

Australian Government

Department of Agriculture and Water Resources ABARES

Australian fisheries and aquaculture statistics 2016

Research by the Australian Bureau of Agricultural and Resource Economics and Sciences

DECEMBER 2017



© Commonwealth of Australia 2017

Ownership of intellectual property rights

Unless otherwise noted, copyright (and any other intellectual property rights, if any) in this publication is owned by the Commonwealth of Australia (referred to as the Commonwealth).

Creative Commons licence

All material in this publication is licensed under a Creative Commons Attribution 4.0 Australia Licence, save for content supplied by third parties, logos and the Commonwealth Coat of Arms.



Creative Commons Attribution 4.0 Australia Licence is a standard form licence agreement that allows you to copy, distribute, transmit and adapt this publication provided you attribute the work. A summary of the licence terms is available from creativecommons.org/ licenses/by/4.0. The full licence terms are available from creativecommons.org/licenses/by/4.0/legalcode.

Cataloguing data

This publication (and any material sourced from it) should be attributed as Mobsby, D and Koduah, A 2017, *Australian fisheries and aquaculture statistics 2016*, Fisheries Research and Development Corporation project 2017-095. ABARES, Canberra, December. CC BY 4.0.

ISBN 978-1-74323-371-9 ISSN 2205-0094

Internet

Australian fisheries and aquaculture statistics 2016 is available at agriculture.gov.au/abares/publications.

Contact

Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES)

Postal address	GPO Box 858 Canberra ACT 2601
Switchboard	+61 2 6272 3933
Email	info.abares@agriculture.gov.au
Web	agriculture.gov.au/abares

Inquiries regarding the licence and any use of this document should be sent to copyright@agriculture.gov.au.

The Australian Government acting through the Department of Agriculture and Water Resources, represented by the Australian Bureau of Agricultural and Resource Economics and Sciences, has exercised due care and skill in preparing and compiling the information and data in this publication. Notwithstanding, the Department of Agriculture and Water Resources, ABARES, its employees and advisers disclaim all liability, including liability for negligence, for any loss, damage, injury, expense or cost incurred by any person as a result of accessing, using or relying on any of the information or data in this publication to the maximum extent permitted by law.



Acknowledgements

ABARES thanks state and territory fisheries departments and the Australian Fisheries Management Authority, researchers and industry representatives for contributing fisheries and aquaculture production data presented in this report. Thanks to the commodities data management team from ABARES for help preparing data. Thanks also to the Australian Bureau of Statistics for trade data. Australian fisheries and aquaculture statistics 2016 is supported by funding from the Fisheries Research and Development Corporation (project 2017-095) and ABARES.

Note

Commercial fish and invertebrates are referred to in this report by the names specified in Australian Fish Names Standard AS SSA 5300–2011. In this report, standard fish names for groups of species are not capitalised and initial capital letters are only used for proper nouns. This approach, which differs from the Australian Fish Names Standard, complies with general usage and Australian Government requirements for web content accessibility.

Foreword

The Australian fisheries and aquaculture statistics report is a comprehensive source of information for the commercial fishing and aquaculture industry, fisheries managers, policymakers and researchers. Since 1991 the report has presented annual updates of fisheries production and trade data and from 2013 it has included data on Australian seafood consumption. Estimates of the gross value of production provided in the report are used for a range of purposes, including to determine Commonwealth, state and territory fisheries research funding arrangements each year.

The report contains data on the volume and value of production from state and Commonwealth commercial fisheries and on the volume and value of Australian fisheries trade by destination, source and product. Profiles of Australian commercial and aquaculture fisheries in 2014–15 and 2015–16 are also provided. These profiles display the number of licence holders by selected species and fishing methods for all Commonwealth, state and territory fisheries. The publication is primarily focused on providing statistics for production volumes and the landings / farmgate value of the commercial fishing and aquaculture sectors of the Australian fishing industry, which also includes the recreational and Indigenous fishing sectors. While information on recreational and customary wild-caught fishing is also included, statistics on the volumes of wild-caught product by these sectors is not provided. As a result, the publication gives only a partial estimate of the total volume of wild-caught production.

Australian fisheries and aquaculture statistics is part of a suite of ABARES publications that provides a comprehensive account of historical trends in, and the outlook for, Australian fisheries. Agricultural commodity statistics presents production and trade statistics for fisheries and a range of other commodities. Forecasts for major fisheries commodities are updated each quarter in *Agricultural commodities*. The annual Australian fisheries economic indicators report presents detailed analysis of the economic performance of selected Commonwealth fisheries. An assessment of the economic performance of fisheries managed by the Australian Fisheries Management Authority is provided in the annual Fishery status reports.

Steve Hatfield-Dodds

Executive Director, ABARES December 2017

Contents

For	reword	i
	stralia's fishery and aquaculture industry: key trends, global context and Ifood consumption	1
Pro	oduction	9
Tra	de	45
Em	ployment	62
Re	creational and charter fishing	66
Cu	stomary fishing	73
Pro	ofile of Australian fisheries in 2014–15 and 2015–16	78
Glo	ossary	86
Re	ferences	88
Fig	ures	
1	Quantity and value of Australian seafood food exports, 2005–06 to 2015–16	3
2	Australian dollar exchange rate against US dollar and Japanese yen, 2005–06 to 2015–16	4
3	Diesel price, 2005–06 to 2015–16	4
4	Seafood import price index Australia, 2005–06 to 2015–16	5
5	Apparent consumption, production and net imports of seafood, Australia, 2005–06 to 2015–16	7
6	Australian per-person apparent consumption of meats and seafood, 2005–06 to 2015–16	7
7	Value of Australian fishery production by sector, 2005–06 to 2015–16	11
8	Volume of Australian fishery production by sector, 2005–06 to 2015–16	11
9	Wild-catch production value by species group, 2005–06 to 2015–16	13
10	Wild-caught finfish production value by species, 2005–06 to 2015–16	14
11	Wild-caught crustacean production value by species, 2005–06 to 2015–16	15
12	Wild-caught mollusc production value by species, 2005–06 to 2015–16	16
13	Australian aquaculture production value by species group, 2005–06 to 2015–16	17
14	Aquaculture finfish production value by species, 2005–06 to 2015–16	18

Contents

15	Aquaculture crustacean production value by species, 2005–06 to 2015–16	18
16	Aquaculture mollusc production value by species, 2005–06 to 2015–16	19
17	Shares in gross value of fishery and aquaculture production by jurisdiction, 2005–06 and 2015–16	20
18	Value of Australian fishery and aquaculture production by jurisdiction, 2015–16	21
19	NSW fisheries and aquaculture production value by sector, 2005–06 to 2015–16	21
20	NSW wild-catch production value by species, 2005–06 to 2015–16	22
21	NSW aquaculture production value by species, 2005–06 to 2015–16	23
22	Victoria fisheries and aquaculture production value by sector, 2005–06 to 2015–16	24
23	Victorian wild-catch production value by species, 2005–06 to 2015–16	25
24	Victorian aquaculture production value by species, 2005–06 to 2015–16	26
25	Queensland fisheries and aquaculture production value by sector, 2005–06 to 2015–16	27
26	Queensland wild-catch production value by species, 2005–06 to 2015–16	28
27	Queensland aquaculture production value by species, 2005–06 to 2015–16	29
28	SA fisheries and aquaculture production value by sector, 2005–06 to 2015–16	30
29	SA wild-catch production value by species, 2005–06 to 2015–16	31
30	SA aquaculture production value by species, 2005–06 to 2015–16	32
31	WA fisheries and aquaculture production value by sector, 2005–06 to 2015–16	33
32	WA wild-catch production value by species, 2005–06 to 2015–16	34
33	WA aquaculture production by species, 2005–06 to 2015–16	35
34	Tasmanian fisheries and aquaculture production by sector, 2005–06 to 2015–16	36
35	Tasmanian wild-catch production value by species, 2005–06 to 2015–16	37
36	Tasmanian aquaculture production value by species, 2005–06 to 2015–16	38
37	NT fisheries and aquaculture production value by sector, 2005–06 to 2015–16	39
38	Value of NT wild-catch production value by species, 2005–06 to 2015–16	40
39	Commonwealth fisheries production value by fishery, 2005–06 to 2015–16	42
40	Commonwealth fisheries production value by species, 2005–06 to 2015–16	43
41	Australian fishery export and import value, 2005–06 to 2015–16	47
42	Value of Australian fishery exports, 2005–06 to 2015–16	48
	Value of finfish exports by species group, 2005–06 to 2015–16	49
44	Value of crustacean and mollusc exports by species, 2005–06 to 2015–16	50
45	Value of non-edible exports by product, 2005–06 to 2015–16	51
46	Value of edible exports by destination, 2005–06 to 2015–16	52
47	Value of non-edible exports by destination, 2005–06 to 2015–16	53
48	Value of edible exports by state, 2005–06 to 2015–16	55
	Value of fishery and aquaculture product imports, 2005–06 to 2015–16	56
50	Value of finfish imports by species, 2005–06 to 2015–16	57
51	Australian tuna trade by product form, 2015–16	57
	Value of crustacean and mollusc imports by value, 2005–06 to 2015–16	58
	Value of non-edible imports by product group, 2005–06 to 2015–16	59
54	Value of edible product imports (excluding live products) by source,	60
	2005–06 to 2015–16	60

55	Value of non-edible imports by source, 2005–06 to 2015–16	61
56	Employment in the Australian commercial fishing and aquaculture sectors,	
	2005–06 to 2015–16	63
Tab	bles	
1	Top five wild-catch and aquaculture species by value, 2015–16	10
2	Australian fisheries and aquaculture production by sector, 2015–16	11
3	Wild-caught finfish species production, 2015–16	14
4	Wild-caught crustacean production by species, 2015–16	15
5	Wild-caught mollusc production by species, 2015–16	16
6	Aquaculture finfish production by species, 2015–16	17
7	Aquaculture crustacean production by species, 2015–16	19
8	Aquaculture mollusc production by species, 2015–16	19
9	NSW fisheries and aquaculture production by sector, 2015–16	22
10	NSW wild-catch production by species, 2015–16	22
11	NSW aquaculture production by species, 2015–16	23
12	Victorian fisheries and aquaculture by sector, 2015–16	24
13	Victorian wild-catch production by species, 2015–16	25
14	Victorian aquaculture production by species, 2015–16	26
15	Queensland fisheries and aquaculture production by sector, 2015–16	27
16	Queensland wild-catch production by species, 2015–16	28
17	Queensland aquaculture production by species, 2015–16	29
18	SA fisheries and aquaculture production by sector, 2015–16	30
19	SA wild-catch production by species, 2015–16	31
20	SA aquaculture production by species, 2015–16	32
21	WA fisheries and aquaculture production by sector, 2015–16	33
22	WA wild-catch production by species, 2015–16	34
23	WA aquaculture production by species, 2015–16	35
24	Tasmanian fisheries and aquaculture production by sector, 2015–16	36
25	Tasmanian wild-catch production by species, 2015–16	37
26	Tasmanian aquaculture production by species, 2015–16	38
27	NT fisheries and aquaculture production by sector, 2015–16	39
28	NT wild-catch production by species, 2015–16	40
29	Commonwealth fisheries production by fishery, 2015–16	41
30	Commonwealth fisheries production by species, 2015–16	43
31	Top five edible and non-edible exports by value, 2015–16	45
32	Top five edible and non-edible exports by destination, 2015–16	46
33	Top five edible and non-edible imports by species, 2015–16	46
34	Top five edible and non-edible imports by origin, 2015–16	46
35	Fishery and aquaculture product exports, 2015–16	48
36	Finfish exports by species, 2015–16	49
37	Crustacean and mollusc exports by species, 2015–16	50
38	Non-edible exports by product, 2015–16	51

39	Edible exports by destination, 2015–16	52
40	Non-edible exports by destination, 2015–16	53
41	Edible exports by state, 2015–16	54
42	Fishery and aquaculture imports, 2015–16	55
43	Finfish imports by species, 2015–16	57
44	Crustacean and mollusc imports, by value (annual per cent change), 2015–16	58
45	Non-edible imports by value (annual per cent change), 2015–16	59
46	Source of edible imports by value, 2015–16	60
47	Source of non-edible imports by value (annual per cent change), 2015–16	61
48	Employment in the Australian commercial fishing and aquaculture industry, 2011–12 to 2015–16 a	63
49	Estimated employment in the Australian commercial fishing and aquaculture industry, 2016 a	65
50	Commonwealth fisheries profiles, 2014–15 to 2015–16	78
51	NSW fisheries profiles, 2014–15 to 2015–16	80
52	Victorian fisheries profiles, 2014–15 to 2015–16	81
53	Queensland fisheries profiles, 2014–15 to 2015–16	82
54	South Australian fisheries profiles, 2014–15 to 2015–16	83
55	Western Australian fisheries profiles, 2014–15 to 2015–16	84
56	Tasmanian fisheries profiles, 2014–15 to 2015–16	84
57	Northern Territory fisheries profiles, 2014–15 to 2015–16	85
Box	Kes l	
1	Exchange rates and unit value	3
2	Deriving apparent consumption of Australian seafood	6
3	Gross value of fishery production	12

Australia's fishery and aquaculture industry: key trends, global context and seafood consumption

Key trends from 2005-06 to 2015-16

- The value of commercial fishery and aquaculture production declined by 10 per cent in real terms between 2005–06 and 2010–11 but then increased by 21 per cent to reach \$3.03 billion (in 2015–16 dollars) in 2015–16.
- The fall in production value between 2005–06 and 2010–11 is largely attributed to a decline in the value of wild-catch production, which was 22 per cent below the level achieved in 2005–06 in real terms. Driving the fall in wild-catch production value in this period was the sharply higher value of the Australian dollar, which negatively affected the beach price received for exported wild-catch product. From 2011–12 to 2015–16 the value of wild-caught production increased by 24 per cent to \$1.75 billion.
- The volume of fishery and aquaculture production increased by 8 per cent between 2005–06 and 2015–16. During this period, the pattern of production changed significantly, with a shift from the production of wild-catch stocks (down 22,681 tonnes) toward production of aquaculture products (up 42,394 tonnes).
- The volume of farmed aquaculture products grew at an average annual rate of 6 per cent from 2005–06 to reach 97,046 tonnes in 2015–16. The development of Australia's aquaculture sector in the period 2005–06 to 2015–16 has resulted in the sector increasing its share of total production value and volume. Aquaculture's share of total fishery and aquaculture production value increased from 27 per cent in 2005–06 to 43 per cent in 2015–16. Farmed salmonids drove most of this growth, rising by 168 per cent (up 35,335 tonnes) in this period.
- Japan remained a major export destination for Australian fishery and aquaculture products. However, exports of Australia's fishery and aquaculture products to Japan have declined and the pattern of Australian fishery and aquaculture exports has shifted towards the Hong Kong, China and Vietnam region, with the major export product being rock lobster.
- Australia became a net importer of fishery and aquaculture products in 2007–08 (with respect to value).

- Australia's apparent consumption of seafood increased, on average, at an annual rate of 1 per cent between 2005–06 and 2015–16, from 298,968 tonnes to 333,321 tonnes. Apparent per person consumption of seafood was 13.8 kilograms per person on an edible equivalent basis in 2015–16.
- Domestic seafood supply remained steady between 2005–06 and 2015–16. Imports of seafood increased to fill the gap between consumption and available domestic supply, growing, on average, at an annual rate of 2 per cent between 2005–06 and 2015–16. In 2015–16, imports (222,778 tonnes) accounted for an estimated 67 per cent of Australia's total apparent seafood consumption, up from 66 per cent in 2014–15.

Australia's fishery and aquaculture trade in the global context

Apparent global per-person seafood consumption (whole weight equivalent) increased from 9.9 kilograms in the 1960s to 20.1 kilograms in 2014 (FAO 2016). Meeting this increase in consumption has been rising global fisheries production, which grew at an average annual rate of 3.2 per cent over this period, reaching 167.2 million tonnes by 2014 (FAO 2016). Most of the growth in supply has come from increased aquaculture production, predominantly from the Asian region. Aquaculture accounted for around 50 per cent of global fisheries production in 2014, up from 7 per cent in 1980. The Asian region accounts for 88 per cent of world edible aquaculture production, with China being the largest single aquaculture producer.

Australia's fishery and aquaculture industry is a minor global player, producing less than 0.16 per cent of global fishery and aquaculture supply. However, the industry also exports a range of high unit value fishery and aquaculture products. Australia is a leading supplier of southern bluefin tuna to Japan and live lobster and abalone products to Hong Kong, China and Vietnam (Whittle et al. 2015).

Australian fishery and aquaculture exports are dominated by high unit value products such as rock lobster, tuna and abalone. Imports of fishery and aquaculture products largely consist of lower unit value products such as frozen and canned fish and frozen prawns.

Australia's trade in the fishery and aquaculture sectors is driven by several factors, including the proximity of Australia to the growing seafood market in Asia and Australia's reputation as a reliable and high-quality supplier of high unit value fishery and aquaculture products. Changing population, income levels, urbanisation trends and preferences in the main export markets are also important factors. Other factors, such as trade agreements between Australia and its trading partners and the macroeconomic factors of competing exporting countries, can also contribute to Australia's overall competitiveness in the global market. In the domestic seafood market Australia product competes with imported product from the expanding aquaculture industries in South-East Asia, particularly aquaculture prawns from Thailand and aquaculture finfish (basa) from China.

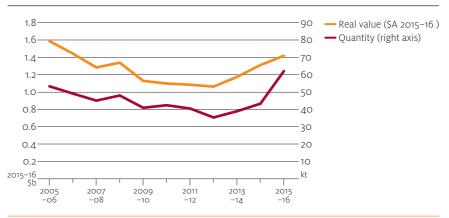
The real export value and volume of Australia's seafood exports decreased between 2005–06 and 2012–13 and then increased between 2012–13 and 2015–16—with a noticeable rise (43 per cent) in volume between 2014–15 and 2015–16 (Figure 1). Underpinning the decline from 2005–06 to 2012–13 was the lower export volumes of prawns (down 5,435 tonnes), rock lobster (down 5,358 tonnes) and crab (down 2,119 tonnes).

All values in this report are nominal Australian dollars (AUD), unless stated otherwise.

China, Hong Kong and Vietnam are the main export destinations for Australian fisheries products. Japan is a major export destination for Australian fishery and aquaculture products but has become less significant since around 2003–04. Anecdotally, China receives much of its Australian fishery and aquaculture products from re-exports via Hong Kong and Vietnam. In 2015–16, the real value of Australia's fishery and aquaculture product exports was \$1.54 billion. In that same year, Australia's main export markets for fishery and aquaculture products (edible and non-edible), in value terms, were Vietnam (\$682 million), Hong Kong (\$277 million), Japan (\$229 million), China (\$108 million) and the United States (\$66 million), together accounting for nearly 90 per cent of total export value.

Australia's competitiveness in the fishery and aquaculture export market is influenced by changes in the exchange rates of Australia's trading partners and competitors. A real depreciation of the domestic currency helps to make exports more competitive. Export trends are in line with exchange rate movements—the Australian dollar depreciated against the US dollar and Japanese yen from 1990–91 to 2000–01 and appreciated against those currencies from 2001–02 to 2015–16 (Box 1 and Figure 2).

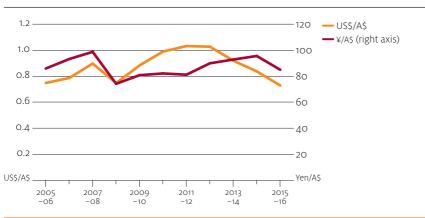
FIGURE 1 Quantity and value of Australian seafood food exports, 2005–06 to 2015–16

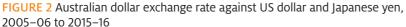


Box 1 Exchange rates and unit value

Globally, Australia is a small producer and exporter of fishery and aquaculture products, and the prices Australian producers receive are generally set on world markets in foreign currencies. A depreciating Australian dollar generally results in producers receiving a higher export price in Australian dollar terms, while an appreciating Australian dollar results in a lower export price.

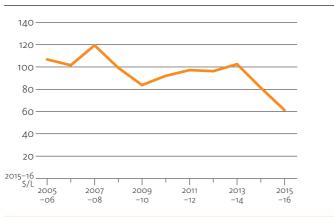
There was a strong appreciation of the Australian dollar from 2005–06 to 2012–13, by 37 per cent, against the US dollar; and a moderate appreciation, by 5 per cent, against the Japanese yen (Figure 2). Depreciation of the Australian dollar against these currencies in 2008–09 (17 per cent against the US dollar and 25 per cent against the yen) increased Australian export unit prices in that year. From 2012–13 to 2015–16 the Australian dollar depreciated by 29 per cent against the US dollar and 6 per cent against the yen, putting upward pressure on export unit prices.

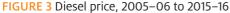




Australian exports of fishery and aquaculture products to Japan declined, on average, at an annual rate of 2 per cent in quantity terms and 8 per cent in value terms between 2005–06 and 2015–16. This decline is linked to a number of factors, including the appreciation of the Australian dollar against the yen and a decline in per-person seafood consumption in Japan since 2001 (FAO 2017); increased Asian prawn aquaculture production displacing some exports of Australian prawns to Japan; and the redirection of Australian seafood trade toward China, Hong Kong and Vietnam.

Fuel is a significant cost item for fishing businesses and can affect the international competitiveness of Australian fishing businesses. The average price of fuel faced by fishing businesses has been volatile over the period 2005–06 to 2015–16, reaching the lowest point for the entire period in 2015–16 (Figure 3).



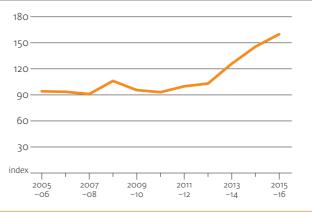


Note: Price excludes taxes.

Australia's consumption of seafood

Australia's apparent consumption of seafood increased, on average, at an annual rate of 1.1 per cent between 2005–06 and 2015–16, from an estimated 298,968 tonnes in 2005–06 to 333,321 tonnes in 2015–16 (Figure 5). Over the same period, domestic seafood supply remained steady at around 110,000 tonnes. Imports of seafood have increased to fill the gap between seafood consumption and local seafood supply. Imports of seafood into Australia increased, on average, at an annual rate of 1.7 per cent, from 188,312 tonnes in 2005–06 to 222,778 tonnes in 2015–16. The largest categories of imported products by value over this period were prepared and preserved fish (mostly canned fish such as tuna), frozen fish, frozen prawns and prepared and preserved prawns. In 2015–16, imports accounted for 67 per cent of Australia's total apparent consumption of seafood, compared with 63 per cent in 2005–06.

The decline in apparent seafood consumption in Australia in 2015–16 was the result of an increase in exports and a decline in imports more than offsetting an increase in domestic seafood production. Around two-thirds of seafood consumed in Australia is imported, and a marked increase in seafood import prices could have been a cause for reduced import volumes. Because of the large variety of seafood products produced and traded in Australia, it is difficult to identify a single cause for the decline in import volume in 2015–16.





Note: 2011–12 = 100. Seafood is defined as products included in division 3 of the Standard International Trade Classification. Source: ABS 2017

In Australia, apparent consumption of seafood per person (edible equivalent) decreased, on average, at an annual rate of 0.6 per cent, from 14.6 kilograms in 2005–06 to 13.8 kilograms per person in 2015–16. The Food and Agriculture Organization of the United Nations (FAO) (2017) estimates annual Australian consumption of seafood at around 26 kilograms whole weight per person in 2013 compared with the ABARES estimate of 13.8 kilograms per person for 2015–16. The difference in estimates is mainly the result of different methods of estimating consumption (Box 2). For example, the FAO applies a consistent method of estimation for all countries and provides its estimates on a whole weight basis. While ABARES estimates on a processed edible weight basis, the FAO does not adjust its estimates for Australia to account for sardines used as feed in aquaculture enterprises.

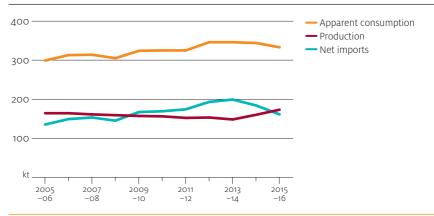
Per-person consumption of seafood ranks fourth out of the five most consumed animal protein sources in Australia, exceeding the consumption of sheep and lamb meat by weight (Figure 6). In 2011 the Australian Seafood Cooperative Research Centre, the University of South Australia and the Ehrenberg-Bass Institute for Marketing Science undertook a survey to determine the species composition of Australian seafood consumption, how frequently seafood is consumed and how prevalent this consumption is in at-home and out-of-home meals (Danenberg & Mueller 2011). The findings showed that Australians were consuming on average 3.1 meals a week that included a seafood component. When extended over a year, the survey showed that the top five most frequently consumed species were prawns (73 per cent of respondents consumed prawns during the previous year), canned tuna (64 per cent), crumbed and battered fish (56 per cent), squid (48 per cent) and fresh salmon (48 per cent). Reasons provided by survey respondents for consuming seafood included for better health, taste, ease of preparation, diversification from meat consumption, and reasonable prices.

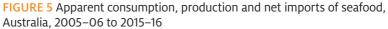
Box 2 Deriving apparent consumption of Australian seafood

Annual apparent consumption is estimated by adding the total edible quantity of seafood supplied domestically—that is, total production plus imported seafood—less exports of seafood. Apparent consumption provides an estimate of the total amount of seafood consumed in Australia assuming zero change in stocks. Apparent consumption is a measure often used to track the consumption of agricultural commodities over time.

The production quantity of Australian fishery and aquaculture products is reported in this publication on a whole weight basis, whereas trade data are reported on a processed basis. To align the units of measurement between production and trade data, it is necessary to convert production volume to a processed edible equivalent. Production volumes are adjusted to an edible quantity basis using species-specific conversion rates and excluding species that are known to be predominantly supplied for non-human consumption purposes, such as for aquaculture feed or bait. Imports and exports of seafood are sourced from Australian Bureau of Statistics (ABS) trade data and are reported as edible weight. The apparent consumption per person is calculated as the total apparent consumption divided by the total Australian population in each year. The method applied here is consistent with that used by ABARES to estimate apparent consumption of other agricultural commodities produced in Australia.

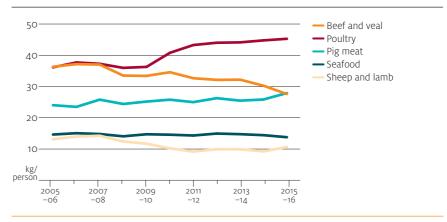
The FAO also compiles statistics on apparent consumption of seafood, applying a consistent method across all countries. FAO estimates indicate that annual consumption of seafood in Australia is around 26 kilograms per person in 2013—around 11 kilograms higher than the estimates presented here for 2013–14 (FAO 2017). The discrepancy between FAO and ABARES estimates reflects differences in methodological approaches to estimating consumption. Moreover, ABARES estimates seafood consumption on a processed edible basis, whereas the FAO provides its estimates on a whole weight basis.

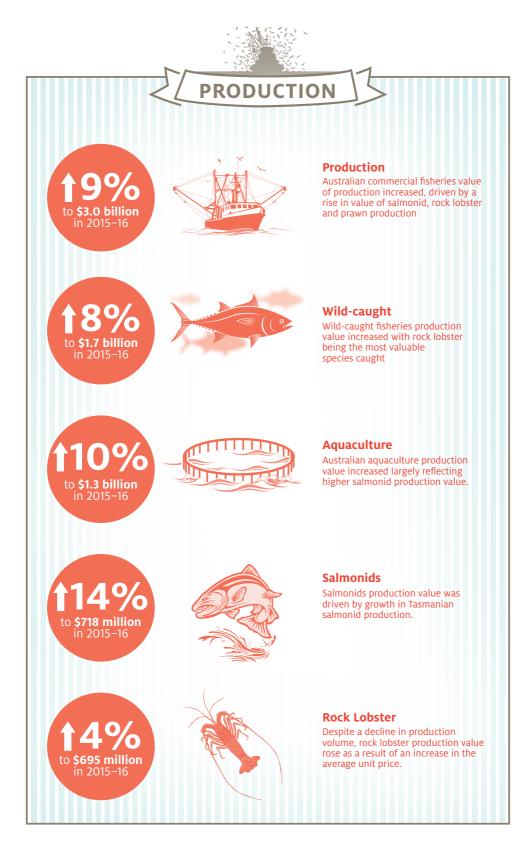




Note: Net imports equals imports less exports.

FIGURE 6 Australian per-person apparent consumption of meats and seafood, 2005–06 to 2015–16





Production

Fast facts

In 2015-16

- The gross value of Australian fishery and aquaculture production (GVP) increased by 9 per cent in 2015–16 to \$3.03 billion. This increase was driven by a rise in value of salmonid, rock lobster and prawn production.
- Wild-caught products accounted for 57 per cent (\$1.75 billion) of Australian fishery and aquaculture GVP. Aquaculture products accounted for 43 per cent (\$1.31 billion).
- Wild-catch GVP increased by 8 per cent in 2015–16 to \$1.75 billion—the highest value in real terms since 2006–07. Rock lobster was the most valuable wild-caught species, with a production value of \$695 million.
- Aquaculture GVP increased by 10 per cent in 2015–16 to \$1.31 billion. This was largely attributed to the higher production value of salmonids, which increased by 14 per cent to \$718 million. Farmed salmonids remained the most valuable aquaculture species in 2015–16.
- Tasmania accounted for the largest share of GVP (30 per cent), followed by Western Australia (20 per cent), South Australia (17 per cent) and Queensland (10 per cent). Commonwealth fisheries accounted for 15 per cent of GVP.
- The volume of Australian fishery production increased by 12 per cent to 267,094 tonnes. This arose largely from Commonwealth fisheries and the aquaculture sector. Wild-caught species accounted for 64 per cent (174,247 tonnes) of Australian fishery and aquaculture production, while aquaculture products accounted for 36 per cent (97,046 tonnes) of total production.

From 2005-06 to 2015-16

- A significant decline in the GVP occurred from 2005–06 to 2010–11 as a result of lower wild-catch sector production. Since 2010–11, GVP has increased at an annual average rate of 4 per cent, driven by rock lobster and aquaculture salmonid production.
- Rock lobster GVP increased by 17 per cent to \$695 million as a result of higher beach prices more than offsetting lower production volumes. Rock lobster beach prices increased by 131 per cent over the period in real terms.

- The value of farmed salmonid production increased by 142 per cent in real terms to \$718 million, driven by increased salmonid production volume, which more than doubled to 56,319 tonnes between 2005–06 and 2015–16.
- The total volume of fishery and aquaculture production increased by 8 per cent to 267,094 tonnes. A 22,681 tonne decline of wild-caught production was more than offset by an increase in aquaculture production of 42,394 tonnes.

Species	Value (\$ million)	Volume (tonnes)
Salmonids	717.7	56,319
Rock lobster	694.8	10,102
Prawns	388.0	24,559
Tuna	170.7	14,221
Abalone	160.2	4,151

TABLE 1 Top five wild-catch and aquaculture species by value, 2015-16

Production by sector

The wild-catch sector accounts for the majority of the GVP of Australia's commercial fishery and aquaculture industry. The sector comprises state fisheries (generally, fisheries operating within 3 nautical miles of the state's coast) and the Commonwealth (fisheries operating between 3 and 200 nautical miles of the Australia's coast line) (Figure 7). In 2015–16 the wild-catch sector GVP was the highest since 2006–07 at \$1.75 billion. Growth in recent years has been driven by the increased production value of rock lobster, where higher beach prices have increased production value.

The development of Australia's aquaculture sector in the period 2005–06 to 2015–16 has resulted in the sector increasing its share of total production value and volume. Aquaculture's share of total fishery and aquaculture production value increased from 34 per cent in 2005–06 to 43 per cent in 2015–16 (Figure 8). The increasing value of the aquaculture sector is largely the result of increased Tasmanian salmonid production. The increased contribution of aquaculture in Australian seafood supply is consistent with a global trend of meeting increasing demand for seafood from aquaculture (FAO 2016).

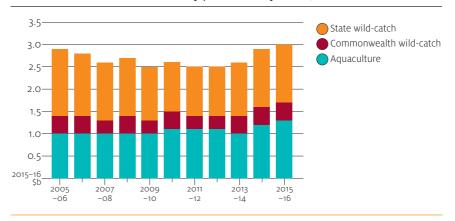
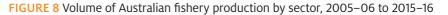


FIGURE 7 Value of Australian fishery production by sector, 2005–06 to 2015–16



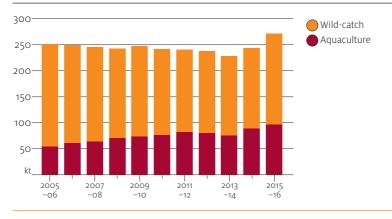


TABLE 2 Australian fisheries and aquaculture production by sector, 2015–16

Sector	Value (\$ million)	Volume (tonnes)
Total wild-catch	1,749.6	174,247
State wild-catch	1,310.8	117,474
Commonwealth wild-catch	438.8	56,773
Aquaculture	1,306.7	97,046
Total a	3,025.7	266,393

a To avoid double counting, total has been reduced to allow for southern bluefin tuna caught in the Commonwealth Southern Bluefin Tuna Fishery, as an input to farms in South Australia. See tables S1, S2 and S17 for detailed statistics.

Box 3 Gross value of fishery production

Gross value of fishery production provides industry and policymakers with information about the gross income generated from the commercial harvest of wild-catch stocks and aquaculture production within commercial wild-catch and aquaculture fisheries and across jurisdictions. These values also provide an estimate of the activity level, in value terms, of commercial fisheries and relative value of harvest across species.

Use of GVP as a measure of the production value of Australian fisheries in official statistics began in the early 1900s. It is a measure of the value of fishery production generated by commercial fishers or produced by aquaculture farmers. From 1935 to the late 1980s, the ABS published official gross value of production statistics for Australian fisheries, by jurisdiction and at a national level (ABS 1989; CBCS 1936). The ABS no longer collects statistics on Australian fisheries. Since the early 1990s ABARES has produced *Australian fisheries and aquaculture statistics*. This publication presents statistics on the value of production of fishery and aquaculture products for each Australian fishery jurisdiction using data provided by each state and territory jurisdiction. Information on international trade in fishery and aquaculture products is drawn from ABS data.

The GVP is calculated by multiplying the weight of production by the landed unit value. The landed unit value is defined as the beach price for fish species caught in wild-catch fisheries and the farmgate price for fishery and aquaculture products produced in aquaculture establishments. These prices broadly reflect the unit prices that fishers receive for their catch or that aquaculture farmers receive for their production. The landed unit value does not include any margins associated with the marketing (including freight) and services added when fishery and aquaculture are processed and onsold. The use of the landed unit value (beach price) in deriving gross value of production is common across jurisdictions.

Price data can be derived from various sources, including fishers and aquaculture farm operators, seafood markets and seafood buyers and processors. For some jurisdictions, the values are collected by the fisheries management authority; other jurisdictions depend on information provided by a relatively small sample of buyers. Most fish is sold on a market away from the point of landing or aquaculture farmgate. As a result, transport and marketing margins are usually subtracted to estimate the beach price that commercial fishers receive and the farmgate price received by aquaculture farmers.

To value production at the point of landing, whole weight equivalents are used in the GVP calculation for each species being valued. Valuing production in whole weight equivalents enables comparisons across regions and species. Whole weight equivalents for semi-processed fish are obtained by applying conversion factors for each species where production is not landed whole but in a semi-processed state, such as gutted, headed and gutted, or in an otherwise reduced condition.

Wild-catch fisheries

From 2005–06 to 2013–14 wild-catch production volume generally decreased, with most of this reduction attributed to lower volumes of landed finfish. This is due to a number of factors, including lower total allowable catches for some species and market factors that affected the quantity of landings, such as a persistently high Australian dollar causing increased import competition. High input costs over the period (for example, fuel costs) also contributed to lower volumes of landed finfish. In contrast, wild-caught production volume increased by 13 per cent in 2015–16 to an eight-year high of 174,247 tonnes. This was largely the result of a substantial increase in the catch volume of small pelagic species and the highest tuna catch since 2006–07.

The real value of wild-caught production in 2011–12 was 25 per cent below the level achieved in 2005–06 (Figure 9). This decline was a result of a lower rock lobster, prawn and abalone production value, which fell by a combined \$375 million (in 2015–16 dollars) during that period. Since 2011–12 wild-catch GVP has increased annually, largely as a result of a sharp rise in rock lobster prices. Rock lobster GVP increased by 63 per cent between 2011–12 and 2015–16, to account for 40 per cent of the value of total wild-catch GVP, up from 30 per cent in 2011–12. Rock lobster was the most valuable species group produced in 2015–16, with a landed value of \$695 million.

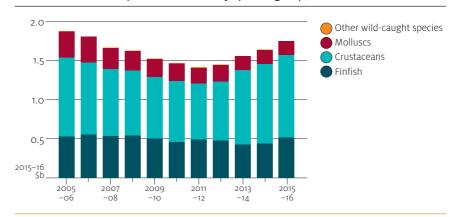


FIGURE 9 Wild-catch production value by species group, 2005–06 to 2015–16

Finfish

Key species: tuna, Australian sardine, coral trout, flathead, sharks

In contrast to the longer-term trend of lower production volumes, wild-caught finfish production volume increased by 20 per cent in 2015–16 to a nine-year high of 126,497 tonnes. This was largely the result of a substantial increase in the catch volume of small pelagic species and the highest tuna catch since 2006–07. The value of wild-caught finfish increased by 20 per cent in 2015–16 to \$516 million—the highest value in real terms since 2008–09 (Figure 10).

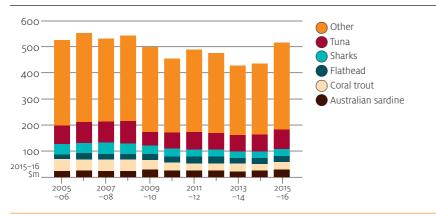
Species	Value (\$ million)	Volume (tonnes)	Value change (%)	Volume change (%)
Tuna	74.4	10,225	17	15
Australian sardine	29.7	44,898	20	16
Coral trout	27.2	856	8	11
Flathead	24.5	3,788	13	1
Sharks	26.8	5,539	5	3
Other finfish	333.7	61,192	23	30
Total	516.3	126,497	20	21

TABLE 3 Wild-caught finfish species production, 2015–16

See table S2 for detailed statistics.

From 2005–06 to 2013–14, there was a general decline in landings of finfish, driving a fall in GVP for this group. Given the number of species in this group, it is difficult to quantify the effects of different factors on overall landings. A mix of factors is likely to have contributed to the decline in landings and GVP, including the increased availability of global aquaculture finfish products; increased market share of imported seafood; higher business input costs compared with the previous decade, which negatively affected incentives to fish; and lower total allowable catches (TACs) for some finfish species to ensure continued sustainability of stocks.





Crustaceans

Key species: Rock lobster, Prawns

From 2005–06 to 2011–12 the GVP of crustaceans fell significantly largely due to lower catch and the negative impacts of an appreciation of the Australian dollar had on beach prices (Figure 11). Since 2011–12 the GVP of crustaceans has increased significantly, a result of a rise in rock lobster prices. The rise in rock lobster prices was a result of strong export demand.

FIGURE 11 Wild-caught crustacean production value by species, 2005–06 to 2015–16



TABLE 4 Wild-caught crustacean production by species, 2015–16

Species	Value (\$ million)	Volume (tonnes)	Value change (%)	Volume change (%)
Rock lobster	694.8	10,102	4	-2
Prawns	301.5	19,930	8	-1
Other crustaceans	59.8	5,082	-2	-7
Total	1,056.1	35,114	5	-2

See table S2 for detailed statistics.

Molluscs

Key species: abalone, scallops

From 2005–06 to 2015–16, the GVP of molluscs generally declined (Figure 12). This was due to a number of factors. Production volumes of scallop and abalone have declined, owing to seasonal factors and environmental conditions affecting production volumes. In 2015–16, the volume of mollusc production fell by 7 per cent to 12,392 tonnes. The GVP for molluscs remained largely unchanged in 2015–16 at \$176 million.

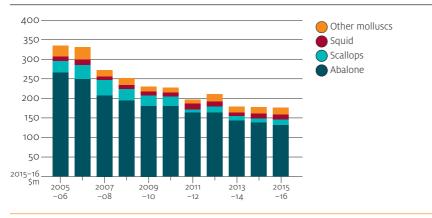




TABLE 5 Wild-caught mollusc production by species, 2015–16

Species	Value (\$ million)	Volume (tonnes)	Value change (%)	Volume change (%)
Abalone	131.5	3,394	-3	-10
Scallops	14.0	5,013	24	16
Squids	12.8	2,271	10	23
Other molluscs	18.0	1,714	3	-50
Total	176.3	12,392	0	-7

See table S2 for detailed statistics.

Aquaculture

The gross value of aquaculture production increased by 10 per cent in 2015–16 to \$1.31 billion (Figure 13). This was largely a result of increased production volume, which rose by 9 per cent to 97,046 tonnes. Tasmania was the main region contributing to increased production, with the expansion of its salmonid aquaculture sector. Growth in finfish production, predominantly salmonids from Tasmania, accounted for most of the growth in aquaculture production volume and value between 2005–06 and 2015–16. Increased aquaculture prawn production, particularly from Queensland, and edible oyster production in New South Wales also contributed to the overall increase in production volume in 2015–16.



FIGURE 13 Australian aquaculture production value by species group, 2005–06 to 2015–16

Finfish

Key species: salmonids, tuna

The GVP and production volume of Australian aquaculture finfish in 2015–16 rose by 12 per cent to \$925 million and by 14 per cent to 71,877 tonnes, respectively (Figure 14). Most of the growth in finfish aquaculture in 2015–16 was the result of increased salmonid (largely Atlantic salmon) production, which increased by 14 per cent in 2015–16 to account for 78 per cent of aquaculture finfish GVP. The GVP of aquaculture tuna fell by 3 per cent to \$127 million.

TABLE 6 Aquaculture finfish production by species, 2015–16

Species	Value (\$ million)	Volume (tonnes)	Value change (%)	Volume change (%)
Salmonids	717.7	56,319	14	16
Tuna	126.9	8,895	-3	6
Barramundi	35.0	3,542	-6	-6
Other finfish	45.7	3,121	50	56
Total	925.3	71,877	12	14

See table S17 for detailed statistics.

Aquaculture finfish GVP grew strongly from 2005–06 to 2015–16. This was a result of salmonid production growth, which more than doubled over the period to \$718 million. In contrast, the real value (in 2015–16 dollars) of aquaculture southern bluefin tuna contracted over the same period from \$200 million in 2005–06 to \$127 million in 2015–16. Driving the decline in aquaculture tuna GVP was a downward trend in unit price, which was 37 per cent lower in real terms in 2015–16 than in 2005–06. Tuna is mostly exported to the Japanese market. Possible factors leading to the fall in farmed tuna GVP was the appreciation of the Australian dollar against the yen and changing consumer preferences in Japan towards more western diets and a shift away from seafood consumption (Statistics Bureau of Japan 2015).



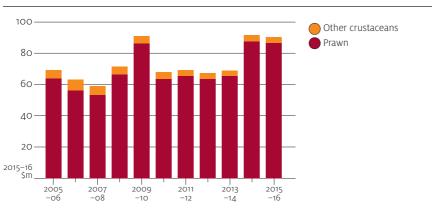
FIGURE 14 Aquaculture finfish production value by species, 2005–06 to 2015–16

Crustaceans

Key species: prawns

The gross value of aquaculture crustacean production (predominantly prawns) increased marginally in 2015–16 to \$90 million (Figure 15). An increase in the average price received for aquaculture prawns was largely offset by a decline in aquaculture prawn production. Prawns dominated aquaculture crustacean production value between 2005–06 and 2015–16, accounting on average for 94 per cent of aquaculture crustacean GVP. Aquaculture prawns can experience some sensitivity to international markets in the form of import competition. Therefore, currency fluctuations can have a significant impact on price and production value.

FIGURE 15 Aquaculture crustacean production value by species, 2005–06 to 2015–16



Species	Value (\$ million)	Volume (tonnes)	Value change (%)	Volume change (%)
Prawns	86.5	4,628	0	-12
Other crustaceans	3.8	127	-1	-11
Total	90.3	4,755	0	-12

TABLE 7 Aquaculture crustacean production by species, 2015–16

See table S17 for detailed statistics.

Molluscs

Key species: edible oysters, pearl oysters

The gross value of aquaculture mollusc production increased by 7 per cent in 2015–16 to \$215 million (Figure 16). Edible oysters, which are the highest-value product, increased in both value and volume. Despite an increase in 2015–16, aquaculture mollusc production value for 2015–16 was below the 2005–06 to 2014–15 period average of \$250 million (in 2015–16 dollars). Competition from aquaculture pearls using different species to Australia's *Pinctada spp.* have increased over the period, lowering the price received for Australia's premium cultured pearls.



FIGURE 16 Aquaculture mollusc production value by species, 2005–06 to 2015–16

TABLE 8 Aquaculture mollusc production by species, 2015–16

Species	Value (\$ million)	Volume (tonnes)	Value change (%)	Volume change (%)
Edible oysters	97.0	11,345	4	3
Pearl oysters	78.4	na	15	na
Abalone	28.7	757	-0	-11
Other molluscs	10.7	3,625	-8	-1
Total	214.8	15,728	7	1

See table S17 for detailed statistics. Individual species production for 2015–16 does not include Northern Territory production due to confidentiality. **na** Not available.

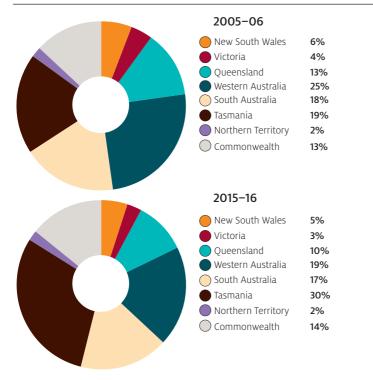
Production by jurisdiction

Gross volume and value of Australian fishery and aquaculture production by jurisdiction and location of catch are given in tables S3 to S6. Production and value summaries for each jurisdiction are given in tables S7 to S14. Jurisdiction of catch refers to whether the catch falls into state or Commonwealth jurisdictional waters. Location of catch refers to the state that the catch is landed in and includes Commonwealth catch distributed to the states.

In 2015–16 Tasmania had the largest GVP, accounting for 30 per cent of total fishery production value, followed by Western Australia (19 per cent) and South Australia (17 per cent) (Figure 17). Percentages are calculated based on the sum of gross jurisdictional production values which have not been adjusted for tuna caught in the Southern Bluefin Tuna Fishery and introduced into SA farms.

The largest movements in production value from 2005–06 to 2015–16 came from Tasmanian production value, which increased substantially in real terms, resulting in an increase in Tasmania's production share from 19 per cent in 2005–06 to 30 per cent in 2015–16. This was a result of significant growth in the Tasmanian aquaculture industry, particularly in salmonid production.

FIGURE 17 Shares in gross value of fishery and aquaculture production by jurisdiction, 2005–06 and 2015–16



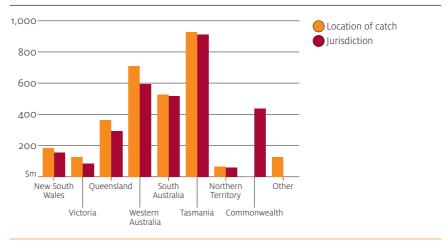


FIGURE 18 Value of Australian fishery and aquaculture production by jurisdiction, 2015–16

New South Wales

Key species groups: prawns (wild-catch), sea mullet (wild-catch), oysters (aquaculture)

The gross value of NSW fishery production increased by 4 per cent in 2015–16 to \$156 million but decreased in volume by 2 per cent to 16,440 tonnes (Figure 19). A fall in wild-catch production value was more than offset by a rise in aquaculture production value.

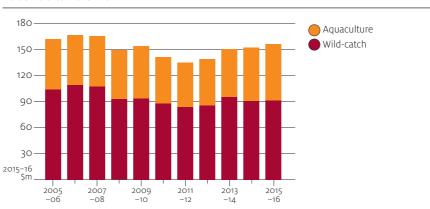


FIGURE 19 NSW fisheries and aquaculture production value by sector, 2005–06 to 2015–16

Sector	Value (\$ million)	Volume (tonnes)	Value change (%)	Volume change (%)
Wild-catch	91.1	11,742	2	-2
Aquaculture	64.9	4,784	7	-2
Total	156.0	16,526	4	-2

TABLE 9 NSW fisheries and aquaculture production by sector, 2015-16

See table S7 for detailed statistics.

Wild-catch

The gross value of New South Wales' wild-catch fishery production increased in by 2 per cent in 2015–16 to \$91 million (Figure 20). This was largely the result of an increase in mollusc and finfish production value. Partially offsetting this was a decline in crustacean production value, largely reflecting a decline in prawn production value.

TABLE 10 NSW wild-catch production by species, 2015-	16
--	----

Species	Value (\$ million)	Volume (tonnes)	Value change (%)	Volume change (%)
Prawns	29.1	288	-7	-0
Rock lobster	11.8	158	3	3
Sea mullet	9.6	2,843	7	0
Other wild-caught species	40.7	8,453	7	-3
Total	91.1	11,742	2	-2

See table S7 for detailed statistics.

New South Wales' wild-catch fisheries GVP trended down between 2005–06 and 2015–16. This has been a result of generally falling catch across finfish species and molluscs. The fall in finfish production can be attributed to lower fishing effort as a result of fishers exiting the industry in the period and an increase in import competition for frozen finfish product into the Australian domestic market.



FIGURE 20 NSW wild-catch production value by species, 2005–06 to 2015–16

A contributing factor to the fall in mollusc values was lower beach prices achieved for abalone between 2005–06 and 2015–16. In contrast to finfish and molluscs, wild-caught crustacean GVP was higher in 2015–16 compared with 2005–06, reflecting a doubling of rock lobster GVP over the period. The doubling of the value of rock lobster production reflects increased total allowable commercial catch (TACC) and average beach price over the period.

Aquaculture

The gross value of New South Wales' aquaculture production increased by 7 per cent in 2015–16 to \$65 million (Figure 21). Aquaculture oyster production made the most significant contribution to the rise in value, increasing in value by 9 per cent to \$44 million. The value of the NSW aquaculture sector trended down between 2005–06 and 2011–12, largely as a result of lower edible oyster GVP after adverse environmental conditions affected production. The rise in value of aquaculture production between 2011–12 and 2015–16 reflects a rise in oyster prices and a rise in edible oyster production volume along with increased production volumes across a range of species.



FIGURE 21 NSW aquaculture production value by species, 2005–06 to 2015–16

TABLE 11 NSW aquaculture production by species, 2015–16

Species	Value (\$ million)	Volume (tonnes)	Value change (%)	Volume change (%)
Oysters	44.3	3,727	9	0
Prawns	6.0	326	17	-2
Other aquaculture species	14.6	730	-2	-15
Total	64.9	4,784	7	-2

See table S7 for detailed statistics.

Victoria

Key species groups: abalone (wild-catch, aquaculture), southern rock lobster (wild-catch), abalone (aquaculture)

The gross value of Victorian fishery and aquaculture production decreased by 3 per cent in 2015–16 to \$85 million, driven by a 12 per cent decline in the gross value of abalone production (wild-caught and aquaculture) (Figure 22).

FIGURE 22 Victoria fisheries and aquaculture production value by sector, 2005–06 to 2015–16

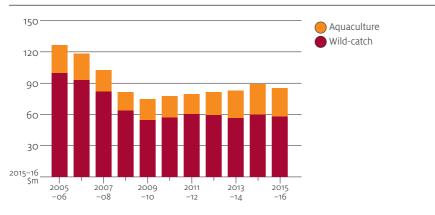


TABLE 12 Victorian fisheries and aquaculture by sector, 2015–16

Sector	Value (\$ million)	Volume (tonnes)	Value change (%)	Volume change (%)
Wild-catch	57.8	4,476	-2	18
Aquaculture	27.6	2,670	-5	-7
Total	85.4	7,146	-3	7

See table S8 for detailed statistics.

Wild-catch

Victorian wild-catch fishery production value fell by 2 per cent in 2015–16 to \$58 million (Figure 23). This was driven by a fall in average unit prices across a number of finfish species and lower catch and lower production value of abalone, squid and other molluscs.

The gross value of Victoria's wild-catch fisheries production almost halved in real terms between 2005–06 and 2009–10. This was a result of strong falls in abalone, due to falls in both average unit values and volumes produced. The occurrence of abalone viral ganglioneuritis (AVG) disease during this period significantly reduced abalone production in the Victorian wild-catch sector. Abalone production volumes have since been limited by conservatively set TAC levels which have been targeted at stock rebuilding. A number of factors have contributed to the fall in the abalone unit price, including expansion of global aquaculture abalone production and the high value of the Australian dollar, which placed downward pressure on export prices. Since 2010–11, wild-catch fishery production value has averaged around \$59 million per year, supported by increases in the value of rock lobster production.



FIGURE 23 Victorian wild-catch production value by species, 2005–06 to 2015–16

TABLE 13 Victorian wild-catch production by species, 2015–16

Species	Value (\$ million)	Volume (tonnes)	Value change (%)	Volume change (%)
Rock lobster	24.5	288	1	0
Abalone	19.7	728	-2	-1
Other wild-caught species	13.6	3,461	-5	25
Total	57.8	4,476	-2	18

See table S8 for detailed statistics.

Aquaculture

The gross value of Victorian aquaculture production decreased by 5 per cent in 2015–16 to \$28 million driven by falls in the value of abalone and mussel production (Figure 24).

Victoria's gross value of aquaculture production decreased from 2005–06 to 2008–09 as a result of a lower production volume for a range of species, including salmonids. Since 2011–12, the gross value of aquaculture production has recovered. This has been due to growth in the value of salmonid and abalone production.

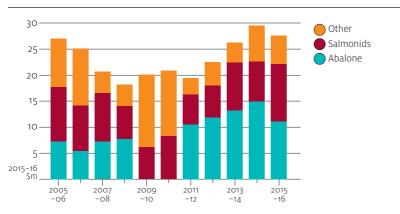


FIGURE 24 Victorian aquaculture production value by species, 2005–06 to 2015–16

Note: Production value data for abalone not available for 2009-10 and 2010-11.

TABLE 14 Victorian aquaculture production by species, 2015–16

Species	Value (\$ million)	Volume (tonnes)	Value change (%)	Volume change (%)
Abalone	11.1	326	-25	-25
Salmonids	11.0	1,343	47	17
Other aquaculture species	5.5	1,001	-19	-22
Total	27.6	2,670	-5	-7

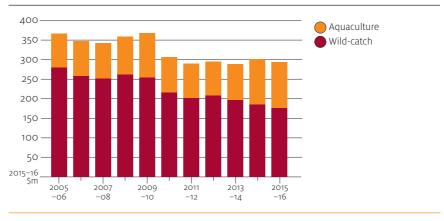
See table S8 for detailed statistics.

Queensland

Key species groups: prawns (wild-catch, aquaculture), coral trout (wild-catch), barramundi (aquaculture)

The gross value of Queensland's fishery and aquaculture production decreased by 1 per cent in 2015–16 to \$294 million (Figure 25). Growth in value in Queensland's aquaculture sector was more than offset by a decline in wild-catch sector production.

FIGURE 25 Queensland fisheries and aquaculture production value by sector, 2005–06 to 2015–16



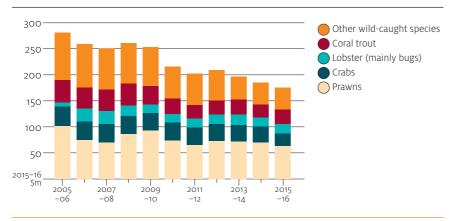
Sector	Value (\$ million)	Volume (tonnes)	Value change (%)	Volume change (%)
Wild-catch	175.9	19,269	-3	-5
Aquaculture	118.3	7,621	4	-7
Total	294.2	26,890	-1	-6

TABLE 15 Queensland fisheries and aquaculture production by sector, 2015–16

See table S9 for detailed statistics.

Wild-catch

The gross value of Queensland's wild-catch fisheries fell by 3 per cent in 2015–16 to \$176 million (Figure 26). Contributing to this fall were declines the catch value of prawns and scallops. The gross value of Queensland's wild-catch fisheries production declined between 2005–06 and 2015–16. Most of the decline in value since 2009–10 can be attributed to lower production volumes of finfish and prawn products. A range of factors have contributed to the decline in production volume of these species groups, including decreased participation in commercial fisheries (the Queensland Government ran three commercial fishing licence buybacks schemes between 2012 and 2014) and increased import competition among finfish and prawn products.



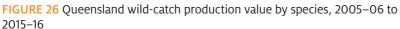


TABLE 16 Queensland wild-catch production by species, 2015-16

Species	Value (\$ million)	Volume (tonnes)	Value change (%)	Volume change (%)
Prawns	62.6	5,245	-9	-10
Coral trout	26.7	817	8	8
Lobster (including bugs)	19.4	838	9	11
Crabs	24.2	2,570	-17	-10
Other wild-caught species	42.9	9,798	3	-3
Total	175.9	19,269	-3	-5

See table S9 for detailed statistics.

Aquaculture

The gross value of Queensland's aquaculture production increased by 4 per cent in 2015–16 to \$118 million, while production volume decreased by 7 per cent to 7,621 tonnes (Figure 27). The increase in production value was a result of higher production volume and average price for barramundi, whereas the fall in volume was a result of lower prawn production (which was partially offset by higher average prices received for aquaculture prawns).

Queensland aquaculture has fluctuated in both value and volume over the decade. This has been a result of volatile prawn production volume and value in response to variable global market conditions and import competition. Aquaculture barramundi production grew over the period in response to increases in demand for seafood.

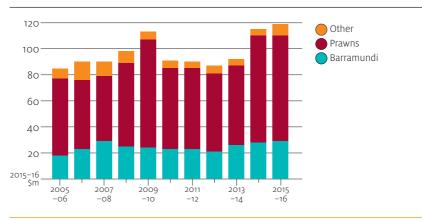


FIGURE 27 Queensland aquaculture production value by species, 2005–06 to 2015–16

TABLE 17 Queensland aquaculture production by species, 2015–16

Species	Value (\$ million)	Volume (tonnes)	Value change (%)	Volume change (%)
Prawns	80.5	4,302	-1	-13
Barramundi	29.3	3,053	7	4
Other aquaculture species	8.5	266	58	-13
Total	118.3	7,621	4	-7

See table S9 for detailed statistics.

South Australia

Key species groups: southern rock lobster (wild-catch), southern bluefin tuna (aquaculture), prawns (wild-catch), oysters (aquaculture), Australian sardine (wild-catch)

The gross value of South Australia's fishery and aquaculture production increased by 10 per cent to \$516 million in 2015–16 (Figure 28). Contributing to this growth was an increase in the volume of fishery and aquaculture product produced, which increased by 13 per cent to 73,481 tonnes. Higher average beach prices for the major wild-catch species also contributed to growth. Between 2005–06 and 2015–16 the gross value of South Australia's wild-catch fishery and aquaculture production averaged \$491 million in 2015–16 dollars.

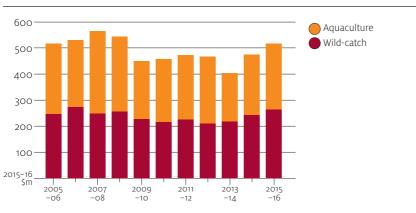


FIGURE 28 SA fisheries and aquaculture production value by sector, 2005–06 to 2015–16

TABLE 18 SA fisheries and aquaculture production by sector, 2015–16

Sector	Value (\$ million)	Volume (tonnes)	Value change (%)	Volume change (%)
Wild-catch	264.7	50,683	10	12
Aquaculture	251.5	22,798	11	15
Total	516.2	73,481	10	13

See table S10 for detailed statistics.

Wild-catch

The gross value of South Australia's wild-catch fishery production increased by 10 per cent in 2015–16 to \$265 million (Figure 29). Driving this growth was an increase in production value of rock lobster, prawns and Australian sardine. The gross value of South Australian wild-catch production value was variable between 2005–06 and 2015–16. Following a general decline in production value from 2006–07 to 2012–13, an increase in wild-caught production value was driven by increased value of rock lobster landings. Between 2012–13 and 2015–16 the value of rock lobster increased by around \$46 million.

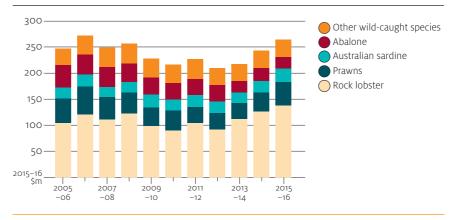


FIGURE 29 SA wild-catch production value by species, 2005–06 to 2015–16

TABLE 19 SA wild-catch production by species, 2015–16

Species	Value (\$ million)	Volume (tonnes)	Value change (%)	Volume change (%)
Lobster	137.7	1,592	10	2
Prawns	45.0	2,574	27	23
Australian sardine	25.9	41,103	20	14
Abalone	22.2	626	-12	-16
Other wild-caught species	33.8	4,788	2	1
Total	264.7	50,683	10	12

See table S10 for detailed statistics.

Aquaculture

The gross value of South Australia's aquaculture fishery production increased by 11 per cent in 2015–16 to \$252 million (Figure 30). The value of South Australian aquaculture fishery production was volatile over the period 2005–06 to 2015–16. This volatility stems from the dominance of southern bluefin tuna in the aquaculture production mix—a product that is strongly linked to the export market. Most tuna exported from South Australia is destined for Japan; hence the farmgate value of tuna is affected by volatility in the Australian dollar yen exchange rate. Also, southern bluefin tuna production volume is influenced by the input to the farms, which is dependent on the level of the wild-catch TAC for the species. Lower TAC for southern bluefin tuna in the period 2009–10 to 2010–11 contributed to lower production volume and farmgate GVP in that period.



FIGURE 30 SA aquaculture production value by species, 2005–06 to 2015–16

TABLE 20 SA aquaculture production by species, 2015–16

Species	Value (\$ million)	Volume (tonnes)	Value change (%)	Volume change (%)
Tuna	126.9	8,895	-3	6
Oysters	31.0	4,589	9	18
Abalone	14.7	350	29	5
Other aquaculture species	79.0	8,964	38	26
Total	251.5	22,798	11	15

See table S10 for detailed statistics.

Western Australia

Key species groups: western rock lobster (wild-catch), pearls (aquaculture), prawns (wild-catch)

In 2015–16 the gross value of Western Australia's fishery and aquaculture production increased by 4 per cent to \$593 million, while production volume increased by 2 per cent to 21,229 tonnes (Figure 31). The increase in production value in 2015–16 was driven primarily by a rise in the value of wild-catch crustacean production (mainly rock lobster), which increased by 4 per cent to \$446 million, largely as a result of higher beach prices for rock lobster landings.

The gross value of Western Australian fisheries production is dominated by wild-catch fisheries, which averaged 77 per cent of the total value over the period 2005–06 to 2015–16. The increase in production value in 2015–16 followed consecutive rises in production value that occurred between 2011–12 and 2015–16. The rise in production value in this period is in contrast to declines in the value of production from 2005–06 to 2011–12.

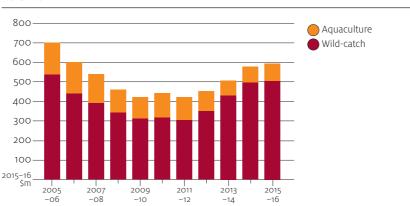


FIGURE 31 WA fisheries and aquaculture production value by sector, 2005–06 to 2015–16

TABLE 21 WA fisheries and aquaculture production by sector, 2015–16

Sector	Value (\$ million)	Volume (tonnes)	Value change (%)	Volume change (%)
Wild-catch	504.1	20,514	3	4
Aquaculture	89.2	715	10	-29
Total	593.3	21,229	4	2

See table S11 for detailed statistics.

Wild-catch

The gross value of Western Australia's wild-catch fisheries increased by 3 per cent in 2015–16 to \$504 million (Figure 32). Rock lobster was the most significant contributor to the rise in value, followed by prawns. The value of Western Australian wild-catch fishery production trended down from 2005–06 to 2011–12 as a result of rock lobster production volumes almost halving over the period. Since 2011–12 wild-catch production value has risen, driven by rock lobster.



FIGURE 32 WA wild-catch production value by species, 2005-06 to 2015-16

TABLE 22 WA wild-catch production by species, 2015–16

Species	Value (\$ million)	Volume (tonnes)	Value change (%)	Volume change (%)
Lobster	394.1	5,712	2	-7
Prawns	43.4	3,226	16	8
Other wild-caught species	66.6	11,575	2	8
Total	504.1	20,514	3	4

See table S11 for detailed statistics.

Aquaculture

The gross value of Western Australia's aquaculture production increased by 10 per cent in 2015–16 to \$89 million (Figure 33). The key driver of this increase was pearl oyster production, which increased in value by 15 per cent to \$78 million. The gross value of Western Australian aquaculture trended downward from 2005–06 to 2015–16. The driver of this trend was the global market for pearls, which has seen a reduction of demand since the Global Financial Crisis, particularly from Asia. Another contributing factor was an increase in pearl supply as competition from aquaculture pearl oyster production in South-East Asia has expanded.

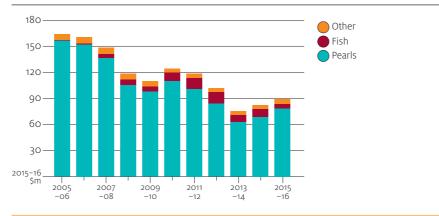


FIGURE 33 WA aquaculture production by species, 2005–06 to 2015–16

TABLE 23 WA aquaculture production by species, 2015–16

Species	Value (\$ million)	Volume (tonnes)	Value change (%)	Volume change (%)
Pearls	78.4	na	15	na
Other wild-caught species	10.8	715	-19	-29
Total	89.2	715	10	-29

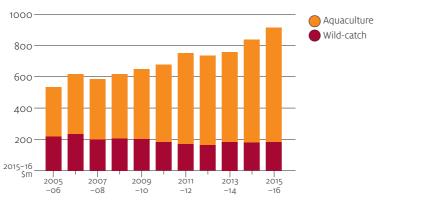
See table S11 for detailed statistics. na Not available.

Tasmania

Key species groups: salmonids (aquaculture), southern rock lobster (wild-catch), abalone (wild-catch)

The gross value of Tasmanian fishery and aquaculture production increased by 11 per cent in 2015–16 to \$913 million (Figure 34). Production volume increased by 13 per cent to 63,138 tonnes. Tasmanian fishery production has continued its increasing trend, driven by an expanding aquaculture industry.

FIGURE 34 Tasmanian fisheries and aquaculture production by sector, 2005–06 to 2015–16



Sector	Value (\$ million)	Volume (tonnes)	Value change (%)	Volume change (%)
Wild-catch	182.3	4,680	4	13
Aquaculture	730.7	58,458	12	13
Total	913.1	63,138	11	13

See table S12 for detailed statistics.

Wild-catch

The gross value of production for Tasmania's wild-catch fisheries increased by 4 per cent in 2015–16 to \$182 million (Figure 35). Production volume rose by 13 per cent to 4,680 tonnes. The rise in production value and volume was most significant for molluscs, followed by crustaceans.

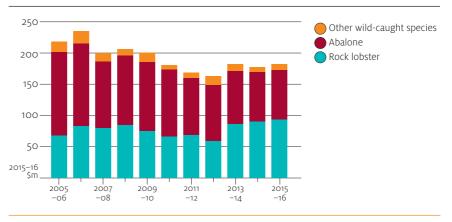


FIGURE 35 Tasmanian wild-catch production value by species, 2005–06 to 2015–16

TABLE 25 Tasmanian wild-catch production by species, 2015–16

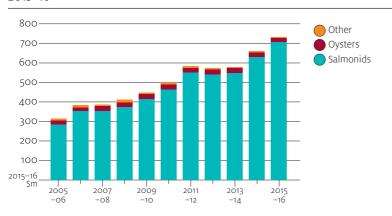
Species	Value (\$ million)	Volume (tonnes)	Value change (%)	Volume change (%)
Lobster	92.9	1,138	4	9
Abalone	79.7	1,744	2	-8
Other wild-caught species	9.7	1,797	15	49
Total	182.3	4,680	4	13

See table S12 for detailed statistics.

Aquaculture

The gross value of Tasmanian aquaculture production increased by 12 per cent in 2015–16 to \$731 million (Figure 36). Salmonids are the major aquaculture product of Tasmania. In 2015–16 the volume and value of salmonids increased to 54,772 tonnes and \$704 million, respectively.

Tasmanian aquaculture fisheries have grown strongly since 2005–06 as the aquaculture salmonid industry has expanded. Aquaculture salmonid volumes have more than doubled from 2005–06 to 2015–16, with salmonids becoming one of the most valuable fishery products produced in Australia. Tasmanian salmonid production value accounted for 98 per cent of Australian salmonid production in 2015–16.



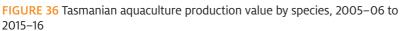


TABLE 26 Tasmanian aquaculture production by species, 2015–16

Species	Value (\$ million)	Volume (tonnes)	Value change (%)	Volume change (%)
Salmonids	704.4	54,772	14	16
Oysters	21.2	3,029	-10	-10
Other aquaculture species	5.1	656	-19	-36
Total	730.7	58,458	12	13

See table S12 for detailed statistics.

Northern Territory

Key species groups: pearls (aquaculture), mackerel (wild-catch), goldband snapper (wild-catch), crabs (wild-catch), barramundi (wild-catch, aquaculture)

The gross value of production of the Northern Territory's fisheries and aquaculture increased by 8 per cent in 2015–16 to \$59 million (Figure 37). The gross value of the Northern Territory's annual fishery production declined by 11 per cent in real terms between 2005–06 and 2015–16. This was the result of a decline in the gross value of aquaculture production more than offsetting an increase in the value of wild-caught production.

FIGURE 37 NT fisheries and aquaculture production value by sector, 2005–06 to 2015–16

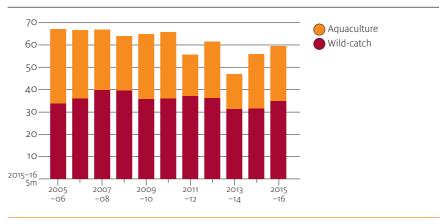


TABLE 27 NT fisheries and aquaculture production by sector, 2015-16

Sector	Value (\$ million)	Volume (tonnes)	Value change (%)	Volume change (%)
Wild-catch	34.9	6,110	12	14
Aquaculture	24.5	na	2	na
Total	59.4	na	8	na

See table S13 for detailed statistics. na Not available.

Wild-catch

The gross value of Northern Territory's wild-catch sector increased by 12 per cent in 2015–16 to \$35 million (Figure 38). An increase in production value of finfish more than offset a decline in crab production value.

The gross value of crab production in the Northern Territory initially increased but then declined significantly between 2005–06 and 2015–16. The value of wild-caught finfish production averaged around \$28 million (in 2015–16 dollars) from 2005–06 to 2015–16 but increased by 19 per cent in 2015–16 to reach a 12-year high of \$32 million.

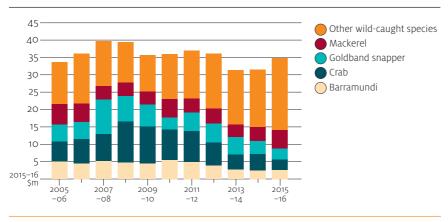




TABLE 28 NT wild-catch production by species, 2015–16

Species	Value (\$ million)	Volume (tonnes)	Value change (%)	Volume change (%)
Mackerel	5.3	829	33	11
Goldband snapper	3.2	519	-17	6
Crab	3.0	149	-35	-35
Barramundi	2.6	323	7	-15
Other wild-caught species	20.9	4,290	28	23
Total	34.9	6,110	12	14

See table S13 for detailed statistics.

Aquaculture

The value of aquaculture production in the Northern Territory increased in 2015–16 compared with 2014–15. The species value of production breakdown cannot be provided for 2015–16 because of confidentiality requirements.

Commonwealth

Key species groups: prawns (wild-catch), tuna (wild-catch), sharks (wild-catch)

The gross value of Commonwealth fisheries production increased by 25 per cent in 2015–16 to \$439 million (Figure 39). This was the fourth consecutive annual rise in production value and the highest GVP in real terms since 2003–04. The Northern Prawn Fishery (NPF), Southern and Eastern Scalefish and Shark Fishery (SESSF), Southern Bluefin Tuna Fishery (SBT), Eastern Tuna and Billfish Fishery (ETBF) and Torres Strait fisheries accounted for 70 per cent of Commonwealth fisheries GVP in 2015–16.

Species	Value (\$ million)	Volume (tonnes)	Value change (%)	Volume change (%)
Northern Prawn Fishery	124.0	6,863	16	-4
Southern and Eastern Scalefish and Shark Fishery	73.0	15,907	8	2
Southern Bluefin Tuna Fishery	35.9	5,508	-3	1
Eastern Tuna and Billfish Fishery	48.8	6,572	39	29
Torres Strait fisheries	24.4	1,094	-3	-2
Other Commonwealth fisheries	132.8	20,828	69	180
Total	438.8	56,773	25	36

TABLE 29 Commonwealth fisheries production by fishery, 2015–16

See table S14 for detailed statistics.

Fisheries

In 2015–16 the NPF remained the most valuable Commonwealth fishery. Significantly higher levels of production value in 2013–14, 2014–15 and 2015–16, compared with 2005–06 to 2013–14, was the result of higher production volumes from the fishery combined with higher beach prices in those years. GVP in the NPF was variable between 2005–06 and 2015–16, which is partly reflective of changes to the value of banana prawn production value. Banana prawns are typically the most valuable species caught in the NPF, but catch levels are volatile because of the species' short life cycle and sensitivity to seasonal conditions, particularly rainfall in Northern Australia (Bath & Green 2016).

The gross value of production in the SESSF increased by 8 per cent in 2015–16 to \$73 million. The SESSF comprises three separate fishery sectors: the Commonwealth Trawl Sector (where GVP increased by 12 per cent to \$43 million), the Gillnet, Hook and Trap Sector (up 7 per cent to \$24 million) and the Great Australian Bight Trawl Sector (down 9 per cent to \$8 million). The rise in Commonwealth Trawl Sector production value was a result of an increase in the value of production for orange roughy, blue grenadier and tiger flathead. Gillnet, Hook and Trap Sector GVP increased because of an increase in production value of gummy shark and blue eye trevalla more than offsetting declines for other targeted species. The fall in Great Australian Bight Trawl Sector production can be attributed to a fall in the value of production of bight redfish. GVP of the SESSF declined significantly from 2005–06 to 2015–16. This fishery was restructured through the Commonwealth 'Securing Our Future Fishing' Policy, which led to a decrease in participation in the fishery after 2005–06. At the same time, strong import competition in the form of frozen blue grenadier from New Zealand and basa from South-East Asia has increased significantly, driving down prices.

The gross value of the ETBF increased by 39 per cent in 2015–16 to \$49 million, driven by higher tuna (largely yellowfin tuna) and swordfish production. The gross value of yellowfin tuna production in the ETBF increased by 43 per cent to \$25 million, reflecting a 34 per cent in catch volume and a 6 per cent increase in average price. Low quota latency for yellowfin tuna during the 2015 season (March to February) suggests that favourable economic conditions for targeting that species prevailed during that period.

The gross value of the SBTF production fell by 3 per cent in 2015–16 to \$36 million, reflecting a fall in both the average unit value and the production of bluefin tuna. Production value has trended down in the SBTF as TACs restricted production volumes, and demand for tuna has varied with the Japanese economy and movements of the Australian dollar against the yen.

Other Commonwealth fisheries production value increased, contributing the most to the overall increase in production value for Commonwealth fisheries. There is no breakdown of other Commonwealth fisheries by species due to confidentiality requirements.

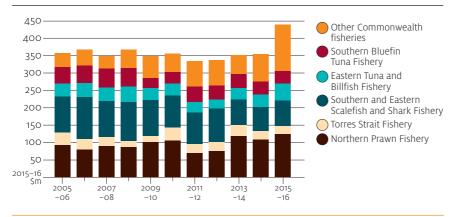


FIGURE 39 Commonwealth fisheries production value by fishery, 2005–06 to 2015–16

Species

Prawns remained the most valuable species caught in Commonwealth fisheries in 2015–16, increasing in production value by 14 per cent to \$131 million (Figure 40). The value of tuna production increased by 17 per cent to \$74 million, reflecting increased catch in the ETBF. Other finfish made the largest contribution to Commonwealth fishery production value, increasing by 40 per cent to \$207 million. Molluscs make a relatively minor contribution to Commonwealth fishery GVP. Scallops are the major mollusc species produced in Commonwealth fisheries. Production value of this species increased by 67 per cent to \$4.6 million, reflecting an increase in production volume.

FIGURE 40 Commonwealth fisheries production value by species, 2005–06 to 2015–16

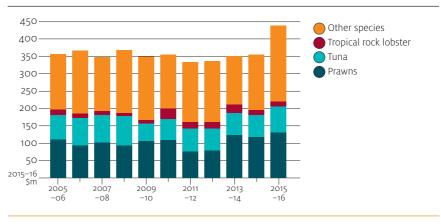
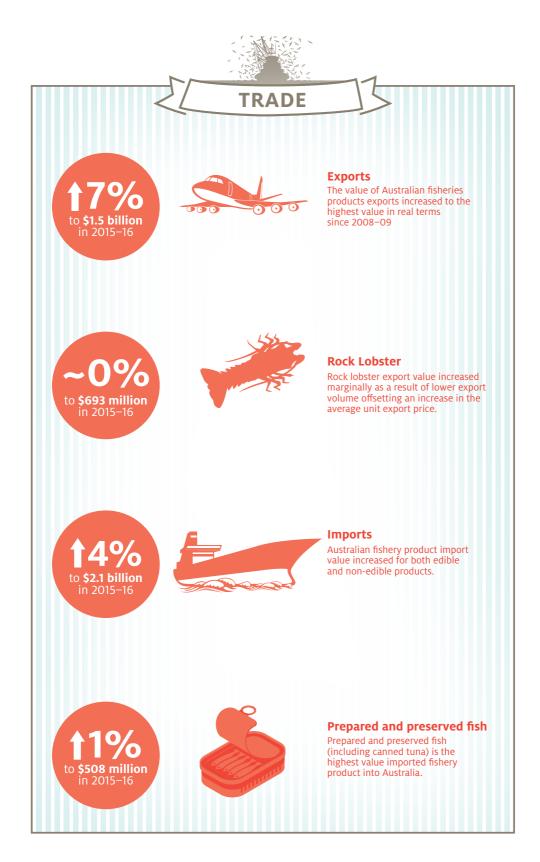


 TABLE 30 Commonwealth fisheries production by species, 2015–16

Species	Value (\$ million)	Volume (tonnes)	Value change (%)	Volume change (%)
Prawns	131.0	7,462	14	-5
Tuna	74.4	10,213	17	15
Lobster	14.3	376	-2	-1
Other species	219.2	38,721	40	56
Total	438.8	56,773	25	36

See table S13 for detailed statistics.



Trade

Fast facts

Exports

- Total value of fishery and aquaculture product exports increased by 7 per cent in 2015–16 to \$1.54 billion. This builds on the increases in export value over 2013–14 and 2014–15.
- Export value derived from edible fishery and aquaculture products increased by 10 per cent in 2015–16 to \$1.42 billion. Non-edible fishery and aquaculture product exports declined by 16 per cent to \$123 million in 2015–16, with pearls as the highest contributor to total non-edible export value.
- Total value of fishery and aquaculture product exports was 22 per cent lower in real terms in 2015–16 compared with 2005–06. However, a downward trend in export value from 2005–06 to 2012–13 has been followed by year-on-year increases in earnings from 2013–14 to 2015–16. Increases in total export earnings since 2012–13 can be largely attributed to a significant rise in value of rock lobster exports in 2013–14 and 2014–15 and salmonid exports in 2015–16.

Species	Value (\$ million)	Volume (tonnes)
Rock lobster	693.2	7,987
Abalone	182.0	2,615
Tuna	163.3	13,752
Prawns	114.4	6,689
Pearls a	96.0	na

TABLE 31 Top five edible and non-edible exports by value, 2015–16

a Includes items temporarily exported and reimported. na Not available.

TABLE 32 Top five edible and non-edible exports by destination, 2015–16

Species	Value (\$ million)	Value change (%)
Vietnam	682	-5
Hong Kong	277	11
Japan	229	6
China	108	111
United States	66	49

Imports

- The total value of fishery and aquaculture product imports increased by 4 per cent in 2015–16 to \$2.09 billion.
- Edible fishery and aquaculture products contributed \$1.79 billion (86 per cent) to the total import value of all fishery and aquaculture products in 2015–16. The import value of non-edible fishery and aquaculture products made up the remaining 14 per cent, dominated by pearls that were temporarily exported and reimported.
- The value of Australian fishery product imports was 29 per cent higher (\$465 million in 2015–16 dollars) in 2015–16 compared with 2005–06. Most of this increase is attributed to higher imports of edible fishery and aquaculture products, which increased by 36 per cent from 2005–06 to 2015–16.

TABLE 33 Top five edible and non-edible imports by species, 2015–16

Species	Value (\$ million)	Volume (tonnes)	Value change (%)	Volume change (%)
Prawns	400.9	31,919	-7	-1
Tuna	274.8	44,859	-3	-9
Salmonids	184.7	15,059	-3	-7
Pearls a	144.4	na	49	na
Squid and octopus	134.8	23,380	21	5

a Includes items temporarily exported and reimported. na Not available.

TABLE 34 Top five edible and non-edible imports by origin, 2015–16

Country	Value (\$ million)	Value change (%)
Thailand	423	-1
China	317	6
Vietnam	246	4
New Zealand	209	5
Indonesia	107	5

Exports and imports

Australian fishery and aquaculture exports are dominated by high unit value products such as rock lobster, tuna and abalone. Imports of fishery and aquaculture products largely consist of lower unit value products such as frozen and canned fish and frozen prawns. Australia is a net importer of fishery and aquaculture products with respect to volume. With respect to value, Australia became a net importer of fishery and aquaculture products in 2007–08 (Figure 41). The real value (in 2015–16 dollars) of net imports increased from \$65 million in 2007–08 to \$719 million in 2013–14 before reducing to \$544 million in 2015–16 (Figure 41).

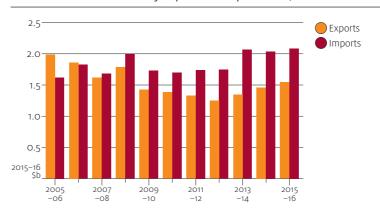


FIGURE 41 Australian fishery export and import value, 2005–06 to 2015–16

The value of Australian fishery and aquaculture product exports increased by 7 per cent in 2015–16 to \$1.54 billion. This rise builds on rising total export value since 2013–14 and is largely attributable to the export of rock lobster.

A \$739 million (in 2015–16 dollars) fall in export earnings from 2005–06 to 2012–13 was the result of lower export value across several major exported aquaculture and fisheries products. The total value of edible exports fell by 33 per cent, largely reflecting lower export value of rock lobster, abalone, prawns and tuna. The real value of non-edible exports fell by 54 per cent between 2005–06 and 2012–13. The leading cause of this fall was the decline in the export earnings from pearls, which fell by \$211 million (in 2015–16 dollars) during that period.

Exports by commodity

Crustacean and mollusc product exports (predominantly rock lobster) are the largest contributor to Australia's total fishery and aquaculture product export earnings (Figure 42). This group accounted for 69 per cent of the total fishery and aquaculture product export earnings in 2015–16, followed by edible finfish and non-edible product exports at 23 per cent and 8 per cent, respectively. The share of crustacean and mollusc product exports in the export mix increased from 61 per cent of total export earnings in 2005–06. Most of the rise in export share for the crustacean and mollusc group has occurred from 2012–13, reflecting the increase in rock lobster export value.



FIGURE 42 Value of Australian fishery exports, 2005-06 to 2015-16

TABLE 35 Fishery and aquaculture product exports, 2015–16

Product group	Value (\$ million)	Volume (tonnes)	Value change (%)	Volume change (%)
Crustaceans and molluscs	1,063.7	19,670	4	-0
Edible finfish	354.6	42,385	31	80
Non-edible	123.5	na	-16	na
Total	1,541.8	na	7	na

See table S18 for detailed statistics. na Not available.

Finfish products

The value of edible finfish exports increased by 31 per cent in 2015–16 to \$355 million. This increase was largely driven by increased salmonid product export value (Figure 43). Salmonid production in Australia increased by 35,344 tonnes to 56,319 tonnes between 2005–06 and 2015–16, with most of this increase consumed in Australia. In 2015–16 the volume of salmonid exports increased by 62 per cent to a record 8,038 tonnes. Over half of all salmonid exports in 2015–16 were destined for the Chinese market, which became the largest market for salmonid exports in that year, taking 4,370 tonnes. Tuna product exports also contributed to growth in finfish export earnings, as a result of higher volumes exported, but to a lesser extent than salmonids.

Mackerel exports (defined as exports from HS codes 03024400, 03035400, 03035500 and 16041500) increased from 249 tonnes in 2014–15 to 11,131 tonnes in 2015–16. African countries were the destination for 89 per cent of mackerel exports in 2015–16 by volume. Mackerel is a relative low unit value fish export, so, despite total mackerel exports accounting for 27 per cent of the total finfish export volume, mackerel exports accounted for only 4 per cent of total finfish export value.

Between 2005–06 and 2013–14, the value of finfish exports decreased by 38 per cent in real terms. This was primarily because of a 39 per cent decline in the value of tuna exports over the period. During this period, the average unit value for tuna exports declined by 18 per cent and export volume dropped by 24 per cent. The increase in export value since 2013–14 has been driven by increased volume of salmonid and tuna.

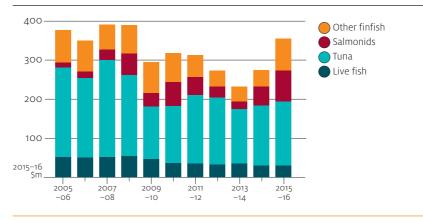


FIGURE 43 Value of finfish exports by species group, 2005–06 to 2015–16

TABLE 36 Finfish exports by species, 2015–16

Species	Value (\$ million)	Volume (tonnes)	Value change (%)	Volume change (%)
Tuna	163.3	13,752	8	14
Salmonids	79.9	8,038	66	62
Other finfish	111.4	20,595	55	216
Total	354.6	42,385	31	80

See table S19 for detailed statistics.

Crustacean and mollusc products

The value of Australian crustacean and mollusc exports increased by 4 per cent in 2015–16 to \$1.06 billion (Figure 44). Rock lobster, prawns, and abalone account for 93 per cent of Australian crustacean and mollusc export value.

Rock lobster was Australia's most valuable fishery commodity export. Export value of rock lobster increased marginally in 2015–16 to \$693 million, with a decline in export volume being more than offset by an increase in average export unit values. The China, Vietnam and Hong Kong region is Australia's key export destination for rock lobster, accounting for over 90 per cent of export value. During recent years this market has been subject to rising competition from the United States, Canada and New Zealand.

The value of prawn exports increased by 21 per cent to \$114 million, largely reflecting an increase in average export unit value. The Australian prawn industry is highly trade exposed, and movements in global shrimp prices and the Australian exchange are expected to be reflected in domestic prices. However, Australia produces a wide variety of prawn species, and the significant increase in average unit export value in 2015–16 could also reflect a change in the composition of prawn exports toward relatively higher unit value species such as tiger prawns. The total value of crustacean and mollusc product exports fell by \$439 million in real terms (2015–16 dollars) between 2005–06 and 2011–12. Export value declined for all major exported crustacean and mollusc species during that period. A significant increase in the value of rock lobster exports from 2011–12 to 2015–16 was the key driver of the partial recovery in the total value of crustacean and mollusc product exports during that period.



FIGURE 44 Value of crustacean and mollusc exports by species, 2005–06 to 2015–16

TABLE 37 Crustacean and mollusc exports by species, 2015–16

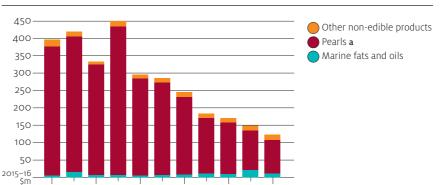
Species	Value (\$ million)	Volume (tonnes)	Value change (%)	Volume change (%)
Rock lobster	693.2	7,987	0	-3
Abalone	182.0	2,615	5	1
Prawns	114.4	6,689	21	3
Other crustacean and molluscs	74.1	2,379	19	-2
Total	1,063.7	19,670	4	-0

See table S20 for detailed statistics.

Non-edible fishery and aquaculture products

The total value of non-edible fishery exports fell by 16 per cent in 2015–16 to \$123 million (Figure 45). Pearl exports (including products temporarily exported and then reimported) account for the majority of non-edible fishery and aquaculture export value. Exports of that product declined by 13 per cent in 2015–16 to \$96 million. Marine fats and oils, despite being the second-largest contributor, is a minor component of export earnings from non-edible products. The export value of marine fats and oils fell by 47 per cent in 2015–16 from the above-average value of 2014–15.

Between 2005–06 and 2015–16, the fall in pearl export value (down \$276 million in 2015–16 dollars) was the main contributor to the fall in total export earnings from non-edible products (down \$274 million in 2015–16 dollars).



2013

-14

2015

-16

FIGURE 45 Value of non-edible exports by product, 2005–06 to 2015–16

a Includes items temporarily exported and re-imported.

2007

-08

2005

-06

TABLE 38 Non-edible exports by product, 2015–16

2009

-1C

2011

-12

Product	Value (\$ million)	Value change (%)
Pearls a	95.9	-13
Marine fats and oils	11.2	-47
Other non-edible products	16.4	7
Total	123.5	-16

See table S18 for detailed statistics. a Includes items temporarily exported and reimported.

Exports by destination

Edible fishery and aquaculture products

Main destinations: Vietnam, Hong Kong and Japan

The major seafood export destinations for Australia in 2015–16 were Vietnam (\$682 million), Hong Kong (\$224 million), Japan (\$205 million), China (\$105 million) and the United States (\$45 million) (Figure 46). Together these countries accounted for 89 per cent of edible fishery products (including live fish) exported from Australia in 2015–16. Between 2005–06 and 2015–16 the majority of seafood products were exported to Hong Kong; however, Vietnam has been the primary export destination since 2013–14. The increasing share of edible fishery and aquaculture product exports to Vietnam after 2012–13 reflects the redirection of rock lobster exports from Hong Kong. The fall in export earnings from Hong Kong—over the period—was slightly offset by an increase in frozen prawn export earnings (up \$18 million in 2015–16 dollars).

The value of seafood exports to China more than doubled in 2015–16 to \$105 million. A large increase in salmonid exports to China boosted earnings from this market. Tuna and swordfish were the dominant categories responsible for export earnings from the United States.

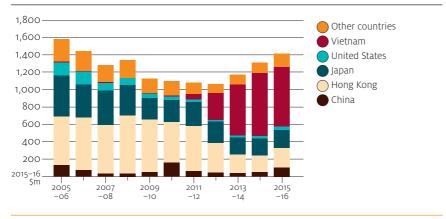


FIGURE 46 Value of edible exports by destination, 2005–06 to 2015–16

TABLE 39 Edible exports by destination, 2015–16

Destination	Value (\$ million)	Volume (tonnes)	Value change (%)	Volume change (%)
Vietnam	681.7	9,895	-5	-12
Hong Kong	223.7	5,029	16	11
Japan	205.3	13,395	7	12
China	104.6	6,609	115	90
United States	44.8	2,150	60	75
Other countries	158.1	24,976	36	130
Total	1,418.3	62,055	10	43

See table S24 for detailed statistics.

Non-edible fishery and aquaculture products

Main destinations: Hong Kong, Japan and the United States

Non-edible fishery and aquaculture product export earnings (predominantly from pearl exports) fell across all major export destinations between 2005–06 and 2015–16 (Figure 47).

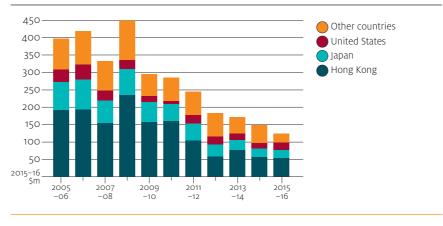


FIGURE 47 Value of non-edible exports by destination, 2005–06 to 2015–16

TABLE 40 Non-edible exports by destination, 2015–16

Product group	Value (\$ million)	Value change (%)
Hong Kong	53.2	-5
Japan	24.0	3
United States	21.6	30
Other countries	46.3	-32
Total	123.5	-16

See table S24 for detailed statistics.

Seafood exports by state

Edible fishery and aquaculture export earnings from Western Australia increased by 4 per cent in 2015–16 to \$505 million, largely as a result of an increase in rock lobster and prawn export value. Tasmania and Queensland were the states that had the most significant growth in export earnings from edible fishery and aquaculture products in 2015–16. Export earnings from Tasmania rose primarily as a result of increased export value of salmonids, while growth in the value of fishery and aquaculture exports from Queensland was due to increased revenue from tuna and prawns.

Export earnings from South Australia rose by 3 per cent in 2015–16 to \$250 million, with an increase in finfish export value more than offsetting significant decline in the value of rock lobster exports. Export earnings from New South Wales increased by around \$5 million, primarily because of increases in the value of tuna and rock lobster exports. Export earnings from Northern Territory remained relatively stable.

TABLE 41 Edible exports by state, 2015–16

Species	Value (\$ million)	Volume (tonnes)	Value change (%)	Volume change (%)
New South Wales	23.3	1,743	25	-18
Victoria	192.5	16,409	9	369
Queensland	199.6	10,818	25	18
South Australia	250.5	11,727	3	11
Western Australia	504.9	7,851	4	3
Tasmania	186.9	9,279	27	54
Northern Territory	0.2	3	-37	-63

See table S28 for detailed statistics.

Western Australia and South Australia were the largest exporting states by value between 2005–06 and 2015–16 (Figure 48). In Western Australia rock lobster dominates the export mix, with its contribution to total edible fishery and aquaculture product export earnings ranging between 83 per cent and 93 per cent. Other major products exported from Western Australia include prawns and abalone. Export earnings from South Australia fell considerably between 2005–06 and 2015–16 due to reduced revenue from all major export species (tuna, rock lobster, abalone and prawns). Tuna remained the major source of export earnings from South Australia over the period. Tuna exports from South Australia primarily consist of southern bluefin tuna exported to Japan. Export earnings have declined as a result of the appreciation of the Australian dollar against the yen and subdued economic conditions in Japan.

The real value of seafood exports from Queensland fell by \$48 million (in 2015–16 dollars) between 2005–06 and 2015–16. Contributing to this decline has been lower export earnings from finfish, scallops and crab.

Salmonids, rock lobster and abalone are the major edible fishery and aquaculture products exported from Tasmania. Between 2005–06 and 2015–16 export earnings from both rock lobster and abalone have declined, with the fall in rock lobster being the most significant. In contrast, salmonid exports have grown significantly over the same period (up \$67 million in 2015–16 dollars) owing to growth in the aquaculture salmonid industry in Tasmania.

The major source of export earnings from Victoria has been rock lobster and abalone (together accounting for 87 per cent of export value on average from 2005–06 to 2015–16). The real value of rock lobster exports tripled between 2005–06 and 2015–16 to account for 57 per cent of seafood export value in 2015–16.

New South Wales and Northern Territory exports are relatively small compared with those of the other states. The major sources of edible fishery and aquaculture export earnings for New South Wales are tuna and other (finfish) fish, while the Northern Territory primarily exports crab and other species (crustaceans and molluscs).

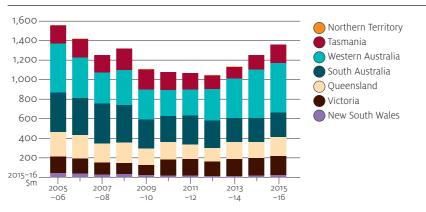


FIGURE 48 Value of edible exports by state, 2005-06 to 2015-16

Imports by commodity

The total value of fishery and aquaculture product imports increased by 4 per cent in 2015–16 to \$2.09 billion (Figure 49). Edible finfish imports increased by 2 per cent to \$1.07 billion to account for around half of total fishery and aquaculture product import value in 2015–16. The total value of crustacean and mollusc imports increased by 1 per cent in 2015–16 to \$720 million. Imports of non-edible fishery and aquaculture products increased by 22 per cent in 2015–16 to \$293 million, largely reflecting an increase in the value of reimported pearls.

TABLE 42 Fishery and aquaculture imports, 2015–16

Product group	Value (\$ million)	Volume (tonnes)	Value change (%)	Volume change (%)
Crustaceans and molluscs	720.0	68,267	1	1
Edible finfish	1,072.7	154,482	2	-3
Non-edible	293.4	na	22	na
Total	2,086.4	na	4	na

See table S29 for detailed statistics. na Not available.



FIGURE 49 Value of fishery and aquaculture product imports, 2005-06 to 2015-16

Edible fishery and aquaculture products

Key products: tuna, salmonids, hake

The value of edible finfish imports increased by 2 per cent in 2015–16 to \$1.07 billion (Figure 50). The import value of tuna and salmonids—the two highest-value species imported into Australia—both declined by 3 per cent in 2015–16 to \$275 million and \$185 million, respectively. Lower import value for these species was the result of lower import volume.

More than offsetting the decline in the import value of tuna and salmonids was an increase in the value of imports across a range of species and product forms. The import value of toothfish (largely frozen) more than doubled to \$8.2 million, the total value of prepared and preserved sardines, anchovies and mackerel increased by 26 per cent to \$46 million and hake (largely frozen) increase by 8 per cent to \$24 million.

Between 2005–06 and 2015–16 the real value of finfish imports increased by \$303 million (in 2015–16 dollars). Around 60 per cent of this increase was driven by higher import value of tuna and salmonids, which increased in real terms (2015–16 dollars) by \$93 million and \$89 million, respectively. Significant rises in import value also occurred for a number of other fish species and product forms.

Finfish

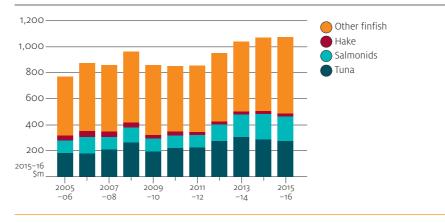


FIGURE 50 Value of finfish imports by species, 2005-06 to 2015-16

TABLE 43 Finfish imports by species, 2015–16

Product group	Value (\$ million)	Volume (tonnes)	Value change (%)	Volume change (%)
Tuna	274.8	44,859	-3	-9
Salmonids	184.7	15,059	-3	-7
Hake	23.6	5,123	8	4
Other finfish	589.6	89,440	6	-0
Total	1,072.7	154,482	2	-3

See table S30 for detailed statistics.

Tuna is Australia's most valuable finfish export while also being Australia's most valuable finfish import. However, the mix of product forms of tuna is different between exports and imports. While exports are largely in a frozen, fresh or chilled form, imports are virtually all in a prepared or preserved (canned) form (Figure 51). Across all product forms the average unit value of Australian tuna exports is much greater than the average import unit value.

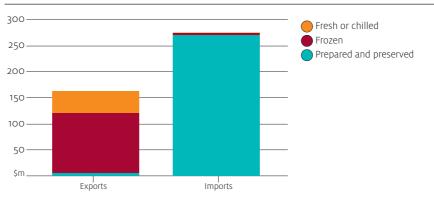


FIGURE 51 Australian tuna trade by product form, 2015–16

Crustaceans and molluscs

The import value of crustaceans and molluscs increased by 1 per cent in 2015–16 to \$720 million (Figure 52). This increase occurred despite a 7 per cent decline in the value of prawn imports (the most valuable species in this group) to \$401 million. The decline in prawn import value was largely the result of lower average unit values, although imported quantity also declined. An increase in import value was recorded across a number of species, including squid and octopus, scallops and mussels.

Between 2005–06 and 2015–16 the real value of crustacean and mollusc imports increased by \$173 million (in 2015–16 dollars). This increase was driven by higher import value of prawns, squid and octopus, which increased by \$126 million. Significant rises in import value also occurred for a number of other crustaceans and molluscs, with the combined value of lobster, crab, mussel and scallop imports increasing by around \$60 million (in 2015–16 dollars).

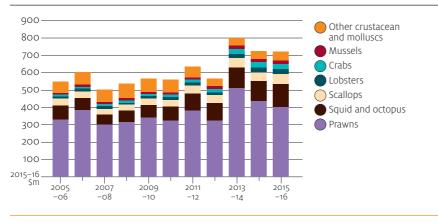


FIGURE 52 Value of crustacean and mollusc imports by value, 2005–06 to 2015–16

TABLE 44 Crustacean and mollusc imports, by value (annual per cent change),2015–16

Product group	Value (\$ million)	Volume (tonnes)	Value change (%)	Volume change (%)
Prawns	400.9	31,919	-7	-1
Squid and octopus	134.8	23,380	21	5
Scallops	55.0	2,624	11	-8
Lobsters	29.9	909	6	-21
Crabs	28.7	1,875	-8	-6
Mussels	20.0	3,329	12	6
Other crustacean and molluscs	129.3	10,345	8	1
Total	720.0	68,267	1	1

See table S31 for detailed statistics.

Non-edible fishery and aquaculture products

Imports of non-edible fishery and aquaculture products increased by 22 per cent in 2015–16 to \$293 million, largely reflecting an increase in the value of reimported pearls (Figure 53). Pearl import value (largely reimported pearls) increased by 49 per cent to \$144 million. Imports of marine fats and oils increased by 16 per cent to a record high of \$61 million, while the import value of fish meal fell by 4 per cent to \$62 million.

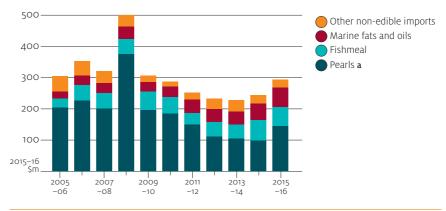


FIGURE 53 Value of non-edible imports by product group, 2005-06 to 2015-16

a Includes items temporarily exported and reimported.

Product group	Value (\$ million)	Value change (%)
Pearls a	144.4	49
Fish meal	61.7	-4
Marine fats and oils	61.1	16
Other non-edible imports	26.2	-1
Total	293.4	22

TABLE 45 Non-edible imports by value (annual per cent change), 2015–16

See table S29 for detailed statistics. a Includes items temporarily exported and reimported.

Imports by source

Edible fishery and aquaculture products

Key sources: Thailand, China, Vietnam and New Zealand

The major sources of Australian edible fishery and aquaculture product imports in 2015–16 (excluding live products) were Thailand (\$416 million), China (\$292 million), Vietnam (\$243 million) and New Zealand (\$200 million) (Figure 54). Together, these countries accounted for 64 per cent of imports in 2015–16.

FIGURE 54 Value of edible product imports (excluding live products) by source, 2005–06 to 2015–16



TABLE 46 Source of edible imports by value, 2015–16

Destination	Value (\$ million)	Volume (tonnes)	Value change (%)	Volume change (%)
Thailand	416.1	61,280	-1	-7
China	292.2	34,959	3	-1
Vietnam	243.0	32,743	4	4
New Zealand	199.8	27,644	5	-2
Other countries	641.9	66,152	1	-1
Total	1,792.9	222,778	1	-2

See tables S32 to S37 for detailed statistics.

Thailand is Australia's largest source of imports for edible fishery and aquaculture products (by value), followed by China and Vietnam. The major product group imported from Thailand is prepared or preserved tuna (mostly canned tuna). Significant imports from China include frozen scallops and squid and octopus. Imports from New Zealand are predominantly prepared or preserved (finfish) fish and mollusc products.

Non-edible fishery and aquaculture products

Key sources: Peru, China and Indonesia

Non-edible fishery and aquaculture import products are dominated by reimported Australian products, predominantly pearls (allocated to 'Other' category). With respect to non-edible imports that were not reimported, Peru (\$30 million), China (\$25 million) and Indonesia (\$17 million) were the dominant contributors to non-edible fishery and aquaculture import earnings in 2015–16 (Figure 55). These three countries accounted for around a quarter of non-edible import earnings in 2015–16.



FIGURE 55 Value of non-edible imports by source, 2005–06 to 2015–16

a 'Other countries and re-imports' are predominately reimports.

TABLE 47 Source of non-edible imports by value (annual per cent change), 2015–16

Product group	Value (\$ million)	Value change 9%)
Peru	30.5	-15
China	24.7	68
Indonesia	17.0	10
Other countries and reimports a	238.3	25
Total	293.4	22

See table S37 for detailed statistics. a Predominately reimports.

Employment

Fast facts

- In 2015–16 an estimated 10,985 people were employed in the commercial fishing and aquaculture industry, with 5,600 employed in fishing enterprises and 5,385 in aquaculture.
- An estimated 8,552 people (78 per cent) worked full-time and 3,433 (22 per cent) worked part-time in the commercial fishing and aquaculture industry in 2015–16.
- Of the people employed in the commercial fishing sector in 2015–16, 84 per cent were male and 16 per cent were female. Of the people employed in aquaculture enterprises, 84 per cent were male and 16 per cent were female. The commercial fishing sector experienced an increase in full-time female participation relative to 2014–15, whereas the aquaculture sector experienced an increase in part-time male participation.
- Compared with 2014–15, estimated total employment in the commercial fishing and aquaculture industry fell by 23 per cent (down 3,228 people) in 2015–16. Full-time employment fell by 20 per cent (down 2,130 people); part-time employment fell by 31 per cent (1,097 people).

Table 48 is based on data from the Australian Bureau of Statistics (ABS) Labour Force Survey. The labour market survey data are averaged over four quarters and presented in financial years for the fishing and aquaculture sectors separately. The number of people employed in the sectors is presented by full-time and part-time status and by gender. The ABS Census data provide subsector, jurisdiction employment data for the 2016 calendar year.

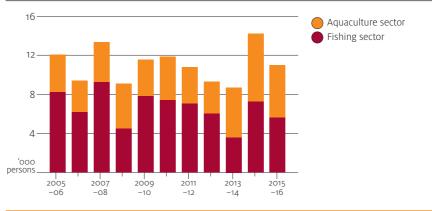
In its Labour Force Survey summary (ABS 2016) the ABS estimates that in 2015–16 the fishing and aquaculture industry employed 10,985 people—a decrease of 23 per cent compared with 2014–15. Employment in the aquaculture sector fell by 23 per cent (down 1,603 people) to 5,385 people in 2015–16. Employment in the fishing sector fell by 22 per cent (down 1,625 people) to 5,600 people.

		2011–12	2012–13	2013–14	2014–15	2015–16
Full-time	Male	4,727	4,237	2,148	5,238	4,033
	Female	301	117	73	17	313
	Total full-time	5,028	4,354	2,221	5,254	4,346
Part-time	Male	1,605	997	1,070	1,086	679
	Female	414	651	293	885	575
	Total part-time	2,019	1,649	1,363	1,971	1,255
Total emplo	oyed in fishing	7,047	6,002	3,584	7,225	5,600
Full-time	Male	3,197	2,160	3,410	4,489	3,556
	Female	98	126	479	939	651
	Total full-time	3,295	2,286	3889	5,428	4,206
Part-time	Male	280	583	786	780	951
	Female	159	443	424	780	227
	Total part-time	439	1,026	1,210	1,560	1,179
Total emplo	yed in aquaculture	3,734	3,312	5,100	6,988	5,385
		10,782	9,314	8,684	14,213	10,985
-	Part-time Total emplo Full-time Part-time	FemaleTotal full-timePart-timeMaleFemaleTotal employed in fishingFull-timeMaleFull-timeMaleFemaleTotal full-timePart-timeMaleFemaleFemaleFemaleFemaleFemaleFemaleFemaleFemaleFemaleFemaleFemaleFemaleFemaleFemaleFemale	Full-timeMale4,727Female301Total full-time5,028Part-timeMale1,605Female414Total part-time2,019Total employed in fishing7,047Full-timeMale3,197Female98Total full-time3,295Part-timeMale280Female159Total employed in aquaculture3,734	Full-time Male 4,727 4,237 Female 301 117 Total full-time 5,028 4,354 Part-time Male 1,605 997 Female 114 651 Total part-time 2,019 1,649 Total employed in fishing 7,047 6,002 Full-time Male 3,197 2,160 Female 98 126 Total full-time 3,295 2,286 Part-time Male 280 583 Female 159 443 Total part-time 439 1,026 Total employed in aquaculture 3,734 3,312	Full-timeMale4,7274,2372,148Female30111773Total full-time5,0284,3542,221Part-timeMale1,6059971,070Female414651293Total part-time2,0191,6491,363Total employed in fishing7,0476,0023,584Full-timeMale3,1972,1603,410Female98126479Total full-time3,2952,2863889Part-timeMale280583786Female159443424Total part-time4391,0261,210Total employed in aquaculture3,7343,3125,100	Full-timeMale $4,727$ $4,237$ $2,148$ $5,238$ Female 301 117 73 17 Total full-time $5,028$ $4,354$ $2,221$ $5,254$ Part-timeMale $1,605$ 997 $1,070$ $1,086$ Female 414 651 293 885 Total part-time $2,019$ $1,649$ $1,363$ $1,971$ Total employ-t in fishing $7,047$ $6,002$ $3,584$ $7,225$ Full-timeMale $3,197$ $2,160$ $3,410$ $4,489$ Female 98 126 479 939 Total full-time $3,295$ $2,286$ 3889 $5,428$ Part-timeMale 280 583 786 780 Female 159 443 424 780 Total part-time 439 $1,026$ $1,210$ $1,560$ Total employ-t in aquaculture $3,734$ $3,312$ $5,100$ $6,988$

TABLE 48 Employment in the Australian commercial fishing and aquaculture industry, 2011–12 to 2015–16 a

a ANZIC 2006. Average employment is averages over four quarters. Australian Bureau of Statistics advises caution in using employment statistics at the ANZSIC subdivision and group levels because some estimates may be subject to sampling variability and standard errors too high for most practical purposes. Refer to original data sources for specific qualifications. The Australian Bureau of Statistics five-yearly Census of Population and Housing covers the entire population and provides more accurate and comprehensive employment data than surveys and provides data at smaller geographic scales.

Source: Australian Bureau of Statistics





Source: Australian Bureau of Statistics

Compared with 2014–15, the estimated total number of people employed in the sector in 2015–16 fell by 22 per cent (1,625 people). This fall was driven by a decrease of 25 per cent (1,611 people) in total male employment, despite an increase of 296 in the number of full-time female employees (the only increase in fishing sector employment between 2014–15 and 2015–16).

Employment in the fisheries and aquaculture sector in 2015–16 comprised 78 per cent full-time employees and 22 per cent part-time employees. Compared with 2014–15, the number of people estimated to be employed full-time in the aquaculture sector fell by 23 per cent (down 1,222 people) to 4,206 people. Part-time employment in the aquaculture sector decreased by 24 per cent (down 381 people) to 1,179 people.

Males continue to dominate employment in the commercial fishing and aquaculture industry. The number of males employed in the industry fell by 20 per cent (down 2,373 males) in 2015–16, and men accounted for 84 per cent (9,219 males) of total employment in the industry. Between 2014–15 and 2015–16, the number of females employed in the industry fell by 33 per cent (down 855 females), comprising 16 per cent of total employment in the industry.

The 2016 ABS Census survey is the most recent survey detailing employment in the fishing industry by sector and by state. Commercial fishing, hunting and trapping and aquaculture activities employed 9,745 people, with 59 per cent (5,777 people) engaged in commercial fishing and hunting and trapping activities and 41 per cent (3,968 people) engaged in aquaculture activities. Fish wholesaling and seafood processing employed 4,013 people, with 62 per cent (2,477 people) employed in fish wholesaling and 38 per cent (1,536 people) employed in seafood processing.

The offshore longline and rack aquaculture sector employed the largest number of people (1,406), followed by rock lobster and crab potting (1,106). By state, excluding fishing, hunting and trapping, Queensland employed the largest number of people in the wild-catch sector (998), followed by Western Australia (992) and South Australia (879). Tasmania employed the largest number of people in the aquaculture sector (1,585 people), followed by New South Wales (675) and South Australia (568 people).

TABLE 49 Estimated employment in the Australian commercial fishing and aquaculture industry, 2016 a

Category	NSW no.	Vic. no.	Qld no.	SA no.	WA no.	Tas. no.	NT no.	ACT no.	Australia no.
Aquaculture	84	142	118	156	92	139	8	0	737
Onshore aquaculture	106	104	334	152	74	120	17	0	913
Offshore longline and rack aquaculture	453	19	103	220	77	532	3	0	1,406
Offshore caged aquaculture	32	29	11	40	11	794	0	0	912
Rock lobster and crab potting	42	66	81	189	544	164	12	0	1,106
Prawn fishing	64	0	167	76	61	0	14	0	392
Line fishing	6	7	12	18	4	3	0	0	58
Fish trawling, seining and netting	11	11	28	22	3	0	0	0	80
Fishing, hunting and trapping	260	196	276	89	99	45	18	7	997
Other fishing	673	299	710	574	380	316	173	0	3,144
Fishing and aquaculture total	1,731	873	1,840	1,536	1,345	2,113	245	7	9,745
Seafood processing	202	173	221	321	266	349	5	0	1,536
Fish and seafood wholesaling	668	625	604	191	258	109	16	7	2,477
Processing and wholesaling total	870	798	825	512	524	458	21	7	4,013
Grand total	2,606	1,667	2,668	2047	1,875	2,586	282	18	13,755

a Based on the 2016 ABS Census data. Categories are consistent with ANZIC 2006.

Source: Australian Bureau of Statistics

Recreational and charter fishing

Recreational fishing is a popular activity that contributes economic and social benefits to the Australian economy, particularly in regional areas. The most recent national recreational fishing survey estimates that about 3.4 million Australians engage in recreational fishing each year, directly contributing an estimated \$1.8 billion to the economy (Campbell & Murphy 2005; Henry & Lyle 2003).

Some industries depend on the recreational fishing sector either wholly (the fishing tackle and bait industry and the fishing tour and charter industry) or for a large proportion of their income (the recreational boating industry and the tourism industry in coastal regions). In 2003, the Australian Bureau of Statistics (ABS) estimated that the sector supports about 90,000 Australian jobs (ABS 2003). Campbell and Murphy (2005) estimated that recreational fishers spent \$223 million on fishing gear, tackle and bait in the 12 months to May 2000 (including second-whand purchases). In contrast, Dominion Consulting (2005) estimated that the value of retail sales in the tackle and bait industry in 2003–04 was \$665 million. For the recreational boating industry, annual turnover was estimated at around \$500 million, of which 60 per cent related to fishing (ABS 2003).

Individual state and territory authorities are responsible for managing recreational and charter fishing in Australia. Recreational fishers are not required to report their activities to fishery management agencies. However, in some states charter operators report the total catch and fishing effort of tour groups as a condition of their licence. Some states require that recreational fishers be licensed and that anglers carry their licences while fishing.

Estimating the catch and harvest of fish by recreational fishers depends on surveys of the general population and targeted surveys of fishers who can be contacted through licence details or at known locations where fishers commonly have access to fish stocks.

State and territory governments use controls on fish size, bag limits, gear restrictions and seasonal and area closures to regulate recreational catches. Licensing requirements and regulations vary considerably between jurisdictions and often depend on location within a jurisdiction, the fishing method used and the species targeted.

It is difficult to estimate the economic value of the recreational sector because, unlike commercial fishers who sell their catch on markets, recreational fishers do not have to pay for fish caught recreationally. They therefore do not reveal the associated value they gain from catching fish. Although non-market valuation techniques are available to estimate the value of recreational fisheries, these techniques are often costly to apply. Such recreational values cannot be easily compared with gross value of production measures used for valuing the commercial sector. For these reasons, estimates of the economic value of recreational fishing are often not available.

One of the Fisheries Research and Development Corporation Recfishing research priorities for 2015 was 'estimating the economic value of recreational fishing in Australia, and its social contribution to Australian communities through employment and volunteering' (Recfishing Research 2015). The Australian Government has committed to conducting a recreational fishing survey every five years to collect data on the social and economic impact of recreational fishing (Liberal Party of Australia 2013). A framework for regular national recreational fishing surveys was published in November 2015 (Georgeson et al. 2015).

Australia-wide

Comprehensive national recreational fisheries statistics are not available for recent years. The last Australia-wide survey of the sector was the 2000–01 National Recreational and Indigenous Fishing Survey (NRIFS), conducted by Commonwealth and state/territory fishery management agencies (Henry & Lyle 2003). The study used a telephone screening survey of the general population (March to April 2000) to estimate the number of recreational fishers in each state and territory and a diary survey of recreational fishers (May 2000 to April 2001) to gather information on the extent of their activities.

The survey results indicated that 3.4 million fishers participated in recreational fishing in the 12 months to May 2000. Estimated expenditure on services and items related to recreational fishing was \$1.8 billion over the diary survey period. New South Wales had the largest expenditure (\$554 million), followed by Victoria (\$396 million) and Queensland (\$320 million). The annual average expenditure per fisher was highest in Victoria at \$721 per fisher, followed by Western Australia (\$706 per fisher) and the Northern Territory (\$608 per fisher). The national average was \$552 per fisher per year.

Since 2001, the NRIFS survey methodology has been repeated in some states and the Northern Territory, although not in concurrent time frames. A comparison of key participation and fishing effort data from the NRIFS and subsequent statewide surveys shows that the states where the surveys have recently been repeated have recorded a moderate reduction in numbers of resident fishers and a more pronounced reduction in participation rate and total days spent fishing. With the exception of the 2009–10 Northern Territory survey, the recent statewide surveys do not include data on expenditure by fishers.

New South Wales

In New South Wales, a recreational fishing licence is needed for all recreational fishing activities. Size and bag limits apply for many species, as do gear restrictions and area/seasonal closures. Separate recreational fishing rules apply for saltwater and freshwater fishing. Size limits, catch limits and area and seasonal closures are the primary management measures for these categories. Operators in the charter boat sector must hold a licence and maintain comprehensive catch records. People under the age of 18, Pensioner Concession Card holders and Indigenous people are exempt from the requirement to hold a recreational fishing licence.

The NSW Department of Primary Industries conducted a survey of recreational fishers in the Greater Sydney region of New South Wales for two years from March 2007 (Steffe & Murphy 2011). The survey provided estimates of fishing effort and catch for common recreational species in marine and estuarine fisheries in the region, by location and for the region as a whole. The NSW Department of Primary Industries conducted a 2013–14 recreational fishing survey using the same methodology as the 2000–01 NRIFS. The survey estimated that 849,249 NSW and ACT residents participated in fishing in the 12 months to June 2013 (a participation rate of 12 per cent). More males than females fished, with the male participation rate 17 per cent compared with 7 per cent for females. The highest number of fishers were between 30 and 44 years of age. The highest participation rate of any age group was 20 per cent for 5–14-year-olds (West et al. 2016). For more information about recreational fishing in New South Wales, see the NSW Department of Primary Industries website.

The NSW Department of Primary Industries has collected data on game fishing tournaments since the early 1990s (Park 2007). Catch and effort data are collected from scheduled radio reports routinely broadcast during tournaments, and more detailed data are collected from tournament results and post-fishing interviews with game fishers.

Victoria

An all-water recreational fishing licence is required for such activities in Victoria. Some recreational fisheries in the state are exempt, but limits and closures still apply. People under 18 years of age or 70 years of age or over are exempt from the requirement to hold a recreational fishing licence.

Fisheries Victoria ran the Statewide Angler Diary Program between 1997 and 2006 to collect statistics on Victorian recreational fishing (Bridge & Conron 2010). A time series of catch rates and size composition information was generated for four key target species in four fishing regions of interest to Fisheries Victoria:

- snapper in Port Phillip Bay and Western Port
- King George whiting in Port Phillip Bay and Western Port
- black bream in the Gippsland Lakes
- rainbow and brown trout in the Goulburn River.

Angler diary programmes are run in selected inland and estuarine water bodies where monitoring is required under fishery management plans (Conron et al. 2012). From March to July 2011, Fisheries Victoria conducted a survey of fishers targeting southern bluefin tuna in western Victoria. During interviews at boat ramps and while gathering catch, fishers were asked about fishing effort and size composition of retained southern bluefin tuna.

Although a pilot statewide telephone diary survey was tested in 2006, there are no recent statewide estimates of participation, catch and fishing effort for Victorian recreational fishers that can be compared with the 2000–01 NRIFS. For more information about recreational fishing in Victoria, see the Agriculture Victoria website.

Queensland

Recreational fishers are not required to hold a licence to fish in Queensland waters. However, anglers over the age of 18 must buy a permit to fish in certain Queensland dams. The state government sets minimum and maximum size limits on some species.

The 2011 report *Prospects for Queensland's primary industries 2011–12* estimates that the commercial equivalent for recreational catch and recreational fishing expenditure in Queensland is \$73 million and more than \$400 million, respectively (Queensland DEEDI 2011).

The 2013–14 Statewide Recreational Fishing Survey performed by Queensland Department of Agriculture and Fisheries collected reliable estimates of recreational participation rates, statewide and regional annual catch, common species caught by recreational fishers and regions where recreational fishing activities took place. The survey results estimate that 15 per cent of Queenslanders aged five years and over had engaged in recreational fishing. The survey combined diary and telephone surveys to collect high-quality data over 12 months (Queensland DAFF 2015). For more information about recreational fishing in Queensland, see the Queensland Department of Agriculture, Fisheries and Forestry website.

South Australia

Recreational fishers are not required to hold a licence to fish in South Australian waters, but registered rock lobster pots must be used to catch southern rock lobster for personal use. Minimum size limits, bag limits, vessel limits, gear restrictions and area and seasonal closures apply for many recreational species. Charter vessel operators must hold a charter boat fishery licence and are also subject to these restrictions.

In 2013–14, a recreational fishing survey was conducted that provided estimates of recreational fisher participation levels, demographics and fishing effort (Giri & Hall 2015). The survey estimated that 277,027 South Australian residents engaged in recreational fishing in the 12 months prior to November 2013 (a participation rate of 18 per cent). For more information about recreational fishing in South Australia, see the South Australian Recreational Fishing Survey 2013–14 (Giri & Hall 2015).

Western Australia

In Western Australia, recreational fishing licences are required for abalone, rock lobster, marron, net fishing, boat fishing and freshwater angling. A statewide recreational boat fishing licence was introduced in 2009, along with new bag limits designed to preserve fish stocks. Seasonal closures are used to control fishing effort for some species, and size and bag limits also apply for most species.

Since 2001, operators in the aquatic tour industry, which includes charter fishing operators, have been required to hold a licence. However, fishers do not need a recreational fishing licence when fishing from a licensed charter vessel. A person fishing from a vessel without a motor does not require a recreational boat fishing licence. Indigenous fishers are not required to hold a recreational fishing licence if the fish are taken for personal use rather than for a commercial purpose.

Results from the WA Department of Fisheries Statewide Survey of Boat-Based Recreational Fishing in 2013–14 were published in late 2015 (Ryan et al. 2015). The survey provides estimates of the quantity of fish retained and released for each Western Australian fishing region. The survey found that 70 per cent of the recreational catch consisted of finfish species, with school whiting being the most caught finfish. For more information about recreational fishing in Western Australia, see the WA Department of Fisheries website.

Tasmania

In Tasmania, a licence for saltwater rod and line fishing is not required, but fishers must hold an Inland Fisheries Licence for inland waters, including some river mouths and estuaries. Recreational fishing licences are needed for collecting abalone, southern rock lobster and scallops and when using graball nets, mullet nets and beach seine nets. Fishing using any type of set line, including dropline or longline, also requires a licence. A range of gear restrictions, bag limits, size limits, seasonal closures and area restrictions apply for abalone, southern rock lobster, shellfish and scalefish.

Indigenous fishers undertaking customary fishing are exempt from the requirement to hold a licence but must comply with all other fisheries rules, such as gear restrictions, possession limits and size and seasonal restrictions. For Indigenous ceremonial activities, permits and exemptions are available.

The Institute for Marine and Antarctic Studies, University of Tasmania, carried out the 2012–13 Survey of Recreational Fishing in Tasmania (Lyle et al. 2015). Survey estimates of recreational fishing participation, landed catch and effort applied the same methodology as the previous state-wide survey by the Tasmanian Department of Primary Industries, Parks, Water and Environment and the Tasmanian Aquaculture and Fisheries Institute (Lyle et al. 2009). Both surveys were funded by the Fishwise Fund.

Other surveys funded through the Tasmanian Fishwise Community Grants programme included assessments of the recreational rock lobster and abalone fisheries (Lyle & Tracey 2012), studies of net fishing and a survey of game fishing in Tasmania (Forbes, Tracey & Lyle 2009). For more information about recreational fishing in Tasmania, see the <u>Tasmanian Department of Primary Industries</u>, <u>Parks</u>, Water and Environment website.

Northern Territory

Recreational fishers are not required to hold a licence to fish in Northern Territory waters, although a temporary licence is needed for recreational fishing on and over Indigenous granted land and adjoining waters. Size and possession limits are the primary catch controls for recreational fishing. Seasonal and area closures also apply for many recreational species.

The NT Government conducted a recreational fishing survey from February 2009 to March 2010. The survey repeated the NRIFS methodology of a telephone screening/participation survey and fisher diary but also included surveys at boat ramps and accommodation establishments in key catchments (West et al. 2012). The survey found that non-Indigenous Northern Territory residents spent an estimated \$47 million annual on goods and services directly related to recreational fishing. Most of this (\$33 million) was spent on boats and trailers. The NT Department of Primary Industry and Fisheries recently conducted another recreational fishing survey from February 2016 to March 2017. For more information about recreational fishing in the Northern Territory, see the NT Government website.

Australian Capital Territory

Recreational fishers do not need a licence to fish in the Australian Capital Territory. However, a permit is required when using any type of powered vessel for recreational fishing on urban lakes within Canberra. The main recreational species targeted are Murray cod, golden perch, trout, redfin and European carp. Australian Capital Territory public waters are opened for fishing all year round and are divided into three categories: open waters, permanently closed waters and trout waters. Bag and size limits and seasonal closures apply, as do restrictions on specific fishing gear and bait used for recreational fishing purposes. Enclosed traps, such as bait, minnow and yabby traps, are prohibited in ACT public waters. Some ACT waters are permanently closed to protect native fish species. These species are trout cod, Macquarie perch, silver perch, two-spined blackfish and Murray River crayfish. If caught, these species must be returned to the water unharmed. Australian Capital Territory fishers were included in the 2013–14 New South Wales state-wide recreational fishing survey. For more information about recreational fishing in the Australian Capital Territory, see the ACT Government Environment and Planning Directorate website.

Commonwealth waters

Recreational fishing undertaken in Commonwealth waters is managed by, and under the management regulations of, the jurisdiction immediately adjacent to those waters. Recreational catch is of particular importance where the target species are also primary targets of commercial fisheries. Griffiths and Pepperell (2006) identified 245 such marine species, including tuna, billfish and deepwater finfish.

In October 2010, Recfish Australia released *Recreational fishing in Commonwealth waters: a preliminary assessment,* focusing on the level of recreational fishing in Commonwealth waters. The report found that in some regions in 2005–06, particularly Narooma–Bermagui, 47 per cent of fishing trips occurred in Commonwealth waters and generated about \$27 million for the local community (Recfish Australia 2010).

Between December 2010 and May 2011, ABARES surveyed game fishers, local businesses and community members at three eastern Australian sites where game fishing tournaments were held several times a year (Ward et al. 2012). The sites were Mooloolaba, Port Stephens and Bermagui. Tournament game fishers surveyed at Mooloolaba averaged 13 game fishing trips to that site, amounting to 15 days per year. Those at Port Stephens averaged six trips (nine days) and those at Bermagui, four trips (11 days) per year. On average, fishers spent \$4,625 for a tournament trip to Port Stephens, \$2,698 per trip to Bermagui and \$2,378 per trip to Mooloolaba.

The net economic value of game fishing was also estimated. This is the 'use value' (non-financial) that individuals place on a game fishing trip, in addition to their actual expenditure. The net economic value from a trip to Bermagui (\$124 per individual per trip) was substantially higher than that for Port Stephens (\$67), but survey respondents travelled greater distances to experience game fishing in Bermagui.

Customary fishing

Various definitions exist for customary, traditional or cultural fishing in Australia. The National Indigenous Fishing Technical Working Group defined customary fishing as 'fishing in accordance with relevant Indigenous laws and customs for the purpose of satisfying personal, domestic or non-commercial communal needs' (NNTT 2004). The Torres Strait Treaty is more specific, describing traditional fishing as 'the taking, by traditional inhabitants for their own or their dependants' consumption or for use in the course of other traditional activities, of the living natural resources of the sea, seabed, estuaries and coastal tidal areas, including dugong and turtle' (Department of Trade and Resources 1978).

The NSW Department of Primary Industries defines cultural fishing as 'fishing activities and practices carried out by Aboriginal persons for the purpose of satisfying their personal, domestic or communal needs, or for educational or ceremonial purposes or other traditional purposes, and which do not have a commercial purpose' (I&I NSW 2009).

The WA Department of Fisheries defines customary fishing in its customary fishing policy as fishing activities applying—within a sustainable fisheries management framework—to a person of 'Aboriginal descent, fishing in accordance with the traditional law and custom of the area being fished and is fishing for the purpose of satisfying personal, domestic, ceremonial, educational or non-commercial communal needs' (WA Fisheries 2015a).

The definition of 'Aboriginal traditional fishing' in the South Australian *Fisheries Management Act 2007* is 'fishing engaged in by an Aboriginal person for the purposes of satisfying personal, domestic or non-commercial, communal needs, including ceremonial, spiritual and educational needs, and using fish and other natural marine and freshwater products according to relevant Aboriginal custom'.

In late 2013, in Akiba v. Commonwealth of Australia, the High Court of Australia found that commercial native title fishing rights still exist in Torres Strait and are not extinguished by Commonwealth and state fisheries legislation (Butterly 2013). It remains unclear how this judgement will affect and/or change licence arrangements for Indigenous commercial fishing. The various Commonwealth and state definitions of customary fishing indicate that the value attached to fishing activity and catches of individual species by Indigenous fishers extends beyond the values associated with commercial and recreational fishing. For Indigenous people, fish is often viewed as an important food source and a component of many cultural, ceremonial and social events. The act of fishing allows communities and families to retain their independence and connection to their fishing areas, reinforce their social networks through the sharing of gathered food and maintain their traditional fishing knowledge systems (Campbell & Murphy 2005; Schnierer & Egan 2011). Fish and fishing are important educational tools in Indigenous communities, with traditional fishing knowledge being passed on to successive generations to enable them to continue traditional practices. Indigenous fishers have also traditionally harvested a range of species that are prohibited for non-Indigenous Australians, including crocodile, turtle and dugong. For these reasons, customary fishing by Indigenous people has become increasingly recognised as separate from other commercial and recreational fishing activities.

At the national level, the importance of Indigenous customary fishing was formally recognised with the establishment of the National Indigenous Fishing Technical Working Group in October 2003. The working group aims to enhance Indigenous people's participation in protecting, sharing and using Australian fisheries (NNTT 2003). One of its key outputs is The Principles Communiqué on Indigenous Fishing, which was endorsed by the Australian Government in August 2005. The principles represent a commitment from stakeholders to:

- recognise customary fishing as a sector in its own right
- · integrate and protect customary fishing within fisheries management frameworks
- implement strategies to engage Indigenous people in fisheries-related business
- expedite processes to increase Indigenous involvement in fisheries management and vocational training (NNTT 2005).

The principles have supported efforts at the state and territory level to separately recognise, support and protect customary Indigenous fishing activities. A common challenge across all jurisdictions has been implementing initiatives that support customary Indigenous fishing while also achieving sustainable fishing practices. Initiatives and measures implemented include the following:

- The NSW Government released an Indigenous Fisheries Strategy and Implementation Plan in December 2002. It aims to protect and enhance the traditional cultural fishing activities of Indigenous communities (NSW DPI 2013). In 2010 the NSW Government also amended its *Fisheries Management Act 1994* to formally recognise cultural fishing; and established an Aboriginal Fishing Advisory Council to advise the NSW fishing agency on cultural fishing issues.
- The NT *Fisheries Act 1988* exempts Indigenous people from bag limits, size limits and taking protected species when fishing in traditional areas. The NT Government also has an Indigenous Fishing Development Strategy 2012–2014 (DPIF 2012). This aims to support sustainable, culturally appropriate business and employment opportunities for Indigenous communities involved in fisheries activities.

- The SA *Fisheries Management Act 2007* explicitly accounts for management of Indigenous traditional fishing (the previous Act did not). It allows for Indigenous traditional fishing management plans to be developed, in association with the Fishing Indigenous Land Use Agreement, which are consistent with the objectives of the Act.
- The Tasmanian *Living Marine Resources Management Act 1995* provides for Indigenous activities, including non-commercial fishing and taking of prescribed fish for the manufacture of artefacts for sale. The Act also allows for the issuing of permits and exemptions (Tasmanian DPIPWE 2015).
- The Victorian Department of Environment and Primary Industries released the Victorian Aboriginal Fishing Strategy in August 2012. This strategy provides a guide to addressing native title, customary fishing, economic development opportunities and increasing Indigenous participation in fisheries management (VIC DPI 2012).
- WA law has recognised customary fishing by Indigenous people since 1905 (WA Fisheries 2015b). The WA Government drafted a new policy in December 2009 to recognise these activities in its fisheries management (WA Fisheries 2009).

In line with The Principles Communiqué on Indigenous Fishing, and to better ensure sustainable outcomes, agencies have also focused on promoting greater Indigenous engagement in fisheries management. For example, the Northern Territory has three Aboriginal Fisheries Consultative Committees that better allow Indigenous groups to participate in fisheries management (NT DPIF 2012). In the Torres Strait, the Torres Strait Regional Authority established a Land and Sea Management Unit under the Land and Sea Management Strategy in June 2006. This unit provides support for Torres Strait Islander and Aboriginal communities to care for land and sea resources in the Torres Strait region (TSRA 2010). In New South Wales, an Aboriginal Fishing Advisory Council was established to advise the NSW fisheries agency on a range of cultural fishing issues. Similarly, Fisheries Victoria's Aboriginal fishing strategy (VIC DPI 2012) aims to increase Aboriginal participation in fisheries management. The importance of customary Indigenous fishing is widely recognised, but little data is available on such fishing activities when compared with commercial and recreational fishing activities. This is likely to reflect several factors, including the relative isolation of many Indigenous fishing activities and the small-scale and dispersed nature of these activities.

A comprehensive evaluation of Indigenous fishing activities in Northern Australia was completed in 2003 as part of the National Recreational and Indigenous Fishing Survey (NRIFS) (Henry & Lyle 2003). This survey aimed to better understand the level of Indigenous fishing by surveying Indigenous people aged five years and over living in coastal communities across the north of Australia, from Broome in Western Australia to Cairns in Queensland (excluding those living in Torres Strait). The survey showed that an estimated 37,000 Indigenous people living in the north of Australia fished at least once during 2000–01. This was equivalent to 92 per cent of the Indigenous population in the region. These individuals spent an estimated total of 420,000 days fishing in that year (Henry & Lyle 2003).

This fishing was estimated to be associated with a harvest of approximately 900,000 finfish, 1.1 million molluscs, 660,000 prawns and yabbies, 180,000 crabs and rock lobsters and smaller numbers of other species during 2000–01 (Henry & Lyle 2003). The major finfish species groups harvested were mullet, catfish, tropical snapper, bream and barramundi. Major non-finfish species groups included mussels, freshwater prawns, mud crabs, prawns and oysters. A large proportion (70 per cent) of this Indigenous harvest was taken from inshore and coastal waters that are relatively more accessible to traditional fishing methods. Methods typically used include lines, traps, nets and more traditional spear and hand collection methods (Campbell & Murphy 2005).

Based on the NRIFS, Henry and Lyle (2003) estimated that 186,200 Indigenous people (excluding those living in Torres Strait) participated in non-commercial fishing during the survey year and that a total expenditure of \$22.5 million was incurred by these fishers. Expenditure on fishing by Indigenous people residing in northern Australia was estimated to be \$2.4 million, and for those residing in southern Australia it was estimated to be \$20.6 million.

More recent research on Indigenous cultural fishing was conducted in New South Wales to determine a methodology for estimating cultural catch (Schnierer & Egan 2011). The report found that cultural fishing in the Tweed River region occurred on a regular basis, was predominantly shore-based and was focused around the estuary and adjacent coastal waters. The main gear types used were rods and handlines, with nets, traps and spears used to catch some species. The top 10 culturally most important species, based on a ranking given by participants, comprised a mix of finfish and invertebrates. Pipis and mud crabs were the top two, followed by sea mullet, tailor, sand whiting, dusky flathead, beach worms, Sydney rock oysters and the bait yabby.

A separate project in New South Wales identified the participation of Indigenous people in the commercial fishing sector (Schnierer & Egan 2012). This study found that 28 Indigenous people operated in share management fisheries in New South Wales; most operated in the Estuary General Fishery and Ocean Hauling Fishery. Aboriginal people hold approximately 3 per cent of the total shares available in all of the share management fisheries in New South Wales. More than 90 per cent of Aboriginal commercial fishers indicated that they gave some of their commercial catch to their local Indigenous communities. These contributions ranged from 5 per cent to 20 per cent of annual catch, with the average contribution approximately 10 per cent. In recognising Torres Strait Island and Aboriginal people as a key stakeholder group, the Fisheries Research and Development Corporation (FRDC) increased its focus on improving the research and information available on Indigenous fishing. In 2010 it established an Interim Indigenous Reference Group to provide expert advice on the FRDC's investment in research development and extension (RD&E) for Australia's Aboriginal and Torres Strait Islander fishing and the fisheries and aquaculture industry. The first face-to-face meeting of the group occurred at the Cairns Forum 2011, which brought together more than 30 relevant experts. A key outcome of the forum was six Indigenous people being nominated to form the FRDC's Indigenous Reference Group (IRG) (FRDC 2013b). The aim of the IRG was to develop a fisheries and aquaculture research, development and extension plan for Indigenous Australians. In line with this, the IRG has developed a futures plan that includes 11 key principles for Aboriginal and Torres Strait Islander RD&E in the fishing and fisheries and aquaculture industry. Drawing on the identified principles, the IRG has also developed a 'Five RD&E Priorities for Indigenous Involvement in the Fishing and Seafood Industry' document. These documents were endorsed at the Cairns Forum 2012, and the principles and RD&E priorities were unanimously supported by Indigenous participants as a sound basis for guiding RD&E focused on Indigenous fishing.

The five strategic priorities for Indigenous participation in fishing and aquaculture in Australia were identified as:

- **Primacy for Indigenous people**—Indigenous people have certain recognised rights associated with, and based on, the prior and continued occupation of country and water, and activities (such as fishing and gathering) associated with using and managing these.
- Acknowledgement of Indigenous cultural practices—Indigenous people have the right to maintain and develop cultural practices to address spiritual, cultural, social and economic needs associated with aquatic resources and landscapes.
- Self-determination of Indigenous rights to use and manage cultural assets and resources—Indigenous people have the right to determine courses of action in using and managing aquatic biological resources.
- Economic development opportunities arising from Indigenous people's cultural assets and associated rights—Indigenous people have the right to engage in economic activity based on the use of traditional aquatic biological resources and/or the right to share in the benefits derived from the exploitation of aquatic biological resources.
- **Capacity-building opportunities for Indigenous people are enhanced** Indigenous people have the right to access capacity-building activities to further their aspirations in using and managing aquatic biological resources (FRDC 2013a).

The IRG has identified RD&E actions to achieve these priorities. It is now working to promote these to relevant stakeholders (FRDC 2013b) and encourage activities that deliver improved benefits to Aboriginal and Torres Strait Islander peoples. An important factor for realising improved benefits will be the willingness and capacity of other sectors to effectively engage with the Indigenous fishing sector and communities.

Profile of Australian fisheries in 2014–15 and 2015–16

TABLE 50 Commonwealth fisheries profiles, 2014–15 to 2015–16

Fishery	Species	Method	Number (2014–15)	Number (2015–16)
Northern Prawn	Banana prawn, tiger prawn, Endeavour prawn and king prawn	Otter trawl	55 vessels	53 vessels
Torres Strait a	Prawns, tropical rock lobster, Spanish mackerel, pearl shell, trochus, finfish, sea cucumber, crab	Otter trawl, troll, handline, free dive, hookah	407 endorsements 198 endorsements 106 endorsements 104 endorsements 91 endorsements 57 endorsements 85 endorsements 179 endorsements	532 endorsements 281 endorsements 123 endorsements 117 endorsements 143 endorsements 78 endorsements 117 endorsements 245 endorsements
SESSF Commonwealth Trawl Sector	Mixed fish species, particularly pink ling, blue grenadier, flathead, silver warehou	Otter trawl, Danish seine	52 vessels	51 vessels
SESSF Gillnet , Hook and Trap Sector	Mixed fish species particularly pink ling, blue-eye trevalla, gummy shark	Demersal gillnet, demersal longline, dropline, trotline, trap, purse seine	74 vessels	65 vessels
SESSF Great Australian Bight Trawl Sector	Deepwater flathead, Bight redfish	Demersal otter, limited midwater trawl	6 vessels	4 vessels

continued ...

Fishery	Species	Method	Number (2014–15)	Number (2015–16)
Southern Bluefin Tuna	Southern bluefin tuna	Purse seine, pole and line, Iongline, trolling	23 vessels	(6 farm boats and 25 domestic)
Eastern Tuna and Billfish	Yellowfin tuna, bigeye tuna, skipjack tuna, albacore, billfish	Pelagic longline, purse seine, pole, trolling, rod and reel, handline	40 vessels	44 vessels
Western Tuna and Billfish	Yellowfin tuna, bigeye tuna, skipjack tuna, albacore, billfish	Pole and line, purse seine, pelagic longline, troll, rod and reel, handline	3 vessels	3 vessels 2 longliners 1 minorline
Bass Strait Scallop	Scallop	Dredge	11 vessels	11 vessels
Small Pelagic b	Blue mackerel, jack mackerel, redbait, Australian sardine	Purse seine, midwater trawl	3 vessels	3 vessels
Southern Squid Jig	Gould's squid	Jig	11 vessels	7 vessels
Sub Antarctic	Patagonian toothfish, mackerel icefish Patagonian toothfish	Trawl (demersal and midwater), longline, trial pot fishing Demersal trawl	7 vessels	7 vessels
Western Deepwater Trawl	Mixed fish species	Otter trawl	11 permits, no fishing	11 permits, no fishing
North West Slope Tra	wlScampi	Otter trawl	7 permits, 1 vessel	7 permits 2 fishing
Coral Sea	Reef fish including shark, trochus, tropical rock lobster, sea cucumber, aquarium fish, live rock	Demersal line, trawl and fish trap, hand collection with and without breathing apparatus, hand-held scoop, seine nets	16 permits, 3 vessels	16 permits 3 vessels
South Tasman Rise	Orange roughy, smooth oreodory, spikey oreodory	Deepwater demersal trawl	closed	closed

TABLE 50 Commonwealth fisheries profiles, 2014–15 to 2015–16 continued

a Numbers of active transferable vessel holder and traditional inhabitant licences in Torres Strait with commercial fishing endorsements. b Includes four permits held in the Informally Managed Fishery. SESSF Southern and Eastern Scalefish and Shark Fishery. SFR statutory fishing right.

Source: Australian Fisheries Management Authority

TABLE 51 NSW fisheries profiles, 2014-15 to 2015-16

Fishery	Species	Method	Number (2014–15)	Number (2015–16)
Abalone	Blacklip abalone (only)	Diving	50 shareholdings	50 shareholdings
Rock Lobster	Eastern rock lobster	Trapping	99 shareholdings	98 shareholdings
Ocean Trawl	Prawns, flathead and school whiting	Otter board trawling	205 shareholdings	201 shareholdings
Ocean Trap and Line	Snapper, leatherjacket, bonito and spanner crab	Fish and spanner crab traps, handline and dropline	345 shareholdings	346 shareholdings
Ocean Hauling	Mullet, Australian sardine and Eastern Australian salmon	Hauling (seine) nets and purse seine net	263 shareholdings	263 shareholdings
Southern Fish Trawl	Flathead, school whiting and squid	Otter board trawling	19 entitlements	23 shareholdings
Estuary Prawn Trawl	School prawn, squid and king prawn	Otter board trawling	153 shareholdings	154 shareholdings
Estuary General	Mullet, bream, prawn and crab	Mesh and hauling (seine) nets, crab and fish traps and hand gathering	588 shareholdings	588 shareholdings
Inland	Yabby and European carp (only)	Yabby traps and gillnets	28 entitlements	28 shareholdings
Sea Urchin and Turban Shell	Sea urchin and periwinkle	Diving	37 entitlements	37 shareholdings
Aquaculture a	Prawns	Pond culture	10 licence holders	10 licence holders
	Yabby	Ponds and farm dams	70 licence holders	67 licence holders
	Oyster	Rack tray and stick	293 licence holders	297 licence holders
	Silver perch	Pond	77 licence holders	76 licence holders
	Trout	Ponds and raceway	23 licence holders	23 licence holders
	Snapper	na	9 licence holders	9 licence holders
	Barramundi	Pond culture	9 licence holders	10 licence holders

a Aquaculture licence holders may culture more than one species per licence. na Not applicable.

Note: All New South Wales shares/entitlements are held in fishing businesses that may have shares and/or entitlements in one or more fisheries. The Abalone, Rock Lobster, Ocean Trawl (Prawn and Northern Fish Trawl), Ocean Trap and Line, Ocean Hauling, Estuary General and Estuary Prawn Trawl Fisheries are share management fisheries. The Sea Urchin and Turban Shell, Southern Fish Trawl and Inland Fisheries are restricted fisheries. Source: New South Wales Department of Primary Industries

TABLE 52 Victorian fisheries profiles, 2014–15 to 2015–16

Fishery	Species	Method	Number (2014–15)	Number (2015–16)
Abalone	Greenlip abalone, blacklip abalone	Diving	71 licences	71 licences
Scallops	Scallop	Dredge	90 licences	90 licences
Bay and Inlet	Mixed species	Various	89 licences	57 licences
Rock Lobster	Southern rock lobster	Pots	116 licences and 7,235 pots	107 licences and 7,235 pots
Giant Crab	Giant crab	Pots	18 licences	16 licences
Inshore Trawl	Mixed species	Various	54 licences	54 licences
Wrasse (Ocean)	Wrasse	Handlines	22 licences	22 licences
Bait (General)	Mixed species	Various	12 licences	12 licences
Ocean (General)	Mixed species	Various	195 licences	183 licences
Aquaculture a	Abalone	Flow-through systems	11 licences	10 licences
	Freshwater eel, longfin eel	Recirculation units and cultured waters	10 licences	12 licences
	Mussels	Longlines	18 licences	16 licences
	Ornamental fish	Recirculation units and ponds	8 licences	8 licences
	Yabby	Recirculation units, ponds and farm dams	16 licences	17 licences
	Salmonids	Recirculation units and raceways	23 licences	18 licences
	Warm-water finfish	Recirculation units, flow-through system and ponds	22 licences	16 licences
	Other	na	4 licences	18 licences

a Aquaculture licence holders may culture more than one species on their licence. na Not applicable.

Source: Victorian Department of Environment and Primary Industries

TABLE 53 Queensland fisheries profiles, 2014-15 to 2015-16

Fishery	Species	Method	Number (2014–15)	Number (2015–16)
East Coast Trawl	Tiger prawn, banana prawn, king prawn, Endeavour prawn, bay prawn, saucer scallop, bug	Otter trawl	383 licence holders	374 licence holders
River and Estuary Trawl	Banana prawn, bay prawn, tiger prawn	Beam trawl	92 licence holders	87 licence holders
Gulf of Carpentaria Inshore	Barramundi, king threadfin, blue threadfin, shark, grey mackerel	Net	89 licence holders	88 licence holders
East Coast Net (mainly Tropical)	Barramundi, king threadfin, blue threadfin, shark, grey mackerel	Net	120 licence holders	105 licence holders
East Coast Net (mainly Subtropical)	Mullet, tailor, whiting, bream, grey mackerel, shark	Net	99 licence holders	94 licence holders
East Coast Shark	Various shark species	Net	134 licence holders	120 licence holders
East Coast Handline (mainly Tropical)	Coral trout, redthroat emperor, various other reef species	Handline	195 licence holders	192 licence holders
East Coast Handline (mainly Subtropical)	Snapper, pearl perch, other rocky reef species	Handline	232 licence holders	231 licence holders
Line RQ (Handline) a	Coral trout, redthroat emperor, various other reef species	Handline	356 licence holders	349 licence holders
Line SM (Trolling) b	Spanish mackerel	Trolling	250 licence holders	244 licence holders
Estuary Crab	Mud crab, blue swimmer crab	Pot	420 licence holders	417 licence holders
Oceanic Crab	Spanner crab	Pot	221 licence holders	232 licence holders
Aquaculture	Prawns	Pond culture	58 development approvals (22 producing)	58 development approvals (19 producing)
	Barramundi	Pond and cage culture (incl. tank culture)	220 development approvals (23 producing)	219 development approvals (21 producing)
	Oyster	Rack and	198 development approvals	84 development
		stick culture		approvals (26 producing)
	Redclaw	Pond culture	158 development approvals (26 producing)	156 development approvals (25 producing)
	Freshwater fish	Pond and tank culture	215 development approvals (12 producing	214 development approvals (16 producing)
	Eel	Pond and tank culture	52 development approvals (2 producing)	53 development approvals (0 producing)

a Coral Reef Fin Fish Fishery; the RQ symbol can be used only in the area defined for the East Coast Line Fishery symbol(s) appearing on the same licence. b Spanish Mackerel Fishery; the SM symbol can be used only in the area defined for the East Coast Line Fishery symbol(s) appearing on the same licence.

Source: Fisheries Queensland, Department of Agriculture, Fisheries and Forestry

TABLE 54 South Australian fisheries profiles, 2014-15 to 2015-16

Fishery	Species	Method	Number (2014–15)	Number (2015–16)
Blue Crab	Blue swimmer crab	Pots	9 licence holders	9 licence holders
Central Zone Abalone	Greenlip abalone, blacklip abalone	Diving	6 licence holders	6 licence holders
Gulf St Vincent Prawn	King prawn	Trawl	10 licence holders	10 licence holders
Lakes and Coorong	Freshwater finfish,	Netting, line fishing,	36 licence holders	36 licence holders
	marine finfish, molluscs	handlines		
Marine Scalefish	Various finfish,	Netting, line fishing,	309 licence holders	308 licence holders
	crustaceans, molluscs	handlines and traps		
Miscellaneous	Various finfish,	Traps, diving, etc.	15 licence holders	14 licence holders
	crustaceans,			
	molluscs, worms			
Northern Zone Rock Lobster	Southern rock lobster	Pots	63 licence holders	63 licence holders
Restricted Marine	Various finfish,	Netting, line fishing,	7 licence holders	4 licence holders
Scalefish	crustaceans, molluscs	handlines, traps		
River Fishery	Freshwater finfish, crustaceans	Netting, pots	6 licence holders	6 licence holders
Southern Zone	Southern rock lobster	Pots	180 licence holders	180 licence holders
Rock Lobster				
Southern Zone	Greenlip abalone,	Diving	6 licence holders	6 licence holders
Abalone	blacklip abalone			
Spencer Gulf Prawn	King prawn	Trawl	39 licence holders	39 licence holders
West Coast Prawn	King prawn	Trawl	3 licence holders	3 licence holders
Western Zone	Greenlip abalone,	Diving	22 licence holders	22 licence holders
Abalone	blacklip abalone			
Aquaculture	Land-based Category A: native species to local	Ponds, dams	59 licences	37 licences
	area, e.g. yabby			
	Land-based Category	Ponds, dams and	38 licences	42 licences
	B: exotic species to	recirculation systems		
	locality, e.g. marron,			
	barramundi			
	Land-based Category C:	Ponds, recirculation	14 licences	13 licences
	high risk, e.g. abalone	systems	45 L'	0.1
	Marine: abalone	Sea cages, contained	15 licences	9 licences
		longlines, uncontained benthic structures		
	Marine: intertidal	Contained racks and	334 licences	9 licence holders
	molluscs, e.g. oyster	contained longlines	554 licences	9 licence noiders
	Marine: subtidal	Longlines	38 licences	6 licence holders
	molluscs, e.g.	LOURINES	20 IICEIICES	o licence holders
	blue mussel			
	Marine: tuna	Sea cages	20 licences	10 licence holders
	Marine: finfish	Sea cages	25 licences	36 licence holders

Sources: Department of Primary Industries and Regions South Australia; South Australian Research and Development Institute

Fishery	Species	Method	Number (2014–15)	Number (2015–16)
West Coast Rock Lobster a	Western rock lobster	Pots	252 boats	236 boats
Abalone b	Greenlip abalone, brownlip abalone, Roe's abalone	Diving	42 licences	41 active licences
Shark Bay Prawn	King prawn, tiger prawn, Endeavour prawn, saucer scallop	Trawl	18 licences	18 licences
Exmouth Gulf Prawn	King prawn, tiger prawn, Endeavour prawn	Trawl	15 licences	15 licences
Nickol Bay Prawn	King prawn, banana prawn	Trawl	14 licences	14 licences
Aquaculture	Pearls	Longlines	na	na
	Yabby	Ponds and farm dams	na	na
	Marron	Ponds and farm dams	па	na
	Blue mussel	Longlines	na	na

a Number of boats was presented because of changes in licencing and operation of the fishery. b Number of active licences were given instead of active boats given in previous years because of a change in data collection processes. na Not applicable. Source: WA Department of Fisheries

TABLE 56 Tasmanian fisheries profiles, 2014-15 to 2015-16

Fishery	Species	Method	Number (2014–15)	Number (2015–16)
Abalone	Blacklip abalone, greenlip abalone	Diving	121 licence holders	120 licence holders
Rock Lobster	Southern rock lobster	Pots	311 licence holders	311 licence holders
Giant Crab	Giant crab	Pots	84 licence holders	84 licence holders
Scallop	Commercial scallop, doughboy scallop, queen scallop	Scallop harvester	70 licence holders	59 licence holders
Scalefish	Various	Netting/hooks	285 licence holders	281 licence holders
Aquaculture	Atlantic salmon	Sea cages	45 licence holders	45 licence holders
	Pacific oyster	Racking/line system	100 licence holders	101 licence holders
	Blue mussel	Longlines	8 licence holders	6 licence holders
	Rainbow trout	Sea cages	9 licence holders	na
	Other	na	5 licence holders	14 licence holders
	Abalone	Land-based tanks	5 licence holders	6 licence holders

na Not applicable.

Source: Tasmanian Department of Primary Industries, Parks, Water and Environment

TABLE 57 Northern Territory fisheries profiles, 2014–15 to 2015–16

Fishery	Species	Method	Number (2014–15)	Number (2015–16)
Coastal	Finfish and bait	Line, net and trap	61 licence holders	70 licence holders
Offshore a	Mackerel, shark, reef fish	Trolling, hand and longline net, trap and trawling	67 licence holders	58 licence holders
Barramundi	Barramundi and threadfin	Gillnet	17 licence holders	14 licence holders
Mud crab	Mud crab	Crab pots	49 licence holders	49 licence holders
Other	Molluscs, oyster, sea cucumber, squid and aquarium fish	Hand harvest, jigging and a variety of other methods	20 licence holders	24 licence holders
Aquaculture b	Prawns	na	0 endorsements	0 endorsements
	Barramundi	na	1 endorsements	1 endorsements
	Others	na	3 endorsements	3 endorsements
	Pearls	na	3 licence holders	4 licence holders

a As a result of administrative changes in the Timor Reef Fishery and Demersal Fishery, both are now managed by individual transferrable quota and no restrictions apply to the number of licences that can be issued or held. b Aquaculture licence holders may culture more than one species on their licences. The number of licences is included once for each type; if a licence is approved for barramundi, prawns and other species, it will be listed once in each category. **na** Not applicable.

Source: Northern Territory Department of Primary Industry and Fisheries

Glossary

aquaculture	commercial growing of marine or freshwater animals and aquatic plants
aquaculture production	live weight quantity of aquaculture product produced and marketed by aquaculturists
aquaculture value	assessed value received by aquaculturists on the basis of an 'at farmgate' equivalent, for product marketed
export quantity	data supplied by the Australian Bureau of Statistics (ABS) on the basis of the net product weight (excluding packaging) exported. Exports are identified by the ABS according to source state or territory, not state or territory in which the product was caught or farmed
export value data	supplied by the ABS, and valued on a free on board (fob) basis at the Australian port of export. The costs of freight, insurance and other distributive services beyond the Australian customs border are not included
fisheries	refers to Commonwealth, state and territory waters in which marine and freshwater animals are commercially caught or farmed unless otherwise specified
fisheries production	refers to commercial production of wild-catch and aquaculture marine or freshwater animals from Commonwealth, state and territory waters and aquaculture farms unless otherwise specified
import quantity	data supplied by the ABS on the basis of the net product weight (excluding packaging) imported
import value	data supplied by the ABS on the basis of product cost. Imports are valued on a customs value for duty basis that is identical to a free on board (fob) basis; the customs value for duty is the price actually paid at the port of origin, including inland freight and insurance costs incurred in delivering the product(s) to the port of origin; the freight and insurance costs of delivering the product(s) to the Australian port of destination are excluded
production quantity	measure of the quantity of fish product landed by a fishery, usually on the basis of catch records
production value	assessed value at the point of landing for the quantity produced (excludes transport and marketing costs)

real terms/real prices	historical or future prices adjusted to reflect changes to the purchasing power of money (most commonly measured by the consumer price index)
re-exported goods	(included in merchandise exports statistics) originally imported and then exported in either the same condition in which they were imported, or after undergoing repair or minor alterations that leave them essentially unchanged; not considered to be Australian production or manufacture; minor operations include blending, packaging, bottling, cleaning and sorting
reimported goods	(included in merchandise import statistics) originally exported and then imported in either the same condition in which they were exported, or after undergoing repair or minor operations that leave them essentially unchanged; minor operations include blending, packaging, bottling, cleaning and sorting
real	real dollars or real terms refer to conversion of nominal dollar values to take account of inflation; comparison from year to year is expressed in nominal terms unless stated otherwise
rounding	small discrepancies in totals are generally caused by the rounding components
seafood	any fish or other aquatic plant or animal intended for human consumption; excludes non-edible fisheries and aquaculture products
southern bluefin tuna	sold from aquaculture farms in South Australia and reported at its market value (farmgate aquaculture value); the input value of those tuna is also included as a production output from the Commonwealth's Southern Bluefin Tuna Fishery; to avoid double counting, the input value is netted out of Australian totals
wild-catch	marine or freshwater animals commercially taken from the wild rather than farmed inland or along coastal areas

Note on jurisdictions

Australian fisheries are defined as those fisheries falling within the Australian Exclusive Economic Zone (EEZ), which extends to 200 nautical miles from coastal baselines. Australia does have some jurisdiction over the seabed outside the EEZ, where the continental shelf extends beyond the zone. This extended continental shelf area is of limited importance to the Australian fishing industry, as jurisdiction is restricted to sedentary marine organisms. To simplify jurisdiction, maritime boundaries (determined by legislation) specify the default management responsibility of the state, NT and Australian governments. Each state and the Northern Territory has responsibility for fisheries that lie within its internal waters (for example, river, lake and estuarine fisheries) and, where applicable, adjacent fisheries within three nautical miles from the coastline (coastal waters).

The Commonwealth has jurisdiction for fisheries that lie between 3 and 200 nautical miles from the coastline. When a fishery falls within two or more jurisdictions, an offshore constitutional settlement arrangement is generally developed and responsibility is passed to one jurisdiction.

For more information about maritime boundaries, see the Geoscience Australia website.

References

ABS 1989, Year book Australia 1989, no. 72, Australian Bureau of Statistics, Canberra.

—— 2003, *Year book Australia 2003*, cat. no. 1301.0, Australian Bureau of Statistics, Canberra.

—— 2016, *Labour force, Australia, detailed, quarterly*, cat. no. 6291.0, Australian Bureau of Statistics, Canberra, August.

—— 2017, *International trade price indexes*, cat. no. 6457.0, Australian Bureau of Statistics, Canberra, October.

Bath, A & Green, R 2016, *Australian fisheries economic indicators report 2015: financial and economic performance of the Northern Prawn Fishery*, Australian Bureau of Agricultural and Research Economics and Sciences, Canberra, December. CC BY 3.0.

Bridge, N & Conron, S 2010, *State-wide angler fishing diary program 1997–2006: Recreational Fishing Grant Program final report*, project no. R/03/05/05, Victorian Department of Primary Industries, Melbourne.

Butterly, L 2013, 'Unfinished business in the Straits: Akiba v. Commonwealth of Australia [2013] HCA 33', *Indigenous Law Bulletin*, vol. 8, issue 8, September–October.

Campbell, D & Murphy, JJ 2005, *The 2000–01 National Recreational Fishing Survey* economic report: a Fisheries Action Program project, FRDC project no. 99/158, Natural Heritage Trust, Department of Agriculture, Fisheries and Forestry, Canberra.

CBCS 1936, *Official yearbook of the Commonwealth of Australia 1935*, no. 28, Commonwealth Bureau of Census and Statistics, Canberra.

Conron, S, Bridge, NF, Oliveiro, P & Bruce, TK 2012, *Angler diary monitoring of recreational fishing in selected Victorian waters during 2010–11: Recreational Fishing Grant Program final report*, Victorian Department of Primary Industries, Melbourne.

Danenberg, N & Mueller, S 2011, *Omnibus consumer research findings wave 2*, project no. 2008/779, Australian Seafood Cooperative Research Centre and the UniSA Ehrenberg-Bass Institute for Marketing Science, Canberra.

Queensland DEEDI 2011, *Prospects for Queensland's primary industries 2011–12*, Fisheries Queensland, Department of Employment, Economic Development and Innovation, Brisbane.

Department of Trade and Resources 1978, *Treaty between Australia and the Independent State of Papua New Guinea concerning Sovereignty and Maritime Boundaries in the area between the two Countries, including the area known as Torres Strait, and Related Matters,* Australian treaty series 1985, no. 5, Department of Trade and Resources, Canberra.

Dominion Consulting 2005, *An economic profile of the Australian fishing tackle industry*, final report to the Australian Fishing Tackle Association, Dominion Consulting Pty Ltd, Sydney, October.

NT DPIF 2012, *Indigenous Fisheries Development Strategy 2012–2014* Indigenous Fisheries Development Strategy 2012–2014 (pdf 1.15 mb), Fisheries Division, NT Department of Primary Industries and Fisheries, Darwin.

Tasmanian DPIPWE 2015, Aboriginal fishing, Tasmanian Department of Primary Industries, Parks, Water and Environment, Hobart.

FAO 2016, *The state of world fisheries and aquaculture 2016—opportunities and challenges*, Food and Agriculture Organization of the United Nations, Rome.

— 2017, <u>FAOSTAT statistics database</u>, Food and Agriculture Organization of the United Nations, Rome, accessed 7 November 2017.

Forbes, E, Tracey, S & Lyle, J 2009, *Assessment of the 2008 recreational gamefish fishery of southeast Tasmania, with particular reference to southern bluefin tuna*, Tasmanian Aquaculture and Fisheries Institute, University of Tasmania, Hobart.

FRDC 2013a, Indigenous research, development and extension (RD&E) priorities for fishing and aquaculture (pdf 792 kb), endorsed at the Cairns Forum 2012, Fisheries Research and Development Corporation, November 2012.

— 2013b, Terms of reference for the Fisheries Research and Development Corporation (FRDC) Indigenous Reference Group (IRG) (pdf 754 kb), January 2013.

Georgeson, L, Moore, A, Ward, P, Stenekes, N, Kancans, R, Mazur, K, Curtotti, R, Tracey, S, Lyle, J, Hansen, S, Chambers, M, Finn, M & Stobutzki, I 2015, *A framework for regular national recreational fishing surveys*, ABARES technical report, Canberra, November.

Giri, K & Hall, K 2015, *South Australian Recreational Fishing Survey 2013/14*, Fisheries Victoria internal report series no. 62, Victorian Department of Economic Development, Jobs, Transport and Resources, Melbourne.

Griffiths, SP & Pepperell, JG 2006, *A preliminary synopsis of existing recreational fisheries data sources and the potential for monitoring recreational fishing activities in Commonwealth fisheries: a discussion paper*, final report for project R06/822 to the Australian Fisheries Management Authority, Canberra.

Henry, GW & Lyle, JM (eds) 2003, *The National Recreational and Indigenous Fishing Survey*, FRDC project no. 99/158, Department of Agriculture, Fisheries and Forestry, Canberra.

I&I NSW 2009, *Cultural fishing in NSW*, Industry and Investment New South Wales, Department of Primary Industries, Sydney, May.

Liberal Party of Australia 2013, The coalition's policy for a more competitive and sustainable fisheries sector, August 2013.

Lyle, JM, Stark, KE & Tracey, SR 2015, 2012–13 Survey of Recreational Fishing in Tasmania, Institute for Marine and Antarctic Studies, University of Tasmania, Hobart.

Lyle, JM & Tracey, SR 2012, *Tasmanian recreational rock lobster and abalone fisheries:* 2010–11 fishing season, Institute for Marine and Antarctic Studies, University of Tasmania, Hobart.

Lyle, JM, Tracey, SR, Stark, KE & Wotherspoon, S 2009, *2007–08 Survey of Recreational Fishing in Tasmania*, Tasmanian Aquaculture and Fisheries Institute, University of Tasmania, Hobart.

NNTT 2003, 'Australia's first Indigenous fishing rights conference draws local and international experts', media release, National Native Title Tribunal, Australia, 27 October.

NNTT 2004, 'Fishing principles to guide Indigenous involvement in marine management', media release, National Native Title Tribunal, Australia, 22 December.

NNTT 2005, *Indigenous fishing bulletin*, National Native Title Tribunal, Australia, November.

NSW DPI 2013, *Indigenous Fisheries Strategy*, NSW Department of Primary Industries, Orange.

Park, T 2007, *NSW gamefish tournament monitoring—Angling Research Tournament Monitoring Program*, NSW Department of Primary Industries, Cronulla Fisheries Research Centre of Excellence, Cronulla.

PIRSA 2010, *South Australian recreational fishing guide 2009*, SA Department of Primary Industries and Regions, Adelaide.

Queensland DAFF 2015, 2013–14 Statewide Recreational Fishing Survey, Queensland Department of Agriculture and Fisheries, Brisbane.

Recfish Australia 2010, *Recreational fishing in Commonwealth Waters: a preliminary assessment*, Recfish Australia, Brisbane.

Recfishing Research 2015, Recfishing research priorities for 2015, Recfishing Research, Brisbane.

Ryan, KL, Hall, NG, Lai, EK, Smallwood, CB, Taylor, SM & Wise, BS 2015, *State-wide survey of boat-based recreational fishing in Western Australia 2013/14*, fishing research report no. 268, WA Department of Fisheries, Perth.

Schnierer, S & Egan, H 2011, *Aboriginal fisheries in New South Wales: determining catch, cultural significance of species and traditional fishing knowledge needs,* report to the Fisheries Research and Development Corporation, Canberra.

Schnierer, S & Egan, H 2012, *Impact of management changes on the viability of Indigenous commercial fishers and the flow on effects to their communities: case study in New South Wales*, report to the Fisheries Research and Development Corporation, Canberra.

Statistics Bureau of Japan 2015, *Statistical handbook of Japan*, Ministry of Internal Affairs and Communications, Tokyo.

Steffe, AS & Murphy, JJ 2011, *Recreational fishing surveys in the greater Sydney region*, NSW Fisheries final report series no. 131, NSW Department of Primary Industries, Cronulla Fisheries Research Centre of Excellence, Cronulla.

TSRA 2010, *TSLA land and sea management*, Torres Strait Regional Authority, Thursday Island.

VIC DPI 2012, *Aboriginal Fishing Strategy*, Victorian Department of Primary Industries.

WA Fisheries 2015a, <u>Customary fishing</u>, WA Department of Fisheries, Perth, accessed 14 December 2015.

——2015b, <u>Customary fishing</u>—frequently asked questions, WA Department of Fisheries, Perth, accessed 14 December 2015.

Ward, P, Mazur, K, Stenekes, N, Kancans, R, Curtotti, R, Summerson, R, Gibbs, C, Marton, N, Moore, A & Roach, J 2012, *A socioeconomic evaluation of three eastern Australian game-fishing regions*, ABARES report to client prepared for the Fisheries Research and Development Corporation, Canberra, August.

West, LD, Lyle, JM, Matthews, SR, Stark, KE & Steffe, AS 2012, *Survey of Recreational Fishing in the Northern Territory, 2009–10*, fishery report no. 109, NT Department of Primary Industry and Fisheries, Darwin.

West, LD, Stark, KE, Murphy, JJ, JM Lyle & Ochwada-Doyle, FA 2016, *Survey of Recreational Fishing in New South Wales and the ACT, 2013/14*, fisheries final report series no. 149, NSW Department of Primary Industries, Wollongong.

Whittle, L, Zhang, K, Mazur, K, Skirtun, M, Addai, D, Gray, EM & Davidson, A 2015, *Australia's cost recovery arrangements for export certification: implications for Australian agriculture*, ABARES research report 15.8, Canberra, October.

Statistical tables

TABLE S1 Gross value of fisheries and aquaculture production, Australia

	2013–14	2014–15	2015–16 p
	\$'000	\$'000	\$'000
State wild-catch fisheries			
New South Wales	92,479	89,484	91,082
Victoria	54,840	58,742	57,810
Queensland	191,334	182,209	175,897
South Australia	210,410	240,204	264,653
Western Australia	416,919	488,420	504,068
Tasmania	176,947	175,265	182,349
Northern Territory	30,359	31,071	34,894
Total	1,173,289	1,265,394	1,310,754
Aquaculture a			
New South Wales	53,365	60,660	64,885
Victoria	25,395	29,054	27,584
Queensland	89,136	114,058	118,300
South Australia	181,370	227,480	251,520
Western Australia	73,300	81,186	89,199
Tasmania	559,052	650,343	730,723
Northern Territory	15,200	24,100	24,522
Total	996,818	1,186,881	1,306,733
Commonwealth fisheries			
Northern Prawn	115,201	106,827	124,014
Torres Strait	30,460	25,109	24,355
SESSF Commonwealth Trawl Sector	40,133	38,357	42,913
SESSF Gillnet, Hook and Trap Sector	20,397	20,915	22,378
SESSF Great Australian Bight Trawl Sector	11,216	8,474	7,694
Eastern Tuna and Billfish – Longline and minor line	31,216	34,975	48,755
Southern Bluefin Tuna	39,477	36,807	35,875
Western Tuna and Billfish	np	np	np
Bass Strait Scallop	546	2,761	4,610
Southern Squid Jig	np	890	1,035
Other fisheries b	51,806	75,160	127,201
Total	340,453	350,276	438,829
Total value c	2,473,090	2,769,110	3,025,746

a Excludes the value of hatchery fishery production. b Includes entries marked np and Small Pelagics, Macquarie Island, Coral Sea, Heard and McDonald Islands, SESSF Victorian coastal waters sector, Norfolk Island, South Tasman Rise, Eastern and Western Skipjack Tuna, East Coast Deepwater Trawl, North West Slope Trawl, and Western Deepwater Trawl fisheries because of confidentiality requirements. c To avoid double counting, total value has been reduced to allow for southern bluefin tuna caught in the Commonwealth Southern Bluefin Tuna Fishery, as an input to farms in South Australia. na Not available. np Not for publication because of confidentiality requirements. Included in Other fisheries. p Preliminary. SESSF Southern and Eastern Scalefish and Shark Fishery.

Sources: ABARES; Australian Fisheries Management Authority; Department of Fisheries, Western Australia; Department of Primary Industries, New South Wales; Department of Primary Industries, Parks, Water and Environment, Tasmania; Fisheries Queensland, Department of Agriculture, Fisheries and Forestry; Fisheries Victoria, Department of Environment and Primary Industries; Northern Territory Department of Primary Industry and Fisheries; Primary Industries and Regions, South Australia; South Australian Research and Development Institute

TABLE S2 Wild-caught fisheries production a

	2013–14		2014-15	;	2015-16	р
	t	\$'000	t	\$'000	t	\$'00
Fish						
Australian salmon	2,226	3,238	1,669	2,569	2,108	3,306
Australian sardine	35,867	21,268	38,759	24,786	44,898	29,734
Barramundi	1,236	10,207	1,074	8,804	1,029	9,080
Bream	1,118	6,374	1,032	6,195	1,030	6,420
Coral trout	871	28,081	774	25,043	856	27,158
Dories	410	1,972	466	2,103	466	2,038
Flathead	3,458	21,282	3,743	21,627	3,788	24,471
Gemfish	143	348	117	279	118	287
Pink ling	809	4,367	969	4,559	821	4,701
Mullet	6,048	19,200	5,147	15,056	4,743	14,671
Orange roughy	210	795	280	1,646	415	2,319
Shark b	5,455	24,436	5,403	25,512	5,539	26,758
Spanish mackerel	1,212	9,065	1,244	9,331	1,280	9,688
Tuna	8,191	61,796	8,889	63,653	10,225	74,428
Whiting	2,325	14,943	2,638	17,726	2,867	18,649
Other	35,505	187,581	32,462	202,135	46,313	262,573
Total	105,083	414,951	104,666	431,024	126,497	516,282
Crustaceans						
Crab	4,950	54,514	5,006	54,951	4,686	52,763
Prawns	21,249	275,067	20,210	278,520	19,930	301,504
Rock lobster	10,516	588,365	10,309	667,656	10,102	694,768
Other	399	6,276	454	6,316	396	7,030
Total	37,114	924,222	35,979	1,007,442	35,114	1,056,066
Molluscs						
Abalone	3,922	138,203	3,753	135,681	3,394	131,516
Octopus	623	4,944	673	5,050	725	5,641
Pipi	584	4,760	615	5,159	722	6,298
Scallop	4,421	11,323	4,323	11,259	5,013	13,996
Squid	1,171	8,981	1,853	11,612	2,271	12,768
Other	299	5,202	2,158	7,261	266	6,095
Total	11,020	173,414	13,375	176,022	12,392	176,314
Other NEI	285	1,155	231	1,182	245	921
Total wild-caught	153,504	1,513,742	154,251	1,615,670	174,247	1,749,583

a State and Commonwealth wild-catch production. b Shark converted to whole weight. NEI Not elsewhere included. p Preliminary.

Sources: ABARES; Australian Fisheries Management Authority; Department of Fisheries, Western Australia; Department of Primary Industries, New South Wales;

Department of Primary Industries, Parks, Water and Environment, Tasmania; Fisheries Queensland, Department of Agriculture, Fisheries and Forestry; Fisheries Victoria, Department of Environment and Primary Industries; Northern Territory Department of Primary Industry and Fisheries; Primary Industries and Regions, South Australia; South Australian Research and Development Institute

TABLE S3 Fisheries and aquaculture production in 2013-14, by state, Australia a

	NSW	Vic.	Qld	SA	WA	Tas.	NT	C'with	Aust.
Value	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Fish									
Tuna	0	0	0	122,400	7	0	41	61,748	146,726
Salmonids c	2,739	8,863	0	0	32	531,322	0	0	542,956
Other	51,391	9,582	92,721	46,105	45,236	3,539	25,939	130,162 d	404,675
Total	54,130	18,445	92,721	168,505	45,274	534,861	25,980	191,910	1,094,357
Crustaceans									
Prawns	22,176	1,876	129,206	29,845	36,006	0	0	119,480	338,589
Rock lobster	10,003	21,710	20,251	108,465	321,229	83,529	0	23,178	588,365
Crab	7,602	85	29,608	4,877	6,872	1,220	4,221	29	54,514
Other	2,265	421	682	1,276	1,793	0	1	2,959	9,397
Total	42,047	24,092	179,746	144,463	365,900	84,749	4,222	145,646	990,865
Molluscs									
Abalone	3,876	34,252	0	33,014	8,058	84,716	0	0	163,917
Scallop	0	0	5,435	0	1,987	3,346	0	555	11,323
Oyster	36,007	0	522	32,080	0	22,688	0	0	91,297
Squid	831	410	657	4,006	542	759	1	1,775	8,981
Other	2,343	3,036	0	7,972	66,623	4,647	155	472	85,249
Total	43,057	37,698	6,614	77,072	77,211	116,156	157	2,803	360,766
Other NEI	6,610	0	1,389	1,740	1,834	234	15,200	95	27,102
Total value	145,844	80,235	280,470	391,780	490,219	735,999	45,559	340,453 e	2,473,090
Quantity	t	t	t	t	t	t	t	t	t
Fish									
Tuna	0	0	0	7,544	1	0	6	8,184	10,686
Salmonids c	253	1,186	0	0	3	40,405	0	0	41,846
Other	11,016	3,044	11,545	36,994	9,337	405	5,084	24,237 d	101,661
Total	11,269	4,230	11,545	44,538	9,341	40,810	5,090	32,421	154,193
Crustaceans	11,200	1,200	11,515	11,550	5,511	10,010	5,050	52,121	10 1,100
Prawns	1,731	159	9,482	1,805	2,939	0	0	8,908	25,023
Rock lobster	146	312	818	1,577	5,860	1,165	0	639	10,516
Crab	523	7	2,770	684	722	25	211	7	4,950
Other	178	65	36	29	69	0	0	151	528
Total	2,578	543	13,106	4,095	9,590	1,190	211	9,705	41,018
Molluscs	2,578	545	15,100	4,055	3,330	1,150	211	5,705	41,010
Abalone	130	1,165	0	992	239	2,222	0	0	4,748
Scallop	130	0	2,514	0	235	1,346	0	281	4,748
	3,266	0	2,514	4,900	280	3,386	0	281	4,421
Oyster		37	131	,	40		0		
Squid	103			358		68		434	1,171
Other	295	800	0	2,201	433	928	30	56	4,743
Total	3,794	2,002	2,645	8,451	992	7,950	30	771	26,635
Other NEI	305	0	94	230	56	130	815	9	1,640
Total quantity	17,945	6,775	27,391	57,314	19,978	50,080	6,146	42,907 e	223,486

a State totals include aquaculture but exclude hatchery production. b To avoid double counting, total has been reduced to allow for southern bluefin tuna caught in the Commonwealth Southern Bluefin Tuna Fishery, as an input to farms in South Australia. c Includes salmon and trout production. d Includes fish (excluding tuna) component of Commonwealth fisheries, plus catch from Commonwealth fisheries that cannot be disaggregated for confidentiality reasons. e Totals include all fisheries under Commonwealth jurisdiction. na Not available. NEI Not elsewhere included.

Sources: ABARES; Australian Fisheries Management Authority; Department of Fisheries, Western Australia; Department of Primary Industries, New South Wales; Department of Primary Industries, Parks, Water and Environment, Tasmania; Fisheries Queensland, Department of Agriculture, Fisheries and Forestry; Fisheries Victoria, Department of Environment and Primary Industries; Northern Territory Department of Primary Industries; Primary Industries, South Australia; South Australian Research and Development Institute

	NSW	Vic.	Qld	SA	WA	Tas.	NT	C'wlth	Aust.	
Value	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	
Fish										
Tuna	0	0	0	130,670	7	0	0	63,646	160,882	b
Salmonids c	2,838	7,490	0	0	51	620,464	0	0	630,842	
Other	45,241	12,066	90,956	61,693	47,525	3,224	26,246	147,879 d	434,830	
Total	48,079	19,556	90,956	192,363	47,582	623,687	26,246	211,526	1,226,554	
Crustaceans						_				
Prawns	24,920	1,904	150,010	35,569	37,330	0	0	115,075	364,808	
Rock lobster	11,430	24,296	17,791	124,709	385,884	89,008	0	14,537	667,656	
Crab	8,033	0	29,122	4,827	7,112	1,254	4,578	25	54,951	
Other	1,599	1,334	1,043	1,370	2,157	0	0	2,654	10,157	
Total	45,983	27,534	197,966	166,475	432,483	90,262	4,578	132,291	1,097,571	
Molluscs										
Abalone	3,515	34,941	0	36,638	8,888	80,397	0	0	164,379	
Scallop	0	0	4,413	0	3,107	952	0	2,786	11,259	
Oyster	40,641	0	424	28,390	0	23,560	0	0	93,015	
Squid	963	742	608	4,859	470	963	1	3,006	11,612	
Other	2,629	5,023	0	7,749	75,457	5,354	246	589	97,046	
Total	47,748	40,706	5,445	77,636	87,922	111,226	247	6,381	377,311	
Other NEI	8,334	0	1,900	31,210	1,619	433	24,100	79	67,674	
Total value	150,143	87,796	296,267	467,684	569,606	825,608	55,171	350,275 e	2,769,110	t
Quantity	t	t	t	t	t	t	t	t	t	
Fish										
Tuna	0	0	0	8,418	1	0	0	8,888	12,360	I
Salmonids c	277	1,147	0	0	6	47,184	0	0	48,614	
Other	9,509	2,535	11,744	40,384	9,744	331	5,064	22,236 d	101,547	
Total	9,786	3,682	11,744	48,802	9,751	47,514	5,064	31,124	162,521	
Crustaceans										
Prawns	1,675	156	10,770	2,097	2,979	0	0	7,815	25,492	
Rock lobster	154	289	755	1,563	6,127	1,040	0	381	10,309	
Crab	532	0	2,848	668	705	21	229	3	5,006	
Other	144	151	45	30	82	0	0	145	598	
Total	2,505	596	14,418	4,358	9,893	1,061	229	8,345	41,404	
Molluscs										
Abalone	124	1,175	0	1,079	248	1,977	0	0	4,603	
Scallop	0	0	2,041	0	438	485	0	1,359	4,323	
Oyster	3,713	0	0	3,891	0	3,366	0	0	12,789	
Squid	118	59	122	462	36	102	0	955	1,853	
Other	340	1,160	0	2,166	416	1,099	47	78	5,306	
Total	4,295	2,394	2,163	7,598	1,137	7,029	47	2,391	28,873	
Other NEI	341	0	163	4,160	37	105	1,011	8	5,824	
Total quantity	16,927	6,672	28,488	64,918	20,818	55,709	6,351	41,868 e	238,622	ŀ

TABLE S4 Fisheries and aquaculture production in 2014–15, by state, Australia a

a State totals include aquaculture but exclude hatchery production. b To avoid double counting, total has been reduced to allow for southern bluefin tuna caught in the Commonwealth Southern Bluefin Tuna Fishery, as an input to farms in South Australia. C Includes salmon and trout production. d Includes fish (excluding tuna) component of Commonwealth fisheries, plus catch from Commonwealth fisheries that cannot be disaggregated for confidentiality reasons. e Totals include all fisheries under Commonwealth jurisdiction. na Not available. NEI Not elsewhere included.

Sources: ABARES; Australian Fisheries Management Authority; Department of Fisheries, Western Australia; Department of Primary Industries, New South Wales; Department of Primary Industries, Parks, Water and Environment, Tasmania; Fisheries Queensland, Department of Agriculture, Fisheries and Forestry; Fisheries Victoria, Department of Environment and Primary Industries; Northern Territory Department of Primary Industries; Primary Industries, South Australia; South Australian Research and Development Institute

TABLE S5 Fisheries and aquaculture production in 2015–16, by state, Australia a

	NSW	Vic.	Qld	SA	WA	Tas.	NT	C'with	Aust.
Value	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Fish	÷ 500	Ŷ 000	÷ 000	÷ 000	÷ 000	÷ 000	÷ 000	÷ 000	÷ 000
Tuna	0	0	0	126,870	6	0	59	74,362	170,728
Salmonids c	2,290	10,981	na	0	74	704,370	na	0	717,714
Other	46,501	11,885	98,126	79,386	44,887	3,209	31,560	206,988 d	522,543
Total	48,791	22,866	98,126	206,256	44,967	707,579	31,620	281,350	1,410,985
Crustaceans							-	-	
Prawns	23,279	2,165	143,150	45,039	43,387	0	0	130,972	387,992
Rock lobster	11,785	24,516	19,441	137,680	394,121	92,946	0	14,279	694,768
Crab	9,514	113	24,170	5,606	8,326	2,030	2,984	21	52,763
Other	1,858	719	1,341	1,569	2,122	0	0	3,235	10,845
Total	46,436	27,513	188,101	189,894	447,956	94,976	2,984	148,508	1,146,369
Molluscs									
Abalone	3,582	30,824	0	36,936	6,250	82,583	0	0	160,176
Scallop	0	0	3,040	0	4,673	1,667	0	4,615	13,996
Oyster	44,320	0	564	30,950	0	21,206	0	0	97,041
Squid	1,115	508	673	5,245	483	1,347	26	3,370	12,768
Other	3,133	3,683	0	9,372	86,124	3,568	264	978	107,122
Total	52,150	35,016	4,277	82,503	97,531	110,371	291	8,964	391,102
Other NEI	8,590	0	3,693	37,520	2,812	145	24,522	8	77,290
Total value	155,967	85,394	294,197	516,173	593,267	913,072	59,416	438,829 e	3,025,746
Quantity	t	t	t	t	t	t	t	t	t
Fish									
Tuna	0	0	0	8,895	1	0	11	10,213	14,221
Salmonids c	196	1,343	0	0	8	54,772	0	0	56,319
Other	9,324	3,300	12,274	46,538	10,168	370	5,894	35,066 d	122,935
Total	9,520	4,643	12,274	55,433	10,177	55,142	5,905	45,279	193,475
Crustaceans	-,	.,					-,	,	
Prawns	1,574	175	9,547	2,574	3,226	0	0	7,462	24,559
Rock lobster	158	288	838	1,592	5,712	1,138	0	376	10,102
Crab	532	9	2,570	726	672	25	149	2	4,686
Other	122	80	51	21	75	0	0	174	523
Total	2,386	552	13,007	4,913	9,686	1,163	149	8,014	39,870
Molluscs	_,			.,= ==	-,	_,		-,	,
Abalone	128	1,054	0	976	167	1,826	0	0	4,151
Scallop	0	0	1.406	0	601	744	0	2.261	5,013
Oyster	3,727	0	0	4,589	0	3,029	0	0	11,345
Squid	109	47	135	427	34	434	5	1,081	2,271
Other	326	850	0	2,731	526	718	51	137	5,339
Total	4,290	1,951	1,541	8,723	1,329	6,751	56	3,478	28,119
Other NEI	330	0	68	4,412	37	81	0	2	4,930
Total quantity	16,526	7,146	26,890	73,481	21,229	63,138	6,110	56,773 e	266,393

a State totals include aquaculture but exclude hatchery production. b To avoid double counting, total has been reduced to allow for southern bluefin tuna caught in the Commonwealth Southern Bluefin Tuna Fishery, as an input to farms in South Australia. c Includes salmon and trout production. d Includes fish (excluding tuna) component of Commonwealth fisheries, plus catch from Commonwealth fisheries that cannot be disaggregated for confidentiality reasons. e Totals include all fisheries under Commonwealtit jurisdiction. p Preliminary. na Not available. NEI Not elsewhere included.

Sources: ABARES; Australian Fisheries Management Authority; Department of Fisheries, Western Australia; Department of Primary Industries, New South Wales; Department of Primary Industries, Parks, Water and Environment, Tasmania; Fisheries Queensland, Department of Agriculture, Fisheries and Forestry; Fisheries Victoria, Department of Environment and Primary Industries; Northern Territory Department of Primary Industries; Primary Industries; Northern Territory Department of Primary Industry and Fisheries; Primary Industries and Regions, South Australia; South Australian Research and Development Institute

TABLE S6 Fisheries and aquaculture production in 2015–16, by location of catch and production, Australia ap

	NSW	Vic.	Qld	SA	WA	Tas.	NT	Other b	Aust.
Value	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Fish									
Tuna	13,256	6	27,791	126,870	1,965	779	59	1	170,728
Salmonids	2,290	10,981	0	0	74	704,370	0	0	717,714
Other	59,557	47,374	110,181	91,205	46,330	13,326	31,563	123,007	522,543
Total	75,102	58,361	137,972	218,075	48,369	718,476	31,622	123,008	1,410,985
Crustaceans									
Prawns	23,968	2,165	157,680	45,039	153,232	0	5,851	56	387,992
Rock lobster	11,785	24,516	33,720	137,680	394,121	92,946	0	0	694,768
Crab	9,517	125	24,171	5,606	8,326	2,036	2,984	0	52,763
Other	1,877	830	1,828	1,569	3,996	0	33	713	10,845
Total	47,147	27,636	217,400	189,894	559,674	94,982	8,868	769	1,146,369
Molluscs									
Abalone	3,582	30,824	0	36,936	6,250	82,583	0	0	160,176
Scallop	0	2,622	3,040	0	4,676	3,656	3	0	13,996
Oyster	44,320	0	564	30,950	0	21,206	0	0	97,041
Squid	1,777	1,308	682	5,461	710	1,689	33	1,109	12,768
Other	3,320	4,226	1	9,372	86,125	3,814	264	0	107,122
Total	53,000	38,980	4,287	82,719	97,761	112,948	300	1,109	391,102
Other NEI	8,590	6	3,693	37,520	2,812	146	24,522	0	77,290
Total value	183,839	124,983	363,351	528,208	708,616	926,552	65,312	124,885	3,025,746
Quantity Fish	t	t	t	t	t	t	t	t	t
Tuna	1,511	1	3,517	8,895	191	95	11	0	14,221
Salmonids	196	1,343	0	0	8	54,772	0	0	56,319
Other	12,296	11,284	14,173	48,749	10,366	2,422	5,895	17,750	122,935
Total	14,002	12,628	17,690	57,644	10,565	57,289	5,906	17,751	193,475
Crustaceans							,		
Prawns	1,746	175	10,441	2,574	9,341	0	273	8	24,559
Rock lobster	158	288	1,214	1,592	5,712	1,138	0	0	10,102
Crab	532	10	2,571	726	672	25	149	0	4,686
Other	122	83	86	21	175	0	2	33	523
Total	2,559	556	14,312	4,913	15,900	1,164	425	42	39,870
Molluscs									
Abalone	128	1,054	0	976	167	1,826	0	0	4,151
Scallop	0	1,285	1,406	0	602	1,719	0	0	5,013
Oyster	3,727	0	0	4,589	0	3,029	0	0	11,345
Squid	320	316	136	484	63	549	6	397	2,271
Other	352	936	0	2,731	526	743	51	0	5,339
Total	4,527	3,591	1,542	8,780	1,359	7,866	57	397	28,119
Other NEI	330	2	68	4,412	37	81	0	0	4,930
Total quantity	21,418	16,776	33,611	75,749	27,861	66,400	6,388	18,190	266,393

a Commonwealth, state and territory production is allocated according to the state or territory waters in which the catch was taken. The totals include aquaculture production but exclude hatchery production. b Includes Commonwealth fisheries that have been aggregated for reasons of confidentiality; they are, Small Pelagics, Macquarie Island, Heard and McDonald Islands, Coral Sea, North West Slope, Southern Squid and Western Deepwater Trawl fisheries. c Totals include confidential Commonwealth landings and only sum across. NEI Not elsewhere included. p Preliminary.

Sources: ABARES; Australian Fisheries Management Authority; Department of Fisheries, Western Australia; Department of Primary Industries,

New South Wales; Department of Primary Industries, Parks, Water and Environment, Tasmania; Fisheries Queensland, Department of Agriculture, Fisheries and Forestry; Fisheries Victoria, Department of Primary Industries; Northern Territory Department of Primary Industry and Fisheries; Primary Industries and Regions, South Australia; South Australian Research and Development Institute

TABLE S7 Fisheries and aquaculture production, New South Wales

	2013–1	4	2014–1	5	2015-16	5 p
	t	\$'000	t	\$'000	t	\$'000
Crustaceans						
Rock lobster	146	10,003	154	11,430	158	11,785
King prawn	588	11,189	619	12,612	525	10,173
School prawn	819	6,241	702	6,890	692	6,740
Other prawn a	36	251	23	308	31	381
Crab	523	7,602	532	8,033	532	9,514
Other b	160	1,980	130	1,262	114	1,522
Total c	2,273	37,267	2,159	40,536	2,052	40,115
Molluscs						
Blacklip abalone	130	3,876	124	3,515	128	3,582
Cuttlefish	64	298	78	362	64	343
Pipi	69	648	121	1,208	168	1,943
Octopus	177	1,368	211	1,329	145	1,100
Squid	38	533	40	601	45	772
Other d	11	93	9	82	13	90
Total c	490	6,817	582	7,097	563	7,830
Fish						
Sea mullet	3,926	13,339	2,841	8,941	2,843	9,552
Silver trevally	168	666	85	453	89	473
Yellowtail kingfish	108	1,247	118	1,109	100	947
Jack mackerel	2	3	0	0	0	1
Black bream and vellowfin bream	359	4,008	328	3,617	282	3,565
Eastern Australian salmon	1,058	1,828	765	1,201	836	1,302
Snapper	205	2,058	166	1,737	175	2,003
Grey morwong	27	149	21	93	21	106
Mulloway	58	605	76	708	76	818
Sand whiting	81	1,193	120	1,681	99	1,514
Luderick	372	594	389	666	291	707
Eastern school whiting	625	2,687	785	2,667	869	2,828
Dusky flathead	118	1,176	139	1,321	143	1,353
Other e	3,655	18,182	3,367	17,094	3,178	17,383
Total c	10,762	47,735	9,201	41,290	9,002	42,552
Other NEI f	90	660	82	561	125	42,552 585
Total wild-caught	13,614	92,479	82 12,024	89,484	125	91,082
Aquaculture g	15,014	92,479	12,024	07,404	11,/42	91,082
Prawns	287	4,495	331	5,110	326	5,985
Yabby	18	4,495	15	338	326	336
,						
Oyster Silver perch	3,266	36,007	3,713	40,641	3,727	44,320
Silver perch	195	2,718	246	3,010	254	2,968
Trout	253	2,739	277	2,838	196	2,290
Blue mussel	38	233	0	10	0	0
Barramundi	59	938	62	941	68	982
Ornamental fish	0	411	0	437	0	474
Other h	215	5,539	259	7,336	205	7,531
Total	4,331	53,365	4,904	60,660	4,784	64,885
Total production c a Mainly includes tiger prawn, royal red prawn	17,945	145,844	16,927	150,143	16,526	155,967

a Mainly includes tiger prawn, royal red prawn and greasyback prawn. b Mainly includes Balmain bug, yabby and nippers. c Excludes catches in the Commonwealth and other jurisdiction fisheries landed into New South Wales. d Mainly includes cockle, periwinkle, whelk and blue mussel. e Mainly includes Australian sardine, blue mackerel, leatherjacket, flathead, bonito, yellowtail scad, sandy sprat, tailor, silver biddy and eel. f Mainly includes beachworms and sea urchin. g Excludes hatchery production. h Mainly includes longfin eel, golden perch, Murray cod, mulloway and pearl oyster. p Preliminary. na Not available. NEI Not elsewhere included.

Source: Department of Primary Industries, New South Wales

TABLE S8 Fisheries and aquaculture production, Victoria a

	2013–1	4	2014-1	5	2015-16	i p
	t	\$'000	t	\$'000	t	\$'000
Crustaceans						
Southern Rock lobster	312	21,710	289	24,296	288	24,516
Prawns	159	1,876	156	1,904	175	2,165
Crab	7	85	0	0	9	113
Other	64	411	148	1,318	79	714
Total	542	24,082	593	27,518	551	27,507
Molluscs						
Abalone	734	21,474	739	20,200	728	19,740
Scallop	0	0	0	0	0	0
Squid b	37	410	59	742	47	508
Octopus	23	155	21	86	18	60
Other	133	730	125	698	68	385
Total	927	22,770	944	21,726	861	20,694
Fish						
Australian sardine	1,076	560	863	1,536	1,524	1,682
Black bream	55	445	66	720	45	439
Southern garfish	48	540	34	252	28	168
Shark c	43	108	41	225	38	177
Snapper	144	1,060	147	1,385	108	1,000
Eel	94	1,348	66	930	55	758
Australian salmon	381	217	211	141	450	251
King George whiting	85	1,282	115	2,522	213	3,618
Other	961	2,429	722	1,786	604	1,515
Total	2,887	7,988	2,265	9,497	3,064	9,609
Total wild caught	4,356	54,840	3,802	58,742	4,476	57,810
Aquaculture d						
Abalone	431	12,778	436	14,741	326	11,084
Blue mussel	644	2,150	1,014	4,239	764	3,238
Yabby	1	10	3	16	1	6
Salmonids e	1,186	8,863	1,147	7,490	1,343	10,981
Warmwater finfish f	157	1,594	270	2,569	236	2,277
Ornamental fish	no	0	no	0	no	0
Other	0	0	0	0	0	0
Total	2,419	25,395	2,870	29,054	2,670	27,584
Total production	6,775	80,235	6,672	87,796	7,146	85,394

a Victorian Department of Primary Industries estimate values for wild fisheries species including abalone, rock lobster, Australian salmon, pilchards and eels during the 2013–14, 2014–15 and 2015–16 financial years. Other Values were estimated by ABARES. Quantities for individual species are provided by Fisheries Victoria. b Gould's squid taken by machine jig are now being reported to the Commonwealth. c Shark data only include Victorian bays and inlets and small quantities taken in ocean waters by non-shark fishers operating in state-proclaimed waters. d Excludes hatchery production. e Includes salmon and trout production. f Includes Australian bass, barramundi, catfish, golden perch, Murray cod and silver perch. p Preliminary. na Not available. no Only number of fish is reported; 3,370,thousand for 2013–14, 2,777 thousand for 2014–15 and 2,438 thousand for 2015–16.

TABLE S9 Fisheries and aquaculture production, Queensland

	2013-1	14	2014-1	15	2015-10	6 p
	t	\$'000	t	\$'000	t	\$'000
Crustaceans						
Prawns						
Banana prawn	930	7,612	712	5,831	478	3,911
Endeavour prawn	428	3,076	542	3,898	483	3,476
King prawn	3,161	40,460	2,638	33,772	2,581	33,044
Tiger prawn	1,103	16,882	1,492	22,824	1,299	19,870
Other	373	2,150	434	2,507	404	2,349
Total	5,995	70,179	5,819	68,832	5,245	62,650
Crab	2,770	29,608	2,848	29,122	2,570	24,170
Rock lobster and bug	818	20,251	755	17,791	838	19,441
Total	9,583	120,038	9,422	115,745	8,653	106,260
Molluscs						
Scallop	2,514	5,435	2,041	4,413	1,406	3,040
Squid a	131	657	122	608	135	673
Total	2,645	6,092	2,163	5,021	1,541	3,713
Fish						
Snapper	64	523	60	487	67	543
Tropical snapper	222	1,246	240	1,362	476	2,912
Barramundi	826	7,580	694	6,367	706	6,480
Bream (including tarwhine)	134	1,074	133	1,067	194	1,549
Mullet	1,681	4,202	1,938	4,844	1,520	3,801
Tailor	na	na	na	na	na	na
Whiting	864	3,071	956	3,225	1,092	3,690
Coral trout	840	27,466	754	24,647	817	26,716
Redthroat emperor	219	1,477	202	1,359	164	1,106
Blue threadfin	208	830	157	629	142	568
King threadfin	310	1,349	345	1,500	311	1,353
Shark	580	1,740	492	1,476	665	1,996
Spanish mackerel	554	3,875	535	3,747	459	3,213
Grey mackerel	719	3,992	766	4,252	864	4,796
Other species	1,363	5,970	1,305	5,658	1,459	6,397
Total	8,716	65,204	8,716	61,443	9,074	65,924
Other NEI	0	05,204	0	01,443	9,074	05,524
Total wild-caught	20,945	191,334	20,301	182,209	19,269	175,897
Aquaculture b	20,945	191,554	20,501	182,209	19,209	1/5,69/
-	2 407	F0 027	4 051	01 170	4 202	80 500
Prawns	3,487	59,027	4,951	81,178	4,302	80,500
Barramundi	2,682	25,105	2,931	27,501	3,053	29,300
Oyster	0	522	0	424	0	564
Pearls	0	0	0	0	0	0
Silver perch	97	1,107	53	626	103	1,105
Barcoo grunter	0	0	0	0	0	0
Redclaw	36	682	45	1,043	51	1,341
Aquarium fish c	0	737	0	889	0	1,300
Other d	145	1,956	207	2,397	112	4,190
Total	6,446	89,136	8,187	114,058	7,621	118,300
Total production	27,391	280,470	28,488	296,267	26,890	294,197

a Includes cuttlefish. b Excludes hatchery production. c Exotic and native species (including Australian lungfish, northern saratoga and southern saratoga). d Includes eel, Murray cod, golden perch, sleepy cod, Australian bass, marine finfish, crab, and pearls. p Preliminary. na Not available. NEI Not elsewhere included.

Source: Fisheries Queensland, Department of Agriculture, Fisheries and Forestry

TABLE S10 Fisheries and aquaculture production, South Australia

	2013-1	4	2014-1	15	2015–1	6 p
	t	\$'000	t	\$'000	t	\$'000
Crustaceans						
Prawns	1,805	29,845	2,097	35,569	2,574	45,039
Southern rock lobster	1,577	108,465	1,563	124,709	1,592	137,680
Crab	684	4,877	668	4,827	726	5,606
Other	17	846	17	920	16	1,369
Total	4,083	144,033	4,345	166,025	4,908	189,694
Molluscs						
Abalone	662	22,124	745	25,238	626	22,206
Pipi	444	3,118	430	3,060	492	3,480
Squid	358	4,006	462	4,859	427	5,245
Other	138	1,404	159	1,619	151	1,492
Total	1,602	30,652	1,796	34,776	1,696	32,423
Fish a						
Western Australian salmon	61	153	276	464	457	807
Mullet	213	970	138	710	149	805
Australian herring	143	397	116	406	90	354
Snapper	549	4,815	586	5,065	427	4,065
King George whiting	265	4,249	310	5,189	272	4,595
Garfish	261	1,957	216	1,770	163	1,627
Leatherjacket	59	146	76	195	153	283
Australian sardine	33,197	19,254	36,020	21,612	41,103	25,895
Yellowfin whiting	110	902	96	885	115	1,047
Snook	40	192	45	207	47	211
Golden perch	88	1,096	84	1,134	79	1,139
Other	1,196	1,594	1,051	1,766	1,024	1,708
Total	36,182	35,725	39,014	39,403	44,079	42,536
Total wild-caught	41,867	210,410	45,155	240,204	50,683	264,653
Aquaculture b						
Marron and yabby c	12	430	13	450	5	200
Oyster d	4,900	32,080	3,891	28,390	4,589	30,950
Southern bluefin tuna e	7,544	122,400	8,418	130,670	8,895	126,870
Abalone f	330	10,890	334	11,400	350	14,730
Blue mussel	1,619	3,450	1,577	3,070	2,088	4,400
Other g	1,042	12,120	5,530	53,500	6,871	74,370
Total	15,447	181,370	19,763	227,480	22,798	251,520
Total production	57,314	391,780	64,918	467,684	73,481	516,173

a Excludes catch from Commonwealth waters. b Excludes hatchery production. c Marron and yabby are grouped together to protect commercial confidentiality. d Excludes spat. e Processed weight. Input of wild-caught southern bluefin tuna from Commonwealth Southern Bluefin Tuna Fishery was 4 198 tonnes in 2012–13, 5 050 tonnes in 2013–14 and 4 947 tonnes in 2014–15. f Includes the value of local spat sales. g Includes barramundi, yellowtail kingfish, mulloway, rainbow trout, algae and brine shrimp production. p Preliminary. Sources: Primary Industries and Regions, South Australia; South Australian Research and Development Institute

TABLE S11 Fisheries and aquaculture production, Western Australia

	2013-1	14	2014-:	15	2015-1	6 p
	t	\$'000	t	\$'000	t	\$'00
Crustaceans						
Rock lobster	5,860	321,229	6,127	385,884	5,712	394,121
Prawns	2,939	36,006	2,979	37,330	3,226	43,387
Crab	722	6,872	705	7,112	672	8,326
Other	7	79	14	162	13	187
Total	9,527	364,186	9,825	430,488	9,624	446,021
Molluscs						
Abalone	239	8,058	248	8,888	167	6,250
Scallop	280	1,987	438	3,107	601	4,673
Squid	40	542	36	470	34	483
Other a	245	5,110	269	6,961	328	6,974
Total	804	15,698	991	19,426	1,131	18,381
Fish						
Tuna	1	7	1	7	1	6
Shark	985	3,573	1,035	3,678	976	3,625
Sharkfin	23	343	0	362	0	Ć
Western Australian salmon	328	164	191	94	104	95
Estuary cobbler	71	284	53	255	70	278
Silver cobbler	0	0	0	0	0	C
West Australian dhufish	67	1,013	61	886	47	691
Spanish mackerel	294	2,407	299	2,454	311	2,517
Sea mullet	198	600	204	491	218	466
Yelloweye mullet	22	32	20	26	9	14
Australian sardine	1,516	1,366	1,763	1,514	2,161	2,020
Australian herring	154	172	66	162	82	199
Whiting	171	1,026	201	1,358	181	1,189
Bream	93	585	86	526	101	652
	391	2,056	431	2,213	531	2,573
Emperor	488	3,849	357	2,723	279	2,373
Snapper	488 319	2,433	359	2,723	460	3,546
Rockcod						
Tropical snapper	1,496	11,199	1,619	12,924	1,617	12,339
Other	2,003	5,760	2,207	5,991	2,566	7,042
Total	8,620	36,869	8,952	38,396	9,722	39,482
Other nei b	56	167	37	110	37	184
Total wild caught	19,007	416,919	19,804	488,420	20,514	504,068
Aquaculture c						
Pearls	0	60,728	0	67,863	0	78,354
Yabby	15	304	17	432	11	327
Marron	48	1,411	51	1,563	51	1,609
Blue mussel	188	785	147	633	198	796
Fish	720	8,180	799	8,980	455	5,296
Goldfish and European carp	0	224	0	207	0	189
Ornamental fish	0	191	0	278	0	230
Other d	0	1,477	0	1,230	0	2,398
Total	971	73,300	1,014	81,186	715	89,199
Total production	19,978	490,219	20,818	569,606	21,229	593,267

a Value includes pearl oyster shells taken, including those taken for mother of pearl and octopus. b Includes sea cucumber, sea urchin and others previously reported under molluscs other. c Aquaculture excludes algae production for betacarotene and hatchery production. Some quantity data not available because of confidentiality restrictions. d Includes Barramundi, silver perch and rainbow trout. e Includes other molluscs and crustaceans. p Preliminary. na Not available. nei Not elsewhere included.

Source: Department of Fisheries, Western Australia

TABLE S12 Fisheries and aquaculture production, Tasmania

	2013–1	.4	2014–1	.5	2015–16	р
	t	\$'000	t	\$'000	t	\$'000
Crustaceans						
Southern rock lobster	1,165	83,529	1,040	89,008	1,138	92,946
Giant crab	25	1,220	21	1,254	25	2,030
Other	0	0	0	0	0	0
Total	1,190	84,749	1,061	90,262	1,163	94,976
Molluscs						
Abalone	2,158	82,670	1,897	77,841	1,744	79,738
Octopus	117	1,089	81	787	105	987
Scallop a	1,346	3,346	485	952	744	1,667
Other	131	1,322	180	1,767	472	1,628
Total	3,751	88,426	2,643	81,347	3,065	84,019
Fish b						
Australian salmon	101	307	44	100	89	298
Southern rock cod	2	9	2	9	2	3
Garfish	38	333	33	290	22	214
Banded morwong	47	1,025	44	945	33	762
Jackass morwong	1	3	1	2	3	11
Elephantfish	1	5	1	2	0	1
Bastard trumpeter	8	75	7	61	7	38
Striped trumpeter	9	114	10	131	6	69
Eastern school whiting	37	240	3	22	23	119
Wrasse	66	896	83	1,126	71	978
Shark	9	85	11	104	12	107
Other	85	448	93	433	101	609
Total	405	3,539	331	3,224	370	3,209
Other nei c	130	234	105	433	81	145
Total wild-caught	5,476	176,947	4,139	175,265	4,680	182,349
Aquaculture d						
Salmonids e	40,405	531,322	47,184	620,464	54,772	704,370
Oyster	3,386	22,688	3,366	23,560	3,029	21,206
Blue mussel	749	2,996	941	3,763	575	2,301
Abalone	64	2,046	80	2,557	81	2,845
Total	44,604	559,052	51,570	650,343	58,458	730,723
Total production	50,080	735,999	55,709	825,608	63,138	913,072

a Weight is based on whole weight. Value of fishery is calculated on meat weight. b Excludes shark from the Commonwealth Southern Shark Fishery. c Includes sea urchins. d Excludes hatchery production. e Includes salmon and trout production, weight in HOGG (head on, gilled and gutted). p Preliminary. nei Not elsewhere included.

Source: Department of Primary Industries, Parks, Water and Environment, Tasmania

TABLE S13 Fisheries and aquaculture production, Northern Territory

	2013-1	4	2014–1	5	2015-16	i p
	t	\$'000	t	\$'000	t	\$'000
Crustaceans						
Crab	211	4,221	229	4,578	149	2,984
Other	0	1	0	0	0	0
Total	211	4,222	229	4,578	149	2,984
Molluscs						
Squid	0	1	0	1	5	26
Other	30	155	47	246	51	264
Total	30	157	47	247	56	291
Fish						
Tuna	6	41	0	0	11	59
Shark	149	382	138	319	77	217
Tropical snapper	41	157	183	1,006	324	1,766
Barramundi	409	2,628	380	2,437	323	2,600
Threadfin salmon	225	710	224	709	239	891
Black jewfish	158	515	146	847	133	1,442
Emperor	73	452	72	279	100	395
Rockcod	63	207	50	210	48	158
Mackerel	695	3,503	744	3,959	829	5,279
Goldband snapper	617	4,824	489	3,820	519	3,173
Sea Perch	0	0	0	0	0	0
Other	2,653	12,562	2,638	12,662	3,302	15,639
Total	5,090	25,980	5,064	26,246	5,905	31,620
Total wild-caught	5,331	30,359	5,340	31,071	6,110	34,894
Aquaculture a						
Barramundi	na	na	na	na	na	na
Pearls	na	na	na	na	na	na
Other b	815	15,200	1,011	24,100	na	24,522
Total	815	15,200	1,011	24,100	na	24,522
Total production	6,146	45,559	6,351	55,171	na	59,416

a These values are based on derived estimates from a limited number of operators. Excludes hatchery production. Quantities not available because of confidentiality restrictions. b Includes aquarium production. p Preliminary. na Not available.

Source: Northern Territory Department of Primary Industry and Fisheries

TABLE S14 Fisheries production, Commonwealth

	2013-1	4	2014-1	15	2015-1	6 p
	t	\$'000	t	\$'000	t	\$'00
Northern Prawn						
Prawns						
Tiger prawn	2,025	39,883	1,760	34,365	3,258	73,690
Banana prawn	5,780	67,968	4,555	61,858	2,863	40,339
Endeavour prawn	497	5,372	692	8,461	547	6,972
King prawn	21	297	13	206	36	561
Other prawn	5	93	24	405	12	111
Total prawn	8,328	113,613	7,043	105,296	6,716	121,673
Other species	109	1,589	102	1,531	148	2,341
Total	8,436	115,201	7,145	106,827	6,863	124,014
Torres Strait						
Prawns						
Tiger prawn	324	4,925	478	8,219	442	7,312
Endeavour prawn	74	589	122	896	103	981
King prawn	3	32	5	65	17	236
Other prawn	0	2	2	15	5	24
Other a	19	285	25	318	23	310
Total	420	5,834	632	9,513	589	8,862
Tropical rock lobster	639	23,178	381	14,535	376	14,279
Spanish mackerel						
Spanish mackerel	106	807	84	642	87	732
Other species	0	1	0	1	0	1
Total	106	808	84	642	87	733
Reef Line b	33	641	22	418	42	480
Total	1,197	30,460	1,119	25,109	1,094	24,355
SESSF Commonwealth Trawl Sector c	_/	,	_,		_,	,= =
Orange roughy	210	795	267	1,571	415	2,319
Blue grenadier	3,934	6,452	1,344	1,854	1,715	2,230
Tiger flathead	2,325	13,438	2,905	15,428	2,939	18,165
Redfish	92	303	73	232	52	179
Blue warehou	44	145	10	30	3	10
Silver warehou	561	932	350	532	290	333
Eastern school whiting	596	1,956	800	2,513	690	2,104
Jackass morwong	200	741	116	426	145	487
Pink ling	534	2,897	599	2,769	523	2,998
Gemfish	97	2,837	94	2,705	107	2,550
Silver trevally	149	549	92	415	65	201
Mirror dory	145	614	262	751	252	793
Roval red prawn	171	287	156	520	172	689
Ocean perch	2	287	2	6	1/2	6
•	72	589	74	569	78	675
John dory	17	143	36	336	20	166
Blue-eye trevalla	135	849	139	895	134	846
Gummy shark	28	849 166	21		23	
School shark				123		136
Sawshark	123	226	126	239	115	219
Elephantfish	42	50	38	45	30	14
Other	2,612	8,758	2,717	8,879	2,856	9,992
Total	12,140	40,133	10,222	38,357	10,625	42,913 Continued

TABLE S14 Fisheries production, Commonwealth continued

	2013–1	4	2014-1	5	2015-16	5 p
	t	\$'000	t	\$'000	t	\$'000
SESSF Gillnet, Hook and Trap Sector c						
Blue-eye trevalla	386	3,155	236	2,056	264	2,407
Blue warehou	1	4	0	0	0	1
Pink ling	258	1,377	361	1,752	294	1,684
Gummy shark	2,011	12,648	2,120	13,676	2,458	15,459
School shark	267	1,591	269	1,617	241	1,443
Sawshark	117	228	132	251	135	258
Elephantfish	58	70	50	59	55	44
Other Shark	184	220	215	707	123	446
Other species	273	1,105	212	796	146	636
Total	3,556	20,397	3,596	20,915	3,716	22,378
SESSF Great Australian Bight Trawl Sector c						
Orange roughy	0	0	13	75	0	0
Deepwater flathead	887	6,117	595	4,230	616	4,381
Bight redfish	207	1,222	238	1,266	177	940
Leatherjacket	240	501	174	384	213	366
Angel shark	174	307	137	281	122	291
Yellowspotted boarfish	120	383	78	258	82	330
Jackass morwong	30	111	28	102	13	45
Squid	78	501	73	327	59	223
Knifejaw	42	129	28	114	19	48
Gemfish	26	63	9	21	2	6
Blue grenadier	61	99	26	36	3	4
Blue morwong	0	0	0	0	0	0
Silver warehou	1	1	0	1	3	3
School shark	1	8	2	13	2	14
Gummy shark	81	512	64	413	57	361
Sawshark	44	87	31	58	19	29
Elephantfish	0	0	0	0	0	0
Other	334	1,175	297	894	179	653
Total	2,327	11,216	1,794	8,474	1,566	7,694

Continued

TABLE S14 Fisheries production, Commonwealth continued

	2013–1	.4	2014–1	15	2015-16	Бр
	t	\$'000	t	\$'000	t	\$'000
Eastern Tuna and Billfish – longlin	ne and minor line					
Albacore	797	1,944	762	2,026	1,159	3,871
Skipjack tuna	0	0	0	0	0	0
Yellowfin tuna	1,493	14,397	1,862	17,320	2,498	24,704
Bigeye tuna	478	4,722	625	5,442	858	7,955
Broadbill swordfish	1,197	7,185	1,112	6,817	1,231	9,076
Striped marlin	249	1,227	297	1,356	320	1,374
Other billfish	15	19	17	21	22	28
Other	451	1,723	434	1,993	485	1,748
Total	4,682	31,216	5,109	34,975	6,572	48,755
Southern Bluefin Tuna	5,297	39,477	5,447	36,807	5,508	35,875
Western Tuna and Billfish						
Albacore	12	np	20	np	26	np
Skipjack tuna	0	np	0	np	0	np
Yellowfin tuna	30	np	60	np	87	np
Bigeye tuna	76	np	112	np	77	np
Other tuna	0	np	0	np	0	np
Billfish	205	np	248	np	177	np
Other species	12	np	12	np	11	np
Total	336	np	452	np	378	np
Bass Strait Scallop	279	546	1,354	2,761	2,260	4,610
Southern Squid Jig	2	np	330	890	385	1,035
Other fisheries d	4,656	51,806	5,301	75,160	17,805	127,201
Total production	42,907	340,453	41,868	350,276	56,773	438,829

a Mainly Moreton Bay bug, scallop and squid. **b** Includes fish other than Spanish mackerel caught by line fishing. **c** Shark converted to whole weight. **d** Includes entries marked np and Small Pelagics, Macquarie Island, Coral Sea, Cocos and Christmas islands, Heard and McDonald Islands, SESSF Victorian coastal waters sector, Norfolk Island, South Tasman Rise, Western Skipjack, East Coast Deepwater Trawl, North West Slope Trawl and Western Deepwater Trawl fisheries because of confidentiality requirements. **na** Not available. **np** Not for publication because of confidentiality requirements. Included in Other fisheries. **p** Preliminary. **SESSF** Southern and Eastern Scalefish and Shark Fishery. Zero denotes zero or less than 0.5 tonnes

Sources: ABARES; Australian Fisheries Management Authority

TABLE S15 Aquaculture production in 2013-14, by state, Australia a

	NSW	Vic.	Qld	SA	WA	Tas.	NT	Aust
Value	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Fish								
Salmonids b	2,739	8,863	0	0	32	531,322	0	542,956
Tuna	0	0	0	122,400	0	0	0	122,400
Silver perch	2,718	0	1,107	0	334	0	0	4,160
Barramundi	938	0	25,105	0	7,814	0	na	33,857
Other c	0	1,594	1,304	10,380	224	0	0	13,502
Total	6,395	10,457	27,517	132,780	8,405	531,322	na	716,875
Crustaceans								
Prawns	4,495	0	59,027	0	0	0	0	63,522
Yabby	285	10	0	0	304	0	0	599
Marron	0	0	0	430	1,411	0	0	1,841
Redclaw	0	0	682	0	0	0	0	682
Total	4,780	10	59,708	430	1,714	0	0	66,643
Molluscs	.,				_,	-	-	
Edible oyster	36,007	0	522	32,080	0	22,688	0	91,297
Pearl oyster	0	0	0	0	60,728	0	na	60,728
Abalone	0	12,778	0	10,890	0	2,046	0	25,714
Blue mussel	233	2,150	0	3,450	785	2,996	0	9,614
Total	36,240	14,928	522	46,420	61,513	27,730	na	187,353
Other NEI d	5,950	14,528	1,389	1,740	1,668	0	15,200	25,947
Total value	53,365	25,395	89,136	181,370	73,300	559,052	15,200	996,818
Quantity	t	t	t	t	t	t	t	t
Fish								
Salmonids b	253	1,186	0	0	3	40,405	0	41,846
Tuna	0	0	0	7,544	0	0	0	7,544
Silver perch	195	0	97	0	18	0	0	310
Barramundi	59	0	2,682	0	699	0	na	3,440
Other c	0	157	51	812	0	0	0	1,019
Total	507	1,343	2,829	8,356	720	40,405	0	54,160
Crustaceans								
Prawns	287	0	3,487	0	0	0	0	3,774
Yabby	18	1	0	0	15	0	0	34
Marron	0	0	0	12	48	0	0	60
Redclaw	0	0	36	0	0	0	0	36
Total	305	1	3,523	12	63	0	0	3,903
Molluscs								
Edible oyster	3,266	0	0	4,900	0	3,386	0	11,552
Pearl oyster	0	0	0	0	0	0	na	0
Abalone	0	431	0	330	0	64	0	825
Blue mussel	38	644	0	1,619	188	749	0	3,237
Total	3,304	1,075	0	6,849	188	4,199	na	15,615
Other NEI d	215	0	94	230	0	0	815	1,354
Total quantity	4,331	2,419	6,446	15,447	971	44,604	815	75,032

a Excludes hatchery production, crocodiles, microalgae and aquarium worms. b Includes salmon and trout production. c Includes eel, other native fish and aquarium fish. d Includes aquaculture production not elsewhere specified because of confidentiality restrictions. In Victoria, this includes warmwater finfish, ornamental fish, other shellfish, shrimps and aquatic worms. Total only sums across. na Not available. NEI Not elsewhere included.

Sources: ABARES; Australian Fisheries Management Authority; Department of Fisheries, Western Australia; Department of Primary Industries, New South Wales; Department of Primary Industries, Parks, Water and Environment, Tasmania; Fisheries Queensland, Department of Agriculture, Fisheries and Forestry; Fisheries Victoria, Department of Environment and Primary Industries; Northern Territory Department of Primary Industry and Fisheries; Primary Industries and Regions, South Australia; South Australian Research and Development Institute

TABLE S16 Aquaculture production in 2014–15, by state, Australia a

Value\$'000\$'000\$'000\$'000\$'000FishSalmonids b2,8387,4900051Tuna006260313Barramundi941027,50108,616Other c02,5691,38622,290207Total6,91081,17800432Other c02,513152,9609,187338Other c02,513152,9609,187Total5,110081,17800Yabby3381600432Marron001,04300Total5,4471682,2214501,995MolluscsE10063Edible oyster00063,3070633Total40,65118,98042442,86068,496Other nei d7,77301,90031,2101,509Total value60,66029,054114,05822,748081,186QuantityttttttSilmonids b2771,1470063Silmonids b2771,1473,0289,788799Custaceans13,020631564Barramundi6202,93100Silmonids b2771,1470063 <t< th=""><th>Tas.</th><th>NT</th><th>Aus</th></t<>	Tas.	NT	Aus
Salmonids b 2,838 7,490 0 0 130.700 Silver perch 3,010 0 626 0 313 Barramundi 941 0 27,501 0 8,616 Other c 0 2,569 1,386 22,290 207 Total 6,789 10,059 29,513 152,960 9,187 Crustaceans 0 0 152,330 16 Vabby 338 16 0 0 1,563 Redclaw 0 0 1,443 0 0 Marron 0 0 1,443 0 0 Marron 0 0 1,443 0 0 Malaone 0 1,443 0 0 0 Bule mussel 10 4,239 0 3,070 633 Dalone 0 14,741 0 0 6 3,01 Dalue mussel 10	\$'000	\$'000	\$'00
Juna 0 0 130,670 0 Silver perch 3,010 0 626 0 313 Barramundi 941 0 27,501 0 8,616 Other c 0 2,569 1,386 22,290 207 Total 6,789 10,059 29,513 152,960 9,187 Crustaceans Prawns 5,110 0 81,178 0 0 Yabby 338 16 0 0 432 437 Marron 0 0 0,043 0 0 Total 5,447 16 82,221 450 1,995 Molluscs E 10 42,42 48,90 0 Pearl oyster 0 0 0 0 6 Abalone 0 14,741 0 11,400 0 Bure mussel 10 4,239 0 3,70 13,50 Total 7,773 0 </td <td></td> <td></td> <td></td>			
Silver perch 3,010 0 626 0 313 Barramundi 941 0 27,501 0 8,616 Other c 0 2,569 1,386 22,290 207 Total 6,789 10,059 22,9513 152,960 9,187 Crustaceans 0 0 333 Marron 0 0 432 3010 0 323 Marron 0 0 0 432 3010 0 Molluscs 1 0 0 0 0 0 3070 633 Total 5,447 16 82,21 450 1,969 306 3070 633 Molluscs 1 1 0 1,4741 0 1,400 0 0 3070 633 33 30 10 3070 633 30 155 3 0 1,509 30 15 30 15	620,464	0	630,842
Barramundi 941 0 27,501 0 8,616 Other c 0 2,569 1,386 22,290 207 Total 6,789 10,059 29,513 12,000 9,187 Crustaceans 0 0 432 Marron 0 0 450 1,563 Marron 0 0 1,043 0 0 Total 5,447 16 82,221 450 1,995 Molluscs 1,995 1,995 1,995 Edible oyster 40,641 0 42,239 0 633 Abalone 0 14,741 0 11,400 0 Blue mussel 10 42,339 0 3,100 1,509 Total 40,651 18,980 424 42,860 68,496 Other nei d 7,773 0 1,900 31,210 1,509 Total value 60,660 29,31 <td>0</td> <td>0</td> <td>130,670</td>	0	0	130,670
Other c 0 2,569 1,386 22,290 9,187 Total 6,789 10,059 29,513 152,960 9,187 Crustaceans 0 0 73 Yabby 338 16 0 0 432 Marron 0 0 0 450 1,563 Redclaw 0 0 1,043 0 0 Total 5,447 16 82,221 450 1,995 Molluscs 1 995 300 0 Pearl oyster 0 0 424 28,390 0 67,863 Abalone 0 14,741 0 11,400 0 0 Bur mussel 10 4,239 0 3,070 633 150 Total value 60,660 29,054 114,058 227,480 81,186 Quantity t t t t t	0	0	3,949
Total6,78910,05929,513152,9609,187Crustaceans081,17800Prawns5,110081,17800Yabby3381600432Marron0004,0300Total5,447168,2214501,995Molluscs99104,2428,3900Pearl oyster40,641042428,3900Pearl oyster0003,070633Abalone014,741011,4000Blue mussel104,23903,070633Total40,65118,98042442,86068,496Other nei d7,77301,90031,2101,509Cotal value60,66029,054114,05822,78068,496Other nei d7,77301,90031,2101,509Total value60,66029,054114,05822,780163GuantityttttttSalmonids b2771,14700063Silver perch2460530153Barramundi6202,9310709Other c0001351Redclaw0001351Redclaw0003,8910	0	na	37,058
Crustaceans Normal Structure Normal Structure Prawns 5,110 0 81,178 0 0 Yabby 338 16 0 0 432 Marron 0 0 450 1,563 Redclaw 0 0 1,043 0 0 Total 5,447 16 82,221 450 1,995 Molluscs 0 0 0 0 Pearl oyster 0 0 0 67,863 Abalone 0 14,741 0 11,400 0 Blue mussel 10 4,239 0 3,070 633 10 1,509 Total 40,651 18,980 424 42,860 68,496 O Other nei d 7,773 0 19,00 31,210 1,509 Total value 60,660 29,054 114,058 227,480 81,186 Quantity t t t	0	0	26,452
Prawns5,110081,17800Yabby3381600432Marron0004501,563Redclaw001,04300Total5,447168,22214501,995MolluscsE1000000Pearl oyster0014,741011,4000Blue mussel104,23903,070633Total40,65118,98042442,86068,496Other nei d7,77301,90031,2101,509Total value60,66029,054114,058227,48081,186QuantityttttttFish53006Salmonids b2771,147006Silver perch2460233015Barramundi620233015Other c0270441,3700Total5861,4173,0289,788799Crustaceans730017Marron004500Yabby1530017Marron003,89100Yabby153000Yabby153000	620,464	na	828,971
NumberNumberNumberNumberYabby3381600432Marron001,04300Redclaw001,04300Total5,4471682,2214501,995Molluscs042428,3900Pearl oyster000067,863Abalone014,741011,4000Blue mussel104,23903,070633Total40,65118,98042442,86068,496Other nei d7,77301,90031,2101,509Total value60,66029,054114,058227,48081,186QuantityttttttFish0066Salmonids b2771,147006Silver perch246053015Barramundi6202,9310779Other c0270441,3700Total5861,4173,0289,788799Crustaceans30017Marron000000Total34634,9961368Molluscs357300Edible oyster3,71300334			
Marron004501,563Redclaw001,04300Total5,4471682,2214501,995MolluscsEdible oyster40,641042428,3900Pearl oyster00067,863Abalone014,741011,4000Blue mussel104,23903,070633Total40,65118,98042442,86068,496Other nei d7,77301,90031,2101,509Total value60,66029,054114,058227,48081,186QuantityttttttTina008,41805Salmonids b2771,147006Tuna003,0289,788799Other c0270441,3700Total5861,4173,0289,788799Other c0270441,3700Total530017147Marron004,95100Yabby1530017Marron004,95100Yabby153000Yabby153000Pearl oyster3,713003,8910	0	0	86,288
Redclaw001,04300Total5,4471682,2214501,995Molluscs </td <td>0</td> <td>0</td> <td>785</td>	0	0	785
Total 5,447 16 82,221 450 1,995 Molluscs Edible oyster 40,641 0 424 28,390 0 Pearl oyster 0 0 424 28,390 0 Abalone 0 14,741 0 11,400 0 Blue mussel 10 4,239 0 3,070 633 Total 40,651 18,980 424 42,860 68,496 Other nei d 7,773 0 1,900 31,210 1,509 Total value 60,660 29,054 114,058 227,480 81,186 Quantity t t t t t t Salmonids b 277 1,147 0 0 6 Silver perch 246 0 53 0 15 Barramundi 62 0 2,31 0 779 Other c 0 2,713 3 0 0 17 <td>0</td> <td>0</td> <td>2,013</td>	0	0	2,013
Molluscs Automation Automation Edible oyster 40,641 0 424 28,390 0 Pearl oyster 0 0 0 0 67,863 Abalone 0 14,741 0 11,400 0 Blue mussel 10 4,239 0 3,070 633 Total 40,651 18,980 424 42,860 68,496 Other nei d 7,773 0 1,900 31,210 1,509 Total value 60,660 29,054 114,058 227,480 81,186 Quantity t t t t t t Salmonids b 277 1,147 0 0 6 Silver perch 246 0 53 0 15 Barramundi 62 0 2,931 0 779 Ottal 586 1,417 3,028 9,788 799 Crustaceans Crustaceans 0	0	0	1,043
Edible oyster40,641042428,3900Pearl oyster00067,863Abalone014,741011,4000Blue mussel104,23903,070633Total40,65118,98042442,86068,496Other nei d7,77301,9001,509Total value60,66029,054114,058227,48081,186QuantitytttttFish114,77006Salmonids b2771,147006Silver perch246053015Barramundi6202,9310779Other c0270441,3700Total5861,4173,0289,788799Crustaceans33104,95100Yabby1530017Marron00435168Molluscs3,7130000Edible oyster3,71300000Abalone043603,89100Bue mussel01,517147147147	0	0	90,129
Pearl oyster 0 0 0 67,863 Abalone 0 14,741 0 11,400 0 Blue mussel 10 4,239 0 3,070 633 Total 40,651 18,980 424 42,860 68,496 Other nei d 7,773 0 1,900 31,210 1,509 Total value 60,660 29,054 114,058 227,480 81,186 Quantity t t t t t t Total value 60,660 29,054 114,058 227,480 81,186 Quantity t t t t t t Total value 60,660 29,054 114,058 227,480 81,186 Quantity t t t t t t Salmonids b 277 1,147 0 0 6 5 Silver perch 246 0 2,931 0 779<			
Pearl oyster 0 0 0 67,863 Abalone 0 14,741 0 11,400 0 Blue mussel 10 4,239 0 3,070 633 Total 40,651 18,980 424 42,860 68,496 Other nei d 7,773 0 1,900 31,210 1,509 Total value 60,660 29,054 114,058 227,480 81,186 Quantity t t t t t t Fish t t t t Silver perch 246 0 53 0 15 Barramundi 62 0 2,931 0 779 Other c 0 270 444 1,370 0 16 Total 351 0 4,951 0 0 17 Marcon 0 0 445 0 0 17 Ma	23,560	0	93,015
Blue mussel 1 4,239 0 3,070 633 Total 40,651 18,980 424 42,860 68,496 Other nei d 7,773 0 1,900 31,210 1,509 Total value 60,660 29,054 114,058 227,480 81,186 Quantity t t t t t t t Salmonids b 277 1,147 0 0 66 Tuna 0 0 0 84,188 0 Silver perch 246 0 53 0 15 Barramundi 62 0 2,931 0 779 Other c 0 270 44 1,370 0 Total 586 1,417 3,08 9,788 799 Crustaceans 71 3 0 0 17 Marron 0 0 331 0 0 13 68	0	na	67,863
Total 40,651 18,980 424 42,860 68,496 Other nei d 7,773 0 1,900 31,210 1,509 Total value 60,660 29,054 114,058 227,480 81,186 Quantity t t t t t t Fish 0 0 66,60 29,054 114,058 227,480 81,186 Quantity t t t t t t t Salmonids b 277 1,147 0 0 6 6 Salmonids b 277 1,147 0 0 6 6 Salmonids b 277 1,147 0 0 79 6 Salmonids b 277 1,147 3 0 779 0 779 Other c 0 2,700 44 1,370 0 799 799 Crustaceans 7 3	2,557	0	28,698
Other nei d 7,773 0 1,900 31,210 1,509 Total value 60,660 29,054 114,058 227,480 81,186 Quantity t t t t t t Fish t t t t t Salmonids b 277 1,147 O O 6 Tuna 0 0 53 O 15 Barramundi 62 0 2,931 O 779 Other c 0 270 44 1,370 O Total 586 1,417 3028 9,788 799 Crustaceans 720 44 1,370 O Yabby 15 3 0 0 17 17 Marron 0 0 4,951 0 0 17 Marron 0 0 4,996 13 68 16	3,763	0	11,714
Other neid7,77301,90031,2101,509Total value60,66029,054114,058227,48081,186QuantityttttttFishSalmonids b2771,147006Tuna008,4180Silver perch246053015Barramundi6202,9310779Other c02,703441,3700Total5861,41730289,788799Other c02,7130016Total 15861,4173089,788799Other c001,310017Marron004,951000Yabby153001351Marron004,951000Maltisce00135168Molluscs100000Blue mussel01,7130000Blue mussel01,74303340147	29,879	na	201,289
Total value60,66029,054114,058227,40081,186QuantityttttttFishSalmonids b2771,147006Tuna008,4180Silver perch246053015Barramundi6202,9310779Other c0270441,3700Total581,41730289,78879Other c02,7310015Total581,41730289,78879Yabby1530017Marron004,95100Total34634,9961368Molluscs	0	24,100	66,492
Quantity t t t t t t Fish t t t t t Salmonids b 277 1,147 0 0 6 Tuna 0 0 8,418 0 Silver perch 246 0 53 0 15 Barramundi 62 0 2,931 0 779 Other c 0 270 44 1,370 0 Total 58 1,417 3,028 9,788 799 Crustaceans 70 0 779 Prawns 331 0 4,951 0 0 Yabby 15 3 0 0 17 Marron 0 0 445 0 0 71 Molluscs 13 68 70 71 Edible oyster 3,713 0	650,343	24,100	1,186,881
Fish Salmonids b 277 1,147 0 0 6 Tuna 0 0 0 8,418 0 Silver perch 246 0 53 0 15 Barramundi 62 0 2,931 0 779 Other c 0 270 44 1,370 0 Total 586 1,417 3,028 9,788 799 Crustaceans 779 0 0 0 Yabby 15 3 0 0 17 Marron 0 0 13 51 Redclaw 0 0 45 0 0 Total 346 3 4,996 13 68 Molluscs E E E 16 16 Blue mussel 0 0 0 0 0 Blue mussel 0 1,014 0 5,802 147	t	t	_,,
Salmonids b2771,147006Tuna008,4180Silver perch246053015Barramundi6202,9310779Other c0270441,3700Total5861,4173,0289,788799CrustaceansPrawns33104,95100Yabby153001351Redclaw0045000Total34634,9961368MolluscsEdible oyster3,713000Abalone043603340Blue mussel01,01401,577147Total3,7131,45005,802147	· ·		
Tuna 0 0 0 8,418 0 Silver perch 246 0 53 0 15 Barramundi 62 0 2,931 0 779 Other c 0 270 44 1,370 0 Total 586 1,417 3,028 9,788 799 Crustaceans U Prawns 331 0 4,951 0 0 Yabby 15 3 0 0 17 Marron 0 0 0 3 51 Redclaw 0 0 44,951 0 0 Total 346 3 4,996 13 68 Molluscs E E E 0 0 0 0 Abalone 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	47,184	0	48,614
Silver perch246053015Barramundi6202,9310779Other c0270441,3700Total5861,4173,0289,788799 CrustaceansCrustaceansUU 17Prawns33104,95100Yabby1530017Marron001351Redclaw0044500Total34634,9961368 MolluscsU 0000Edible oyster3,713003,8910Abalone043603440Blue mussel01,01401,577147Total3,7131,45005,802147	47,104	0	8,418
Barramundi 62 0 2,931 0 779 Other c 0 270 44 1,370 0 Total 56 1,417 3,028 9,788 799 Crustaceans - - - - - Prawns 331 0 4,951 0 0 Yabby 15 3 0 0 17 Marron 0 0 4,551 0 0 Total 346 3 4,965 13 68 Molluscs - - - - - Edible oyster 3,713 0 0 3,891 0 Pearloyster 0 0 0 0 0 - Blue mussel 0 1,014 3,713 0,450 5,802 147	0	0	314
Other c 0 270 44 1,370 0 Total 586 1,417 3,028 9,788 799 Crustaceans 0 0 Yabby 15 3 0 4,951 0 0 Yabby 15 3 0 0 17 Marron 0 0 0 13 51 Redclaw 0 0 45 0 0 Total 346 3 4,996 13 68 Molluscs 0 0 Pearl oyster 0 0 0 3891 0 0 Abalone 0 436 0 334 0 0 Blue mussel 0 1,014 0 1,577 147 Total 3,713 1,450 0 5,802 147	0	na	3,772
Total 586 1,417 3,028 9,788 799 Crustaceans	0	0	1,684
Crustaceans Normal Stress Normal Stress Prawns 331 0 4,951 0 0 Yabby 15 3 0 0 17 Marron 0 0 0 13 51 Redclaw 0 0 4,996 13 68 Total 346 3 4,996 13 68 Molluscs 13 68 68 Pearl oyster 0 0 0 0 68 Abalone 0 0 0 0 68 Statistic 0 0 0 0 68 Molluscs 0 0 0 0 Blue mussel 0 1,014 0 1,577 147 Total 3,713 1,450 0 5,802 147	47,184	na	62,801
Prawns 331 0 4,951 0 0 Yabby 15 3 0 0 17 Marron 0 0 0 13 51 Redclaw 0 0 4,951 0 0 Total 346 3 4,96 13 68 Molluscs 0 0 0 Pearl oyster 0	47,104	110	02,001
Yabby 15 3 0 0 17 Marron 0 0 0 13 51 Redclaw 0 0 45 0 0 Total 346 3 4,996 13 68 Molluscs E E E 10 0 Pearl oyster 0 0 0 0 0 Abalone 0 436 0 334 0 Blue mussel 0 1,014 0 1,577 147 Total 3,713 1,450 0 5,802 147	0	0	5,282
Marron 0 0 0 13 51 Redclaw 0 0 45 0 0 Total 346 3 4,996 13 68 Molluscs Edible oyster 3,713 0 0 3,891 0 Pearl oyster 0 0 0 334 0 Blue mussel 0 1,014 0 1,577 147 Total 3,713 1,450 0 5,802 147	0	0	34
Redclaw 0 0 45 0 0 Total 346 3 4,996 13 68 Molluscs Edible oyster 3,713 0 0 3,891 0	0	0	64
Total 346 3 4,996 13 68 Molluscs	0	0	45
Molluscs 3,713 0 0 3,891 0 Edible oyster 0	0	0	5,426
Edible oyster 3,713 0 0 3,891 0 Pearl oyster 0 0 0 0 0 Abalone 0 436 0 334 0 Blue mussel 0 1,014 0 1,577 147 Total 3,713 1,450 0 5,802 147	0	0	5,420
Pearl oyster 0 0 0 0 0 Abalone 0 436 0 334 0 Blue mussel 0 1,014 0 1,577 147 Total 3,713 1,450 0 5,802 147	3,366	0	10,970
Abalone 0 436 0 334 0 Blue mussel 0 1,014 0 1,577 147 Total 3,713 1,450 0 5,802 147	3,300 0	na	10,970
Blue mussel 0 1,014 0 1,577 147 Total 3,713 1,450 0 5,802 147	80	na 0	850
Total 3,713 1,450 0 5,802 147	941	0	3,678
	941 4,386	na	3,678 15,498
Other NEI d 259 0 163 4,160 0	4,380	1,011	5,593
Other NEI d 259 0 163 4,160 0 Total quantity 4,904 2,870 8,187 19,763 1,014	0 51,570	1,011	5,593 89,318

a Excludes hatchery production, crocodiles, microalgae and aquarium worms. b Includes salmon and trout production. c Includes eel, other native fish and aquarium fish. d Includes aquaculture production not elsewhere specified because of confidentiality restrictions. In Victoria, this includes warmwater finfish, ornamental fish, other shellfish, shrimps and aquatic worms. Total only sums across. na Not available. nei Not elsewhere included.

Sources: ABARES; Australian Fisheries Management Authority; Department of Fisheries, Western Australia; Department of Primary Industries, New South Wales; Department of Primary Industries, Parks, Water and Environment, Tasmania; Fisheries Queensland, Department of Agriculture, Fisheries and Forestry; Fisheries Victoria, Department of Environment and Primary Industries; Northern Territory Department of Primary Industry and Fisheries; Primary Industries and Regions, South Australia; South Australian Research and Development Institute

TABLE S17 Aquaculture production in 2015–16, by state, Australia a

	NSW	Vic.	Qld	SA	WA	Tas.	NT	Aus
Value	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'00
Fish								
Salmonids b	2,290	10,981	0	0	74	704,370	0	717,714
Tuna	0	0	0	126,870	0	0	0	126,870
Silver perch	2,968	0	1,105	0	525	0	0	4,598
Barramundi	982	0	29,300	0	4,697	0	na	34,979
Other c	0	2,277	1,797	36,850	189	0	0	41,112
Total	6,239	13,257	32,202	163,720	5,485	704,370	na	925,273
Crustaceans								
Prawns	5,985	0	80,500	0	0	0	0	86,485
Yabby	336	6	0	0	327	0	0	669
Marron	0	0	0	200	1,609	0	0	1,809
Redclaw	0	0	1,341	0	0	0	0	1,341
Total	6,321	6	81,841	200	1,935	0	0	90,303
Molluscs	-,	-	,		_,	-	-	/
Edible oyster	44,320	0	564	30,950	0	21,206	0	97,041
Pearl oyster	44,320	0	0	0	78,354	21,200	0	78,354
Abalone	0	11,084	0	14,730	78,534 0	2,845	0	28,659
Blue mussel	0	3,238	0	4,400	796	2,301	0	10,735
Total							0	,
	44,320	14,322	564	50,080	79,150	26,352		214,788
Other nei d	8,005	0	3,693	37,520	2,628	0	24,522	76,368
Total value	64,885	27,584	118,300	251,520	89,199	730,723	24,522	1,306,733
Quantity	t	t	t	t	t	t	t	1
Fish								
Salmonids b	196	1,343	0	0	8	54,772	0	56,319
Tuna	0	0	0	8,895	0	0	0	8,895
Silver perch	254	0	103	0	25	0	0	382
Barramundi	68	0	3,053	0	422	0	na	3,542
Other c	0	236	44	2,459	0	0	0	2,739
Total	518	1,579	3,200	11,354	455	54,772	0	71,877
Crustaceans								
Prawns	326	0	4,302	0	0	0	0	4,628
Yabby	8	1	0	0	11	0	0	20
Marron	0	0	0	5	51	0	0	56
Redclaw	0	0	51	0	0	0	0	51
Total	334	1	4,353	5	62	0	0	4,755
Molluscs								
Edible oyster	3,727	0	0	4,589	0	3,029	0	11,345
Pearl oyster	0	0	0	0	0	0	na	(
Abalone	0	326	0	350	0	81	0	757
Blue mussel	0	764	0	2,088	198	575	0	3,625
Total	3,727	1,090	0	7,027	198	3,686	na	15,728
Other NEI d	205	1,050	68	4,412	0	0	na	4,685
Total quantity	4,784	2,670	7,621	22,798	715	58,458	110	97,046

a Excludes hatchery production, crocodiles, microalgae and aquarium worms. b Includes salmon and trout production. c Includes eel, other native fish and aquarium fish. d Includes aquaculture production not elsewhere specified because of confidentiality restrictions. In Victoria, this includes warmwater finfish, ornamental fish, other shellfish, shrimps and aquatic worms. Total only sums across. na Not available. nei Not elsewhere included.

Sources: ABARES; Australian Fisheries Management Authority; Department of Fisheries, Western Australia; Department of Primary Industries, New South Wales; Department of Primary Industries, Parks, Water and Environment, Tasmania; Fisheries Queensland, Department of Agriculture, Fisheries and Forestry; Fisheries Victoria, Department of Environment and Primary Industries; Northern Territory Department of Primary Industry and Fisheries; Primary Industries and Regions, South Australia; South Australian Research and Development Institute

TABLE S18 Exports of fisheries and aquaculture products, Australia

	2013-1	14	2014-	15	2015-1	16
	t	\$'000	t	\$'000	t	\$'000
Edible						
Fish						
Live a	910	34,174	775	29,862	800	30,179
Tuna	11,000	135,539	12,069	150,993	13,752	163,255
Salmonids b	1,817	17,396	4,955	48,142	8,038	79,936
Swordfish	443	3,921	478	4,404	554	6,904
Whiting	62	189	17	56	2	19
Other fish	4,377	34,216	5,257	37,736	19,239	74,333
Total fish c	18,608	225,434	23,551	271,192	42,385	354,626
Crustaceans and molluscs						
Rock lobster	7,966	590,293	8,203	691,232	7,987	693,199
Prawns	7,055	100,976	6,491	94,166	6,689	114,384
Abalone	2,742	170,043	2,578	173,753	2,615	181,982
Scallop	549	13,576	297	10,674	364	11,698
Crab	421	5,534	565	7,948	558	7,614
Other	1,562	32,491	1,576	43,691	1,457	54,820
Total	20,295	912,914	19,710	1,021,464	19,670	1,063,697
Total edible c	38,904	1,138,348	43,261	1,292,656	62,055	1,418,323
Non-edible						
Marine fats and oils	na	9,056	na	20,933	na	11,157
Fish meal	na	707	na	994	na	453
Pearls	na	144,366	na	110,805	na	95,946
Ornamental fish	na	2,029	na	1,897	na	2,106
Other non-edible	na	9,746	na	12,337	na	13,797
Total non-edible	na	165,904	na	146,965	na	123,460
Total fisheries products	na	1,304,252	na	1,439,621	na	1,541,783

a Includes all species of live fish exports. b Predominantly salmon. Includes trout and salmon-like products. c Excludes live tonnage but includes live value. na Not available.

TABLE S19 Exports of fish, Australia

	2012-1	3	2013-1	4	2014-1	5
	t	\$'000	t	\$'000	t	\$'000
Live a	910	34,174	775	29,862	800	30,179
Tuna						
Fresh or chilled	1,491	22,030	2,097	24,884	3,264	43,042
Frozen	7,451	109,769	8,446	122,558	8,798	115,018
Prepared and preserved	2,057	3,740	1,526	3,550	1,690	5,195
Total	11,000	135,539	12,069	150,993	13,752	163,255
Salmonids b						
Fresh or chilled	1,150	13,913	4,389	45,527	7,363	76,518
Frozen	235	1,604	197	617	482	2,528
Smoked	15	287	23	505	15	311
Prepared and preserved	417	1,592	345	1,492	178	579
Total	1,817	17,396	4,955	48,142	8,038	79,936
Swordfish						
Total c	443	3,921	478	4,404	554	6,904
Whiting						
Total	62	189	17	56	2	19
Other fish						
Fresh or chilled	283	3,636	406	4,891	1,457	12,862
Fillets	26	1,036	34	340	25	609
Other	257	2,600	371	4,552	1,432	12,253
Frozen	3,019	16,843	3,747	24,743	12,689	50,614
Fillets	663	3,055	182	3,017	296	8,750
Other	2,356	13,788	3,565	21,726	12,393	41,864
Prepared and preserved	806	4,777	1,049	5,096	4,975	7,582
Dried, salted and smoked	97	8,734	55	3,000	118	3,276
Other	171	226	0	6	0	0
Total d	4,377	34,216	5,257	37,736	19,239	74,333
Total fish d	18,608	225,434	23,551	271,192	42,385	354,626

a Includes all species of live fish exports. b Predominantly salmon. Includes trout and salmon-like products. c Predominantly fresh or chilled. d Includes live tonnage and live value. na Not available.

TABLE S20 Exports of crustaceans and molluscs, Australia

	2013–1	4	2014-1	15	2015-1	16
	t	\$'000	t	\$'000	t	\$'000
Rock lobster						
Frozen						
Whole	160	7,247	65	3,022	62	3,527
Tails	187	13,331	149	10,718	166	12,120
Other	73	1,014	29	522	78	1,875
Unfrozen	7,546	568,701	7,960	676,970	7,681	675,677
Total	7,966	590,293	8,203	691,232	7,987	693,199
Prawns						
Frozen	6,956	99,422	6,416	92,960	6,602	113,223
Unfrozen	1	17	12	149	1	1
Prepared or preserved	98	1,538	63	1,057	86	1,160
Total	7,055	100,976	6,491	94,166	6,689	114,384
Crabs						
Frozen	310	2,777	431	4,288	415	4,452
Unfrozen	109	2,754	121	3,269	137	3,112
Prepared or preserved	1	4	13	391	6	50
Total	421	5,534	565	7,948	558	7,614
Abalone						
Live, fresh or chilled	1,489	73,512	1,343	77,432	1,350	84,040
Frozen or cooked	713	55,806	758	60,318	724	58,662
Prepared or preserved	541	40,725	477	36,003	541	39,280
Total	2,742	170,043	2,578	173,753	2,615	181,982
Scallops						
Live, fresh or chilled	4	120	10	387	3	136
Frozen or cooked	545	13,456	287	10,287	362	11,562
Total	549	13,576	297	10,674	364	11,698
Other crustaceans and molluscs						
Prepared or preserved	116	888	107	963	13	92
Dried, salted or smoked	683	23,026	852	36,298	910	48,348
Other	763	8,577	617	6,430	534	6,380
Total	1,562	32,491	1,576	43,691	1,457	54,820
Total crustaceans and molluscs	20,295	912,914	19,710	1,021,464	19,670	1,063,697

TABLE S21 Exports of major edible fish products, by destination, Australia

	2013-1	4	2014–1	5	2015–1	6
	t	\$'000	t	\$'000	t	\$'00
Tuna						
Fresh or chilled						
France	0	0	0	0	0	0
Germany	0	4	0	0	0	C
Hong Kong	0	5	1	13	6	80
Japan	1,280	19,908	1,585	19,398	2,049	27,534
United States	208	2,030	489	4,914	1,121	14,533
Other	3	83	23	558	89	895
Total	1,491	22,030	2,097	24,884	3,264	43,042
Frozen						
Japan	6,960	105,496	8,003	119,469	8,207	110,981
Thailand	80	210	135	414	17	59
Vietnam	0	0	0	0	0	C
Other	411	4,063	308	2,675	574	3,977
Total	7,451	109,769	8,446	122,558	8,798	115,018
Salmonids a						
Fresh or chilled						
China	3	31	2,339	24,418	4,369	45,498
Indonesia	281	3,246	453	4,423	565	5,542
Japan	631	7,790	651	8,205	1,071	11,649
Taiwan	6	73	186	1,705	302	3,024
Vietnam	2	27	2	31	79	2,183
Other	228	2,745	757	6,743	976	8,621
Total	1,150	13,913	4,389	45,527	7,363	76,518
Frozen						
China	51	56	147	190	0	8
Hong Kong	34	110	22	103	27	155
Japan	20	521	2	46	1	14
Other	131	916	28	279	454	2,352
Total	235	1,604	197	617	482	2,528
Swordfish						
Fresh, chilled or frozen						
Japan	192	1,674	159	1,265	148	1,659
United States	251	2,246	315	3,118	399	5,001
Other	0	1	4	20	7	244
Total	443	3,921	478	4,404	554	6,904
Whiting						
Frozen						
China	0	0	0	0	0	C
Thailand	62	187	16	49	0	C
Other	1	2	1	6	2	19
Total	62	189	17	56	2	19

Continued

	2013-14	4	2014-1	5	2015-16	5
	t	\$'000	t	\$'000	t	\$'000
Prepared and preserved						
Tuna						
Guam	0	0	0	0	0	0
New Zealand	2,001	3,544	1,436	3,245	1,607	4,772
Papua New Guinea	8	68	7	42	7	45
Other	48	127	83	264	76	379
Total	2,057	3,740	1,526	3,550	1,690	5,195
Salmonids a						
New Zealand	398	1,453	290	914	130	372
Papua New Guinea	0	0	3	5	15	19
Singapore	14	88	25	108	26	76
Other	5	51	28	465	7	112
Total	417	1,592	345	1,492	178	579
Other fish						
Hong Kong	7	848	0	57	1	21
Malaysia	14	56	3	3	8	59
Micronesia	29	141	19	86	4	16
New Zealand	332	1,905	749	3,881	1,347	2,868
Other	423	1,826	279	1,070	3,615	4,617
Total	806	4,777	1,049	5,096	4,975	7,582
Dried, salted or smoked						
Salmonids a						
Denmark	8	161	0	0	0	0
Hong Kong	0	4	0	4	2	49
New Zealand	0	0	0	0	3	66
Other	6	123	23	502	11	197
Total	15	287	23	505	15	311
Other fish						
Hong Kong	71	6,854	13	1,112	20	1,681
Japan	10	1,027	11	1,223	10	1,149
Singapore	6	567	0	26	0	0
Other	11	286	30	639	88	446
Total	97	8,734	55	3,000	118	3,276

TABLE S21 Exports of major edible fish products, by destination, Australia continued

a Predominantly salmon. Includes trout and salmon-like products.

TABLE S22 Exports of crustaceans, by destination, Australia

	2013-2	14	2014-2	15	2015–16	
	t	\$'000	t	\$'000	t	\$'000
Rock lobster						
Frozen						
France	0	0	0	0	3	217
Hong Kong	14	682	13	551	12	690
Japan	104	3,207	45	1,632	82	2,648
Singapore	0	0	2	115	8	462
Taiwan	124	5,076	43	1,819	30	1,115
United States	171	12,369	135	9,785	138	10,119
Other	6	257	6	360	32	2,270
Total	420	21,592	243	14,262	306	17,522
Unfrozen						
China	69	4,593	12	962	94	8,395
Hong Kong	941	63,655	621	44,680	733	52,669
Japan	74	4,769	27	1,989	24	1,993
Taiwan	5	278	1	94	1	86
Thailand	0	0	0	0	6	469
Vietnam	6,394	490,922	7,260	625,873	6,782	608,480
Other	63	4,483	39	3,372	40	3,585
Total	7,546	568,701	7,960	676,970	7,681	675,677
Prawns						
Frozen						
China	766	6,859	225	3,398	895	15,933
Hong Kong	777	12,912	1,029	15,638	1,420	25,599
Japan	1,207	23,295	971	17,668	1,339	28,989
Malaysia	446	4,904	561	6,513	211	2,501
New Zealand	292	4,159	200	2,958	373	5,743
Vietnam	2,198	32,252	1,989	30,718	979	13,643
Other	1,269	15,040	1,442	16,067	1,384	20,815
Total	6,956	99,422	6,416	92,960	6,602	113,223
Unfrozen						
Hong Kong	0	1	0	0	0	0
New Zealand	0	0	0	0	0	0
Vietnam	1	16	9	139	0	0
Other	0	0	3	10	1	1
Total	1	17	12	149	1	1
Prepared or preserved						
China	0	0	0	0	0	0
Thailand	0	0	0	0	12	43
Vietnam	88	1,384	61	1,026	52	878
Other	10	154	2	31	22	238
Total	98	1,538	63	1,057	86	1,160

Continued

	2013-1	4	2014–1	5	2015–1	6
	t	\$'000	t	\$'000	t	\$'000
Crabs						
Frozen						
China	133	885	98	807	87	814
Hong Kong	25	383	44	600	23	435
Japan	5	48	13	141	6	63
Singapore	2	102	2	113	2	127
Taiwan	41	315	119	962	164	1,351
United States	2	59	1	44	15	267
Other	103	985	154	1,621	117	1,394
Total	310	2,777	431	4,288	415	4,452
Unfrozen						
China	39	1,149	27	965	39	1,008
Hong Kong	41	618	58	1,015	42	846
Japan	2	17	7	74	32	331
Singapore	11	451	18	658	9	430
Taiwan	8	59	1	42	9	116
Other	8	460	9	515	6	381
Total	109	2,754	121	3,269	137	3,112
Other crustaceans						
China	6	458	2	96	7	282
Hong Kong	41	3,480	9	700	5	334
Thailand	3	91	3	124	1	53
Vietnam	146	10,484	174	16,758	253	25,242
Other	94	1,499	35	686	59	1,477
Total	290	16,011	223	18,364	325	27,388

TABLE S22 Exports of crustaceans, by destination, Australia continued

TABLE S23 Exports of molluscs, by destination, Australia

	2013-1	4	2014–1	5	2015–1	6
	t	\$'000	t	\$'000	t	\$'000
Abalone						
Live, fresh or chilled						
China	378	18,929	200	11,873	340	21,966
Hong Kong	496	23,662	505	30,154	613	38,950
Japan	91	4,367	63	2,919	64	3,017
Singapore	7	486	8	457	3	378
Taiwan	34	1,254	29	1,079	23	1,020
Vietnam	476	24,416	530	30,620	304	18,576
Other	7	398	7	329	2	132
Total	1,489	73,512	1,343	77,432	1,350	84,040
Frozen or cooked						
Canada	8	931	14	1,466	21	1,992
China	7	707	8	1,035	15	1,631
Hong Kong	220	24,033	226	27,184	240	28,458
Japan	265	14,025	208	11,005	137	7,547
Singapore	126	9,904	126	8,327	137	8,193
United States	20	1,427	82	4,696	103	5,681
Other	68	4,781	95	6,605	70	5,160
Total	713	55,806	758	60,318	724	58,662
Prepared or preserved						
Hong Kong	238	19,825	204	16,536	214	16,845
Japan	28	2,679	42	3,287	53	4,552
Malaysia	10	725	8	588	6	400
Singapore	209	13,179	175	11,482	224	13,544
Taiwan	18	1,401	15	1,206	13	1,250
United States	14	1,175	19	1,808	13	1,198
Other	23	1,740	13	1,097	19	1,492
Total	541	40,725	477	36,003	541	39,280
Scallop				,		<i>.</i>
Live, fresh or chilled						
Hong Kong	4	113	9	336	3	136
Indonesia	0	0	0	0	0	0
Malaysia	0	0	1	51	0	0
Other	0	8	0	0	0	0
Total	4	120	10	387	3	136
Frozen or cooked						
China	1	42	12	113	27	418
Hong Kong	245	8,139	102	4,669	71	3,411
Malaysia	17	498	6	202	2	61
Singapore	99	3,574	108	4,450	64	3,143
Other	183	1,203	59	853	198	4,530
Total	545	13,456	287	10,287	362	11,562
Other molluscs				,		<i>.</i>
Canada	0	0	26	387	69	664
China	138	1,281	148	1,759	107	1,113
Hong Kong	697	10,076	739	16,861	665	21,055
Japan	39	910	71	1,948	37	696
Malaysia	35	356	33	262	13	353
Singapore	187	1,558	158	2,600	106	1,925
Other	176	2,299	179	1,511	135	1,628
Total	1,272	16,480	1,353	25,327	1,132	27,433

	2013-	-14	2014–	15	2015-16	
	t	\$'000	t	\$'000	t	\$'000
Edible (including live fish)						
Canada	23	1,907	50	2,632	102	3,621
China	1,736	36,588	3,485	48,685	6,609	104,649
France	19	1,069	20	620	82	2,234
Germany	128	1,017	69	1,305	113	2,228
Hong Kong	4,750	208,934	4,538	192,347	5,029	223,663
Indonesia	1,054	9,892	1,057	9,333	1,171	10,003
Italy	63	1,836	154	3,267	278	5,411
Japan	11,124	192,114	11,958	192,062	13,395	205,332
Malaysia	604	9,880	732	11,166	448	7,530
New Zealand	3,783	14,493	2,973	13,918	3,903	19,862
Singapore	963	34,203	1,256	34,981	1,224	35,275
Taiwan	433	13,717	685	15,068	1,032	20,854
Thailand	1,310	7,986	1,443	9,975	1,459	9,375
United States	803	22,066	1,228	27,978	2,150	44,841
Vietnam	9,837	565,646	11,201	715,600	9,895	681,689
Other	2,272	17,001	2,412	13,719	15,165	41,756
Total	38,904	1,138,348	43,261	1,292,656	62,055	1,418,323
Non-edible						
China	na	3,745	na	2,703	na	3,831
France	na	674	na	391	na	78
Germany	na	798	na	2,180	na	816
Hong Kong	na	74,557	na	55,939	na	53,154
Indonesia	na	3,333	na	9,972	na	2,401
Italy	na	1,119	na	1,625	na	621
Japan	na	26,929	na	23,388	na	24,011
New Zealand	na	2,531	na	3,759	na	4,496
Singapore	na	2,281	na	1,047	na	1,970
Switzerland	na	2,522	na	1,033	na	1,843
Thailand	na	3,070	na	3,430	na	1,904
United Arab Emirates	na	2,188	na	1,626	na	126
United Kingdom	na	936	na	1,354	na	2,107
United States	na	19,239	na	16,634	na	21,566
Vietnam	na	838	na	1,579	na	627
Other	na	21,144	na	20,306	na	3,911
Total	na	165,904	na	146,965	na	123,460
Total exports	na	1,304,252	na	1,439,621	na	1,541,783

TABLE S24 Exports of fisheries and aquaculture products, by destination, Australia

na Not available.

TABLE S25 Exports of seafood to selected countries, by product, Australia a

	2013-1	14	2014–1	15	2015-1	L6
	t	\$'000	t	\$'000	t	\$'000
Hong Kong						
Rock lobster (unfrozen)	941	63,655	621	44,680	733	52,669
Abalone	953	67,520	935	73,874	1,067	84,253
Prawns (frozen)	777	12,912	1,029	15,638	1,420	25,599
Tuna	4	40	1	16	8	116
Salmonids	92	900	127	1,097	169	1,187
Crabs	66	1,000	108	1,807	66	1,282
Other	1,918	62,907	1,717	55,235	1,567	58,558
Total	4,750	208,934	4,538	192,347	5,029	223,663
Japan						
Tuna	8,239	125,404	9,588	138,868	10,256	138,515
Prawns (frozen)	1,207	23,295	971	17,668	1,339	28,989
Rock lobster (unfrozen)	74	4,769	27	1,989	24	1,993
Rock lobster (frozen)	104	3,207	45	1,632	82	2,648
Abalone	384	21,071	313	17,211	255	15,116
Salmonids	651	8,315	653	8,251	1,072	11,681
Crabs	6	65	25	388	37	394
Scallops	0	0	0	0	0	C
Swordfish	192	1,674	159	1,265	148	1,659
Other	265	4,314	176	4,789	180	4,336
Total	11,124	192,114	11,958	192,062	13,395	205,332
China						
Abalone	385	19,639	208	12,909	355	23,598
Rock lobster (unfrozen)	69	4,593	12	962	94	8,395
Prawns (frozen)	766	6,859	225	3,398	895	15,933
Prawns (prepared and preserved)	0	0	0	0	0	0
Crabs	172	2,034	125	1,772	127	1,822
Salmonids	54	97	2,486	24,607	4,370	45,506
Whiting	0	0	0	0	0	0
Scallops	0	0	0	0	0	0
Other	290	3,365	431	5,037	769	9,396
Total	1,736	36,588	3,485	48,685	6,609	104,649
United States						
Rock lobster (frozen)	171	12,369	135	9,785	138	10,119
Tuna	224	2,079	489	4,916	1,121	14,535
Salmonids	43	521	79	742	65	631
Crabs	2	122	2	118	17	360
Abalone	36	2,724	105	6,686	119	6,974
Swordfish	251	2,246	315	3,118	399	5,001
Other	75	2,006	105	2,612	292	7,223
Total	803	22,066	1,228	27,978	2,150	44,841

Continued

TABLE S25 Exports of seafood to selecte	d countries, by product, Australia a	continued
---	--------------------------------------	-----------

	2013-	-14	2014-	-15	2015-	-16
	t	\$'000	t	\$'000	t	\$'000
Singapore						
Abalone	342	23,568	309	20,266	363	22,115
Rock lobster (frozen)	0	0	2	115	8	462
Rock lobster (unfrozen)	21	1,717	18	1,730	16	1,502
Scallops	99	3,574	108	4,450	64	3,143
Crabs	13	553	21	772	11	558
Oysters	78	791	56	533	39	363
Salmonids	42	414	403	3,093	351	2,880
Other	369	3,586	339	4,022	373	4,253
Total	963	34,203	1,256	34,981	1,224	35,275
Taiwan						
Rock lobster (frozen)	124	5,076	43	1,819	30	1,115
Rock lobster (unfrozen)	5	278	1	94	1	86
Abalone	63	3,332	59	3,147	46	2,944
Salmonids	6	73	187	1,720	302	3,024
Prawns (frozen)	79	1,462	104	2,106	382	9,519
Crabs	49	374	120	1,003	173	1,467
Other	107	3,122	171	5,178	98	2,700
Total	433	13,717	685	15,068	1,032	20,854
Vietnam						
Rock lobster (unfrozen)	6,394	490,922	7,260	625,873	6,782	608,480
Prawns (frozen)	2,198	32,252	1,989	30,718	979	13,643
Prawns (unfrozen)	1	16	9	139	0	0
Prawns (prepared and preserved)	88	1,384	61	1,026	52	878
Abalone	502	26,808	587	34,692	340	21,487
Salmonids	76	144	16	139	275	3,260
Tuna	0	0	0	0	0	7
Other	576	14,119	1,279	23,012	1,465	33,933
Total	9,837	565,646	11,201	715,600	9,895	681,689
APEC						
Rock lobster (unfrozen)	7,523	567,278	7,951	676,228	7,672	674,906
Rock lobster (frozen)	420	21,578	243	14,221	303	17,293
Tuna	10,741	134,721	11,889	150,411	13,251	161,505
Abalone	2,732	169,207	2,571	173,290	2,603	181,038
Prawns (frozen)	6,784	96,573	6,249	90,053	6,414	110,108
Salmonids	1,766	16,793	4,883	46,886	7,987	79,129
Scallops	548	13,551	296	10,656	195	7,966
Crabs	414	5,347	540	7,520	540	7,375
Whiting	62	189	17	56	2	19
Other	6,138	99,084	6,405	106,725	7,924	129,677
Total	37,126	1,124,321	41,043	1,276,045	46,889	1,369,015

a Excludes live.

TABLE S26 Seafood exports in 2013-14, by state, Australia a

	NSW	Vic.	Qld	SA	WA	Tas.	NT	Aust.
Value	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'00
Fish								
Live	571	1,780	30,751	153	19	811	0	34,174
Tuna	3,256	498	6,833	120,902	454	130	0	135,539
Salmonids	310	1,042	13	259	0	13,869	0	17,396
Swordfish	50	0	3,689	0	182	0	0	3,921
Whiting	43	0	144	0	0	0	0	189
Other fish	5,281	1,534	16,728	1,126	2,777	2,417	39	34,216
Total fish	9,510	4,855	58,157	122,440	3,432	17,227	39	225,434
Crustaceans and molluscs								
Rock lobster	2,355	96,809	38,465	67,002	357,467	24,930	0	590,293
Prawns	689	9	55,063	953	17,982	3	0	100,976
Abalone	857	58,430	3,069	25,417	11,265	70,936	0	170,043
Scallop	406	7	11,450	2	945	141	0	13,576
Crab	41	533	2,488	209	1,983	0	12	5,534
Other	73	6,751	1,436	20,662	307	879	0	32,491
Total	4,420	162,539	111,971	114,244	389,948	96,890	12	912,914
Total value	13,930	167,393	170,128	236,684	393,380	114,117	51	1,138,348
Quantity	t	t	t	t	t	t	t	t
Fish								
Live	47	74	731	4	0	53	0	910
Tuna	272	320	1,006	7,592	57	4	0	11,000
Salmonids	18	147	2	22	0	1,272	0	1,817
Swordfish	9	0	412	0	22	0	0	443
Whiting	14	0	47	0	0	0	0	62
Other fish	712	509	1,402	90	275	611	3	4,377
Total fish	1,071	1,050	3,599	7,708	355	1,940	3	18,608
Crustaceans and molluscs								
Rock lobster	33	1,118	610	798	5,068	293	0	7,966
Prawns	166	0	3,653	48	1,241	0	0	7,055
Abalone	18	832	57	265	202	1,367	0	2,742
Scallop	10	0	383	0	18	80	Ō	549
Crab	1	7	262	3	133	0	0	421
Other	5	311	114	768	9	72	0	1,562
Total	232	2,269	5,080	1,881	6,671	1,812	Ō	20,295
Total quantity	1,303	3,319	8,679	9,589	7,025	3,752	4	38,904

a State totals include Commonwealth fisheries exports. Exports are identified according to source state or territory, not state or territory in which the product was caught or farmed. b Includes Australian Capital Territory and re-exports. na Not available.

TABLE S27 Seafood exports in 2014–15, by state, Australia a

	NSW	Vic.	Qld	SA	WA	Tas.	NT	Aust. I
Value	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'00
Fish								
Live	378	985	25,895	149	0	590	0	29,862
Tuna	5,692	1,199	10,241	128,942	907	68	0	150,993
Salmonids	248	1,777	31	99	1	44,055	0	48,142
Swordfish	82	17	3,847	0	450	0	0	4,404
Whiting	0	0	49	0	0	0	0	56
Other fish	8,184	2,660	11,894	3,686	5,634	59	30	37,736
Total fish	14,584	6,638	51,957	132,876	6,992	44,772	30	271,192
Crustaceans and molluscs								
Rock lobster	1,506	110,331	29,052	58,091	442,561	26,674	0	691,232
Prawns	752	34	56,105	2,443	16,371	0	0	94,166
Abalone	1,217	51,345	3,749	28,802	14,223	73,382	0	173,753
Scallop	312	84	6,281	4	3,205	78	0	10,674
Crab	75	520	3,857	96	2,013	0	216	7,948
Other	118	8,245	9,029	21,491	635	2,031	5	43,691
Total	3,979	170,558	108,072	110,926	479,008	102,165	222	1,021,464
Total value	18,563	177,197	160,029	243,802	486,000	146,937	252	1,292,656
Quantity	t	t	t	t	t	t	t	t
Fish								
Live	10	41	626	6	0	47	0	775
Tuna	468	275	1,326	8,531	122	1	0	12,069
Salmonids	40	192	4	12	0	4,385	0	4,955
Swordfish	13	4	397	0	64	0	0	478
Whiting	0	0	16	0	0	0	0	17
Other fish	1,379	814	1,839	245	318	20	2	5,257
Total fish	1,910	1,326	4,208	8,794	504	4,452	2	23,551
Crustaceans and molluscs								
Rock lobster	19	1,110	442	609	5,476	276	0	8,203
Prawns	158	2	3,757	164	1,151	0	0	6,491
Abalone	26	737	68	284	240	1,211	0	2,578
Scallop	8	3	152	0	69	21	0	297
Crab	3	7	335	1	136	0	7	565
Other	11	318	238	692	32	72	0	1,576
Total	225	2,175	4,992	1,750	7,103	1,580	7	19,710
Total quantity	2.135	3,501	9,200	10,544	7,607	6,032	9	43,261

a State totals include Commonwealth fisheries exports. Exports are identified according to source state or territory, not state or territory in which the product was caught or farmed. b Includes Australian Capital Territory and re-exports. na Not available.

TABLE S28 Seafood exports in 2015–16, by state, Australia a

	•		,					
	NSW	Vic.	Qld	SA	WA	Tas.	NT	Aust. b
Value	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Fish								
Live	100	1,227	26,079	452	0	482	0	30,179
Tuna	10,038	506	20,081	124,960	920	1,225	0	163,255
Salmonids	218	2,393	209	820	1	74,842	0	79,936
Swordfish	515	0	5,848	0	516	26	0	6,904
Whiting	0	0	0	0	0	0	0	19
Other fish	5,650	17,131	14,308	22,031	6,587	4,704	0	74,333
Total fish	16,521	21,257	66,525	148,263	8,023	81,280	0	354,626
Crustaceans and molluscs								
Rock lobster	3,024	109,953	31,840	36,334	453,068	27,474	0	693,199
Prawns	996	114	79,932	2,468	22,766	0	0	114,384
Abalone	1,332	50,368	3,158	32,213	14,283	77,622	0	181,982
Scallop	952	1,171	2,461	80	4,029	3	0	11,698
Crab	260	384	4,446	121	1,594	0	109	7,614
Other	179	9,296	11,217	30,990	1,098	473	51	54,820
Total	6,744	171,286	133,054	102,206	496,837	105,572	160	1,063,697
Total value	23,264	192,543	199,580	250,469	504,860	186,852	160	1,418,323
Quantity	t	t	t	t	t	t	t	t
Fish								
Live	4	35	656	24	0	34	0	800
Tuna	672	195	2,144	9,016	113	73	0	13,752
Salmonids	90	270	22	130	0	7,305	0	8,038
Swordfish	18	0	472	0	63	2	0	554
Whiting	0	0	0	0	0	0	0	2
Other fish	654	13,732	2,092	1,018	422	350	0	19,239
Total fish	1,437	14,232	5,387	10,187	598	7,764	0	42,385
Crustaceans and molluscs								
Rock lobster	37	1,081	508	364	5,373	286	0	7,987
Prawns	189	9	4,213	142	1,417	0	0	6,689
Abalone	26	746	61	305	237	1,203	0	2,615
Scallop	34	64	52	2	78	0	0	364
Crab	9	5	371	1	103	0	3	558
Other	12	272	228	725	44	26	0	1,457
Total	306	2,177	5,431	1,540	7,253	1,515	3	19,670
Total quantity	1,743	16,409	10,818	11,727	7,851	9,279	3	62,055

a State totals include Commonwealth fisheries exports. Exports are identified according to source state or territory, not state or territory in which the product was caught

or farmed. ${\bf b}$ Includes Australian Capital Territory and re-exports. ${\bf na}$ Not available.

TABLE S29 Imports of fisheries and aquaculture products, Australia

	2013-	-14	2014-	-15	2015-	-16
	t	\$'000	t	\$'000	t	\$'000
Edible						
Fish						
Live fish	na	0	na	5	na	15
Fresh or chilled						
Tuna	110	861	136	1,552	58	700
Salmonids	702	7,887	870	10,323	910	11,747
Swordfish	135	919	123	971	127	1,014
Shark	549	3,883	534	3,855	439	3,310
Other	11,383	80,538	9,852	79,164	9,287	76,728
Frozen						
Hake	4,507	19,435	4,925	21,805	5,122	23,568
Salmonids	2,401	33,903	3,528	48,341	3,192	46,340
Tuna	446	3,278	676	4,806	581	4,156
Toothfish	163	2,550	140	3,474	225	8,164
Other	48,071	253,639	49,055	289,435	50,232	303,138
Prepared or preserved fish a	87,401	519,180	84,814	504,273	79,355	507,769
Smoked, dried or salted fish	4,788	74,917	5,031	82,404	4,800	81,319
Other fish preparations	155	3,905	141	4,194	153	4,692
Total b	160,811	1,004,896	159,823	1,054,602	154,482	1,072,661
Crustaceans and molluscs						
Frozen c						
Prawns	25,783	338,699	20,313	280,441	20,265	266,167
Lobsters	948	21,112	1,108	26,645	868	28,127
Crabs	1,550	20,758	1,566	25,187	1,584	24,040
Mussels	2,100	10,364	1,793	9,923	2,050	11,137
Scallops	3,271	51,119	2,762	48,410	2,510	53,554
Squid and octopus	17,758	80,961	17,355	77,728	18,216	95,453
Other	1,896	18,939	1,562	20,265	1,691	23,409
Unfrozen c						
Prawns	80	1,527	73	1,662	73	1,792
Mussels	30	165	37	296	77	1,281
Squid and octopus	198	690	144	491	67	259
Other	241	3,703	265	5,074	308	5,448
Prepared or preserved						
Prawns	12,808	154,887	11,973	149,097	11,581	132,911
Crabs	540	7,448	416	5,735	290	4,597
Lobster	1	20	4	112	1	28
Other	8,594	55,388	7,814	54,757	8,115	64,477
Mixed preparations	891	10,498	585	6,653	572	7,340
Total	76,689	776,276	67,769	712,476	68,267	720,021
Other edible c	10	116	20	207	29	264
Total edible b	237,511	1,781,288	227,612	1,767,284	222,778	1,792,946
Non-edible						
Pearls d	na	102,081	na	97,208	na	144,399
Fish meal	na	43,208	na	64,309	na	61,689
Ornamental fish	na	4,509	na	4,388	na	4,884
Marine fats and oils	na	40,089	na	52,692	na	61,139
Other marine products	na	30,415	na	22,178	na	21,339
Total non-edible	na	220,302	na	240,775	na	293,450
Total fisheries products	na	2,001,590	na	2,008,059	na	2,086,396

a Predominantly canned. b Excludes live tonnage, includes live value. c Includes smoked, dried or salted. d As indicated in Table S18, mostly reimports. na Not available.

TABLE S30 Imports of fish, Australia

	2013-1	14	2014-1	15	2015-2	L6
	t	\$'000	t	\$'000	t	\$'000
Live fish	na	0	na	5	na	15
Tuna						
Fresh or chilled	110	861	136	1,552	58	700
Frozen	446	3,278	676	4,806	581	4,156
Prepared or preserved a	49,573	291,966	48,344	277,537	44,221	269,937
Total	50,129	296,105	49,155	283,894	44,859	274,792
Salmonids						
Fresh or chilled	702	7,887	870	10,323	910	11,747
Frozen	2,401	33,903	3,528	48,341	3,192	46,340
Smoked	3,153	61,027	3,601	69,082	3,174	65,638
Prepared or preserved	7,987	64,633	8,128	62,908	7,783	60,958
Total	14,243	167,451	16,127	190,654	15,059	184,683
Hake						
Frozen	4,507	19,435	4,925	21,805	5,122	23,568
Total b	4,510	19,450	4,931	21,841	5,123	23,576
Swordfish						
Fresh or chilled	135	919	123	971	127	1,014
Frozen	22	234	44	580	32	545
Other preparations	14	217	13	176	0	0
Total	171	1,370	180	1,727	160	1,559
Toothfish						
Frozen	163	2,550	140	3,474	225	8,164
Other preparations b	19	414	0	0	0	2
Total	182	2,964	140	3,474	225	8,166
Herrings						
Fresh or chilled	0	4	0	0	0	0
Frozen	4	15	366	253	1,333	1,086
Smoked, salted or dried	66	480	45	403	76	546
Prepared or preserved	801	4,048	639	3,269	768	4,066
Total	872	4,548	1,050	3,925	2,177	5,697

Continued

TABLE S30 Imports of fish, Australia continued

	2013-	-14	2014-	15	2015-	-16
	t	\$'000	t	\$'000	t	\$'000
Shark						
Fresh or chilled	549	3,883	534	3,855	439	3,310
Frozen	115	810	46	279	6	59
Smoked, salted or dried c	22	767	16	770	2	527
Total	686	5,459	596	4,905	447	3,896
Other fish						
Fresh or chilled	11,380	80,519	9,846	79,128	9,286	76,720
Frozen	47,930	252,581	48,598	288,323	48,861	301,448
Prepared or preserved fish a						
Sardines	4,169	20,329	4,194	21,287	3,957	23,266
Anchovies	901	10,090	849	10,306	1,081	15,477
Mackerel	1,318	5,109	1,340	5,188	1,668	7,757
Other	22,651	123,004	21,321	123,778	19,877	126,310
Smoked, salted or dried						
Liver and roes	54	468	27	368	38	502
Anchovies	43	388	43	480	47	621
Cod	140	1,345	115	1,200	99	1,222
Other	1,310	10,441	1,183	10,102	1,365	12,264
Caviar and pastes	123	3,274	128	4,018	153	4,689
Total	90,018	507,548	87,644	544,177	86,431	570,275
Total fish d	160,811	1,004,896	159,823	1,054,602	154,482	1,072,661

a Predominantly canned. b Includes fresh or chilled. c Predominantly dried shark fins. d Excludes live tonnage but includes live value. Source: Australian Bureau of Statistics, International trade, Australia, cat. no. 5465.0, Canberra.

TABLE S31 Imports of crustaceans and molluscs, Australia

	2013-1	L4	2014–1	5	2015-1	6
	t	\$'000	t	\$'000	t	\$'000
Prawns						
Frozen a	25,783	338,699	20,313	280,441	20,265	266,167
Unfrozen a	80	1,527	73	1,662	73	1,792
Prepared or preserved	12,808	154,887	11,973	149,097	11,581	132,911
Total	38,672	495,113	32,359	431,201	31,919	400,871
Lobsters						
Frozen a	948	21,112	1,108	26,645	868	28,127
Unfrozen a	32	1,235	37	1,530	40	1,748
Prepared or preserved	1	20	4	112	1	28
Total	981	22,366	1,149	28,287	909	29,903
Crabs						
Frozen a	1,550	20,758	1,566	25,187	1,584	24,040
Unfrozen a	7	131	14	148	1	26
Prepared or preserved	540	7,448	416	5,735	290	4,597
Total	2,097	28,337	1,996	31,070	1,875	28,663
Mussels						
Frozen a	2,100	10,364	1,793	9,923	2,050	11,137
Unfrozen a	30	165	37	296	77	1,281
Total b	3,568	19,122	3,134	17,922	3,329	20,022
Scallops						
Frozen a	3,271	51,119	2,762	48,410	2,510	53,554
Unfrozen a	67	657	0	0	27	336
Total b	3,456	52,907	2,864	49,552	2,624	54,998
Squid and octopus						
Frozen a	17,758	80,961	17,355	77,728	18,216	95,453
Unfrozen a	198	690	144	491	67	259
Total b	23,166	114,470	22,254	111,575	23,380	134,837

Continued

	2013-1	4	2014–1	.5	2015–1	6
	t	\$'000	t	\$'000	t	\$'000
Other crustaceans and molluscs						
Frozen a						
Abalone	3	84	4	214	7	514
Other c	1,893	18,855	1,559	20,051	1,684	22,895
Unfrozen a	136	1,680	213	3,396	239	3,339
Mixed preparations d						
Oysters	608	8,634	394	5,528	467	6,672
Snails	5	73	6	89	5	37
Other c	278	1,791	185	1,036	100	631
Prepared or preserved						
Molluscs	1,231	8,949	1,011	7,553	1,117	10,731
Crustaceans	8	83	9	109	82	1,127
Other c	589	3,812	634	4,893	530	4,782
Total	4,750	43,961	4,014	42,869	4,231	50,728
Total crustaceans and molluscs	76,689	776,276	67,769	712,476	68,267	720,021

TABLE S31 Imports of crustaceans and molluscs, Australia continued

a Includes smoked, salted or dried. b Includes prepared or preserved. c Includes aquatic invertebrates other than crustaceans and molluscs, such as jellyfish, sea urchin and sea cucumbers. d Includes live, fresh, chilled or frozen that may be smoked, salted or dried but excludes prepared and preserved.

TABLE S32 Imports of edible fish, by source, Australia

	2013–1	4	2014–1	5	2015–1	6
	t	\$'000	t	\$'000	t	\$'000
Tuna						
Fresh or chilled						
Fiji	1	17	0	2	0	2
Indonesia	24	159	42	465	29	345
Maldives	42	424	45	538	16	193
New Zealand	6	60	5	41	7	53
Other	37	201	43	505	6	106
Total	110	861	136	1,552	58	700
Frozen						
Indonesia	101	1,155	107	1,748	82	1,663
Japan	2	214	4	341	6	627
Other	343	1,909	565	2,716	493	1,866
Total	446	3,278	676	4,806	581	4,156
Salmonids						
Fresh or chilled						
New Zealand	190	2,386	25	414	47	605
Norway	55	737	340	3,718	324	4,626
Other	457	4,764	506	6,190	539	6,516
Total	702	7,887	870	10,323	910	11,747
Frozen						
Norway	1,235	18,435	2,065	28,147	2,214	32,649
Poland	529	7,008	747	9,648	739	10,261
Denmark	351	5,011	537	8,012	63	808
Other	286	3,449	179	2,535	176	2,447
Total	2,401	33,903	3,528	48,341	3,192	46,340
Hake						
Frozen						
Argentina	98	253	228	481	311	710
China	545	1,013	375	1,060	324	1,005
Namibia	981	5,061	1,160	6,173	1,191	6,566
New Zealand	1,399	4,653	1,759	6,185	2,093	8,157
South Africa	1,388	7,971	1,385	7,799	1,182	6,997
Other	96	484	20	108	20	132
Total	4,507	19,435	4,925	21,805	5,122	23,568
Toothfish	,	,		,	,	,
Frozen						
New Zealand	16	147	1	15	11	446
Other a	147	2,403	140	3,459	214	7,718
Total	163	2,550	140	3,474	225	8,164

Continued

TABLE S32 Imports of edible fish, by source, Australia continued

	2013-14	L	2014-15	5	2015-16	5
	t	\$'000	t	\$'000	t	\$'000
Swordfish						
Fresh or chilled						
Indonesia	45	315	58	514	59	510
New Zealand	88	587	61	429	59	424
Other	2	17	4	28	9	80
Total	135	919	123	971	127	1,014
Frozen						
Thailand	0	0	0	0	0	0
Vietnam	3	20	8	73	1	9
Other	19	214	36	507	31	536
Total	22	234	44	580	32	545
Herrings						
Fresh or chilled						
Denmark	0	0	0	0	0	0
Other	0	4	0	0	0	0
Total	0	4	0	0	0	0
Frozen						
Philippines	2	10	1	4	0	0
Other	2	5	365	249	1,333	1,086
Total	4	15	366	253	1,333	1,086
Shark					,	,
Fresh or chilled						
New Zealand	549	3,881	534	3,855	439	3,310
Other	0	1	0	0	0	0
Total	549	3,883	534	3,855	439	3,310
Frozen						,
New Zealand	0	0	0	0	6	59
Other	115	810	46	279	0	0
Total	115	810	46	279	6	59

a Mostly reimports.

TABLE S33 Imports of prepared or preserved fish products, by source, Australia

	2013-14	l -	2014–15	i	2015-16	
	t	\$'000	t	\$'000	t	\$'00
Prepared and preserved fish						
Tuna a						
China	173	624	86	231	86	223
Indonesia	3,542	22,537	4,660	32,271	4,543	32,496
Philippines	366	1,885	573	2,632	234	973
Thailand	45,048	263,242	42,569	238,757	38,806	231,540
Other	444	3,677	455	3,646	552	4,704
Total	49,573	291,966	48,344	277,537	44,221	269,937
Salmonids						
Canada	604	5,567	738	7,396	732	7,158
Norway	477	3,542	59	873	48	523
Thailand	1,866	14,683	2,758	14,731	2,309	17,861
United States	4,652	38,108	3,989	34,234	4,345	31,438
Other	387	2,733	584	5,676	348	3,978
Total	7,987	64,633	8,128	62,908	7,783	60,958
Herrings						
Canada	143	872	92	571	83	396
Estonia	171	502	109	313	121	348
Germany	306	1,595	282	1,455	309	1,611
Other	181	1,079	155	930	254	1,711
Total	801	4,048	639	3,269	768	4,066
Sardines						
Canada	962	3,504	880	3,295	589	2,757
Poland	505	4,896	479	4,442	680	6,198
Thailand	1,174	4,815	1,349	5,377	1,627	7,576
United Kingdom	220	1,766	284	2,451	225	2,144
Other	1,308	5,349	1,203	5,722	837	4,591
Total	4,169	20,329	4,194	21,287	3,957	23,266
Anchovies	,	-,	, -	, -	-,	-,
Chile	178	1,331	166	1,463	219	2,275
Italy	401	4,841	399	4,848	466	7,401
Morocco	91	1,155	108	1,357	122	1,992
Spain	66	1,374	77	1,657	115	2,179
Other	165	1,388	99	981	158	1,630
Total	901	10,090	849	10,306	1,081	15,477
Mackerels		-,		-,	,	- /
Germany	18	132	8	43	21	129
Malaysia	93	418	83	462	98	535
Thailand	747	2,103	853	2,522	992	3,301
United Kingdom	117	929	100	842	46	421
Other	343	1,528	297	1,319	510	3,370
Total	1,318	5,109	1,340	5,188	1,668	7,757
Other	1,510	5,205	2,510	5,200	2,000	,,,,,,,,
China	5,068	27,320	5,001	29,334	3,900	26,507
Malaysia	3,278	21,499	4,114	25,634	3,784	20,507
New Zealand	2,924	20,018	1,202	11,889	1,504	16,291
Thailand	6,678	23,883	6,720	25,560	6,439	27,323
Other	4,703	30,284	4,284	31,362	4,250	31,426
Total	22,651	123,004	21,321	123,778	19,877	126,310

a Predominantly canned.

TABLE S34 Imports of dried, salted or smoked fish, by source, Australia

	2013–1	.4	2014–1	5	2015–1	6
	t	\$'000	t	\$'000	t	\$'000
Smoked, salted or dried						
Salmonids (smoked only)						
Denmark	1,848	37,523	2,398	47,011	2,010	43,622
New Zealand	49	1,277	49	1,344	48	1,333
Norway	800	14,137	1,052	18,633	1,035	18,681
Other	457	8,091	102	2,093	80	2,001
Total	3,153	61,027	3,601	69,082	3,174	65,638
Herrings						
Greece	5	62	11	124	7	76
Philippines	7	42	5	41	6	54
United Kingdom	43	314	27	222	51	356
Other	11	63	3	16	12	59
Total	66	480	45	403	76	546
Sharks a						
China	1	264	1	244	1	410
Hong Kong	1	345	4	344	0	50
Indonesia	0	84	0	94	0	65
Other	19	74	11	88	0	2
Total	22	767	16	770	2	527
Anchovies						
Greece	10	82	8	70	7	76
Malaysia	0	2	0	2	0	4
Other	32	304	35	408	39	541
Total	43	388	43	480	47	621
Cod						
Italy	11	175	1	30	1	16
Norway	68	631	66	696	80	985
Portugal	48	431	41	382	12	114
Other	13	108	7	92	7	107
Total	140	1,345	115	1,200	99	1,222
Livers and roes						
Greece	34	108	10	35	18	93
Japan	15	300	14	292	16	341
Other	5	61	2	41	4	68
Total	54	468	27	368	38	502
Other						
China	79	1,170	19	990	38	927
Denmark	13	133	3	20	8	38
Korea, Republic of	61	772	59	769	81	904
Norway	57	493	73	605	67	785
South Africa	502	2,824	492	2,684	509	2,912
Other	599	5,049	537	5,035	662	6,699
Total	1,310	10,441	1,183	10,102	1,365	12,264

a Predominantly dried shark fin.

TABLE S35 Imports of major crustaceans products, by source, Australia

	2013–14		2014–15		2015-16	
	t	\$'000	t	\$'000	t	\$'000
Prawns						
Frozen a						
China	12,322	158,889	7,579	102,941	7,472	94,543
Malaysia	3,445	42,653	3,112	41,258	2,712	34,430
Thailand	3,684	44,732	4,321	61,283	4,223	59,527
Vietnam	4,657	65,323	3,976	54,356	4,937	62,800
Other	1,675	27,103	1,325	20,603	922	14,868
Total	25,783	338,699	20,313	280,441	20,265	266,167
Prepared or preserved						
China	3,319	40,025	1,936	24,317	1,911	20,427
Thailand	2,693	28,961	3,119	38,527	2,890	34,619
Vietnam	5,798	74,425	6,177	77,427	6,255	70,394
Other	998	11,476	740	8,827	526	7,471
Total	12,808	154,887	11,973	149,097	11,581	132,911
Lobsters						
Frozen a						
Cuba	30	850	71	1,664	43	1,781
Papua New Guinea	40	1,427	78	2,849	98	3,898
United States	174	4,013	147	4,775	135	4,507
Vietnam	103	1,638	41	701	97	1,743
Other	601	13,183	770	16,656	495	16,198
Total	948	21,112	1,108	26,645	868	28,127
Prepared or preserved						
Japan	1	20	0	10	1	23
Taiwan	0	0	0	0	0	3
Other	0	0	3	101	0	2
Total	1	20	4	112	1	28
Crabs						
Frozen a						
Chile	144	2,453	138	3,149	46	1,045
Myanmar	458	6,886	600	9,034	500	7,621
Thailand	140	2,303	250	4,435	279	4,600
Other	809	9,116	578	8,569	759	10,773
Total	1,550	20,758	1,566	25,187	1,584	24,040
Prepared or preserved						
Indonesia	170	2,581	92	1,779	61	1,412
Thailand	88	1,108	103	1,017	81	1,223
Vietnam	78	670	117	1,495	121	1,623
Other	204	3,089	103	1,444	27	339
Total	540	7,448	416	5,735	290	4,597

a Includes smoked, salted or dried.

TABLE S36 Imports of major molluscs products, by source, Australia

	2013–14		2014–15		2015-16	
	t	\$'000	t	\$'000	t	\$'000
Mussels						
Frozen						
Chile	307	1,207	79	358	360	1,784
New Zealand	1,769	9,079	1,687	9,477	1,686	9,315
Vietnam	21	44	24	73	0	0
Other	3	33	3	15	4	37
Total	2,100	10,364	1,793	9,923	2,050	11,137
Unfrozen						
New Zealand	30	165	37	296	77	1,281
Other	0	0	0	0	0	0
Total	30	165	37	296	77	1,281
Scallops						
Frozen						
China	1,421	19,694	1,868	29,750	1,791	31,165
Japan	635	13,160	277	7,026	278	10,794
Thailand	229	2,963	175	1,722	133	1,652
United States	171	4,018	135	2,771	88	2,454
Other	815	11,283	306	7,141	219	7,490
Total	3,271	51,119	2,762	48,410	2,510	53,554
Unfrozen						
Thailand	0	0	0	0	0	0
Other	67	657	0	0	27	336
Total	67	657	0	0	27	336
Squid and octopus						
Frozen						
China	9,842	41,311	10,125	40,380	11,152	52,868
Malaysia	799	4,403	633	3,788	606	3,081
New Zealand	2,250	8,498	1,894	7,558	1,031	4,911
Taiwan	699	2,823	805	2,930	848	3,729
Thailand	1,500	10,205	1,429	10,044	1,575	12,714
Vietnam	696	3,720	625	3,373	582	3,479
Other	1,972	10,001	1,844	9,656	2,422	14,672
Total	17,758	80,961	17,355	77,728	18,216	95,453
Unfrozen						
China	146	460	113	359	21	60
New Zealand	3	17	0	1	0	0
South Africa	48	202	22	92	16	70
Other	1	11	8	39	30	128
Total	198	690	144	491	67	259
Other molluscs a						
Prepared or preserved						
China	686	4,691	624	4,668	767	7,792
Malaysia	0	0	1	7	2	10
New Zealand	38	305	1	32	0	10
Thailand	243	1,545	198	1,145	149	980
Other	263	2,408	188	1,701	200	1,939
Total	1,231	8,949	1,011	7,553	1,117	10,731

a Includes aquatic invertebrates.

TABLE S37 Imports of fisheries and aquaculture products, by source, Australia

	2013–14		2014-	-15	2015-16	
	t	\$'000	t	\$'000	t	\$'000
Edible (excluding live fish)						
Argentina	1,030	5,583	1,083	5,840	927	4,972
Canada	2,010	15,340	2,192	21,118	1,943	17,725
Chile	1,223	7,554	897	7,324	1,055	7,134
China	41,079	341,524	35,186	284,684	34,959	292,159
Denmark	2,434	44,769	3,247	58,150	2,378	47,719
Germany	838	5,663	552	4,253	540	4,302
India	1,899	12,351	1,350	7,857	538	3,898
Indonesia	8,369	73,491	9,226	85,564	9,697	89,504
Italy	551	6,939	511	6,404	730	10,844
Japan	1,531	21,135	813	14,165	903	20,460
Korea, Republic of	1,127	7,159	1,059	7,625	1,639	8,245
Malaysia	11,346	97,873	10,993	94,730	10,294	88,932
Myanmar	1,624	15,466	1,928	18,173	1,577	15,188
Namibia	1,297	6,372	1,466	7,566	1,607	8,367
New Zealand	31,342	206,836	28,115	189,552	27,644	199,774
Norway	3,238	45,361	4,659	68,109	4,338	66,756
Philippines	942	5,375	1,088	5,596	802	4,847
Poland	1,470	18,084	1,497	17,205	1,826	20,390
Singapore	616	4,088	611	4,318	601	5,212
South Africa	4,856	31,559	4,316	27,471	4,214	27,733
Taiwan	7,727	44,473	7,573	58,297	8,025	60,284
Thailand	66,373	416,952	66,076	422,086	61,280	416,141
United Kingdom	945	9,126	1,128	12,194	842	7,930
United States	7,021	56,005	6,276	52,970	6,991	54,926
Vietnam	31,880	231,676	31,597	233,059	32,743	242,957
Other	4,743	50,532	4,172	52,971	4,686	66,532
Total	237,511	1,781,288	227,612	1,767,279	222,778	1,792,931
Non-edible						
Chile	na	3,723	na	7,191	na	6,052
China	na	9,097	na	14,681	na	24,668
Ecuador	na	6,852	na	9,602	na	12,149
French Polynesia	na	1,551	na	1,938	na	1,771
Hong Kong	na	5,156	na	7,077	na	3,586
Indonesia	na	13,484	na	15,499	na	17,029
Japan	na	3,213	na	2,335	na	2,776
New Zealand	na	8,754	na	9,731	na	9,535
Norway	na	8,252	na	9,323	na	10,832
Peru	na	26,632	na	35,699	na	30,481
Samoa (American)	na	9,606	na	10,647	na	11,831
Thailand	na	3,825	na	6,694	na	7,019
United States	na	14,817	na	8,429	na	8,073
Other a	na	105,336	na	101,930	na	147,649
Total	na	220,302	na	240,775	na	293,450
Total imports	na	2,001,590	na	2,008,054	na	2,086,381

a Predominantly reimports. na Not available.

TABLE S38 Seafood imports from selected countries, by product, Australia a

	2013–14		2014–15		2015–16	
	t	\$'000	t	\$'000	t	\$'000
Thailand						
Prepared or preserved						
Tuna b	45,048	263,242	42,569	238,757	38,806	231,540
Salmonids	1,866	14,683	2,758	14,731	2,309	17,861
Other fish	8,612	30,894	8,936	33,553	9,066	38,270
Prawns	2,693	28,961	3,119	38,527	2,890	34,619
Frozen c						
Fish meat	1,384	9,507	1,332	9,823	1,109	7,591
Squid and octopus	1,500	10,205	1,429	10,044	1,575	12,714
Scallops	229	2,963	175	1,722	133	1,652
Crabs	140	2,303	250	4,435	279	4,600
Lobsters	78	1,220	66	1,096	22	368
Prawns	3,684	44,732	4,321	61,283	4,223	59,527
Total	66,373	416,952	66,076	422,086	61,280	416,141
New Zealand						
Frozen c						
Hake	1,399	4,653	1,759	6,185	2,093	8,157
Salmonids	190	2,386	25	414	47	605
Otherfish	11,928	68,103	11,910	65,216	11,699	68,904
Mussels	30	165	37	296	77	1,281
Squid and octopus	2,250	8,498	1,894	7,558	1,031	4,911
Unfrozen c						
Salmonids	598	6,346	487	5,924	572	6,891
Shark	549	3,881	534	3,855	439	3,310
Otherfish	7,354	59,233	6,876	58,631	6,787	58,732
Smoked salted or dried						
Salmonids (smoked only)	49	1,277	49	1,344	48	1,333
Shark d	19	73	10	64	0	0
Prepared or preserved						
Fish	2,927	20,088	1,205	11,932	1,504	16,291
Molluscs	38	305	1	32	0	10
Mixed preparations e						
Oysters	490	7,578	346	5,041	409	6,152
Total	31,342	206,836	28,115	189,552	27,644	199,774
China	- /-		-, -		,-	/
Prepared or preserved						
Tuna	173	624	86	231	86	223
Other fish	5,366	28,513	5,272	30,652	4,110	27,546
Prawns	3,319	40,025	1,936	24,317	1,911	20,427
Molluscs	686	4,691	624	4,668	767	7,792
Frozen c		.,		.,		.,
Hake	545	1,013	375	1,060	324	1,005
Other fish	3,337	21,692	4,189	27,879	3,748	25,316
Prawns	12,322	158,889	7,579	102,941	7,472	94,543
Squid and octopus	9,842	41,311	10,125	40,380	11,152	52,868
Scallops	1,421	19,694	1,868	29,750	1,791	31,165
Smoked, salted or dried	±,74±	20,004	2,000	_3,730	_,, J _	51,100
Fish	81	1,443	20	1,234	39	1,337
Total					34,959	
TULAI	41,079	341,524	35,186	284,684	34,909	292,159 Continued

Continued

	2013–14		2014–15		2015-16	
	t	\$'000	t	\$'000	t	\$'000
Vietnam						
Frozen c						
Fish	16,700	63,038	16,744	71,272	16,858	76,826
Prawns	4,657	65,323	3,976	54,356	4,937	62,800
Squid and octopus	696	3,720	625	3,373	582	3,479
Lobsters	103	1,638	41	701	97	1,743
Crabs	121	1,193	92	900	103	1,194
Prepared or preserved						
Prawns	5,798	74,425	6,177	77,427	6,255	70,394
Fish	1,251	5,601	1,703	8,363	1,473	8,604
Crabs	78	670	117	1,495	121	1,623
Total	31,880	231,676	31,597	233,059	32,743	242,957
Malaysia						
Prepared or preserved						
Mackerel	93	418	83	462	98	535
Other fish	3,423	22,177	4,244	26,317	3,898	25,433
Prawns	471	5,607	264	2,616	127	1,489
Frozen c						
Prawns	3,445	42,653	3,112	41,258	2,712	34,430
Squid and octopus	799	4,403	633	3,788	606	3,081
Fish	816	5,233	501	4,037	695	6,843
Unfrozen c						
Fish	196	3,044	190	2,829	135	2,085
Smoked, salted or dried						
Fish	82	852	57	624	85	994
Total	11,346	97,873	10,993	94,730	10,294	88,932
APEC region						
Prepared or preserved						
Tuna	49,358	289,907	48,140	275,568	43,915	266,614
Salmonids	59,293	7,281	57,546	7,675	57,057	7,456
Sardines	11,348	2,941	12,806	3,223	13,476	2,887
Other fish	21,965	113,273	21,041	115,006	20,153	123,034
Prawns	12,597	152,848	11,831	147,335	11,505	131,634
Molluscs	1,217	8,795	993	7,384	1,113	10,657
Frozen c						
Fish meat	1,021	10,203	935	9,386	948	13,924
Squid and octopus	17,355	79,184	16,773	74,940	17,724	92,795
Prawns	25,052	327,622	19,875	273,940	20,059	262,867
Scallops	3,270	51,101	2,761	48,383	2,478	52,450
Crabs	925	12,737	856	14,813	935	14,706
Mixed preparations e		•		*		,
Oysters	608	8,634	394	5,528	467	6,672
Total	213,948	1,549,887	202,537	1,497,864	199,646	1,531,347

TABLE S38 Seafood imports from selected countries, by product, Australia a continued

a Excludes live imports. b Predominantly canned. c Includes smoked, salted or dried. d Predominantly dried shark fin.

e Includes live, fresh, chilled or frozen that may be smoked, salted or dried but excludes prepared and preserved.

Fisheries inquiries

New South Wales

David Makin (Wild sector)

Department of Primary Industries Tel 02 6658 3921 Fax 02 6391 5709

Raelene Trenaman (Aquaculture)

Department of Primary Industries Tel 02 4916 3843 Fax 02 5982 1107 Website dpi.nsw.gov.au

Victoria

Paula Baker

Fisheries Victoria, Department of Environment and Primary Industries Tel 03 5258 0255 Fax 03 5258 5553 Website dpi.vic.gov.au

Queensland

Nadia Engstrom (Wild sector)

Department of Agriculture and Fisheries Tel 07 3087 8806 Fax 07 3229 8182 Website daf.qld.gov.au

South Australia

Kylie Leppa Department of Primary Industries and Regions Tel 08 8429 0516 Fax 08 8226 0330 Website pir.sa.gov.au

Western Australia

Eva Lai Department of Fisheries Tel 08 9203 0135 Fax 08 9203 0199 Website fish.wa.gov.au

Tasmania

Denise Garcia Department of Primary Industries, Parks, Water and Environment Tel 03 6165 3017 Website dpiw.tas.gov.au

Northern Territory

Ann Schubert (Fisheries)

Department of Primary Industry and Fisheries Tel 08 8999 2370 Fax 08 8999 2065 Website nt.gov.au/d/Fisheries

Commonwealth

John Garvey (Licensing and Quota Management) Australian Fisheries Management Authority Tel 1300 723 621 Fax 02 6225 5550 Website afma.gov.au

The 'Biosphere' graphic element

The biosphere is a key part of the department's visual identity. Individual biospheres are used to visually describe the diverse nature of the work we do as a department, in Australia and internationally.



Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES)

Postal address	GPO Box 858 Canberra ACT 2601				
Switchboard	+61 2 6272 3933				
Email	info.abares@agriculture.gov.au				
Web	agriculture.gov.au/abares				