

MONTHLY SERVICE BULLETIN



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April/May, 1961.

STAFF NOTES

The Minister for Fisheries (Mr. Hutchinson) returned to his office on April 11 after a period of absence following an operation.

The Director (Mr. Fraser) attended the official opening of the 7th Annual Water Life Show held in the Fremantle Town Hall on March 6. From April 11 to 14 Mr. Fraser led the Fauna Protection Advisory Committee on a short field trip during which visits were made to reserves in the Pingelly, West Arthur and Busselton Districts. A fauna farm at Boyanup was also inspected. A brief report on the trip appears elsewhere in this issue. On April 20, the Director attended his final meeting of the Agriculture Protection Board, of which he had been a member since its inception. Legislation passed in the last Parliamentary Session increased local government representation and reduced the number of ex officio Government officers.

The Clerk in Charge (Mr. B.R. Saville) resumed duties on April 6 after returning from the Eastern States, where he discussed various fisheries aspects with the Directors and staff of the State Fisheries Administrations. Opportunity was also taken to inspect facilities at various fishing ports in both Victoria and South Australia.

Albeit belatedly, we extend our congratulations to the Research Officer (Mr. B.K. Bowen) and Mrs. Bowen on the birth of their third daughter, Barbara Jane, on March 8. Mr. Bowen recently visited Adelaide, Hobart and Sydney for discussions with co-workers in crayfish and trawling research. He left Perth on April 10 and returned on April 20. This month Mr. Bowen will fly to Shark Bay to initiate the collection of weight- and length-frequency data in relation to local commercial species.

The Supervising Inspector, Mr. J.E. Bramley, visited the Bunbury district on April 26 and, with Inspector T.B. Baines, investigated complaints that professional fishermen had overfished local stocks of crabs to the detriment of visitors. Mr. Bramley also discussed with the Town Clerk the location of the proposed new departmental office and boatshed at Bunbury.

We welcome three young ladies who have been appointed to the staff at Head Office. They are Misses Yvonne McKenna and Marion Crofts, both typists, who commenced on March 20 and 27, respectively, and Miss Hilary Sivwright, who was appointed, on April 10, as Library Assistant. Miss McKenna replaced Miss Marie McDonnell, who resigned from the Service on March 20, while Miss Crofts replaced Miss Wendy Rowland, who was transferred to the Public Trust Office. The position now occupied by Miss Sivwright was created subsequent to the previous issue of this Bulletin.

We also welcome to the staff Mr. Donald Kennedy, who was appointed Engineer, r.v. "Peron", on April 10, vice Mr. L.C. Stock, who resigned some time ago.

Officers who commenced annual leave in April included Assistant Inspector D.H. Smith on April 5; Mr. A.J. Buchanan, of Head Office, on March 27; and Senior Inspector J.E. Munro, Inspector A.T. Pearce, and Assistant Inspector E.H. Barker, who all commenced on April 10.

During the absence of Inspector A.T. Pearce the command of the p.v. "Dampier" will be assumed by Inspector F.J. Campbell, whose place as skipper of p.v. "Kooruldhoo" will in turn be taken by Assistant Inspector D.P. Gordon. Cadet Inspector P.C. Willey will act as crew member on "Kooruldhoo".

Officers who will commence leave this month include Senior Inspector A.K. Melson, on May 1, and Assistant Inspector L.R. Frizzell on May 28. Mr. Frizzell has been transferred permanently to Geraldton, where he is stationed on the p.v. "Dampier."

The station at Lancelin having been closed last month, Relieving Inspector G.C. Jeffery will take over the Fremantle district during the absence of leave of Mr. Melson. The station at Jurien Bay, of which Assistant Inspector N.K. Henry has been in charge, was also closed on April 29. Regular coastal patrols, and snap visits to southern estuaries, will be carried out in future by the mobile patrol unit to which Mr. Henry has been temporarily assigned.

Assistant Inspector G.J. Hanley was transferred from Geraldton to the metropolitan district, effective April 25. He will act as required as crew member of the p.v. "Misty Isle", which is under the command of Inspector G.D. Houston. "Misty Isle" will patrol the river and Fremantle-Rottnest waters.

The Pearling Inspector (Mr. A.J. Baird) will return to his headquarters at Broome on May 30. Inspector E.I. Forster, who has been acting as Pearling Inspector, will return to the metropolitan district immediately afterwards.

Inspector B.A. Carmichael, of Albany, was forced to spend ten days on sick leave from March 28 following a back injury received when handling an outboard motor in his office.

PERSONAL PARS

Dr. G.L. Kesteven, Assistant Chief (Fisheries), Division of Fisheries and Oceanography, C.S.I.R.O., Cronulla, N.S.W., spent several days in Perth early in March. While in this State Dr. Kesteven met the Minister for Fisheries and had discussions with the Director and head office personnel, with members of his own staff, with Messrs. D.S. and R. Hunt, of Hunt's Canning Pty.Ltd., and with a number of other persons interested in the scientific investigation and commercial exploitation of the fisheries of the State.

Our warmest congratulations are extended to Mr. H.J. Frith who, it was recently announced, has been appointed Officer-in-Charge, Wildlife Survey Section, C.S.I.R.O., Canberra, A.C.T. Mr. Frith succeeds our old friend Mr. F.N. Ratcliffe, who has left the Wildlife Section to become Assistant Chief of the Organisation's Division of Entomology. Mr. Frith, who is 39 years of age, will be remembered by all members of the staff who heard his absorbing address at the 1951 Annual Staff

Conference. Mr. Frith then told us something of his work on mallee fowl. His other main study during the ten years he has been with the Section has been on the ecology of wild ducks, particularly in New South Wales. Last year, Mr. Frith was appointed Officer-in-Charge of the Australian Bird-Banding Scheme, and has added bat-banding to those activities.

Dr. G.F. Humphrey, Chief of the Division of Fisheries and Oceanography, C.S.I.R.O., made a short trip around the world last month. His main purpose was to attend the meeting in Paris of the United Nations Special Committee on Oceanic Research, of which he is President. He also visited the Marine Laboratory at Wood's Hole, Massachusetts, and took part in a conference aboard H.M.A.S. "Gascogne" at Hawaii.

Captain F.E. Wells, Pearling Officer, Fisheries Division, Department of Primary Industry, Canberra, called on the Director during April. Mr. Wells was on his way to Broome, where he intended to spend some days, and thence to Darwin, where he would also look into pearling problems before returning to Canberra.

MOVEMENT OF VESSELS

It is expected that the refit of the r.v. "Peron" will be completed about the middle of this month. After the usual trials, she will go to Geraldton to convey delegates to the Commonwealth-State Fisheries Conference to Houtman Abrolhos. She will then return to Fremantle to trawl for demersal fish in waters west of Rottnest. In October, she will move northwards to continue the testing of prawn and scallop resources off Shark Bay and Carnarvon.

R.v. "Lancelin" continues her role in crayfish research and patrolling in the Fremantle-Jurien Bay waters.

CONFERENCE IN PERTH.

The annual Commonwealth-States Fisheries Conference will be held in Perth during the week commencing May 29. This will be the first time that this important meeting will have taken place in this State. Delegates from all State Fisheries Administrations, from C.S.I.R.O and from the Commonwealth Fisheries Office will attend. In the week before the proceedings commencing, most of the delegates will

participate in an inspection of crayfishing grounds at the Abrolhos. The research vessels "Peron" and "Lancelin" and the patrol vessel "Dampier" will accommodate and transport the party between Geraldton and the various Abrolhos groups.

1961 ABROLHOS CRAYFISHING SEASON

The stationing of an inspector at each group of islands at the Abrolhos before the opening of the season, and the presence of a patrol vessel there, once again ensured an orderly opening. Inspector G.D. Houston, who was stationed at the Wallabi group, has reported that some very good catches were made on the first day of the season. One boat, he says, took $3\frac{1}{2}$ bags of crayfish from 29 pots which had been in the water for less than 24 hours and had not been previously soaked. Although he returned to Geraldton on the day after the opening Mr. Houston said that there were, by that time, 50 men and 38 boats working 2,416 pots in and around the Wallabi group. Additional boats and men were still arriving when he left.

Reporting from the Easter group, Assistant Inspector N.K. Henry said that 70 men with 44 boats operated there on opening day. A 29-knot wind blowing on the morning before the season opened prevented small boats from setting their pots but most of the larger vessels were out, he said. In the afternoon of that day the wind dropped and all boats were out setting pots until early evening. The opening day, March 1, was hot and still, and Mr. Henry said that this was probably one of the factors which caused unusually high mortality among the crayfish in holding crates pending transport to the mainland.

It will be remembered that, many years ago, the opening day of the Abrolhos season was March 1, as it was in 1960 and 1961. The date was set back to March 15 a few years ago owing to the high mortality occurring in the interval between the actual loading on the crayfish carrier boats and the commencement of processing at the Geraldton factories. It was considered that this mortality was due to biological causes. The crayfish were said to be weak after moulting and unable to withstand being transported in bags in the hot, humid weather usually experienced in March. Despite the later opening date, however, high mortality rates continued and other measures to reduce it were sought. Following evidence given before the Fishermen's Advisory Committee on the habit of some fishermen to work before opening day and store their catches in holding crates, it was decided to station an inspector at each Island group and to maintain a patrol vessel permanently in the area to ensure that no fishing occurred during the close season. At a subsequent meeting of the Advisory Committee, in 1959, it was said that this policing had been responsible for the great reduction in start-of-season mortality.

A suggestion was made that, as the real cause of the mortality had been determined the opening date of the season could be brought forward again to March 1. Bearing in mind its simultaneous recommendation that a close season be introduced from August 15 to November 14 throughout the area, the Committee agreed to support the suggestion, and the opening date was in 1960 brought forward to March 1. At the meeting of the Committee later that year, fishermen gave evidence that early season mortality in 1960 had been negligible and recommended that the 1961 season again open on March 1. This recommendation was again accepted. This year, however, start-of-season mortality has been high, both in holding crates and on carrier-boats, despite the prevention of pre-season fishing. Inspector A.T. Pearce reports that 80% of fishermen at the Abrolhos this year favour delaying the opening of the season next year until March 15. Losses, he writes, have been as high as 33% in the crates. These losses will be kept in mind when the Advisory Committee takes evidence on crayfishing and other matters in Geraldton later this year.

Reports coming to hand in April referred to the good catches of crayfish, notwithstanding bad weather encountered before and after the Easter holidays.

REPORTS ON ABROLHOS FAUNA

Some interesting notes have been received from Inspectors who, as reported above, were stationed at the Abrolhos to police the final days of the close season. Inspector G.D. Houston said that on February 25 he carried out a foot patrol on East Wallabi Island. Species of birds observed during the patrol included white-breasted and red-backed seas eagles, small flocks of turnstones, red-capped dotterels and black-tailed godwits. Mr. Houston added that all the wallabies he had seen appeared to be in good condition. These animals are an interesting island form of tammar.

Writing from the Southern group, Cadet Inspector R.G. Emery said that on February 23 he had sighted approximately 1,000 mutton birds at their rookery on the southern end of Pelsart (Long) Island. Mr. Emery also listed the species and numbers of resident birds at different islands. Referring to fish he reported that few mullet were sighted and only a few snapper. Local fishermen told him that there were not the same quantities of snapper and jewfish as in previous years, but large schools of tuna and Spanish mackerel had been seen. They were said to be about much earlier than in other years.

In the Easter group, where Assistant Inspector N.K. Henry was stationed, large numbers of sooty terns, silver gulls and pied cormorants were observed, with smaller quantities of fairy terns, some

pacific gulls, ospreys and one large sea eagle. Mr. Henry also made the interesting comment that he observed three seals, two females and a large male, which he thought were fur seals.

We would appreciate reports of any further observations of seals made in the Abrolhos as we would not expect fur seals to be that far north.

Sea-going staff are requested to check again the article and diagrams published in the January, 1961, issue of this Bulletin which set out means of distinguishing between hair and fur seals.

IMPORT OF FAUNA

The Minister for Fisheries has approved a recommendation by the Fauna Protection Advisory Committee that, as a general rule, authority to import shall not be issued in the case of:-

- (a) amphibian, reptilian or mammalian fauna, and
- (b) avian fauna, other than pheasants, peacocks, parrots and canaries, except when it is shown that such imports are for approved scientific or zoological purposes. Other exceptions to the general rule may be made under certain circumstances, provided the concurrence of the Chief Vermin Control Officer is also obtained.

The reason for the imposition of the general ban is to prevent, as far as possible, the acclimatisation of any further species of exotic fauna in this State. In reaching its recommendation, which was subsequently accepted, the Committee was mindful of the disastrous effect of such acclimatised animals as rabbits, foxes, donkeys, camels, goldfinches and house mice, to name but a few.

In recent months permission to import freshwater tortoises for the pet trade has been refused, while the Chief Quarantine Officer (Animals), acting under the authority of Commonwealth legislation, has refused permission for certain reptiles to be brought into the State. The introduction of exotic animals from outside Australia is, of course, already prevented under existing Commonwealth laws, but those laws do not obtain in respect of interstate movements. Many exotic birds are held in aviaries in the Eastern States; their introduction into this State for avicultural purposes will generally be prohibited, although exceptions might be allowed, as previously stated, if agreement is reached between this Department the Agriculture Protection Board (which administers the Vermin Act) and representatives of aviculturists.

BOAT LOSSES

The 1961 Abrolhos season got away to a bad start when the 20' bondwood fishing boat "Soeker", owned and skippered by Mr. L. Thompson, was rolled over by a breaker whilst rounding the North-East Point, East Wallabi Island, Houtman Abrolhos.

Tragedy struck at Jurien Bay on March 15, when two experienced crayfishermen, George Barbarich and Mate Parentich were drowned. They had been crayfishing in their 26' boat "Marlene Ann" when she was swamped by a wave.

On April 9, the crayboat "Trader", owned by Mr. P. Coussens, of Mt. Yokine, was swept onto the rocks at Yanchop Beach. It is understood that only the engine was saved from the vessel, which was valued at £2,000. Mr. Coussens said that he had been grappling for his moorings when a heavy wave struck the boat just as the engine cut out.

PEARL CULTURE LICENSES

Three additional licenses to culture pearlshell and pearls have been approved by the Minister for Fisheries. Two of these are in respect of small areas taken up by Pearls Pty.Ltd., one at Brecknock Harbour and the other at Sampson Inlet, both in close proximity to the Company's main centre at Kuri Bay. The third area is one applied for by a Broome pearler, Mr. D.M. Brown, who will operate in a four-square-mile area off Shenton Bluff in King Sound. These three bring to a total of seven the number of areas approved for this purpose.

LONGEVITY OF SILVER GULLS

On March 18, Inspector A.V. Green of Mandurah, saw three sea-gulls killed by traffic in the main street of Rockingham. He inspected the carcasses for bands and found that one was carrying band No.080-00936. A check of our records revealed that this band had been placed on the bird at Bird Island, Shoalwater Bay, on October 23, 1957, by Fauna Warden S.W. Bowler and Inspector J. Traynor. As the 41 months for which this gull had been banded appeared to be the longest band on our records, an enquiry was directed to the Secretary of the Australian Bird-Banding Scheme asking whether there were instances of greater longevity in these species. His reply, recently received, advises that a silver gull banded at Thirroul, N.S.W., on November 13, 1955, had been recovered 59 months later quite close to its banding place. Another bird banded at Wynyard, Tasmania, on December 24, 1955, had also been recovered near its banding place 59 months later.

PEARLING

No fishing for pearlshell by foreign fleets will be permitted in the Western Australian Division during the next three years. This is the substance of a letter received by the Minister from the Minister for Primary Industry in Canberra (Mr. Adermann).

The Northern Territory has, by a recent proclamation, been brought into line with Western Australia and Queensland by taking such action as will allow the Territory's Administration to control pearling and pearl-culturing in territorial waters. Hitherto the Territory's territorial waters had not been subject to such control.

A press statement attributed to Mr. Adermann states that Japanese fleets will again be allowed to take a maximum of 415 tons of shell from those Australian waters which have not been denied to them. There is a condition in the agreement reached between the Commonwealth and Japanese Governments on the matter that no Japanese vessel shall work within 10 miles of the mainland or of any inhabited island. Last year only 384 tons of shell was fished by Japanese luggers.

On pages 59 and 60 are published tables showing details of pearlshell production in the past five years. It is not non-availability of shell which has produced the downward trend, but rather the falling-off in demand brought about by strong competition from plastics.

FAUNA PROTECTION ADVISORY COMMITTEE'S TOUR

Led by the Chairman (Mr. Fraser), members of the Fauna Protection Advisory Committee last month toured areas in the Great Southern and the South-West. In addition to the Chairman, Messrs. J. B. Higham and A. H. Robinson and the Secretary, Mr. H. B. Shugg, participated in the full tour while Drs. W. D. L. Rido and A. R. Main returned to Perth after the first day.

A brief visit was made to two timber reserves and an "A" class recreational reserve about 14 miles north-west of Pingelly. Boyagin Rock, which is contained within the "A" class reserve, actually consists of two colossal rocks - that on the northern side being bare while that on the south is vegetated with shrubs and a species of mallee. The last-named proved to be a most attractive species, Eucalyptus caesia, a pink-flowered tree which had not previously been recorded west of Kellerberrin. The country surrounding the rocks is very rough and wild with laterite breakaways on the hills and huge granite boulders in the valleys. There are in the area

some very dense stands of prickly poison, while close to the rock scratches, probably by possums, were sighted on a young marri near a pool. Dr. Main, who has since revisited the area, confirmed earlier reports that tammar exist and may be plentiful on this reserve. It was agreed that the reserves should be revisited and intensive collections made of their flora and fauna.

An inspection was made of reserve 25555 at East Pingelly. This reserve, which contains about 3,000 acres, is generally agreed as being the leading one in Western Australia, as far as mammals are concerned. Species collected or reliably reported to occur on this reserve include grey kangaroo, brush kangaroo (or brush wallaby), numbat, wambenger, woillie, tammar, quenda and chudich (native cat). Dr. Main pointed out areas of regenerating casuarina and box poison which, he said, was favoured habitat for tammar and woillies. Scratchings of woillies and quendas were seen to be most common. Members were also amazed at the number of tracks of small marsupials which crossed a fire-break into a privately-owned paddock which had been cleared and cropped. This was visual evidence that the population of small macropods in the reserve was surprisingly large. A distinct event for the party was the sighting of two mallee hens in the north-eastern section of the reserve.

The next day, the members of the Committee were escorted through the Dryandra-Congelin reserves by the forester in charge of the Dryandra State Forest, Mr. J. Currie. This country is the best stronghold in the State for that attractive marsupial ant-eater, the numbat, whose proper conservation demands that all this area be retained in its woodland state. The reserves contain some excellent sections of wandoo forest, including both the true wandoo and powder-bark wandoo.

In the afternoon the Committee met representatives of the West Arthur Road Board and the Lake Towerrinning Development Committee at Lake Towerrinning, near Mudiarrup. Members were pleased to meet also Mr. J.R. Schinzig, honorary warden, who is well known to some of our inspectors and a great worker for the Department in the area. The Committee was told that the Board, which owns a few acres of adjoining land and has erected amenities on it, had no control over swimmers using the Lake during regattas, nor of restricting the movement of the public at large between the recreational reserve and the water's edge. The need to control the public during regattas and to prevent shooting and generally supervising boating and other aquatic activities made it essential, the Chairman of the Board maintained, for the Committee to surrender its vesting order in favour of the Board. After discussions members were taken to the western side of the Lake by Mr. Schinzig and shown wetland waterfowl breeding habitat.

The representations made by the local authority are to be discussed at the next full meeting of the Committee and a decision conveyed to the Board in due course.

At Busselton, the Committee met the leader of a group of landholders (Mr. Gavin McGregor) who had petitioned the Minister for Lands that the Broadwater (which is an ephemeral lake surrounded by swampland to the west of Busselton) be declared a sanctuary for fauna. Mr. McGregor and his daughter showed the party over that part of his property which surrounds the Broadwater and explained his difficulties. That evening, at a public meeting called by the Busselton Road Board, the views of the landholders and of shooters and honorary wardens were expressed. The Director reminded the meeting that the true function of the Department was not to protect private property as such and that the opening of any areas to shooting did not authorise shooters to trespass. He thought from what the Committee had seen of the Broadwater members would agree that the reserved land in the centre was too small to keep as a sanctuary unless it were increased by surrounding landholders agreeing with the Minister to keep their land in its natural state in perpetuity. Complaints having been made of the use of spot-lights and the destruction of notices, the Director pointed out that policing the Act had its difficulties. The Department employed only two regular wardens and was compelled to rely very largely on honorary assistants. He said that notices were of limited use as they appeared to be ignored by the persons at whom they were specifically directed. Mr. Fraser advised the meeting that the Department would write to the Board and seek its considered opinion before making any firm recommendation to the Minister.

The return to Perth was interrupted for a brief call at the fauna farm of Mr. E.W. Ecclestone, of Boyanup. Mr. Ecclestone explained his plans to create a sanctuary north of his existing aviaries in a 100-acre paddock. He had already commenced the construction of a dam to provide water for the fauna he hoped the Department would permit him to hold. Mr. Ecclestone was advised that the matter would be considered at the next full meeting of the Committee and a decision conveyed to him regarding the future development of his farm.

FAUNA CONFERENCE RESOLUTIONS

In the October-November issue of this Bulletin, we published eleven of the resolutions adopted at the Interstate Fauna Authorities Conference held in Brisbane last September. The resolutions were considered by the Fauna Protection Advisory Committee at a number of meetings and, after careful deliberation, it recommended to the Minister that they be adopted. The Minister has now approved the Committee's recommendation.

For the information of the staff, those resolutions which most closely affect this State we set out below:-

- (a) That this Conference, having given consideration to the increasing use of pesticides for the control of pest fauna and weeds, and appreciating the need for adequate control, believes that little cognizance has been taken of their adverse effect on native fauna and recommends to the Governments of the respective States and Territories that, before undertaking poisoning on Crown lands, or on reserves, sanctuaries or other areas set aside for the conservation of native fauna, the opinion of the fauna conservation authority be obtained as to the possible effect of such poisoning on the native fauna occurring therein.
- (b) Conference is of the opinion that, in attempting to seek the solution of short-term fauna problems, the role of basic research in providing the solution to problems is frequently neglected. As one step towards achieving an acceptance of the need for basic research, the State fauna authorities should consider inviting co-operation from groups of interested persons and providing them with information which would foster their interest. This in turn could lead to a greater public awareness. One of the present difficulties in organising biological investigations is that of obtaining assistants with adequate biological training. Conference recommends that the respective State authorities give consideration to possible ways and means of meeting this problem.
- (c) Conference agrees to the necessity for uniformity of waterfowl banding records, and recommends that the respective State and Federal authorities carrying out banding should retain an additional record for delivery to a central depository when such has been established. For this purpose the Australian Waterfowl Advisory Committee should define the form of record to be kept.
- (d) Conference places on record its opposition to private zoos or collections of fauna, but in so doing accepts that such opposition may be qualified in those States which do not possess major zoological gardens. Conference excludes bona fide avicultural collections from the terms of this resolution.

- (c) Western Australia expressed concern at the possible spread of exotic aviary birds and instanced the case of the Java sparrow and the potential risk to the rice industry. Conference therefore recommends that each State and Territory and the C.S.I.R.O Wild-life Survey Section examine the exotic aviary bird position with a view to submitting to the conference secretariat lists of those species considered to present a potential threat to primary industry or native fauna, together with a statement as to the specific potential problem, and that this item be included in the next Conference agenda.

The Minister also accepted, in principle, the invitation extended by Tasmania that the next Conference, which incidentally will be known in future as the Australian Fauna Authorities Conference, be held in Hobart. The next meeting of the Australian Waterfowl Committee, on which the Research Officer, Mr. Bowen, is this State's representative, will be held in Sydney.

SEASON CLOSED

All inspectors are reminded that the open seasons for wild duck and marron each closed at midnight on April 30. The season for wild ducks will not re-open until the weekend preceding Christmas, while the marron season will not open until January 1, 1962. The Minister drew the attention of the general public to these closures in a statement recently released to the press and radio. He specifically requested all inspectors, wardens and honorary wardens to join together in policing the close seasons which, he pointed out, were the corner-stones of our conservation programmes.

WHALING

In the 1960 whaling season, for the third year in succession, Australia's catch of humpback whales did not reach the quota fixed by the Minister for Primary Industry in conjunction with the International Whaling Commission, says Monthly Summary of Australian Conditions (April 14, 1961) issued by the National Bank of Australia Ltd. Between May 29 and September 30, 1,525 humpback whales were taken by stations at Moreton Island (Q'ld), Byron Bay (N.S.W.), Norfolk Island, Albany (W.A.), and Carnarvon (W.A.), against a quota of 1,850 humpbacks or their equivalent, which in itself was much reduced from the 2080 allotted in 1959. However, the shortfall was caused entirely by operations on the west coast, where stations were able to catch less than

two-thirds of the quota of 870 whales allotted to them. The catch of sperm (toothed) whales, which is not subject to quota restrictions, increased by 144 to 282 last year, all being taken from Albany.

Whale oil, which is used in the manufacture of margarine, waxes and candles, accounts for the major portion of the value of output of the industry, and whale-meal for cattle and meat for pet food are among the important by-products. The value of whale oil and by-products has shown a downward trend in recent years, falling from over £2.2m. in 1956 to about £1.4m. last year. Over the period, production of oil decreased from 102,400 barrels (6 barrels = 1 ton) to 78,300 barrels, and prices have declined considerably.

Whale oil exports have been fairly well maintained in recent years in terms of volume, fluctuating between 3m. and 4m. gallons a year, but their value has declined. Yearly earnings from 1954/55 to 1956/57 amounted to £1.5m. and rose to £1.7m. in 1957/58, but there was a sharp fall in the following year. In 1959/60, export receipts were only £893,000, and the United Kingdom, which had in previous years been our best customer for this commodity, purchased but 9% of our total export. Germany, Sweden, Italy and the Netherlands have been important buyers in recent years and last financial year exports to Germany were worth £508,000.

Sperm whaling operations were resumed by the Cheynes Beach Whaling Co. at Albany, on March 23, with the taking of two whales by the company's new chaser "Minilya", skippered by Captain Christensen. A two-seater aircraft fitted with a radio will be used by the Company for whale spotting this season. It is a Cessna 105A high-wing, single-engine monoplane of steel construction. The plane will be flown by Mr. John Bell, an experienced commercial pilot.

Although it will be some time before final figures are available, the directors of Nor'West Whaling Co. Ltd. expect that it will be revealed that the Company suffered a small loss on last year's operations. This Station (at Carnarvon) secured only 442 of its quota of 750 hump-backs last year.

This year's quotas have not yet been fixed.

USE OF OFFICIAL FILMS

From time to time staff members have been issued with rolls of film so that they might obtain photographs for our library of colour slides and black and white films. It has been recognised that the Department could not expect individuals to use their own cameras and equipment to secure official photographs without some recompense. Some time ago we published details of an arrangement entered into with the W.A. Naturalists' Club, whereby one roll of 20 exposures, of colour film were

exchanged for each eight copies of slides selected by the Department. This arrangement took into some account the time and effort taken by photographers in securing these photographs, many of which were of birds. The time taken up by departmental officers, on the other hand, inevitably includes a certain amount of official time. Some other arrangements, more favourable to the Department, therefore had to be decided upon. While it is agreed that an arrangement equitable under all circumstances could not be fixed, it has been decided that film will be made available, in approved cases, on the following conditions:-

- (a) Colour film - 10 originals in spools of 20 and 18 in spools of 36, and copies of the remainder as the Department requires, will remain official property.
- (b) Black and white - 10 negatives in spools of 20 (half the negatives in others) and such prints of the remainder as the Department requires will remain official property.
- (c) In both (a) and (b) - The number of originals to remain official property will be as far as possible, irrespective of the number of successful exposures.

In return, the Department will in the case of colour slides, supply a copy of each original it keeps and pay for any copy it requires of those slides which the photographer wishes to keep. In respect of black and white film, the same general rule applies; that is, the Department will supply the photographer with one print of each negative it keeps and have printed one copy of each of the negatives which the photographer wishes to retain. The Department maintains the right to demand which slides or negatives it shall keep in each instance. To prevent any possible misunderstanding of the Department's right, it will be compulsory for all official films to be returned to the Department for processing and selection. On no account shall this be done privately, even if the officer is outside the State. Copyrights, it must be agreed, will be held apportioned to the holder of the original film.

ALLOWANCES

Following negotiations between the Civil Service Association and the Public Service Commissioner, a revision of the Public Service Allowances Agreement has been registered with the Arbitration Court. Its provisions will apply from March 1, 1961. In due course, copies of the Agreement will be available for general information, but in the

meantime officers should note the following major items:-

Travelling rate: The rates for travelling involving an absence from headquarters overnight remain at 49/- a day for officers whose margin is less than £1,109 per year and 52/6 a day for officers whose margin exceeds that amount.

For country officers, who are required to stay overnight in a city hotel (i.e., one in the city block bounded by Wellington Street on the north, the Swan River in the east and south, and George Street in the west) shall be reimbursed at the rate of 62/- a day.

For travel beyond the limits of the State special rates apply.

Additional reimbursement will be paid in respect of some meals which an officer has to purchase during a period of travel which does not occasion his absence overnight from his normal headquarters. Reimbursement for each meal in future will be 8/- for breakfast; 9/- for lunch and 10/- for dinner. "Dinner" means the evening meal and does not include the midday meal on a Sunday.

Transfer expenses: A clause has been added which will directly affect some officers in this Department. It reads as follows:-

"An officer who is transferred to departmental accommodation shall not be entitled to reimbursement under this Clause. However, if such an officer is put to an additional expense on transfer because of circumstances beyond his control he may receive reimbursement as determined by the Commissioner."

Another amendment provides that only a married officer shall be reimbursed beyond the normal period of fourteen days after transfer. If a married officer at the expiration of that period is unable to secure reasonable accommodation and the permanent head is satisfied that the officer has taken all possible steps to secure such accommodation he may be paid an allowance of 26/- a day. It must be clearly understood, however, that a single officer cannot be paid this allowance under any circumstances.

Removal expenses: This clause of the Agreement has been completely revised. It is too long to quote in full but the main points are that when an officer is transferred from one headquarters to another in the course of promotion, by reason of illness or in the public interest, he may receive an allowance of £20 for accelerated wear and tear on his household effects, provided the permanent head is satisfied that the value of household furniture moved is at least £200.

This allowance does not apply to new appointees. Under certain circumstances removal of an officer's motor vehicle may be taken into consideration. Any officer under transfer should make himself acquainted with the context of this clause.

Relieving and Special Duties Allowances: When an officer whose normal duties do not involve camp accommodation is required to perform special duties resulting in a stay at a camp, he will be paid camp allowance in accordance with the provisions of a new clause which will be dealt with later. In addition, however, he will be paid a lump sum of £10 to cover incidental personal expenses, but no officer shall receive more than one lump sum grant of £10 in any one period of three years.

Another new sub-clause provides that when an officer is required to relieve or perform special duties away from his normal headquarters and is permitted to take his own car to the new locality, he shall be reimbursed the cost of petrol and oil for the return journey, provided that the maximum amount does not exceed the cost of a first class return rail fare.

For the first period of 21 days after the arrival at a new locality a relieving officer, or one on special duties away from his normal headquarters, will be paid at the same daily rate as applies to travelling rates, i.e. 49/- a day. When the period of duty or relief is in excess of 21 days, an allowance of 26/- a day will be paid to a married officer and 17/6 a day to a single officer.

Camp Allowance: An officer who in the course of his duty is stationed in a fixed camp provided by the Department shall be paid 13/- a day if married and 8/- a day if single. For the purposes of this clause a fixed camp is deemed to be one of a permanent nature where living facilities and amenities are of good standard.

An officer who in the course of his duty is stationed in a camp provided by the Department, other than a fixed camp, or is required to camp out, shall be paid 19/- a day if married and 14/- a day if single. If an officer is authorised by the permanent head to stay at an hotel or lodging house in lieu of camping out he shall be paid the full travelling rates. Payment of the rates prescribed for a fixed camp, as in (a), or a mobile camp, as in (b), shall be paid on the basis of a seven-day week and no deduction shall be made when an officer does not spend the whole or part of his weekend in camp, provided that payment for any broken portion of a week shall be based on the appropriate daily rate, calculated in the same manner as travelling allowances.

The rates payable for periods spent in either a fixed camp or a mobile camp will be increased by 4/- a day when a cook is not provided, and by an additional 4/- a day when the camp is situated north of the 26th parallel, i.e. Shark Bay and north.

When a caravan is provided by the Department the appropriate rate shall be paid less an amount of 3/- a day as Hire of the caravan.

Boat Allowances: As stated earlier, the new agreement will take effect from March 1, 1961. In respect of seagoing allowances, however, the Commissioner has agreed to apply a special rate from July 1, 1960, to February 28, 1961. During that period married officers will receive 10/- a day and single officers 6/- a day for each day at sea. Both these rates will be increased by 4/- a day when a cook is not provided and by 4/- a day when north of the 26th degree of south latitude, including Shark Bay.

From March 1, 1961, married officers will receive 16/- a day and single officers 11/- a day. Both rates will be increased by 4/- a day when a cook is not provided. When the vessel is north of the 26th parallel, including Shark Bay, a further 4/- a day will be paid.

Payment of allowances under this clause shall not be made for any period in respect of which travelling and transfer or relieving expenses are reimbursed.

General: It should be noted that, in certain of the clauses, a difference is made in the allowance to be paid to married officers and single officers.

In the case of travelling rates, the same amount is paid whether the officer is married or single.

In the case of transfer expenses, only a married officer can receive the allowance for a period longer than 14 days, with the exception that any officer may, if he is able to produce receipts, or other evidence that the allowance is insufficient to meet the costs involved, be paid a rate determined by the Commissioner.

With regard to removal expenses, a single officer may claim reimbursement, and on the recommendation of the permanent head the Commissioner, may, if he considers the claim reasonable, make such reimbursement as he considers appropriate.

In the case of the allowances to be paid when an officer is relieving or on special duties away from his normal headquarters, married and single men are paid at the same rate for the initial period of 21 days. After that period, a single officer will receive a reduced rate unless the Commissioner is satisfied that the officer has to maintain a home, and support dependant relatives therein, in a locality other than that to which he has been sent. A certificate to this effect must be furnished by a single officer claiming the higher rates.

NATIONALITIES ENGAGED

Asiatics	1953	1954	1955	1956	1957	1958	1959	1960
Chinese	46	72	57	83	110	97	73	52
Malays	66	78	76	117	116	86	52	64
Filipinos	2	1	2	2	2	-	-	-
Koepangers	37	28	32	26	29	24	13	8
Japanese	38	39	104	101	112	111	92	97
Ryukuans	-	-	-	-	-	-	3	2
Okinawa	-	-	-	-	-	-	1	-
<u>Sub-Total</u>	189	218	270	329	369	318	234	223
Others								
Whites	14	11	19	23	21	15	12	11
Aborigines	58	72	59	88	66	40	35	44
<u>Total</u>	261	301	348	440	456	373	281	278

AVERAGE TAKE - TONS

Average take per boat	17.44	19.46	19.25	21.08	22.09	17.27	18.93	21.76
Average take per man	1.67	1.81	1.77	1.92	2.08	1.91	1.76	1.95

Date	Defendant	Court	Charge	Result
13.2.61	Caputi, Guiseppe	Perth	U/s Crayfish	Fined £10
"	Pittorino Guiseppe	"	"	" £15
"	Camporeale Nicola	"	"	" £10
"	Gazoly, Thomas	"	"	" £15
21.2.61	Klingberg, Axel	"	"	" £25
22.2.61	Sandnes, Willy	"	"	" £10
"	Vicic, Stanka	"	"	" £25
"	Brilici, Cosmo	"	"	" £10
"	De Pinda, Mim	"	"	" £4
"	Germacnario, Nicola	"	"	" £4
"	Algreto, Tony	"	"	" £4
20.2.61	Paskov, John	"	"	" £10
"	"	"	"	" £10
13.3.61	Jansen, George	"	"	" £15
15.1.61	Ianello, Frank	"	"	" £15
2.2.61	Johnson Eric Prentice	Geraldton	"	" £15
"	Tester, Morvyn Henry	"	"	" £5
"	Tester, William Henry	"	"	" £5
" 61	Barrass, William	Perth	"	" £20
9.2.61	Potondello, Michael	"	"	" £10
"	Bolitho, Keith	"	"	" £10
"	"	"	"	" £10
"	"	"	"	" £10
"	Peale, Francisco	"	"	" £10
"	"	"	"	" £10
14.2.61	Rumkorf J.	"	"	" £10
"	Wray, Melville Dudley	"	U/s Sea Mullet	" £10
"	Brozecivich, Miro	"	" " Herring	" £15
"	Cody John	"	Unlabelled bags	" £10

Date	Defendant	Court	Charge	Results
23.2.61	Lake, Lionel) Lake, Gilbert)	Perth	Netting close waters	Fined £5
23.3.61	Smith, Frederick	"	Netting close waters	" £5
"	Hadley, Robert	"	U/s Crayfish	" £10
<u>Fauna Protection Act.</u>				
16.2.61	Crossland, James	Midland Junction	Shooting Protected fauna	" £5
"	Perpeli, Leo) Scatena, Martino) Navigli, Pallogrino) Movigliatti, Elice)	Perth	Shooting in close area	" £5
23.3.61	Rawcett, John William	"	Taking protected fauna	" £3.19.0

JETTY AT SAFETY BAY.

The Minister for Works (Mr. G.P. Wild) announced some time ago that a jetty would be constructed at Safety Bay, at a cost of £3,000. It would be 227ft. long and 8ft. wide and provide berths for four small craft. It is expected to serve crayfishing activities in the area as well as meet the requirements of the Safety Bay Yacht Club. It is expected that the jetty will be completed in July.

BASIC WAGE INCREASE

As a result of the recent quarterly declaration of the Court of Arbitration in Western Australia salaries will increase from May 1, 1961. Adult males will receive an additional 5/4 a fortnight. Junior males and females will receive a proportionate increase.

CLEARING HOUSE

Southern Endeavour's Future

A former Hull trawler now engaged in experimental fishing in the Great Australian Bight is to be converted into a freeze ship. The trawler is the Southern Endeavour, formerly Princess Elizabeth owned by St. Andrew's Steam Fishing Co. Ltd.

Bought 12 months ago by Southern Trawling Co. of Adelaide, who are sponsored by the Federal Government, conversion will bring her into line with the modern trend in the trawling industry.

The man whose discussions with and suggestions to the Government have led to the decision to enter the frozen fish field is Skipper Sydney Duffield of Kirkella.

He has just returned home by air after skippering Southern Endeavour on her experimental trips.

"It is too early yet to talk about results," he told Fishing News. "But they are satisfied with the fishing part of the venture."

He added that while the fish was not caught in such quantities as on the northern distant water grounds, it was certainly better than the North sea grounds when he worked them 30 years ago.

"With the potential grounds available, however, we have just scratched the surface so far," he said.

The fish, much of it snapper and flatheads, was landed at Adelaide, but some went by road transport hundreds of miles to Sydney and Melbourne markets.

The marketing of the fish is to be the second stage of the venture and in this the freezing will play an important role.

"The fresh fish market is finished anyway," Skipper Duffield told me. "It is being abandoned here. The future is in frozen fish."

The scope for a successful home-based trawling industry in Australia can be assessed by the \$13,000,000 worth of fish imported annually from Britain, South Africa, Japan and New Zealand.

Freezing the fish will make Southern Endeavour independent of special fish-quay facilities and enable her to land at any port.

Skipper Duffield is to buy the equipment in Britain and expects the conversion of the trawler to take about six weeks.

Including himself and his mate, Percy May, there are now six Hull men in Adelaide working for Southern Trawling Co.

But before he returns, probably about the end of February, Skipper Duffield will pick sufficient men to bring the total to about 22.

The lack of experienced crew has been one of his biggest handicaps and, he said, he once went to sea with no experienced men aboard. "The mate had broken his leg and there was not a man in the ship who could steer," he added.

Has the venture got a future? "I think it has - but it may not be in my lifetime that it develops into anything," said Skipper Duffield.

The quiet-spoken Yorkshireman who was a top-flight skipper out of Hull before his appointment as outside manager for Kingston Steam Trawling Co., the job he resigned to accept the task of finding fish in unexplored waters, emphasised that he was not returning to Australia to make another fortune.

"If I wanted to do that I would sail as skipper from Hull again," he smiled.

With him when he returns will be his wife and three daughters.

"They are all wanting to go now," he said. "And I like Australia - it is a fine country."

(The Fishing News

London

January 6, 1961)

Tremendous Expansion of Russian Fishing

The expansion of Russia's fishing fleets in recent years has embraced the fisheries of the entire world; in the North, and South Atlantic, the Pacific, the Antarctic and the Indian Oceans. New fishing boats - trawlers, floating canneries, refrigerator ships and even tankers to support the fishing fleet at sea are being added to at a rapid rate, says National Fisherman. Russia has 30 well-equipped oceanographic vessels and is rapidly expanding this number.

"The Russian expansion is being carried out without any regard to cost. They don't even bother about recovering the cost of the bait. In the Yakut Fishing Trust the investments went up 1,300 per cent, but the fisheries yield only increased 11.3 per cent.

"According to Russian sources the costs of the fisheries have increased 250 per cent in the decade from 1940 to 1950.

The Russian expansion began immediately after the war, and their "research" vessels in 1954 discovered "new" grounds.

In 1959 the Baltic Research Institute reported its research ships had discovered "new" grounds in Davis Strait - an area where British, Basque, Breton and Scandinavians all fished long before Columbus discovered America!

Soviet ships have moved into these areas complete with electronic equipment and supported by supply ships so that they can stay at sea for a year or more.

Recalling how in 1959 the Poles obtained permission to establish a fishing base at Lerwick (Shetland), used by both Polish and Russian trawlers, and followed by similar bases at Peterhead and Wick, the paper adds that this, "extensive and aggressive build-up" will make Russia one of the major fishing nations of the world.

(The Fishing News

London

January 6, 1961.)

Russian Experiments with 800m Fish Eggs.

The Russians have transplanted more than 800 million fish eggs, over 30 million one-year fish and three million older fish from the Pacific, to rivers of the North Atlantic, according to a Norwegian report quoted in The Fisherman, of Vancouver (Canada). It says that the figures were given at an international sea fisheries conference in Moscow.

The experiments over the last 10 to 15 years cover not only salmon, but more than 49 different species, including more than a million shell fish. In 62 places there was so much fish that commercial operations were possible.

In 1959-60 salmon eggs were hatched in hatcheries and 30 million pink fingerlings and 7,400,000 dog salmon fingerlings released.

The Russians also planted dog salmon in four rivers in the Kola peninsula (U.S.S.R.) and the grown salmon have been caught in 14 rivers in the same area, showing this salmon has spread to 14 different streams outside the four in which they were planted.

These salmon are not yet fished commercially, but Russian scientists found great natural spawning in all the 18 rivers where the salmon have been caught.

An American salmon specialist stated, however, that the possibilities are small for natural transplanted of Pacific salmon to the Atlantic. He believes that as soon as the hatchery work is stopped the salmon will die out after a while, as the natural element is not there. On the other hand, the Russians believe the dog salmon are now established for the future.

They see the possibility for big fishing, not only in the rivers but in the open Atlantic and they are planning to transfer every year 50 million fertilised eggs from the Pacific to the Barents Sea, including eggs from 33,000 salmon.

The Pacific salmon have been caught along the Norwegian coast and many species in the inlets and some rivers, the report adds.

Not only has the dog salmon been found in Norway, but species have been found in rivers in Iceland.

(The Fishing News London February 3, 1961.)

Science and the Young Grey Seal

The latest scientific report on the studies of the grey seal, being made at Farne Islands by Dr. J.C. Coulson and Mrs. G. Hickling under a state grant from the Nature Conservancy, includes continued evidence of the great journeys of young seals and their connection with the fishing industry. It deals with the 1959 season. Altogether now, six Farne seals have been traced to Norway, the furthest and northernmost some 600 miles to a point beyond Trondheim, while four have gone to Holland, three to Germany, and one to the Faroes. Others have been traced from Scroby Sands off Norfolk and Fair Isle. But there is still no evidence of East coast and West coast seals mixing.

As for speed, one young seal averaged at least 40 miles per day after being tagged at Brownsman Island, Farne, on November 23, it was seen at the Isle of May on December 21 and nine days later found in a fishing net about 300 miles away at Karmoy (Kvalavag) in Norway while only $5\frac{1}{2}$ weeks old.

Russian fishermen found an 11-weeks-old Farne seal entangled in their nets at $60^{\circ}39'N$, $3^{\circ}23'E$. It was marked on Brownsman on January 5 and as if to illustrate the wide area over which they scatter, another cub marked the same day at the same place was found on the same day as the Soviet capture - but miles away, at Vlieland in the Dutch Friesian Islands.

A new system of tagging clips the identity disc upon the tail instead of the flippers.

(The Fishing News London February 3, 1961.)

How to Submit Insect Specimens for Identification

By C.F.H. Jenkins, M.A., Govt. Entomologist.

From time to time most farmers and orchardists come across insects or other small creatures which they have not seen before and about which they would like some information. I get numerous queries about such creatures and am always glad to help, but sometimes the task is made unnecessarily difficult. The most detailed description of a caterpillar or a beetle given by letter is often quite useless as many of the most important features from the scientific point of view may be omitted.

Whenever inquiries are being made about even the commonest of insects, specimens should always be forwarded. In the case of fully mature insects, some dead specimens, in a small box, will usually prove adequate. For preference, they should be wrapped or padded with tissue paper to stop them from rattling about and losing their limbs. On no account should they be wrapped in cotton wool as the legs and feelers become so entangled that casualties are almost inevitable when the specimens are being unpacked.

Where caterpillars are concerned, these should be forwarded alive, if possible, with a quantity of the food plant. It is often very difficult to accurately identify caterpillars but if they can be reared to maturity the task is much easier.

In no account should insects alive or dead (especially if they are rather fleshy) be forwarded in closely sealed tins or bottles. Even in cold weather they are often too decomposed to identify and in the summer the aromas which quite small insects can produce after being sealed up for a while must be experienced to be fully appreciated. A cardboard box is usually a satisfactory container, especially when caterpillars and food plants are involved.

Some specimens, especially very small ones, can be safely forwarded in methylated spirits or formalin but bottles should be carefully packed to avoid breakage. It should be remembered that when information is wanted about any creature, several specimens should be sent if at all possible. Full particulars should also be given as to the prevalence of the insect, where it was found, and the type of damage it was doing. The name and address of the sender should accompany the specimens even if a covering letter has been forwarded independently.

Whenever you see a strange insect about which you have any suspicions, don't hesitate to send in an enquiry.

Hydrojet Marine Propulsion

A new propulsion system for small commercial craft that operates without need for propeller, shafting, struts, or rudder, is now being manufactured by Hydrojet Marine Corporation of Cleveland, Ohio. The company has been set up to manufacture and market water jet propulsion systems for commercial craft of all types, and should have good application for gill netting, as some tenders; accordingly to Paul T. Shirar, president.

The new corporation is licensed by Hanley Hydrojet, Inc., Prospect, Ohio, holders of Hydrojet patents, and has the exclusive manufacturing and sales rights for the commercial and military fields in the U.S.A. and commercial, military and pleasure boat application internationally.

The Hydrojet unit, which was developed by Keenan Hanley, a director of the new firm is currently being applied to amphibious vehicles for the Armed Services, and to various types of commercial and pleasure craft up to 65 feet in length for propulsion and steering.

Significant advantages of the Hydrojet unit include new safety and maneuverability, combined with low operating and maintenance cost. It eliminates the necessity for expensive and vulnerable propellers, shafts and rudders - and gives a boat "power brakes" by reversing the full force of the jet stream. The unit also makes it possible to turn a boat in its own length with or without way on, or back in any desired direction under complete control.

The Hydrojet unit installed in this workboat produces instantaneous thrust in the 1000 - 1100 lb range to drive the 8250 lb hull at a maximum speed of 11 - 12 knots. Power is supplied by a gasoline or diesel engine.

The elimination of clutch, and reverse gear, as well as propeller, shaft and rudder, means lower maintenance cost and reduced lay-up time.

Using the jet for steering also gives the boat positive and precise maneuvering control even at very low speeds where conventional methods become ineffective or inoperative.

Extra facilities provided by the Hydrojet installation include an integrated high pressure water system and power bilging.

The turret gun on the fore deck will throw 600 gal. per min. a distance of 200 ft. under 120 lbs. pressure. In addition there are $2\frac{1}{2}$ " firehose outlets at the base of the turret and a $1\frac{1}{2}$ " outlet at the wheelhouse.

Jewelled Tuna Hook Successful in Japan

An innovation in tuna longline gear, credited to Kusutaro Yamashita of Misaki, is reported unusually successful in Japan. It consists of a small lead sinker linking the tuna hook with the wire leader; and in the lead on either side are two brilliants, artificial "diamonds."

Longliners fishing out of the great Japanese tuna ports, Misaki, Shimizu and Yaizu report improved catches on hooks so equipped. Presumably the brilliants flash under water, attracting passing fish to the bait.

Another innovation introduced by Mr. Yamashita is a "branch line" or gangion braided of six monofilament nylon strands. It is almost invisible under water and does not rotate in a current.

He also has developed a form of gear designed to catch fresh squid at sea for tuna longline bait as a superior substitute for saury.

(Pacific Fisherman International Portland January 1, 1961.)

A Successful One-Boat Pelagic Trawl

Swedish methods of pelagic pair trawling for herring and mackerel are now internationally accepted for both reliability and effectiveness, but not a great deal is known about experiments with one-boat pelagic trawls. From time to time, Swedish as well as German and Canadian experiments with this method have been reported, but most of them have not been entirely successful. This article gives details of successful Norwegian experiments with a Swedish one-boat trawl.

The Norwegian Fisheries Directorate is at present sponsoring experiments with one boat pelagic trawls. The net being used is of Swedish design, but the shooting and hauling methods are the invention of Mr. Georg Rokstad - one of the Directorate's experts on practical fishing.

Promising results were obtained during a cruise by the research vessel "Thor Iversen", but these were severely limited by the fact that the vessel was only 76 ft. in length and had an engine of only 200 h.p.

Work was taken up again in November, 1960, on board the combined trawler and purse seiner "Anna G", under Skipper Harald Vindenes. The vessel has a registered length of 134 ft. and is powered by a 720 h.p. Alpha Diesel. She is owned by Mr. Hans O. Vindenes, Vinneseidet per Bergen.

In Mr. Rokstad's method of pelagic one-boat trawling, the gear is towed from the stern. "Anna G", which has starboard gallows, was therefore fitted with an iron girder across the aft end of her gallows deck, and the towing blocks were fixed to the arms of this girder. The net, 200 ft. in length, is pyramid-shaped. Four warps are used for towing - two from each of the trawl winch drums. The upper pair of warps is directly attached to each end of the headline, while the lower pair is attached to the trawl doors (which are of usual British make) and the footrope. This method of applying the warps is unique to Norway. The angle of the doors gives the footrope a downward as well as a sideways pull, and the depth of the gear is easily controlled by using depth sounders and manoeuvring the winch.

Because of extremely bad weather, "Anna G" had only 10 effective fishing days during the cruise. They brought, however, 3,000 cases (150 tons) of prime North Sea herring which were sold for freezing at Stavanger. The experimental fishing took place west of Utsira on the edge of the Norwegian channel, where large numbers of foreign and some Norwegian trawlers, all of them working in pairs, were fishing for herring. "Anna G's" best haul during one hour's towing was 400 cases. One haul was lost, however, because the net burst under the weight of fish.

At Bergen, Mr. Rokstad said: "Even if the operations are still at a trial stage, I feel confident that the gear, which has fulfilled my expectations, has a great future. We took catches with the doors sweeping the bottom (the net was 5 fathoms above), and catches up to 20 fathoms from the surface. Our catches were equal to, or slightly better than, those taken by the pair boats."

Mr. Rokstad added that the pelagic one-boat trawl was easy to shoot and haul. Because the bag always came in afloat, the catch was easily brought aboard.

In contrast with this, the pair boats, which have to stop when hauling, often find their bags hanging like heavily loaded sacks in the sea, and have difficulty in hauling them aboard.

"Anna G" resumed experimental trawling on January 3, and it was intended to continue through the winter herring season in Western Norway, through the capelin season in Finnmark waters, and also to test the gear on cod fishing.

Worthy of mention is the fact that the owner of "Anna G", Mr. Vindenes, encouraged by the success of the experiments, has bought similar gear for his m.v. "Sorfolu," and intends to start pelagic one-boat trawling on his own account this year.

(World Fishing

London

February, 1961.)

Japanese Landings of Indian Tuna Fall Drastically

According to information obtained in December, 1960, Japanese catches of Indian tuna in the area west of Australia extending from 102°S to 28°S. have fallen drastically. Fishing operations were started a month earlier in 1960 and catches remained good, averaging 5 to 6 tons per day in early November. Approximately 50 vessels were concentrated in that area in November and December.

However, from November 27 on, catches fell drastically and in December averaged 1 to 2 tons a day. This is the first time that this has happened, occurring just when fishing was expected to reach its peak. The fishermen appear to be having difficulty locating good fishing grounds.

One explanation given for this poor fishing is the appearance in substantial numbers of killer whales, which were not seen on the tuna grounds in past years. Killer whales were in evidence in the area 100°E to 105°E and as far south as 28°S and they are said to have chased the tuna away. Some feel that the large number of killer whales appearing in the area may have caused the Indian tuna to leave the grounds temporarily or may have caused them to move to distant areas completely. At any rate, the fluctuation in the catch of Indian tuna coming as it did towards the beginning of the new year was expected to push up the price of the species further. (Nippon Suisan Shimbun, Tokyo, December 12, 1960

(Market News Service.

New York

February 1, 1961.)

Submarine Collects Plankton in Arctic Ocean.

A submarine has been used for the first time to collect samples of plankton under polar ice. The nuclear submarine "Seadragon" took the samples during its voyage from Portsmouth, N.H. to Pearl Harbour, Hawaii, by way of the Northwest Passage and the North Pole.

The collecting was done by an automatic sampler somewhat resembling an automatic soft drink dispenser, that was devised and built for the voyage. A biologist of the Woods Hole (Mass.) Biological Laboratory of the U.S. Bureau of Commercial Fisheries was one of the four scientists who collaborated in working out the design of the sampler.

(Market News Service

New York

February 2, 1961.)