



Australian Government

Australian Fisheries Management Authority

Great Australian Bight Management Advisory Committee (MAC) Meeting

Minutes

11 September 2017 Teleconference

Attendees

Members	
Mr Barry Windle	GABMAC Chair
Mr Lance Lloyd	Scientific member, Federation University Australia
Mr Peter Trott	Environmental member
Mr Christian Pyke	Industry member
Ms Marcia Valente	Industry member
Dr Brigid Kerrigan	AFMA member
Ms Julie Cotsell	A/g Executive Officer, AFMA
Ms Cate Coddington	Observer

1. Preliminaries

1.1 Welcome & Apologies

1. The Chair opened the meeting and welcomed members and other participants at 14:07, Monday 11 September 2017.
2. The MAC noted an apology from Mr Jim Raptis.

1.2 Declarations of Interest

3. The Chair reminded MAC members of their requirement to declare their interests as described in Fisheries Administration Paper 12 (FAP 12). An updated list of the full conflict of interest declarations made by the GABMAC members and other participants is at [Attachment 1](#):
 - a. Ms Marcia Valente requested a correction from AFMA to industry member. Ms Valente is a representative of a holder of statutory fishing rights in the GABT.
 - b. Christian Pyke informed that he also undertakes consultative services for industry.
4. The attendance of all members and observers was supported for each of the discussions under each of the agenda items.

ACTION ITEM #1 – Christian Pyke to provide information relating to his consultative services for industry.

1.3 Adoption of Agenda

5. Christian Pyke proposed to raise an item to discuss in 'other business':
 - a. SESSF annual research statement - the costs of some items were queried at SESSF RAG with the aim of identifying any costs relevant to the GAB that industry were not aware of.
6. The MAC adopted the agenda as read at [Attachment 2](#).

2. Data and research

2.1 GAB 2018/19 Annual Research Statement

7. GABMAC SUPPORTS the GAB Annual Research Statement (ARS) as tabled
NOTING:
- a. that the ARS will need to include amendments that were picked up by GABRAG, these are non-controversial. The following items, including amendments, were outlined:
 - i. conduct CPUE standardisation for two quota species in the GAB is a standing item
 - ii. “Fishery Independent Survey” project is to be removed from the ARP as it is relevant to the cost recovery budget not the research expressions of interest process.
 - iii. ISMP data services (CSIRO) and ISMP (observer) programme will continue to be rolled over
 - iv. Fish ageing is undertaken by “fish ageing services’ which is a contract for three years across the entire SESSF.
 - v. the project “examining factors which impact on the profitability of the GAB” was approved by ComFRAB and FRDC and will commence in 2018-19.
 - b. GABMAC AGREED to remove the ERA line from the Annual Research Statement as the SESSF ERAs will be completed this financial year.
 - c. GABMAC AGREED to include the project “quantifying reductions of bycatch and discards in the GABTS” in the ARS and to adjust the cost from “low” to “medium” NOTING that:
 - i. it still needs further detail added
 - ii. it was circulated to the MAC in the morning (11/9) and to the RAG members on Friday (8/9) and comments still need to be provided by members of both groups
 - iii. the project has been extended since discussion by the RAG as it develops a methodology to further reduce discards through the use of electronic net monitoring equipment and T90 codends being utilised within the GABTF.
 - iv. the EOI will need to address the risk that there may not be sufficient ISMP data using that desktop approach versus a more expensive approach running a trial under an experimental framework
8. GABMAC NOTED that there may be potential cross over between the GAB profitability project and the SESSF ARS “maximising economic returns for the Australian community” and may be possible to consolidate the research projects with FRDC.

ACTION ITEM #2 – Approval for the ARP will be sought through the finalisation of the minutes ([Attachment 3](#)).

2.2 GAB Trawl Sector Bycatch and Discard Workplan 2017-19

9. GABMAC NOTED that:
- a. it is a legislative requirement to have a Bycatch and Discard Workplan

- b. the *Great Australian Bight Trawl Sector Bycatch and Discard Workplan 2014-16* expired in 2016.
 - c. the new Workplan (2017-19) will effectively be a bridging workplan. A new workplan will be developed following the outcomes of the ERA that will be undertaken in early 2018.
 - d. the 2017-19 Workplan needs to be updated to incorporate changes discussed at the GABRAG and captured in the RAG minutes
10. GABMAC unanimously SUPPORTED the *Great Australian Bight Trawl Sector Bycatch and Discard Workplan 2017-19 (Attachment 4)* which contains the edits as discussed in the MAC meeting (as recorded in the minutes of the GABRAG).

ACTION ITEM #3 – Dr Brigid Kerrigan to circulate the updated Bycatch and Discard workplan to the MAC and RAG.

3. Other business and close of meeting

3.1 CSIRO stock assessment 2018-21 costs

11. GABMAC NOTED:
- a. the concerns raised regarding the distribution of costs to the GAB trawl sector for undertaking the CSIRO stock assessment 2018-21 project
 - b. that this concern has also been recorded in the GABRAG minutes

ACTION ITEM #4 – AFMA and GABIA to discuss distribution of costs at the quarterly budget discussion separately to GABMAC.

The Chair thanked the members and closed the meeting at 1435.

Attachments

- 1) List of declared conflicts of interest
- 2) Adopted agenda
- 3) GAB Annual Research Statement 2018-19
- 4) GAB Trawl Sector Bycatch and Discard Workplan 2017-19

Declared Conflicts of Interest

Member	Declared Interest
Mr Barry Windle, Chair	No pecuniary interest or otherwise
Dr Brigid Kerrigan, AFMA	Employed by AFMA, no pecuniary interest or otherwise, AFMA Member on SERAG, GABRAG.
Ms Marcia Valente, Industry member	No pecuniary interest or otherwise
Mr Christian Pyke, Industry Member	Great Australian Bight Industry Association (GABIA) Executive Officer; Industry member on GABRAG & GABMAC; GABIA receives funding from various bodies to complete projects; Provision of independent consultancy service to Australian seafood industry; Managing Director of Fisheries Asset Brokers; No pecuniary interest.
Mr Lance Lloyd, Scientific member	Research fellow Federation University Australia. Director of Lloyd Environmental, SESSFRAG and GABMAC member, no interest pecuniary or otherwise.
Mr Peter Trott, Environment	Independent consultant. No pecuniary interest. Working in markets, supply chains and MSC certification. On the MSC board of trustees.
Ms Julie Cotsell, AFMA	Employed by AFMA. No interest, pecuniary or otherwise.
Apologies	Declared Interest
Mr Jim Raptis, Industry	n/a
Observers	Declared Interest
Ms Cate Coddington, AFMA	Employed by AFMA, no interest, pecuniary or otherwise.

Adopted Agenda

Date	11 September 2017	Location	Teleconference
Time	1400 AEST	Chair	Barry Windle

Time	Agenda Item	Decision	Presenter
14:00	1. Preliminaries		
	1.1 Welcome and Introductions / Apologies 1.2 Declarations of interest 1.3 Adoption of agenda		Barry Windle All members Barry Windle
14:15	2. Data and research		
	2.1 GAB 2018/2019 Annual Research Plan 2.2 GAB Trawl Sector Bycatch and Discard Workplan 2017-19	For Decision For Decision	Brigid Kerrigan/ Christian Pyke Brigid Kerrigan
15:00	3. Other business and close of meeting		

GAB Annual Research Statement for 2018-19

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Australian Government

Australian Fisheries Management Authority

Annual Research Statement 2018-19

Great Australian Bight Trawl Sector

• **Great Australian Bight Trawl Sector Annual Research Statement for 2018-19**

The Great Australian Bight Trawl Sector (GABTS) Annual Research Plan is developed by AFMA, in consultation with the Great Australian Bight Resource Assessment Group (GABRAG) and the Great Australian Bight Management Advisory Committee (GABMAC). In developing the Plan consideration is given to the broader Southern and Eastern Scalefish and Shark Fishery Five Year Strategic Research Plan (SESSF Research Plan 2015-2020).

AFMA funding in 2018-19 (AFMA Research Committee; ARC)

Title	Objectives and component tasks	Evaluation		
		Total cost (\$) (approx. only)	Priority/ rank	Feasibility
CURRENT				
Assessment of target species	Conduct CPUE standardisation for Deepwater flathead	Low	Essential	High
	Conduct CPUE standardisation for Bight redfish	Low	Essential	High
ISMP data services contract	Conduct analysis and reporting of ISMP data and industry based sampling data	Low	Essential	High
Integrated Scientific Monitoring Program	2018 At-sea Observer Program & Logbooks	Med	Essential	High
Fish Ageing and length frequency	Undertake fish ageing and length frequency analysis	Low	Essential	High
NEW				

Title	Objectives and component tasks	Evaluation		
		Total cost (\$) (approx. only)	Priority/rank	Feasibility
Quantifying reductions of bycatch and discards in the GABTS	Undertake a desktop study using logbook and observer data to compare historic discard rates versus recent discard rates following gear innovations.	Med	High	High

FRDC funding in 2018-19 (Commonwealth Research Advisory Committee; ComRAC)

Title	Objectives and component tasks	Evaluation		
		Total cost (approx. only)	Priority/rank	Feasibility
Examining factors which impact on the profitability of the GAB	Future proofing the GABTS – investigation of business models that maximise fishery economic returns to the Australian community	High	ComFRAB and FRDC approved	High

Cost

- High: >\$200,000
- Medium: \$100,000 - \$200,000
- Low: <\$100,000

Management priority categories

Essential

- High
- Medium
- Low

Feasibility categories

High

- Medium
- Low

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GAB Trawl Sector Bycatch and Discard Workplan 2017-19

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Introduction

In carrying out its functions, the Australian Fisheries Management Authority (AFMA) must pursue objectives in the *Fisheries Management Act 1991*, including having regard to the impact of fishing activities on non-target species and the long term sustainability of the marine environment.

Under the *Southern and Eastern Scalefish and Shark Fishery Management Plan 2003*, AFMA is required to develop and implement a bycatch action plan (now referred to as a Bycatch and Discarding Workplan) to ensure that information is gathered about the impact of the Great Australian Bight Trawl Sector (GABTS) on bycatch species, that all reasonable steps are taken to minimise incidental interactions with threatened, endangered and protected (TEP) species, and that the ecological impacts of fishing on habitats are minimised.

This Workplan covers otter board trawling in the Great Australian Bight Trawl Sector (GABTS). It has been developed to support the overall objectives of the *Southern and Eastern Scalefish and Shark Ecological Risk Management (ERM) Strategy*. They are to:

- reduce the number of high risks assessed through AFMA's Ecological Risk Assessment process
- minimise interactions with species listed under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act)
- reduce discarding of target and non-target species to as close to zero as practically possible
- minimise overall bycatch in the fishery over the long-term.

Action items for the period 2017-19 are outlined in Table 3 of this document. Progress against action items from the 2014-16 Great Australian Bight Trawl Fishery Bycatch and Discarding Workplan (2014-16 GABTF workplan) are outlined in the final report, available on the AFMA website at <http://www.afma.gov.au/managing-our-fisheries/environment-and-sustainability/bycatch-and-discarding/>

Some actions from the 2014-16 GABTS Workplan have been carried over to the 2017-19 Workplan.

This Workplan should be read in conjunction with:

- *Commonwealth Policy on Fisheries Bycatch 2000 and AFMA's Program for Addressing Bycatch and Discarding in Commonwealth Fisheries: an implementation Strategy 2008*
- *Southern and Eastern Scalefish and Shark Fishery Management Plan 2003*
- *Ecological Risk Management –Report for the Great Australian Bight Trawl Sub-Fishery of the Southern and Eastern Scalefish and Shark Fishery, Australian Fisheries Management Authority, Canberra, Australia December 2008*
- *Commonwealth Fisheries Harvest Strategy Policy and Guidelines 2007.*

Fishery description

The GABTS is a sector of the SESSF and extends from Cape Leeuwin, Western Australia, to Cape Jervis near Kangaroo Island, South Australia (Figure 1). The sector excludes state (SA and WA) fishery shelf waters to the extreme east and west which have traditionally been fished by state based fishers. The GABTS is a multi-species trawl fishery covering a broad spectrum of ecological and depth strata. The sector is primarily a demersal (bottom) trawl sector based on regular trawling of shelf species and periodic trawling for the deeper dwelling species.

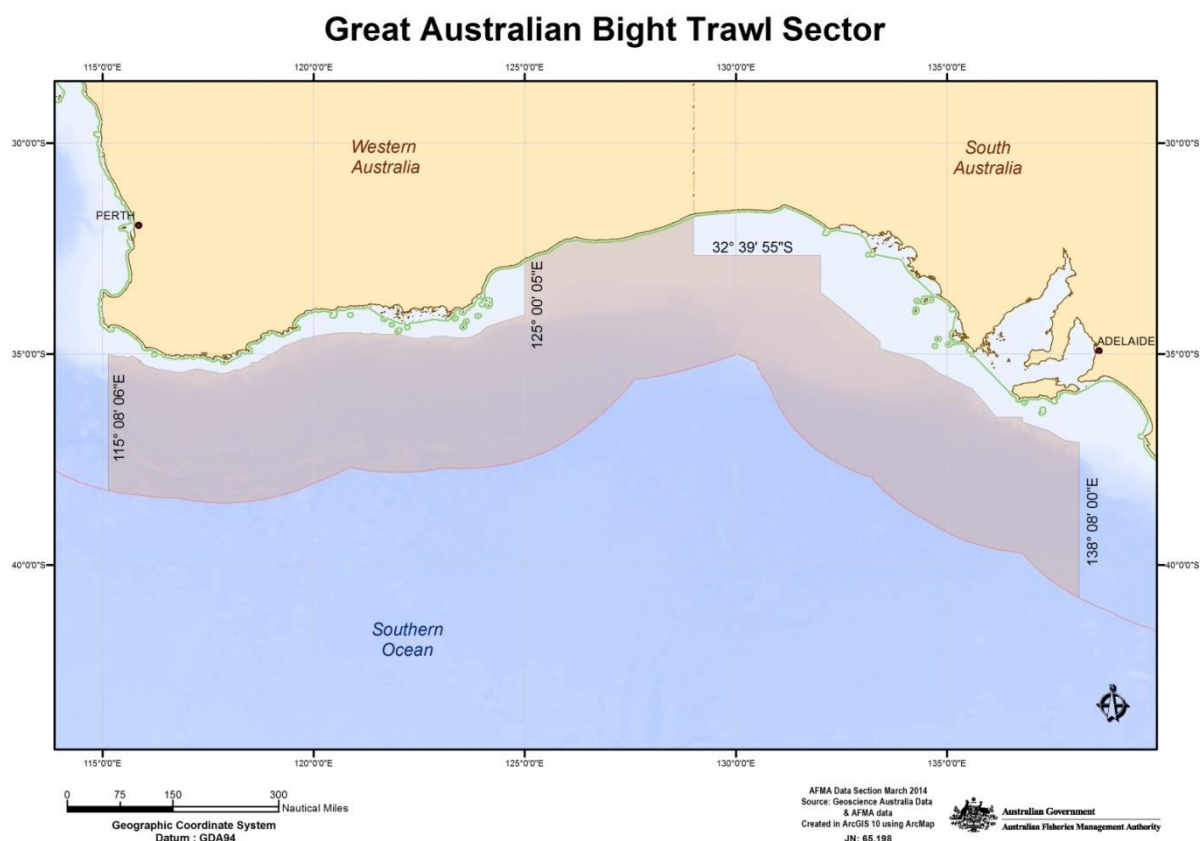


Figure 1 Area of the Great Australian Bight Trawl Sector.

The GABTS is managed through a system of output controls based on Total Allowable Catches (TACs) for seven species:

- Bight redfish (*Centroberyx gerrardi*)
- Deepwater flathead (*Neoplatycephalus conatus*)
- Orange roughy (*Hoplostethus atlanticus*)
- School shark (*Galeorhinus galeus*)
- Gummy shark (*Mustelus antarcticus*)
- Sawshark (*Pristiophorus cirratus* & *Pristiophorus nudipinnis*)
- Elephantfish (*Family Callorhynchidae* & *Rhinochimaeridae*)

Historically, orange roughy have been an important deep water target species, in depths of 750 to around 1,200 metres. However, there is now no commercial targeting of orange roughy and a research program is in place to assist in determination of the stock status of GABTS orange roughy.

The distribution of trawling in the GABTS is across a very small area with most of the effort in the fishery concentrated on the upper continental shelf and slope, in depths ranging from 100 to 400 metres. Given the management boundaries of the fishery and bottom terrain (making many areas difficult to trawl), this effort mostly occurs across a relatively small longitudinal range, from about 126° East to 133° East.

Generally, trawling is considered to be a relatively non-selective fishing method, catching a range of species of varying sizes in any one shot. Over 100 species of teleosts (bony fish), chondrichthyans (sharks and rays) and invertebrates are harvested in the GABTS. A smaller number of species, presently considered to be of no commercial value, are discarded during fishing.

Process for Workplan Development

The 2017-19 GABTS workplan is designed to build upon the progress made within the GABTS under the previous GABTS Bycatch and Discarding Workplan and to identify strategies to assist the GABTS in continuing to reduce overall bycatch and discarding.

In developing a workplan for a specific fishery, several aspects need to be considered and steps undertaken before a workplan can be implemented. In developing the 2017-19 GABTF workplan, the following process was taken:

1. High risk species identified in the ERA process were considered
2. General bycatch issues in the fishery were identified and considered
3. Analysis of progress of action items listed in the previous workplan e.g. what was achieved, are there any outstanding items?
4. Developed workplan in consultation with the Great Australian Bight Management Advisory Committee (GABMAC) and the Great Australian Bight Industry Association (GABIA)

Workplan activities

The activities to be completed as part of this Workplan are detailed as action items in Table 3. Generally they aim to:

- address the current lack of information on catches of high risk ERA species groups (cuttlefishes and octopods)
- improve skipper consistency in reporting bycatch and discards and make revisions to the established Integrated Scientific Monitoring Program (ISMP) to address concerns over resolution of reporting teleosts and chondrichthyans to species level
- increase the fisheries utilisation of bycatch and byproduct species
- maintain efficacy of seabird mitigation measures implemented in the GABTS.

Additional action items may be added during the period of this workplan if they are consistent with the objectives and there is capacity to undertake further projects.

Ecological Risk Assessment Results

The Ecological Risk Assessment (ERA) process is undertaken to determine the impact of fishing on marine species and habitats. Assessment of marine species is based on a series of parameters including life history, biological productivity and susceptibility to fishing gear. It involves a hierarchy of risk assessment methodologies progressing from a

comprehensive, largely qualitative analysis at Level 1, through a Level 2 Productivity Susceptibility Assessment (PSA) to a quantitative analysis at Level 3 Sustainability Assessment for the Effects of Fishing (SAFE). This approach is a means of screening out low impact activities and low risk species and focusing more intensive and quantitative analyses on those species assessed as being of higher potential risk from the impact of fisheries. For the detailed methodology please refer to *Ecological Risk Assessment for the Effects of Fishing: Methodology* (Daley et al, 2007) or see <http://www.afma.gov.au/managing-our-fisheries/environment-and-sustainability/ecological-risk-management/#sessf>

The highest level of assessment undertaken in the GABTS was the Sustainability Assessment of Fishing Effects (SAFE) for teleost and chondrichthyans, and a Residual Risk Analysis of Level 2 PSA results for all other species. No teleost and chondrichthyan species were assessed as high risk after SAFE, while two species groups (octopods and cuttlefishes) were assessed as being at high risk from otter trawl fishing in the GABTS based on a Level 2 PSA. These are detailed in Table 1. These species groups were identified as at high risk due to a lack of information. To maintain a conservative approach to the assessments, AFMA's Level 2 and Level 3 risk assessment apply a high risk score in situations where a lack of information hampers quantification of a metric.

A SESSF ERA is due to be updated during 2017-18. The results from this update will be used to inform subsequent Bycatch and Discarding Workplans which will form part of an overall Fisheries Management Strategy (FMS).

Table 1: High risk species groups identified from the Residual Risk Assessment of Level 2 Productivity Susceptibility Analysis for the GABTS.

Scientific Name	Common Name	Role in Fishery	Highest Level of Assessment	Risk Score	Addressed in Action Item (see Table 3)
Order <i>Octopoda</i> (undifferentiated)	octopods	Byproduct	L2 Residual Risk	High	1
Family <i>Sepiidae</i> (undifferentiated)	cuttlefish	Byproduct	L2 Residual Risk	High	1

Existing measures to reduce bycatch

A range of input management controls apply to the GABTS, including a limit on the number of vessels permitted to operate in the fishery (a maximum of 10), minimum mesh size for trawl gear and spatial/temporal closures.

T-90 mesh

The selectivity of the gear used in the GABTS is governed by the stipulation of a minimum mesh size of 90 mm as well as an industry code of conduct which mandates the use of T-

90 extension and industry practices, which typically see 100 mm minimum mesh sizes used in the fishery.

Individual Vessel Seabird Management Plans

On 31 October 2011 AFMA amended operators' concession conditions to require every trawl boat to have an AFMA approved Seabird Management Plan (SMP). It is a requirement for all operators to carry a signed copy of their individual boat seabird management plan on the vessel at all times. The seabird management plans provide details of best practice seabird mitigation measures and are designed to assist the GABTS industry in meeting their requirements outlined in SFR and fishing permit conditions.

During 2014-15 SETFIA and AFMA undertook scientific trials of bird bafflers and seabird sprayers on SESSF trawl vessels. The devices were highly effective and reduced seabird interactions by 96 and 92 per cent respectively.

As a result, from 1 May 2017 all GAB trawl operators are required to have an approved seabird management plan that defines one of the three approved seabird mitigation devices: bird bafflers; sprayers; or pinkies with specified offal retention procedures.

Spatial Closures

Spatial closures provide a refuge for species and their habitat from the effects of trawling. A series of spatial closures have been developed in the GABTS. These closures are designed to reduce the potential for species becoming over fished and to protect specific taxa and habitat from the effects of fishing. Some closures are designed to complement the objectives for areas protected under other Commonwealth legislation. The closures in place for the GABTS can be found in the *Southern and Eastern Scalefish and Shark*

Table 2: Purpose of GABTS closures.

Closure Area	Reason For Closure
GAB Marine Park Benthic Protection Zone	Preserve a representative sample of the sediments and benthic biota of the GAB.
GAB Marine Park Mammal Protection Zone	Protect the calving area for the Southern Right Whale and colonies of the endangered Australian Sea Lion in the area, additionally offering some protection of a representative sample of the seabed in deeper waters of the Commonwealth Park.
Great Australian Bight Trawl Gulper Shark closure	Closed to demersal otter trawl methods to protect Southern Dogfish.
Commonwealth Murray Marine Protected Area	Protection and maintenance of marine biological diversity in the South-east marine region.

Closure Area	Reason For Closure
GABIA Deepwater closures	Closed to trawling to protect deepwater shark species and orange roughy.
GABIA Orange Roughy Research Zones (accessible only by scientific permit)	Closed to trawling methods to protect orange roughy stocks.

Fishery Monitoring Program

GABTS data has been obtained principally through logbooks, catch disposal records, fishery independent surveys and the ISMP (on-board observers). Port based sampling (eg. otolith collection) is used to obtain more detailed biological information about landed species.

In 2005, the GABTS implemented a fishery independent survey (FIS) for the fisheries two main target species (Bight Redfish *Centroberyx gerrardi*, and Deepwater Flathead *Neoplatycephalus conatus*). These surveys are carried out biennially and aim to provide an alternative index of abundance for a range of species that is independent of changes in fishing effort/commercial fishing. Observer data gathered through the ISMP provides information on the quantity, size and age composition of retained and discarded quota species as well as bycatch caught in the GABTS.

As part of the shift towards co-management, GABIA has aided the GABTS in implementing a bycatch and discard recording program whereby ISMP scientific observers collect data in one year and then crew-member observers collect data on every second year.

Fishery research program

This workplan outlines a range of agreed actions, some or all of which will fall into a specific research category. This work will continue to be factored into the fishery research program and prioritised along with wider fishery research projects. The GABRAG will use the bycatch and discarding workplan to assist in annually updating the priorities for research in the fishery.

Bycatch Workplan Action Items

Table 3: Interim action items for the GABTS 2017-19 Bycatch and Discard Workplan

Action Items	Risk/Issue to be addressed (workplan object.)	Timeframe	Cost \$	Responsible Parties	Performance Indicators	Milestones
1. Further develop the SESSF Trawl Discard Reporting Strategy	Improve reporting of discards	Dec 2017	Within existing AFMA staff budget	AFMA trawl team OLRAC	Improved reporting of discards Instructional screenshots provide GAB skippers on how to complete e-logs	Draft strategy developed Industry consultation (inc. screenshots)

Summary

The GABTS has undertaken considerable measures to reduce the fisheries impact on bycatch species. GABIA with AFMA and GABMAC have been proactive in addressing the fisheries environmental sustainability, which is reflected in the results of the risk assessments.

Ongoing refinement in gear designs and the successful implementation of vessel management plans have resulted in positive change with regard to the impact the GABTF has on bycatch in the Great Australian Bight ecosystem. Progress will be assessed every six months while a full biannual review will hope to map the fisheries progress.

Review Process

Bycatch and Discarding Workplans are largely output focused. The action items included here are only some of the measures AFMA undertakes as part of the Ecological Risk Management (ERM) Strategy and it is difficult to measure the specific contribution of an action item to the overall objectives of the ERM Strategy. As part of the ERM Strategy AFMA have specific and measureable objectives with outcomes to be quantitatively assessed as part of the annual review.

This Workplan is effective as of September 2017 and will be reviewed as described below:

- every 6 months to
 - ensure actions are progressing well
 - determine if any additional actions can be taken
- as part of the annual Ecological Risk Management Strategy Review to
 - ensure actions are progressing well
 - ensure that objectives of the ERM Strategy are being met
 - determine if any additional actions can be taken
- final review at 24 months as part of the annual Ecological Risk Management Strategy Review to
 - to ensure that action items have been completed
 - report against performance indicators
 - determine actions for subsequent Workplans.

At the end of the two year period the outputs of this Workplan will be reported to the Department of Environment and a new Workplan will be developed and implemented.