australian fish stocks reports* and companion national fishery status reports is scheduled to commence around in 2013. The companion national fishery status reports are envisaged to potentially provide broader assessments of Australian fisheries with classifications based on broader ecosystem impacts of fishing (such as bycatch), social good, economic performance and governance.

12 REFERENCES

Each chapter of the *Status or key Australian fish stocks reports* contains a detailed references list (see www.fish.gov.au).

13 APPENDIX 1: INTELLECTUAL PROPERTY

The *Status of key Australian fish stocks reports* are available in online (www.fish.gov.au) and as a hard copy version.

The research contained in the reports is for the public domain. The reports are intended for wide dissemination and promotion. All data and statistics presented within the reports confirm to confidentiality arrangements.

14 APPENDIX 2: STAFF

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15 APPENDIX 3: SUMMARY OF THE MAIN FINDINGS PRESENTED IN THE STATUS OF KEY AUSTRALIAN FISH STOCKS REPORTS

In total, 150 stock status assessments were undertaken across the 49 species/species complexes, with assessments undertaken at the biological stock level, wherever possible. A stock status classification could be determined from 111 of the stocks assessed.

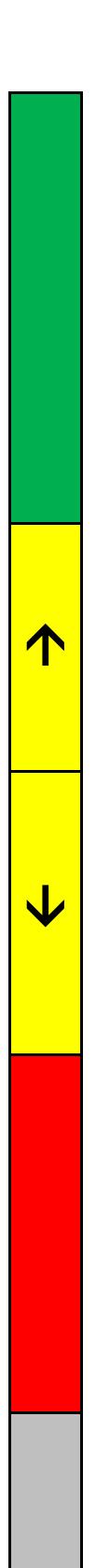
There were 81 stock status assessments carried out at the biological stock level, of which most stocks were classified as sustainable stocks (Table 10-1). Sixty-nine stock status assessments could not be carried out at the biological stock level. Of these, 45 stock status assessments are presented at the management unit level and 24 at the jurisdiction level.

Table 10-1: Stock status classification summary of the stocks in the *Status of key Australian fish stocks reports 2012*, and the proportion of the catch of all species considered in the reports.

	Number of stocks				Catch ('000 t)	% of the total catch of species considered
	Biological stock	Management unit	Jurisdiction	Total stocks		
Sustainable stock	53	35	10	98	109.8	90.6
Transitional-recovering stock ↑	5	2	1	8	0.9	0.7
Transitional-depleting stock ↓	3	0	0	3	0.8	0.7
Overfished stock	2	0	0	2	4.3	3.5
Undefined stock	18	8	13	39	5.4	4.5
Total	81	45	24	150	121.2^a	100

a The total does not include international catches (i.e. catch taken outside Australian waters by countries other than Australia) of the four tuna and billfish species.

16 APPENDIX 4: STOCK STATUS TERMINOLOGY FOR THE STATUS OF KEY AUSTRALIAN FISH STOCKS REPORTS

	<i>Stock Status</i>	<i>Description</i>	<i>Potential implications for management of the stock</i>
Sustainable	Stock for which biomass (or biomass proxy) is at a level sufficient to ensure that, on average, future levels of recruitment are adequate (i.e. not recruitment overfished) and for which fishing pressure is adequately controlled to avoid the stock becoming recruitment overfished	Appropriate management is in place	
Transitional-recovering	Recovering stock—biomass is recruitment overfished, but management measures are in place to promote stock recovery, and recovery is occurring	Appropriate management is in place, and the stock biomass is recovering	
Transitional-depleting	Deteriorating stock—biomass is not yet recruitment overfished, but fishing pressure is too high and moving the stock in the direction of becoming recruitment overfished	Management is needed to reduce fishing pressure and ensure that the biomass does not deplete to an overfished state	
Overfished	Stock is recruitment overfished, and current management is not adequate to recover the stock; or adequate management measures have been put in place but have not yet resulted in measurable improvements	Management is needed to recover this stock; if adequate management measures are already in place, more time may be required for them to take effect	
Undefined	Not enough information exists to determine stock status	Data required to assess stock status are needed	

17 APPENDIX 5: AGREED SPECIES TEMPLATE

Species chapters

Tiger flathead *Neoplatycephalus richardsoni*

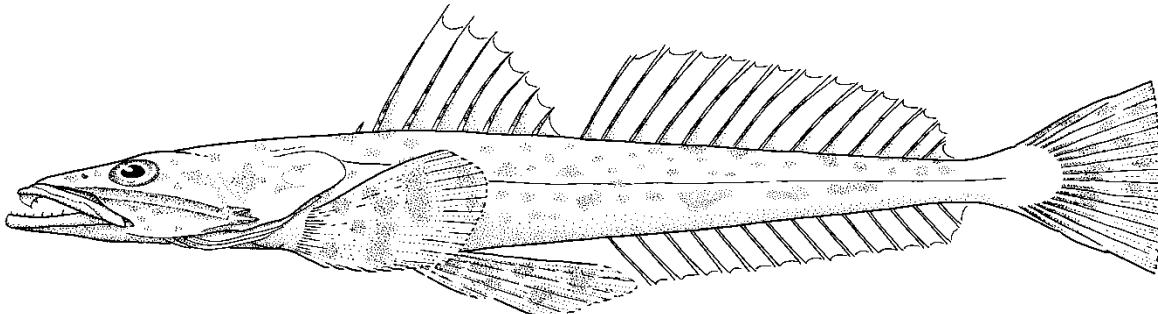


FIGURE 1: LINE DRAWING: ROSALIND POOLE

Table 1: Stock status determination for each species

Jurisdiction	Commonwealth	NSW	Comm / NSW	QLD	Etc etc
Stock	Stock 1	Stock 2	Stock 3	Stock 4	Stock 5
Stock Status					
Indicator	Biomass	Catch	Length	Catch	Biomass

#NB: There will be one column per stock. Reporting will be at the biological stock level unless data limitations prevent this occurring. In cases where individual stocks cannot be assessed, reporting will initially be at the jurisdiction or management unit level. Where there is more than one management unit or jurisdiction making up a single biological stock information from each unit or jurisdiction should be combined to determine an overall status in the table.

Stock Structure

- **When stock structure is known:** this text should indicate where the stocks are located, thus clearly providing the rationale for the breakdown of stocks presented in table 1 and the stock status text.
- **When stock delineation is uncertain:** this text should explain that this is the case and outline that since stock structure is unknown reporting in table 1 and stock status text is presented on a jurisdictional basis or a management unit basis rather than a biological stock basis.
- **When there are very large numbers of stocks:** (e.g. Abalone, for which Tasmania alone has ~228 stocks) then an explanation should be provided stating this and stating that reporting will be at the jurisdictional level.

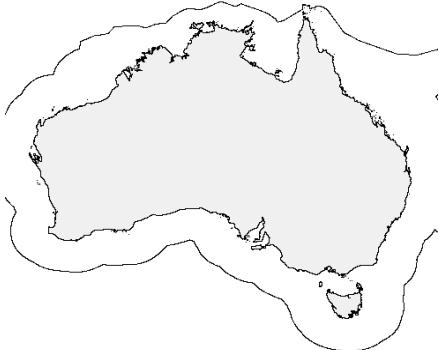
In text referencing should be used in this section to provide evidence for the stock delineation presented. This new heading negates the need for the ‘stock structure’ text in table 2, hence this will be removed.

Stock Status

Brief text on the rationale/basis for the stock status determinations in Table 1.

Table 2: Tiger flathead biology

Longevity & Maximum size	20 years; 46–60 cm standard length
Maturity (50%)	4–5 years; 30–36 cm standard length
Stock Structure	Multiple stocks across SE Australia



Source: Commercial Fisheries and Coastal Communities Mapper – <http://adl.brs.gov.au/mapserv>

Figure 2: This map will indicate the specific areas where commercial fishing occurs – spatial data at non-confidential level

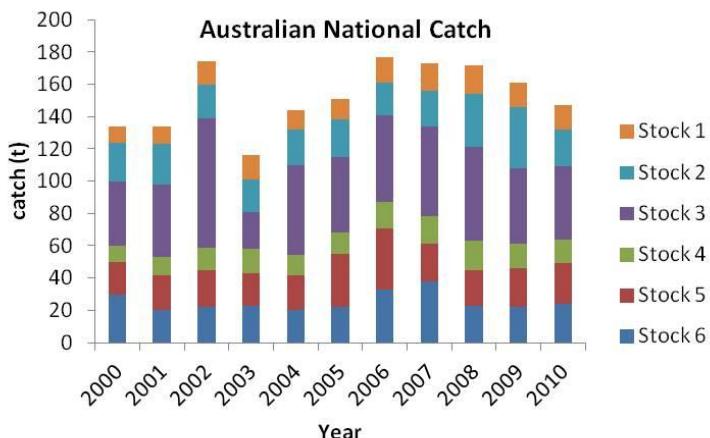
#NB – these maps will not include recreational or indigenous fishing, they will display commercial catch only.

#NB: ABARES will produce all of these maps for consistency, with data provided by the jurisdictions.

Main features and statistics for species x stocks/fisheries in Australia, 2010

- Brief outline of fishing methods used (e.g. hook and line; net; trap; trawl; dive and hand collection). This will relate back to catch methods section in the introduction of the reports.
- Brief outline of key management tools/methods (e.g. limited entry, commercial TACs, spatial closures, temporal closures, size limits, bag limits).
- Indicate the number of boats recording catch from a given stock (i.e. any vessel that has reported catch for the species during the fishing season). Information may also include how many of these boats are taking a substantial catch – for example > 100 t. In multi-species fisheries this should not be a simple indication of how many boats fish in that fishery especially if many of those boats do not catch the species in question.
- Total catch and also divided into its component parts (i.e. commercial, recreational and indigenous). Where the species is important recreationally or to indigenous fishers but catch information is not available this should be explained. International catches should also be included. Discards of the species should also be included.

a)



b)

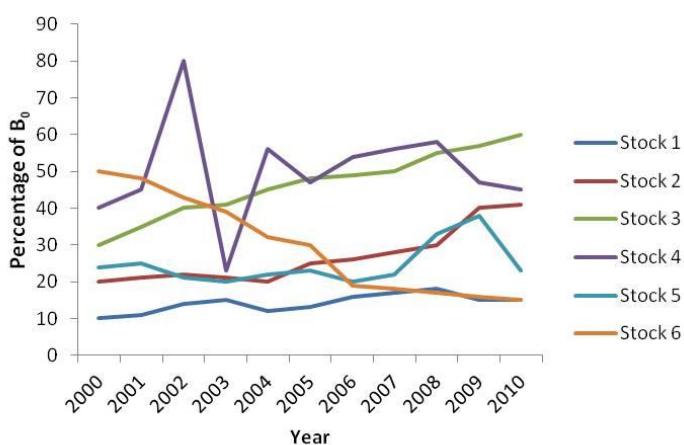


Figure 3: (a) Catch for 2000 (or preferably earlier) to 2010; (b) percentage of unfished biomass (or another key indicator) for the same years

#NB: The catch graph will only show commercial catch. This will provide consistency across chapters and ensure that catch information matches up with the commercial footprint provided in the map. Recreational catch and inderginous catch will be presented under the 'main features and statistics' heading. The catch figure should include at least 10 years of catch data, going further back where appropriate and possible.

#NB: The key indicator graph should only show one key indicator per stock, i.e. in straddling stocks there should not be one indicator for each jurisdiction (e.g. southern rock lobster). The indicator graph to be used should be decided upon during consultation between all jurisdictions fishing the straddling stock.

#NB: ABARES will produce all of these graphs for consistency, with data provided by the jurisdictions.

Catch explanation

Brief explanation on catch and indicator trends that need additional information for interpretation.

Effects of fishing on the marine environment:

- Current issues of the day
 - E.g. TEP species interactions
 - Here is a management response that has been put in place to try and solve this problem ...
-

Environmental effects on species X (target species):

- E.g. Effects of climate change
-
-
-

Key Literature / Resources:

-
-
-
-

18 APPENDIX 6: RECOMMENDED STOCK STATUS LANGUAGE FOR STATUS OF KEY AUSTRALIAN FISH STOCKS REPORTS

Recruitment overfished: The point at which a stock is considered to be recruitment overfished is the point where the spawning stock biomass has been reduced through catch, so that average recruitment levels are significantly reduced.

Table 1 Recommended language to be used when recent and reliable stock assessment is available

Stock status	Fishing mortality description	Biomass
➤ Sustainable	The most recent assessment (reference) estimates that fishing mortality in (year) was X. This level of fishing mortality is unlikely to cause the stock to become recruitment overfished.	The most recent assessment (reference) estimates that biomass in (year) was X% of the unfished (year) level. The stock is not considered to be recruitment overfished.
➤ Transitional-recovering	The most recent assessment (reference) estimates that fishing mortality in (year) was X. This level of fishing mortality should allow the stock to recover from its recruitment overfished state. <i>Also</i> <i>If the assessment is advanced enough, include a sentence that states when we expect the stock to return to a not overfished state.</i>	The most recent assessment (reference) estimates that biomass was X% of the unfished level in (year). The stock is considered to be recruitment overfished. However, biomass is estimated to have been increasing over the period (year to year), suggesting a recovering stock.
➤ Transitional-depleting	The most recent assessment (reference) estimates that fishing mortality in (year) was X. Current fishing mortality is likely to cause the stock to become recruitment overfished.	The most recent assessment (reference) estimates that biomass in (year) was X% of the unfished (year) level. For the period (year to year) biomass declined, but the stock is not yet considered to be in a recruitment overfished state.

	<p>➤ Overfished</p> <p>The most recent assessment (reference) estimates that fishing mortality in (year) was X. <i>follow this first sentence with:</i> This level of fishing mortality is expected to prevent the stock from recovering from its recruitment overfished state. OR This level of fishing mortality is expected to allow the stock to recover from its recruitment overfished state; however measurable improvements in biomass are yet to be detected.</p>	<p>The most recent assessment (reference) estimates that biomass was X% of the unfished level (year). The stock is considered to be recruitment overfished.</p>
	<p>➤ Undefined</p> <p>Either: The assessment of the current level of fishing mortality (reference) is considered to be too uncertain to use for status determination. Or: There is insufficient information available to confidently classify the status of this stock.</p>	<p>Either: The assessment of the current level of biomass (reference) is considered to be too uncertain to use for status determination. Or: There is insufficient information available to confidently classify the status of this stock.</p>

The text in table 1 is to be followed by a sentence that contains the classification of the stock. The aim of this is to separate the evidence and/or status determination process from the classification structure.

The sentence is as follows:

On the basis of the evidence provided above, the stock is classified as sustainable / transitional recovering / transitional depleting / overfished / undefined.

Table 2 Recommended language to be used when status is decided using a weight of evidence approach. This language should follow on from text outlining the evidence base (presented in brief). An appropriate evidence base may include, catch, effort, CPUE, survey results, catch curves, size/age composition series, risk assessments or evidence of a similar rigour.

Stock status	Fishing pressure description	Biomass description sentence
	➤ Sustainable The above evidence indicates that the current level of fishing mortality is unlikely to cause the stock to become recruitment overfished.	The above evidence indicates that the biomass of this stock is unlikely to be recruitment overfished.
	➤ Transitional-recovering The above evidence indicates that the current level of fishing mortality should allow the stock to recover from its recruitment overfished state.	The above evidence indicates that the biomass of this stock is likely to be recruitment overfished. However, for the period (year to year) these indicators suggest a recovering stock.
	➤ Transitional-depleting The above evidence indicates that the current level of fishing mortality is likely to cause the stock to become recruitment overfished.	The above evidence indicates that the biomass of this stock is not likely to be recruitment overfished. For the period (year to year) the biomass declined, but the stock is not yet considered to be in a recruitment overfished state.
	➤ Overfished The above evidence indicates that current fishing mortality levels are expected to prevent the stock recovering from a recruitment overfished state. OR The above evidence indicates that current fishing mortality levels are constrained by management to a level that should allow the stock to recover from its recruitment overfished state; however	The above evidence indicates that the stock is likely to be recruitment overfished.

		measureable improvements are yet to be detected.	
➤ Undefined		There is insufficient information available to confidently classify the status of this stock.	There is insufficient information available to confidently classify the status of this stock.

The text in table 2 is to be followed by a sentence that contains the classification of the stock. The aim of this is to separate the evidence and/or status determination process from the classification structure.

The sentence is as follows:

On the basis of the evidence provided above, the stock is classified as sustainable / transitional recovering / transitional depleting / overfished / undefined.

19 APPENDIX 7: DESCRIPTION OF HOW TO NAME STOCKS

If there is only one fishery that takes species X from a stock please use the acronym for that fishery as the stock name. If the stock is fished by, for example, the ‘XY Fishery’ please use the acronym for this fishery (XYF) here and provide the entire name below the table as a footnote.

If the stock is fished by more than one fishery please give a stock a name that relates back to geographical location, and in brackets list the acronyms for each fishery – for example in the southern rock lobster chapter there is one stock fished by three fisheries and the stock name given in table 1 is ‘South-eastern Australia (SASRLF, TRLF, VRLF)’.

Australian Fisheries Management Forum		MEETING NUMBER: 25
AGENDA PAPER		LOCATION: Canberra
		DATE: 28 APRIL 2011
FOR DECISION		ITEM: 4

NATIONAL FISHERY STATUS GUIDE SCOPING PAPER

RECOMMENDATIONS

1. That the Forum:
 - (a) **NOTES** that the purpose of producing a National Fishery Status Guide will be to provide a single national guide on the status of Australia's key commercial wild catch fisheries.
 - (b) **NOTES** that this guide will be aimed at consumers, policy makers and industry.
 - (c) **NOTES** that stock status will be disaggregated by individual stocks in each jurisdiction.
 - (d) **AGREES** to the concept of producing a National Fishery Status Guide with a view to the first guide being produced in 2012.
 - (e) **AGREES** that further development of this concept via a Fisheries Research and Development Corporation (FRDC) project proposal is important for industries in each of the jurisdictions.
 - (f) **AGREES** to the formation of a working group with representatives from each jurisdiction to further develop the concept of a National Fishery Status Guide.
 - (g) **ADVISES** that jurisdictions will be requested to identify key people to engage in the process.

There is a need for a consolidated national report on the status of key Australian fish stocks. Currently, jurisdictions independently produce fishery status reports for their own stocks, with differences between jurisdictions in their reporting, such as terminology and benchmarking. These differences make it difficult for seafood consumers to quickly and easily assess the status of fish stocks. A national guide would aim to deliver a government supported report card on the performance of key individual fish stocks within Australia's wild capture fisheries.

ISSUES

2. There are a number of issues that would need to be resolved as part of the concept development. These relate to consistency in stock status terminology, criteria for

stock inclusion, and benchmarking against which stocks are assessed. Some of the key issues and potential options to resolve these are outlined below. It would be expected these issues would be resolved as part of the concept development working group.

3. Criteria for inclusion

It is envisaged that the top 20 to 50 fish of commercial importance to Australian fisheries will be included in the initial guide. Options for identifying which species to include may involve identifying the top species in terms of either total catch or commercial value.

4. Stock status determination

It will need to be decided who will make the final decision on stock status for each stock in each jurisdiction. Options include:

- 1) Independent determination;
- 2) Responsible jurisdiction determination; or
- 3) Consensus determination on a common approach across jurisdictions.

5. Reference points

Benchmarking varies between the jurisdictions in Australia ([Annex A](#)). For example Commonwealth fish stocks are assessed in accordance with the *Commonwealth Fisheries Harvest Strategy Policy*, where generally speaking those stocks with a biomass below 20% of the unexploited biomass are considered overfished. In comparison, NSW stocks are generally considered overfished when they are below 30% of the unexploited biomass. Given the differences between jurisdictions it will be important to either:

- a) Decide on a common benchmarking system for use across all stocks/jurisdictions; or
- b) Clearly define the benchmarking protocol used by each jurisdiction and how each jurisdiction's methodology differs from the other jurisdictions.

6. Straddling stocks and multiple stocks

It is important to note that the National Fishery Status Guide would aim to assess the sustainability of each stock of a given species separately. This would mean that jurisdictions would have to work together to determine the status of shared straddling stocks and that jurisdictions with multiple stocks of the same species would need to determine the status of each stock separately. This is an important aspect of the proposal that will allow users to distinguish between fish that came from different sources with potentially different status.

7. Terminology

The terminology used to describe the status for the sustainability of individual fish stocks needs to be objective and accurate. Jurisdictions currently differ in the way they classify stocks. For example terminology such as overfished/overfishing/uncertain is used to describe stock status in Commonwealth fisheries while overfished/sustainably fished/not fully fished/uncertain are used in Queensland fisheries (see [Annex B](#) for full list of comparisons).

In order to produce a National Fishery Status Guide the terminology used needs to be either:

- a) Standardised; or
- b) Defined clearly for each jurisdiction.

In order to ensure that the guide is easy to understand it may be necessary to develop a new system of terminology that will give consumers the ability to quickly determine the sustainability of a stock.

8. Other data to include

In addition to stock status the guide may aim to include information on broader environmental issues. Two possible approaches are:

- 1) Full assessment (including a classification system with specific terminology) of the sustainability of stocks on the basis of environmental impact; or
- 2) Inclusion of a section for each stock outlining what is known about the broader impacts of the fishery (with no classification system) and information about environmental assessments completed under environmental legislation.

Similarly, other information may be included such as economic or management information.

9. Process for producing a National Fishery Status Guide

Staged implementation: It may be appropriate to start small with fewer species and a very simple presentation of stock status information. There is then the potential to build in more species and potentially include information on environmental, social, and economic status in later editions.

Frequency of production: It is envisaged that the guide will be released every 2 - 5 years. The frequency of production would depend largely on the availability of data and information, and the timing of individual jurisdictions own fishery status reports ([Annex A](#)). Releasing the guide every 2 years offers the advantage of ensuring that the publication remains current. This may be particularly important in situations where stock status is not positive (e.g. overfished) at the time of publication but improves between versions of the guide. The reverse situation would also be an issue (i.e. not overfished → overfished). Less frequent production would be less expensive, but information would become out of date and be of less value to users

Format: There are a number of options for the final format of the guide. From initial discussions it would seem industry are in favour of a scientifically rigorous and jurisdictionally-based version of *Australia's Sustainable Seafood Guide* which was produced and published by the Australian Marine Conservation Society (AMCS). Production of such a guide could also occur concurrently with:

- 1) A Smartphone (e.g. iPhone, Android, Blackberry) application version of the guide
- 2) Online website
- 3) A hard covered glossy book similar to *Australian Fisheries Resources*.

Annex C is a template for the National Fishery Status Guide which outlines the basic information that would potentially be included.

CONSULTATION

10. The current scoping paper has been developed by ABARES at the invitation of FRDC following discussions with AFMF members.
11. To date consultation for this project has been carried out between FRDC and ABARES.

FINANCIAL IMPLICATIONS

12. If supported, the project would be developed for FRDC funding. In-kind contributions would also be sought from jurisdictions, particularly for the initial scoping stage.

BACKGROUND

13. A number of seafood chooser guides exist around the world. This proposal aims to draw together issues pertinent to the development of a National Fishery Status Guide. A national approach to sustainability reporting would bring together the available biological information on key commercial wild capture fish stocks from around Australia and provide an independent resource that the Australian public can use to inform their seafood purchasing practices.
14. A number of Australian fisheries stakeholders have expressed their concern regarding the recent production of *Australia's Sustainable Seafood Guide* (www.sustainableseafood.org.au) by the Australian Marine Conservation Society. Such concerns pertain to the resolution of reporting and the rigour with which status was determined. A National Fishery Status Guide would aim to deliver a government supported report card on the performance of Australia's wild capture fisheries. Such a report card could take a number of different forms depending on the level of information required and users targeted.

Name : Gavin Begg

Title : General Manager A/g, Fisheries & Risk Analysis Branch, ABARES

Date : 28 March 2011

Annex A - Content of current jurisdictional fishery status reports across Australia

	Comm.	WA	NT	NSW	VIC	SA	TAS	QLD
Level of assessment		28 fisheries 101 stocks	12 fisheries unclear	108	8 marine fisheries 21 fisheries / stocks		5 fisheries 62 species	
Number of stocks assessed	101	unclear	unclear	108	11	21	13	62
Number of species	~ 101	unclear	unclear	~ 108	11	~ 17 key species ~ 13		~ 62
Clear exploitation status terminology	✓	✓	✗	✓	✓	✓	✗	✓
<i>Does terminology include environmental aspect</i>	✗	✗	✗	✗	✓	✓	✗	✗
<i>Colour coded system (e.g. Traffic lights)</i>	✓	✗	✗	✓	✗	✗	✗	✓
Benchmarking limits	B LIM = 20%	various	various	B LIM = 30%	various	not clear	various	B LIM = 30%
Publishing frequency (every x years)	1	1	1	2	???	???	1	???
Report includes information on:								
<i>Wild caught fish</i>	✓	✓	✓	✓	✓	✓	✓	✓
<i>Aquaculture</i>	✗	✓	✓	✗	✓	✗	✗	✗
<i>Recreational fishing</i>	✗	✗	✓	✓	✓	✓	✗	✓
<i>Indigenous fishing</i>	✗	✗	✓	✓	✓	✓	✗	✗
<i>Environmental impacts of fishing</i>	✓	✓	✓	✗	✓	✓	✗	✗
<i>Economic information</i>	✓	✗	✓	✗	✓	✓	✗	✗

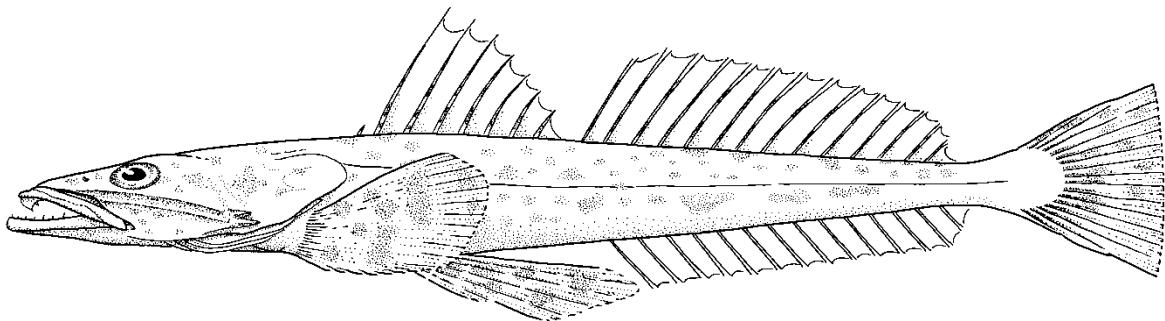
#NB: The actual number of species assessed can be difficult to determine. In a number of cases jurisdictional reports clump a number of similar species into one stock or have a number of separate stocks for a given species. As a result the number of species may be larger or smaller than the number of stocks.

Annex B: Current Jurisdictional Fishery Status Terminology

Comm.	1. not overfished/overfished/uncertain 2. not subject to overfishing / subject to overfishing / uncertain
WA	adequate/recovering/inadequate/declining
NT	No clearly defined categories of exploitation status
NSW	recruitment overfished/overfished/growth overfished/fully fished/moderately fished/lightly fished/uncertain/undefined
VIC	under exploited/fully exploited/overexploited/environmentally limited
SA	uncertain/under fished/fully fished/overfished or depleted/environmentally limited
TAS	No clearly defined categories of exploitation status
QLD	overfished/sustainably fished/not fully fished/uncertain/no assessment made

Annex C: National Fishery Status Guide Template

Tiger flathead *Neoplatycephalus richardsoni*

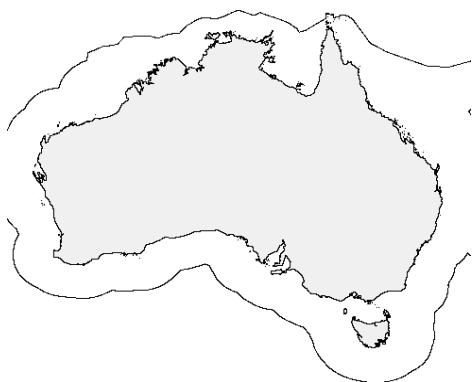


LINE DRAWING: ROSALIND POOLE

Distribution map

This map could indicate:

- 1) the locations of individual stocks within each jurisdiction
- 2) the specific areas where fishing occurs



Source: Commercial Fisheries and Coastal Communities Mapper – <http://adl.brs.gov.au/mapserv>

The basic biology of a tiger flathead:

Depth	30–350 m
Longevity	20 years
Maturity (50%)	Age: 4–5 years Size: 30–36 cm SL
Spawning season	September–February
Size	Maximum: 46–60 cm SL; weight: not determined Recruitment into the fishery: 25–30 cm SL; age: not determined; weight: not determined

Source: Fisheries Status reports 2009

Table of stocks by jurisdiction

Jurisdiction name	Stock name	Stock Status – terminology to be decided	
Comm.	Stock A (enter actual stock name here)	New terminology for whether fish stock is overfished OR Terminology from Commonwealth fisheries status reports (see Annex C)	New terminology for whether overfishing is occurring OR Terminology from Commonwealth fisheries status reports (see Annex C)
	Stock B	Same as above	Same as above
	Recreational catch		
NSW	Stock A	New terminology OR NSW status report terminology	...
QLD	Stock A	New terminology OR QLD status report terminology	...
NT	Stock A	New terminology OR NT status report terminology	...
Etc etc

Other information about each of the stocks listed in this table could subsequently be included under headings such as:

- **Stock status determination**
- **Environmental status**
- **Social status**
- **Economic status**

21 APPENDIX 9: SCOPING DOCUMENT



Australian Government

**Australian Bureau of Agricultural and
Resource Economics and Sciences**

National Fishery Status Reports Workshop Scoping Document

Background

In Australia, marine fish stocks are managed by Commonwealth and state/territory jurisdictions. Whilst some jurisdictions work together to produce joint assessments on shared stocks, Fishery Status Reports identifying the level of fishing pressure and/or biomass levels for key target fish stocks are produced separately by a number of the jurisdictions. The reports vary in the scope and detail of information included; and differences exist in terminology and benchmarking (i.e. setting of management targets and limits for stock biomass and fishing mortality).

The aim of the National Fishery Status Reports is to bring together available biological, catch and effort information on the status of Australia's key wild catch fish stocks and provide a resource to inform the general public, policy makers and industry. Currently it is difficult for stakeholders to judge the state of individual fish stocks, and as a result generalisations are made for many species using information from overseas stocks or from individual jurisdictions.

The current project has been developed by ABARES at the invitation of the FRDC following discussions with, and support by, the Australian Fisheries Management Forum (AFMF).

Need

There is a need for the production of a consolidated national report on the status of key wild catch Australian fish stocks. One pitfall of guides like the Australia's Sustainable Seafood Guide (produced by the Australian Marine Conservation Society) is their focus on entire species, without considering differences among stocks within each species. Consequently, a poor status determination for one stock can result in a poor status determination for all stocks of that species regardless of whether or not the other stocks are healthy. Government can avoid this pitfall by clearly articulating the status of individual fish stocks.

Jurisdictions have demonstrated their capacity to work constructively together to achieve common goals (e.g. joint stock assessments for shared stocks). However, the current differences in scope, detail, terminology, benchmarking and frequency of publication in jurisdictional based Fishery Status Reports make it difficult to readily compare the status of stocks across jurisdictions and build a coherent national status of key target species.

The National Fishery Status Reports would not be promoted as an eco-labelling guide but rather as a government report designed to simplify comparison of the status of key wild catch fish stocks around Australia both within and among jurisdictions. This information would be available for the general public, policy makers and industry to make informed decisions in relation to the health of various stocks. The reports would also provide an important and accurate information source for international organisations (e.g. FAO). The process of producing these reports would improve communication between the jurisdictions, leading to a better understanding of the status determinations made by each jurisdiction and how these compare.

Issues

There are a number of issues that need to be resolved at the National Fishery Status Reports Jurisdictional Workshop (28 September 2011). These are:

- Species/stocks to assess
- Stock status terminology
- Reference points against which stock status is assessed
- Process of determining stock status
- Reporting template for individual species/stocks
- Data requirements
- Timelines.

These issues are investigated below. In each case the ABARES recommended approach and rationale for the approach are specified.

1. SPECIES INCLUDED

It is envisaged that the top 20 to 30 key Australian wild catch fish species be included in the initial report. During the workshop jurisdictions need to come to a consensus on what species/stocks to include in the National Fishery Status Reports. If species are added to the current list (see [Attachment A](#)) some species on the list will need to be removed.

ABARES recommended approach

ABARES recommends using the National GVP as an objective approach to selecting the top 30 species for inclusion in the report (see [Attachment A](#)). In cases where a species is of considerable importance to a jurisdiction or sector but is not captured in the 'top 30' list these could also be considered for inclusion (e.g. some recreational species).

Rationale for ABARES recommended approach

The top 30 species/groups of species selected represent over 80% of Australia's national GVP for commercial wild catch fish stocks ([Attachment A](#)). The high value of these top species is the result of high consumer demand which creates pressure on the stocks which in turn makes it important to assess their status. In terms of catch, the top 30 species/groups of species is equivalent to 68% of the total catch recorded for wild fisheries.

2. STOCK STATUS

2.1 Terminology

The terminology used to describe the status for the sustainability of individual fish stocks needs to be objective and accurate. Jurisdictions currently differ in the way they classify stocks. For example, terminology such as “overfished, overfishing, uncertain” are used to describe stock status in Commonwealth fisheries, while “overfished, sustainably fished, not fully fished, uncertain” are used in Queensland fisheries (see [**Attachment B**](#) for full list of comparisons).

In order to produce a National Fishery Status Reports the terminology used needs to be standardised.

To ensure that the report is easy to understand it may be necessary to develop a new system of terminology that will give consumers the ability to quickly determine the status of individual fish stocks for a given species.

ABARES recommended approach

ABARES recommends using a traffic light system combining information on both biomass and fishing mortality into a single classification ([**Attachment C**](#)).

A “green” or “good” classification would require that stocks are at a safe and productive level in terms of both biomass and fishing mortality.

A “red” or “bad” classification would be attributed to stocks that are unsustainable in terms of either biomass or fishing mortality.

A “yellow” or “uncertain” classification would be attributed to stocks where there is inadequate information to determine status. If only one measure (i.e. biomass or fishing mortality) is uncertain while the other is determined to be unsustainable a red classification would be attributed to the stock.

Rationale for ABARES recommended approach

The traffic light approach is readily accepted and understood by stakeholders and the broader community. Specific terminology to attribute to each colour on the traffic light classification should be decided by jurisdictional consensus at the workshop.

2.2 Reference points

Reference points upon which stock status are determined vary between the jurisdictions ([**Attachment D**](#)). For example, Commonwealth fish stocks are assessed in accordance with the *Commonwealth Fisheries Harvest Strategy Policy*, where typically those stocks with a biomass below 20% of the unfished biomass level are considered overfished. In comparison, NSW stocks are generally considered overfished when they are below 30% of the unfished biomass.

ABARES recommended approach:

ABARES recommends using the reference points already established for each of the jurisdictions. The only exception to this would occur in situations where reference points are not established for a jurisdiction. In these instances ABARES

recommends that the *Commonwealth Fisheries Harvest Strategy Policy* (HSP) reference points be applied to attribute a status classification.

Rationale for ABARES recommended approach

The reference points for Commonwealth fisheries are specified in the *Commonwealth Fisheries Harvest Strategy Policy*, and Commonwealth fisheries must be assessed against these reference points. Likewise, other jurisdictions are bound by similar policies or frameworks which would prevent alteration of reference points at this stage for the National Fishery Status Reports status determinations. The ABARES recommended approach would not require the jurisdictions to alter their current reference points.

2.3 Who will determine stock status?

It will need to be decided who will make the determination on stock status for each stock in each jurisdiction. Options include:

- 1) ABARES determines the stock status for each stock across all jurisdictions based on the relevant catch and effort data and associated assessment information.
- 2) Responsible jurisdictions determine stock status and provide these to ABARES.

ABARES recommended approach

ABARES recommends that it be responsible for independently determining the stock status using jurisdiction specific reference points, stock assessments, and catch and effort data. Following status determination the jurisdictions would be asked to review the decision made by ABARES.

Rationale for ABARES recommended approach

This approach would enable an independent assessment to be made, whilst actively engaging the jurisdictions in the process. This approach will help ensure consistency in determination across jurisdictions, while removing pressure from the jurisdictions to produce stock status determinations.

3. TEMPLATE

The ABARES recommended format for reporting against individual species/stocks in the National Fishery Status Reports is outlined in **Attachment E** (template for each species).

4. PROCESS

4.1 Roles and responsibilities

Assuming that the ABARES recommended approach is adopted for issues 1, 2 and 3 listed above; ABARES recommends attributing roles and responsibilities as follows:

ABARES will:

- 1) establish an oversight group for the National Fishery Status Reports
- 2) use jurisdictional catch and effort data, and stock assessments to determine stock status for all species/stocks
- 3) provide final stock status determinations and rationale to relevant jurisdictions for review
- 4) draft the National Fishery Status Reports
- 5) provide drafts to the jurisdictions for comment
- 6) produce a final version of the National Fishery Status Reports by June/July 2012.

JURISDICTIONS will:

- 1) provide relevant catch and effort data, and stock assessment information for chosen species to ABARES by October 2012 for incorporation into the National fishery Status Reports
- 2) provide ABARES with the reference points for assessing stocks from their jurisdictions; or consent to ABARES using the Commonwealth reference points
- 3) review stock status determinations made by ABARES for their jurisdiction's stocks
- 4) review the draft of the National Fishery Status Reports.

FRDC will:

- 1) coordinate an external review of the impact and process for producing a National Fishery Status Reports
- 2) produce an electronic PDF version of the reports and an electronic summary table of the status of the key wild caught fish stocks in Australia.

4.2 Data

During the workshop, decisions will be made regarding what data will need to be provided by each of the jurisdictions. At a minimum it is expected that non-confidential aggregated catch and effort data will be required from each jurisdiction.

4.3 Frequency of production

It is envisaged that the report will be released every 2 – 3 years. The frequency of production will depend largely on the availability of data and information, the impact/benefits of the report, and the ongoing commitment of jurisdictions.

ABARES recommended approach

ABARES recommends the reports are produced every 2 years.

Rationale for ABARES recommended approach

Releasing the report every 2 years offers the advantage of ensuring that the publication remains current. This may be particularly important in situations where stock status is not positive (e.g. overfished) at the time of publication but improves between versions of the report. The reverse situation would also be an issue (i.e. not overfished → overfished). Less frequent production would be less expensive, but information would become out of date and be of less value to users.

4.4 Timeline

The timeline for production for the first National Fishery Status Reports will be as follows:

October 2011	All relevant catch and effort data, and stock assessment information from each of the jurisdictions supplied to ABARES
October 2011 – Jan 2012	Drafting of the National Fishery Status Reports by ABARES
January 2012 – March 2012	Jurisdictional review of draft National Fishery Status Reports
March 2012	FRDC external review of the draft National Fishery Status Reports
April 2012 – May 2012	Production of final version of National Fishery Status Reports
June/July 2012	Release of the first National Fishery Status Reports

Attachment A: Graphical representations of Australia's key commercial wild catch species by GVP (figure 1) and total catch (t) (figure 2). Table 1 lists the top 30 species/ groups of species and indicates which jurisdictions record a catch of these species.

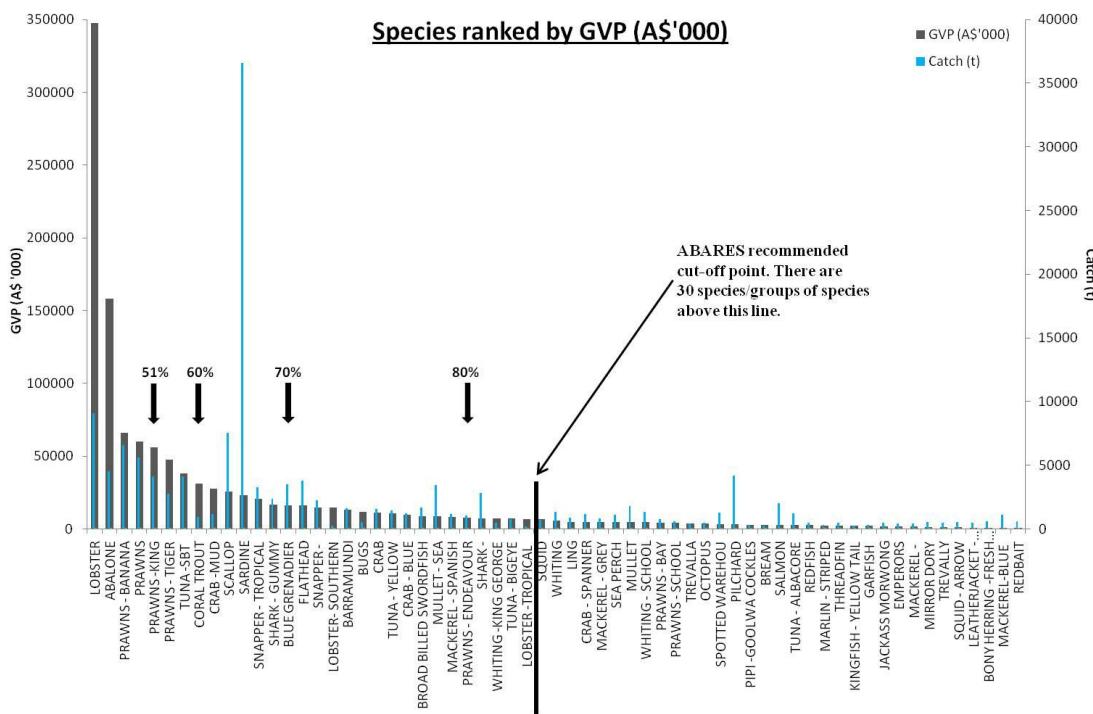


Figure 1 (Attachment A): Distribution of national gross value of production (GVP) (primary axis) for top species/groups of species ordered from largest to smallest. National catch (t) is presented for each species on the secondary axis for comparison. The vertical arrows indicate the points at which the cumulative contribution of all species left of the arrow (+ the species indicated by the arrow) sum up to 51, 60, 70 and 80% of the total GVP for wild catch fisheries in Australia (A\$1 343 685 000). The cut-off point recommended by ABARES is also indicated. There are 30 species/species groups above this cut off accounting for more than 80% of the Australian catch by GVP.

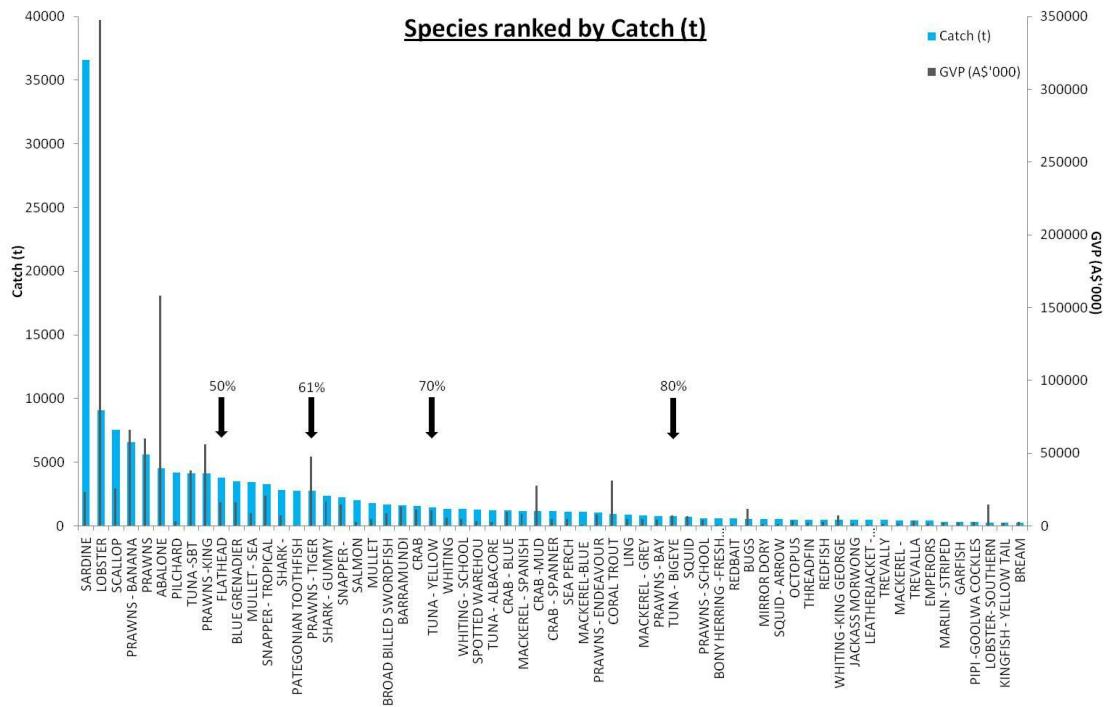


Figure 2 (Attachment A): Distribution of national catch (t) (primary axis) for top species/groups of species ordered from largest to smallest. National gross value of production (GVP) is presented for each species on the secondary axis for comparison. The vertical arrows indicate the points at which the cumulative contribution of all species left of the arrow (+ the species indicated by the arrow) sum up to 50, 61, 70 and 80% of the total catch for wild catch fisheries (171 512 t).

	National		CWLTH		NSW		NT		QLD		SA		TAS		VIC		WA	
Name	Catch (t)	GVP (A\$'000)	CWLTH	AFS*	State	AFS*												
LOBSTER	9084	347757			CS	✓			CS	✓		✓		✓			CS	✓
ABALONE	4525	158188			CS	✓					CS	✓	CS	✓	CS	✓	CS	✓
PRAWNS - BANANA	6591	66001	CS	✓			C		CS	✓							CS	
PRAWNS	5589	59986					C		C			✓			C	✓		✓
PRAWNS - KING	4118	55941	CS	✓	CS	✓	C		CS	✓	CS				C		CS	
PRAWNS - TIGER	2768	47525	CS	✓	C		C		CS	✓							CS	
TUNA - SBT	4123	38071	CS	✓	C								C		C			
CORAL TROUT	959	30983	CS	✓			C		CS	✓						C		
CRAB - MUD	1154	27722			C		CS	✓	CS	✓						CS		
SCALLOP	7539	25800	CS	✓		✓			CS	✓	CS		CS		CS	CS	CS	✓
SARDINE	36573	23041	CS		CS		CS				CS	✓			C		CS	
SNAPPER - TROPICAL	3248	20624	C				CS	✓	CS	✓						CS	✓	
SHARK - GUMMY	2365	16396	CS	✓	C		C		C		C		C		C		CS	
BLUE GRENADEIER	3471	16312	CS	✓														
FLATHEAD	3758	16185	CS	✓	CS		C		CS	✓	C		CS		C		CS	
SNAPPER -	2251	14541	C	✓	CS	✓			CS	✓								
LOBSTER - SOUTHERN	274	14422			C						CS		CS		CS	✓	CS	
BARRAMUNDI	1643	12960					CS	✓	CS	✓						CS		
BUGS	560	11530	CS		CS		C		CS	✓					C		C	
CRAB	1540	10901	C	✓		✓			C		C		CS			CS	✓	
TUNA - YELLOWFIN	1472	10781	CS	✓	C				C				C		C			
CRAB - BLUE	1211	9877			CS				CS	✓	CS	✓				CS		
BROAD BILLED SWORDFISH	1679	8801	CS	✓											C			
MULLET - SEA	3456	8646			CS	✓			CS		C				C		CS	✓
MACKEREL - SPANISH	1172	7955	CS		C		CS	✓	CS	✓						CS	✓	
PRAWNS - ENDEAVOUR	1033	7629	C	✓			C		CS	✓						CS		
SHARK -	2786	7222	C				CS	✓	CS	✓	C		C		C		CS	✓
WHITING - KING GEORGE	473	7181	C	✓							CS	✓			CS	✓	CS	
TUNA - BIGEYE	761	7081	CS	✓											C			
LOBSTER - TROPICAL	217	6660	CS	✓			C		CS							C		

Table 1 (Attachment A): lists the top 30 species/groups of species by GVP and indicates which jurisdictions record a catch of these species. ✓ denotes any catch greater than 1 tonne that was recorded in the Australian Fisheries Statistics in 2009/10. No catch = N; Catch = C; Catch and Status reported = CS (data provided by jurisdictions).

Attachment B - Current Jurisdictional Fishery Status Terminology

Comm.	Not overfished/overfished/uncertain Not subject to overfishing/subject to overfishing/uncertain
WA	Adequate/recovering/inadequate/declining
NT	No clearly defined categories of exploitation status
NSW	Recruitment overfished/overfished/growth overfished/fully fished/moderately fished/lightly fished/uncertain/undefined
VIC	Under exploited/fully exploited/overexploited/environmentally limited
SA	Uncertain/under fished/fully fished/overfished or depleted/environmentally limited
TAS	No clearly defined categories of exploitation status
QLD	Overfished/sustainably fished/not fully fished/uncertain/no assessment made

Attachment C - ABARES proposed traffic light classification system. Please note that terminology options included are only provided as examples.

STOCK CONDITION	POSSIBLE TERMINOLOGY	DESCRIPTION
Good	<ul style="list-style-type: none"> ➤ Sustainably fished ➤ Not overfished ➤ Moderately fished 	<p>Refers to the biomass and amount of fishing. This classification will be attributed to stocks for which:</p> <ol style="list-style-type: none"> 1. the biomass is adequate to sustain the stock in the long term <p>AND</p> <ol style="list-style-type: none"> 2. the level of fishing would not move the stock to an overfished state.
Uncertain	<ul style="list-style-type: none"> ➤ Uncertain ➤ Undefined 	<p>Refers to both the biomass and amount of fishing. There is inadequate information to determine:</p> <ol style="list-style-type: none"> 1. biomass status <p>AND/OR</p> <ol style="list-style-type: none"> 2. fishing mortality status.
Bad	<ul style="list-style-type: none"> ➤ Overfished ➤ Overexploited 	<p>Refers to both the biomass and amount of fishing. This classification will be attributed to stocks for which:</p> <ol style="list-style-type: none"> 1. the biomass is inadequate to sustain the stock in the long term <p>OR</p> <ol style="list-style-type: none"> 2. the level of fishing would move the stock to an overfished state or prevent it from moving to a not overfished state.

Attachment D - Content of current jurisdictional fishery status reports across Australia

	Comm.	WA	NT	NSW	VIC	SA	TAS	QLD
Level of assessment	101 stocks	28 fisheries	12 fisheries	108	8 marine fisheries	21 fisheries / stocks	5 fisheries	62 species
Number of stocks assessed	101	unclear	unclear	108	11	21	13	62
Number of species	~ 101	unclear	unclear	~ 108	11	~ 17 key species	~ 13	~ 62
Clear exploitation status terminology	✓	✓	✗	✓	✓	✓	✗	✓
<i>Does terminology include environmental aspect</i>	✗	✗	✗	✗	✓	✓	✗	✗
<i>Colour coded system (e.g. Traffic lights)</i>	✓	✗	✗	✓	✗	✗	✗	✓
Benchmarking limits	B _{LIM} = 20%	various	various	B _{LIM} = 30%	various	not clear	various	B _{LIM} = 30%
Publishing frequency (every ✗ years)	1	1	1	2	???	???	1	???
Report includes information on:								
<i>Wild caught fish</i>	✓	✓	✓	✓	✓	✓	✓	✓
<i>Aquaculture</i>	✗	✓	✓	✗	✓	✗	✗	✗
<i>Recreational fishing</i>	✗	✗	✓	✓	✓	✓	✗	✓
<i>Indigenous fishing</i>	✗	✗	✓	✓	✓	✓	✗	✗
<i>Environmental impacts of fishing</i>	✓	✓	✓	✗	✓	✓	✗	✗
<i>Economic information</i>	✓	✗	✓	✗	✓	✓	✗	✗

#NB: The actual number of species assessed can be difficult to determine. In a number of cases jurisdictional reports clump a number of similar species into one stock or have a number of separate stocks for a given species. As a result the number of species may be larger or smaller than the number of stocks.

Attachment E - Draft National Fishery Status Reports Species Template

Tiger flathead *Neoplatycephalus richardsoni*

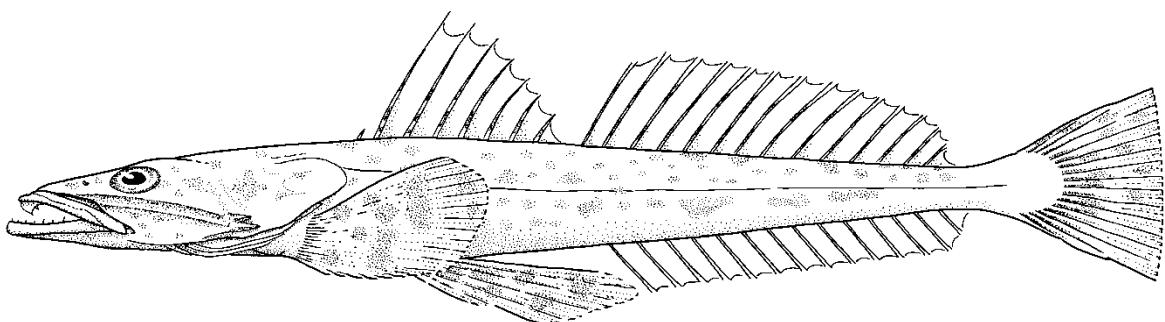


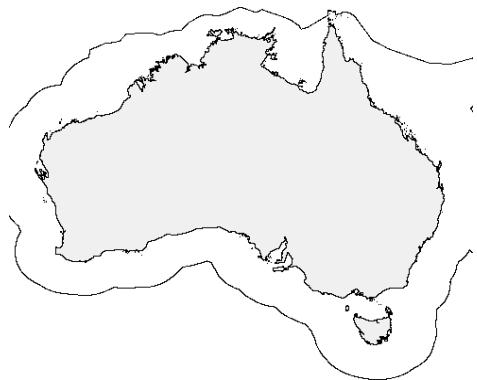
FIGURE 1: LINE DRAWING: ROSALIND POOLE

Table 1: The basic biology of a tiger flathead

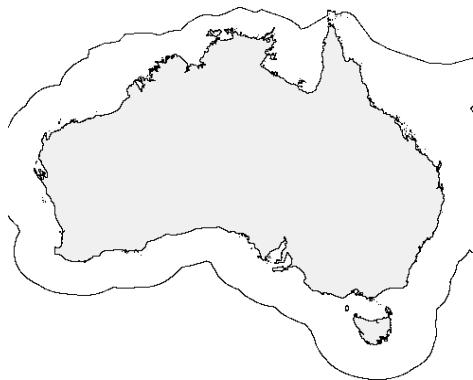
Depth	30–350 m
Longevity	20 years
Maturity (50%)	Age: 4–5 years Size: 30–36 cm SL
Spawning season	September–February
Size	Maximum: 46–60 cm SL; weight: not determined Recruitment into the fishery: 25–30 cm SL; age: not determined; weight: not determined

Source: Fisheries Status reports 2009

a)



b)



Source: Commercial Fisheries and Coastal Communities Mapper – <http://adl.brs.gov.au/mapserv>

Figure 2: Distribution maps

These maps indicate:

- 3) the locations of individual stocks around Australia
- 4) the specific areas where fishing occurs – spatial data at non-confidential level

Table 2: Main features and statistics for tiger flathead stocks/fisheries in Australia

	Comm.	NSW	Comm / NSW	QLD	Etc etc
Fishing methods	Trawl; Hook...				
Primary landing ports	Ulladulla, Lakes Entrance, Eden etc...				
Management methods	Input controls: limited entry... Output controls: TAC...				
Main Markets	Domestic: Sydney and Melbourne... International: minor exports...				
Fishing permits	59				
Active Vessels	51				

Table 3: Stock status determination for each species

Jurisdiction	Commonwealth	NSW	Comm / NSW	QLD	Etc etc
Stock name	Stock A	Stock B	Stock A	Shared stock A	Stock A
Stock Status					

#NB: There will be one column per stock.

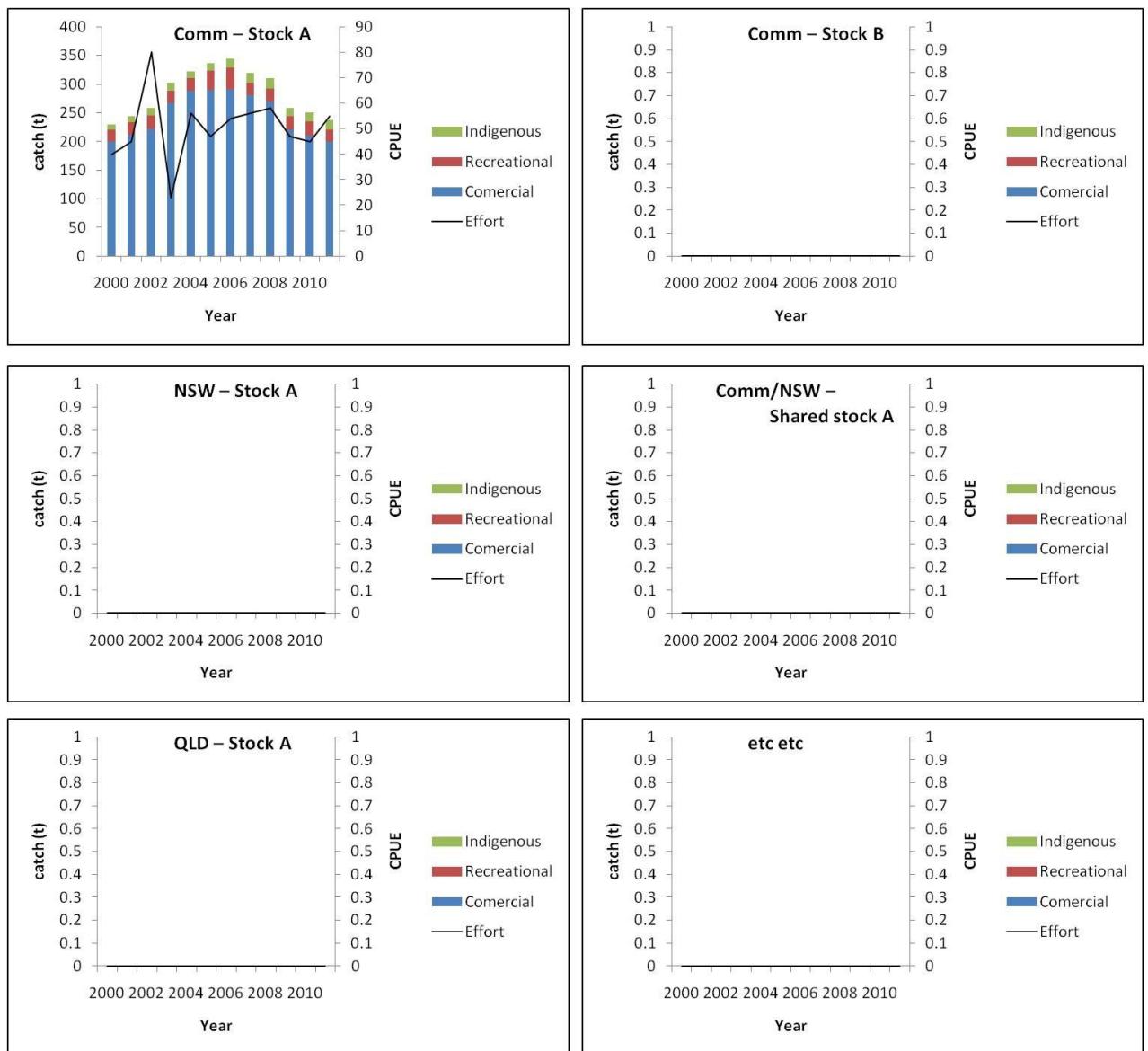


Figure 3: Catch and effort 2000 to 2011

#NB: There will be one graph per stock for each species.

22 APPENDIX 10: AGENDAS AND AGREED OUTCOMES FROM WORKSHOPS

National Fishery Status Reports Planning Workshop	Location: Holiday Inn Melbourne
Facilitating Agency: ABARES Fisheries and Quantitative Sciences	Date: 28 Sept 2011

Time: 9:00 am – 5:00 pm

Chair: Dr Gavin Begg, General Manager Fisheries and Quantitative Sciences

AGENDA

Workshop Objective: To discuss and agree on key technical elements and the process for development of the National Fishery Status Reports.

9:00 am START

1. Introduction and welcome

- *FRDC Introduction – Crispian Ashby*
- *National fishery status reports (NFSR) and workshop objectives – Dr Gavin Begg, ABARES*

2. International developments

- *International developments in reporting on fishery status – Dr Keith Sainsbury, FRDC Board (10 mins)*
- *Stock status terminology – Dr Rick Fletcher, WA Fisheries (10 mins)*

3. National Fishery Status Reports – Scoping paper (ABARES presentation & discussion)

- Species included

11:00 – 11:30 MORNING TEA

4. National Fishery Status Reports – Scoping paper (continued)

- Stock status
 - Terminology
 - Reference points
 - Who will determine stocks?

1:00 – 2:00 LUNCH

5. National Fishery Status Reports – Scoping paper (continued)

- Template
- Process
 - Roles and responsibilities
 - Data
 - Frequency of production
 - Timeline

3:30 – 4:00 AFTERNOON TEA

6. Review of agreed outcomes

National Fishery Status Reports Workshop – 28 September 2011

Melbourne, Holiday Inn

Agreed Outcomes

Attendee list: Gavin Begg (ABARES), Ilona Stobutzki (ABARES), Matt Flood (ABARES), Crispian Ashby (FRDC), Keith Sainsbury (FRDC), Rick Fletcher (WA Fisheries), David Galeano (AFMA), Sean Slone (PIRSA), Tim Ward (SARDI), Caleb Gardner (Tas IMAS/DPIWE), Ross Quinn (DEEDI), James Andrew (DPI VIC), Luke Cromie (DPI VIC)

Apologies: Patrick Hone (FRDC), Tony Smith, Malcolm Haddon (CSIRO), Charles Gray, Kevin Rowling (NSW), Thor Saunders (NT)

OVERVIEW

- Main audience for the National Fishery Status Reports is the general public, industry and management agencies
- Focus of the first version of the report is on the biology of key wild catch species/stocks; later versions may include reporting against environmental issues, economics, social issues, etc

1. SPECIES INCLUDED

- Species were selected based on the following principles: wild catch, high contribution to fisheries GVP, multi-jurisdictional, multi-sector, diversity of species/product type (e.g. crustaceans, molluscs, finfish, shark)
- ‘Groups of species’ were broken down into component species and prioritised for inclusion in the National Fishery Status Reports
- A total of 50 species were selected as a priority, including lead agencies responsible for status determination (**Attachment A**)
- These species represented ~80% of the GVP and ~70% of the total catch of Australian fisheries
- A further 9 species were identified as a second priority – to be added if time allows

2. STOCK STATUS

2.1 Terminology

- It was agreed that a traffic light system be used for classifying individual stocks (see **Attachment B**).
- Five categories and associated terminology were defined:
 1. **Green** (Good – “Sustainably fished”) = stocks for which the biomass (or biomass proxy) is above recruitment overfished and for which fishing pressure is not high enough to move stocks to a recruitment overfished state

2. **Yellow + up arrow**^a (“Transitional”) = recovering stock – stocks for which biomass is overfished but management measures are in place to promote stock recovery and recovery is occurring
3. **Yellow + down arrow**^a (“Transitional”) = deteriorating stock – a stock that is not yet overfished but for which fishing pressure is too high and moving the stock in the direction of becoming overfished
4. **Red** (Bad – “Overfished”) = stocks that are overfished and for which current management is not adequate to recover the stock
5. **Grey** (“Undefined”) = not enough information exists to determine stock status.

^a‘Yellow + up arrow’ and ‘Yellow + down arrow’ may be replaced to two separate colours.

2.2 Reference points

Recruitment overfished will be the biological benchmark for determining whether or not a fish stock is overfished. As such the biological limit reference point (i.e. 20% B_0 or 30% B_0 or something else) may differ across jurisdictions for use in stock status determination. The biological reference point for overfishing proposed here for national reporting may be different from the limit reference points currently used in some jurisdictions that include economic considerations or a precautionary buffer against measurement uncertainty. Reference points that include economic considerations or precautionary buffers can be very useful in particular decision making contexts, and as appropriate they should continue to be used in those contexts, but it is intended that the national reporting be based solely on biological considerations.

2.3 Stock status determination

Stock status determination for the identified species in **Attachment A** will be the responsibility of the lead agency. It is expected the lead agency will collaborate with the respective jurisdictions in straddling stock or multi-stock situations.

Four species were selected to trial the approach, terminology and reporting template. These species were snapper (WA lead agency), rock lobster (SA lead agency), abalone (TAS lead agency), and blue grenadier (ABARES lead agency).

ABARES will also provide a report for southern bluefin tuna as an example species for an international straddling stock.

3. TEMPLATE

Some changes were suggested and incorporated for the species template (see **Attachment C**).

PROCESS – Timeline

7 October 2011	Jurisdictions to provide comments on agreed outcomes, notably stock status terminology, lead agency responsibility for selected species, and reporting template
12 October 2011	ABARES to provide finalised species/stock reporting template to jurisdictions
31 October 2011	<p>Provide to ABARES completed template for all stocks of the following species:</p> <ul style="list-style-type: none"> • Abalone (Greenlip and Blacklip) – TAS • Rock lobster (Southern) – SA • Pink snapper – WA • Blue grenadier – ABARES • Southern bluefin tuna – ABARES
3 November 2011	<p>Second jurisdictional workshop – Holiday Inn, Melbourne</p> <p>Presentation of example species, including difficulties and proposed changes (if required).</p> <p>Confirmation of revised FRDC proposal – jurisdictions will need to provide to ABARES details of their funding needs and intended in-kind contributions to complete the project.</p>
11 November 2011	ABARES to submit to FRDC revised funding application
29 November 2011	FRDC Board meeting – decision on NFSR proposal

Attachment A - Table showing the 50 species selected as a priority, including lead agencies responsible for status determination, priority level and national catch & GVP

Name (Australian Fisheries Statistics 2010 categories)	Species	Lead	Priority	Catch (t)	GVP (A\$'000)
ABALONE				4525	158188
	Greenlip abalone (<i>Haliotis laevigata</i>)	SA	1		
	Blacklip abalone (<i>H. rubra</i>)	Tas	1		
	Brownlip abalone (<i>H. conicopora</i>)		0		
	Roe's abalone (<i>H. roei</i>)		2		
BARRAMUNDI	<i>Lates calcarifer</i>	NT	1	1643	12960
BLUE GRENADEIER	<i>Macruronus novaezelandie</i>	Com	1	3471	16312
BROAD BILLED SWORDFISH	<i>Xiphias gladius</i>	Com	1	1679	8801
BUGS				560	11530
	Moreton Bay bugs (<i>Thenus orientalis</i>)	QLD	1		
	Slipper lobsters		0		
	Deepwater bugs (<i>Ibacus</i> spp.)		2		
	Balmain bugs (<i>Ibacus chacei</i> & <i>I. brucei</i>)	NSW	1		
CORAL TROUT	Common coral trout (<i>P. leopardus</i>)	QLD	1	959	30983
CRAB				1540	10901
CRAB - BLUE	<i>Portunus pelagius</i>	WA	1	1211	9877
CRAB - MUD	<i>Scylla serrata</i>	NT	1	1154	27722
	<i>S. olivacea</i>				
	Giant crab (<i>Pseudocarcinus gigas</i>)	TAS	1		
FLATHEAD				3758	16185
	Tiger flathead (<i>Neoplatycephalus richardsoni</i>)	Com	1		
	Deepwater flathead (<i>N. conatus</i>)	Com	1		
	Dusky flathead (<i>Platycephalus fuscus</i>)	QLD	1		
	Southern sand flathead (<i>P. bassensis</i>)	VIC	1		
	Blue-spotted flathead (<i>P. caeruleopunctatus</i>)		0		
	Southern blue-spotted flathead (<i>P. speculator</i>)		0		
	Toothy flathead (<i>N. aurimaculatus</i>)		0		
LOBSTER				9084	347757
LOBSTER - SOUTHERN				274	14422
	Western rock lobster (<i>Panulirus cygnus</i>)	WA	1		
	Southern rock lobster (<i>Jasus edwardsi</i>)	SA	1		
	Eastern rock lobster (<i>J. verreauxi</i>)	NSW	1		
LOBSTER - TROPICAL	Tropical rock lobster (<i>P. ornatus</i>)	QLD	1	217	6660
MACKEREL - SPANISH	<i>Scomberomorus commerson</i>	QLD	1	1172	7955
MULLET - SEA	<i>Mugil cephalus</i>	QLD	1	3456	8646
PRAWNS				5589	59986
PRAWNS - BANANA				6591	66001
	White banana (<i>Fenneropenaeus merguiensis</i>)	Com	1		
	Red-legged banana (<i>F. indicus</i>)				
PRAWNS - ENDEAVOUR		QLD	1	1033	7629
	Blue endeavour (<i>Metapenaeus endeavouri</i>)		2		
	Red endeavour (<i>M. ensis</i>)		2		
PRAWNS - TIGER				2768	47525
	Brown tiger (<i>Penaeus esculentus</i>)	Com	1		
	Grooved tiger (<i>P. semisulcatus</i>)	Com	1		
	Black tiger (<i>P. monodon</i>)		0		
	Kuruma tiger		0		

Name (Australian Fisheries Statistics 2010 categories)	Species	Lead	Priority	Catch (t)	GVP (AS'000)
PRAWNS -KING				4118	55941
	Red-spot king (<i>M. longistylus</i>)		0		
	Eastern king (<i>M. plebejus</i>)	QLD	1		
	Western king (<i>M. latisulcatus</i>)	WA	1		
SARDINE	<i>Sardinops sagax</i>	SA	1	36573	23041
SCALLOP				7539	25800
	Commercial scallop (<i>Pecten fumatus</i>)	Tas	1		
	Saucer scallop (<i>Amusium</i> spp.)	WA	1		
SHARK				2786	7222
	Blacktip sharks (<i>Carcharhinus tilstoni</i> , <i>C. limbatus</i> , <i>C. sorrah</i>)	NT	1		
	Whiskery shark (<i>Furgaleus macki</i>)		2		
	Dusky shark (<i>C. obscurus</i>)	WA	1		
	Sandbar shark (<i>C. plumbeus</i>)	WA	1		
	School shark (<i>C. galeus</i>)	Com	1		
SHARK - GUMMY	<i>Mustelus antarcticus</i>	Com	1	2365	16396
SNAPPER -	Pink snapper (<i>Pagrus auratus</i>)	SA	1	2251	14541
SNAPPER - TROPICAL				3248	20624
	Saddle-tail snapperr (<i>Lutjanus malabaricus</i>)	NT	1		
	Crimson snapper (<i>L. erythropterus</i>)	NT	1		
	Red emperor (<i>L. sebae</i>)	WA	1		
	Red-throated emperor (<i>L. miniatus</i>)	QLD	1		
	Goldband snapper (<i>Pristipomoides</i> spp.)	WA	1		
	Blue-spotted emperor (<i>Lethrinus</i> spp.)		2		
TUNA - BIGEYE	<i>Thunnus obesus</i>	Com	1	761	7081
TUNA - YELLOWFIN	<i>Thunnus albacares</i>	Com	1	1472	10781
TUNA - SBT	<i>Thunnus maccoyii</i>	Com	1	4123	38071
WHITING - KING GEORGE	<i>Sillaginodes punctatus</i>	VIC	1	473	7181
WHITING				1333	5870
	stout (<i>S. robusta</i>)	QLD	1		
	sand (<i>S. ciliata</i>)	QLD	1		
	school (<i>S. flindersi</i>)	QLD	1		
SQUID				694	6624
	Arrow squid (<i>Nototodarus gouldi</i>)	Com	1	531	1032
	southern calamari (<i>Sepioteuthis australis</i>)	TAS	1		
	Australian herring (<i>Arripis georgianus</i>)		2		
	Australian salmon (<i>Arripis trutta</i> & <i>A. truttaceus</i>)		2	2034	2674
	Murray cod (<i>Maccullochella</i> spp.)		0		
	Small pelagics	Com	2		
	Redbait (<i>Emmelichthys nitidus</i>)	Com	1	564	79

Attachment B - agreed traffic light system which will be used for classifying individual stocks

STOCK CONDITION ^a	POSSIBLE TERMINOLOGY	DESCRIPTION	EXPECTED MANAGEMENT RESPONSES
	Good	➤ Sustainably fished Stocks for which the biomass (or biomass proxy) is above recruitment overfished and for which fishing pressure is not high enough to move stocks to a recruitment overfished state	Appropriate management is in place
	Transitioning bad → good	➤ Transitional Recovering stock – stocks for which biomass is overfished but management measures are in place to promote stock recovery and recovery is occurring	Appropriate management is in place and stock is recovering
	Transitioning good → bad	➤ Transitional Deteriorating stock – a stock that is not yet overfished but for which fishing pressure is too high and moving the stock in the direction of becoming overfished	Management needs to be put in place to reduce fishing pressure and ensure biomass does not enter into an overfished state
	Bad	➤ Overfished Stocks that are overfished and for which current management is not adequate to recover the stock	Management needs to be put in place to recover this stock
	Undefined	➤ Undefined Not enough information exists to determine stock status.	N/A

^aThis column will not be included in the report, it is only included here as a guide to show how the public may view these categories.

Attachment C - Draft National Fishery Status Reports Species Template

Tiger flathead *Neoplatycephalus richardsoni*

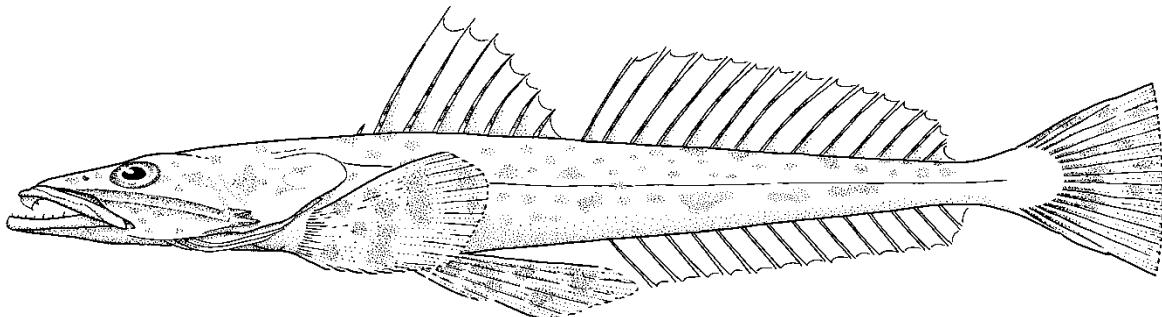


FIGURE 1: LINE DRAWING: ROSALIND POOLE

Table 3: Stock status determination for each species

Jurisdiction	Commonwealth		NSW	Comm / NSW	QLD	Etc etc
<i>Stock</i>	Stock 1	Stock 2	Stock 3	Stock 4	Stock 5	Stock 6
<i>Stock Status</i>		Red			Yellow	Red
<i>Indicator</i>	Biomass	Catch	Length	Catch	Biomass	CPUE

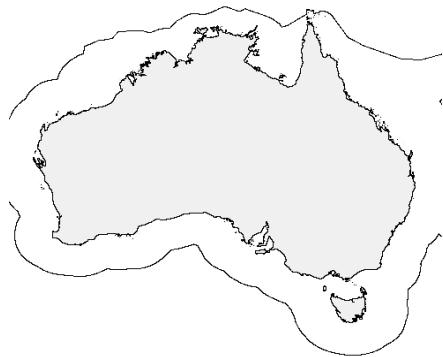
#NB: There will be one column per stock. The term stock refers to a biological stock, not a management unit. Where there is more than one management unit making up a single biological stock information from each unit should be combined to determine an overall status in the table.

Stock Status

Text will be included here on the rationale for the stock status determinations above.

Table 1: The basic biology of a tiger flathead

Longevity & Maximum size	20 years / 46–60 cm SL
Maturity (50%)	Age: 4–5 years Size: 30–36 cm SL
Stock Structure	Multiple stocks across SE Australia



Source: Commercial Fisheries and Coastal Communities Mapper – <http://adl.brs.gov.au/mapserv>

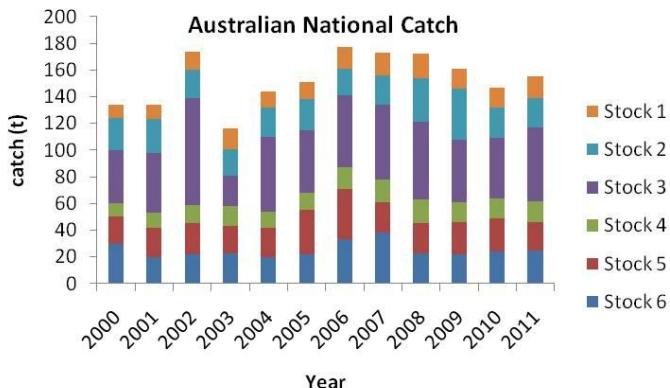
Figure 2: This map will indicate the specific areas where fishing occurs – spatial data at non-confidential level

Table 2: Main features and statistics for tiger flathead stocks/fisheries in Australia, 2010

<i>Jurisdiction</i>	Comm.	NSW	Comm / NSW	QLD	Etc etc
Fishing methods					
<ul style="list-style-type: none"> • Hook and Line • Net • Trap • Trawl • Dive and hand collection 	✓ ✓				
Management methods					
<ul style="list-style-type: none"> • Limited entry • Commercial TAC • Spatial closures • Temporal closures • Size limits • Bag limits 	✓ ✓ ✓ ✓				
Number of commercial boats	51				
Catch (t)					
<ul style="list-style-type: none"> • Total 	270 200				

<ul style="list-style-type: none"> • Commercial • Recreational • Indigenous 	70	0			
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a)



b)

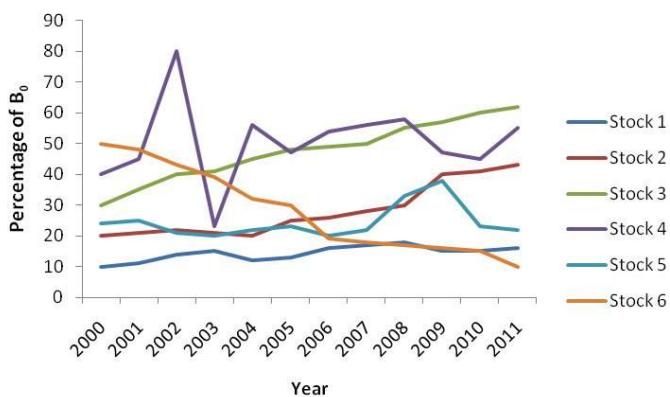


Figure 3: (a) Catch for 2000 to 2011; (b) percentage of unfished biomass (or another key indicator) for 2000 to 2011

Catch explanation

Brief text will be included on catch and indicator for each stock, if catch is dropping this should be explained.

Environmental Issues:

-
-
-
-

Key Literature / Resources:

-
-
-

National Fishery Status Reports Planning Workshop 2	Location: Holiday Inn Melbourne
Facilitating Agency: ABARES Fisheries and Quantitative Sciences	Date: 3 Nov 2011

Time: 9:00 am – 5:00 pm

Chair: Dr Gavin Begg, General Manager Fisheries and Quantitative Sciences

AGENDA

Workshop Objectives

- *To evaluate species case studies; identifying any difficulties, how the process worked and any proposed changes (to content or process)*
- *To confirm report content and the roles and responsibilities of jurisdictions*
- *To determine budgetary requirements and in-kind contributions of each jurisdiction for FRDC Phase 2 application*

9:00 am START

1. Introduction

- *National fishery status reports (NFSR) workshop 2 objectives – Dr Gavin Begg, ABARES*

2. Issues identified intersessionally

- *Brief opportunity to discuss any issues raised by jurisdictions intersessionally*
 - *Feedback was incorporated into agreed outcomes clarifying the definition of recruitment overfishing – Keith Sainsbury*
 - *Species omission issues – Malcolm Haddon*
 - *Removal of southern sand flathead from the species list – VIC*
 - *Lead agency responsibility – NSW*
 - *Other*

3. Case study presentations (15 min per species)

- *Focusing on providing details about: (1) process used; (2) what worked; (3) what didn't work; and (4) any challenges or suggestions resulting from this process*
 - *Abalone (Greenlip and Blacklip) – TAS*
 - *Rock Lobster (Southern) – SA*
 - *Pink Snapper – WA*
 - *Blue grenadier and southern bluefin tuna - ABARES*

11:00 – 11:30 MORNING TEA

4. Agreed outcomes revisited (1 hour)

- *Round table discussion to review agreed outcomes from the first workshop in light of case studies*
 - *Species included*
 - *Stock status: Terminology; Reference points; Determination*
 - *Template*
 - *Process*

1:00 – 2:00 LUNCH

5. FRDC Phase 2 Proposal (10 min per jurisdiction)

- *Discussion on funding requirements and intended in-kind contributions*

3:30 – 4:00 AFTERNOON TEA

6. Next steps / timeline

National Fishery Status Reports Planning Workshop 2

3 November 2011

Melbourne, Holiday Inn

Agreed Outcomes

Attendee list: Gavin Begg (ABARES), Ilona Stobutzki (ABARES), Matt Flood (ABARES), Crispian Ashby (FRDC), Peter Horvat (FRDC), Rick Fletcher (WA Fisheries), Bryan McDonald (NT), James Andrews (DPI VIC), Ross Quinn (DEEDI), Klaas Hartmann (Tas IMAS/DPIWE), Adrian Linnane (SARDI), Luke Cromie (DPI VIC), Steve Bolton (AFMA), Kevin Rowling (NSW), Charles Gray (NSW)

Apologies: Patrick Hone (FRDC), Keith Sainsbury (FRDC), Tony Smith (CSIRO), Malcolm Haddon (CSIRO), Thor Saunders (NT), David Galeano (AFMA), Sean Slone (PIRSA), Tim Ward (SARDI), Caleb Gardner (Tas IMAS/DPIWE)

OVERVIEW

- Lead roles were confirmed and supporting roles identified for each of the 50 species to be included in the reports.
- The species template was improved through consideration of example species templates presented.
- Jurisdictions agreed on an equitable budgeting model for producing the reports.

1. *Clarification of lead and support roles*

- Lead roles for each species were revised and the support roles for each species were identified ([Attachment A](#)).

2. *Advisory group*

- An advisory group for the National Fishery Status Reports was formed, comprising the representatives from each jurisdiction. The role of this group includes:
 - 1) overseeing work on species for which their jurisdiction is the lead
 - 2) managing the decision making process for stock status determinations when more than one jurisdiction is involved (i.e. straddling stocks)
 - 3) reviewing the status reports
- Advisory group members: Gavin Begg (ABARES), Ilona Stobutzki (ABARES), Matt Flood (ABARES); Keith Sainsbury (FRDC); Crispian Ashby (FRDC), Rick Fletcher (WA Fisheries), Bryan McDonald (NT), James Andrews (DPI VIC), Ross Quinn (DEEDI), Caleb Gardner (Tas IMAS/DPIWE), Tim Ward (SARDI), Charles Gray (NSW); David Galeano (AFMA); Tony Smith (CSIRO)

3. Level of reporting – stock vs jurisdiction vs management unit

- Reporting will be at the biological stock level unless data limitations prevent this occurring. In cases where individual stocks cannot be assessed, reporting will initially be at the jurisdiction or management unit level. The aim will be to move to stock based status assessments when adequate data become available.
- In the case of abalone, for which Tasmania alone has 228 stocks, reporting will be at the jurisdictional level. For each jurisdiction, an overall status should be applied. Only stocks known to be red (i.e. overfished) should be discussed individually in the stock status text to ensure full transparency.

4. Traffic light stock status classification system

- Two changes have been made:
 1. Overfished stocks for which adequate management measures have been put in place but these have not yet resulted in measurable improvements will be included in the '*overfished*' (red) category. Only when improvements are seen will the stock be classified as '*transitional/recovering*' (yellow ↑) (**Attachment B**).
 2. Expected management responses for the '*undefined*' (grey) category have been added. These stipulate that management needs to identify data required to remove a stock from this category and put in place measures to obtain these data (**Attachment B**).

5. Template

- At the first Workshop, five species were selected to trial the approach, terminology and reporting template. These species were snapper (WA lead agency), rock lobster (SA lead agency), abalone (TAS lead agency), blue grenadier and southern bluefin tuna (ABARES lead agency).
- The trial species chapters were evaluated at the second Workshop to identify issues with the reporting template. Recommended changes from this process have been incorporated into the template (**Attachment C**). Attachment C also outlines some key features listed for inclusion in the introductory chapter for the reports.
- General point – the report should be written succinctly (2-3 pages per species) and be specifically directed at a non-technical audience. Comprehensive reference lists will be provided to support the text provided.

6. Budget:

- The agreed budget is as follows:
 - **Project management (ABARES) = \$150K.** This covers the costs of both phase 1 and 2. It includes workshop costs, development of the scoping paper and template, coordination of the reports, review and editing of reports and production of all graphs and maps in the reports. ABARES will invest \$69K as an in-kind contribution for project management.

- **Advisory group = \$50K.** \$6250 travel costs for each jurisdiction, a total of \$50,000. This \$6250 is matched with in-kind salary listed against the members of the Advisory Group (one member per jurisdiction).
- **Lead species + support species = \$342K of salaries (50 leads + 92 support roles).** This is allocated across jurisdictions as shown in the table below (costed on the basis of \$5000 FRDC funding + \$5000 in-kind per lead species and \$1000 FRDC funding + \$1000 in-kind per support species).
- **Production costs (ABARES) = \$50K.** This covers the production, design, layout, copy editing and printing for the hard copy reports.
- ***Total funding request from FRDC = \$592K;***
- ***Total project cost including in-kind = \$1,053K***

Table: FRDC funding requested per jurisdiction/agency

Jurisdictions	Project management	Advisory group	Lead species	Support species	Production costs	Total
ABARES	\$150,000	\$6,250	\$65,000	\$7,000	\$50,000	\$278,250
NSW	\$0	\$6,250	\$25,000	\$15,000	\$0	\$46,250
NT	\$0	\$6,250	\$25,000	\$6,000	\$0	\$37,250
QLD	\$0	\$6,250	\$45,000	\$16,000	\$0	\$67,250
SA	\$0	\$6,250	\$15,000	\$11,000	\$0	\$32,250
TAS	\$0	\$6,250	\$20,000	\$10,000	\$0	\$36,250
VIC	\$0	\$6,250	\$10,000	\$11,000	\$0	\$27,250
WA	\$0	\$6,250	\$45,000	\$16,000	\$0	\$67,250
Total	\$150,000	\$50,000	\$250,000	\$92,000	\$50,000	\$592,000

Attachment A - Species to be included in the first edition of the National Fishery Status Reports and the lead and support jurisdictions

Species	Lead jurisdiction	Support jurisdictions
Arrow squid (<i>Nototodarus gouldi</i>)	Commonwealth	TAS
Bigeye tuna (<i>Thunnus obesus</i>)	Commonwealth	
Blue grenadier (<i>Macruronus novaezelandie</i>)	Commonwealth	
Broad billed swordfish (<i>Xiphias gladius</i>)	Commonwealth	
Brown tiger prawn (<i>Penaeus esculentus</i>)	Commonwealth	QLD; WA
Deepwater flathead (<i>Neoplatycephalus conatus</i>)	Commonwealth	TAS
Grooved tiger prawn (<i>Penaeus semisulcatus</i>)	Commonwealth	QLD
Gummy shark (<i>Mustelus antarcticus</i>)	Commonwealth	NSW; SA; TAS; VIC; WA
School shark (<i>Galeorhinus galeus</i>)	Commonwealth	SA; TAS; VIC; WA
Southern bluefin tuna (<i>Thunnus maccoyii</i>)	Commonwealth	
Tiger flathead (<i>Neoplatycephalus richardsoni</i>)	Commonwealth	NSW; TAS
White banana prawn (<i>Fenneropenaeus merguiensis</i>)	Commonwealth	WA
Yellowfin tuna (<i>Thunnus albacares</i>)	Commonwealth	
Australian salmon (<i>Arripis trutta & Arripis truttaceus</i>)	New South Wales	SA; TAS; VIC; WA
Balmain bugs (<i>Ibacus chacei & I. brucei</i>)	New South Wales	QLD
Eastern rock lobster (<i>Jasus verreauxi</i>)	New South Wales	
Sand whiting (<i>Sillago ciliata</i>)	New South Wales	QLD
Sea mullet (<i>Mugil cephalus</i>)	New South Wales	QLD
Barramundi (<i>Lates calcarifer</i>)	Northern Territory	QLD; WA
Blacktip sharks (<i>Carcharhinus tilstoni, C. limbatus, C. sorrah</i>)	Northern Territory	NSW; QLD; WA
Crimson snapper (<i>Lutjanus erythropterus</i>)	Northern Territory	QLD; WA
Mud crab (<i>Scylla serrata and S. Olivacea</i>)	Northern Territory	NSW; QLD
Saddle-tail snapper (<i>Lutjanus malabaricus</i>)	Northern Territory	QLD; WA
Blue and red endeavours (<i>Metapenaeus endeavourii & M. Ensis</i>)	Queensland	Comm
Common coral trout (<i>Plectropomus leopardus</i>)	Queensland	Comm; NT
Dusky flathead (<i>Platycephalus fuscus</i>)	Queensland	NSW; VIC
Eastern king prawn (<i>Melicertus plebejus</i>)	Queensland	NSW
Moreton bay bugs (<i>Thenus orientalis</i>)	Queensland	
Red-throated emperor (<i>Lethrinus miniatus</i>)	Queensland	NT; WA
Spanish mackerel (<i>Scomberomorus commerson</i>)	Queensland	Comm; NT; WA
Stout whiting (<i>Sillago robusta</i>)	Queensland	NSW
Tropical rock lobster (<i>Panulirus ornatus</i>)	Queensland	Comm; NT
Greenlip abalone (<i>Haliotis laevigata</i>)	South Australia	TAS; VIC; WA
Sardine (<i>Sardinops sagax</i>)	South Australia	Comm; NSW; WA
Southern rock lobster (<i>Jasus edwardsi</i>)	South Australia	TAS; VIC
Blacklip abalone (<i>Haliotis rubra</i>)	Tasmania	NSW; SA; VIC; WA
Commercial scallop (<i>Pecten fumatus</i>)	Tasmania	Comm; Vic
Giant crab (<i>Pseudocarcinus gigas</i>)	Tasmania	SA; VIC; WA
Southern calamari (<i>Sepioteuthis australis</i>)	Tasmania	NSW; SA; VIC
King George whiting (<i>Sillaginodes punctatus</i>)	Victoria	SA; TAS; WA
School whiting (<i>Sillago flindersi</i>)	Victoria	Comm; NSW; TAS
Blue swimmer crab (<i>Portunus pelagi</i>)	Western Australia	NSW; QLD; SA
Dusky shark (<i>Carcharhinus obscurus</i>)	Western Australia	NSW; SA
Goldband snapper (<i>Pristipomoides spp.</i>)	Western Australia	NT; QLD

Species	Lead jurisdiction	Support jurisdictions
Pink snapper (<i>Pagrus auratus</i>)	Western Australia	NSW; QLD; SA; VIC
Red emperor (<i>Lutjanus sebae</i>)	Western Australia	NT; QLD
Sandbar shark (<i>Carcharhinus plumbeus</i>)	Western Australia	NSW; QLD
Saucer scallop (<i>Amusium spp.</i>)	Western Australia	QLD
Western king prawn (<i>Melicertus latisulcatus</i>)	Western Australia	SA
Western rock lobster (<i>Panulirus cygnus</i>)	Western Australia	

Summary of responsibilities

Jurisdiction/agency	Number of lead species	Number of support species
Commonwealth (ABARES)	13	7
New South Wales (NSW Government)	5	15
Northern Territory (Department of Resources)	5	6
Queensland (DEEDI)	9	16
South Australia (SARDI)	3	11
Tasmania (IMAS/DPIWE)	4	10
Victoria (DPI VIC)	2	11
Western Australia (WA Fisheries)	9	16
Total	50	92

#NB: Lead species costed at = \$5,000 per species FRDC and \$5,000 in-kind; Support species costed at = \$1,000 per species FRDC and \$1,000 in-kind.

Attachment B - Agreed status terminology (and associated traffic light system) that will be used for classifying individual stocks



TERMINOLOGY	DESCRIPTION	EXPECTED MANAGEMENT RESPONSES
➤ Sustainably fished	Stocks for which the biomass (or biomass proxy) is above recruitment overfished and for which fishing pressure is not high enough to move stocks to a recruitment overfished state	Appropriate management is in place
➤ Transitional /Recovering	Recovering stock – stocks for which biomass is overfished but management measures are in place to promote stock recovery and recovery is occurring	Appropriate management is in place and stock is recovering
➤ Transitional /Depleting	Deteriorating stock – a stock that is not yet overfished but for which fishing pressure is too high and moving the stock in the direction of becoming overfished	Management needs to be put in place to reduce fishing pressure and ensure biomass does not deplete to an overfished state
➤ Overfished	Stocks that are overfished and for which current management is not adequate to recover the stock; or adequate management measures have been put in place but these have not yet resulted in measurable improvements	Management needs to be put in place to recover this stock; if adequate management measures are already in place, more time may be required for them to take effect
➤ Undefined	Not enough information exists to determine stock status	Management needs to identify data required to remove stock from this category and put in place measures to obtain these data

Attachment C - National Fishery Status Reports 2010 - Template

Introductory chapter

This will include:

- Description of benchmarking system – i.e. a description of recruitment overfishing.
- Description of traffic light classification system.
- A section describing fishing methods commonly used in Australia and the environmental issues associated with each method. Information will also be provided on management responses to these issues. The focus here will be on generalities with stock specific concerns dealt with in individual chapters.
- A description of the weight of evidence approach used to assess data limited fish stocks (~1 paragraph long). It will be important to emphasise that the weight of evidence approach is a form of stock assessment. References should be provided directing the reader to more in-depth background for using this approach.

Species chapters – updated template

Tiger flathead *Neoplatycephalus richardsoni*

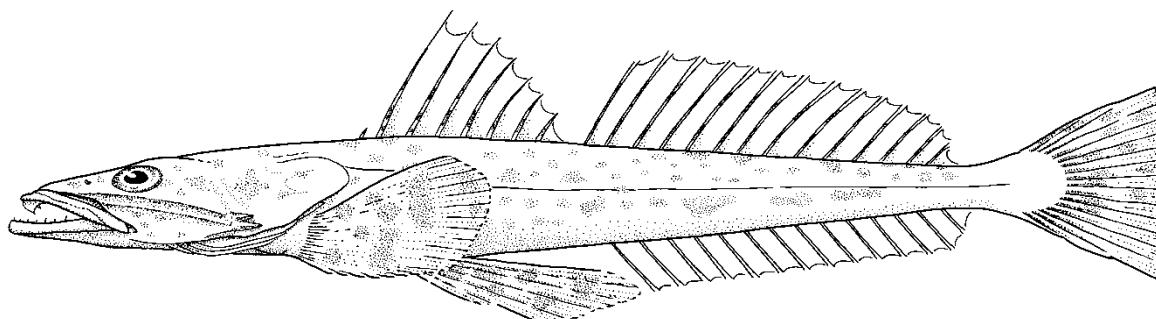


FIGURE 1: LINE DRAWING: ROSALIND POOLE

Table 1: Stock status determination for each species

Jurisdiction	Commonwealth		NSW	Comm / NSW	QLD	Etc etc
Stock	Stock 1	Stock 2	Stock 3	Stock 4	Stock 5	Stock 6
Stock Status						
Indicator	Biomass	Catch	Length	Catch	Biomass	CPUE

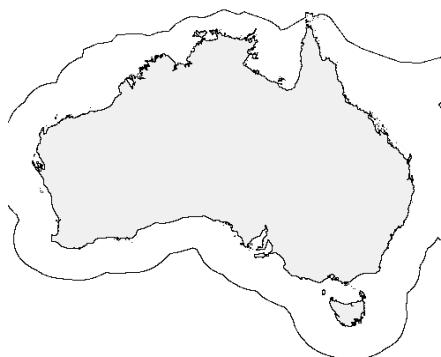
#NB: There will be one column per stock. Reporting will be at the biological stock level unless data limitations prevent this occurring. In cases where individual stocks cannot be assessed, reporting will initially be at the jurisdiction or management unit level. Where there is more than one management unit or jurisdiction making up a single biological stock information from each unit or jurisdiction should be combined to determine an overall status in the table.

Stock Status

Brief text on the rationale/basis for the stock status determinations in Table 1.

Table 2: Tiger flathead biology

Longevity & Maximum size	20 years; 46–60 cm standard length
Maturity (50%)	4–5 years; 30–36 cm standard length
Stock Structure	Multiple stocks across SE Australia



Source: Commercial Fisheries and Coastal Communities Mapper – <http://adl.brs.gov.au/mapserv>

Figure 2: This map will indicate the specific areas where commercial fishing occurs – spatial data at non-confidential level

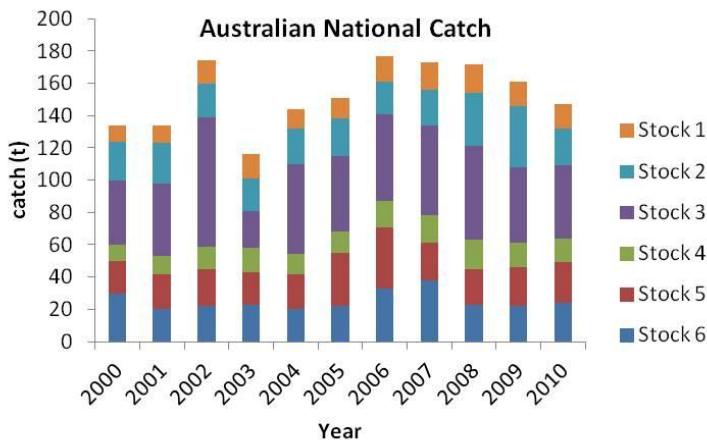
#NB – these maps will not include recreational or indigenous fishing, they will display commercial catch only.

#NB: ABARES will produce all of these maps for consistency, with data provided by the jurisdictions.

Main features and statistics for species x stocks/fisheries in Australia, 2010

- Brief outline of fishing methods used (e.g. hook and line; net; trap; trawl; dive and hand collection). This will relate back to catch methods section in the introduction of the reports.
- Brief outline of key management tools/methods (e.g. limited entry, commercial TACs, spatial closures, temporal closures, size limits, bag limits).
- Indicate the number of boats recording catch from a given stock (i.e. any vessel that has reported catch for the species during the fishing season). Information may also include how many of these boats are taking a substantial catch – for example > 100 t. In multi-species fisheries this should not be a simple indication of how many boats fish in that fishery especially if many of those boats do not catch the species in question.
- Total catch and also divided into its component parts (i.e. commercial, recreational and indigenous). Where the species is important recreationally or to indigenous fishers but catch information is not available this should be explained. International catches should also be included. Discards of the species should also be included.

a)



b)

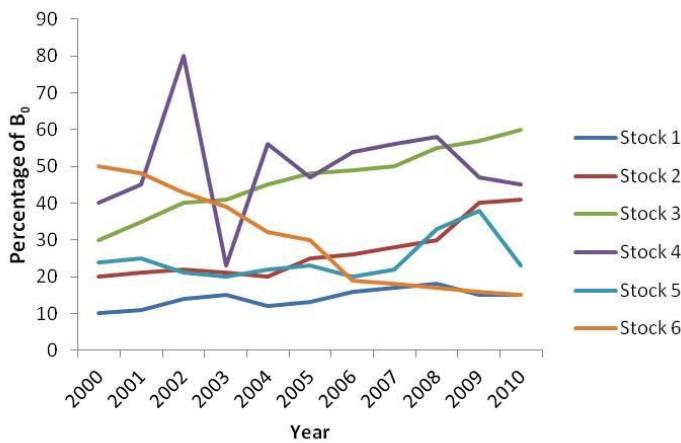


Figure 3: (a) Catch for 2000 (or preferably earlier) to 2010; (b) percentage of unfished biomass (or another key indicator) for the same years

#NB: The catch graph will only show commercial catch. This will provide consistency across chapters and ensure that catch information matches up with the commercial footprint provided in the map. Recreational catch and indigenous catch will be presented under the ‘main features and statistics’ heading. The catch figure should include at least 10 years of catch data, going further back where appropriate and possible.

#NB: The key indicator graph should only show one key indicator per stock, i.e. in straddling stocks there should not be one indicator for each jurisdiction (e.g. southern rock lobster). The indicator graph to be used should be decided upon during consultation between all jurisdictions fishing the straddling stock.

#NB: ABARES will produce all of these graphs for consistency, with data provided by the jurisdictions.

Catch explanation

Brief explanation on catch and indicator trends that need additional information for interpretation.

Fishery Issues

- Current issues of the day
 - E.g. TEP species interactions
 - Here is a management response that has been put in place to try and solve this problem ...
-

Environmental Issues:

- E.g. Effects of climate change
-
-
-

Key Literature / Resources:

-
-
-
-

National Fishery Status Reports Advisory Group - Workshop 3	Location: Teleconference
Facilitating Agency: ABARES Fisheries and Quantitative Sciences	Date: 24 Jan 2012

Time: 1:00 pm – 3:00 pm

Chair: Dr Ilona Stobutzki, General Manager Fisheries and Quantitative Sciences

AGENDA

Workshop Objectives

- To clarify the role of the advisory group in terms of dissemination of information
- To outline and discuss the project timeline and key dates
- To revisit the traffic light reporting process as requested by the FRDC board. Options such as ‘stars’ should be reconsidered by the advisory group
- To determine who needs to be involved in ‘reviews by fisheries management bodies’
- To identify appropriate external reviewers for the status reports
- To consider renaming the reports to better reflect the focus on ‘fish stocks’ rather than ‘fisheries’
- To discuss referencing and accessibility of references

1:00 pm START

1. Introduction

- National fishery status reports (NFSR) workshop 3 objectives – Dr Ilona Stobutzki, ABARES

2. Role of advisory group in dissemination of information

- Discussion to clarify the role of the advisory group in dissemination of information to chapter authors.

3. Outline of project timeline and key dates

- Brief opportunity for ABARES to describe the current timeline
- Opportunity for other jurisdictions to comment on this timeline

4. Traffic light reporting vs. star based reporting system

- The FRDC board have requested that the advisory group consider using a star based system rather than the agreed traffic light system

5. Reviews by fisheries management bodies

- Discussion around which jurisdictions will need to engage fisheries management bodies to review chapters completed by research bodies

6. Identification of status reports’ external reviewers for FRDC

- Brief discussion of selection process for identifying appropriate reviewers for FRDC to engage in their external review process in May 2012

7. Renaming of National Fishery Status Reports

- Discussion of names that more accurately describe the reports’ focus on ‘Fish Stocks’ rather than ‘Fisheries’. Some possibilities include:
 - Australian stock status reports
 - Australian fish stock status reports
 - Status of Australian fish stocks

8. Referencing and accessibility of full text references

- Creating endnote databases for references
- Storage or links to full text references

9. Additional issues for discussion

Status of Key Australian Fish Stocks - Planning Workshop 3

24 January 2012

Teleconference

Agreed Outcomes and Actions

Attendee list: Ilona Stobutzki (ABARES), Matt Flood (ABARES), Crispian Ashby (FRDC), Tony Smith (CSIRO), James Andrews (DPI VIC), Jodie Kemp (DPI VIC), Ross Quinn (DEEDI), Michelle Winning (DEEDI), Kevin Rowling (NSW), Thor Saunders (NT), Imogen Lambert (ABARES)

Apologies: Keith Sainsbury (FRDC), Rick Fletcher (WA Fisheries), Bryan McDonald (NT), Charles Gray (NSW), Luke Cromie (DPI VIC), David Galeano (AFMA), Sean Slone (PIRSA), Tim Ward (SARDI), Caleb Gardner (Tas IMAS/DPIWE), Klaas Hartmann (Tas IMAS/DPIWE)

Agreements summary

- ‘Team leaders’ were identified for overseeing chapter drafting and managing technical decisions in Queensland and Victoria. In other jurisdictions represented at the meeting advisory group members agreed to retain these responsibilities.
- Project timeline – the deadline for providing mapping and graphing data to ABARES has been pushed back for required species.
- The advisory group considered moving to a star based system for depiction stock status. However, it was agreed that the original traffic light system should be retained.
- It was agreed that fisheries managers in each jurisdiction should be given the opportunity to review the status reports and that this process would be managed by the advisory group members.
- The need to identify reviewers for FRDC’s external technical review was discussed.
- To better reflect the focus on ‘fish stocks’ rather than ‘fisheries’ the reports have been renamed the *Status of Key Australian Fish Stocks* – abbreviated as *SAFS* (formerly National Fishery Status Reports).
- It was agreed that for each species chapter, the lead jurisdictions would produce one endnote (or endnote compatible) file of references cited. Lead jurisdictions have been asked to provide either links to full text references or PDFs of full text references for inclusion on <http://www.fish.gov.au>.

Actions arising

Action	Actions arising	Progress
<i>1a</i>	ABARES to contact Western Australia, South Australia and Tasmania to identify team leaders if these differ from advisory group members.	
<i>1b</i>	ABARES will circulate regular updates of technical questions and answers to all teams, to ensure regular and consistent flow of information.	
<i>2a</i>	ABARES to inform all advisory group members and team leaders of the change in deadline.	Complete
<i>2b</i>	ABARES to also provide basic timeline updates for circulation to all authors via advisory group members and team leaders.	
<i>2c</i>	ABARES to provide further instructions for provision of mapping data to advisory group and team leaders.	
<i>3</i>	ABARES to email FRDC regarding decision to retain traffic light classification system.	Complete

4a	ABARES to contact South Australia, Tasmania and Western Australia to identify appropriate fisheries managers in each jurisdiction.	
4b	Advisory group members to provide drafts to the relevant fisheries management agency/section for comment (2 nd week of May 2012)	
5a	ABARES to clarify with FRDC the nature and process of the external review and provide this information to the advisory group.	
5b	Advisory group to discuss external review further once more details are available.	
6	ABARES agreed to circulate key messages about the national reports for jurisdictions to use in communication with industry councils and commercial and recreational fishers in their jurisdictions.	
7a	ABARES to send out ‘SAFS reports – update emails’.	
7b	ABARES to compile a process document recording methodology used for production of SAFS reports.	Actioned

1. Role of advisory group in dissemination of information

In some jurisdictions, team leaders have been instated by advisory group members to oversee the status report drafting in their jurisdictions. The team leaders: 1) oversee the work done on each chapter for which they are lead jurisdiction; 2) coordinate input to chapters for which they are a support jurisdiction; and 3) act as a main contact for technical issues. In order to help improve flow of information team leaders were identified during the meeting.

Team leaders include:

- Queensland: Michelle Winning (michelle.winning@deedi.qld.gov.au)
- Victoria: Jodie Kemp (jodie.kemp@dpi.vic.gov.au)

In the Northern Territory, New South Wales and the Commonwealth the advisory board members remain the most appropriate contacts for any technical issues. For Queensland and Victoria the advisory group members will continue to be cc'd on correspondence.

Action 1:

- a) ABARES to contact Western Australia, South Australia and Tasmania to identify team leaders if these differ from advisory group members.
- b) ABARES will circulate regular updates of technical questions and answers to all teams, to ensure regular and consistent flow of information.

2. Outline of project timeline and key dates

Workshop attendees were reminded of important upcoming dates, including:

Mon 30 Jan 2012 – All graph data and mapping data due to ABARES

Wed 29 February 2012 – First drafts of chapters to be completed

Thu 1 March 2012 – First drafts to be sent to all relevant support jurisdictions for review

Fri 16 March 2012 – First drafts due back to lead jurisdictions with comments included

A number of attendees expressed concern with the deadline of Monday 30 January being the cut off date for providing graphing and mapping data to ABARES. The point was made that in some cases the process of identifying the correct data for graphs and maps would not be possible until chapter drafting was complete.

It was decided that where possible data should be provided to ABARES by 30 January. However, in cases where this is not achievable the data should be provided as soon as possible after the due date. ABARES would appreciate data being supplied no later than Friday 23 March, coinciding with the circulation of chapters for clearance by both lead and support jurisdictions. For graphing and mapping data that can be provided before this date please do not wait until the 23 March to send it to ABARES.

With respect to mapping data it was pointed out that not everyone was aware of what needed to be provided. ABARES have clarified that what is needed is a footprint of where fishing has occurred for each species with 1 degree resolution.

Action 2:

- a) ABARES to inform all advisory group members and team leaders of the change in deadline.
- b) ABARES to also provide basic timeline updates for circulation to all authors via advisory group members and team leaders.
- c) ABARES to provide further instructions for provision of mapping data to advisory group and team leaders.

3. *Traffic light reporting vs. star based reporting system*

In response the FRDC Board's request, the option of changing to a star rating system, rather than traffic lights, was considered.

Prior to the meeting ABARES circulated a short background paper summarising the use of traffic light and star systems in fisheries and non-fisheries systems (attachment A). The advisory group considered the appropriateness of the systems and after discussion decided to retain the traffic light system. In summary, the advisory group felt that a star system could not clearly depict the stock status categories they had previously agreed upon, particularly the transitional, overfished and undefined categories. Also, given that three jurisdictions currently use forms of traffic light system it is likely that using the same system for the national reports would make them more easily understood. The advisory group discussed the suggestion that a star system may be more appropriate for a broader assessment of fisheries where multiple elements are considered, including economic, social and biological elements.

Action 3: ABARES to email FRDC regarding decision to retain traffic light classification system.

4. *Reviews by fisheries management bodies*

As the status reports are a scientific product, similar to jurisdiction status reports, it was agreed that fisheries managers should be given the opportunity to provide comment on the reports before they are published. The advisory group agreed that individual advisory group members would be responsible for providing draft chapters to the relevant fisheries management agency/section in their respective jurisdiction, including:

Commonwealth – Australian Fisheries Management Authority

Queensland – harvest managers, Department of Employment, Economic Development and Innovation

NSW – fisheries managers, NSW government

Victoria – director of fisheries management, Department of Primary Industries Victoria

Northern Territory – director of fisheries management, Department of Resources - Fisheries

Action 4:

- a) ABARES to contact South Australia, Tasmania and Western Australia to identify appropriate fisheries managers in each jurisdiction.

- b) Advisory group members to provide drafts to the relevant fisheries management agency/section for comment (2nd week of May 2012).

5. Identification of status reports' external reviewers for FRDC

At the completion of drafting and before commencing the final design and layout – FRDC have indicated they will conduct an external technical review.

FRDC has asked the advisory group to: 1) group the 50 species into around 10 subgroups of similar species; and 2) identify potential reviewers for each of these subgroups.

The advisory group discussed the need for clarity on the nature of the technical review; given the summarised nature of the status reports reviewers would be unable to critically evaluate the chapters without accessing the accompanying literature. This could be a substantial task if it was undertaken for all species. It was agreed that ABARES should have further discussion with FRDC on the aims and process for the technical review.

Action 5:

- a) ABARES to clarify with FRDC the nature and process of the external review and provide this information to the advisory group.

- b) Advisory group to discuss further once more details are available.

6. Renaming of National Fishery Status Reports

Given the national status reports will be focusing on fish stocks rather than fisheries ABARES proposed that the name be changed to more accurately describe this. ABARES put forward 3 possible names. The advisory group agreed that the name should be changed. There was most support for the proposal of *Status of Australian Fish Stocks*. Given not all species will be included in the reports it was recommended that the word ‘key’ or ‘important’ be incorporated in the title. Hence the new title is: ***Status of Key Australian Fish Stocks*** – abbreviated to ***SAFS***.

7. Referencing and accessibility of full text references

During the meeting ABARES outlined the following issues regarding Endnote and storage of full text references.

Endnote: It was agreed that one endnote file (or endnote compatible file) be created for each chapter by the lead jurisdictions.

Storage or links to full text references: It was agreed that given the succinct nature of the chapters, readers would need to be able to access the technical reports used to determine status. In parallel with production of the hard copy version of the status reports FRDC are building an electronic web based version (www.fish.gov.au). In order to ensure readers can easily access relevant references, in text links will be provided to full text references.

If references are housed on jurisdictional websites – and web addresses for these are not likely to be changed over time – then FRDC can link directly to these sites. However, if the references are not available on jurisdictional sites, FRDC can house full text PDF versions on the www.fish.gov.au web site. ABARES would appreciate if lead agencies could provide either: 1) full text PDFs; or 2) appropriate web links for the references in their chapters.

8. Additional issues discussed at the workshop

Responsibilities of lead and support jurisdictions

It was clarified that stock status determination would be undertaken by the lead and relevant support jurisdictions in collaboration. Each support jurisdiction has responsibility to supply required information on their stocks to the lead jurisdictions, in the form of completed species templates. The lead jurisdictions should then integrate all support jurisdiction information into a single template.

It was reiterated that the stock status determination would be undertaken in a collaborative manner involving the relevant experts/team members. If there are separate biological stocks in the different jurisdictions, then each jurisdiction should determine the status of its stock, in line with the guidelines provided by the advisory group. The lead and support jurisdictions should ensure they are consistent in their rational. If a stock is shared across jurisdictions, the lead jurisdiction should facilitate a process/discussion to determine status for the shared stock.

Recording rational for stock status determinations

The need to ensure there is sufficient documentation of the basis for individual stock status determinations was discussed. The advisory group agreed that where documentation existed (e.g. in a jurisdictional status report) no further documentation was needed. It also agreed that where this information was not already documented (e.g. shared stocks or stocks not previously formally assessed) detailed records explaining stock status determination should be kept by the lead jurisdictions.

Calender year or financial year

The advisory group had previously decided that catch data could be presented on either a calendar year or financial year basis, so long as this was consistent for all stocks of a given species. In practice this is proving to be difficult. In most jurisdictions catch has already been extracted for jurisdictional reports based on either calendar or financial year. For some species the use of either calendar or financial year data is not consistent across jurisdictions. Given that the process of re-extracting the data would be very time consuming the advisory group have agreed to use the already extracted data, on which jurisdictional status reports are based, regardless of which type of year is used. In cases where one jurisdiction's data is based on a different time period from the other jurisdictions' reporting on that species, this will be acknowledged with a footnote, identifying exactly which data is different from the rest.

Inclusion of stocks

There was a need for further clarification around the inclusion of stocks. The advisory group reiterated that where a stock is known to exist it should be included in the report, regardless of level of catch or availability of assessment. Where stock delineation is uncertain the jurisdiction(s) in which that stock resides have the responsibility of providing the lead jurisdiction with any available information on stock delineation. If little is known about a stock and a classification cannot be attributed, the stock should be classified as undefined.

US Status of Stocks fishery indicator

In considering the future of the reports, FRDC have asked the advisory group to consider presenting a fisheries sustainability score in the status reports – based on the performance of all assessed stocks – to assess how the overall national sustainability of Australian fish stocks change through time. The concept for this type of tracking system can be found in the US ‘Status of Stocks – 2010 Report on the Status of U.S. Fisheries’ (<http://www.nmfs.noaa.gov>) on page 2, under the title ‘tracking progress’.

Request from FRDC to spread the word about the status reports

FRDC have asked that advisory group members ensure they communicate with industry councils and commercial and recreational fishers in their jurisdictions to inform them that status reports are being produced and of what

the reports will include. FRDC previously requested that no one go public with news of the status reports until the federal minister's media release. This media release occurred on Wednesday 25 January 2012 (see - <http://www.frdc.com.au/AnnouncementRetrieve.aspx?ID=60394>) and hence information regarding the status reports is no longer confidential.

Action 6: ABARES agreed to circulate key messages about the national reports for jurisdictions to use in communication with industry councils and commercial and recreational fishers in their jurisdictions.

Frequently asked questions and process document

In order to help ensure that all advisory group members, team leaders and authors receive the same information ABARES will clarify any arising issues in regular 'SAFS reports – update emails'. ABARES will also compile a process document to keep track of overarching methods and key decisions made throughout the production process.

Action 7:

- a) ABARES to send out 'SAFS reports – update emails'.
- b) ABARES to compile a process document recording methodology used for production of SAFS reports.

Status of Key Australian Fish Stocks Advisory Group - Workshop 4	Location: ABARES Canberra
Facilitating Agency: ABARES Fisheries and Quantitative Sciences	Date: 30 May 2012

Time: 10:00 am – 5:00 pm

Chair: Dr Ilona Stobutzki, a/g Assistant Secretary, Fisheries and Quantitative Sciences

AGENDA

Workshop Objectives

- update the Advisory Group on SAFS progress and discuss outstanding issues
- clarify the use of standard stock status language and headings
- clarify the role of the Advisory Group in the review / re-drafting of chapters
- update the project timeline and clarify the way forward for the current SAFS reports
- identify areas for improvement for future SAFS reports

10:00 am START

1. Introduction

- Status of Key Australian Fish Stocks (SAFS) workshop 4 objectives – Dr Ilona Stobutzki, ABARES
- Actions arising from SAFS workshop 3

2. Project update

- ABARES to outline current progress on the SAFS project

3. Outstanding issues (discussion) – see updated ‘SAFS current progress’ spread sheet

- Plan for advancing the remaining incomplete chapters
- Map data and catch data
- Endnote files and electronic copies of references

11:00 – 11:30 MORNING TEA

4. Clarification of definitions, standard language and headings

- ABARES to present the ‘Recommended stock status language for SAFS’ document
 - Appropriate status text when biomass and fishing mortality are known
 - Appropriate status text when using a weight of evidence approach
- Catch and indicator graphs and accompanying text
- ‘Ecosystem effects of fishing’ and ‘Environmental effects on species X’ sections

5. Clarification of roles and responsibilities

- Identification of areas in which Advisory Group involvement would be beneficial
- Discussion of Advisory Group roles and responsibilities

1:00 – 2:00 LUNCH

6. Project timeline and key dates

- ABARES to briefly outline the current timeline
- Discussion to adjust timeline where necessary, keeping in mind that FRDC have asked that the project release date not be pushed back into 2013
- Discussion of how to finalise the project, keeping all jurisdictions engaged

3:30 – 4:00 AFTERNOON TEA

7. Improving the process for production of future SAFS reports

- ABARES to outline issues identified through the current process
- Discussion of ways to avoid these issues in future editions of SAFS

8. Other business

5:00 pm – CLOSE

Status of Key Australian Fish Stocks - Planning Workshop 4

30 May 2012

Canberra, Department of Agriculture Fisheries and Agriculture

Agreed Outcomes and Actions

Attendee list: Ilona Stobutzki (ABARES), Matt Flood (ABARES), Peter Horvat (FRDC), James Andrews (DPI VIC), Caleb Gardner (Tas IMAS/DPIWE), Tim Ward (SARDI), Kevin Rowling (NSW), Thor Saunders (NT), Beth Gibson (AFMA), Ross Quinn (DAFF QLD), Rick Fletcher (WA Fisheries), Andy Moore (ABARES), Justin Roach (ABARES), Andrew O'Brien (ABARES)

Apologies: Keith Sainsbury (FRDC), Tony Smith (CSIRO), Bryan McDonald (NT), Charles Gray (NSW), David Galeano (AFMA), Sean Slone (PIRSA), Jodie Kemp (DPI VIC), Michelle Winning (DEEDI)

Main points

- Advisory Group agreed to take a central role in progressing project from this point forward
- Advisory Group to discuss new tight timeframes with all authors in their jurisdictions
- ABARES to produce summaries of progress for Advisory Group members from each jurisdiction
- Advisory Group to ensure all outstanding data is sent ABARES by Friday 1 June 2012
- Advisory Group to review all papers before returning these to ABARES for technical review, and again following technical review
- ABARES to draft SAFS introduction chapter and circulate to Advisory Group
- ABARES to provide an updated project timeline (attachment 1)
- ABARES to approach FRDC to change remaining milestones according to altered timeline
- Stock structure paragraph to be added to each chapter
- Advisory Group members to inform AFMF managers in their jurisdiction that SAFS reports will be provided to them for review in June
- Advisory Group members to identify potential sensitivities and provide this list to ABARES for circulation to AFMF.

Actions arising

Action	Actions arising	Responsibility	Progress
1	ABARES to circulate SAFS workshop 4 PowerPoint presentation which contains information on how to structure stock status determination language.	ABARES	Complete
2	Authors / Advisory Group to ensure that the stock structure heading is added and that relevant text is provided under this heading.	Authors, Advisory Group, ABARES	Ongoing
3	ABARES to change these headings [i.e. environmental headings] during the review process, authors will not be asked to make this change.	ABARES	Ongoing
4	For each species, lead and support Advisory Group members to come to a consensus on the appropriate number of years of data to present in	Advisory Group	Complete

	catch and indicator graphs.	<i>members</i>	
5	ABARES to prepare first draft of introductory chapter and provide to the Advisory Group for review (see attachment 1 - timeline).	<i>ABARES</i>	<i>Complete</i>
6	Advisory Group members to ensure that all outstanding data is sent to ABARES by <i>Friday 1 June 2012</i> .	<i>Advisory Group members</i>	<i>Complete</i>
7	Advisory Group members to ensure that authors finalise corrections from ABARES consistency review by <i>Friday 8 June 2012</i>	<i>Advisory Group members</i>	<i>Complete</i>
8	Advisory Group members (leads and supports) to have reviewed corrected chapters and returned these to ABARES for technical review by <i>Friday 15 June 2012</i> . Advisory Group members from both lead and support jurisdictions must have signed off on these chapters before they are returned to ABARES.	<i>Advisory Group members</i>	<i>Complete</i>
9	The Advisory Group to review all chapters for which their jurisdiction is lead or support again after ABARES technical review, before returning to ABARES.	<i>Advisory Group members</i>	<i>Complete</i>
10	The Advisory Group to inform the managers in their jurisdictions of any stocks with negative stock status classifications which may come as a surprise.	<i>Advisory Group members</i>	<i>Unknown</i>
11	ABARES to draft the introductory chapter for SAFS reports and circulate to the Advisory Group for comment. This is to be ready to circulate to AFMF with other drafts.	<i>ABARES</i>	<i>Circulated to Advisory group. Not to AFMF</i>
12	ABARES to formally provide all complete chapters to AFMF for management review. A request will be made for AFMF to forward these to relevant CEOs of fisheries management for comment but not for veto. Advisory Group will also create a list of potential sensitivities where the SAFS stock status indicates a stock is overfished or transitional.	<i>ABARES, Advisory Group</i>	<i>Complete</i>
13	ABARES to carry out technical review simultaneously with AFMF's fisheries managers review.	<i>ABARES, AFMF</i>	<i>Complete</i>
14	ABARES to produce an updated timeline for the project and send this to the Advisory Group.	<i>ABARES</i>	<i>Complete</i>
15	ABARES to provide each Advisory Group member with personalised update emails outlining outstanding issues for their jurisdiction.	<i>ABARES</i>	<i>Actioned/Complete</i>
16	Advisory Group members to provide an appropriate contact when they are away from the office or unable to discuss SAFS matters with ABARES or other jurisdictions.	<i>Advisory Group members</i>	<i>Actioned</i>
17	Advisory Group members to ensure all chapter authors are listed at the top of each chapter before returning chapters to ABARES for technical review.	<i>Advisory Group members</i>	<i>Complete</i>
18	Authors of each chapter to create one endnote file for each chapter.	<i>Authors</i>	<i>Partially complete</i>
19	ABARES to provide instructions for alternative method of providing reference lists for authors without access to endnote.	<i>ABARES</i>	<i>Complete</i>

20	Authors to provide full text PDFs for references used in stock status section. Other references are to be provided where possible.	<i>Authors</i>	<i>Partially complete</i>
21	FRDC to provide Advisory Group with instructions on how to save PDFs according to new government regulations.	<i>FRDC</i>	
22	Where PDFs have already been built, FRDC to convert these so they conform to new government regulations.	<i>FRDC</i>	

1. Challenges identified

ABARES outlined the current progress in the SAFS project and outlined a number of challenges in this process. These include:

- Improving adequacy of stock status text
 - Ensuring that this includes information on both biomass & fishing pressure
- Ensuring that stock status is provided for biological stocks (not management units or jurisdictions) when stock delineation is known
- Improving the timeliness of response to ABARES review comments
- Ensuring that support jurisdictions are engaged in the process of finalising the project
- Ensuring that the SAFS project is not viewed as a low priority by authors
- Ensuring a high level of engagement throughout June and July to ensure deadlines are met
- Ensuring that authors adhere to the agreed SAFS template, terminology and recommended language
- Ensuring conformity to the national framework rather than cutting and pasting information from jurisdictional reports

2. Stock status determination:

- It was reaffirmed that stock status language should include information on both **biomass** and **fishing pressure** and ABARES outlined how to use the recommended stock status language document.
- It was agreed that at least one Key Performance Indicator (KPI) should be provided when using the weight of evidence approach to determine stock status. These KPIs should also be graphed in the ‘indicator graphs’.
- It was reaffirmed that this version of SAFS will focus on 2010 data and nothing subsequent to this. If it is known that a stock has changed significantly since 2010 this information can be added as a footnote to table 1.
- When stocks are overfished or decreasing and this is due to environment rather than fishing pressure this should be outlined under the heading ‘Environmental effects on species X stocks’

Action 1: ABARES to circulate SAFS workshop 4 PowerPoint presentation which contains information on how to structure stock status determination language.

3. Stock Structure – new heading

The Advisory Group has agreed to add the new heading ‘**Stock Structure**’ below table 1 and above the ‘**Stock Status**’ heading. Authors are to provide text here on what is known about stock delineation for the species being considered.

- **When stock structure is known:** this text should indicate where the stocks are located, thus clearly providing the rationale for the breakdown of stocks presented in table 1 and the stock status text.

- **When stock delineation is uncertain:** this text should explain that this is the case and outline that since stock structure is unknown reporting in table 1 and stock status text is presented on a jurisdictional basis or a management unit basis rather than a biological stock basis.
- **When there are very large numbers of stocks:** (e.g. Abalone, for which Tasmania alone has ~228 stocks) then an explanation should be provided stating this and stating that reporting will be at the jurisdictional level.

In text referencing should be used in this section to provide evidence for the stock delineation presented. This new heading negates the need for the ‘stock structure’ text in table 2, hence this will be removed.

Action 2: Authors / Advisory Group to ensure that the stock structure heading is added and that relevant text is provided under this heading.

4. Environment headings

The Advisory Group has agreed that the environmental headings will now be:

- *Effects of fishing on the marine environment*
- *Environmental effects on species X stocks*

Action 3: ABARES to change these headings during the review process, authors will not be asked to make this change.

5. Catch graph and indicator graph

It was reaffirmed that the catch graphs for each species can and should go back further than ten years where this is needed to properly describe stocks, the exception to this being where data is not available.

It was also agreed that the length of data provided for both the catch and indicator graphs should match.

Action 4: For each species, lead and support Advisory Group members to come to a consensus on the appropriate number of years of data to present in catch and indicator graphs.

6. Introductory chapter

It was agreed that the introduction chapter should explain that terms such as fishing mortality and biomass are used in a broad sense in the SAFS reports.

The introductory chapters should also provide:

- A statement that this edition of the SAFS reports will only deal with data up to 2010
- A conceptual explanation of stock status
- An indication that we are interested in stock abundance for ... reasons.
- An indication that we are interested in fishing pressure for these ...reasons.
- An explanation of why these pieces of information are important for assessing stock status.
- A statement outlining that all management is adaptive and that changing management response does not indicate a failure of management.

Action 5: ABARES to prepare first draft of introductory chapter and provide to the Advisory Group for review (see attachment 1 - timeline).

7. Clarification of roles and responsibilities

The Advisory Group has reaffirmed that they will be the main point of contact for chapters they have lead or support responsibilities for and that they will communicate directly with their authors about issues relating to chapters. The Advisory Group has committed to adhering to timelines (attachment 1).

Advisory Group members agreed to the following actions:

Action 6: Advisory Group members to ensure that all outstanding data is sent to ABARES by ***Friday 1 June 2012.***

Action 7: Advisory Group members to ensure that authors finalise corrections from ABARES consistency review by ***Friday 8 June 2012.***

Action 8: Advisory Group members (leads and supports) to have reviewed corrected chapters and returned these to ABARES for technical review by ***Friday 15 June 2012.*** Advisory Group members from both lead and support jurisdictions must have signed off on these chapters before they are returned to ABARES.

Action 9: The Advisory Group to review all chapters for which their jurisdiction is lead or support again after ABARES technical review, before returning to ABARES.

Action 10: The Advisory Group to inform the managers in their jurisdictions of any stocks with negative stock status classifications which may come as a surprise.

Action 11: ABARES to draft the introductory chapter for SAFS reports and circulate to the Advisory Group for comment. This is to be ready to circulate to AFMF with other drafts.

Action 12: ABARES to formally provide all complete chapters to AFMF for management review. A request will be made for AFMF to forward these to relevant CEOs of fisheries management for comment but not for veto. Advisory Group will also create a list of potential sensitivities where the SAFS stock status indicates a stock is overfished or transitional.

Action 13: ABARES to carry out technical review simultaneously with AFMF's fisheries managers review.

Action 14: ABARES to produce an updated timeline for the project and send this to the Advisory Group.

Action 15: ABARES to provide each Advisory Group member with personalised update emails outlining outstanding issues for their jurisdiction.

Action 16: Advisory Group members to provide an appropriate contact when they are away from the office or unable to discuss SAFS matters with ABARES or other jurisdictions.

8. Authorship

The Advisory Group has asked that authors be listed at the top of chapters rather than the end. The Advisory Group also requested that they each be included in the list of editors.

Action 17: Advisory Group members to ensure all chapter authors are listed at the top of each chapter before returning chapters to ABARES for technical review.

9. Endnote list:

The Advisory Group has reaffirmed their agreement (workshop 3) that one endnote file (or endnote compatible file) be created for each chapter by the lead jurisdictions. Authors should also note that in-text referencing should be used throughout each chapter.

Action 18: Authors of each chapter to create one endnote file for each chapter.

Action 19: ABARES to provide instructions for alternative method of providing reference lists for authors without access to endnote.

10. Full text PDFs:

The Advisory Group has agreed that full references will be provided for the stock status text. Given the central role of stock status classifications in the chapters these references are needed for readers to verify the validity of the arguments presented.

Action 20: Authors to provide full text PDFs for references used in stock status section. Other references are to be provided where possible.

Action 21: FRDC to provide Advisory Group with instructions on how to save PDFs according to new government regulations.

Action 22: Where PDFs have already been built, FRDC to convert these so they conform to new government regulations.

11. Improving the process for production

- Post-hoc analysis of the project cost would be valuable for determining the real cost of producing an edition of SAFS
- A funding model needs to be developed for future versions of SAFS
- There is support from the Advisory Group in continuing this process and producing SAFS reports into the future. It was agreed that there is a need to assess the social impact of the reports and FRDC indicated they were interested in facilitating this.
- It was noted that the benchmarks for the SAFS reports may be revisited and re-clarified before future editions.
- Given that there will be well developed templates for the next edition of SAFS the Advisory Group agreed that it should be an easier process next time.
- Advisory Group need to be more engaged in the process of producing these reports in future
 - Workshops should be run with authors at the beginning of the process
 - Regular updates need to be provided to individual advisory group members by project managers
 - Strategies need to be developed to recognise and respond to challenges as they arise

Status of Key Australian Fish Stocks Advisory Group - Workshop 5	Location: Teleconference
Facilitating Agency: ABARES Fisheries and Quantitative Sciences	Date: 8 August 2012

Time: 1:00 pm – 4:00 pm

Chair: Dr Ilona Stobutzki, Assistant Secretary, Fisheries and Quantitative Sciences

AGENDA

Workshop Objectives

- *update the Advisory Group on SAFS progress and discuss outstanding issues*
- *update the project timeline*
- *clarify the role of the Advisory Group in final stages of review*
- *inform AFMF of project progress*
- *identify subsequent flow-on projects following SAFS*

1:00 pm START

1. Introduction

- *Status of Key Australian Fish Stocks (SAFS) workshop 5 objectives – Dr Ilona Stobutzki, ABARES*
- *Actions arising from SAFS workshop 4*

2. Project update

- *ABARES to outline current progress on the SAFS project*
 - *Consistency review – complete for all but pink snapper and eastern rock lobster chapters (Action 7 & 8 – workshop 4)*
 - *Technical review – complete for all but pink snapper, eastern rock lobster, dusky shark (scheduled for completion 7 August 2012)*
 - *AFMF review – scheduled to be completed 7 August 2012 (note: pink snapper, eastern rock lobster and dusky shark have not yet been forwarded on to AFMF).*
 - ***All comments (from AFMF managers review and ABARES technical review) back to Advisory Group members by 7 August 2012***
 - ***One week turn around on final corrections before circulation to FRDC, earlier is better if possible*** (action 9 – workshop 4)

3. Outstanding issues (discussion)

- *Plan for advancing the remaining incomplete chapters*
- *Endnote files and electronic copies of references*

4. Project timeline and key dates

- *ABARES to briefly outline the current timeline*
- *Discussion of how to finalise the project, keeping all jurisdictions engaged*

5. Clarification of roles and responsibilities

- *Discussion of Advisory Group roles and responsibilities*

6. Discussion on keeping AFMF informed

7. Subsequent projects following SAFS

- *Discussion on subsequent flow-on projects to SAFS and steps for developing these*

8. Other business

4:00 pm – CLOSE

Status of Key Australian Fish Stocks - Workshop 5

8 August 2012

Teleconference

Agreed Outcomes and Actions

Attendee list: Ilona Stobutzki (ABARES), Matt Flood (ABARES), Patrick Hone (FRDC), Crispian Ashby (FRDC), Peter Horvat (FRDC), Keith Sainsbury (FRDC), Tony Smith (CSIRO), Gavin Begg (SARDI), Tim Ward (SARDI), Kevin Rowling (NSW Fisheries), Ross Quinn (QLD DAFF), Daniel Gaughan (WA Fisheries), Brent Wise (WA Fisheries), Caleb Gardner (Tas IMAS/DPIWE), Thor Saunders (NT DoR), Jodie Kemp (DPI VIC), Justin Roach (ABARES), Andrew O'Brien (ABARES)

Apologies: James Andrews (DPI VIC), Rick Fletcher (WA Fisheries), Beth Gibson (AFMA), Bryan McDonald (NT DoR), Charles Gray (NSW Fisheries), Sean Sloan (PIRSA), Michelle Winning (QLD DAFF)

Actions arising

Action	Actions arising	Responsibility	Progress
1	Advisory group members involved in pink snapper, eastern rock lobster and dusky shark chapters to engage relevant authors to finalise these chapters.	Advisory Group members	Mostly Complete
2	Advisory Group members to contact AFMF managers in their jurisdictions to ensure management reviews of SAFS chapters are returned as soon as possible.	Advisory Group members	Unknown
3	All chapters to be returned to ABARES on or before 14 August 2012 by Advisory Group, with AFMF and ABARES technical review comments incorporated, ready for FRDC review.	Advisory Group members	Incomplete
4	ABARES to circulate SAFS intro again by Friday 10 August 2012.	ABARES	Incomplete
5	ABARES to meet with FRDC on week starting 13 August.	ABARES / FRDC	Complete
6	ABARES to contact Advisory Group members in relevant jurisdictions to request that outstanding chapters be completed ready for technical review by the end of the week (Friday 10 August 2012).	ABARES	complete
7	ABARES to circulate email updates to Advisory Group members outlining which endnote files and PDFs have not yet been received.	ABARES	Incomplete
8	Advisory Group members to ensure that outstanding endnote files and PDFs are sent to ABARES.	Advisory Group members	Incomplete
9	ABARES to work with FRDC to produce a SAFS briefing outline.	ABARES	Incomplete
10	ABARES to developed a baseline PowerPoint for directors of fisheries around Australia.	ABARES	Incomplete
11	Advisory Group to continue to monitor progress on chapters by authors and provide guidance where required.	Advisory Group members	Unknown
12	ABARES to include authors in all correspondence regarding species	ABARES	Impleme

	chapters.		<i>nted where required</i>
13	ABARES to prepare an update on the SAFS project for AFMF.	<i>ABARES</i>	<i>Complete</i>
14	A resource assessment class classification system will not be included in the current SAFS project but will be considered for the next edition.	<i>Advisory Group members</i>	<i>Noted</i>
15	ABARES to meet with FRDC to discuss stock status assessment technical summary / matrix.	<i>ABARES / FRDC</i>	
16	ABARES to look into possible solutions for ‘undefined’ management response issue.	<i>ABARES</i>	
17	If in doubt that a Queensland DAFF staff member has received your email, please send again.	<i>All</i>	<i>Complete</i>

1. Project update

ABARES outlined current progress on the SAFS project:

- Consistency review – complete for all but pink snapper and eastern rock lobster chapters.
- Technical review – complete for all but pink snapper, eastern rock lobster, dusky shark .
- AFMF review – scheduled to be completed 7 August 2012. Pink snapper, eastern rock lobster and dusky shark have not yet been forwarded on to AFMF. Three AFMF reviews received so far. Due 7 August 2012. ABARES have requested that Advisory Group members contact AFMF managers in their jurisdictions to ensure these reviews of SAFS chapters are returned as soon as possible.
- All comments (from AFMF managers review and ABARES technical review) scheduled to be back to Advisory Group members by 7 August 2012.
- One week turn around on final corrections before circulation to FRDC, earlier is better if possible. Chapters must be back with ABARES by 14 August 2012.
- ABARES requested that all corrections be made to the technically reviewed version of the chapters (circulated by ABARES) to ensure that version control is maintained.
- ABARES have indicated that they will circulate an updated version of the SAFS introductory chapter by Friday 10 August 2012.
- FRDC have requested that an absolute deadline be set for finalisation of outstanding chapters.
- FRDC have requested a meeting with ABARES to discuss deadlines.

Action 1: Advisory group members involved in pink snapper, eastern rock lobster and dusky shark chapters to engage relevant authors to finalise these chapters.

Action 2: Advisory Group members to contact AFMF managers in their jurisdictions to ensure management reviews of SAFS chapters are returned as soon as possible.

Action 3: All chapters to be returned to ABARES on or before 14 August 2012 by Advisory Group, with AFMF and ABARES technical review comments incorporated, ready for FRDC review.

Action 4: ABARES to circulate SAFS intro again by Friday 10 August 2012.

Action 5: ABARES to meet with FRDC on week starting 13 August.

2. Outstanding issues (discussion)

- Outstanding chapters are
 - Pink snapper

- Eastern rock lobster
- Dusky shark
- ABARES reminded the Advisory Group of the need to send endnote files (or endnote compatible files) for each chapter and full PDF references for all references used in the stock status text.

Action 6: ABARES to contact Advisory Group members in relevant jurisdictions to request that outstanding chapters be completed ready for technical review by the end of the week (Friday 10 August 2012).

Action 7: ABARES to circulate email updates to Advisory Group members outlining which endnote files and PDFs have not yet been received.

Action 8: Advisory Group members to ensure that outstanding endnote files and PDFs are sent to ABARES.

3. Project timeline and key dates

- ABARES outlined the current timeline (attachment 1) and highlighted the need to meet deadlines to ensure publication of SAFS before the end of 2012.
- FRDC requested ABARES to work with them to produce a draft briefing outline for the SAFS project, focusing on informing government, key industry councils, key environmental NGOs and researchers of the project. The aim being to ensure these stakeholders understand that the SAFS reports will be a scientifically robust product.
- FRDC have also requested the development of a baseline PowerPoint display by ABARES with a common set of information for the directors of fisheries around Australia.

Action 9: ABARES to work with FRDC to produce a SAFS briefing outline.

Action 10: ABARES to develop a baseline PowerPoint for directors of fisheries around Australia.

4. Clarification of roles and responsibilities

- ABARES highlighted the importance of Advisory Group members coordinating the efforts of authors in their jurisdictions in order to ensure that the current SAFS deadlines are met.
- ABARES circulated a recent email reaffirming the roles and responsibilities (see attachment 2).
- The Advisory Group have requested that emails relating to chapter corrections be cc'd to the authors as well as themselves. However, the responsibility for oversight of the authors and for deadlines being met by the authors rests with the Advisory group members.

Action 11: Advisory Group to continue to monitor progress on chapters by authors and provide guidance where required.

Action 12: ABARES to include authors in all correspondence regarding species chapters.

5. Discussion on keeping AFMF informed

FRDC have requested that ABARES write to Ian Curnow, the chair of AFMF, with a briefing on the current progress of the SAFS reports, that can be used to keep other AFMF members and fishery managers informed of the project and its importance. The briefing should acknowledge that the SAFS reports are a very high priority for both AFMF and FRDC, and outline the current progress and the intended date of publication.

Action 13: ABARES to prepare an update on the SAFS project for AFMF.

6. Subsequent projects following SAFS

- A discussion occurred on subsequent flow-on projects to SAFS and steps for developing these. FRDC have indicated they are likely to commit to a further 2 editions of the SAFS reports. The reports would ideally be

produced every two years (2012, 2014, 2016). FRDC have indicated that an application for the next edition should be prepared for the FRA round for 2013.

- FRDC have requested that linkages be formed between complementary existing projects and future editions of SAFS. For example the National harvest strategy project.
- FRDC have highlighted the importance of working towards a triple bottom line framework for the national reports that includes social indicators and economic indicators as well as the biological indicators already considered.
- FRDC have suggested an application for funding be prepared for February next year exploring how to improve the process for producing future SAFS reports. It is important that the impact of the first edition of SAFS be documented.
- FRDC has reminded the Advisory Group of the need to work towards developing a Fish Stock Sustainability Index (FSSI) for Australian fish stocks. This type of tracking system is currently used by NOAA in their ‘Status of Stocks – 2010 Report on the Status of U.S. Fisheries’ (<http://www.nmfs.noaa.gov/...>) on page 2, under the title ‘tracking progress’.
- It was highlighted that further work is required to determine how to apply the national SAFS framework to the jurisdictional process of stock status reports. A number of jurisdictions have indicated their interest in using a similar framework for their own reports.
- AFMF plan on discussing how to ensure that state/territory and National reports match up at their next meeting.

7. Other business

Resource Assessment Classes (RACs) for stock status determination evidence

A discussion took place on the potential use of a simple index system for the assessment stock status classification methods. Given that the methods used to assess stock status vary, ranging from simple catch levels up to complex stock assessments it was recommended that a category (e.g. 1 to 5) be allocated to each stock depending on the method used to assess it. The category would provide a basic indication of the robustness of assessment used.

Whilst it was agreed that this was a good idea it was recommended that this not take place in the current project given tight timelines already in place. It was also noted that if this type of system was to be used in future editions it will be important to meld these categorisations with management given that even when large variability exists in estimates from stock assessments, management may ensure stocks are sustainably fished by allowing for the variability in management, i.e. being more conservative when less is known. An assessment may be based on minimal data but this may still fit within the harvest strategy for the stock.

FRDC have recommended the production of a technical summary to sit alongside the SAFS reports outlining the different methods that can be used to assess stock status given differences in data availability. FRDC have also suggested that this could be incorporated in a basic matrix to be included in the introduction chapter.

Action 14: A resource assessment class classification system will not be included in the current SAFS project but will be considered for the next edition.

Action 15: ABARES to meet with FRDC to discuss the above issues further.

Undefined classification

For some stocks classified as undefined managers have indicated that they do not feel it is reasonable for the expected management response to be: ‘*Management needs to identify data required to remove stock from this category and put in place measures to obtain these data.*’ It has been suggested that for some stocks there is little that could be done to remove the stock from the undefined category and management feel uncomfortable with language that requires a response on their part.

Action 16: ABARES to look into possible solutions.

Major IT issues in Queensland

Ross Quinn has indicated that people may need to re-send emails if in doubt that he has received them. He will reply in confirmation to the emails of others, if you don't get a reply please send the email again or contact Ross by phone.

Action 17: If in doubt that a Queensland DAFF staff member has received your email, please send again.