

Committee Secretary
Senate Standing Committee on Rural and Regional Affairs and Transport
PO Box 6100
Parliament House
Canberra ACT 2600
rrat.sen@aph.gov.au

*Greenpeace Australia Pacific's submission to the Senate Standing
Committee on Rural and Regional Affairs and Transport inquiry into:
The current requirements for labelling of seafood and seafood
products*

Greenpeace Australia Pacific welcomes the opportunity to make a submission to the current Senate inquiry into Australia's seafood labelling laws. Our treasured marine environment is of incomparable ecological value and, along with the fisheries it supports and unique ecosystems it houses, it represents a significant cultural asset and economic good. The production of seafood is critical to the fabric of numerous Australian coastal communities. The availability of seafood for consumption is also considered to be a benefit to public health.

While per capita consumption of seafood has roughly doubled since 1975, domestic production has remained stable for the last two decades. As a result, Australia is now a net importer of seafood with approximately 70 per cent of seafood consumed coming from overseas. While there may be opportunities to better utilise under-valued and under-exploited domestic fisheries, there is not considered to be room for significant expansion of total production and Australia's reliance on imports is not likely to diminish.

Fisheries products are the most highly traded food commodity globally.¹ Unlike other food commodities, wild-caught fisheries are the only remaining significant food-source that can be considered a genuine common public good. Fisheries are also uniquely connected to the environment in the sense that the way seafood is harvested directly impacts on supportive ecological systems and their ability to naturally replenish and be utilised into the future.

The global production and trade of seafood is characterised by exceptional complexity. Accurate, informative seafood labelling is therefore fundamental to ensure consumer welfare, facilitate seafood chain-of-custody, protect public health, encourage sustainable use of fisheries resources, and ensure food security.

¹ Asche & Smith, 2009 http://www.wto.org/english/res_e/reser_e/ersd201003_e.pdf

Consumers get their information about the sustainability of seafood from a mix of sources and via a range of media. Reflecting the mix of sources, consumers are naturally faced with a range of often-conflicting information. It is unrealistic to expect all stakeholders will agree on matters of sustainability all of the time. Consequently, values-neutral data that identifies species, origin, and production method can and should be provided to consumers to allow them to make informed, independent choices.

In Australia a seafood label at all points of sale should include:

- 1) What it is - standardised species common name indicating unique species and/or scientific name;
- 2) Where it was caught -
 - a. For Australian seafood: the individual Australian state or Commonwealth fishery from which the fish is sourced;
 - b. For imported seafood: the United Nations Food and Agriculture Organisation (FAO) major fishing area designation identified by name or, where fish is harvested exclusively in national exclusive economic zones (EEZ), the name of the individual country(ies); and individual stock where more than one known stock exists in a given FAO area or EEZ or fishery.
- 3) How it was caught - specific type of fishing gear used as per UN FAO designation <http://www.fao.org/fishery/geartype/search/en>

Greenpeace Australia Pacific would welcome the opportunity to give further evidence before the committee in person via a representative.

Recommendations

Recommendation 1:

Implement seafood labelling laws for all seafood purchases at all points of sale that require the following information to be displayed:

- 1) What it is - standardised species common name indicating unique species and/or scientific name;***
- 2) Where it was caught -***
 - a. For Australian seafood: the individual Australian state or Commonwealth fishery from which the fish is sourced;***
 - b. For imported seafood: the United Nations Food and Agriculture Organisation (FAO) major fishing area designation identified by name or, where fish is harvested exclusively in national exclusive economic zones (EEZ), the name of the individual country(ies); and individual stock where more than one known stock exists in a given FAO area or EEZ or fishery.***
- 3) How it was caught - specific type of fishing gear used as per UN FAO designation***
<http://www.fao.org/fishery/geartype/search/en>

Recommendation 2:

Ensure adequate resources are provided to the Australian Customs and Border Protection service to ensure accurate data relating to seafood product identification and provenance are recorded.

Recommendation 3:

Ensure adequate resources are provided to improve the fish names standard to the point where there is a standardised common name to uniquely match each individual species. In the interim, where a common name hasn't been applied to each species, implement a legal require that the scientific name be used.

Noting the above, in the remainder of this submission Greenpeace Australia Pacific will address the individual terms of reference for the inquiry.

a. whether the current requirements provide consumers with sufficient information to make informed choices, including choices based on sustainability and provenance preferences, regarding their purchases;

Greenpeace Australia Pacific believes that current labelling requirements *do not* provide consumers with sufficient information to make informed choices. Consumers are in the dark when it comes to choosing what seafood they buy based on sustainability and provenance preferences.

Approximately 70 per cent of Australian seafood is imported,² yet according to the Australian industry, attributing the Fisheries Research and Development Corporation (FRDC), Roy Morgan Research and the Seafood Cooperative Research Centre, most Australians are perceive that they are purchasing Australian seafood when they may not be.³ That discrepancy between perception and fact alone proves that Australian consumers are not sufficiently informed.

Consumers obtain their information about the sustainability of seafood from a mix of sources and via a range of media. The sources of this information include, most notably: ENGOs, celebrity chefs, conventional media, certifying bodies that may or may not be commercial in nature, seafood marketers including retailers, governments, the fishing industry, and academia. Sustainability messages may reach consumers direct from the source via conventional and social media, advertising including point-of-sale advertising, and via government and institutional websites.

The majority of consumers do not regularly access, or are not aware of, the availability of information on the sustainability of the seafood they buy. As the Common Language

² http://frdc.com.au/knowledge/Factsheets/Factsheet_Imported_Seafood_in_Australia.pdf

³ <http://www.wfsa.org.au/index.php/news2/41-national-seafood-industry-alliance-submission-country-of-origin-labelling-inquiry>

Group process acknowledges, stakeholders with different interests present conflicting information, all of which can reach the same consumers.

Values-neutral data that identifies species, origin and production method can and should be provided to consumers to allow them to make informed, independent choices.

Greenpeace has undertaken extensive global work with governments, retailers and seafood providers to ensure fully-verifiable chain-of-custody for all seafood products. This work has contributed to legislative and market reform in several jurisdictions, including the European Union (EU) and United States (US). The aim of Greenpeace's engagement with international markets and jurisdictions has been that any seafood product (as in products made of marine animals) sold by fishmongers, wholesalers or retailers should, in order to comprehensively inform the consumer, have clear and easily understandable and readable labelling containing the following information:

Products made from wild caught seafood:

- *the specific common names of each seafood species contained in the product (e.g. not just 'tuna' but 'skipjack tuna')*
- *the scientific name (Latin species name) for each seafood species contained in the product*
- *the catch area, as defined by the FAO spelled out in words (not as a number), and the name of the stock where each species contained in the product came from (eg Georges Bank stock)*
- *the production method ('wild caught') for each seafood species contained in the product*
- *the gear type (eg trawl) and exact fishing method (eg bottom otter trawl or mid-water trawl; purse seining or purse seine with fish aggregation device) used for each seafood species contained in the product.*

Greenpeace's position is supported by information provisions outlined under the Common Language Group (CLG), an initiative of the FRDC involving stakeholders that include seafood importers, domestic seafood producers, experts, retailers and the conservation sector, which states that:

In order for consumers to make an informed choice on sustainable seafood, they need to know:

- *Which fish is this?*
- *Where did it come from?*
- *How much is caught and how is it caught?*
- *How is the fishery managed and assessed?*
- *Who is saying/endorsing that the fish is sustainable and on what basis?⁴*

⁴ Defining Sustainable Australian seafood – Wild Capture Fisheries Issues Paper 1 Final, FRDC, available at http://frdc.com.au/knowledge/common_language/Pages/default.aspx

Greenpeace also notes that the stated object of Australia's Competition and Consumer Act 'is to enhance the welfare of Australians through the promotion of competition and fair trading and provision for consumer protection.'⁵ Moreover, the United Nations Guidelines on Consumer Protection,⁶ to which Australia is a signatory, state that 'consumer protection' extends to '[a]ccess of consumers to adequate information to enable them to make informed choices according to individual wishes and needs.'⁷

Current labelling requirements in Australia fail to ensure even basic information is provided to the Australian consumer for the majority of seafood purchases.

The current legal requirements for labelling of seafood in Australia stem from a variety of laws at federal and state levels, forming a patchwork of inadequate and confusing legislation.

Seafood labelling requirements fall into two broad categories: 'country of origin' and 'ingredient identification' labelling.

Federal laws require that unpackaged seafood available at retailers must at minimum state whether the product is local or imported. Packaged seafood must be labelled with the so-called 'country origin' and there are restrictions on what may be labelled a 'product of Australia' (all significant ingredients must originate in Australia; otherwise 'packaged' or 'manufactured' in Australia applies).

Unfortunately, 'country of origin' in this case does not genuinely refer to the origin of the ingredients contained in the product. Instead it is permitted and more likely to refer to the country where value is added to the product which may have no relation to the actual provenance of the seafood used in its production. A good example of this is canned tuna which is almost exclusively sourced from processors in Thailand and consequently is labelled as 'product of Thailand' when in fact little to no tuna is actually harvested in Thailand. As a result of pressure from conservation groups, most canned tuna retailers now voluntarily label their product with the FAO fishing area, but this is not a requirement and is not applied consistently.

In all but one Australian jurisdiction, the food service industry, where most seafood purchases occur, is even exempt from 'country of origin' labelling. In the Northern Territory laws require imported seafood, prepared for immediate consumption, to be labelled as imported.

The only legal requirement related to species labelling is that identification must be a true representation of the product. References to labelling with species identifying information exist as guidelines only, and where they exist, the flawed 'Australian Fish Names Standard' (AFNS) is used as a reference. Although the AFNS was an

⁵ *Competition and Consumer Act 2010*, s. 2.

⁶ UN Resolution No. 39/248, adopted by General Assembly on 16 April 1985.

⁷ Guidelines, cl. 3 (c).

improvement on the status quo, parts of the AFNS are so broad as to be ineffective, allowing a large number of species groups to be labelled with the same common name, which is inherently misleading. It is therefore legal, for example, to label any number of species as *white fish*. While arguably not untrue, this provides consumers with no useful information given *white fish* is not a species of fish, nor does the term 'white fish' appear in the AFNS.

Recommendation 1:

Implement seafood labelling laws for all seafood purchases at all points of sale that require the following information to be displayed:

- 1) What it is - standardised species common name indicating unique species and/or scientific name;**
- 2) Where it was caught -**
 - a. For Australian seafood: the individual Australian state or Commonwealth fishery from which the fish is sourced;**
 - b. For imported seafood: the United Nations Food and Agriculture Organisation (FAO) major fishing area designation identified by name or, where fish is harvested exclusively in national exclusive economic zones (EEZ), the name of the individual country(ies); and individual stock where more than one known stock exists in a given FAO area or EEZ or fishery.**
- 3) How it was caught - specific type of fishing gear used as per UN FAO designation**
<http://www.fao.org/fishery/geartype/search/en>

b. whether the current requirements allow for best-practice traceability of product chain-of-custody;

Ultimately, best-practice traceability of product chain-of-custody for seafood requires more reform than labelling alone. However, labelling can help ensure compliance with traceability requirements and should be complementary with traceability needs. Traceability procedures and requirements should also ensure accurate information can easily be provided at point of sale.

Australia's data collection at point of import is woeful for many product categories. Resources should be provided to the Australian Customs and Border Protection service to ensure accurate data relating to seafood product identification and provenance are recorded.

Seafood traceability is required to meet public health and safety needs, to ensure rule of law, maintain proper fisheries management, and to regulate fish marketing. Labelling legislation should ensure that any corporation selling seafood labels seafood clearly

and accurately, in a manner which makes buying seafood easy and safe for consumers while keeping them adequately informed. Seafood labelling regulations are inherently connected to the maintenance of traceability and data collection and to the sustainability of both domestic and overseas fisheries.

Seafood is subject to much of the legislation which all food in Australia must comply with, but there is also a clear need for seafood specific regulations because of the complexity of the harvesting and trading system and fisheries resources' status as a common good.

In the United Kingdom, for example, regulation 01224/2009 requires comprehensive product information to be available throughout the seafood supply chain. This information "includes lot number, name of fishing vessel or aquaculture unit, FAO species code, date of catch or period over which caught, quantity, date of supplier, commercial designation, scientific name, catch area and production method."⁸ The Australian Government should identify gaps in domestic requirements related to seafood traceability and develop a world's best practice standard to be implemented by seafood importers and traders.

This data collection, which should 'follow' a seafood product 'from ship to shelf', and be available to the public, will ensure that accurate labelling to the final consumer can easily be provided; conversely, the requirement to label accurately will help to ensure compliance with traceability requirements.

In general, the information required as part of a traceability regime should exceed that which is required to be displayed on a label. In addition to species, provenance, and catch method which should appear on a label at all points of sale, traceability should ensure that the following information can be made available to the consumer upon request and within a reasonable timeframe:

Products made from wild-caught seafood:

- *The status of the stock (depleted, lightly-exploited, fully-exploited, over-exploited), according to the scientific body advising the management organisation in charge (eg AFMA, for Commonwealth managed fisheries); in the event that a stock assessment has not been undertaken, this should be indicated*

⁸ <http://www.seafish.org/industry-support/legislation/traceability-and-labelling/fish-traceability-requirements>

- *the identification number (Maritime Mobile Service Identity (MMSI) or International Maritime Organisation (IMO) number) and the flag state of the vessel that caught each seafood species contained in the product*
- *the date of catch for each species contained in the product*
- *the port and country of landing, as well as the country of processing, for each seafood species contained in the product*
- *the name and address of processing facilities employed in the production of each ingredient*

Products made from farmed/ranched seafood:

- *name or identification number (ID) of farm/ranch*
- *information about the farming/ranching method:*
 - *extensive, semi-intensive, intensive*
 - *closed/open system*
 - *source of broodstock*
 - *chemical products (pharmaceuticals, fertilisers, fungicides etc.) that have been used in the production process*
 - *composition of feed (species and agricultural sources) and percentage of fish meal and oil*
 - *whether feed contained genetically modified organisms (if yes, list which).*

The above information needs to be provided for all products containing any kind of seafood in processed and unprocessed products.

Recommendation 2:

Ensure adequate resources are provided to the Australian Customs and Border Protection service to ensure accurate data relating to seafood product identification and provenance are recorded.

c. the regulations in other jurisdictions, with particular reference to the standards in the European Union (EU) under the common market regulation (EU) No 1379/2013 Article 35;

It is fortunate for Australia that another, larger and more complex, jurisdiction has recently reformed seafood labelling. The European Union is the number one importer of seafood by value, accounting for 24% of all seafood trade globally and consuming 12.3 million tonnes or AUD 74.5 billion worth of seafood in 2011.⁹ Europeans also

⁹ The EU Fishmarket - 2014 edition <http://ec.europa.eu/fisheries/market-observatory/documents/10157/bf18cf2c-1b33-440d-8870-e05b2644b58b>

consume greater quantities of seafood per capita than Australians and a greater variety of species, in particular a greater variety of finfish.

In January 2014 the European Union agreed laws under the common market organisation, that will make it a uniform requirement for all seafood sold to the public, packaged or unpackaged, to be identified by signage that says in language understandable to the average consumer:

- *the species' commercial and scientific names;*
- *whether the products were caught at sea or in freshwater, or farmed*
- *the catch or production area:*
 - *fish caught at sea: the FAO sub-area or division (NE Atlantic, Mediterranean and Black Sea) or the FAO area (other waters)*
 - *freshwater fish: the body of water in the EU country or non-EU country of origin*
 - *farmed fish: EU or non-EU country of final rearing period;*
- *the fishing gear used.*¹⁰

There should be little practical impediment in Australia to adopting similar guidelines given the comparative scale and complexity of European seafood trade.

Although slightly more self-sufficient than Australia on paper (the figure is distorted by Europe's large distant water fleet fishing outside EU waters), European seafood consumption is similarly heavily reliant on imports - although imports come from a greater diversity of countries. Total seafood consumption in Europe is also much higher. The EU's major source for imported seafood is China, but includes the US, African nations, Norway, Thailand and other countries from south East Asia¹¹. The European seafood market is many times more complex than Australia's, based on the breadth of import sources and the range of cultural and economic conditions that prevail in EU member states.

In Australia, a significant proportion of our imports come from nearby New Zealand. This means our major supplying country and domestic producers speak the same language, catch many of the same species, and operate under similar management regimes. A further significant trading partner in Thailand has also been a major source of seafood for many years and processors in Thailand are already able to meet Australian standards for traceability.

Australians deserve, no less than Europeans, to be told what they are buying, where it came from, and how it was caught or farmed. With proper, clear labelling they will eat a greater variety of fish, perhaps more of it, favour more sustainable local catch, improve their health, and live in a healthier environment as a consequence.

¹⁰ http://ec.europa.eu/fisheries/cfp/market/marketing/index_en.htm

¹¹ The EU Fishmarket - 2014 edition <http://ec.europa.eu/fisheries/market-observatory/documents/10157/bf18cf2c-1b33-440d-8870-e05b2644b58b>

It is notable that the costs to business in the retail sector in England and Wales associated with implementing the EU common market regulation reforms for seafood were estimated at GBP 0.57 million annually,¹² or approximately AUD 1 million at today's exchange rate. This figured included adding the additional information related to specific fish stock and gear type on a label as well as the date of landing of the fish. While not reflecting impacts on the restaurant sector, the value of these estimated costs of implementation across all retail outlets in England and Wales across a population much larger than Australia's and requiring significantly more complicated detail, calls into question figures recent put forward by the Australian Restaurant and Catering Association which estimated the cost of implementing country of origin labelling alone at AUD 300 million annually to their sector.¹³

d. the need for consistent definitions and use of terms in product labelling, including catch area, species names, production method (including gear category), and taking into account Food and Agriculture Organisation guidelines;

Consistency in seafood labelling is crucial, as is sufficient specificity. All seafood sold in Australia should consistently display information that informs the consumer what species they are eating; where it came from; and how it was caught or farmed for reasons described in answer to section a).

This needs to be consistent regardless of where the purchase is taking place in Australia or the nature of the outlet the consumer is purchasing from. Labelling also needs to apply to imported seafood in the same manner that it applies to Australian food. Any variation or inconsistency will leave consumers unable to make informed choices and unable to have their preferences and rights met.

In the Northern Territory, where a recent law has required that imported fish be identified as such, the outcome has been that Australian seafood still might carry no label at all. The fact that labelling laws did not have to be applied to all seafood consistently has meant that both consumers and retailers have been confused about what they have been purchasing and what they have been required to disclose respectively.

It is also crucial that Australia achieve accuracy in the Australian Fish Names Standard (the use of which should be legislated for). Currently the standard is voluntary, meaning names like 'white fish' a catch-all for a variety of very different species, are still permitted even though they don't feature in the standard. Furthermore, even within the standards, there is too little specificity when it comes to some fish names which

¹² Implementation of the Common Organisation of the Market in Fishery and Aquaculture Products (CMO) Regulation in England and Wales, IA No: Defra 1725, available at: <https://consult.defra.gov.uk/fisheries/cmo...fishery-and-aquaculture-prod...>

¹³<http://www.goodfood.com.au/good-food/food-news/deception-seafood-industry-wants-country-of-origin-labels-20140703-zsusc.html>

refer to a 'group' of species. A particularly poor example is the fish name *Blacktip shark* which can refer to greater than thirty individual shark species including the protected oceanic white tip shark and the common bull shark.¹⁴

In the EU, where multiple common names exist due to cultural and language differences, the requirement is that both the common and scientific name are used. This means that even where common names are necessarily applied inconsistently, accurate identification of the species is ensured because the scientific name is applied consistently. Ideally, the fish names standard should be improved to the point where there is a standardised common name to uniquely match each individual species. When that is the case, it will be unnecessary to use scientific names which may not serve the average consumer well. In the interim, where a common name hasn't been applied to each species, it would be appropriate to require that the scientific name be used.

Australian seafood labelling should also be consistent with the EU and other best-practice markets: to that end, the use of FAO area and gear-type terminology should be implemented alongside regional differentiation for domestic seafood.

Recommendation 3:

Ensure adequate resources are provided to improve the fish names standard to the point where there is a standardised common name to uniquely match each individual species. In the interim, where a common name hasn't been applied to each species, implement a legal require that the scientific name be used.

e. the need for labelling for cooked or pre-prepared seafood products with reference to the Northern Territory's seafood country of origin regulation;

Australian consumers purchase their seafood from a variety of outlets, and for many Australians, restaurants may be the only place where seafood is consumed regularly. It is widely held that the majority of seafood purchases are made in the food service industry.¹⁵ Regardless of the outlet, a consumer still requires the same minimum of information to make an informed choice. The outcome in terms of availability of information and the satisfaction of consumer welfare should not differ depending on whether they are purchasing from a fishmonger, supermarket, or a restaurant on a given occasion.

We are fortunate to have an example of a jurisdiction where labelling improvements have recently been made that we can learn from. The experience in the Northern Territory has had a marked affect on seafood purchasing behaviour and consumer

¹⁴ <http://www.fishnames.com.au/fishnames/fishnames.php?pid=181>

¹⁵ <http://www.wfsa.org.au/index.php/news2/41-national-seafood-industry-alliance-submission-country-of-origin-labelling-inquiry>

satisfaction. It is favoured by a majority of consumers, food service providers, and importantly by the fishing industry.¹⁶

In the Northern Territory however, (as addressed above in *d.*) the law has only required that imported fish be identified as such, which has meant that Australian seafood might carry no label at all. The fact that labelling laws do not have to be applied to all seafood consistently has meant that both consumers and retailers have been confused about what they have been purchasing and what they have been required to disclose respectively.

f. recommendations for the provision of consumer information as determined through the Common Language Group process conducted by the Fisheries Research and Development Corporation;

The Common Language Group was devised by the FRDC to overcome a major problem of consumer confusion that affects the seafood industry and consumer behaviour in relation to seafood. This confusion derives from myriad claims made by different parties in relation to seafood. These claims can come from marketing firms, retailers, the industry itself, government, conservation groups and other stakeholders.

Fisheries management is complex and ascertaining the sustainability or otherwise of seafood products will always be difficult even if there can be an agreement on what 'sustainability' itself means – which hasn't yet been achieved. The CLG has found, in agreement with conservation groups and other stakeholders, that at some values-neutral information should be provided consistently and regulated for in order to eliminate confusion

This consultative process has been inclusive and relatively thorough. Greenpeace supports the findings of CLG issue paper 1 which have found, regarding labelling, and as highlighted above, that:

In order for consumers to make an informed choice on sustainable seafood, they need to know:

- *Which fish is this?*
- *Where did it come from?*
- *How much is caught and how is it caught?*
- *How is the fishery managed and assessed?*
- *Who is saying/endorsing that the fish is sustainable and on what basis?¹⁷*

g. whether current labelling laws allow domestic seafood producers to compete on even terms with imported seafood products;

¹⁶ <http://frdc.com.au/research/final-reports/Pages/2009-216-DLD.aspx>

¹⁷ Defining Sustainable Australian seafood – Wild Capture Fisheries Issues Paper 1 Final, FRDC, available at http://frdc.com.au/knowledge/common_language/Pages/default.aspx

Australia's seafood labelling laws do not allow domestic seafood producers to compete on an even playing field with imported seafood products. As noted above, a perception exists among Australian consumers that the seafood they are purchasing is Australian when often that is not the case. This misperception allows sellers of imported product to benefit from the positive perception of Australian seafood without being subject to the same costs of production that Australian producers endure.

While Australian fisheries management is far from perfect, at the very least Commonwealth fisheries management is of a high standard relative to the standards applicable in the jurisdictions from which most of Australia's seafood is imported. Imported products may be subject to very little environmental management and may have been produced under health and labour standards that are rightly considered unacceptable in Australia. By virtue of being subject to less than satisfactory regulation, some imported seafood products can be delivered to the Australian consumer at a fraction of the cost of local production. However, due to the lack of requirement for accurate labelling, these products may be perceived as identical to local product by the consumer and consequently represent direct competition on price.

Seafood species that are often mistakenly assumed to be Australian but which are actually likely to be produced under unsatisfactory conditions and imported at low cost include: squid – which is up to almost ten times more likely to be imported than local¹⁸; barramundi – which has a roughly fifty per cent chance of being imported according to industry¹⁹; tiger prawns, which are more likely to be imported than Australian;²⁰ and flathead, which is often not what most Australians know to be flathead but in fact *Percophis brasiliensis* a species from an entirely different family to Australian flathead species.²¹

Prepared by Nathaniel Pelle
Oceans Campaigner
Greenpeace Australia Pacific

¹⁸ Fish Status 2012 -

http://data.daff.gov.au/data/warehouse/9aam/fsrXXd9abm_/fsr12d9abm_00220131029/00_Fish Status2012_1.1.0.pdf

¹⁹ <http://www.news.com.au/national/more-than-half-of-australians-most-popular-fish-barramundi-is-from-asia/story-fn>

do4eg9-1226460161897

²⁰

http://data.daff.gov.au/data/warehouse/9aam/afstad9aamd003/2012/AustFishStats_2012_v1.0.0.pdf

²¹ <http://www.fishnames.com.au/fishnames/fishnames.php?pid=3521>