

CHAPTER XXV.

FISHERIES.

§ 1. General.

1. **Fish Stocks.**—Australia possesses a varied native fauna of freshwater and marine fish, including tropical and temperate species. In addition certain exotic species have become acclimatized in the freshwater streams. The commercial fisheries exploit on-shore, demersal (bottom) and pelagic (surface) stocks. The on-shore stocks are at present of greatest importance.

The Australian marine fauna includes also a number of mollusca (oysters, scallops) and crustacea (crabs, prawns, crayfish) groups which are commercially exploited.

At certain times of the year whales of various species appear off our coasts.

2. **Fishing Areas.**—The principal fishing areas at present are the coastal lakes, streams, estuaries and beaches, from Cairns in Queensland to Ceduna in South Australia and from Esperance to Geraldton in Western Australia. There are interruptions of variable size; for the most part, these fishing grounds are associated with the coastal streams. The demersal grounds fall into two classes—(a) the reefs from which cod and other tropical species are taken in tropical waters, and snapper in temperate waters; and (b) the grounds from which flathead, morwong, etc., are taken. The reefs extend intermittently from northern Queensland around the southern part of the continent to Shark's Bay in Western Australia. The flathead grounds lie on the continental shelf off south-east Australia, chiefly from off Crowdy Head to south of Cape Everard and further off the east Tasmanian coast off Babel Island southwards to Storm Bay. Other demersal grounds are known to exist in the Great Australian Bight but as yet are not exploited. The demersal shark grounds lie principally in Bass Strait and on the continental shelf off eastern South Australia. Other grounds have been located off southern Western Australia.

The grounds of existing pelagic fisheries include that for the spanish mackerel off the north-eastern coast from about Coff's Harbour to Cairns and that for barracouta in Bass Strait and off eastern Tasmania. Horse-mackerel is found in the eastern Tasmanian waters. Concentrations of other pelagic groups, including tuna and clupeoid species, are reported over the continental shelf at various points.

The pearl oyster inhabits the northern and western coastal waters from Cape York to Shark Bay. Edible oysters are found in the temperate waters of Queensland, New South Wales and Victoria. Some cropping of natural resources takes place in Queensland but the principal cultivation grounds are found in New South Wales. The scallop is found commercially only in Tasmanian waters.

Crabs (of various species) are found in practically all coastal waters. Prawns are taken in the temperate waters of Queensland and New South Wales. Crayfish are taken on reefs (of the continental shelf) in the waters of all southern States, the fishery extending (with a major interruption in the Bight) from Port Macquarie in New South Wales to Geraldton in Western Australia.

The whale appearances occur off the south of the continent, extending as far north as Southern Queensland in the east and to beyond Shark's Bay in the west.

3. **Fishing Boats and Equipment.**—The fishing equipment includes almost every possible type of gear, and appropriate boats are employed. The on-shore equipment includes mesh-nets, trawl-nets, and traps of various types. The demersal reef-fishery is worked with traps, hand lines and other long lines. The demersal flathead-fishery is worked by both otter trawl (with V.-D. gear) and Danish seine, in addition some hand-lining is carried out. The demersal shark fishery is worked by long lines. The pelagic mackerel-fishery employs trolling gear with lures of various types; while the pelagic barracouta fishery employs barbless jigs; the use of nets, chiefly of pursing kind, for pelagic fisheries is only now being tested.

The boats for the on-shore fisheries are almost universally small vessels fitted with low power petrol engines. The vessels working the reefs are larger (up to 50 feet) and have more power. The otter trawl vessels are steam trawlers, while the Danish seine vessels are 40 to 70 feet in length with diesel engines. The shark boats have diesel power and range from 35 to 50 feet in length.

4. **Administration.**—The fisheries at present are administered by State Departments implementing State laws. This administration includes licensing of men and boats, and restriction on fishing, by prohibitions against fishing at certain times and places and by certain methods. In some States the quantity, type and construction of gear is subject to limitations and legal minimum sizes are prescribed.

Since June, 1943, the fisheries have been subject to overall control by the Controller of Fisheries in the Department of War Organization of Industry. This control sets targets of production and co-ordinates government action towards the industry.

Special legislation exists for the pearl-shell and bêche-de-mer fisheries and for whaling.

§ 2. Development and Present Condition of the Fishery.

1. **Fisheries Proper.**—(i) *General.* The earliest Australian fishery was on-shore. To this was soon added the demersal reef fishery using lines. At each centre of population this sequence has almost invariably been followed, and expansion of the industry up to about the year 1900 consisted chiefly of the extension of these operations into hitherto unworked areas. The taking of barracouta in Tasmanian waters was begun at least by 1880, if not earlier, but the main development of this fishery occurred between 1915 and 1925.

The first major development of the fishery came with the institution of trawling operations off the New South Wales coast in 1918 by the New South Wales Government as a consequence of the results obtained from the exploratory work of the Federal Investigation ship *Endeavour*. The State enterprise failed but the fishery was found very profitable by private enterprise, which had as many as sixteen steam trawlers operating at one time. In 1936 the use of Danish seine vessels began and the fleet of these vessels rapidly expanded, being given an exceptional opportunity by the requisitioning of the steam trawlers by the Navy. Subsequently, practically all the Danish seine vessels were also requisitioned. There are strong signs that the stocks here were overfished and that the upper limit of economic production is about 14 million lb.

In about 1929–30 Queensland fishermen turned their attention to spanish mackerel, and this fishery rapidly developed, with Townsville as principal centre. Production in 1942 was in the region of 1 million lb.

At about the same time (1930) a fishery for snapper shark in southern waters began to expand. This fishery rapidly extended its area of operations and the catch increased from 23,131 lb. in 1930 to 1,691,599 lb. in 1941. Greater impetus was given to the fishery during war years by the demand for livers for fish oil production for medicinal purposes. This production has risen from 3,750 gallons in 1940–41 to 15,250 gallons in 1943–44.

The presence of stocks of tuna of various species in Australian waters is undoubted, but, despite extensive experiments, no ready practicable method of taking them has yet been found. However, it appears, following experimental work, that another pelagic species, the horse-mackerel of Tasmania, can be taken by purse seine nets and will be taken in appreciable quantities within the next few years.

(ii) *Production 1942.* Production in this year was, in most cases, moderate or low, the catch in South Australia and Western Australia being low, that of the other States only moderate. This was due to effects of the war and to natural fluctuation. The catch of barracouta was high in Tasmania but low in Victoria; in New South Wales the on-shore catch was high but the trawl catch was low owing to the requisitioning of vessels by the Services.

2. **Oysters and Shell Fisheries.**—Initially the Australian oyster fisheries depended solely upon the harvesting of naturally grown stock in littoral and submarine areas. However, the stocks soon deteriorated and attention was turned to methods of cultivation.

These have not been successful in Queensland, but in New South Wales there has been constant improvement in methods and the present technique in certain areas is highly efficient. Peak production of 44,723 bags was reached in 1938.

The cray fisheries have developed along with the other reef fisheries.

3. **Pearl-shell and Bêche-de-mer.**—Pearl-shelling is carried on in the tropical waters of Queensland, the Northern Territory and Western Australia. The pearl oyster inhabits the northern and western coastal waters from Cape York to Shark Bay, a length of shore of over 2,000 miles. The shells are marketed in considerable quantities, and pearls are obtained in Queensland, Western Australia and the Northern Territory. The fishing is generally conducted with the aid of diving apparatus in water varying from 4 to 20 fathoms in depth. In Queensland and the Northern Territory the bêche-de-mer industry is carried on, and tortoise-shell is obtained on the coasts. Experiments have been made in cultivating the pearl oyster on suitable banks. The value of trochus-shell of Australian origin exported during 1942-43 was £33,558.

§ 3. Marketing and Distribution.

1. **Marketing.**—The greater proportion of Australian fish is sold in metropolitan markets, but some is sold in metropolitan areas without passing through the market. The proportion of local and inland sales varies in different States, being estimated at about 50 per cent. in Queensland and about 10 per cent. in New South Wales; this proportion is dependent upon the degree of concentration of population and on facilities for efficient transport of fish. Marketing in Queensland is subject to a Marketing Act whereby marketing areas may be declared after which all fish caught and sold in the area must be sold at the Government market; at present only a Brisbane marketing area has been declared. A similar Act exists in New South Wales and has so far been implemented only for the Newcastle area. There is some interstate trade in supplies; some fish from northern New South Wales passes to Queensland and some southern New South Wales fish passes to Victoria. New South Wales derives a small quantity of high grade fish from Queensland and barracouta and crayfish from Tasmania. Victoria receives fish from New South Wales, Tasmania and South Australia, the latter being chiefly whiting.

2. **Consumption of Fish.**—In peace years Australians consume annually the equivalent of about 145 million lb. of round fish, that is about 20.7 lb. per person per year. Of this about 65 million lb. is produced locally and the remainder is imported; that is, the average Australian eats about 9.3 lb. of Australian fish a year and the equivalent of 11.4 lb. of overseas fish. This is to be compared with the per capita consumption in the United Kingdom in 1937, of 49.8 lb., with 23.8 lb. in New Zealand and with 110 lb. in Japan.

The low consumption of fish in Australia is due partly to the abundance of food available from the soil, partly to climatic and transport problems of distribution, and in part to problems of production and the difficulties of expansion, which include strong seasonal fluctuations and the absence of certain special types of fish. The latter two factors operate to engender an instability of demand so that fish is regarded as an item of luxury or as a welcome change of diet rather than as a staple item of food.

3. **Processing, including Canning.**—The equipment for handling fish has been somewhat inadequate, but rapid advances are being made in the provision of this equipment, particularly of snap-freezing plant.

There is no considerable trade in smoking, salting or other light processing but plans are being laid for kippering Tasmanian horse-mackerel.

Apart from some establishments which may be engaged in the canning of fish as a subsidiary to that of meat and fruit, fish canneries have been established at various places in Australia with varying results. The industry has not developed, however, and the cause has been attributed to either faulty location, failure of supply or failure to ensure a sound market.

Canneries of southern New South Wales have temporarily ceased operation, due, in the main, to lack of raw material supplies. Some new canneries have been established or are planned.

4. **By-Products.**—Processing of offal for meals, etc., has been established in certain States. The processing of livers for vitamin rich oils has been undertaken in three establishments in southern States and oil-production has been favourably developed.

§ 4. Inquiries and Research.

1. **General.**—Australian fishing industries have been the subject of very numerous inquiries seeking explanation of the very slow rate of development, of the unfortunate conditions prevailing within the industry and of the paucity of supplies available to the public. To meet the situation revealed, various research programmes have been instituted.

2. **Conference 1927–1929.**—With the object of reviewing the potentialities of the fishing industry of Australia the Development and Migration Commission convened a meeting of State and Commonwealth representatives. The Conference, which was held in Melbourne during September, 1927, affirmed :—

- (1) The importance of establishing a Marine Biological Institution to study the scientific problems connected with Australian fisheries, and to collect and disseminate authoritative information and give advice on matters concerning the fisheries ;
- (2) The desirability of establishing an experimental trawling unit to explore the fisheries resources of Australia.

Committees were formed to deal with important problems concerning the preservation, transportation, marketing and distribution of fish, the canning and curing of fish, the production of fish by-products, the factors of destruction in fisheries, the development of the oyster industry, etc. The reports prepared by these Committees were submitted to a further conference held in July, 1929, at which the Commonwealth and all State Governments were represented ; it was then unanimously recommended that investigation work should be undertaken by the Commonwealth Government.

3. **Council for Scientific and Industrial Research, Division of Fisheries.**—Acting on the recommendation of the 1927–1929 Conference the Commonwealth Government entrusted to the Council for Scientific and Industrial Research the task indicated by the Conference. In its original plans the Council provided a sum of £80,000, spread over a period of five years, for the following purposes :—(i) to procure a vessel specially designed for the exploration of pelagic or surface-swimming fish, but which could also carry out certain investigations of demersal or bottom-dwelling species ; (ii) to undertake experiments in the canning of fish and the determination of the chemical composition of fish thought to be suitable for the manufacture of fish by-products ; (iii) to determine, by tests, the best methods of curing and preserving fish, especially the more common varieties ; and (iv) in co-operation with the State authorities, to undertake a study of the systems of distribution of fish in each State with a view to improving existing transport and marketing facilities. A research vessel constructed at a cost of £17,000 was commissioned in 1938 and a programme of work was laid down extending over a period of five years. During the first three years the investigation was confined to the south-eastern portion of the Australian coast ; part of the work was extended later to the south-western portion of the Continent. Experimental cruises completed so far have revealed the presence of eleven kinds of tuna and other commercial species such as pilchard. A Fisheries Laboratory and Research Station has been erected at Port Hacking in New South Wales.

The results of the first five years work have led the Council to place this programme on a permanent basis, and the Division will continue its work of exploration and biological assay of the stocks.

4. **Tariff Board Inquiry.**—The Tariff Board after an inquiry held in 1941, concluded that the development of a prosperous fishing industry would be an important contribution to the war effort, that the possibilities of commercial exploitation were established, and that the stage had now been reached when additional governmental assistance was desirable. It recommended that assistance to the Council for Scientific and Industrial Research be continued and that a Commonwealth Fisheries Development Authority be established with the necessary authority to carry out its functions.

5. **War-time Control.**—A conference between representatives of the Council for Scientific and Industrial Research and State Departments administering fisheries was held in October, 1941, for the purpose of inquiring into the constitution of the proposed Commonwealth Authority and other related matters.

No action arose from this Conference. In 1942 the Division of Fisheries, Council for Scientific and Industrial Research, prepared on behalf of the Director-General of Man Power, a register of man-power in the industry and made suggestions for the rationalization of the industry under war-time conditions. As a result of these suggestions a Controller of Fisheries was appointed in the Department of War Organization of Industry to co-ordinate and organize the industry. The programme of the Controller includes the setting of production goals, control of the allocation of man-power, fuel and equipment, organization of co-operatives within the industry, rationalization of marketing and distribution and general supervision of development.

6. **Pearl-shell Fishery Royal Commission.**—In accordance with the "White Australia" policy it was originally determined that the employment of Asiatic labour in the pearl-shelling industry should be restricted, and ultimately cease, and it was proposed that after 31st December, 1913, permits to bring in Asiatics for the pearling fleet should no longer be issued. In view, however, of the disorganization of the industry occasioned by the war of 1914-19, the time was extended to the 30th June, 1918, after which date permits to introduce Asiatic labour were to be granted only in cases where the diver and tender of a boat were Europeans. The Royal Commission appointed in March, 1912, presented its final report in 1916. The Commissioners stated that, though it might be practicable, they did not consider it advisable or profitable to attempt to transfer the industry from Asiatics to Europeans. They further stated that, while the labour employed is almost entirely Asiatic, they did not consider that the "White Australia" policy would be weakened or imperilled by allowing the industry to continue as then conducted.

7. **Pearl-shell Fishery Tariff Board Inquiry.**—Arising out of an application for the payment of a bounty on pearl-shell gathered by fishing vessels registered in Australia, the industry was the subject of an inquiry by the Tariff Board which presented its report in 1935. The Board did not approve the granting of a bounty but recommended some relief to the industry in the form of the remission of primage and customs duty.

§ 5. The Fishing Industry.

1. **Boats and Men Engaged, and Take.**—(i) *General Fisheries.* The returns have been compiled from particulars supplied by the State Departments, and while the data do not generally lend themselves to presentation on a uniform basis, the principal facts are shown in the following tables:—

GENERAL FISHERIES, 1942-43.

State or Territory.	No. of Boats Engaged.	Value of Boats and Equipment.	No. of Men Engaged.	Total Take of—		Gross Value of Take—	
				Fish.	Spiny Lobster (Crayfish).	Fish.	Spiny Lobster (Crayfish).
	No.	£	No.	Cwt.	Doz.	£	£
New South Wales..	1,691	194,183	(b) 3,128	194,317	9,218	725,451	135,785
Victoria..	994	172,935	1,682	101,680	2,508	481,532	4,307
Queensland..	1,102	99,636	2,036	67,815	(d) 14,639	263,441	(e) 28,728
South Australia(a)	1,485	178,400	1,912	44,250	27,600	285,300	25,300
Western Australia(a)	339	46,280	680	21,859	18,938	114,000	(f) 12,355
Tasmania(g)	485	85,000	668	37,626	56,773	50,569	21,300
Northern Territory	(h)	(h)	(h)	(h)	(h)	(h)	(h)
Total!	6,156	776,434	10,106	467,547	129,676	1,920,293	227,775

(a) Year ended December, 1942. (b) Fishermen's licences issued. (c) Includes the value of prawns and crabs. (d) Crabs. (e) Includes £12,111, the value of 1,200 cwt. of prawns; and £40, the value of 53 turtles. (f) Includes £2,905 the value of 200 cwt. of prawns and 6,599 dozen crabs. (g) Includes oyster fisheries. (h) Not available.

Returns for Australia for the last five years are given in the table below :—

GENERAL FISHERIES : AUSTRALIA.

Particulars.	1938-39.	1939-40.	1940-41.	1941-42.	1942-43.
No. of boats engaged	5,462	5,556	6,229	5,530	6,156
No. of men engaged	9,081	8,836	9,806	9,526	10,106
Fish obtained—					
Quantity cwt.	612,735	625,209	576,928	534,339	467,547
Gross value £	1,385,281	1,370,599	1,448,952	1,679,284	1,920,293
Lobsters obtained—Gross value £	134,866	155,874	144,368	170,354	227,775

(ii) *Edible Oyster Fisheries.* Edible oyster fisheries are of small dimensions outside New South Wales and Queensland. During 1942-43 the available returns show the following takes :—New South Wales, 72,577 cwt., value £145,146; Queensland, 6,265 cwt., value £9,819. In Tasmania the scallop is far more important than the oyster. In 1942-43 the scallops taken in Tasmania were valued at £14,583.

Returns for Australia for the last five years are given in the following table :—

EDIBLE OYSTER FISHERIES : AUSTRALIA.

Particulars.	1938-39.	1939-40.	1940-41.	1941-42.	1942-43.
Boats engaged .. No.	754	791	768	855	715
Men engaged	850	875	1,021	837	728
Oysters obtained—					
Quantity cwt.	89,145	82,312	86,463	88,949	79,885
Gross value (a) £	132,201	129,946	136,150	139,142	171,754

(a) Includes scallops in Tasmania valued at £14,500 in 1938; £13,650 in 1939; £14,000 in 1940; £18,600 in 1941; and £14,583 in 1942-43.

(iii) *Pearls, Pearl-shell and Bêche-de-mer—States.* The latest available particulars of the equipment used and production are shown in the following table. As details for Western Australia for the year 1941 are available they are appended to the table :—

PEARL, PEARL-SHELL AND BÊCHE-DE-MER FISHERIES,(a) 1940-41.

State or Territory.	Number of Boats Engaged.	Value of boats and Equip-ment.	Number of Men Engaged.	Pearl-shell.		Gross Value of Pearls obtained. (b)	Gross Value of Bêche-de-mer obtained.	Gross Value of Tortoise-shell obtained.
				Quantity obtained.	Gross Value.			
	No.	£	No.	Tons.	£	£	£	£
Queensland (c) ..	88	95,036	924	1,187	160,335	..	6,890	6
Western Australia (d) (e)	65	55,981	536	700	73,903	1,584	24	15
Northern Territory (f)	9	5,000	80	131	11,434	..	..	..
Australia ..	162	156,017	1,540	2,018	245,672	1,584	6,914	21
Western Australia 1941 (g) ..	57	55,398	487	616	96,127	2,360	..	..

(a) No pearl-shelling industry in New South Wales, Victoria, South Australia and Tasmania. (b) Incomplete: as returned. (c) Also 276 tons of trochus-shell valued at £19,286. (d) Year ended December, 1940. (e) Also 3 cwt. trochus-shell valued at £10. (f) Year 1939-40. (g) Queensland and Northern Territory not available for 1941-42.

(iv) *Australia*. The figures for tortoise-shell and trochus-shell are incomplete, as the necessary information is not collected in full detail. In the following summary of production during the last five years export figures of Australian origin are inserted for both of these items:—

PEARL, PEARL-SHELL AND BÊCHE-DE-MER FISHERIES : AUSTRALIA.

Particulars.		1936-37.	1937-38.	1938-39.	1939-40.	1940-41.
Boats engaged ..	No.	221	204	181	167	162
Men engaged ..	"	2,241	1,941	1,750	1,408	1,540
Pearl-shell obtained—						
Quantity ..	tons	2,780	2,854	2,543	2,149	2,018
Value ..	£	340,244	310,655	222,281	198,264	245,672
Value of—						
Pearls obtained (a) ..	£	5,495	4,111	3,397	2,620	1,584
Bêche-de-mer obtained	£	6,495	14,237	8,145	669	6,914
Tortoise-shell exported	£	367	380	151	205	138
Trochus-shell exported	£	51,209	32,147	34,166	37,704	6,791

(a) Incomplete; as returned.

2. Value of Production—Gross and Local.—(i) *General*. As the outcome of a series of conferences by Australian Statisticians it is now possible to present the value of production of the fishing industry on a more satisfactory basis than was possible hitherto. It should be remembered, however, that the actual collection of statistics of the quantity of fish taken presents many difficulties and the gross values are not complete in some of the States. Particulars of the value of other materials used in the process of production are not available for all States, and consequently the values can only be stated at the point of production and not on a net basis as has been done with other industries. Variations in the relative proportions of marketing costs to gross production suggest that complete uniformity in method has not yet been attained.

GROSS AND LOCAL VALUE OF FISHERIES PRODUCTION, 1942-43.

State.	Gross Production Valued at Principal Markets.	Marketing Costs.	Gross Production Valued at Place of Production.	Value of other Materials used in process of Production.	Net Value of Production.(a)
	£	£	£	£	£
New South Wales ..	1,006,000	176,000	830,000	12,000	818,000
Victoria ..	453,429	71,128	382,301	(b)	(b)
Queensland ..	302,000	60,000	242,000	60,000	182,000
South Australia ..	312,230	35,216	277,014	(b)	(b)
Western Australia ..	127,355	10,153	117,202	18,645	98,557
Tasmania ..	86,450	..	86,450	(b)	(b)
Total ..	(c)2,287,464	352,497	1,934,967	(b)	(b)

(a) No deduction has been made for depreciation and maintenance. (b) Not available.
(c) Excludes production in the Northern Territory.

(ii) *States 1933-34 to 1942-43*. In the following table the local value of fisheries production and the local value per head of population are given by States for each year since 1933-34. Local value is gross value less marketing costs and is the value at the

place of production. The value of materials used in the course of production is not available for all States and consequently production is valued at that point. These values therefore overstate the net values by the extent of these costs.

LOCAL VALUE OF FISHERIES PRODUCTION.

Year.	N.S.W.	Vic.	Qld.	S.A.	W. A.	Tas.	Total.
LOCAL VALUE.(a)							
	£	£	£	£	£	£	£
1933-34 ..	536,000	132,452	248,375	152,041	195,985	72,080	1,336,933
1934-35 ..	536,000	140,549	261,411	151,843	181,913	71,300	1,343,016
1935-36 ..	583,000	146,946	287,000	151,800	179,405	71,040	1,419,191
1936-37 ..	650,000	161,999	336,000	184,669	224,432	80,900	1,638,000
1937-38 ..	548,000	168,095	296,000	209,234	286,580	87,050	1,594,959
1938-39 ..	620,000	176,919	277,000	220,401	269,894	90,350	1,654,564
1939-40 ..	508,000	199,632	285,000	202,009	252,837	109,910	1,557,388
1940-41 ..	517,000	244,444	330,000	227,987	251,529	96,830	1,667,790
1941-42 ..	619,000	387,462	185,000	245,301	226,945	109,570	1,773,278
1942-43 ..	830,000	382,301	242,000	277,014	117,202	86,450	1,934,967

LOCAL VALUE PER HEAD OF MEAN POPULATION.

	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
1933-34 ..	4 1	1 5	5 3	5 3	8 11	6 4	4 0
1934-35 ..	4 1	1 6	5 5	5 2	8 3	6 3	4 0
1935-36 ..	4 5	1 7	5 11	5 2	8 0	6 2	4 3
1936-37 ..	4 9	1 9	6 10	6 3	9 11	7 0	4 10
1937-38 ..	4 0	1 10	5 11	7 1	12 6	7 5	4 8
1938-39 ..	4 6	1 11	5 6	7 5	11 8	7 8	4 9
1939-40 ..	3 8	2 1	5 7	6 9	10 10	9 2	4 5
1940-41 ..	3 9	2 7	6 4	7 7	10 8	8 0	4 9
1941-42 ..	4 5	4 0	3 7	8 1	9 8	9 2	5 0
1942-43 ..	5 11	3 11	4 8	9 0	4 11	7 2	5 5

(a) No deduction has been made for depreciation and maintenance.

3. **Fish Preserving.**—To encourage the industry the Federal Parliament provided a bounty of $\frac{1}{2}$ d. per lb. for fish preserved as prescribed during the ten years 1907-8 to 1916-17, but the bounty failed to develop the industry, and was not renewed on its expiration in 1916-17. The amount of bounty paid during the ten years was only £3,005.

4. **State Revenue from Fisheries.**—The revenue from fisheries in each State during the year 1942-43 is given hereunder:—

FISHERIES : REVENUE, 1942-43.

State or Territory.	Licences.	Leases.	Fines and Forfeitures.	Other Sources.	Total.
	£	£	£	£	£
New South Wales ..	3,763	11,320	298	357	15,738
Victoria ..	1,340	84	194	95	1,713
Queensland ..	2,657	1,813	211	35	4,716
South Australia (a) ..	1,427	..	35	35	1,497
Western Australia (a) ..	713	..	90	122	925
Tasmania ..	687	..	..	269	956
Northern Territory (b) ..	..	..	..	..	..
Total ..	10,587	13,217	828	913	25,545

(a) Year ended December, 1942.

(b) Not available.

Similar particulars for Australia for the last five years are given in the following table :—

FISHERIES : REVENUE, AUSTRALIA.

Particulars.	1938-39.	1939-40.	1940-41.	1941-42.	1942-43.
	£	£	£	£	£
Licences	15,563	12,182	12,254	11,855	10,587
Leases	12,446	10,716	11,480	10,281	13,217
Fines and Forfeitures	1,397	1,364	1,496	1,695	828
Other Sources	4,867	1,054	1,138	593	913
Total	34,273	25,316	26,368	24,424	25,545

§ 6. Oversea Trade in Fishery Products.

1. Imports of Fish.—The large importations of fish and fish products made each year give further evidence of the need to develop the fishing industry of Australia. Imports for the last five years were as follows :—

FISH AND FISH PRODUCTS : IMPORTS INTO AUSTRALIA.

Classification.	1938-39.	1939-40.	1940-41.	1941-42.	1942-43.
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QUANTITY.

Fish—	cwt.	cwt.	cwt.	cwt.	cwt.
Fresh or preserved by cold process	83,393	68,177	55,471	33,114	21,162
Potted or concentrated	9,435	7,300	1,304	115	..
Preserved in Tins—					
Herrings	38,917	32,800	9,677	5,572	6,453
Salmon	166,695	147,125	117,429	29,214	45,188
Sardines	29,372	29,019	15,595	181	..
Other	14,306	6,897	6,442	3,684	43,786
Crustaceans	6,829	7,677	461	459	150
Oysters	1,939	2,159	2,060	1,587	862
Smoked or dried (not salted)	8,122	5,474	2,111	2,069	..
Other	7,987	3,441	1,522	487	1,149
Oysters in the shell	635	1,049	315	245	400

VALUE IN AUSTRALIAN CURRENCY.

Fish—	£A.	£A.	£A.	£A.	£A.
Fresh or preserved by cold process	273,289	247,577	213,328	154,120	112,801
Potted or concentrated	122,250	102,918	16,316	1,179	1
Preserved in Tins—					
Herrings	138,391	118,256	35,060	24,856	4,078
Salmon	716,164	677,685	593,032	189,064	375,290
Sardines	182,336	181,396	78,676	529	1
Other	63,996	34,124	45,379	49,055	266,884
Crustaceans	70,328	71,225	5,837	4,980	2,303
Oysters	13,995	17,611	18,503	13,973	7,832
Smoked or dried (not salted)	23,603	17,633	8,106	8,674	..
Other	10,948	10,307	8,047	3,104	9,669
Oysters in the shell	704	1,068	537	317	279
Total	1,616,004	1,479,800	1,022,821	449,851	779,138

Tinned fish constitutes by far the largest proportion of the imports; salmon from Canada and the United States of America; herrings from Canada and the United Kingdom and sardines from Norway were the chief varieties imported. The potted fish comes chiefly from the United Kingdom and New Zealand, which also supplied a considerable proportion of the fresh fish imported in 1942-43; the bulk of the remainder came from the Union of South Africa. The small import of oysters is supplied by New Zealand, which has also furnished the bulk of the crustaceans imported in recent years.

2. Exports of Fish.—The exports of fish are comparatively insignificant. During 1942-43 they were as follows:—Fresh or preserved by cold process, 77 cwt., £603; oysters, fresh, 1 cwt., £10; potted or concentrated, £8,641; preserved in tins, 7,224 cwt., £44,278; smoked or dried, 3 cwt., £28; other including salted, 283 cwt., £2,869.

3. Exports of Pearl and other Shell.—The exports of pearl, tortoise and trochus-shell of Australian origin are given hereunder for the five years ended 1942-43:—

PEARL, TORTOISE AND TROCHUS-SHELL : EXPORTS FROM AUSTRALIA.

Article.		1938-39.	1939-40.	1940-41.	1941-42.	1942-43.
Pearl-shell ..	cwt.	52,532	48,581	37,024	36,846	645
	£	244,266	224,646	196,263	252,766	7,525
Tortoise-shell ..	cwt.	4	6	3	..	..
	£	151	205	138	..	..
Trochus-shell ..	cwt.	9,108	12,905	2,332	9,977	6,779
	£	34,166	37,704	6,791	36,807	33,558

All the pearl-shell and trochus-shell exported during 1942-43 was consigned to the United States of America.