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**Informing FRDC project titled  
“Progressing the National  
Fisheries Digital Data Framework  
– Industry Consultation” by  
describing Jurisdictions’  
commercial wild catch and effort  
logbook data fields, legislative  
requirements for data collection  
and current and planned  
electronic recording systems**

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Informing FRDC project titled “Progressing the National Fisheries Digital Data Framework – Industry Consultation” by describing Jurisdictions’ commercial wild catch and effort logbook data fields, legislative requirements for data collection and current and planned electronic recording systems  
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# Introduction

Australian commercial fisheries landed 174,247 t of fish during 2015–16, valued at more than \$1.7 billion<sup>1</sup>. The largest gross value production contributions were from Western Australian (29%), Commonwealth (25%) and South Australian (15%) fisheries. More than 150 fisheries across Australia (Table 3) target a diverse array of species including teleosts, elasmobranchs, molluscs, crustacea, echinoderms and algae. Australian fisheries use fishing methods ranging from deep sea trawling to hand harvest while diving. The top nine fishing methods by catch weight are: purse seine; otter trawl; baited pots; demersal longline; pelagic longline; diving, gillnet; dredges; and Danish seine<sup>2</sup>. This array of fisheries activity is managed, through state, territory or Commonwealth governments, often depending on the location of where the fishing activity occurs.

The data reported by Australia's fisheries are as diverse as the fisheries themselves. Each jurisdiction stipulates what data is required and in what form or units fishers should report it. Most fields are mandatory, but some logbooks include voluntary fields (e.g. the number of abalone caught in the South Australian Commercial Abalone Fisheries Logbook). Logbooks are often fishery specific (e.g. Victoria's Banded Morwong Logbook), but some logbooks cater for multiple fisheries (e.g. the Commonwealths Line Fishing Daily Fishing Log LN01B). The requirement to report fisheries data is legislated in the relevant Acts and Regulations but the details of what and how data is recorded is usually deferred to a *Secretary*, *Chief Executive Officer* or similar position in government.

Fisheries catch and effort data is reported in either paper or electronic logbooks, with a concerted effort moving more and more fisheries to electronic logbooks for the resulting improvements in efficiency and accuracy. Catch and effort data are held by fisheries agencies in each jurisdiction and distributed to users. Data is essential for sustainable management of fisheries, providing the basis for: stock assessments; tracking quotas; informing policy decisions, ecological modelling of other research.

Fisheries agencies commonly provide catch and effort data to their own staff but access by those from outside of those agencies is usually restricted by a confidentiality policy specifying levels of aggregation are required before they can distribute it, or that a formal data sharing agreement is needed before external parties receive raw data, that itself includes conditions as to what level of aggregation needs to occur before it can be made public. The most common rule regarding making data publicly available is sometimes referred to as the *five boat rule* — where each data point must comprise information from at least five vessels / licence holders.

The diversity of data recorded and the confidentiality arrangements between fisheries and fisheries agencies can make combining data sets difficult and often leads to gaps in the data, complicating the development of data schemas required to develop electronic reporting (ER) systems. This report was initiated to: inform FRDC Project 2017-134 titled *Progressing the National Fisheries Digital Data Framework – Industry consultation* regarding the data fields reported by each logbook; describe the legislative requirements for data collection of confidentiality; and report on the current state of implementation of electronic logbooks.

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<sup>1</sup> <http://www.agriculture.gov.au/abares/research-topics/fisheries/fisheries-data#australian-fisheries-and-aquaculture-statistics-2016> (Accessed 25/11/2018)

<sup>2</sup> <http://fish.gov.au/en/Summary/Top-Ten/How-are-Fish-Caught-in-Australia> (Accessed 25/11/2018)

Results were presented at the Commercial Industry Data Workshop held in Adelaide on 17th May 2018.

## Objectives

1. List and where appropriate describe data fields reported in fisheries logbooks.
2. Describe legislative requirements for data collection.
3. Identify differences between data collected by different jurisdictions / fisheries.
4. Describe ER systems used and the state of ER implementation including timeframes and percent uptake.

## Methods

Fisheries legislation was downloaded from government websites and examined. Where legislation directing logbook reporting remained unclear, individual fishery's data managers were consulted. Sections of those legislations requiring reporting of fisheries data and specifying what that data should include were listed. In cases where parts of the legislation were directly cited the quoted text is given in italics.

Copies of all logbooks and related instructions were either downloaded from fisheries agencies' websites or requested from the respective data manager. Logbook fields were tabulated and organised into categories of data types. Where relevant the units or other information about those fields (e.g. voluntary) were listed. These tables were generated for use by the FRDC as "living tables" that can be modified and added to by fisheries agencies. Differences, similarities and gaps in data were identified.

Information on how fisheries agencies distribute data, confidentiality policies, descriptions of ER systems and progress in implementation of ER systems were obtained through interviews, emails and the information provided on fisheries agencies' websites.

## Results and Discussion

### Catch and effort data

Tables of fields reported in fisheries logbooks are hosted on the following site to be used as living documents: <http://frdc.com.au/project/2017-134>

There are many data types common to logbooks around Australia (Table 1). All include some form of licence information which might be called *Licence Number*, *Authorised Fisher Registration Number*, *Entitlement Number* or *Access Licence Holder*. Some also require the names of fishing boat masters or licence holders. Nil fishing activity reports are common across nearly all logbooks for each jurisdiction except for Victoria and the NT, where only two logbooks in each jurisdiction contained Nil activity reports. The inclusion of position on logbooks was consistent across all logbooks but there exists a wide diversity of scales of reporting between jurisdictions and between fisheries within a jurisdiction (Table 2). Common reporting scales are *Grid*, *Latitude and longitude*, *Area code* and *Area*. Less common reporting scales are *River*, *Distance from Murray River Mouth*, and *Reef code*. Information on crew members is included in logbooks in each jurisdiction but only in a small number of the logbooks from the NT, South Australia and Tasmania. Retained catch is

reported in all logbooks but using a variety of units (e.g. weight, number, number of boxes). Discarded catch is reported in at least some fisheries logbooks in each jurisdiction. Of the five Tasmanian logbooks only the Rock Lobster Fishery logbook has a field for discards and this only accounts Southern Rock Lobster discards. Threatened, Endangers and Protected (TEP) species interactions are also recorded in some logbooks (either daily fishing logbooks or a separate interaction form) in all states, but are often absent in logbooks from fisheries that are highly selective and unlikely to interact with TEP species. Information on fuel used or fuel bought is only included in logbooks from Western Australia. Reporting frequency varies greatly between logbook, ranging from shot by shot to monthly.

The main data gap identified is the lack of discard reporting in some logbooks from fisheries catching more than the target species. Examples can be found in most states including the following:

- Tasmania’s Scalefish Fishery is a multi-species fishery using a variety of fishing methods, many of which are not as very selective in which species they capture (e.g. Danish seine, bottom longline, gillnet). The absence of discard data increases uncertainty in assessing the ecological risk of the fishery (Bell *et al*, 2016).
- Queensland’s East Coast Trawl Fishery Logbook only offers space to report discarded scallops, despite the trawl gear catching a wide array of species and that fishers can only retain the 26 species listed on the logbook. Huber (2003) reported the reasoning for the absence of discard reporting in this fishery was because “*it would add to the complexity of logbook design and, in any case, the data provided could not be verified*”, but that “*this highlights the need for bycatch information being derived through an alternative source*”. The alternative source used was an at-sea observer program.
- Victoria’s Inshore Trawl Fishery is a multi-species fishery, mostly targeting prawns. Apart from a comments field there is no space to report discards of any species. Increasing need for information on discards for managing the effects of fishing on the environment, byproduct and bycatch species has resulted in the requirement for discard reporting by species groups so as to not overly increase the time required to complete logbooks and reducing issues arising from species identification. An example of such a system is available in the WT01B Daily Fishing Log for the Great Australian Bight Trawl Sector, which lists 11 different species groups on the logsheet specifically for reporting discards<sup>3</sup>.

The absence of facility for reporting TEP interactions in very selective fisheries is warranted if the definition of interaction only extends to the fishing equipment (e.g. trap, diver). If the definition of interaction extends beyond that, as AFMA’s does — *an interaction is any physical contact a person, boat or gear has with a protected species including catching and colliding with any of these species*<sup>4</sup> — then some way of reporting TEP interactions should be

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<sup>3</sup> <https://www.afma.gov.au/sites/g/files/net5531/f/uploads/2014/02/Southern-Western-Finfish-Trawl-Daily-Fishing-Log.pdf>

<sup>4</sup> <https://www.afma.gov.au/sustainability-environment/protected-species-management/protected-species-interaction-reports>

included on all logbooks. The simplest way of adding a TEP interaction to logbooks with minimal change to existing logbooks would be to add and “TEP Interaction Yes/No) box (as is found in many existing logbooks) linking to a separate logbook page to record details of the interaction. There also exist some examples of fisheries with the potential for TEP interactions where there exists no facility to report TEP interactions apart from in the comments section. One example is the Northern Territory’s Demersal Fishery, where the instructions for completing logbooks read as follows: *Also record protected species interactions in this area (interactions must still be reported to the Department of Sustainability, Environment, Water, Population and Communities on 1800 641 806 within 7 days).*

**Table 1. Grouped data types recorded in logbooks in each jurisdiction. Presence of a data type in logbooks is indicated by green fill. Where only a small number logbooks record that data type, the number and the total number of logbooks are noted. Note that Data type are broad categorisations and that, for example, Market details can include *fish receiver’s details, value, destination, part catch consigned* etc... Individual fields are provided in the living document.**

Data type	QLD	NT	VIC	WA	SA	NSW	TAS	COMM
Licence								
Nil Fishing		2/24	2/25					
Vessel					Vessel’s name – 2/13	Licence number only		
Trip								
Fuel used/bought								
Support vessel		2/24		1/21				3/14
Crew member		4/24			3/13		1/5	
Position								
Date/Time								
Environmental observations								4/14
Gear info	Gear type, mesh size				Gear code	Gear code	Gear code 1/5	
Effort								
Retained catch								
Discards						1/4		
TEP interactions							2/5	
Tag records								
Market details					2/13			
Penning / hanging					1/13	2/4		
Reporting frequency	Day; shot	Monthly / shot	Day	Various	Day; shot	Daily by location; gear	Various	Shot, day

**Table 2. Position data recorded in fisheries logbooks.**

QLD	NT	VIC	WA	SA	NSW	TAS	COMM
Grid	Grid	Area / Reef code	Grid	Map	Location code or Lat	Zone	Fishing ground
Site Name	Area	Area code	Area	Area code	Location code or Lon	Location name	Inshore / Offshore
Catchment Name	Area or River	Area code or 'TRIP'	Patch name/No	Grid 1	Grid Codes of Areas Fished	Sub-block	Latitude
Catchment Number	Latitude	Reef code	Zones fished	Grid 2	Site Codes of Areas Fished	Block number	Longitude
Name of Public Impoundment or Name of Property/Owner of Private Dam	Longitude	Water code	Block number	Block number	Grid/Site of Max.Catch	Area code	Start set Lat/Long
Latitude or Grid	Location Name	Water	Latitude	Latitude	Area of Catch Latitude		End set Lat/Long
Longitude or Site	Start Fishing Lat/Long		Longitude	Longitude	Area of Catch Longitude		Start haul Lat/Long
Location Name	End Fishing Lat/Long		Fishing ground	Main area	Fished in Marine Park (tick)		End haul Lat/Long
Start Fishing Lat/Long			Start Fishing Lat/Long	Start Fishing Lat/Long			
End Fishing Lat/Long			End Fishing Lat/Long	End Fishing Lat/Long			
Rotational Zone or Burrowing Blackfish Zone			Time entered area	Habitat code			
Number of dive sites fished at this reef today			Island / reef name	Distance from the Murray Mouth			
River Fished				Fishdown area			

## Catch and effort systems, distribution of data and confidentiality policies

### Victoria

Collection of fisheries catch and effort data by the Victorian Fisheries Authority (VFA) is fishery dependent, with some fisheries using paper logbooks and others using electronic logbooks. Data from paper logbooks is entered into the SQL database, through which queries are also made. As the VFA only recently moved to an SQL database there are no plans for significant upgrades or changes in the near future. Catch weights are generally whole weights, the exception being sharks, which are assumed to be gilled and gutted on weighing. The database uses CAAB Codes to reference species. Data is dispersed within the VFA through internal data queries and externally through data requests. To comply with the VFA's confidentiality policy raw data is not made available externally but is aggregated to comply with the 5-boat rule. The VFA processes catch and effort data using SAS and R statistical software. Catch, effort and value of fisheries is released to the public through the annually published *Commercial Fish Production* report<sup>5</sup>. In that report, data breaching the 5-boat rule is masked.

<sup>5</sup> <https://vfa.vic.gov.au/commercial-fishing/commercial-fish-production>



## **South Australia**

South Australian commercial fishers report catch and effort data using either paper logs or electronic reporting. Data is entered into an Oracle database and queried through an SQL query system. The SARDI database records whole weights, converted from partial weights when required. A three digit numeric code denotes each species and a reference table provides CAAB Codes for each numeric code. Raw data are available to all SARDI Aquatic Sciences researchers for research and management purposes but individual fishers' data or data whereby individual fishers might be identified must not be quoted, displayed in reports, or shown / mentioned at public presentations. Data can be made available externally through a *SARDI Data Request and Licence* with the written approval of the relevant SARDI Aquatic Sciences SPA leader but must be aggregated in accordance with the 5-boat rule. Data is made available to the public through fishery assessment reports.

## **Western Australia**

Western Australian commercial fishers report catch and effort data through either paper or electronic logbooks. In the Western Australian Department of Primary Industries and Regional Development (DPIRD) input databases — also known as transactional databases — weights are recorded as processed weight. The database is a SQL Server system, using SQL Developer and Access for data entry. Data queries and manipulations are undertaken using SAS and R. In DoF's older catch and effort systems used a primary key that is a 6 digit number that could be readily compared to a CAAB code by ignoring to two leading digits denoting the category (e.g. 37 for finfish). In some of the newer catch and effort systems, an internal key is used which is a static integer. This key is the primary key of their Research Shared species table. This table also has a computed field that matches CAAB Codes for most species but wherein a new group code is requested, an 8 digit code that does not correspond to a CAAB Code is shown. Data is available internally through a reporting system called FishCubeWA, providing datamarts, cubes and a user-friendly web site allowing data consumers to perform extensive queries without any SQL knowledge. External data requests can be lodged using a form available at the website<sup>6</sup>. The DoF also publishes: yearly status reports; status reports of the fisheries and aquatic resources of Western Australia; an Annual Report; and Fisheries Research Reports (FRR).

## **Northern Territory**

The main database warehousing the NT's Department of Primary Industry and Resources (DPIR) catch and effort data is called Fish Stat. This is an Oracle 10g database that uses Oracle Application Express for data entry and extraction. Data analysis is undertaken using a wide range of software including R, MS Power BI, Excel and Matlab. This database holds catch records as whole weight, partial weight, or number, depending on the fishery. Fish are referenced as CAAB Codes. DPIR staff can query Fish Stat directly with pre-built queries or export to Access flat tables. Data can not be made publicly available online because of the firewall used, but aggregated data is published in fishery reports. In some cases external researchers can access raw data through a data confidentiality agreement.

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<sup>6</sup> <http://www.fish.wa.gov.au/Sustainability-and-Environment/Fisheries-Science/Stock-assessment-and-data-analysis/Pages/Making-a-data-request.aspx>

## **Queensland**

Commercial fishers from Queensland submit catch and effort data to Department of Agriculture and Fisheries, Queensland (QDAF) by either paper logbooks or electronic reporting. Data is entered into the SQL database using SQL Server Reporting Services. Data is queried using Access and SQL Report Manager. Most data manipulations are undertaken using R or Excel. Catches are recorded as processed weight with processed form also recorded and these are used to derive whole weights in the database. Species are referred to in the database as CAAB Codes but QDAF are moving towards Australian Standard names. The Queensland Government's QFish website<sup>7</sup> provides access to Queensland fisheries data and spatial datasets using interactive tools called QFish. Data is aggregated so as to protect confidential data. Queries can be customised by fishing method, logbook type, measure (retained / discards), logbook grid, region, species and time. More specific data requests can be submitted by email and the data supplied is aggregated to comply with the 5-boat rule. Internally, staff access catch and effort data through either QFish or manual data requests.

## **New South Wales**

New South Wales commercial fishers report catch and effort data via paper logbooks or a web-based portal called Fishonline. Catches are recorded as reported by fishers along with the conversion factor, if necessary, by NSW DPI. Catches recorded as partial weights or numbers are converted to whole weight during extraction. Species are coded with an alphanumeric code (e.g. FLA\_01) and these are mapped to CAAB Codes and Australian Standard names in the database. Data is entered into the SQL database using SQL server scripts and queries are made using Access. A Resource Assessment System combines current data with historical data in an SQL Server using SQL code. Researchers and managers access data through the user interface with standard queries. Data is not regularly made publicly available apart from in fisheries publications but can be accessed through data requests. New South Wales DPI are constantly tweaking their catch and effort system, especially in relation to electronic reporting. The system is a hybrid-cloud system. The Catch & Effort database is linked to the licencing data base.

## **Tasmania**

Tasmanian commercial fishers report catch and effort in paper logbooks. Catches are recorded as reported in logbooks. Species are entered as common names but matched to their CAAB code in the database. For fisheries with a total allowable catch (TAC), catches are recorded from landed weights. Other fisheries use logbook estimates. Data is not made publicly available outside of fisheries publications but data can be accessed through a format data sharing agreement. Reported data must be aggregated to a level so as not to contravene the 6-boat rule (each data point must comprise data from at least 6 vessels).

## **Commonwealth**

Commonwealth managed commercial fisheries report catch and effort on paper logs or electronic reporting systems. Catches are stored as reported along with a process code and converted to whole weight using conversion factors. Historical data used a 3 character alpha code for species and the current database uses mostly 8 digit CAAB Codes, but there exist a

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<sup>7</sup> <http://qfish.fisheries.qld.gov.au/>

small number of 6 digit CAAB Codes and 999 CAAB Codes not referenced to the CSIRO standard. Catch weights are generally from Catch Disposal Records (CDRs), but for fisheries with no CDRs (such as the Northern Prawn Fishery) catches are taken from logbooks. The Australian Fisheries Management Authority uses an ORACLE 11g database accessed through a Microsoft SQL service. Data entry forms use C# language of the .NET framework. The Australian Fisheries Management Authority are looking at upgrading to a cloud based ORACLE 12c system. Catch and effort data is made available to AFMA managers through QuickStats and Oracle Business Intelligence Enterprise Edition, which offers fact tables using Cubes that are standardised and reports field names into “English words”. Analysts access the data using Oracle Data Visualisation while the data team use Oracle Hyperium Interactive Reporting Studio. Data manipulations are made using a combination of OBIEE, Excel, SQL Scripts, R and ODV. The Australian Fisheries Management Authority’s data request section distributes data to stock assessment and other scientists as required for stock assessments or other data requests. Confidentiality is maintained through a signed Deed of Confidentiality, requiring aggregation in accordance with the 5-boat rule. Landed catch is made publicly available through the Australian Government website<sup>8</sup>, including the fields: Fishery; Year; Common Name; Scientific Name; CAAB; Retained Catch (Kg); Catch (kg) under research catch allowance; and Data Source. Logbook catch is also available<sup>9</sup> which includes the fields: Fishery; Gear; Year; Common Name; Scientific Name; CAAB; Retained Catch (Kg) and Data Source.

## Legislative requirements for collection of catch and effort data

Legislative requirements for catch and effort logbook reporting are usually general in nature.

### Victoria

The Victorian Fisheries Act 1995<sup>10</sup> mandates the reporting of fisheries catch and effort data. Linnane and Walsh (2011) summarised the legislative requirements for reporting catch and effort data in relation to the Victorian Rock Lobster Fishery as “*The Fisheries Act 1995 requires that Access License Holders record Catch and Effort data on each day of commercial fishing*”, and that description can be applied to all Victorian commercial fisheries. More specifically, the Fisheries Act 1995 (Pt 7, Div. 2A, S. 120A and S. 120AA) states that fishers or fish receivers **may** be required to provide the following information:

- If they took fish
- The quantity of each species taken
- The number of people that were involved in taking the fish
- The names and addresses of each of those people
- The equipment and methods used to take the fish
- The names and addresses of the people to which the catches were consigned, transported or delivered
- The address the catches were consigned, transported or delivered to

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<sup>8</sup> <https://data.gov.au/dataset/reported-landed-annual-catch-from-commonwealth-fisheries>

<sup>9</sup> <https://data.gov.au/dataset/reported-retained-annual-catch-from-commonwealth-fisheries-logbooks>

<sup>10</sup> [http://www6.austlii.edu.au/cgi-bin/viewdb/au/legis/vic/consol\\_act/fa1995110/](http://www6.austlii.edu.au/cgi-bin/viewdb/au/legis/vic/consol_act/fa1995110/)

- Where a person received fish
- The quantity of fish of each species received
- The names and addresses of people that consigned, transported or delivered the catch

## South Australia

Linnane and Walsh (2011) summarised the legislative requirements for reporting catch and effort data in South Australia as *The Fisheries Management Act 2007 (SA) requires fishers to maintain a daily logbook of fishing activity* and that description can be applied to all of South Australia's commercial fisheries. More specifically, section 128 (2) (n) (Pt10, Div 2) of the Fisheries Management Act 2007<sup>11</sup> states that the Governor may *require persons engaged in fishing activities of a prescribed class to provide returns relating to those fishing activities and any matters ancillary or incidental to or connected with those fishing activities and make provision for the form and lodgement of the returns*. Most South Australian fisheries also have their own Management Regulations dictating reporting conditions for licence holders. Those conditions are similar across fisheries. As an example, *Sections 11 and 12* of the Fisheries Management (Blue Crab Fishery) Regulations 2013<sup>12</sup> requires that the holder of a licence in the respect of any fishery must:

- *in the manner and form, at such places and at such times, as determined by the Minister, record such information in respect of the catch and disposal of blue crabs taken under the licence as determined by the Minister*
- *provide such information recorded under paragraph (a) to the Department in the manner and form, and at such times, as determined by the Minister*
- *ensure that blue crab taken under the licence are weighed, stored, placed in containers, sealed, tagged, and transported, delivered, consigned or otherwise disposed of, and accompanied by such information, in accordance with the requirements (if any) as determined by the Minister*
- *provide the Department with such returns in the manner and form, at such times and containing such information, as determined by the Minister and*
- *keep a record of each return that the licence holder provides to the Department under this regulation in such manner, and for such period, as determined by the Minister.*

South Australia also uses Fisheries Management Regulations for the Miscellaneous Developmental Fishery<sup>13</sup>, Marine Scalefish Fishery<sup>14</sup>, Rock Lobster Fisheries<sup>15</sup>, River Fishery<sup>16</sup>, Prawn Fisheries<sup>17</sup>, Miscellaneous Fishery<sup>18</sup>, Miscellaneous Research Fishery<sup>19</sup>, Miscellaneous Broodstock and Seedstock Fishery<sup>20</sup>, Lakes and Coorong Fishery<sup>21</sup>, Charter Boat Fishery<sup>22</sup> and Abalone Fisheries<sup>23</sup> that contain the same or similar requirements.

## Western Australia

<sup>11</sup> <https://www.legislation.sa.gov.au/LZ/C/A/FISHERIES%20MANAGEMENT%20ACT%202007/CURRENT/2007.4.AUTH.PDF>

<sup>12</sup> [https://www.legislation.sa.gov.au/LZ/C/R/FISHERIES%20MANAGEMENT%20\(blue%20crab%20fishery\)%20regulations%202013/current/2013.214.auth.pdf](https://www.legislation.sa.gov.au/LZ/C/R/FISHERIES%20MANAGEMENT%20(blue%20crab%20fishery)%20regulations%202013/current/2013.214.auth.pdf)

<sup>13</sup> [https://www.legislation.sa.gov.au/LZ/C/R/FISHERIES%20MANAGEMENT%20\(miscellaneous%20developmental%20fishery\)%20regulations%202013/current/2013.193.auth.pdf](https://www.legislation.sa.gov.au/LZ/C/R/FISHERIES%20MANAGEMENT%20(miscellaneous%20developmental%20fishery)%20regulations%202013/current/2013.193.auth.pdf)

<sup>14</sup> [https://www.legislation.sa.gov.au/LZ/C/R/FISHERIES%20MANAGEMENT%20\(MARINE%20SCALEFISH%20FISHERIES\)%20REGULATIONS%202017/CURRENT/2017.228.AUTH.PDF](https://www.legislation.sa.gov.au/LZ/C/R/FISHERIES%20MANAGEMENT%20(MARINE%20SCALEFISH%20FISHERIES)%20REGULATIONS%202017/CURRENT/2017.228.AUTH.PDF)

<sup>15</sup> [https://www.legislation.sa.gov.au/LZ/C/R/FISHERIES%20MANAGEMENT%20\(rock%20lobster%20fisheries\)%20regulations%202017/current/2017.235.auth.pdf](https://www.legislation.sa.gov.au/LZ/C/R/FISHERIES%20MANAGEMENT%20(rock%20lobster%20fisheries)%20regulations%202017/current/2017.235.auth.pdf)

<sup>16</sup> [https://www.legislation.sa.gov.au/LZ/C/R/FISHERIES%20MANAGEMENT%20\(river%20fishery\)%20regulations%202017/current/2017.234.auth.pdf](https://www.legislation.sa.gov.au/LZ/C/R/FISHERIES%20MANAGEMENT%20(river%20fishery)%20regulations%202017/current/2017.234.auth.pdf)

<sup>17</sup> [https://www.legislation.sa.gov.au/LZ/C/R/FISHERIES%20MANAGEMENT%20\(prawn%20fisheries\)%20regulations%202017/current/2017.233.auth.pdf](https://www.legislation.sa.gov.au/LZ/C/R/FISHERIES%20MANAGEMENT%20(prawn%20fisheries)%20regulations%202017/current/2017.233.auth.pdf)

<sup>18</sup> [https://www.legislation.sa.gov.au/LZ/C/R/FISHERIES%20MANAGEMENT%20\(miscellaneous%20fishery\)%20regulations%202015/current/2015.193.auth.pdf](https://www.legislation.sa.gov.au/LZ/C/R/FISHERIES%20MANAGEMENT%20(miscellaneous%20fishery)%20regulations%202015/current/2015.193.auth.pdf)

<sup>19</sup> [https://www.legislation.sa.gov.au/LZ/C/R/FISHERIES%20MANAGEMENT%20\(miscellaneous%20research%20fishery\)%20regulations%202013/current/2013.194.auth.pdf](https://www.legislation.sa.gov.au/LZ/C/R/FISHERIES%20MANAGEMENT%20(miscellaneous%20research%20fishery)%20regulations%202013/current/2013.194.auth.pdf)

<sup>20</sup> [https://www.legislation.sa.gov.au/LZ/C/R/FISHERIES%20MANAGEMENT%20\(miscellaneous%20broodstock%20and%20seedstock%20fishery\)%20regulations%202013/current/2013.195.auth.pdf](https://www.legislation.sa.gov.au/LZ/C/R/FISHERIES%20MANAGEMENT%20(miscellaneous%20broodstock%20and%20seedstock%20fishery)%20regulations%202013/current/2013.195.auth.pdf)

<sup>21</sup> [https://www.legislation.sa.gov.au/LZ/C/R/FISHERIES%20MANAGEMENT%20\(lakes%20and%20coorong%20fishery\)%20regulations%202009/current/2009.258.auth.pdf](https://www.legislation.sa.gov.au/LZ/C/R/FISHERIES%20MANAGEMENT%20(lakes%20and%20coorong%20fishery)%20regulations%202009/current/2009.258.auth.pdf)

<sup>22</sup> [https://www.legislation.sa.gov.au/LZ/C/R/FISHERIES%20MANAGEMENT%20\(charter%20boat%20fishery\)%20regulations%202016/current/2016.233.auth.pdf](https://www.legislation.sa.gov.au/LZ/C/R/FISHERIES%20MANAGEMENT%20(charter%20boat%20fishery)%20regulations%202016/current/2016.233.auth.pdf)

<sup>23</sup> [https://www.legislation.sa.gov.au/LZ/C/R/FISHERIES%20MANAGEMENT%20\(abalone%20fisheries\)%20regulations%202017/current/2017.220.auth.pdf](https://www.legislation.sa.gov.au/LZ/C/R/FISHERIES%20MANAGEMENT%20(abalone%20fisheries)%20regulations%202017/current/2017.220.auth.pdf)

Western Australia's Fish Resources Management Act 1994<sup>24</sup> (Pt 6 Div 2 S. 62 (q) and (w)) states that a fisheries management plan may require:

- *specified records to be kept, and specified returns to be submitted or lodged at specified times, by*
  - *the holders of authorisations or persons acting on their behalf or*
  - *persons who handle, unload, land, store, pack, consign, transport, process, sell or purchase fish (whether taken in the fishery or otherwise) and*
- *to make a nomination in respect of any matter relating to that proposed engagement, including any of these matters:*
  - *the area or place where the activities will be engaged in*
  - *the period within which or during which the activities will be engaged in*
  - *the specific activities that will be engaged in*
  - *the specific types of gear or equipment that will be used*

Some Fishery Management Plans also describe reporting requirements. For example, the Southern Demersal Gillnet and Demersal Longline Managed Fishery Management Plan 2018 (Pt. 8 S. 23)<sup>25</sup> requires that *the master of an authorised boat must make an accurate record of all fishing activity carried out under the relevant licence, in a return, specifying*

- *the persons fishing;*
- *the relevant authorisation under which fishing was carried out;*
- *the type and total quantity of gear used;*
- *the duration of fishing;*
- *the location where fishing was carried out; and*
- *the species, number and weight of fish taken.*

Other Fishery Management Plans can be found

<https://www.slp.wa.gov.au/statutes/subsidiary.nsf/FisheriesT?OpenPage&Start=12>.

## **Northern Territory**

Requirements for reporting in NT commercial fisheries are described in the Northern Territory Australia Fisheries Act<sup>26</sup> (Pt. 4 Div. 3 S. 34). The requirement to report fisheries data follows that the Director may require a licence holder to:

- *keep accounts, records, returns and information (including records of returns and information to be supplied);*
- *supply to the Director accounts, records, returns and information within the time specified in the notice; and*
- *specify the manner and form in which the person is to keep the accounts, records, returns and information.*

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<sup>24</sup> [https://www.legislation.wa.gov.au/legislation/statutes.nsf/law\\_a283.html](https://www.legislation.wa.gov.au/legislation/statutes.nsf/law_a283.html)

<sup>25</sup> [https://www.slp.wa.gov.au/statutes/subsidiary.nsf/0/52A5929BDD38C98E48258362001009D0/\\$file/30.11.18.pdf](https://www.slp.wa.gov.au/statutes/subsidiary.nsf/0/52A5929BDD38C98E48258362001009D0/$file/30.11.18.pdf)

<sup>26</sup> <https://legislation.nt.gov.au/Legislation/FISHERIES-ACT>

## Queensland

Requirements for reporting in Queensland's commercial fisheries are described in the Queensland's Fisheries Act 1994<sup>27</sup> and the Fisheries Regulations 2008<sup>28</sup>. Division 10 Subsection 118 of the Fisheries Act 1994 described *Information requirements*. It states that a person may be required to *obtain and keep for stated periods, in the approved form, stated documents or information (the required information) about fishing, a fishery or fisheries resources, or trade or commerce related to fishing, a fishery or fisheries resources* and to give that information in some way to the Government. While the Fisheries Regulations 2008 (Ch. 14 Pt. 2) sets out the requirements for an authorised person to record information about the daily fishing activities under the authority in the approved form. Queensland also have a policy titled *Requirement to keep and give an eLogs return Queensland East Coast Trawl Fishery* which instructs how and why ELogs are to be completed. QDAF have negotiated an agreement with the Department of Environment (DoE) that allows Queensland's commercial fishers to report TEP interactions via their logbooks, and that QDAF will report quarterly to the DoE a summary of interactions and their locations<sup>29</sup>.

## New South Wales

Requirements for reporting for NSW commercial fisheries are described in NSW's Fisheries Management Act 1994<sup>30</sup> and the Fisheries Management (General) Regulation 2010<sup>31</sup>. Division 5 Section. 121 of the Fisheries Management Act 1994 states that a *commercial fisher must make such records as the regulations require in respect of fishing activities engaged in by the commercial fisher for commercial purposes*, in particular:

- *particulars of all fishing activities engaged in by a commercial fisher for commercial purposes (including those where no fish were taken),*
- *particulars of all fish taken during those fishing activities,*
- *the location in which the fishing activities were carried out,*
- *the fishing gear used in connection with the fishing activities,*
- *any period in which the commercial fisher did not engage in any fishing activities for commercial purposes,*
- *records must be made in such form and manner as is prescribed by the regulations or (subject to the regulations) as is approved by the Minister,*

While Pt. 3 of the Fisheries Management Act 1994 outlines the content of management plans including *monitoring and reporting requirements*.

Pt. 12 Div. 2 S. 215 of the Fisheries Management (General) Regulations defines *prescribed activity record* as:

- *particulars of all fishing activities engaged in by a commercial fisher or nominated fisher (including those where no fish were taken),*
- *particulars of all fish taken during those fishing activities, (c) particulars of all fish disposed of during or after those fishing activities,*

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<sup>27</sup> <https://www.legislation.qld.gov.au/view/pdf/2017-07-03/act-1994-037>

<sup>28</sup> <https://www.legislation.qld.gov.au/view/pdf/2017-07-01/sl-2008-0083>

<sup>29</sup> [https://www.daf.qld.gov.au/\\_data/assets/pdf\\_file/0019/60238/4985-Looking-after-protected-species-commercial-full.pdf](https://www.daf.qld.gov.au/_data/assets/pdf_file/0019/60238/4985-Looking-after-protected-species-commercial-full.pdf)

<sup>30</sup> <https://legislation.nsw.gov.au/#/view/act/1994/38/historical2016-11-25/full>

<sup>31</sup> <https://www.legislation.nsw.gov.au/#/view/regulation/2010/475>

- *particulars of the location in which all fish taken during those fishing activities were carried out,*
- *particulars of the endorsement on a commercial fishing licence that authorised those fishing activities,*
- *particulars of the fishing gear used in connection with those fishing activities, including any fishing gear lost or found during those activities,*
- *particulars of the boats used in connection with those fishing activities,*
- *particulars of all individuals who engaged in or assisted with those fishing activities,*
- *the fishing business number allocated to the fishing business under which those fishing activities were authorised to be undertaken,*
- *particulars of all sightings of or any other interaction with any threatened species or protected species,*
- *any period in which the commercial fisher or nominated fisher did not engage in fishing activities that he or she is authorised to engage in by his or her commercial fishing licence.*

It follows in Pt. 12 Div. 2 S. 216 that:

- *a commercial fisher is required to make the prescribed activity record of fishing activities engaged in by the commercial fisher for commercial purposes, for each relevant period that the commercial fisher engages in fishing activities; and*
- *the commercial fisher must ensure that a copy of the record is sent to the Director-General within 28 days.*

NSW fisheries management plans also describe information requirements for commercial fishers. For example the Fisheries Management (Estuary General Share Management Plan) Regulation 2006<sup>32</sup> (Div. 4 Pt. 9) includes requirements for real time reporting when using particular fishing gear or taking particular species.

## **Tasmania**

Tasmania's Living Marine Resources Management Act 1995<sup>33</sup> outlines reporting requirements for commercial fishers as holders of an authorisation, vessel masters, fish receivers, buyers, processors, holders (people who store fish), sellers, transporters or other "prescribed people" must keep records, accounts and other information required by the Secretary. Linnane and Walsh (2011) summarised the legislative requirements for reporting catch and effort data in relation to the Tasmanian Rock Lobster Fishery, in as *Fishers are required to maintain a logbook under section 145 of the Living Marine Resources Management Act 1995. The design and layout of the book are at the discretion of DPIPWE and approved by the Department Secretary. Generally, details recorded are agreed between stakeholders and driven by research or management needs. Completion of the log book is monitored by compliance officers.*

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<sup>32</sup> <https://www.legislation.nsw.gov.au/#/view/regulation/2006/734/app1/inDoc1/part9/>

<sup>33</sup> <https://www.legislation.tas.gov.au/view/html/inforce/current/act-1995-025>

## Commonwealth

Requirements for reporting in Commonwealth fisheries are described in the Commonwealth's Fisheries Management Act 1991. Pt. 3 Div. 10 S. 42 states the following:

- *AFMA may, by a written determination, in relation to a particular fishery, provide for holders of fishing concessions in respect of that fishery to keep and maintain logbooks containing information in respect of their activities in that fishery,*
- *...a determination by AFMA in respect of a particular fishery may cover matters including:*
  - *the form and content of logbooks for that fishery to be kept by the concession holder; and*
  - *the furnishing to AFMA of such logbooks or of returns of information contained in them.*
- *The content of the logbook kept by the holder of a fishing concession in respect of a particular fishery, and of any return of information from such a logbook, may extend to information in relation to:*
  - *the taking of fish under that fishing concession and the sale or disposal of such fish; or*
  - *the carrying, landing, transshipping or transporting of fish taken under that fishing concession; or*
  - *the receipt or processing of fish taken under that fishing concession and the sale or disposal of fish so received or processed; or*
  - *the course, or position at regular intervals, inside or outside the outer limits of the AFZ, of boats to which the fishing concession relates; or*
  - *any other matter relevant to the fishing concession in that fishery that is specified in the determination.*

The Act also provides for overriding these provisions in a plan of management or condition on a fishing concession.

The Commonwealth Environment Protection and Biodiversity Conservation Act 1999<sup>34</sup> (the EPBC Act) requires fishers to report to the Department of Environment and Energy (DEE) any interactions with protected species in a Commonwealth area. A memorandum of understanding<sup>35</sup> between AFMA and DEE has established that, provided that commercial fishers report interactions with protected species to AFMA, they will accept information provided by AFMA that was compiled from logbooks. The memorandum of understanding outlines the species to be reported and the required fields:

- For periodic summaries:
  - The total number of each species / species group interacted with;
  - Life status;
  - Interaction type;

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<sup>34</sup> <http://www.environment.gov.au/epbc>

<sup>35</sup> <https://afma.govcms.gov.au/sites/g/files/net5531/f/uploads/2010/06/mou.pdf>



- Method of fishing;
- Additionally for logbook reporting:
  - Location;
  - Time and date;
  - Presence of observer; and
  - Life stage.

## **Progress towards electronic reporting**

### **Victoria**

Two Victorian managed fisheries report data using electronic reporting (ER). The Port Phillip Bay dive fishery for Commercial Scallops and the Sea Urchin Fishery both use 100% electronic reporting. No data standards or schemas from Victorian managed fisheries exist, and none are planned. These web-based ER systems are downloaded onto mobile devices. These systems were developed by Spatial Vision and initiated by VFA after moving from permit to licenced fisheries. The Victorian Fisheries Authority consider licence holders responsible for reporting data but that fisheries own the data once in the catch and effort system. There is confusion over who has rights to access the data from Elogs and discussions regarding this are ongoing. Current ER systems do not record fields other than those required but the collection of additional research data and data sharing within fisheries and potentially between jurisdictions are under discussion. The Victorian Fisheries Authority is seeking funding to develop ER systems for the Abalone, Rock Lobster, Giant Crab and Ocean Wrasse fisheries and plans to move all fisheries to Elogs in the coming years.

### **South Australia**

Several fisheries including the Southern Zone and Northern Zone Rock Lobster and Pipi fisheries are all feeding information directly to the Department of Primary Industries and Regions, South Australia (PIRSA). Elogs for all other fisheries are in earlier stages of development, and PIRSA aims to use 100% electronic reporting for quota managed fisheries by 2020. The current Elog system was developed by Real Time Data and was initiated by a collaboration between industry, PIRSA and SARDI. The PIRSA Elog runs on mobile devices. The Department of Primary Industries and Regions, South Australia retain all access rights the electronically lodged data but it's the fishers' responsibility to deliver it in a complete and accurate fashion. The current Elog captures data not required by PIRSA and can be easily modified to add new fields.

### **Western Australia**

The Western Australian DoF is undertaking a project related to the creation of a catch and effort electronic log book system. Part of this process gathers business requirements in terms of rules and processes that will be used to create data standards relating to individual fisheries. This will provide a working example to assist in consultations for further development. Outcomes from consultation will define the business rules guiding the development and implementation of a final framework. Currently the only WA fisheries using ER systems are the West Coast Rock Lobster Fishery (WCRF), the Abalone Fishery and the Marine Aquarium Fishery. In 2010, the IRV system was introduced to enable near real time reporting by the West Coast Rock Lobster Fishery (WCRLF). The WCRF FishEye online system and the CatchER app were introduced in 2015 for electronic reporting and as of

December 2017 over 200 of the 230 active licences had signed up to the system, with 60–70% of those licensees regularly submitting online returns. The Abalone Fishery ER system (iApply) has been online since April 2015. As of December 2017 eighteen fishers had registered and about 30% of those consistently submitted their data online. Developers of the various ER systems are as follows:

- FishEye Online Services (WCRL) – SMS (<http://www.smsmt.com>)
- CatchER (WCRL) – Adaptor/SMS (<http://adaptor.com.au>, <http://www.smsmt.com>)
- iApply (Abalone Fishery and MAFS) – DWS (<http://www.dws.com.au>)
- IRV (WCRL) – Stratum (<http://stratumcomms.com>)
- Qlikview reporting – ABM (<http://www.abmsystems.com>)

Electronic reporting systems are either downloaded from a website or made available through the Apple App Store and only collect data required by DoF. Platforms vary across products but include PCs, tablets, and smartphones. The Department of Primary Industries and Regional Development (DPIRD) retain all access rights the electronically submitted data but licence holders can access their own data.

### **Northern Territory**

The NT DPIR has an XML data dictionary for all fisheries and at least nine fisheries for which electronic reporting is available including the: Demersal Fishery, Timor Reef Fishery, Mud Crab Fisheries, Offshore Net and Line Fishery, Coastal Line Fishery, Barramundi Fishery, Coastal Line Fishery, Fishing Tourism Industry, Spanish Mackerel Fishery and Tropical Rock Lobster Fishery. Current ER systems operate on Windows personal computers (PCs) following installation from a USB drive by NT DPIR and remote set up by a technician, the current supplier being CatchLog<sup>36</sup>. Development of ER systems in the NT was initiated by the NT DPIR which put the process out to tender. The NT operates under the assumption that the person submitting the retains primary access rights for the information supplied and that the Director may utilise this information to assist in the management and conservation of any fish or aquatic life or in the development of the fishing industry. ER systems for most fisheries collect basic required information but options for fleet management data collection are available. As of late 2017 the NT DPIR planned to rollout ELogs to all fishers within 12 months, excepting the FTO and Aquarium Collection fisheries.

### **Queensland**

QDAF have APIs available for most of Queensland's fishery logbook types. ELogs for the Line and Trawl fishery logbook are in place with about 10 licences using them out of 350 trawl licences and 200 line licences. The ELogs were developed by CatchLog and are downloaded onto Windows machines from the CatchLog website<sup>37</sup>. Electronically submitted catch and effort data is owned by QDAF. Current ELogs collect only those fields required in logbooks.

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<sup>36</sup> <http://www.catchlog.com/>

<sup>37</sup> <http://www.catchlog.com/>

## **New South Wales**

NSW commercial fishers can conduct business related transactions and report catch and effort reporting on DPI's FishOnline. FishOnline is a web based reporting system allowing fishers to perform a range of actions including: lodging catch and effort log sheets for non-quota based fishing activities; reviewing past catch and effort: licence renewals; quota transfers and; complete quota catch and effort logsheets (excluding lobster). In 2015/16 455 fishers registered for the online system but only 108 regularly submitted online returns. In 2016/17 953 out of 1155 fishing businesses made at least some records online. All fishers in quota managed fisheries are required to report quota usage using the FisherMobile app. The app allows reporting of the following information (amongst others): submit catch and effort reports; lodge real time fishing activity reports such as pre-fish, pre-land and/or post-land reports; lodge threatened and protected species reports and; lodge nil returns access quota balance information. The FisherMobile app, which was developed by Spatial Vision, runs on devices including iPhone, iPad (iOS 5.0+) and Android Phone/Tablet (4+) and the native browsers found on these devices. FishOnline is a web portal and so can be used on Windows PCs and mobile devices. Development of these systems was initiated by DPI but was also requested by industry.

## **Tasmania**

The Tasmanian DPIPWE have been in discussions regarding development of ELog systems. Some funding has been allocated to begin planning but, as yet, no timeframes for development or implementation have been set.

## **Commonwealth**

AFMA developed schemas for some of their fisheries including finfish trawl, gillnet, line and prawn trawl that outline required fields, units of measure, and whether a field is mandatory or voluntary. As of 2018 the percent of vessels were reporting via ELogs was as follow:

- Bass Strait Central Zone Scallop Fishery – 0%
- Coral Sea Fishery – 33%
- Eastern Tuna and Billfish Fishery – 21%
- High Seas Fishery – 50%
- Northern Prawn Fishery – 89%
- Small Pelagic Fishery – 20%
- North West Slope Trawl Fishery – 60%
- South Tasman Rise Trawl Fishery
- Commonwealth Trawl Sector – 61%
- Great Australian Bight Trawl Sector – 80%
- Southern Bluefin Tuna Fishery – 0%
- Southern Squid Jig Fishery – 0%
- Torres Strait Finfish Fishery – 0%
- Torres Strait Prawn Fishery – 0%
- Western Deepwater Trawl Fishery – 33%
- Western Tuna Billfish Fishery – 0%.

During 2017–2018 AFMA sent correspondence to all Commonwealth fisheries outlining dates when use of ELogs would become mandatory:

- CTS – 1/5/2018 for vessels that fished more than 50 days in the previous two seasons
- GHAT – 1/7/2018 for vessels that fished more than 50 days in the previous season, or have an electronic monitoring system installed
- ETBF and WTBF – mid 2019 for vessels that fished more than 30 days in the previous two season, or have an electronic monitoring system installed
- Other Commonwealth Fisheries<sup>38</sup> – 1 January 2019 for vessels that fished more than 50 days in the previous two season, or have an electronic monitoring system installed.

Examination of the potential to use ELogs in the then South East Trawl Fishery was initiated by SETFIA (SETFIA, 2002). There are two suppliers of ELogs listed by AFMA , CatchLog<sup>39</sup> and OLRAC<sup>40</sup>. They both operate on Windows PCs and while they can collect additional data (above what is required by AFMA), AFMA only receives the data they require.

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<sup>38</sup> Coral Sea Fishery, High Seas Fishery, Northern Prawn Fishery, North West Slope Trawl Fishery, Small Pelagic Fishery, Western Deepwater Trawl Fishery

<sup>39</sup> [www.catchlog.com](http://www.catchlog.com)

<sup>40</sup> [www.olsps.com](http://www.olsps.com)

# Appendix

**Table 3. Australian commercial fisheries.**

Commonwealth	NSW	Victoria	Queensland	South Australia	Western Australia	Tasmania	Northern Territory
Bass Strait Central Zone Scallop Fishery	Abalone Fishery	Bait Fishery	Blue Swimmer Crab Fishery	Abalone Fishery	Abrolhos Islands and Mid West Trawl Managed Fishery	Ansons Bay Vongole fishery	Arafura-West Mud Crab Fishery
Southern Bluefin Tuna Fishery	Estuary General Fishery	Corner Inlet Fishery	Coral Reef Fin Fish Fishery	Blue Crab Fishery		Georges Bay Venus Clam Fishery	Barramundi Fishery
Coral Sea Fishery	Estuary Prawn Trawl Fishery	Giant Crab Fishery	Crayfish and Rock Lobster Fishery	Coffin Bay Cockle Fishing Zone	Broome Prawn Fishery	Giant Crab Fishery	Coastal Line Fishery
Eastern Tuna and Billfish Fishery	Lobster Fishery	Gippsland Lakes Fishery	Deep Water Fin Fish fishery	Gulf St Vincent Prawn Fishery	Cockburn Sound (Fish Net) Managed Fishery	Greenlip Abalone Fishery	Demersal Fishery
Heard Island and McDonald Island Fishery	Ocean Hauling	Inshore Trawl Fishery	Developmental Fin Fish Trawl Fishery	Lakes and Coorong Fishery		Octopus Fishery	Fishery Tour Operator
High Seas Fishery	Ocean Trap and Line	Ocean Fishery	East Coast Inshore Fin Fish Fishery	Marine Scalefish Fishery	Cockburn Sound Crab Fishery	Rock Lobster Fishery	Mackerel Fishery
Indian Ocean Tuna Commission	Ocean Trawl Fishery	Ocean Purse Seine Fishery	East Coast Otter Trawl Fishery	Non Quota Cockle Fishery	Esperance Southern Rock Lobster Fishery	Scalefish Fishery	Mother of Pearl Wild Harvest Fishery
Macquarie Island Toothfish Fishery		Ocean Scallop Fishery	East Coast Pearl Fishery	Northern Zone Giant Crab Fishery	Esperance Surf Crab Fishery	Scallop Fishery	Mud Crab Fishery
Northern Prawn Fishery		Port Phillip Bay and Western Port Bay Fishery	East Coast Spanish Mackerel Fishery	Northern Zone Rock Lobster Fishery	Exmouth Gulf Beach Seine and Mesh Net Fishery	Tasmanian Banded Morwong Fishery	Off Net and Line Fishery
Small Pelagic Fishery		Port Phillip Bay Dive Scallop Fishery	Finfish Trawl Fishery	Port River Cockle Fishing Zone	Exmouth Gulf Developing Crab Fishery	Tasmanian Bass Strait Zone Fishery	Spanish Mackerel Fishery
South Tasman Rise Trawl Fishery		Port Phillip Bay Purse Seine Fishery	Gulf of Carpentaria Developmental Fin Fish Trawl Fishery	Prawn Fishery	Exmouth Gulf Prawn Managed Fishery		Timor Reef Fishery
Southern and Eastern Scalefish and Shark Fishery (multiple sectors)		Velvet Crab Fishery	Gulf of Carpentaria Inshore Fin Fish Fishery	Sardine Fishery	Gascoyne Demersal Scalefish Fishery		Tropical Rock Lobster Developmental Fishery
Southern Squid Jig Fishery		Victorian Banded Morwong Fishery	Gulf of Carpentaria Line Fishery	Southern Zone Giant Crab Fishery	Geographe Bay Developing Crab Fishery		Western Gulf of Carpentaria Mud Crab Fishery
Torres Strait Finfish Fishery		Victorian Rock Lobster Fishery	Mud Crab Fishery	Southern Zone Rock Lobster Fishery	Joint Authority Northern Shark Fishery		
Torres Strait Prawn Fishery		Victorian Scallop Fishery	River and Inshore Beam Trawl Fishery	Spencer Gulf Prawn Fishery	Joint Authority Southern Demersal Gillnet and Demersal Longline Fishery (Zone 1 & Zone 2)		
Torres Strait Protected Zone Joint Authority			Rocky Reef Fin Fish Fishery	West Coast Cockle Fishing Zone	Kimberley Developing Mud Crab Fishery		
Torres Strait Rock Lobster Fishery			Spanner Crab Fishery	West Coast Prawn Fishery	Kimberley Gillnet and Barramundi Fishery		
Torres Strait Spanish Mackerel Fishery					Kimberley Prawn Fishery		

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Western and Central  
Pacific Fisheries  
Commission  
Western Deepwater Trawl  
Fishery  
Western Tuna Billfish  
Fishery

Mackerel Fishery  
Mandurah to Bunbury  
Developing Crab Fishery  
Nickol Bay Prawn Fishery  
North Coast Shark Fishery  
Northern Demersal  
Scalefish Fishery  
Onslow Prawn Fishery  
Pearl Oyster Fishery  
Peel–Harvey Estuary Crab  
Fishery  
Pilbara Developmental  
Crab Fishery  
Pilbara Fish Trawl (Interim)  
Fishery  
Pilbara Line Fishery  
Pilbara Trap Fishery  
Shark Bay Beach Seine and  
Mesh Net Fishery  
Shark Bay Crab Fishery  
Shark Bay Prawn Fishery  
Shark Bay Scallop Fishery  
Shark Bay Snapper Fishery  
South Coast Crustacean  
Fishery  
South Coast Deep Sea  
Crab Fishery  
South Coast Estuarine  
Fishery  
South Coast Purse-Seine  
Fishery  
South Coast Salmon  
Fishery  
South Coast Trawl Fishery  
South West Coast Beach  
Net Fishery  
South West Coast Salmon  
Fishery  
South West Trawl Fishery  
Swan and Canning Rivers  
Crab Fishery (Area I of  
West Coast Estuarine  
Managed Fishery)  
Warnbro Sound Crab  
Fishery  
West Coast (Beach Bait  
Fish Net) Managed Fishery  
West Coast Deep Sea Crab  
Fishery (FBL condition)

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West Coast Deep Sea  
Crustacean Fishery  
West Coast Demersal  
Gillnet and Demersal  
Longline (Interim) Fishery  
West Coast Demersal  
Scalefish (Interim) Fishery  
West Coast Estuarine  
Managed Fishery  
West Coast Purse-seine  
Fishery  
West Coast Rock Lobster  
Fishery  
Western Australian  
Vongole Fishery  
Windy Harbour Rock  
Lobster Fishery

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