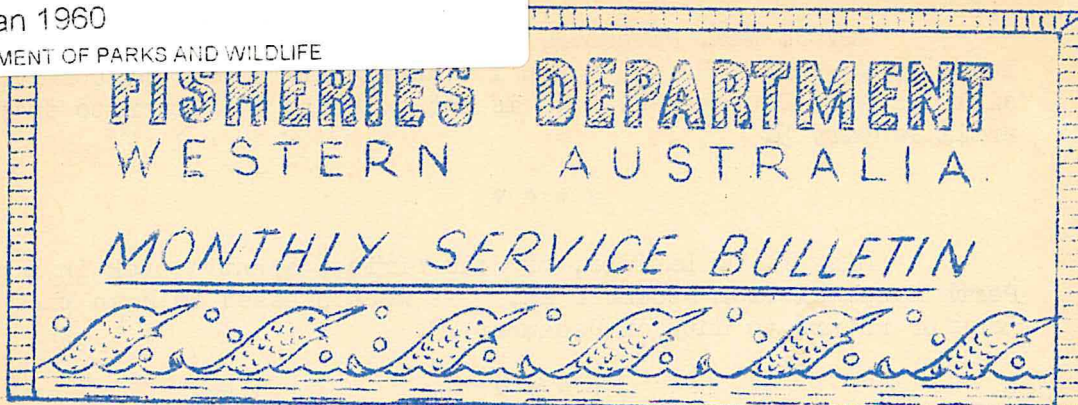




[MONTHLY SERVICE BULLETIN
(WESTERN AUSTRALIA. FISHERIES

9(1) Jan 1960

DEPARTMENT OF PARKS AND WILDLIFE



Vol. IX, No. 1.

January, 1960.

STAFF NOTES.

The Director, Mr. A. J. Fraser, will spend a few days in Albany from January 12.

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Inspector B. A. Carmichael will hand over the Geraldton district to Inspector R. M. Crawford on the latter's return to duty on January 10. Inspector Carmichael will then resume control of the Albany district.

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The Chief Clerk, Mr. B. R. Saville, commenced annual leave on December 31 and on its completion will commence three month's long service leave. During his absence, the following staff adjustments will be made:-

Mr. H. B. Shugg will be Chief Clerk;

Mr. A. J. Buchanan will be Fauna Protection Officer;

Mr. W. K. Cherrington will be Statistics Officer, and

Mr. G. C. Ferguson will carry out Mr. Cherrington's normal duties in the Fauna Section.

Temporary assistance will be obtained to carry out Mr. Ferguson's duties.

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We welcome to the staff Mr. Lawson Clinton Stock who was appointed on December 2 as Engineer, "Peron", classification G-II-3.

(2)

Mr. J. McK. Mitchell, of Head office, who commenced annual leave on November 30, was taken ill during his leave and commenced sick leave on December 7. He is not expected to return to duty until January 5.

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Miss Y. L. Lauffer, of Head office, spent a week in Royal Perth Hospital from December 22. We were pleased to have Miss Lauffer return to duty on December 29.

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Miss P. J. Pegrum, of Head Office, ceased duty on December 24 prior to her retirement from the service. A farewell function in her honour was combined with the usual departmental Christmas gathering. The Minister for Fisheries (Mr. Hutchinson) on behalf of all the staff, presented Miss Pegrum with two handsome travelling cases and wished her "bon voyage" on the S.S. "Orcaades" which sailed for Europe on December 28.

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Officers returning to duty after annual leave during the month include Technical Officer J. S. Simpson on January 7; Mr. W. K. Cherrington on January 14 and Technical Officer L.G. Smith on January 21.

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Technical Officer R. J. McKay completed his tour of duty on the research vessel "Bluefin" on December 18 when she returned to Fremantle.

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Congratulations are extended to Assistant Inspector and Mrs. G. D. Houston on the birth of their daughter, Carol Anne, at South Perth Community hospital on December 8. Inspector Houston will take over the p.v. "Misty Isle" from December 22 vice Inspector E. I. Forster who will be stationed in the metropolitan area.

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Inspector A. V. Green, of Mandurah, will commence three months long service leave on January 5. Relieving Inspector G. C. Jeffery will be in charge of the Mandurah district during Mr. Green's absence.

PERSONAL PARS.

The Minister for Fisheries, Mr. Ross Hutchinson, will attend the Health Ministers' Conference in Sydney and a civil defence conference to be held in Canberra. During his absence from the State (January 9 - 25), the Hon. William Stewart Bovell, M.L.A., will be Acting Chief Secretary and Minister for Health and Fisheries.

* * * *

Dr. A. J. Marshall, Reader in Zoology and Comparative Anatomy at St. Bartholomew's Medical College in the University of London, has been appointed Professor of Biology at the new Monash University in Victoria. It may be remembered that Dr. Marshall visited this State last year and collaborated with Dr. D.L. Serventy and Professor Donald S. Farner in studies of the breeding cycle of Australian birds.

* * * *

Dr. and Mrs. L. E. Richdale, of Dunedin, New Zealand, will spend a week in Perth between January 8 and 15 before resuming their journey to Cape Town. Dr. Richdale is internationally famous for his painstaking work on the life history of penguins and albatrosses, on which he has published two books and numerous technical papers. For this work he was awarded the Hector Medal of the Royal Society of New Zealand and received honours from ornithological societies in Germany and U.S.A. Whilst in Perth he will spend some time at the Wildlife Survey laboratory of the C.S.I.R.O. He will also be taken by the Fauna Warden Mr. S. W. Bowler to visit nesting grounds of the straw-necked ibis.

* * * *

Professor Ernst Mayr, of the Museum of Comparative Zoology, Harvard, is due to arrive in Perth on January 23 and will leave for Singapore on February 12. He was invited to Melbourne as guest speaker for the centenary symposium of the Royal Society of Victoria, to commemorate the dual centenaries of the granting of the royal title to the society and the publication of Darwin's "Origin of the Species". Professor Mayr is one of the most eminent of living ornithologists and has published numerous papers on Australian birds. He has collaborated in work with Dr. D. L. Serventy and Dr. J. A. Keast, of Sydney. Whilst in this State, Professor Mayr will be taken on a tour of representative local habitats by Drs. D. L. Serventy and A. R. Main.

(4)

Congratulations are extended to Mr. A. W. Mumme, who some years ago was Statistics Officer in our Head office and more latterly a member of the staff of the Commonwealth Bureau of Census and Statistics. Mr. Mumme as a part-time student, graduated as a Batchelor of Arts at the University of Western Australia last month. He was awarded the Shell prize in Industrial Relations and gained distinctions in that subject and in Economics III.

* * * *

Mr. Jack Vincent, joint Managing-Director of Ross Group Ltd., of Grimsby, England, will be visiting Australia during February and March. He will arrive in Perth on February 23. The Minister for Fisheries, Mr. Hutchinson, in a recent press statement said he was particularly interested in Mr. Vincent's visit because of the opportunity it would offer to create a fresh overseas market for craytails and other local products. Mr. Vincent will tour the nearer crayfishing grounds in the Department's patrol vessel "Dampier" and will also inspect processing factories. Ross Group Ltd. is one of Britain's foremost fish processing and distributing companies and Mr. Vincent's visit could result in the establishment by the company of its own fish processing organisation here.

* * * *

Congratulations are extended to Mr. Ludwig Glauert, immediate past Director of the Western Australian Museum, who was awarded an M.B.E. in the Queen's New Year Honours List. The award was bestowed in recognition of Mr. Glauert's devoted and zealous contributions to zoological research and in expanding the Museum's services in the community. He was active in obtaining ethnological collections and spent time studying the Australian aboriginal. Mr. Glauert is a past president of Perth Legacy, the Royal Society and the W.A. Naturalists Club. He was awarded the Kelvin Gold Medal by the Royal Society in 1945 and in 1948 he received the Australian Natural History Medallion. In 1955 he was granted a Carnegie Award.

(5)

SOUTH AFRICAN FIRM IN PERTH.

A branch of the huge South African fishing organisation, Irvin and Johnson, opened in Perth recently. The registered office of the company is at Victoria House, 98 St. George's Terrace, and the working office at 375 Hay Street. Mr. Don Jamieson, formerly of Gollan and Co., has been appointed manager.

CHRISTMAS MESSAGES.

Among the many felicitations extended to the Director and staff were the following two messages:-

"Dear Mr. Fraser,

I desire to thank you and your staff for your loyal and conscientious service to me since I assumed office as Chief Secretary and Minister for Health and Fisheries in April of this year. Your assistance at all times has been keenly appreciated.

I would also like to wish yourself and officers a very enjoyable Christmas and a Happy New Year.

Yours sincerely,

Ross Hutchinson
MINISTER FOR FISHERIES."

"Dear Mr. Fraser,

This year we will not be sending a formal Christmas greeting from the Public Service Commissioner's Office, and in view of the many opportunities which we have to meet each other in the course of the next week or so, I do not propose to hold the usual Christmas gathering of senior officers.

I would, therefore, like to take this opportunity of thanking you for your co-operation in 1959, and of conveying seasonal greetings from the staff of this office.

(6)

May I also express my appreciation to the members of your staff for their loyalty and efficient service in the year just closing. I trust that they will all enjoy and benefit by the Christmas break, and that the year 1960 will be one of happiness for them and their families.

Yours sincerely,

R. J. Bond
PUBLIC SERVICE COMMISSIONER."

BIRD BAND RECOVERIES.

Giant Petrels.

Banding details have been received from the Fish and Wildlife Service of the U.S.A. regarding two of the banded giant petrels recovered on our coast last winter. The first, found dead on the beach at North Fremantle on June 22, had been banded at Bird Island, South Georgia, in the Antarctic on January 31 of the same year. The second, which was trapped near the South Mole at Fremantle on June 24, had also been banded at Bird Island on the same day - January 31, 1959. Unfortunately, the Fish and Wildlife Service did not indicate the age of the birds when banded, but presumably they were trapped as nestlings.

Wild Ducks.

Mr. W. G. Bennett, of Perth, returned to us the first Queensland band so far known to have been recovered in this State. It was No C 00102 and was taken from a wild duck shot at Lake Gunding 8 miles east of Wagin on opening day, Sunday, December 20. Details of the banding are not yet known but will be published when received from the Department of Agriculture and Stock, Brisbane.

Another interesting duck-band recovery was sent in by Mr. F. Sutherland, of Ajana. He recovered band No 11810 from a black duck which he shot 14 miles west of Ajana on December 20, 1959. The bird had been banded by one of our voluntary operators, Mr. D. Moir, on his property at Cape Riche on February 21, 1959. The flight of 530 miles from Cape Riche to Ajana is the longest yet recorded by a black duck in Western Australia.

(7)

Mr. I. E. Mainwaring, of Como, returned to us a band recovered from a black duck on February 26, 1958, on the Murchison River north of Geraldton. This bird has been banded at Karrinyup Lake, six miles north of Perth on January 16, 1958. A flight of at least 305 miles was indicated in this case.

Another unusually long flight by a black duck was recorded in the return of band No 7272. This band was recovered by Mr. D.R. Beale, of Manjimup, from a bird he shot at Broke Inlet, approximately half-way between Albany and the Leeuwin, on January 1, 1960. The bird had been banded at Yere Yere Station in the Dandarragan district on March 13, 1958. In this case a flight of at least 300 miles was involved.

DISTRICT ALLOWANCES.

Following negotiations between the Public Service Commissioner and the Civil Service Association of W.A. Inc., agreement has been reached on a new scale of district allowances to apply retrospectively from January 2, 1959. While a completely new scale of payments (according to districts within the State) has been introduced, only two outstations of this Department are affected. They are at Shark Bay and Broome, where allowances of £52 and £156, respectively, will be paid.

CRAYFISHING.

Geraldton-Abrolhos Crayfisheries.

In a recent press statement, the Minister for Fisheries (Mr. Hutchinson) reported that two important alterations had been made in the management of these fisheries. They were:-

1. The Abrolhos Island season will commence on March 1, 1960, instead of March 15 as in previous years:
2. From 1961, the whole of the area between the 26th and 30th parallels of south latitude will be closed to crayfishing from August 15 until November 14 in each year.

The Minister also approved the permanent stationing of a vessel at Geraldton and the temporary allocation of an inspector to each of the island groups before the season opens.

Commenting on the decisions, the Minister said that while the Fishermen's Advisory Committee had recommended that the close season should be applied from 1960, the Government had decided to defer its application until the following year to allow the fishermen adequate time to adjust their fishing practices. With regard to the earlier opening of the island season, the Minister pointed out that March 1 had been the regular opening date some years ago. It had been changed to March 15 in an attempt to avoid the high mortality experienced in the early-season catches. Last year, for the first time, this mortality had been reduced to a negligible amount and the reduction had been widely attributed to the closer policing of the end of the close season which prevented pre-season fishing. Reverting to the earlier opening date should demonstrate whether biological factors or fishing practices exert the greater influence on the early-season mortality rate.

White Crayfish Run.

Reports from Geraldton indicate that the "white" crayfish season there has been a poor one for most fishermen with catches down to a record low. At Fremantle, however, despite the late start to the season, good catches were recorded. Inspector A. K. Melsom advised that one processing works, between 2.30 p.m. on December 17 and 5.30 a.m. on December 18, processed 1,119 cases of crayfish tails. As there are 25 lb. of tails to the case and the tail-weight is approximately 30% of the whole live-weight, it may be reckoned that in the fourteen hours something like 40 tons of live crayfish were processed.

SALMON BLOCK NETS BANNED.

A departmental recommendation that block nets should be prohibited on the south coast has been accepted by the Government and gazetted. The ban has been applied because it is considered that the nets interfere with the migratory movements of the salmon schools along the coast to the detriment of the industry. It seems likely that when a run of salmon strikes a block net, the fish turn out to sea and, if they ever do return to the coast, it is not for a great number of miles and are probably never caught.

SAFETY CAMPAIGN ON PLEASURE CRAFT.

At a meeting convened in November last by the Minister controlling the Harbour and Light Department (Mr. Court), means to combat boating accidents occurring among privately owned craft were discussed. Also present at the conference were the Minister for Health and Fisheries (Mr. Hutchinson), the Manager of Harbour and Light Department (Mr. Forsyth) and the President and representatives of the Yachting Association of W.A. Mr. Rock, the President, reported to the meeting that his Association was willing to assist within its power and that the various clubs would be prepared to inspect privately owned craft of non-members and advise them on the essential equipment and the proper handling of boats in difficult situations.

In accordance with a suggestion made by the Association to the meeting, pamphlets titled "Sailor Beware" were printed. Distributed to all schools before the close of the third term, the pamphlets advised boat owners what precautions they should take, the safety gear they should carry and the "Do's and Don'ts" in yachting and boating generally. Ten thousand copies of the pamphlet were also distributed from police stations along the coast.

Future publicity via the press and radio has since been left in the hands of the Health Education Council.

PROFIT DOWN.

Resulting from the lower catch in 1958 and a fall in whale-oil prices, the net profit of the Nor' West Whaling Co. Ltd. was more than halved in the year ending March 31, 1959. This was announced in the press last month when the directors issued a report to shareholders. The report stated that the 1959 season's oil production had been sold forward at higher prices. The entire production of meal and solubles was also sold forward.

COMMONWEALTH BAN ON FAUNA EXPORTS.

In a press release on December 4, the Commonwealth Minister for Customs and Excise (Senator the Hon. Denham Henty) announced that his Government had decided to prohibit, absolutely, the export of native fauna for commercial purposes. Despite agreements reached at a Commonwealth/State conference as recently as last August, the Commonwealth Government decided to assume full control over export transactions under the powers provided by the Customs (Prohibited Export) Regulations.

Paying scant heed to the sovereign rights of the States to conserve their respective fauna, Senator Henty said that the only export of live fauna his government would permit would be for bona fide zoological and scientific purposes.

The Premier (Mr. Brand) has written to the Prime Minister protesting against the Commonwealth Government's ex parte interference with the rights of the States and requesting that the proposal be reconsidered with a view to the States carrying out their normal constitutional functions.

LICENSING OF FAUNA KEPT IN CAPTIVITY.

The successful prosecution (in the Perth Police Court, on December 22), of a florist who had sold budgerigars without a license, has drawn attention to the regulations controlling the bird trade and in the closing days of December a large number of licenses have been issued to persons authorising them to keep fauna in captivity.

The Fauna Protection Act provides that no person shall sell any fauna unless he is licensed and regulations made under the Act direct that any person keeping ten unprotected birds, or any protected fauna whatsoever, shall be licensed.

The fee is 10/- per annum. Inspectors should direct persons requiring this license to write to Head Office advising the number of each species of fauna held in captivity and to enclose their remittance to cover the license fee.

As a result of continued complaints received of birds being held under unsatisfactory conditions, a number of prosecutions are pending and the Royal Agricultural Society has announced that cage birds have been banned as side-show prizes at the Royal Show this year.

TRAWLING IN COCKBURN SOUND.

Following repeated claims by the Cockburn Road Board that trawling for cuttlefish and scallops in Cockburn Sound had destroyed fish feeding grounds there, a survey was carried out on December 16 to note the effects of this type of trawling. The r.v. "Lancelin", under command of Captain H. C. W. Piesse, carried out trawling tests. Dr. R. George and Mr. Barry Wilson, of the Perth Museum, using underwater breathing apparatus, took note of the effect of the trawling on the algal weed which was reputedly used as cover by kingfish and whiting. Messrs George and Wilson also obtained samples of the weed from the sea bed and took a number of underwater photographs.

A report of the survey will be prepared by Dr. George and submitted to the Department in due course.

VISITING SHIPS.

A party of boys from the Japanese fisheries training vessel "Kayo Maru" was taken out on the r.v. "Lancelin" on December 4. Some Fremantle crayfishermen co-operated by delaying the pulling of their craypots until the "Lancelin" arrived so that the boys would be able to witness this phase of crayfishing. Later the boys saw the crayfish being processed at one of the works. The "Kayo Maru" arrived in Fremantle on December 3 and sailed on the following Monday, December 7, 1959.

* * * * *

Large crowds visited the Russian research ship Vitiaz when she was opened to public inspection at Fremantle on Sunday, December 6. The Vitiaz was the third Russian ship to reach Fremantle since the war and was reported as being the most friendly. She had fourteen research laboratories staffed by oceanographers, ichthyologists and zoologists. When she sailed from Fremantle on December 10, she was expected to follow a zigzag course north for about a thousand miles on her oceanographical work. During her stay, the ship was visited by many local scientists and some of the Russians lectured at the Zoology Department of the University.

SOUTHERN CRAYFISH SURVEY.

On her trip from the waters of the Southern Ocean to Fremantle, the chartered vessel "Bluefin" carried out continuous crayfishing tests until berthing at Fremantle on December 18.

Reporting on results of the tests, Technical Officer R. J. McKay said that "white" crayfish were taken from the Leeuwin north to Fremantle. It seemed possible, he added, that a new small crayfishery could be established in the area below Bunbury as there appeared to be plenty of suitable ground there in the 22 fathom zone. The fishery could be worked economically by freezer boats based at Bunbury and Hemelin, he said.

After refitting, the "Bluefin" will, early this month, retest waters north of the Leeuwin before returning to the Archipelago of the Recherche.

DEPARTMENTAL PROSECUTIONS.

October 1, to December 31, 1959.

Date	Defendant	Court	Charge	Result
20.10.59	Ivancozo J	Bunbury	U/size crays	Fined £3
12.11.59	Perham L. J.	Geraldton	do	" £2
do	Ayling R.	do	do	" £5
do	Horn A.	do	do	" £2
do	Johnson T. L.	do	do	" £2
1.12.59	Akerstrom K.	do	do	" £2
do	Tester M. H.	do	do	" £2
15.12.59	Finlay A. S.	do	do	" £8
do	Florias D.	do	do	" £5
14.10.59	Challis L.	Perth	do	" £3
do	Lavtas K.	do	do	" £5
27.10.59	Miller A. J.	do	do	" £3
do	Soulos J.	do	do	" £2
8.12.59	Kailis Bros	do	do	" £6
23.12.59	Cawley B. A.	do	Sec. 12 (c)	" £5
1.10.59	Tonkin W. G.	Pinjarra	Sec. 12 (a)	" £5
Fauna Protection Act.				
12.11.59	Vos C.	Perth	Keeping protected fauna without permit	" £5
22.12.59	Van Allen P.	do	Illegal dealing in birds	" £10
26.11.59	Moriarty S.	Pinjarra	Destroying protected birds	" £2

CLEARING HOUSE.

Sardines Return to Central California.

It seemed abundantly clear by October 8 that sardines really had returned to central California waters. One school a half mile long by a third of a mile wide, and containing an estimated 10,000 tons was reported off Pt. Sur.

Furthermore, an ironic twist was given to the situation by the fact that four San Pedro purse seiners were fishing in central California waters, and their catch was being trucked to San Pedro! For years, it will be recalled, Monterey's fleet of purse seiners made their catches in southern California, and the fish had to be shipped to Monterey and San Francisco canneries at the boat owners' expense.

Early in the month it appeared that the fish had started to move south, but as of the night of October 7 they seemed to be back around Monterey again, and on that night some 500 tons were caught within a few miles of Monterey.

It was thought that the fish were mainly of the 1957-58 year class. They are 9 to 10" long, and go five or six to the can.

(Pacific Fisherman's News Oregon U.S.A. November, 1959)

Outer Seven Trade Agreement.

Next week at Stockholm, discussions will take place which are likely to lead to the early signing of an Outer Seven trade agreement. Many in the fishing industry are convinced that the discussions will result in the free import of frozen fish from Norway, Denmark and elsewhere.

That this would be a setback to the British catchers' main outlet, the home market, there is little doubt. Nor could there be much dubiety that such an innovation, added to the other pinpricks of recent years, would bring more despondency at a time when a tonic would be welcome.

(ii)

With falling catches, unilateral imposition of "fishing limits" by Iceland and Eire, headland to headland baselines and the rest, those whose wellbeing depends on fisheries could not be expected to be in a particularly magnanimous mood.

Being long-suffering, in the tradition of their forbears, they seem to be resigned to the inevitable - that in top-level bargaining their livelihood has limited value in the international market-place.

But the passivity has not been complete. There have been reasonable suggestions about how the balance might, at least in part, be restored, if free imports of fish are allowed.

Perhaps that which might appeal most strongly to the goodwill of all parties came from Mr. Atkinson at Fleetwood last week. He said, in effect, that if we are to throw open our home market, then those who benefit should be prepared to give our fishing boats free access to fishing grounds lying within arbitrary limits which exist now or may exist after the next International Conference on the Law of the Sea at Geneva.

That strikes us as being a perfectly reasonable request, one that should appeal to the fairmindedness of any who believe that concessions must be made in the interests of international agreement. Our representatives would do well to ponder it between now and their arrival in Stockholm.

It would be encouraging, and somewhat novel, to see them emerge from the conference room having obtained some relaxation of the irritating restrictions which deny to our fishermen the freedom of movement that would allow them to compete with other nationals on an equal footing.

By so doing, Britain's representatives would dispel the growing feeling that in matters such as this, the fishing industry of this country is continually conceding but receives little for its pains.

(Fishing News

London

November, 1959.)

(iii)

Increasing Importance of the Norway
Lobster to Fish Trade.

Nephrops, the squat little Norway lobster, "scampie" or Dublin prawn is coming back into the fish trade with increasing importance, writes Eric Hardy. The fine weather and long fishing days this year enabled inshore trawlers to work further away from home and exploit its fishery in many western waters.

In the Irish Sea area from which it took its name, it has been trawled by Conway and other boats off the muddy bottom in around 18 fathoms of water from Lambay Island to Strangford Loch and from Walney to St. Bees Head. In addition catches have been made in the Scottish Minches.

This crustacean is still as widely distributed in the Irish Sea as Johnston reported years ago. However, the fishery is not confined to the West. Fishermen have hauled as much as a hundredweight a time in the Firth of Forth - while a fishery for it exists in the waters off Coquet Island and the North-East coast. With regard to landing North Shields and Grimsby are two of the leading ports on the east coast, however, their amounts do not rise as high as Milford Haven's and Fleetwood's. Turning further afield, Norway lobsters are found from northern Scandinavia to Africa's north-west coast.

In certain areas the Norway lobster is known as the sea-crayfish though this term is misleading. However there is a close relationship between the two. The former usually measures eight inches in length and is known chiefly by its slender body and slender front claws. It is a pale pinky grey in colour and, of course, boils up pink. It has broad lobster-like tail carrying the eggs through the winter. Spawning in autumn, the Norway lobster casts its skin in early spring. Males grow larger than females and are in the majority in catches landed.

In recent years the landings, and their value, of Nephrops have been continually increasing. I am obliged to Mr. G.G.W. Moorey, District Inspector of Fisheries for the Ministry of Agriculture and Fisheries at Fleetwood for figures from there which show a total landing of 4,029 cwt. worth £10,794 in 1958. Clearly indicating the increase in value that has occurred is the fact that the first nine months of 1959 saw a landing of 1,679 cwt. worth £7,746 compared with 3,136 cwt. yielding £7,934 in the same period last year.

(iv)

Most of these were landed by crabbers and other trawlers working the Irish side of the Irish Sea and the Scottish Minches. They are now put ashore uncooked which means they must be processed or refrigerated quickly due to their tendency to deteriorate rapidly if left untreated, especially in summer.

At Milford Haven the Ministry of Agriculture and Fisheries' Inspector kindly provides some statistics which show a total 1958 landing of Norway lobsters of 3,333 cwt. worth £18,498 of which 13 cwt. were put ashore by foreign vessels. In the first three months of 1959 3,745 cwt. worth £26,115 were landed of which 213 cwt. were foreign-caught. At Milford the maximum landings of Norway lobsters are usually made from July to August.

An idea of the overall increase in the fishery can be gained from the following annual landing figures for England and Wales.

	cwt.	£.
1954	4,958	21,647
1955	5,498	23,259
1956	4,317	19,193
1957	5,444	23,489

Trawlers will no doubt find Norwegian lobsters a profitable line to fish in future summers where the sea-bed is soft and muddy, on the East Coast from about 33 to 42 fathoms and on the West Coast from 10 to 20 fathoms.

There are still gaps in the scientists' knowledge with regards to the life history of the Norwegian lobster, particularly about the behaviour of the berried female during her winter's egg-carrying and of any migrations the male may make, and whether or not the females bury themselves out of reach of the trawls, thus causing the catches to have a larger number of males than females in them as they do.

(Fishing News

London

November, 1959)

Thailand Developing a Shrimp Industry.

The first shipment of frozen shrimp (prawns) from Thailand (Siam) to the United States took place this year in April. The packer, with headquarters in Bangkok, has a complete processing and packing plant located in the Government freezer there.

(v)

The facility offers a capacity of 3,500 tons. The one company is the only packer operating in the warehouse at present.

The initial shipment of shrimp was the first frozen product ever shipped from Thailand. The packer uses a five-pound package for packing the frozen shrimp.

The Thailand packer expects to pack about 500,000 pounds during its first year of operation. It supplies fishermen with nets, and has secured services of Japanese technicians to teach native fishermen how to obtain shrimp using modern fishing methods.

The packer obtains mostly white shrimp, but has secured some tigerstripe shrimp. Most of the catch has been jumbo size with very little smaller than 10-to-the-pound. The fishing season usually lasts about nine months.

(Market News Service

New York

November 20, 1959.)

Oceanographers Call for Fish Census.

How many fish are there in the sea and where they are and how their numbers can be increased to feed the ever-increasing human population of the earth were practical questions in the background of one session of the International Oceanographic Congress at the United Nations in September 1959. But no one among the 500 experts from 38 countries knew the answers.

The great need for human nutrition is protein and fish is a rich source of proteins. If they could be raised as beef on fertile watery farms and ranges their numbers could be increased enormously and the fish themselves would grow to much larger size. But their growth and numbers are limited by the amount of food they can find. Increasing fish production requires an increase in the microscopic fish food called plankton on which fish life depends. A plankton census must precede a fish census.

Studies of plankton made by the Scottish Oceanographic Laboratory were reported to the Congress. These microscopic plants and animals occur in astronomical numbers in most sea water. More than 50,000 samples of plankton were analyzed annually and each was separated into about 100 different species to discover where each is most plentiful. A plankton map of the North Sea and the nearby parts of the Atlantic and Arctic oceans will soon be published as a guide to the fish-feeding grounds.

(vi)

Extension of such a map to the entire ocean and to a world fish census is being discussed as a major project in the near future for one of the international organizations such as UNESCO or the International Council of Scientific Unions. Meanwhile there have been some successful transplantations of young fish over long oceanic distances to better feeding grounds. This was done for the European plaice with a large increase in the catch at the new location. The striped sea bass have been successfully transferred from the Atlantic to the Pacific. But every attempt to grow Atlantic shore oysters in the Pacific has failed. Much research will be needed on sea plants and small animals before any effect can be expected on the catch of edible fish.

A professor of Cambridge University in England reported to the Congress on the fantastic forms that have developed among fishes of the great deeps of the ocean - fish with mouths that extend half the length of their bodies, stomachs that can be extended to permit a fish to devour a fish larger than itself, and luminous bait that some fish carry before them on long antennae-like organs to attract their food. The reason for the existence of these queer fish is unknown but the professor claimed that the absolutely unchanging environment in the dark depths of the sea would permit mutation to run wild over millions of years. In the deep trenches that sink a mile or more below the great plains of the sea bottom, the odd species that develop in one trench may be quite different from those in a neighboring trench.

(Market News Service

New York

November 9, 1959.)

GENEVA SEA LAW CONFERENCE.

The second international conference on the Law of the Sea begins in Geneva on March 17 and is expected to last until April 14.

Two questions to be dealt with are outstanding from the first conference held in 1958. These are the width of territorial seas and the breadth of zones in which exclusive fishing rights may be exercised by Coastal states outside their territorial waters.

Among the 89 Governments which have been invited to attend are the 82 United Nations member States, as well as West Germany, the Holy See, South Korea, Monaco, San Marino, Switzerland and Viet Nam.

(Fishing News

London

December 4, 1959)