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**Commercial Fishing in NSW:
Origins and Development to the
early 1990s**

by

John Wilkinson

Briefing Paper No 15/97

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EXECUTIVE SUMMARY

- Australian waters, through having a relatively low level of nutrients, tend not to sustain a large fish population (pp.4-5).
- NSW estuaries and lakes, on the other hand, are relatively high in nutrients (pp.5-6).
- NSW commercial fishing began in a very informal fashion and, in a number of ways, has remained a family-based, small-scale industry (pp.6-7, 9-15, 20-21, 26-28, 44).
- NSW households have a marked tendency towards meat in their diet, and are not so inclined to eat fish despite its popularisation through fish and chips (pp.11, 18-19, 48-49).
- Overfishing and conservation have emerged as issues in the NSW fishing industry not long after the industry began (pp.12-13, 16-17, 23, 33, 46-49).
- Imports form a significant proportion of the fish eaten in Australia (pp.14, 19-20, 37-38, 48).
- Research, conducted at both a federal and at a state level, has made a significant contribution to commercial fishing in NSW (pp.17-18, 34-36, 44-46).
- Canning has been encouraged as a countermeasure to imports (pp.19-20, 38).
- Inadequate returns have often been a feature of commercial fishing in New South Wales (pp.15, 19, 43-44).
- Trawling has helped to expand the fishing industry (pp.21-26, 32-33).
- Tuna fishing has become an important sector of commercial fishing in the state (pp.29-31).
- Oyster production in NSW is significant because the state is the largest producer of oysters in Australia (pp.13-14, 36, 47).
- Technological innovations, such as echo sounders, and new developments in machinery, have contributed to the industry (pp.28-29, 45-46).
- Abalone fishing was developed in the 1960s and 1970s (pp.36-37).
- NSW government has, in the past, intervened significantly in the industry, either to inaugurate large-scale commercial fishing or to re-organise the industry to increase the returns to boat owners (pp.21-23, 39-44, 51-54).
- Federal government has also intervened in the industry, partly to conserve fish stocks in Australian waters (pp.42-43, 49-53).

1 INTRODUCTION

In 1992 the Minister for Natural Resources in the Fahey Government, Ian Causley, introduced into Parliament a new Bill which was intended to be the means of making some fundamental changes to commercial fishing in New South Wales. Whereas before, those operating in the fishing industry, in the state, could do so on the basis of relatively unrestricted entry into the industry, and relatively unrestricted access to fishing grounds ("open access"), the Bill sought to introduce "fishing rights" into the industry. These fishing rights would have been "for a fixed quantity or fixed proportion of an allowable catch".¹ Whereas previously, fish, in the sea, had been viewed as commonly available for anyone to catch, this legislation, based on similar legislation introduced in New Zealand in 1986,² would tend to make fish, in NSW waters, into property, similar to land, amounts of which could be bought and sold. Eventually, this legislation, with a different form of fishing rights - under which an eligible fishing person would acquire a group of shares to a fishery - was eventually passed as the *Fisheries Management Act 1994*.³

Since the passage of the legislation, however, there has been much discussion about how it will be implemented.

This background paper seeks simply to provide a survey of commercial fishing in New South Wales as it was, up to 1992. It looks at the origins of the industry in the second half of the nineteenth century and its expansion during the twentieth century. It also looks at changes in the organisation of the commercial fishing industry; at the progress of research into fishing grounds; and at issues such as overfishing and conservation.

2 THE FIRST STAGES OF COMMERCIAL FISHING IN NEW SOUTH WALES: BAY, ESTUARY AND LAKE FISHING

(a) The Nature of the Fishing Grounds in Australia

In his *Fish and Fisheries of Australia*, T.C. Roughley, superintendent of the NSW Fisheries from 1939-1952, observed that,

The quantity of fish produced annually from Australian waters [in the 1950s] amounts to between 70 and 80 million pounds. . .[not a] lot of fish according to world standards. . .the world's greatest fish-producing country [is]. . .Japan, where

¹ Second Reading Speech. Fisheries and Oyster Farms (Management Plans) Bill 1992. NSW Parliamentary Debates, Legislative Assembly, 24 November 1992, p.9790.

² The legislation passed by the NZ Parliament was in the form of amendments to that country's *Fisheries Act 1983*. See Ian Clark, Philip Major and Nora Mollett, "Development and Implementation of New Zealand's ITQ Management System" in *Marine Resource Economics*, vol.5, 1988, p.327.

³ See Michael Young, "The Design of Fishing-Right Systems: the New South Wales Experience" in *Ocean and Coastal Management*, vol.28, no.s 1 -3 , 1995, p.46.

in 1958 the quantity of fish was. . .nearly 150 times greater than that in Australia. What, then, is the matter with Australia's fisheries? . . .Fundamentally, it is a question of the fertility of the various seas. . .The shores of Australia are swept by comparatively warm currents, while those of the great land masses in the northern hemisphere are washed by colder currents, and it has been found that the colder seas contain a greater abundance of available nutrient salts than warmer seas. . .⁴

Shelley and Gary Underwood have written in 1995 that, "Australia's annual catch is ranked 55th in the world. This represents just over 200,000 tonnes of fish. This is small compared to New Zealand's catch of 500,000 tonnes and Japan's 10 to 12 million tonnes."⁵ As Peter Pownall, a former editor of the magazine *Australian Fisheries*, commented in 1979, "by world standards, Australia is not a major fishing nation."⁶

(b) The Particular Nature of NSW Waters

Although the level of nutrients, in the seas off the Australian coast, do not support a large fish population, the waters in the NSW estuaries and lakes, however, do have a significantly high level of nutrients. Michael Lorimer has provided the following outline of the characteristics of NSW fishing grounds:

Behind many of the beaches [in New South Wales] are extensive lakes which often flow only intermittently into the sea. All these lakes are shallow. . .[they] were originally plains or valleys near the sea through which small streams flowed. Due to changes in the sea level the valleys became submerged, and their streams continued to bring down silt but were not strong enough to carry it well out to sea. Slowly long sand bars built up which gradually converted the flooded plains and valleys to lakes. Larvae of fish and prawns enter the lakes from the sea via the stream mouths and find the saline lake water fertilised by land drainage a rich source of food. They stay there and grow until it is time to breed, when they return to the sea. This process creates a biomass in the lakes with a fish population capable of supporting a long term commercial fishing effort. . .These estuaries and lakes of NSW are also particularly suited to net fishing as they often have extensive shallow sand and mud flats with low seaweeds which are easily hauled with minimal equipment required . . .the fish population of the waters of NSW [therefore] differs significantly from that of the major fishing grounds of the world such as the North Sea. . .in NSW there is a great range of species in small numbers whereas in the major grounds there are a few species in great numbers. This diversity is noticeable even on the deep

⁴ T.C. Roughley, *Fish and Fisheries of Australia*, revised edition (Angus and Robertson, Sydney, 1961), pp.163-164.

⁵ Shelley and Gary Underwood, *Fishing* (Cardigan Street Publishers, Melbourne, 1995), p.28.

⁶ Peter Pownall, *Fisheries of Australia* (Fishing News Books, Farnham, Surrey, 1979), p.12.

water trawling grounds off the NSW and Victorian coasts.⁷

(c) The Rise and Decline of NSW First Commercial Fishing Industry: Whale Fishing for Export

Commercial fishing first began in New South Wales with the advent of whaling, which, as Peter Pownall recalls, “was Australia’s first primary industry, and until 1833 was worth more than wool as the main export.”⁸ In the early 1800s whaling stations were established near Eden, in New South Wales, and at Ralph Bay on the Derwent River in Tasmania. Subsequently other whaling stations were set up at Portland, in Victoria, and at Port Lincoln in South Australia. Pownall has outlined the course of the industry, and the demand for its products, as follows:

by 1819 Sydney owners had a considerable share in whaling. . . Alexander Berry had several whalers based at Berry’s Bay, and at Twofold Bay, near Eden, Benjamin Boyd tried to make Boyd Town a great whaling port. In 1848, when the project was abandoned, he had nine deep-sea whalers working from the port. The main target for deep-sea whaling fleets was sperm whales which produced oil for the lamps of London and New York, and spermaceti, a waxy substance from the whale’s head which was made into candles.⁹

Although whaling declined in the second half of the 1800s as the demand for whale oil fell (as gas took over for lighting and cooking) the industry did lead to the establishment of ports some of which later re-emerged as major centres in NSW for a renewed deep-sea fishing industry: Eden being the most prominent.”¹⁰

(d) The Emergence of Commercial Fishing for Local Consumption

As whale fishing declined, those who still wanted to make a living from fishing began to turn to fishing for the local population. Michael Lorimer has recalled that the 1860s saw,

the fishing industry limited to the waters around Port Jackson. The only significant market was that of Sydney, which was supplied by a small group of fishermen living in the. . . suburbs around Port Jackson. Using small open boats, no longer than 25 [feet], propelled by sail and oars, they worked the enclosed waters of Port Jackson

⁷ Michael Lorimer, *The Technology and Practices of the New South Wales Fishing Industry 1850-1930* (MA Thesis, University of Sydney, 1984), pp.23-24. Tony Law has written that, “There are about 1,000 species of fish living in New South Wales coastal and inland waters”. See Tony Law, “Fish and Fisheries of New South Wales” in *Fish and Fisheries* (NSW State Fisheries, Sydney, 1980), p.8.

⁸ Pownall, *op.cit.*, p.90.

⁹ *ibid.*, p.91.

¹⁰ *ibid.*

and the nearby offshore reefs and headlands. The number of operating fishing boats is unclear from the very limited documentary data available. . . Fish, at this time, was a luxury item rather than a normal feature of the diet. . . Between 1850 and 1863 the fishing industry remained static with fish reaching the Sydney consumer regularly from Port Jackson and occasionally in winter from Broken Bay and Botany Bay.¹¹

(e) The Early Methods of Locally-Based Commercial Fishing in New South Wales: Nets, Lines and Boats

As far as the early means of commercially catching fish, for local consumption, were concerned, Michael Lorimer has observed that, with the majority of early settlers coming from Britain, nearly all the nets in use “were drawn from the repertoire of British fisheries and. . . had been commonly used for many centuries.”¹²

Lorimer has provided the following outline of, what he has described as, the “three. . . principal nets used throughout the New South Wales estuarine fisheries” during this period:

- *Hauling or Seine Net.* Lorimer writes that this was the “major net used” by the early commercial fishing people. These “seines” consisted of “a long shallow strip of net with a buoyant headline and a weighted ground rope and was particularly suited for work on gradually sloping beaches or mud flats.” These nets were usually “worked from the shore, one end was attached to a fixed object on shore such as a boulder or tree trunk, and the net played out from the stern of a rowing boat as the boat was rowed in a semi-circle from one spot on the shore to another further along”. Tony Law has noted that mullet, for instance, “are. . . caught in beach seine nets. They are the principal fish caught by this method.”¹³
- *Meshing Net.* Lorimer recalls that “This net was very common in New South Wales with most fishermen. . . specifying it as one in their possession.” This net was formed out of a “long shallow net mounted very slack on the headline and the groundrope. This headline had enough buoyancy to float on the surface, whilst the groundrope was sufficiently negatively buoyant to keep the net hanging in the water. Fish swimming against it endeavoured to pass through the meshes and were usually entangled by their gill-covers.” Lorimer notes that, “On the Clarence the fishermen often preferred to set the net for flathead. The net was set in a straight line and left overnight. The fisherman would return the next morning and work along the net pulling the fish from the net.

¹¹ Lorimer, *op.cit.*, pp.92-93.

¹² *ibid.*, p.59.

¹³ Law, *op.cit.*, p.132.

- *Trammel Net.* Although, as Lorimer notes, the trammel net “had been in the repertoire of British fishing technology from the reign of probably Elizabeth the First or Cromwell,” the early, mostly British, fishing people who had come to New South Wales, do not appear to have brought this technique with them. Lorimer writes that, to promote its introduction in New South Wales, “In 1899 the Commissioners of Fisheries ordered inspectors W.H. and F. Newton to make a trammel net and demonstrate its use. . . This they were able to do very successfully and soon the trammel net was common up and down the coast. It was particularly suited to the capture of fish on rocky ground and therefore was popular in Port Jackson for use along the foreshores of the rocky headlands.” The net itself “was made up of three distinct nets fastened together at the ends and also at the top and bottom to one headline and groundrope. . . Fish approaching the net from either direction and encountering the net carry a portion of the middle net through the outer net and form a bag or pocket trapping the fish.”¹⁴

While nets were mainly used to catch fish in the estuaries and lakes, lines were used to catch ocean-dwelling fish near the shore. Lorimer has observed that, according to his research, the only line method described in the second half of the 1800s was the:

handline. Two or three men would fish for mainly snapper but also morwong and nannygai out of a 16' to 24' open sailing boat. . . It was not until 1908 that long lines . . . began to be regularly seen in use. These were usually of the Scottish ‘small’ line type, i.e. up to 2,000 fathoms in length with short lines called snoods attached every 4'. On the end of the snood was either a single hook or multiple hooks. . . The major species caught this way were snapper, leatherjacket and morwong.¹⁵

As well as using nets and lines to catch fish, these local fishing people used what Lorimer has termed “fixed instruments” to catch fish: the most simple, and the most common, being the trap. Traps, as used in fishing, were wire cages designed to allow the fish easy access, but difficult exit. Sloane, Cook and Company, in their study of deep-sea commercial fishing in New South Wales, commented in 1978 that, “Although trapping is undertaken in other states, NSW has always been the centre of the trap fishery. . . [this] technique predate[s] the trawl fishery and [was]. . . together with long lining, for many years [one of the] main methods of catching ocean dwelling fish.”¹⁶

Boats used in fishing in New South Wales, during the nineteenth century, were propelled by either sail or oars. According to Lorimer,

¹⁴ *ibid.*, pp.59-63.

¹⁵ *ibid.*, pp.64-65.

¹⁶ Sloane, Cook and Company, *The Demersal Fishing Industry of New South Wales*, vol.I, report prepared for the NSW Fisheries on behalf of the NSW Department of Public Works (Sloane, Cook and Company, Sydney, 1978), p.23.

In 1850 to 1880 the fishing craft of both the inshore and estuarine fisheries appear to have been very similar. . . There were two broad types of inshore fishing boat, those launched across the beach and larger continually afloat craft which were based in ports such as Port Jackson and the river entrances. . . [according to] fishermen's descriptions of the sailing fishing boats. . . These boats were shallow draft for ease of crossing the bar. . . were often fitted with a centreboard. . . and ranged in length from over 20 to 50 feet. . . However the majority seem to have been in the range of 20 to 35 feet. . .¹⁷

(f) The Overall Informal Nature of the Early NSW Fishing Industry

On a general level, as outlined above, the fishing industry in New South Wales, as it emerged through the second half of the 1800s, was relatively informal in organisation: a cottage industry. The number of participants in the industry, however, doubled by the 1890s, although, during the 1890s depression, a number of people left the industry. Lorimer has provided the following figures for the number of working fishing people during the 1880s and 1890s:

<i>Working Fishing People in NSW: 1880s-1890s</i>	
1883	441
1893	994
1899	762 ¹⁸

(g) Identification and Evaluation of the Main Types of Fish in NSW

Many of the main species of fish in NSW had been identified by the 1880s. In 1879 a royal commission was established in New South Wales to report on the "state and prospect of the fisheries of this colony". The commission was constituted mainly by members of the Legislative Council. In the first part of its report the commission outlined the principal types of fish in the colony. Relying, to some degree, on a work by Count F. deCastelnau entitled *Catalogue of the Fishes of Port Jackson*, the commission's report, presented in 1880, detailed the following types of fish in the waters of NSW, along with the commission's opinion of them:

¹⁷ Lorimer, op.cit., pp.50-53.

¹⁸ Lorimer, op.cit., table 6.

<i>Fish Species</i>	<i>Opinion of the 1879 Royal Commission</i>
Bream	“an excellent fish”
Flathead	“excellent quality, and may be ranked amongst the best of our fishes”
Garfish	“the favourite breakfast fish of the citizens of Sydney”
Jewfish (Mulloway)	“always finds a ready sale in the market”
John Dory	“the excellence of this fish is universally admitted”
Leatherjacket	“said, when skinned, to be excellent food”
Ling	nothing known of its “edible qualities”
Mackerel	“a very good fish when eaten fresh”
Morwong	“very good fishes in the fresh state”
Mullet	in its half-grown form, having an “oily and muddy taste”; in its full-grown form, “unsurpassed in richness and delicacy of flavour”
Nannygai	“as an edible fish it ranks high. . .however... fishermen never specially seek it”
Salmon (Australian)	“very inferior quality as food”
Snapper	“the most valuable of Australian fishes, not for its superior excellence, for we have many more delicious, but for the abundant and regular supply”
Tailor	“much in demand for bait, but are not a favourite catch for the fishermen”
Trevally	“not much esteemed as a food fish”
Whiting	“the most important as an article of food. . . constituting ...the most generally used breakfast fish we have”
Wirrah	“does not. . .furnish the market with ... value as food” ¹⁹

(h) The Stimulus of Shipping, Railways and Refrigeration

One of the problems facing fishing people further away from Sydney was putrefaction of their catch if they sent it, for sale, over long distance. Lorimer has written that, “The first

¹⁹ NSW Parliament, Royal Commission on Fisheries 1879-1880, report (NSW Government, Sydney, 1880), pp.14-21.

shipment of fish from outside the immediate area was made in 1865. Caught at Lake Macquarie, it was taken by horse to Newcastle and from there by steamship to Sydney, unfortunately most of it was putrified on arrival in Sydney.”²⁰

Fish carrying over distances also created problems because of the impact of the smell on other goods. Lorimer has pointed out that, at this time, “fish and dairy produce”, for instance, were “mutually exclusive in refrigeration as the butter took up the smell of the fish.” Subsequently, however, certain ship-owners began to operate ships solely for the fish trade. Lorimer has recorded that, during the 1870s and 1880s, “Captain John Dalton owned the fish carriers *Kate* and *Kingsley* which were used on the Broken Bay to Sydney and the Port Stephens to Newcastle routes. . .The *Kate* operated from 1877 to 1892 . . .and the *Kingsley* operated from 1889 to the early 1890s.”

Progress in transport and packaging of goods, however, encouraged an expansion in commercial fishing. In 1872 the Sydney Municipal Council erected a fish market building in Woolloomooloo and Lorimer has remarked that,

The 1880s saw the railway network. . .begin to tap the coastal regions to the north and south of Sydney. This, in conjunction with the rapidly growing network of coastal steamships, meant that it was far easier to send fish to the Sydney market with. . . confidence that the catch would still be fresh on arrival. . .Ice became more readily available with the growth of the butter factory, as ice was a common sideline of these factories. In 1883 the first butter factory was opened in NSW on the south coast. . .By the end of 1890 butter factories were operating at three places on the Richmond River and at three place on the Macleay. . .in 1892. . .the North Coast Co-operative Company (Norco) was created. This company erected a large factory with refrigeration chambers and ice manufacturing equipment at Byron Bay.²¹

(i) Reluctance of the NSW Public to Eat Fish

One problem for the emergent fishing industry in New South Wales was the lack of a taste for fish amongst the general public. A second royal commission on fisheries in the colony, established in 1894, observed that, “Opinion has been expressed that our people are not a fish eating community”.²²

²⁰ *ibid.*

²¹ *ibid.*, pp.94,100-101.

²² NSW Parliament, *Royal Commission on Fisheries 1894-1895*, report (NSW Government, Sydney, 1895), p.48

(j) The Advent of Government Supervision of the Fishing Industry: Overfishing and Conservation

Overfishing has been a problem in fishing probably for as long as fishing has been in existence. Michael Lorimer has recalled that, during the 1620s in Britain for example, "Charles I was forced to consider the 'great destruction made of fish by a net. . .now called the trawle.'"²³

Even by the mid-1800s, in Sydney, overfishing had become an issue. Godden Mackay consultants have written that during the first half of the nineteenth century "hauling for fish" by nets

had been widespread and totally unrestricted with regard to net length and size of mesh, although only Port Jackson, Georges River and Botany and Broken Bays could be fished with nets. The resultant depopulation of fish stocks was finally recognised by the . . .more astute fishermen who enlisted the assistance of Richard Driver Jnr MLA in bringing the matter before a select committee of the House. The committee heard that the general custom was to work with nets of ¾" (20mm) which caught and destroyed enormous quantities of fry, a major cause of the depletion of the fishing grounds.²⁴

Gerard Carter has added that, in addition to the problem of mass destruction of fry, there was the practice of "'stalling'. . .which involved shooting a net of some 200 to 300 fathoms across a shallow bay or around flats at high tide and leaving it until the receding tide had left the enclosure dry. Only those fish of a saleable size and of the more choice species would then be selected, the remainder being left to rot." Carter has observed that,

The outcome of the select committee's considerations was the *Fisheries Act 1865*. That Act divided the year into winter and summer months and specified the description of nets which could lawfully be used during . . .[each] period. The Act also made it an offence to fix or stake any net within a mile of the shore or at the mouth of any river. The administration of the Act was entrusted to the Police and Customs Departments.²⁵

It seems, however, that fishing people in Sydney continued to over fish and the 1879 Royal Commission on Fisheries remarked that,

Port Jackson, although at one time, and not many years ago, holding a very high rank among our fishing grounds for all kinds of the best net fish, is now scarcely

²³ Lorimer, op.cit., p.68.

²⁴ Godden Mackay consultants, *NSW Fisheries Heritage and Conservation Register* (Godden Mackay Consultants, Sydney, 1997), p.19.

²⁵ See Gerard Carter, *Fisheries Law in New South Wales* (NSW Department of Agriculture, Sydney, 1986), p.19.

deserving as being regarded as a source of supply at all. And this is owing. . .to the ceaseless and often wanton process of netting to which every bay and flat has been subjected for the past fifteen or twenty years. The wholesale destruction within the harbour caused by. . .nets. . .with meshes almost small enough for a naturalist's hand has of course produced its natural effect on the outside grounds, where the snapper can now only be taken in very small quantities. . .²⁶

On the basis of its investigations, the 1879 royal commission had recommended the establishment of a body of Commissioners of Fisheries and the colonial government, a year later, obtained passage of the *Fisheries Act 1881* providing for the setting up of a board of five Commissioners acting in an honorary capacity. Carter has pointed out that,

The *Fisheries Act 1881* was the first comprehensive legislation in New South Wales dealing with fisheries. The Act set up a body of five Commissioners to administer the Act and provided for the regular supervision of the fisheries by inspectors. Extensive regulation-making powers were vested in the governor. The Act dealt with fishing nets, closed seasons for net fish, closed fisheries, fishermen's and boat licences, prawn fishing, torpedoes and dynamite, unmarketable (under-weight) fish . . .protection of certain fish and the territorial jurisdiction of the Act.²⁷

(k) The Development of Prawn Fishing and Oyster Farming

Fishing for prawns began not long after the British settlers arrived in Port Jackson. Sloane Cook and Company have written that some of the new arrivals from England began fishing for prawns "in the shallow estuaries around Port Jackson, and by 1886 some 100 boats were at work. From Sydney. . .[prawn fishing] expanded northwards. . .The Hunter River fishery was probably established by 1850 and by 1890 Newcastle fishermen had explored. . .as far north as the Clarence River"²⁸

Another significant aspect of fisheries production in New South Wales was the abundance of naturally occurring oysters. So many oysters were able to be gathered in NSW that, as Michael Lorimer has observed, "In the 1850s to 1870s the NSW oyster industry was able to not only fill the Sydney demand but also the Victorian demand."²⁹ As far as the oyster industry itself was concerned, Lorimer has written that, "from the 1870s, there were two streams in the oyster industry - the large Sydney based combines which ran their leases with hired staff in many areas and the smaller independent family based grower with leases in only one area".

²⁶ *Royal Commission on Fisheries 1879*, p.23.

²⁷ Carter, op.cit., p.20.

²⁸ *The Demersal Fishing Industry of New South Wales*, Vol. 1, p.24.

²⁹ Lorimer, op.cit., p.104.

In the early 1870s, however, the naturally occurring oyster beds, which were particularly sensitive to overfishing, began to show signs of exhaustion. In response the government obtained passage of the *Oyster Beds Act 1884*.³⁰ Lorimer has written that, "This [Act] limited the term of lease to 15 years and the length of foreshore to a maximum of 2,000 yards. . .By this stage the natural beds which had been the mainstay of the industry had been totally destroyed. This was a [through a] combination of overfishing and the worm 'polydora ciliata'".

Subsequently oyster collectors discovered that the foreshore or rock oyster was more resistant to the worm. At first they limited themselves to simply collecting the naturally occurring rock oysters, rather than farming them.³¹

(l) The Prominence of Imports

Although the fishing grounds in New South Wales were not as abundant as those in the northern hemisphere, there still seemed to be enough fish for the relatively small number of people in the colony. Yet, as T.A. Coghlan, the NSW government statistician reported, "there is an import of preserved fish, for consumption in the colony, which amounted to £106,500 in 1898."³²

Out of the imports of preserved fish into New South Wales in 1894, the royal commission of that same year, mentioned above, estimated that 45% came from Britain and about 25% from the USA.

Out of the imports of frozen and fresh fish into New South Wales in 1894 - amounting to £3,062 - the royal commission estimated that 45% came from New Zealand and 32% from South Australia.³³

³⁰ 48 Victoria no.6, 1884, An Act for the Amendment of the "Fisheries Act 1881", the Promotion of Oyster Culture and the Regulation of Oyster Fisheries.

³¹ *ibid.*

³² T.A. Coghlan, *The Wealth and Progress of New South Wales 1898-1899* (NSW Government, Sydney, 1900), pp.202-203.

³³ Royal Commission on Fisheries 1894, p.48.

3 THE BEGINNINGS OF PROFESSIONALISATION : THE ADVENT OF MOTORISED FISHING VESSELS AND GOVERNMENT INTERVENTION TO INAUGURATE LARGE-SCALE COMMERCIAL FISHING

(a) Consolidation of the Fishing Grounds of New South Wales

Around 1900 most of the near shore fishing grounds in NSW had been established. Michael Lorimer has pointed out that,

By 1888. . .the industry had explored almost all the grounds in NSW. Fish were being drawn from Twofold Bay in the south to the Clarence River in the north, a distance of approximately 980 kilometres. The major supplier was now the *Clarence River* (15.62 per cent), followed by *Port Stephens* (11.78 per cent), *Botany Bay* (11.27 per cent), *Lake Illawarra* (9.44 per cent), *Lake Macquarie* (8.35 per cent), with another 14 areas supplying the remainder. . .This trend continued into the 1890s. By 1893. . .there were now 27 grounds supplying fish to the Sydney market ranging from the Richmond River. . .to Twofold Bay. . .In summer the majority of the supply came from the grounds between Lake Macquarie and Botany Bay, whereas in winter the majority of the supply came from the Outer grounds. . .The industry had, at this stage, taken on its final geographic and economic form until the arrival of the steam trawlers in 1915.³⁴

(b) Continuing Informal Nature of the Fishing Industry

Despite the expansion of fishing activity, up and down the coast of New South Wales, the industry itself was still carried out on an informal basis. A 1911 royal commission on food supplies and prices, referred to above, noted that,

The most notable characteristic of the fishing industry, as at present conducted, is a lack of organisation along commercial lines. . .In New South Wales, and indeed in Australia generally, commercial fishing is the Cinderella of our industries. Capital and labour alike have passed it by for the more profitable avenues of investment and employment. . .Fishing in this state is done principally by men who work individually, or in groups of two or three on the share system. For the most part, they have comparatively little capital invested in the industry. . .Living, as the majority do, in the out-of-the-way villages, their standard of living is not high, and their material wants are few. The majority of the fishermen we examined are apparently able to maintain themselves and their families on incomes which do not average £3 per week all year round. . .The quantity of fish caught for the Sydney markets week by week is. . .largely dependent on [these]. . .individuals. . .³⁵

³⁴ Lorimer, op.cit., pp.95-96.

³⁵ *Royal Commission on Food Supplies and Prices 1911-1912*, p.27.

Despite the relatively low earnings that could be made from fishing, even more people in New South Wales turned to fishing during the period 1900 to 1930 as the figures for people working at fishing, and licences issued, indicate:

<i>Working Fishing People in NSW</i>	
1901	706
1913	2,220
1929	2,008 ³⁶

(c) Improvements in Government Administration of Fishing

As mentioned above, a royal commission, into fishing in New South Wales had been conducted in 1879 and 1880 resulting in the passage of the first comprehensive legislation dealing with fisheries in the colony and the establishment of five Commissioners of Fisheries.

As Godden Mackay relate, however, not long after the passage of the *Fisheries Act 1881*,

Claims that the 1881 Act was deficient and needed redrafting soon emerged, initiated and supported by disgruntled fishermen and . . . parties who believed that the Act placed undue restrictions upon them. A select committee of the Legislative Assembly was established resulting in the *Fisheries Act (Amendment Act) 1883* which reduced the stringency of the regulation of the industry, not however sufficiently for the protesters who continued to agitate until their cause was taken up by Frank Farnell MLA. Farnell criticised the Fisheries Commission 'for want of practical knowledge, and the officers under them for their administration of the Act'. The select committee subsequently appointed, including Farnell, reported in August 1889 in a negative assessment of the Act repeating Farnell's parliamentary criticisms: that it operated harshly upon those in the industry. . . and that its regulations were unnecessarily restrictive. . . it recommended. . . abolition of the Fisheries Commission...³⁷

A second royal commission into the industry, conducted between 1894 and 1895, also concluded that the Fisheries Commissioners, so far, "do not seem to have given any attention to the development of the fisheries".³⁸

It was the advent of widespread disease which led the See Government, in 1902, to make further changes, and to take some significant initiatives, in the administration of commercial fishing. Godden Mackay recall that,

³⁶ Lorimer, op.cit., table 6.

³⁷ Godden Mackay, op.cit., pp.20-21.

³⁸ *Royal Commission on Fisheries, 1894-5*, pp.33,35.

it took an event as life-threatening as an outbreak of bubonic plague [around 1900] to achieve new legislation and stricter regulation of the industry. The impact was more dramatic as the plague coincided with the revelation that a large quantity of dead fish and prawns had been floating on the surface of Johnson's Bay, causing much alarm to the public who believed that the mortality was caused by large amounts of chemicals and disinfectants emptying into rivers and bays surrounding Sydney. The public's response was to immediately refuse to purchase fish of all types; the Board's response was to close the whole of the waters of Port Jackson to net fishing and to adopt stringent measures to prevent fish from these waters reaching the markets. . .[the *Fisheries Act 1902*]. . .was assented to on 29th December 1902. . .The Act prescribed a chairman (appointed by the governor for three years) and nine other members, one required to be a licenced fisherman of five years's standing and an oyster lessee of equal experience. . .and six representatives of the crown. The Board was given extensive powers and responsibilities under the new chairman, Frank Farnell, to supervise the industry, to carry out investigations likely to be of service, and to ensure observance of regulations regarding dimension of nets, closure of inland and tidal waters, net-fishing etc.³⁹

Eight years later, however, the Wade government decided to change the administration of fishing yet again by obtaining passage of the *Fisheries (Amendment) Act 1910*. According to Godden and Mackay the,

New legislation amended the 1902 Act by establishing the principle of ministerial administration and the former Board of Fisheries became the Fisheries Branch of the Chief Secretary's Department. The amended Act 'contemplated' the appointment of a Chief Inspector of Fisheries and an Advisory Board consisting of no more than five persons to advise the minister, who was charged with the control and regulation of the sale of fish and oysters, whether produced in the state or imported. The amendment was not implemented until early in 1911 when it was 'not deemed necessary to. . .appoint. . .an Advisory Board as experience has shown that such a board is not so far necessary.'⁴⁰

(d) The Inauguration of Fisheries Research at a State and Federal Level

The second royal commission into the fishing industry in New South Wales had advocated the undertaking of further research activity. Subsequently the then colonial government, in 1898, commissioned HMCS *Thetis* to undertake trawling experiments off the New South Wales coast. Experiments were carried out as far north as the Manning River, and as far south as Jarvis Bay.

Four years later, during the same year that the 1902 Act was passed, the See Government engaged Harald Dannevig, who had been in charge of the Aberdeen Marine Fish Hatchery,

³⁹ Godden Mackay, *op.cit.*, pp.23,27.

⁴⁰ *ibid.*, p.34.

in Scotland, to take up the position of NSW Superintendent of Fisheries Investigations and Fish Hatcheries. David Stead, a naturalist, was appointed as Scientific Assistant to Dannevig.⁴¹

The development of what is now the Fisheries Research Institute of NSW Fisheries began in the early 1900s, under the See and Carruthers governments, with the establishment, in 1906, of a small research centre at Cronulla and a fish hatchery at Maianbar.

A principle aim of the hatchery was the attempted acclimatisation of fish from other parts of Australia. A shipment of over 1,000 flounder, for example, was brought from the Derwent River, in Tasmania. However there was little evidence of the flounder acclimatising and little sign of the flounder in the local fishing people's catch.

Meanwhile the newly established federal government decided to have a trawler built to explore the Australian coast for possible trawling grounds. This boat was built at the NSW government shipyard at Newcastle and commissioned, in 1909, as HMAS *Endeavour*. Harald Dannevig, former Superintendent of Fisheries in New South Wales, and now Commonwealth director of fisheries, was appointed to lead the investigations and the first explorations were undertaken around Shoalhaven Bight during the same year. T.C. Roughley has written that,

The work of the *Endeavour* laid the foundation for commercial trawling in Australian waters, for it demonstrated convincingly that there were at least two areas, one along the south-eastern Australian coast, the other in the Great Australian Bight, where fish of good edible quality existed in quantities comparable with the best of the grounds in the northern hemisphere.⁴²

In New South Wales, however, fisheries research suffered a significant setback with the outbreak of the Great War in Europe, as the then Holman government decided to close the fish hatchery, temporarily, for the duration of the war.⁴³

(e) Increased Public Consumption of Fish

Even by 1900, fish continued not to be "a normal feature of the diet". The royal commission, established in 1911 to investigate food supplies and prices in NSW, observed that,

There is undoubtedly, amongst nearly all classes of consumers, a strong prejudice against what are known as common fish, such as mullet, blackfish, tailor etc. Large numbers of people will not buy these fish. . .⁴⁴

⁴¹ *ibid.*, pp.26-29.

⁴² Roughley, *op.cit.*, p.171.

⁴³ Godden Mackay, *op.cit.*, pp.31-36.

⁴⁴ *ibid.*, p.40.

Increased popularisation of fish consumption, amongst the Australian public, came with the advent of fish and chips.

Selling of fried fish, in Britain (from where most of the settlers had arrived), seems to have been in existence at least by the 1830s. Charles Dickens, in *Oliver Twist*, refers to a “fried fish ware-house in Field Lane”. Serving chipped potatoes together with fried fish seems to have been brought over from France around 1870. One company in Britain, John Rouse of Oldham, claims to have originated the popularisation of fish and chips in England, beginning in the early 1880s. In Britain there were 25,000 fish and chip shops just before 1914.

During the 1910s and 1920s fish and chips, and fish and chip shops, began to spread to Australia. In 1912 there were only 30 fish and chip shops in the whole of Sydney but by 1924 there were 65 in the city area alone. Lorimer has observed that “In the suburbs the fish and chip shop was considered an essential part of the shopping centres which were appearing through the 1910s and the 1920s”.⁴⁵

(f) Fishing People’s Unhappiness with their Returns

One feature of the industry which the 1911 royal commission pinpointed was the disappointment of fishing people with the returns from their endeavours. The commission noted, on the one hand, that “during the last ten years, the wholesale prices of all classes of fish have increased considerably.” It also observed, on the other hand, that,

Practically the whole of the fish marketed in Sydney passes through the hands of fourteen agents (including the City Council) who sell on behalf of the catchers. . . complaints were made [by fishing people] that the agents’ charges were excessive, and frequently involved such a large deduction from the amount realised by the sale of fish as to leave the fisherman a very inadequate return for his labour.⁴⁶

This unhappiness with their returns from fishing would later result in an ALP state government, during the 1940s, intervening to secure better rewards for fishing people.

(g) Continuing Prominence of Imports and the Development of a Canning Industry as a Countermeasure

Large amounts of fish continued to be imported into New South Wales. The 1911 royal commission on food supplies and prices observed that, “In 1910 there was imported into this state. . .nearly 7,000,000 lb. of preserved or dried fish. This represented a value of about £200,000.” The commission also noted that,

Canneries have been started in New South Wales, but they have not proved successful, owing, partly, to the fact that the people engaged in them were without

⁴⁵ Lorimer, op.cit., pp.71,113-117.

⁴⁶ *Royal Commission on Food Supplies and Prices 1911-1912*, pp.36-37.

the necessary experience. . . ⁴⁷

The same 1911 royal commission report, however, looked forward to the development of deep-sea fishing to aid the canning industry and cut down imports. It expressed the hope that “measures can be taken to bring about a substantial increase in our supplies, especially by the development of deep-sea fisheries, which will supply classes of fish peculiarly suitable for preserving”.⁴⁸

(h) The Motorisation of NSW Fishing Vessels

During the 1880s, in Britain, both steam power and motor power began to be used in the propulsion of commercial fishing vessels. According to Lorimer, in the early 1880s the “Great Grimsby Steam Trawling Company launched the first steam vessel. . . specially designed for trawling. . . By 1909 there were 1614 steam trawlers in Great Britain”.⁴⁹ Only a few years after Great Grimsby began operating their steam trawlers, however, internal combustion engines for marine use began to be produced. Lorimer notes that “Priestman’s Otto cycle engine was fitted to a 28’ boat as early as 1888 in Great Britain”.⁵⁰

As fishing people in New South Wales began to look at new sources of power to propel their vessels, they could, therefore, choose between steam and diesel/petrol powered engines.

Initially some NSW fishing people purchased steam vessels. Lorimer recalls that, “There was a short experiment with steam powered vessels in the [inshore] fishery in the early 1900s . . . principally at Cape Hawke, Port Stephens and Port Macquarie. . . The *Narani*, which operated out of at first Port Stephens and later Port Macquarie. . . was built at Stockton opposite Newcastle. Fifty feet long, she was fitted with a single cylinder engine.”⁵¹

In the end, however, NSW fishing people turned towards small, petrol engine boats. Lorimer describes the advent of this as follows:

In the government reports for the 1900s there are a number of comments on the growing number of engines appearing in the fleet. The first sector in which engines appeared was the crayfishing/snapper fleet. Crayfishing boats at Port Stephens were the first to experiment with engines. . . The steam engine had. . . a number of disadvantages. The engine required constant attention, with the stoking of the boiler, monitoring of feed water etc. Also the engine and boiler required large amounts of

⁴⁷ *ibid.*, p.44.

⁴⁸ *ibid.*, p.44.

⁴⁹ Lorimer, *op.cit.*, p.70.

⁵⁰ *ibid.*, p.47.

⁵¹ *ibid.*, p.54.

hull space, resulting in a large vessel apparently beyond the normal capital capacity of the two or three man groups engaged in fishing. The advent of the single cylinder petrol engine allowed a boat small enough to be handled by two men. Yet being fast enough to reach the outside fishing grounds and return in one day. . .[for the] Net fishermen. . .in estuaries and lakes. . .the petrol engine was not cheap in relation to the expected return from estuarine fishing. A petrol motor fishing boat cost 180 to 230 pounds in 1911. . .[for the] estuaries. . .[a] class of motor launch [was later] developed. . .⁵²

(i) Government Intervention to Inaugurate Large-Scale Commercial Fishing: the Advent of Near Shore Ocean Steam Trawling

By 1900 fishing, for domestic consumption, in the ocean off New South Wales, was still only just developing. The royal commission on food supplies and prices, mentioned above, remarked in 1912 that,

At present, less than one-tenth of the Sydney fish supply comes from [deep-sea fisheries]. . .Nine-tenths of our fish supply come from the river estuaries, lakes and inlets along our coast.⁵³

By this time, however, Dannevig's research for the Commonwealth government, as outlined above, had indicated that there were, in Roughley's words, "fish of good edible quality" which "existed in quantities" around the "south-east Australian coast".

In 1914 the then ALP government in New South Wales (with Holman as Premier) decided to set up a government owned company: the State Trawling Industry. According to Lorimer, this was to "supply the cities of Sydney and Newcastle with large quantities of cheap fish. The government intended establishing a complete integrated fishing and marketing system [with]. . .the State Trawling Industry opening a number of shops. . .By . . .1916 there were four shops in Sydney. Eventually, by 1922 there were 20 retail depots, of which 14 were in the Sydney area".⁵⁴

The course of the Holman government's acquisition and use of the trawlers has been described by Lorimer as follows:

David Stead. . .was. . .despatched to Great Britain to investigate trawling methods and acquire the necessary ships and crews. . .Stead was able to locate three ships being built by Smith's dock at Middlesborough . . .The first, the *Brolga*, arrived in Sydney on 21 April 1915. . .She was followed on 27 April 1915 by the *Koraaga*. . .and finally on 18 May 1915 by the *Gumundal*. . .These ships were crewed with

⁵² Lorimer, op.cit., pp.48-52.

⁵³ ibid., pp.27-28.

⁵⁴ Lorimer, op.cit., pp.72,115.

English masters and seamen with extensive experience on the North Sea trawlers and on 5 June 1915 made their first trawling cruise. From the beginning they caught fish in large quantities. . .in 1916 the government decided to expand the State Trawling Industry by building three trawlers at the State Dockyard in Newcastle...⁵⁵

These trawlers would have operated about 20 nautical miles out to sea. Tony Law has written that, "At a mean distance of 20 nautical miles offshore the [continental] shelf [off NSW] slopes down very sharply from around 100 fathoms to 400 fathoms and deeper". However the main species of fish targeted by the trawlers was tiger flathead which, according to Law, is found around depths of "30 to 150 fathoms".⁵⁶

The method used by these steam trawlers was the "otter-board" technique where the mouth of the net is held open, and spread, by two boards which are towed by wire cables attached to the vessel. These two boards use water pressure to keep open the mouth of the net. Out on the ocean, the trawler, according to Pownall, then tows the net "over the sea for hours at a stretch".⁵⁷

In terms of impact on the market, these trawlers were noticeably successful. Lorimer has remarked that "Quite rapidly the trawlers captured almost fifty per cent of the Sydney market."⁵⁸

New depots were opened by the State Trawling Industry for receiving, cleaning and distributing the trawler catch: at the Clarence River, at Port Stephens and at Newcastle, between 1916 and 1917; and at Eden and on the St. Georges Basin between 1917 and 1919.

Financially, however, the government trawling operation appears not to have been a success. The operation made a loss in the first year of its operation. In 1920 the Storey Labour government replaced David Stead with Mr. Summer-Greene as manager of the State Trawling Industry. Lorimer recalls that, "Summer-Greene. . .began a major cost-cutting program, starting by closing most of the coastal depots and gradually reducing the number of retail shops." By 1922, however, the operation still had a running loss of over £180,000 and the new Nationalist Party government of Sir John Fuller, which took office in the same year, decided, in 1923, to sell off the operation.⁵⁹

Eventually the trawlers ended up in the hands of private companies. Although the trawlers, when they were sold off, were bought by New Zealand concerns, these concerns soon sold them back to New South Wales businesses. Coastal Trawling Limited bought some of the

⁵⁵ *ibid.*, pp.72-74.

⁵⁶ Law, *op.cit.*, p.15.

⁵⁷ Pownall, *op.cit.*, p.14.

⁵⁸ *ibid.*, p.97.

⁵⁹ *ibid.*, pp.74-75.

trawlers, and this concern was soon joined in a merger with Red Funnel Trawlers (which had been formed between 1925 and 1926). The two other big operators which emerged in NSW trawling were Cam and Sons (formed by C. Caminetti, an Italian, who imported a number of trawlers from Italy) and A.A. Murrell who began in 1926 with an English trawl boat. Murrell's acquired their second trawler in 1929 and more in 1930.⁶⁰

(i) **The Impact of Trawling on Concerns about Conservation**

Although the steam trawlers were successful in delivering large quantities of fish to the market, the impact on tiger flathead stocks was marked. Sloane, Cook and Company have observed that, despite the high catches during the 1920s (towards 4,000 tonnes in some years), "Catches fell rapidly and progressively after 1931 however, resulting in the voluntary restriction of the fleet to 13 boats (down from a maximum of 17) in 1935."⁶¹

4 **THE EMERGENCE OF SEINE TRAWLING, NEAR-SURFACE FISHING AND FURTHER GOVERNMENT INTERVENTION IN THE INDUSTRY: 1930s-1970s**

(a) **The Decline of Steam Trawling, and the Rise and Fall of Danish Seine Trawling**

Until the 1930s, however, the emphasis in trawl fishing in New South Wales, as outlined above, continued to be on steam trawling.

From the mid-1930s onwards, however, a new form of trawling was adopted by people in the NSW fishing industry. Peter Williamson has recalled that,

Danish seining was introduced in 1936 and gradually became the most commonly used technique. . . seining was actively promoted. Because of the lower capital cost and operating costs of this technique - boats can be smaller and require less powerful engines - it was seen as the most suitable technology to achieve a rapid expansion of the industry and the opening up of new fishing grounds.⁶²

Danish seining involves a boat dropping a buoy with a long rope (over a kilometre in length) attached. Near the end of the rope the boat shoots out a net and then turns, trailing another length of rope attached to the other side of the net. The boat then comes back to the buoy, having formed a giant loop with the rope (and with the net at the far end of the loop). The boat then moves ahead with the action of the ropes in the water guiding the fish into the net. When the ropes and the net have almost been drawn together by the accumulated fish

⁶⁰ *ibid.*

⁶¹ *The Demersal Fishing Industry in New South Wales*, vol.II, p.4.

⁶² Peter Williamson, *Growth and Management of the New South Wales Demersal Fisheries* (M.Ec. Thesis, University of Sydney, 1984), p.27.

enclosed, the net is hauled on board.⁶³

Danish seining is carried out in ocean waters shallower than those which, for instance, were being fished by the steam trawlers. A New South Wales parliamentary committee, established in 1953 to inquire into marketing of fish in the state, described the seine trawlers then operating in NSW:

These vessels are approximately 40 ft. to 60 ft. long, occasionally larger, up to 80 ft. in length. Usually they are diesel-powered and manned by a crew of two or three. Fish is netted offshore in waters shallower than those fished by steam trawlers, in about the 30 to 40 fathoms line. . .the main fishing grounds extend from Port Stephens in the north, to Eden in the south.⁶⁴

According to T.W. Houston, from the late 1930s onwards,

seiners commenced working along the New South Wales coast. . .and the annual total catch. . .reached a peak in the financial year 1938-39. Normal fishing operations were curtailed in 1939, and in 1940 most of the fishing vessels were taken over for wartime duties. Production decreased as a consequence and it was not until 1944-45, when the fleet was being rehabilitated, that the annual total catch showed signs of improvement. The trend of rising catch culminated in 1946-47 with the third and highest peak of production. . .The. . .seiners, working mainly from the ports of Newcastle, Sydney, Wollongong, Ulladulla, and Eden, mostly fish[ed] the grounds close to their home ports but occasionally move[d] up and down the coast according to reports of availability of fish.⁶⁵

Red Funnel and Cam and Sons did continue to operate their steam trawlers. During the early 1950s, for instance, the two companies collectively owned around 10 steam trawlers which harvested about 30% of the NSW catch (around 7 million pounds, by weight, of fish). However the problem of overfishing of flathead, which occurred in the late 1920s and early 1930s, continued to be a factor and the companies gradually began to withdraw their steam trawlers from service. The last remaining steam trawler ceased operations in 1961.

Gradually, however, the number of seiners in the NSW commercial fishing industry declined. The 1953 parliamentary committee report, and Williamson's study, provide the following figures for the numbers of seiners operating in New South Wales waters, from the 1950s to the 1970s:

⁶³ NSW State Fisheries and NSW Fish Marketing Authority, *Fisheries and Fish Marketing in NSW* (NSW Fish Marketing Authority, Sydney, 1979), p.11.

⁶⁴ NSW Parliament, *Parliamentary Committee on Fish Marketing 1953* (NSW Government, Sydney, 1953), p.6.

⁶⁵ T.W. Houston, "The New South Wales Trawl Fishery: Review of Past Course and Examination of Present Condition" in the *Australian Journal of Marine and Fresh Water Research*, vol.6, no.2, August 1955, p.166.

<i>Danish Seine Trawlers</i>	<i>Year of Operation</i>
39	1953
48	1972
9	1977 ⁶⁶

One reason for the decline was the development of light otter trawl gear which could be used by smaller diesel-powered vessels. A NSW Fisheries publication produced in 1979, referred to above, observed that, "Late in the 1960s, the seiners began converting to otter trawling. . .the past decade has seen the conversion of almost all the seiners to otter trawling."⁶⁷

(b) Pioneering and Expansion of Fishing Grounds by Danish Seine Trawlers

Although, by the 1970s, the industry eventually abandoned Danish seine trawling, the introduction of this technique was significant for its expansion of certain fisheries. Ocean prawns were one fishery pioneered by the seine trawlers. Sloane, Cook and Company have recorded that,

In 1947. . .seiners discovered large numbers of school prawns off Newcastle, paving the way for the establishment of the ocean prawn industry. Grounds were soon located off Evans Head and Ballina in the north, and in Shoalhaven Bight in the south of the state. . .In 1957 the Commonwealth government approved funds to allow the prawn trawler *Challenge* to survey the prawn potential off the east coast. Following its successful program. . .large numbers of boats commenced commercial operations. . .from NSW ports. . .⁶⁸

Landings of prawns have shown a steady increase during the 1960s and the 1970s, as the following figures show:

<i>Ocean Prawn Catch in NSW: 1960s and 1970s</i>	
1966-1967	1,022 tonnes
1976-1977	1,775 tonnes ⁶⁹

⁶⁶ NSW Parliamentary Committee on Fish Marketing 1953, p.5; Williamson, op.cit., p.28.

⁶⁷ NSW Fisheries, *Fisheries and Fish Markets in NSW*, op.cit., p.21.

⁶⁸ *The Demersal Fishing Industry of NSW*, Vol. 1 p.24.

⁶⁹ *ibid.*, vol.II, p.35.

Danish seine trawlers also expanded the morwong catch. Although in the early 1950s the steam trawlers accounted for over 75% of the morwong catch, by the end of the 1950s the Danish seine trawlers accounted for nearly 80%. By the late 1950s the seine trawlers caught around 1,000 tonnes of morwong each year. V.C.F. Han observed that, in the early 1960s, the “total production of morwong averages about 10.7 per cent of the total saltwater species production in New South Wales. . . [and] is conducted principally by. . . seiners.”⁷⁰ Landings of morwong declined during the late 1960s, but revived during the 1970s as figures provided by Sloane, Cook and Company indicate:

<i>Morwong Catch in NSW during the 1960s and 1970s</i>	
1969-1970	780 tonnes
1976-1977	1,299 tonnes ⁷¹

(c) Continuing Informal Nature of the Industry in New South Wales

The Parliamentary Committee, appointed in 1953 to examine fish marketing in the state, provided the following details on the major participants in NSW commercial fishing:

<i>Fishery</i>	<i>Some Details of Participants 1951-1952</i>
Estuarine	810 licenced fishermen catching around 12,500 pounds each, on average
Deep-Sea	An average of 10 trawlers under the ownership of either Red Funnel Trawlers or Cam and Son (each trawler being around 140 foot long, weighing around 300 tons and crewed by about 12 people)
Seine	An average of 39 diesel-powered boats (each boat being about 40 foot to 60 foot long and crewed by 2 to 3 people)
Tuna, Lobster etc.	An average of 150 small diesel powered, or petrol powered, boats (each boat around 30 foot in length and crewed by 2 people, or by a single operator) ⁷²

The essential nature of commercial fishing in New South Wales, during the 1930s - 1960s, appears to be, as Sloane Cook and Company have observed, that “The NSW industry. . .

⁷⁰ V.C.F. Han, “The Australian Fishery for Morwong”, paper presented at the *Fisheries Management Seminar*, Sydney, 1962 (Fisheries Division, Department of Primary Industry, Canberra, 1962), pp.41-45.

⁷¹ *The Demersal Fishing Industry of New South Wales*, vol.II, p.44.

⁷² NSW Parliament, *Parliamentary Committee on Fish Marketing 1953*, pp.6-7.

has a . . . family business structure".⁷³

During the 1970s commercial fishing in New South Wales still retained much of this kind of characteristic. In the late 1970s, R. Sudmalis collected the following figures on the size of boats in the NSW commercial fishing fleet:

<i>Selection of Fishing Boats in NSW by Length: 1978-1979</i>	
Below 6 metres	639
6 - 9 metres	403
9 - 12 metres	147
12 - 15 metres	141
15 - 18 metres	78
Over 18 metres	36 ⁷⁴

In the mid-1970s the industry continued to demonstrate this kind of character. This is illustrated by some examples of family boat ownership along the New South Wales coast:

<i>Some Instances of Family Boat Ownership in NSW: mid-1970s</i>	
Bell family (Eden)	40 tonne, 18 metre <i>Fearnot</i> and the 7 tonne, 9 metre <i>Wendy Dale</i>
Buckland family (Eden)	28 tonne, 15 metre <i>Gipsy</i> and the 80 tonne, 25 metre <i>Catriona T</i>
Cowen family (Clarence)	25 tonne, 15 metre <i>Mystic</i> and the 21tonne, 14½ tonne <i>Life Line</i>
Dobbin family (Clarence)	15 tonne, 11 metre <i>C. Wanderer</i> and the 4 tonne, 8 metre <i>Arrawarre</i>
Innes family (Shoalhaven)	23 tonne, 14½ metre <i>Ajax</i> and the 36 tonne, 16 metre <i>Ajax II</i>
Kelly family (Wollongong)	15 tonne, 10½ metre <i>Miss Antonia</i> and the 40 tonne, 14½ metre <i>Belbara</i>

⁷³ *The Demersal Fishing Industry of New South Wales*, vol. 1, p.11.

⁷⁴ Williamson, op.cit., p.61 citing R. Sudmalis, *The Owner-Operator Sector of the Australian Fishing Industry - Economic and Structural Characteristics* (Department of Primary Industry, Canberra, 1981), p.2.

Mitchell family (Hunter)	70 tonne, 21 metre <i>Liawenee</i> and the 22 tonne, 15 metre <i>Girl Pat</i>
Puglisi family (Ulladulla)	28 tonne, 13½ metre <i>Julianne</i> ; the 34 tonne, 17 metre <i>Gracie P</i> ; the 27 tonne, 16 metre <i>Joseph Star</i> ; the 34 tonne, 17 metre <i>Santa Lucia</i> and the 120 tonne, 23½ metre <i>Charissa</i>
Stace family (Laurieton)	11 tonne, 12½ metre <i>Dual</i> and the 25 tonne, 13½ metre <i>Heather D</i>
Stewart family (Macleay)	8½ metre <i>Jo Ann</i> and the 12 tonne, 12 metre <i>Bundagen</i>
Thompson family (Port Stephens)	32 tonne, 17½ metre <i>Dawn</i> and the 31 tonne, 14 metre <i>Tarana</i> ⁷⁵

Small-scale fishing techniques continued to be used by commercial fishing people in New South Wales, albeit in more modern ways. Sloane, Cook and Company reported in the late 1970s that, in regard to trap fishing,

modern fishermen can [now] travel over greater distances than was possible in earlier times and modern science has provided much greater knowledge of the sea floor and of the movement of fish populations and their feeding habits. . . trap methods are [now] used from close inshore to distances up to 100 nautical miles to sea. . . [involving] The setting of traps marked by buoys on the surface. . .⁷⁶

On an overall level, the number of fishing licences reached an all-time in the late 1970s as indicated by the following figures:

<i>Commercial Fishing Licences in NSW</i>	
1977-1978	4,118 ⁷⁷

(d) New Technology in the Fishing Industry

Although commercial fishing in NSW tended to be made up of family businesses, new technology was helping to introduce small amounts of sophistication into the industry throughout Australia. Geoffrey Waugh has written that, in the rock lobster fishery in Western Australia, "The period 1953 to 1957 was marked by the introduction of echo

⁷⁵ *The Demersal Fishing Industry of New South Wales.*, vol.II, pp.166-168.

⁷⁶ *The Demersal Fishing Industry of New South Wales*, vol.I, p.27.

⁷⁷ Information supplied by NSW Fisheries.

sounders which allowed exploration of deeper reefs”.⁷⁸

In the 1960s and 1970s, not only was new, lighter, gear for otter trawling developed, there were other innovations as well. Sloane, Cook and Company have noted that “during the mid to late 1970s, existing boats were fitted with new gear, particularly net drums and stern gantries”.⁷⁹

(e) The Expansion of Near-Surface Fishing for Australian Salmon and Tuna

Until the early 1930s, the emphasis in NSW commercial fishing had been on pursuing fish swimming lower down in the seas (“demersal” fish). During the mid to late 1930s, fishing people in southern New South Wales began to pursue fish swimming near the surface in the ocean (“pelagic” fish): in particular Australian salmon and tuna.

Although described as “very inferior quality” fish by the 1879 royal commission, Australian salmon began to be more intensively pursued during the mid-1930s when, as shall be described subsequently in this section, a cannery was opened in Narooma. Patricia Kailola and her colleagues have written that Australian salmon “school in shallow, open coastal waters, and can move over reefs in depths just sufficient to cover their bodies.”⁸⁰ Peter Sloane has commented that Australian salmon “migrate in large schools while travelling to and from their spawning grounds and they are caught during this migration using seine nets. The netting operation is carried out both by land based fishermen (beach seining) and . . . by vessels. . . usually multi-purpose boats”.⁸¹ Australian Salmon became often used for pet food.

The following figures on the Australian salmon catch, collected by the CSIRO’s division of fisheries and oceanography, have been provided in Peter Sloane’s outline of the near-surface fishing industry in New South Wales:

<i>Australian Salmon Catch in NSW</i>	
1936 - 1937	189 tonnes
1939 - 1940	1,178 tonnes
1953 - 1954	1,172 tonnes

⁷⁸ Geoffrey Waugh, *Fisheries Management: Theoretical Developments and Contemporary Applications* (Westview Press, Boulder, Colorado, 1984), p.15.

⁷⁹ Sloane, Cook and Pownall (SCP) Consultants, *Some Background Data on South East Australian Fisheries*, unpublished report 1996, pp.3-4.

⁸⁰ Patricia Kailola, Meryl Williams, Phillip Stewart, Russell Reichelt and Christina Grieve, *Australian Fisheries Resources* (Bureau of Resource Sciences, Canberra, 1993), p.297.

⁸¹ Peter Sloane and Company, *The Pelagic Fishing Industry on the South Coast of New South Wales* (NSW State Fisheries, Sydney, 1975), p.18.

1963 - 1964	1,318 tonnes ⁸²
1972 - 1973	1,642 tonnes

Fishing for tuna began in a small way, in the 1930s, with boats using the “trolling method”. This involves, according to Peter Pownall, using gear “consisting of a number of lines with varying lures and hooks attached. These are towed from the stern of the boat”.⁸³ Only small quantities of tuna, however, were caught by this method.

Tuna fishing by a different method, the “pole-bait” method, developed in the early 1950s. As Pownall has described it, “poling gear consists of a bamboo pole up to 10 ft. (3 metres) in length which tapers from 2 in. (5 cm.) diameter at the butt to approximately 1 in. (2.5cm.) at the tip. To this is secured a leader, a wire or sometimes a nylon trace and a weighted, barbless hook to which feathers are attached.”⁸⁴

According to Pownall, the emergence of pole-bait fishing for tuna, in New South Wales, was pioneered by the federal government which, in early 1950, chartered the American tuna fishing boat *Senibua*, which had previously worked for South Seas Marine Products (later to become a division of Kraft), to demonstrate the technique in Australian waters.⁸⁵ Roughley has described the first catch as follows:

Equipped with a Piper Cub aeroplane, the 75-foot *Senibua*. . .reached Eden . . .in October [1950]. . .[this was] the first pole-fishing expedition in Australian waters . . .[on] the 16th October. . .the first commercial catch of tuna was landed in Australian waters by the pole method of fishing with live bait.⁸⁶

Tuna fishing became the major part of near-surface ocean fishing in New South Wales. Sloane, Cook and Company, in their report for NSW Fisheries and NSW Public Works, entitled *The Pelagic Fishing Industry on the South Coast of New South Wales*, remarked that “The pelagic fishing industry [in NSW] is dominated by the . . .tuna fishery”.⁸⁷

⁸² *ibid.*, p.19.

⁸³ Pownall, *op.cit.*, p.55. Pownall, writing in 1979, commented that “Trolling for small tuna. . .is popular among artisanal fishermen in many parts of Indonesia and provides large quantities of fish for local consumption.” See *ibid.*, p.133.

⁸⁴ *ibid.*, p.55. Pole-bait fishing can be dangerous, as Roughley points out: “Tuna-fishing is strenuous work. . .A 10-pound fish may be followed by one of 100 pounds or more and at such times gear is lost and broken wholesale, and not infrequently men go overboard.” See Roughley, *op.cit.*, p.206.

⁸⁵ Pownall, *op.cit.*, p.16.

⁸⁶ Roughley, *op.cit.*, pp.208-209.

⁸⁷ *The Pelagic Fishing Industry on the South Coast of New South Wales*, p.21.

The major ports for tuna fishing in NSW have also been outlined by Sloane, Cooke and Company as follows: “Tuna hauls are landed at Eden, Bermagui, Moruya, Ulladulla, Greenwell Point, Kiama, Wollongong, Huskisson, Port Kembla and occasionally Sydney. The large number of ports used reflects the fact that tuna move along the coast during the season. . . Only Eden and Ulladulla. . . [are] ports of major significance to the. . . tuna fishery.”⁸⁸

The amount of tuna caught in the waters off southern New South increased dramatically during the 1950s as the figures collated by Roughley indicate:

<i>Tuna Caught in New South Wales in 1950s</i>	
1951 - 1952	49 tonnes
1958 - 1959	1,768 tonnes ⁸⁹

Once tuna fishing had established itself during the 1950s, it consolidated its efforts during the 1960s and the 1970s. Sloane, Cooke and Company have provided the following figures for those two decades:

<i>Tuna Caught in New South Wales: 1960s and 1970s</i>	
1964 - 1965	2,261 tonnes
1974 - 1975	5,227 tonnes ⁹⁰

With the large intake of tuna and Australian salmon, the surface fisheries in NSW ocean waters, for a while, surpassed the trawl fisheries. Tony Law has remarked that, “from 1968/69 to 1971/72. . . these fisheries were appreciably bigger than the trawl fisheries. However, as the deeper water trawl fisheries developed from 1973/74. . . they [once again] became more important than the pelagic fisheries”.⁹¹ This expansion of deep water trawl fishing will be outlined subsequently in this section, in relation to the expansion of marine research.

Although it appears that it was the introduction of pole-bait fishing which hastened the development of tuna fishing in New South Wales, troll fishing continued to be pursued by a number of boats. Sloane, Cooke and Company have provided figures for types of boats operating in the 1974-1975 tuna fishing season:

⁸⁸ *ibid.*, p.4.

⁸⁹ Roughley, *op.cit.*, p.211.

⁹⁰ *The Pelagic Fishing Industry on the South Coast of New South Wales*, p.10.

⁹¹ Law, *op.cit.*, p.15.

<i>Tuna Fishing Boats in New South Wales: 1974-1975</i>	
Troll Boats	30
Pole Boats	27 ⁹²

(f) Overall Increased Catch during the 1950s-1970s

With the expansion of catch inaugurated by the Danish seine trawlers; with the rapid expansion of tuna fishing from the 1950s onwards; and with the contribution of research to the location of new fishing grounds, as will be detailed in sub-section (h), the total amount of fish taken in New South Wales gradually increased between the 1950s and the 1970s. B.C. Pease and A. Grinberg have provided the following figures for the amount of fish caught in NSW waters:

<i>Catch of Principal Saltwater Fish in NSW Waters (approx.)</i>	
1949 - 1950	12,597 tonnes
1959 - 1960	12,835 tonnes
1969 - 1970	15,112 tonnes
1979 - 1980	19,208 tonnes ⁹³

A part of this increase was also due to a continuing focus on the types of fish traditionally pursued by commercial fishing people in New South Wales. Mullet, as Tony Law pointed out, continued to be "for many years the biggest single catch in New South Wales. . . [and] was 2,767 tonnes in 1977/78."⁹⁴ Between the 1950s and the 1970s the following numbers of the major ocean and estuarine species were caught by commercial fishing people in New South Wales:

<i>Catch by Major Ocean and Estuarine Species in NSW 1950s-1970s:</i>				
	<i>1949-1950</i>	<i>1959-1960</i>	<i>1969-1970</i>	<i>1979-1980</i>
Bream	342 tonnes	340 tonnes	245 tonnes	458 tonnes
Flathead	1,116 tonnes	1,283 tonnes	1,987 tonnes	1,118 tonnes
Gemfish				3,035 tonnes

⁹² *ibid.*, p.10.

⁹³ B.C. Pease and A. Grinberg, *New South Wales Commercial Fisheries Statistics 1940-1992* (NSW Fisheries, Sydney, 1995), pp.21-23.

⁹⁴ Law, *op.cit.*, p.133.

Leatherjacket	691 tonnes	521 tonnes	358 tonnes	124 tonnes
Luderick	610 tonnes	524 tonnes	613 tonnes	345 tonnes
Morwong	1,180 tonnes	1,025 tonnes	763 tonnes	1,105 tonnes
Mullet	2,589 tonnes	2,918 tonnes	2,410 tonnes	3,090 tonnes
Redfish	2,201 tonnes	78 tonnes	452 tonnes	2,092 tonnes
Salmon (Aus)	181 tonnes	888 tonnes	652 tonnes	176 tonnes
Shark	244 tonnes	384 tonnes	690 tonnes	902 tonnes
Snapper	717 tonnes	618 tonnes	562 tonnes	889 tonnes
Trevally	43 tonnes	17 tonnes	50 tonnes	291 tonnes
Tuna		1,785 tonnes	3,211 tonnes	424 tonnes
Whiting	94 tonnes	110 tonnes	198 tonnes	587 tonnes ⁹⁵

(g) Conservation

Preservation of fish in the fishing grounds continued to be a problem during the 1940s and the 1950s. The 1953 NSW parliamentary committee reported that,

A major problem of the NSW Fishing Industry may be accepted as conservation and protection of the fishing grounds. This involves a degree of oversight and control over the operations of . . . fishermen. . . It means in practice the prevention of the sale of undersized fish. . . As part of the general problem of the Fishing Industry there may be noted that at certain times there is a high proportion of small fish in catches taken by both trawlers and by estuarine fishermen.⁹⁶

During the 1960s this problem intensified and Peter Sloane has remarked that, "By the late 1960s many of the grounds on the continental shelf were being heavily exploited and catches were static or falling."⁹⁷

As a result of this both the NSW and the federal government intensified their research into the location of new fishing grounds.

⁹⁵ *ibid.*

⁹⁶ *NSW Parliamentary Committee on Fish Marketing 1953*, p.12.

⁹⁷ SCP Consultants, *Some Background Data on the South-Eastern Australian Fisheries*, unpublished report 1996, p.3.

(h) Increased Fishing Research and the Development of New Fisheries

As outlined above, the fisheries research centre at Port Hacking had been temporarily closed during the Great War in Europe. Research was not really recommenced until the mid-1930s, under the Stevens government. This occurred at the same time as the Council for Scientific and Industrial Research (CSIR), which had been established by the federal government earlier in 1926, began to embark on fisheries research on an Australia-wide level. The parallel federal and state government initiatives in fisheries research, in the 1930s, led to the rebirth of the Port Hacking centre. Godden Mackay have written that,

G.L. Kesteven was appointed Scientific Investigating Officer to the State fisheries organisation in March 1937 and an Advisory Council of various organisations with an interest in fisheries was established to advise the Minister. . . [Harold] Thompson . . . [officer-in-charge of fisheries investigations in the CSIR]. . . In August 1937. . . recommended the old Port Hacking site [as a centre for the CSIR's fisheries research]. . . The site was transferred to the Commonwealth the following year, with provisions made to also house the NSW Fish Biology Branch and occasional use by students of the University of Sydney.⁹⁸

After the end of the War in the Pacific, the federal government renewed its efforts in the area of fisheries research: contributing to the expansion of fishing effort in New South Wales.

Renewed research into the trawl fishery in New South Wales was undertaken in the by W.S. Fairbridge and T.W. Houston of the fisheries division of, what was now, the Commonwealth Scientific and Industrial Research Organisation. In 1948, Fairbridge published an article entitled "The Effects of the War on the East Australian Trawl Fishery". In 1955, Houston published his article, referred to above, on "The New South Wales Trawl Fishery".⁹⁹ Houston's article was published in the *Australian Journal of Marine and Fresh Water Research* which was established around 1950 to further fisheries research.

As mentioned above, in 1957 the Commonwealth government approved funds to allow the prawn trawler *Challenge* to survey the prawn potential off the east coast. As a result of its successful investigations, large numbers of boat owners moved into prawn fishing in NSW.¹⁰⁰

During the late 1960s the Askin government intensified the efforts being made in the area of fisheries research. A marine resources section was established within NSW state fisheries. According to Tony Law, this section was established to "determine the nature and distribution of the resources in coastal and oceanic waters and establish the most economic

⁹⁸ Godden Mackay, op.cit., pp.38-39.

⁹⁹ W.S. Fairbridge, "The Effects of the War on the East Australian Trawl Fishery" in the *Journal of the Council of Scientific and Industrial Research*, vol.21, 1948; see also Houston, op.cit.

¹⁰⁰ Sloane Cook and Company, ibid.

and efficient ways to catch and use them.”¹⁰¹ To facilitate this, as Peter Pownall has described, “New South Wales built and equipped an 82-ft. (25m.) fisheries research vessel . . . and fitted it with modern electronic fish-finding navigational aids and catching gear to undertake intensive marine resources surveys.”¹⁰²

This vessel was named the *Kapala* and began operations in 1970. The NSW Fish Marketing Authority 1979 report, mentioned above, details the significance of the *Kapala*’s contribution to the development of new fishing grounds:

commercial stocks of gemfish and . . . other deep-water fish. . . were proven during the early 1970s by the . . . *Kapala*. . . the results. . . were made available to commercial trawl fishermen. . . [who] shifted their efforts from the more inshore fisheries to the [deeper] waters. . . [this] shift of fishing effort. . . [was] accompanied by a change in the composition. . . of the total ocean waters catch sent to market . . . By 1976-7 the gemfish catch had grown 185 per cent in a year to 2,109,000 kilograms and was the single largest component of the trawl fish sent to market.¹⁰³

Sloane, Cook and Company have provided the following figures on the gemfish catch during the 1970s:

<i>Gemfish Catch in NSW: 1970s</i>	
1971 - 1972	83 tonnes
1973 - 1974	555 tonnes
1974 - 1975	649 tonnes
1975 - 1976	739 tonnes
1976 - 1977	2,109 tonnes ¹⁰⁴

In 1975, in the last year of the Askin government, NSW Fisheries commenced a large-scale program which had the objective of assessing all the trawlable fish resources off the state’s coast. As Tony Law has outlined, “this involved detailed charting of the bottom [of the sea] . . . The continental slope was the starting point. During 1975 most of the New South Wales continental slope between 100 to 400 fathoms was charted.”¹⁰⁵

¹⁰¹ Law, op.cit., p.20.

¹⁰² Pownall, op.cit., p.111.

¹⁰³ NSW Fish Marketing Authority, op.cit., pp.8-9.

¹⁰⁴ *The Demersal Fishing Industry in New South Wales*, vol.II, p.31.

¹⁰⁵ Law, op.cit., p.21.

Research by the *Kapala* also identified further stocks of redfish. Sloane, Cook and Company reported in the late 1970s that, "The research work undertaken by the F.R.V. *Kapala* has indicated large stocks of redfish down to 200 fathoms, and has demonstrated that they are one of the species amenable to mid-water trawling." Sloane, Cook and Company have provided the following statistics for redfish catch from the 1960s and the 1970s:

<i>Redfish Catch in NSW: 1960s and 1970s</i>	
1966 - 1967	94 tonnes
1976 - 1977	1,421 tonnes ¹⁰⁶

(i) Continued Growth of Oyster Production

Cultivation of oysters not only continued to expand but developed to the point where New South Wales was the pre-eminent oyster producing state in Australia. A 1975 NSW parliamentary committee into the fishing industry noted that,

Over 1,900 oyster farmers in the state operate some 1,500 holdings, and in 1974 produced some 133,749 bags of oysters. Because of favourable geographical and climatic factors the state produces almost the entire Australian oyster crop. The value of the industry is estimated at almost \$8,000,000 per annum, and exports of oysters from Australia return approximately \$3,000,000 per annum.¹⁰⁷

(j) Development of the Abalone Fishery

Another important species fishery which developed in New SouthWales, during this period, was the abalone fishery. Geoff Waugh has outlined the expansion of abalone fishing accordingly:

The development of the fishery began in the early 1960s and followed the typical pattern of open-access fisheries. Some spectacularly large catches were made in the 1960s but the recorded catch peaked in 1971-72 at 994 tonnes and thereafter showed a steady decline to 366 tonnes in 1977-78. . .[during the early 1970s] there was a heavy demand for abalone by processors for the export market. Prices of abalone consequently rose from about 20c per kg in 1960 to about 80c per kg in 1969, and to \$2.20 in 1974. . .[in] 1977-78. . .the price was \$1.50 per kilogram.

Waugh has provided the following figures for the abalone catch during the 1960s and 1970s, and for the number of participants:

¹⁰⁶ *ibid.*, pp.15-18.

¹⁰⁷ NSW Parliament, *Parliamentary Committee on the Fishing Industry 1975-1976* (NSW Government, Sydney, 1976), p.26.

	<i>Abalone Catch in NSW</i>	<i>Average Number of Abalone Divers</i>
1965 - 1966	127 tonnes	9
1967 - 1968	370 tonnes	30
1971 - 1972	994 tonnes	116
1972 - 1973	789 tonnes	115
1973 - 1974	690 tonnes	84
1974 - 1975	602 tonnes	70
1975 - 1976	403 tonnes	57
1977 - 1978	366 tonnes	47 ¹⁰⁸

(k) Continued Importation of Fish

Despite the increase in catch from the 1950s to the 1970s, imported fish still continued to be purchased in large quantities in New South Wales. The 1976 NSW parliamentary committee on the fishing industry, mentioned above, reported that, "Australia imported \$70,937,000 of fish products in 1974-75."¹⁰⁹

According to Sloane, Cook and Company, the following amounts of fish were imported into New South Wales in the late 1970s:

<i>Imports of Fish Products into NSW: 1977</i>	
Frozen or Chilled Fish (filleted etc.)	8,776 tonnes
Prepared/Preserved Fish (Fish Fingers etc.)	14,325 tonnes ¹¹⁰

The extent and background of the imports, on an Australia-wide basis, have also been outlined by Sloane Cook, in their study of the NSW demersal fishing industry:

in general terms it may be stated that both in terms of volume and value, imports of fish into Australia have significantly exceeded local production. . . the dominant item is catering packs, exceeding 500 grams, of filleted, skinned or boned fish, which

¹⁰⁸ Waugh, op.cit., pp.194-195.

¹⁰⁹ ibid., p.8.

¹¹⁰ Sloane, Cooke and Company, *The Demersal Fishing Industry of New South Wales*, vol.1, p.78.

represented 46 per cent of all fish imports in 1975/76. Japan supplied almost 9,000 tonnes (mainly hake, flounder), the UK 2,100 tonnes (whiting fillets), New Zealand 1,800 tonnes (snapper, teraki, latchet, lemon sole) and South Africa 1,200 tonnes (hake). The main markets for these fish are fish and chip shops, restaurants and processors. . . Fish finger imports totalled 5,400 tonnes for 1975/76, of which 3,400 were in retail packs of less than 500 grams, supplied by the UK, South Africa and Norway. Cod and Hake are the main species imported. Smoked fish (hake, haddock, herring, salmon) totalled 3,200 tonnes in 1975/76 of which most was in catering packs from South Africa, Japan and the UK. Most of this comprises specialty lines with established markets and only limited import substitution would be possible (smoked gemfish is compatible with the lower value import lines).¹¹¹

(l) The Growth of Canning and the Advent of Big Business in NSW Fishing Industry

When tuna fishing began in southern NSW, in the second half of the 1930s, a cannery was set up at Narooma in 1936. With the dramatic expansion of the tuna catch in the 1950s, South Seas Marine Products established a cannery at Eden. This cannery was taken over by Kraft in 1961, marketing canned tuna under the "Greenseas" brand name. This cannery was in turn taken over in 1973 by Heinz which continued to produce tuna under the "Greenseas" name.¹¹² A working arrangement which developed between Heinz and the boats fishing for tuna, during the 1970s, has been outlined by Sloane, Cook and Company:

Heinz. . . have no financial interest in fishing boats. . . [however]. . . The Eden cannery is supplied by boats working under a loose contractual arrangement between the boatowner and the cannery. Heinz agree to fit these boats with radios tuned to the frequency of the radio in their spotter aircraft and to supply information on fish location only to these boats. In return, these boats agree to supply fish to the Greenseas cannery and to repay portion of the cost of supplying the spotting service in the form of a small charge levied on each tonne of the fish delivered. Heinz fits radios to about thirty-six boats and operates two aircraft each day when suitable conditions exist. . . All fish landed by boats operating for Heinz are consigned to the Eden cannery.¹¹³

(m) The Emergence of Commercial Fishing People's Representative Organisations

Not only did the Curtin and Chifley governments promote the development of commercial fishing co-operatives but, in the late 1940s, the new Commonwealth Fisheries Office promoted the formation of the Australian Professional Fisherman's Association in 1948.

¹¹¹ *ibid.*, pp.94-95.

¹¹² Roughley, *op.cit.*, p.210; Sloane, Cooke and Company, *The Pelagic Fishing Industry of the South Coast of New South Wales*, p.21.

¹¹³ *The Pelagic Fishing Industry of New South Wales*, p.27.

That organisation lasted until 1957. In the 1960s the fisheries division of the Department of Primary Industry promoted the formation of the Australian Fishing Industry Council, which came into being in 1967.

In New South Wales, organisations which emerged to represent commercial fishing people in the state included the Professional Fishermen's Association and the NSW Fishing Industry Council.

(n) NSW Government Intervention in the Industry

In 1934 the Stevens government decided to repeal the previous legislation dealing with fisheries, and replace it with new legislation, which became the *Fisheries and Oyster Farms Act 1935*. In introducing the new bill, the Colonial Secretary, Frank Chaffey, pointed to, as he said, "the desirable objective. Right throughout the history of fisheries in this state the revenues derived have, in some years, been many thousands of pounds short of the expenditure. . . in the majority of cases there will be increases on what is being paid at the present time".¹¹⁴ A few weeks later, Chaffey informed the Parliament that the proposed "licence fee varies according to size from 5s. to £25. The object is to secure revenue from owners of large vessels of 100 tons or more."¹¹⁵

As the above outline of the emergence of Danish seine trawling, in New South Wales, indicates, the Stevens government's legislation appears to have foreshadowed the introduction of seine trawling in the state.

In 1941, the ALP, with William McKell as leader, gained office in New South Wales. The McKell government decided to take a new approach to the commercial fishing industry in New South Wales, based on government intervention in the industry. A year later the McKell government obtained passage of the *Fisheries and Oyster Farms (Amendment) Act 1942*. The 1935 Act was altered, as the 1953 NSW Parliamentary Committee on Fish Marketing pointed out,

to make provision for the constitution of fish districts and to require all fish sold for human consumption to be first brought to and sold in the markets established in such districts. It also provided, *inter alia*, for the cancellation of agents' licences and the conduct of markets by the Chief Secretary as a Corporation Sole.¹¹⁶

Two years later, according to the same Committee, the then Prime Minister, John Curtin, requested the support of the McKell government "in the organisation of the fishing industry on a co-operative basis for the purpose of rationalising the marketing and distribution of

¹¹⁴ Second Reading Speech. Fisheries and Oyster Farms Bill 1935. NSW Parliamentary Debates, Legislative Assembly, 19 September 1935, pp.209-213.

¹¹⁵ *Sydney Morning Herald*, 3 October 1935, p.15.

¹¹⁶ Parliamentary Committee on Fish Marketing 1953, p.5.

fish". The McKell government then introduced a bill to implement this, but the proposed legislation was rejected in the Legislative Council. In response the McKell government, in 1945, according to the 1953 Committee, invoked "the provisions of the 1942 legislation... and control of the Sydney Fish Market was assumed by the Chief Secretary as a Corporation Sole."¹¹⁷

A year later, in 1946, the commercial fishing people, in the various areas up and down the NSW coast, began to form co-operatives. Thirteen were subsequently formed during the years 1946-1948:

<i>Fisherman's Co-operative Societies</i>	<i>Year of Formation</i>
Clarence River	1946
Macleay River	1946
Laurieton	1946
Byron Bay	1947
Bermagui	1947
Hastings River	1947
Nambucca River	1947
Wallis Lake	1947
Evans Head	1947
Eden	1947
Newcastle	1947
Nowra	1947
Richmond River	1948 ¹¹⁸

Other co-operatives were later established - on a north-south axis - at Wooli, Coffs Harbour, Crowdy Head, Port Stephens, Mannering Park (Lake Macquarie), Tuggerah, Hawkesbury River, Wollongong, Lake Illawarra, Greenwell Point (Shoalhaven Bight) and Ulladulla.¹¹⁹

A year after the formation of the Richmond River fishing co-operative, the McGirr government obtained passage of the *Co-operation (Amendment) Act 1949* which provided

¹¹⁷ *ibid.*

¹¹⁸ *ibid.*, p.8.

¹¹⁹ Sloane, Cook and Company, *The Demersal Fishing Industry of New South Wales*, vol.I, p.37.

for, according to a later account by the subsequently established Fish Marketing Authority,

The granting of approval by the governor, subject to certain conditions, to co-operative trading societies to establish, operate and control fish markets. . .The establishment of advisory committees to make recommendations to the Minister in relation to the promotion, etc. of co-operatives of particular types. . .¹²⁰

During the 1950s and early 1960s negotiations took place between boat owners and the New South Wales government. The Heffron government finally secured passage of an amendment to the fisheries legislation, the *Fisheries and Oyster Farms (Amendment) Act 1963* under which, according to the Fish Marketing Authority report,

the New South Wales Fish Authority was constituted by the government on the 18th December 1963. The date of commencement of the amendment was proclaimed as the 18th April 1964 and on this date the Authority became responsible for the conduct and management of Fish Markets previously maintained by the Chief Secretary as Corporation Sole.¹²¹

In 1966 the Fish Authority relocated the main Sydney market to a new, large (6-acre) site at Pymont.

During the mid-1970s moves were made to establish fisheries as a department in its own right. In January 1975 the Askin government removed the administration of the Act from the Chief Secretary's Department to the Minister for Lands and Forests. In 1976 the Wran government established NSW State Fisheries as a separate department under the Minister for Conservation.¹²²

During the late 1970s the Wran Government endeavoured to increase the level of professionalisation in the industry by amending the licence provisions of the *Fisheries and Oyster Farms Act 1935*. When introducing the bill for what was to become the *Fisheries and Oysters (Amendment) Act 1979*, Alan Gordon, the then Minister for Water Resources and Conservation, declared that the new legislation would,

amend section 25 of the Act by rearranging. . .the provisions relating to the licensing of professional fishermen. . .Many persons who are not genuine commercial fishermen have been granted licences in the past to the disadvantage of the full-time bona-fide commercial fishermen. . .in the general interests of the industry, it would appear to be necessary to clamp down on the part-time. . .fisherman, who wishes to fish only during the lucrative prawn and crayfish seasons. . .Consequently section 25

¹²⁰ NSW Fish Marketing Authority, *Fish Marketing in New South Wales: Historical Summary* (NSW Fish Marketing Authority, Sydney, 1971), p.2.

¹²¹ *ibid.*, p.5.

¹²² Godden Mackay, *op.cit.*, p.53.

of the Act is to be amended to provide that a fisherman's licence shall not be issued to a person. . . unless he proposes to derive the major part of his income from. . . the taking and sale of fish. . .¹²³

The Wran Government, through the *Fisheries and Oyster Farms (Amendment) Act 1979*, also changed the NSW Fish Authority into the Fish Marketing Authority. Under the relevant provisions in the new legislation, as the NSW Fish Marketing Authority itself described, "All fish that co-operatives send into the County of Cumberland (Sydney Metropolitan area) must be sold through the Sydney Fish Market. This is to prevent private sales by some co-operatives undermining the auction system established by the Fish Marketing Authority,"¹²⁴

(o) Federal Government Intervention in the Industry

In the 1950s the Menzies government decided to involve the federal government more extensively in commercial fishing in Australia. In particular, the Menzies government set out to lay the basis for the federal government to control the number of fishing boats operating in the waters which would come under its control. Meryl Williams and Phillip Stewart have written that,

The first comprehensive Commonwealth fisheries act was passed only in 1952. The *Fisheries Act 1952* allowed the Commonwealth to regulate the activities of Australian fishing boats operating outside the 3 mile territorial limit while the states retained control over fishing in their territorial seas. . . Under the *Fisheries Act 1952* fishing licences permitted operations anywhere from 3 miles to 200 miles offshore.¹²⁵

Gradually the federal government began to become more extensively involved in commercial fishing. Williams and Stewart have recalled that,

The states had the main responsibility for [commercial fishing] until 1968, when 2 events significantly increased the responsibility of the Commonwealth in fisheries management. The first of these was a proclamation extending Australia's declared fishing zone to 12 nautical miles from the coast. This allowed the Commonwealth to regulate fishing by Australian and foreign boats within this zone. In the same year the *Continental Shelf (Living Natural Resources) Act* came into force. This Act extended Australia's jurisdiction to the edge of the continental shelf for sedentary marine species such as pearl oysters. In 1979 Australia declared the Australian

¹²³ Second Reading Speech. Fisheries and Oyster Farms (Amendment) Bill 1979. NSW Parliamentary Debates, Legislative Assembly, 28 February 1979, pp.2584-2585.

¹²⁴ Fisheries and Fish Marketing in NSW, p.51.

¹²⁵ Meryl Williams and Phillip Stewart, "Australia's Fisheries" in Patricia Kailola, op.cit., pp.15-16. Gerard Carter has remarked that "the *Fisheries Act 1952*. . . relies on section 51 (x) of the Commonwealth Constitution, which confers power on the Commonwealth Parliament to make laws with respect to 'Fisheries in Australian waters beyond territorial limits.'" See Carter, op.cit., p.43.

Fishing Zone. This move anticipated the 1982 United Nations Convention on the Law of the Sea provision that coastal states should have sovereign rights over living resources within a 200 nautical mile exclusive economic zone [this resulted in a] situation of state management within the 3 mile territorial sea and Commonwealth management from 3 miles to 200 miles offshore. . .¹²⁶

(p) Improved Returns for NSW Fishing Boat Owners

One of the aims of the 1963 legislation in New South Wales was to improve the returns to fishing boat owners - their complaints about this being noted as early as the 1910s, when the royal commission on food supplies and prices had held its hearings. During the 1950s complaints continued to be voiced by fishing people about the returns from their efforts. The 1953 parliamentary committee on fish marketing reported that, "Few matters puzzle producers more than the apparent disparity between the net returns received by them for their produce and the prices charged in retail shops".¹²⁷

The report subsequently issued by the Fish Marketing Authority, on the history of its formation, observed that,

It is now generally realised that the scheme originally devised in 1945 and now implemented to a great degree has lifted the run of fishermen from a poor income and social level to a responsible civic standing with a more remunerative livelihood generally than formerly.¹²⁸

Although, on an overall level, fishing boat owners in New South Wales may have gained "a more remunerative livelihood" through the 1945 scheme, the benefits were not the same for all members of the industry. Sloane, Cook and Company provided the following figures for returns to capital, amongst the otter trawl boats in the east coast trawl fishery, during the mid-1970s:

<i>Returns to Capital, East Coast Trawl Boats 1974-1975- by Boat Length:</i>			
	<i>12.2 to 15.2 metres</i>	<i>15.2 to 18.3 metres</i>	<i>18.3 to 21.3 metres</i>
Return to Owner and Capital	\$5,941	\$10,939	\$23,164
Capital Applied	\$35,300	\$56,900	\$100,000
Return %	16.8	19.2	23.2

¹²⁶ *ibid.*

¹²⁷ *NSW Parliamentary Committee on Fish Marketing 1953, p.9.*

¹²⁸ *ibid.*

Sloane, Cook and Company commented in 1978 that, in their opinion, these figures indicate that “the smaller trawlers were barely able to provide a living wages for owners. . .[but that] the larger trawlers gave an adequate economic return”.¹²⁹

5 NSW COMMERCIAL FISHING IN THE 1980s AND THE EARLY 1990s

(a) Ongoing Informal Characteristics of the Industry

Shelley and Garry Underwood, writing in 1995, observed that,

Australia has about 10,000 commercial fishing vessels. The majority of the vessels are small and operated by one or two persons. Fishing boats less than ten metres long represented 65 per cent of the fleet in 1990. Small fishing vessels such as . . . trap and pot boats are used in estaurine and inshore fishing. New South Wales has the highest number of fishing boats but they are smaller in size.¹³⁰

On an overall level, however, the number of people holding licences to fish commercially in New South Wales has declined. This has occurred not only through the Wran government’s 1979 amendments to the *Fisheries and Oyster Farms Act 1935*, limiting the issuing of licences only to those who derived “the major part” of their “income from. . .the taking and sale of fish” but, as will mentioned later in this section, also via the Wran government’s increase in licence fees and the subsequent Greiner government’s freeze on the issuing of new licences. Gerard Carter and Michael Young have provided the following figures for holders of fishing licences between the mid-1980s and the mid-1990s:

<i>Commercial Fishing Licences Held in NSW</i>	
1984	3,259
1994	2,100 ¹³¹

(b) Widening of Trawling Activity through further Research into Fishing Grounds and further Technological Improvements

The late 1970s and the early 1980s, as Peter Sloane has observed, “was a period of major change” in commercial fishing. As outlined above this was, on the one hand, because many of the fishing grounds closer to shore were becoming over-exploited and, on the other hand, because research, meanwhile, demonstrated the existence of other fishing grounds further out to sea.

¹²⁹ Sloane, Cook and Company, op.cit., p.118.

¹³⁰ Underwood, op.cit., p.20.

¹³¹ Carter, op.cit., foreward; Young, op.cit., p.47.

In 1981 the Fraser government announced that new facilities for the marine laboratories of the Commonwealth Scientific and Industrial and Research Organisation would be built at Hobart. Just before the completion of the CSIRO's new fisheries and oceanography facilities, in late 1984, its old facilities at Port Hacking were transferred back to the NSW government. At the same time, marine fisheries research continued at Cronulla assisted by the continuing studies carried out by the Fisheries Research Vessel *Kapala*.

NSW trawl boats, consequently, began to operate further out in the ocean, in deeper waters. Sloane has written that,

In this period the . . . [fishery] expanded to deeper grounds along the edge of the continental shelf and commenced the exploitation of major mid-water stocks such as gemfish, mirror dory, ling and ocean perch. By 1980 catches from the deep water trawl grounds accounted for the major part of the total trawl landings.¹³²

The expansion of catch of these mid-water species, at least until the mid-1980s, is illustrated by the following figures:

<i>Catch of mid-Water Species in NSW:</i>		
	<i>1979-1980</i>	<i>1985-1986</i>
Gemfish	3,035 tonnes	3,347 tonnes
Ling	150 tonnes	455 tonnes
Mirror Dory	247 tonnes	334 tonnes
Ocean Perch	141 tonnes	237 tonnes ¹³³

As also mentioned above, this development, in turn, influenced a change in the nature of trawling undertaken by NSW fishing people. Danish seining was gradually abandoned and otter-board trawling, with lighter gear and larger boats, was taken up again. Sloane has recalled how this came about: because catching these fish in these newly discovered fishing grounds,

required a change in technique as the fish were at greater depths and mostly in the mid- to lower section of the water column. This meant hauling bigger nets through greater depth of water, which required considerably more engine power and thus

¹³² SCP consultants, *Some Background Data on South-Eastern Australian Fisheries*, unpublished report 1996, p.7 citing Bureau of Agricultural Economics, *Survey Results of the South East Trawl Fishery 1978-79 - 1980-81* (Bureau of Agricultural Economics, Canberra, 1982).

¹³³ Pease and Grinberg, *op.cit.*, p.24.

larger boats. . .¹³⁴

Sloane has also outlined how commercial fishing people in New South Wales upgraded their boats and gear to gain access to the new fisheries:

The industry dealt with the problem of changing fishing techniques in two ways... in the early to mid-1980s profitability in the industry was high. Commercial operators were willing and able to invest in new specially designed larger boats, with more powerful engines. They incorporated better on-board handling facilities, such as refrigerated seawater (RSW) tanks, for the larger catches being landed.¹³⁵

Another item of technology which came into use in this period was satellite navigation.

(c) Increase, and Subsequent Decline, in Catch during the 1980s

Peter Sloane has written that, "NSW landings of . . . fish peaked at 28,000 tonnes in 1981/82. By 1983/84 they had declined to 22,400 tonnes, due mainly to a decline in the catches of gemfish and southern bluefin tuna because of over exploitation."¹³⁶

Despite this drop in catch, in the mid-1980s, intake of fish increased once again during the late 1980s. Pease and Grinberg have provided the following figures for fin-fish caught in New South Wales during the 1980s:

<i>Fin Fish Catch in NSW: 1980s and early 1990s (approx.)</i>	
1980 - 1981	24,000 tonnes
1982 - 1983	21,000 tonnes
1985 - 1986	24,000 tonnes
1990 - 1991	25,000 tonnes
1991 - 1992	25,000 tonnes ¹³⁷

¹³⁴ SCP Consultants, *Some Background Data on South-Eastern Australian Fisheries*, p.3. Adam Smith himself observed, as long ago as the late 1700s, that, "In multiplying. . .the quantity of fish that is brought to market. . .fish must generally be sought for at a greater distance, larger vessels must be employed and more extensive machinery of every kind made use of." See Adam Smith, *An Inquiry into the Nature and Causes of the Wealth of Nations*, vol.I (J. Akerman et.al., London, 1822), pp.370-371.

¹³⁵ *Some Background Data on South-Eastern Australian Fisheries*, pp.3-4.

¹³⁶ SCP Fisheries Consultants, *Fishing Industry Review*, report to the NSW Department of Public Works (SCP Fisheries Consultants, Sydney, 1991), p.1.

¹³⁷ Pease and Ginsberg, op.cit., p.24.

The main species caught, by weight, in the early 1990s were as follows:

<i>Catch by Major Ocean and Estaurine Species in NSW 1991-1992</i>	
Bream	503 tonnes
Flathead	1,151 tonnes
Gemfish	140 tonnes
Leatherjacket	94 tonnes
Luderick	580 tonnes
Morwong	379 tonnes
Mullet	3,589 tonnes
Redfish	1,494 tonnes
Salmon (Aus)	629 tonnes
Shark	803 tonnes
Snapper	511 tonnes
Trevally	641 tonnes
Tuna	4,663 tonnes
Whiting	688 tonnes ¹³⁸

(d) Oysters

Oyster production expanded even further and, in financial year 1991-1992, rock oyster production was valued at \$27 million or 86% of the value of all aquaculture in New South Wales. The outstanding share of oyster production in the state's overall aquaculture industry is indicated by the figures for that year:

<i>Aquaculture in New South Wales: 1991-1992</i>	
Rock Oysters	\$27 million
Remaining Aquaculture	\$4.5 million ¹³⁹

¹³⁸ Pease and Grinberg, op.cit., p.24.

¹³⁹ NSW Fisheries, *Annual Report 1992-1993*, p.19.

(e) Imports

During the 1980s, Australia as a whole continued to import as much fish as it had done in the past. Shelley and Gary Underwood have recalled that,

In 1989-90 Australia spent . . .\$422 million on imported fish. The countries that supplied these fish were Thailand, New Zealand, Canada, Malaysia, the United States and Japan. Most of the fish was frozen or imported in cans. Seventy per cent of prawns consumed in Australia are not Australian, but are cheaper imported prawns (frozen, chilled and fresh).¹⁴⁰

This trend seems likely to continue. In July 1997, Heinz purchased John West foods, previously owned by Unilever. In announcing the purchase, the chairman of Heinz declared that, "This acquisition. . . will enable us to further utilise our low-cost, high-quality tuna processing plants in Ghana and the Seychelles."¹⁴¹

On an overall level, New Zealand continued to be, in the early 1980s - as it had been in the 1880s - the biggest supplier of imported fish to Australia.¹⁴²

(f) Continuing Lack of Taste for Fish

Another important continuing factor also remained - the lack of a taste for fish amongst the Australian public. Williams and Stewart have noted that,

Results have shown that consumption of seafood by Australians at home increased only slightly between 1977 and 1991. The annual average consumption was 7 kg per person in 1977, rising to 7.5 kg in 1991. The consumption of fresh or frozen fish increased within that figure but canned and smoked seafood declined. During the same period, consumption of poultry and pork increased significantly, an increase that could be attributed to their successful promotion. In Australia, seafood is infrequently promoted in the main food purchasing outlets such as supermarkets.¹⁴³

As the average weight of a piece of fish, purchased in a fish and chip shop, is around 200 grams to 250 grams, it would seem that average consumption of fish by Australians amounts to the equivalent of half of a piece of cooked fish once a week.

A study on Australian seafood consumption, prepared in 1992 by P.A. Consulting Group, commented that, "Australians *per capita* fish/seafood consumption still ranks as one of the

¹⁴⁰ Underwood, op.cit., p.30.

¹⁴¹ "Heinz Puts John West in the Can" in the *Sydney Morning Herald*, 2 July 1997, p.32.

¹⁴² Williamson, op.cit., p.48.

¹⁴³ Williams and Stewart, op.cit., p.14.

lowest in the developed world.”¹⁴⁴

(g) Increased Concerns over Conservation

During the 1980s the decline in certain fish stocks, in particular southern blue-fin tuna, gave both the NSW and federal governments increased cause for concern over conservation. The decline in the tuna fish catch was as follows:

<i>Tuna Fish Catch in NSW: early 1980s</i>	
1981 - 1982	3,267 tonnes
1982 - 1983	1,648 tonnes
1983 - 1984	899 tonnes ¹⁴⁵

Declines also occurred in other species of fish. Gemfish was another species where this was particularly noticeable:

<i>Gemfish Catch in NSW: early 1980s</i>	
1980	5,059 tonnes
1984	2,800 tonnes ¹⁴⁶

As outlined in sub-section (c), above, by the early 1990s the annual intake of gemfish in New South Wales had shrunk to 140 tonnes (in financial year 1991-1992).

(h) Federal Government Intervention in the Fishing Industry

Concerns in the early 1980s over indications of declining fish stocks in the seas off New South Wales - and off Victoria and Tasmania - led the Minister for Primary Industry in the Fraser Government, Peter Nixon, to declare in July 1981 that it was “vital that fishing be maintained within safe levels”. He also announced that the federal and state governments were considering a proposal to limit the fishing fleet “in waters extending from northern

¹⁴⁴ P.A. Consulting Group, *National Seafood Consumption Study: Summary Report* (P.A. Consulting Group, Perth, 1992), p.3.

¹⁴⁵ A. Caton, K. McLoughlin and M.J. Williams, *Southern Bluefin Tuna: The Scientific Background to the Debate* (Bureau of Resource Sciences, Department of Primary Industry, Canberra, 1990), pp.12-13.

¹⁴⁶ K.R. Rowling, “Gemfish” in Richard Tilzey (ed.), *The South East Fishery: A Scientific Review with particular reference to Quota Management* (Bureau of Resource Sciences, Department of Primary Industries and Energy, Canberra, 1994), p.118.

New South Wales into eastern Bass Strait”.¹⁴⁷

In October 1981 representatives of the four states involved, (NSW, Victoria, Tasmania and South Australia) and the federal government - termed, collectively, the South Eastern Fisheries Committee - issued a report on the possibilities available for the future management of the fishery.

In January 1984 the Minister for Primary Industry in the then Hawke Government, John Kerin, issued a draft management for what was termed the South East Trawl Fishery. The plan divided the fishery into Traditional and Developing Zones and put forward a limitation on the number of boats that could operate in the Traditional Zone. It proposed a controlled entry as far as the Developing Zone was concerned. The fishing industry, through the Australian Fisheries Council, subsequently notified the Hawke Government of their general approval of the plan.

At the same time, the Hawke government began the introduction of restrictions in fisheries under federal government jurisdiction. As summarised afterwards by Sloane, Cook and Pownall, “An interim limited entry management regime for prawn trawling in Commonwealth waters was implemented on 1 January 1984. Under the regime a freeze was placed on the entry of new vessels to the fishery”.¹⁴⁸

A year later in June 1985, the Hawke Government introduced its draft management scheme for federal waters, inaugurating the South East Trawl Fishery (SETF). The following year a South East Trawl Management Advisory Committee was established in order to facilitate consultation between the commercial fishing industry, and administrators and scientists.

In 1988 the Hawke Government, in response to the marked decline in the gemfish catch, introduced, in the federal government managed SETF, a total allowable catch of 3,000 tonnes for gemfish.¹⁴⁹

Another year later, in 1989, a committee was established - formed of federal and state fisheries directors - in order to produce recommendations for the future management of the South East Trawl Fishery. Tony Battaglione and his colleagues have recalled that,

This committee reported in December 1989 and recommended that a system of individual transferable quotas be introduced. The Minister for Primary Industries and Energy announced in April 1990 that an individual transferable quota system based

¹⁴⁷ Richard Tilzey, introduction, in Tilzey *op.cit.*, p.18.

¹⁴⁸ Sloane, Cook and Pownall, *NSW Marine Fisheries and Fishing Ports Study* (NSW Department of Public Works, Sydney, 1985), p.31.

¹⁴⁹ Rowling, *op.cit.*, p.117.

on quantity would be introduced for the fishery. . .¹⁵⁰

On the basis of the committee's report the Hawke government subsequently obtained passage of the *Fisheries Management Act 1991*. Under this legislation the federal government set up the Australian Fisheries Management Authority (AFMA) which then took control of fisheries management, in federal government waters, on behalf of the government.

(i) NSW Government Intervention in the Fishing Industry

After the McKell Government's legislation of the 1940s, and until the late 1970s, there was relatively little fundamental state government intervention in commercial fishing in New South Wales.

At the end of the 1970s, however, the Wran government introduced a significant change in the management of fisheries in New South Wales. In the *Fisheries and Oyster Farms (Amendment) Act 1979* a new section, 22A, was introduced which provided for the restriction of participants in a fishery. Prior to this, commercial fishing in New South Wales had been open-access. This new legislation, however, laid the basis for the future introduction of fundamental changes in operation of commercial fishing in the state.¹⁵¹ On an overall level the Wran government remained committed to open access. The then Director of NSW Fisheries, Donald Francois, commented in 1980 that "We think. . .natural forces . . .operating in. . .[a] free enterprise system" were the appropriate basis for commercial fishing in New South Wales, rather than "government intervention."¹⁵²

One year after the passage of the 1979 amendments, the then Minister responsible for fisheries, by an order published in the government gazette under the newly introduced section 22A, designated the abalone fishery as a restricted fishery. As Geoffrey Waugh later recalled, the method of restriction was through a limitation on the number of licences to fish for abalone:

The introduction of the licence limitation scheme in 1980 by the New South Wales State Fisheries had as its object the restriction of effort to protect the stock and at the same time maintain 'reasonable incomes' to the fishermen. . .Under the scheme . . .the required number of divers was estimated by calculating the number of divers which current annual production rates could support at the income considered fair

¹⁵⁰ Tony Battaglione, Debbie Brown, Drew Collins, Padma Lal, Paul Morris, Patrick Power, Chris Reid, Heather Roper, Michelle Scoccimarro, Michael Stephens, Jeremy Witham and Doug Young, *Use of Economic Instruments in Coastal Zone Management* (Resource Assessment Commission, Canberra, 1993), p.46.

¹⁵¹ Carter, op.cit., p.110.

¹⁵² Waugh, op.cit., p.192 citing Donald Francois, "The New South Wales Abalone Fishery", paper presented to the *Seminar on Economic Aspects of Limited Entry and Associated Fisheries Management Measures*, Melbourne, 1980.

or reasonable as determined by. . .[an] economic survey. . .At an income of \$24,750 this was equivalent to 22 divers on the basis of the value of the catch in 1977-78 and 30 divers on the basis of value of the catch in 1976-77. The goal for the State Fisheries was to reduce the number of divers (which was 131 full-time and part-time divers in 1977-78) towards this level, but at the same time ensure that the allocation of permits to dive for abalone. . .[were] granted on an equitable basis. A set of four criteria were determined in negotiations between State Fisheries and the United Abalone Divers' Association to act as the basis for the allocation of permits. Under the agreement reached, a successful applicant. . .[had to] fulfil the following criteria: Three years active fishing in the fishery. . .An allowance to be made for longevity of a diver's activity in the fishery. . .an allowance to be made for fishermen who do not satisfy criteria owing to illness. . .An allowance to be made for aborigines who have been engaged in taking abalone. . .Under these conditions 59 licences were issued . . .All other divers were issued notices to immediately cease activities in the abalone fishery.¹⁵³

In 1982 the Wran Government increased the fee for a fisherman's licence from \$2 per annum to \$100 per annum in a continuation of its effort to retain, in the industry, only those who were committed to earning their living through fishing.¹⁵⁴ A year later, in 1983, the Wran government abolished fisheries as a separate department and re-established it as the division of fisheries within the Department of Agriculture.¹⁵⁵

After the election of the Greiner government, in the late 1980s, fisheries was again administratively transferred. In 1989 the government proposed that the head office of fisheries, together with the rest of the Department of Agriculture, should relocate to Orange. 1991, however, this proposal was rescinded and fisheries was placed within the new Ministry of Natural Resources.¹⁵⁶

On its election, in 1988, the Greiner Government set out to introduce substantial changes in the NSW fishing industry. The direction of the Greiner Government's policy was to eventually re-commercialise the fishing industry in the state. Following the New Zealand government's new fishing policy, introduced two years previously, the Greiner Government aimed at transforming the fish in the sea into property which could then be bought and sold.

In 1990, foreshadowing its introduction of "rights. . .for a fixed quantity. . .of an allowable catch", the Greiner government announced a freeze on the issuing of new licences.¹⁵⁷ Two years later, in 1992, as outlined above, the Greiner Government made its first attempt, via

¹⁵³ Waugh, *op.cit.*, pp.215-216.

¹⁵⁴ Williamson, *op.cit.*, p.92.

¹⁵⁵ Pease and Grinberg, *op.cit.*, p.13.

¹⁵⁶ Godden Mackay, *op.cit.*, p.43.

¹⁵⁷ Young, *op.cit.*, p.47.

legislation, to introduce catch rights into the industry.

At the same time as setting out to, essentially, re-commercialise the fishing industry in New South Wales, the Greiner Government also set out to re-commercialise the marketing of fish in the state. In March 1992 the then Premier, Nick Greiner, and the then Minister for Agriculture and Fisheries, Ian Causley, announced that “the government and the industry will work together towards the aim of the . . . fishing industry. . . managing the markets and taking over from the government the regulation of fish marketing in New South Wales”.¹⁵⁸

(j) Development of a Situation of Dual Administration in the Ocean Waters off New South Wales

The result of the federal government’s initiatives in the 1980s led to a situation of dual administration in the waters off New South Wales. John Glaister has outlined this as it developed in the early 1990s:

Fish trawling off the coast of NSW comprises 2 geographic components that are managed separately. To the north of Barrenjoey Point [off the northern suburbs of Sydney] and less than 3 nm [nautical miles] offshore south of Barrenjoey Point, fish trawling is under the jurisdiction of New South Wales Fisheries. South of Barrenjoey Point, excluding state waters inside 3 nm, fish trawling occurs within the South East Fishery (SEF) and is managed by the Commonwealth. . . The SEF extends. . . around Victoria and Tasmania and westward to Cape Jervis in South Australia (excluding state waters). Both the NSW-managed trawl fishery and the SEF catch multiple species across a range of habitats on the continental shelf and slope. In the SEF a regime of total allowable catches (TACs) and individually transferable quotas (ITQs) exists for 16 species (or species groupings). . . In 1993 [there were] 67 fish trawlers operating in the NSW-managed fishery [that] reported a minimum of 50 days fished. . . Of these vessels, 39 were also endorsed to fish in the SEF and 28 were restricted to the NSW trawl fishery. Of the 28 vessels restricted to the NSW trawl fishery, 20 vessels fished mostly in waters to the north of Sydney.¹⁵⁹

Problems of jurisdiction, between NSW and the federal government, continued to remain, however, during the first half of the 1990s. A House of Representative committee, reporting in June 1997 on the management of fisheries now under federal government jurisdiction, noted that since 1995 “Negotiations with the southern states have been. . . problematic and [have] progressed. . . slowly. Agreement has since been reached with all the southern states

¹⁵⁸ NSW Fish Marketing Authority, annual report 1992-1993, p.22.

¹⁵⁹ Geoffrey Liggins, *The Interaction between Fish Trawling (in NSW) and other Commercial and Recreational Fisheries*, report to the Fisheries Research and Development Corporation (NSW Fisheries Research Institute, Sydney, 1996), p.8.

except New South Wales.”¹⁶⁰

6 SOME OBSERVATIONS, IN RETROSPECT, ON COMMERCIAL FISHING IN NEW SOUTH WALES

A fundamental aspect of fishing grounds in Australia as a whole is the relatively low numbers of fish compared to the major fishing grounds overseas. As Michael Lorimer has commented, cited in section 2 (b) of this paper, “in NSW there is a great range of species in small numbers”. This nature of the fishing grounds in the state, possibly more than in other places, tends frequently to generate the associated issue of conservation. As soon as a new species has been focused on, it is often not long - because of the often (relatively) small numbers of that species - that it soon becomes in danger of being overfished.

Another basic feature of commercial fishing in New South Wales is that, since its origins, it has tended to be a relatively small-scale family business. In the early 1900s, as cited above, the royal commission of 1911 remarked that “commercial fishing is the Cinderella of our industries. . . Fishing in this state is done principally by men who work individually, or in groups of two or three on the share system.” During the 1950s a great part of the commercial fishing activity in the state was undertaken by either single individuals operating in the estuaries and lakes, or by small boats with 2 or 3 people. In the 1970s the number of small families operating in the NSW fishing industry was still noticeable. Although there has been, according to Peter Sloane, a tendency for bigger boats to enter the industry - during the 1980s - there is also the fact, as the Underwoods have pointed out in 1995, that amongst the number of boats in Australia as a whole, “New South Wales has the highest number of fishing boats but they are smaller in size.”

Another fundamental issue, affecting consumption of fish, and industry sales, is that ever since Britain colonised New South Wales the eating patterns of those British people in the state, and their descendents, have been heavily orientated towards meat. As the royal commission of 1894 observed, it was the opinion of many people in Sydney that “our people are not a fish eating community”. Essentially fish is not eaten frequently in Australian households. Even with the popularisation of fish in a take away form - fish and chips - and the accompanying generation of greater buying of fish, overall purchases have not increased dramatically. In the 1970s, Sloane Cook and Company estimated that annual consumption of fish in Australian households had risen, between 1966 and 1976, “from 2.6 kg to 3.5 kg per capita.”¹⁶¹ On the basis of a piece of fish (as sold in a fish and chip shop) weighing around 200 to 250 grams, this would seem to have amounted to each Australian household eating only around a quarter of a piece of cooked fish, each week. Although by the 1990s, the amount of fish eaten in Australian household seems to have risen to around half a piece of cooked fish, a week, this is still far below the amount of meat and chicken eaten in

¹⁶⁰ Australian Parliament, House of Representatives Standing Committee on Primary Industry, Resources and Rural and Regional Affairs, *Managing Commonwealth Fisheries: The Last Frontier* (Australian Government Publishing Service, Canberra, 1997), p.27.

¹⁶¹ Sloane, Cook and Company, op.cit., p.83.

Australian households. Even in the 1990s, as reported by P.A. Consulting Group, Australians per capita fish/seafood consumption still ranks as one of the lowest in the developed world.

Another noticeable feature related to the fishing industry is that imported fish forms a noticeable proportion of the total amount of fish eaten in New South Wales. It could be argued that this is inevitable given the relatively smaller number of fish stocks compared to elsewhere in the world. Reducing imports, however, has been a concern of policy makers, both in NSW and at a national level. Over a hundred years ago, the members of the 1894 royal commission on fisheries declared their hope that “while it is [presently] found profitable to import fish. . .New South Wales will take her proper place . . .in supplying her own needs.”¹⁶² Nevertheless, in financial year 1995-1996, Australia as whole imported \$670 million worth of overseas fisheries products.¹⁶³ As described in this paper, by the 1970s many entrenched arrangements seems to have emerged between supermarkets, fish and chip shops, restaurants and processors for items such as tinned fish, fish fingers, restaurant packs etc.

Overfishing and conservation have emerged as fundamental issues in NSW commercial fishing almost as soon as local fishing began. Because, as outlined above, NSW waters tend to contain a great range of species in small numbers, as soon as fishing people in the state have focused on one species, that species has begun to fall in numbers fairly rapidly. This was shown by the relatively rapid decline in flathead stocks once the steam trawlers began large-scale fishing operations in the 1910s and 1920s. During the 1980s, the marked decline in the intake of certain species of fish, led the federal government to eventually establish Commonwealth government control of a number of fishing grounds off the east coast of Australia. In the 1990s, overfishing and conservation still remain prominent issues, with the the continued overfishing of gemfish, for instance, resulting in the Keating government, in 1993, temporarily placing a complete ban on targeted fishing for that species.¹⁶⁴

On an overall level it would seem that, through coincidence, fishing activity in NSW, and people’s requirements for fish, have appeared to develop a balance. On the one hand, there are not so many fish in the waters of New South Wales and, on the other hand, there are not so many members of the public who actually want fish.

¹⁶² Royal Commission on Fisheries 1894-1895, p.48.

¹⁶³ Australian Bureau of Agricultural and Resource Economics (ABARE), *Australian Fisheries Statistics 1996* (ABARE, Canberra, 1996), p.3.

¹⁶⁴ Ian Verrender, “Quotas Offer New Hope for Depleted Fish Stocks” in the *Sydney Morning Herald*, 2 June 1997, p.5.

Table 1

TABLE 1	
<i>Catch of Major NSW Fish Species 1995-1996</i>	
Bream (black and yellowfin)	492 tonnes
Kingfish (yellowtail)	191 tonnes
Luderick	473 tonnes
Morwong (Rubberlip)	206 tonnes
Mullet	4,038 tonnes
Salmon (Aus)	1,136 tonnes
Sand Whiting	191 tonnes
Snapper	310 tonnes
Trevally (silver)	714 tonnes ¹⁶⁵

Tuna and flathead are fished in waters that, since 1991, are now considered to be under the control of the Commonwealth.

¹⁶⁵

ABARE, op.cit., p.11.

Table 2

TABLE 2				
<i>State by State Comparison of Fish Production, 1995-1996</i>				
	<i>Tonnage</i>	<i>Value</i>	<i>Main Species Tonnage</i>	<i>Main Species Value</i>
NSW	24,199 t	\$112.8m	Oysters: 5,326 t Mullet: 4,038t <u>Aust. Salmon: 1,136t</u> Total: 10,500t	Oysters: \$28.4m King Prawns: \$11.7m <u>Mullet: \$6m</u> Total: \$46.1m
Vic	13,043 t	\$78.8m	Scallops: 2,620t Pilchards: 2,343t <u>Abalone: 1,521t</u> Total: 6,484t	Abalone: \$37.7m Rock Lobster: \$13.9m <u>Scallops: \$5.2m</u> Total: \$56.6m
Qld	28,712 t	\$228.3m	Prawns: 7,306t Scallops: 4,495t <u>Crabs: 4,201t</u> Total: 16,002t	Prawns (sea): \$84m Prawns (aqua): \$29m <u>Scallops: \$23.2m</u> Total: \$136.2m
WA	45,153t	\$495.5m	Rock Lobster: 9,911t Pilchards: 9,710t <u>Prawns: 3,800t</u> Total: 23,421t	Rock Lobster: \$225m Pearls: \$121.3m <u>Prawns: \$49.8m</u> Total: \$396.1m
SA	18,038t	\$186m	Rock Lobster: 2,587t Prawns: 2,271t <u>Tuna: 2,013t</u> Total: 6,871t	Rock Lobster: \$68m Tuna: \$39.9m <u>Prawns: \$26.3m</u> Total: \$134.2m
Tas	26,210t	\$180.3m	Salmon (aqua): 7,647t Oysters: 3,800t <u>Abalone: 2,218t</u> Total: 13,665t	Salmon (aqua): \$58m Abalone: \$48.7m <u>RockLobster: \$46.8m</u> Total: \$153.5m
NT	2,909t	\$60.3m	Snapper: 771t Barramundi: 482t <u>Mackerel: 339t</u> Total: 1,592t	Snapper: \$3.7m Crabs: \$2.7m <u>Barramundi: \$2.5m¹⁶⁶</u> Total: \$8.9m

aqua = grown via aquaculture.

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