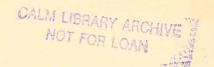
[MONTHLY SERVICE BULLETIN (WESTERN AUSTRALIA, FISHERIES

4(11) Nov 1955

DEPARTMENT OF PARKS AND WILDLIFE



FISHERIES DEPARTMENT. WESTERN AUSTRALIA

MONTHLY SERVICE BULLETIN

Vol. IV, No. 11.

November 1, 1955

STAFF NOTES

On October 15, the engagement was announced of Miss Sylvia Stephen of East Perth, to Inspector N.E. McLaughlan. Our congratulations and very best wishes are extended to them both. Mr. McLaughlan, who resumed duty after annual leave on October 17, returned to Shark Bay on October 19.

The Superintendent (Mr. A.J. Fraser) who is at present in the Eastern States, is expected to return to Perth on November 10.

The Supervising Inspector (Mr. J.E. Bramley) visited Geraldton for an inspection of the district and returned on October 21. On November 8, Mr. Bramley will carry out an inspection of the Bunbury district with Inspector J.L. Gallop and on November 15 will leave for Shark Bay to affect repairs to the p.v. "Misty Isle" and to carry out a survey of scallop beds.

The Senior Inspector (Mr. J.E. Munro) was in Narrogin, in charge of a departmental exhibit at the first Narrogin Wild Life Show, on October 19 and 20.

Inspector G. Coombes tendered his resignation during the month. It has been accepted, and will become effective as from November 18, when he was to have completed accrued leave.

Inspector G.C. Jeffery, in company with Dr. G.M. Dunnet, Research Officer, Wildlife Survey Section

C.S.I.R.O., visited Rottnest and adjacent islands on two occasions during October. On the second trip the party banded 150 immature crested terms and 50 silver gulls. Arrangements have been made for them to visit, early next month, the islands and rocks off Shoalwater Bay which were recently declared a fauna sanctuary.

The p.v. "Kooruldhoo" is being prepared to sail for the Knobby Head area for the opening of the crayfish season. Inspector A.J. Bateman, Assistant Inspector G.H. Lyon and Cadet Inspector L.W. Duncan will be on board. Cadet Inspector Duncan resumed duty after sick leave, on October 17.

On October 28 p.v. "Garbo" was unloaded at Fremantle from the State vessel s.s. "Dorrigo". The "Garbo" was brought to Fremantle owing to shortage of facilities at Geraldton. She will be slipped and the repair work commenced early this month.

The Senior Clerk (Mr. H.B. Shugg) will visit the Capel and Busselton districts about the middle of this month in the company of Inspector J.L. Gallop. The two officers will make enquiries into a number of requests that the Wonnerup Estuary should be open to duck shooting during the next season. Later in the month, Mr. Shugg will fly to Esperance to attend a public meeting of protest against the closure of Mullet Lake to duck shooting. Afterwards he will fly to Kalgoorlie to address a meeting of the Goldfields Shotgun Association regarding a complaint from that Association of the restricted facilities for shooters on the Goldfields and the mooted closure of Rowle's Lagoon.

Officers who resumed duty after annual leave during October were, Inspector W. Davidson, Inspector S.W. Bowler, Inspector N.E. McLaughlan and Miss P.J. Pegrum of Head Office.

Inspector A.V. Green resumed duty, after sick leave, on October 3 and commenced three weeks annual leave on October 31.

Inspector B.A. Carmichael and Inspector G.C. Jeffery will commence annual leave on November 20 and 15, respectively.

Technical Officer J.S. Simpson, assisted by Assistant Inspector R.J. Baird, is at present engaged on trout deliveries to country areas. They are expected to return to Perth early this month.

PERSONAL PARS

Dr. E. Lundelius, a paleozoologist of the University of Chicago, and Mrs. Lundelius, plan to sail from Fremantle on the "Iberia" on November 14. Dr. Lundelius, who has been on a collecting tour of our caves, has obtained approval to export a large number of specimens of bones, together with a few skins and spirit specimens. This material, the majority of which was taken in Western Australian limestone caves. will be shipped to the United States via England. Mrs. Lundelius, who is a geologist, also has a collection comprising marine invertebrates, which are to be sent to the Californian Institute of Technology at Pasadena. During his twelve months here, Dr. Lundelius has explored caves in the Hill River, Jurien Bay, Mandurah, Yallingup and Nannup districts, and also spent some time searching the Nullabor Caves. Perhaps one of his most interesting discoveries was the bones of a Tasmanian Devil, Sarcophilus harrisii, which he found at Jurien Bay.

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In a letter to the Superintendent, Technical Officer J. Traynor outlined points of interest during his overseas trip. In addition to touring England and Scotland and a visit to the Severn Wild Fowl Trust at Slimbridge, Mr. Traynor and his wife flew to Paris and enjoyed a continental tour taking in Switzerland, Austria, Germany and Holland. Mr. Traynor was greatly impressed with the cost of living in Paris and fell in love with the Swiss mountain scenery.

FREMANTLE CRAYFISHERY

The Minister for Fisheries, Mr. L.F. Kelly, announced last month that the Fremantle - Lancelin - Cervantes - Jurien Bay areas would be open to crayfishing

from November 15 to August 31, 1956. Mr. Kelly said that this was in accordance with the recommendation received by him from the Fishermen's Advisory Committee which had previously taken evidence at Fremantle in relation to the conservation of the crayfishery south of the 30th parallel of south latitude. He also approved the Committee's recommendation that waters lying between Jurien Bay and Knobby Head, which had been closed for some years, should be re-opened to crayfishing next season. He said that he could not agree to a suggestion made by several fishermen to the Committee that the minimum carapace length of white crayfish should be reduced from $2\frac{1}{4}$ " to $2\frac{1}{2}$ ". He said that the white crayfish constituted in large part the future stocks of red crayfish.

Mr. Kelly concluded his statement with a warning to fishermen not to remove the eggs or berry from female crayfish. He pointed out that this was a very serious offence and any fisherman convicted on a charge of this nature will have his license cancelled and, in addition, the license for his boat suspended for a period.

ABROLHOS CRAYFISHERY

The Fishermen's Advisory Committee will meet early in December to take evidence on the conservation of the Abrolhos and Geraldton crayfish fisheries. The Committee will follow past procedure in interviewing any fishermen desiring to give evidence and to receive any suggestions which they may care to make in respect to the crayfishery. As the white crayfish season may not have terminated, it is expected that the Committee will meet in the evening as well as in the day, to suit the convenience of fishermen who otherwise would not be able to attend.

1955 WHALING SEASON

The table on page 175 sets out statistics for the 1955 humpback whaling season. The Australian Whaling Commission and the Nor West Whaling Co. each had their quota reduced by 100 whales. Consequently,

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	WHALES TAKEN				AVERAGE LENGTH		PRODUCTION						
STATION	Males	Fe- males	Sex Unknown	Total	Males		1-1-10 M		l rels) ! Per Whale- foot	Bone			Ferti- liser
Point Cloates (Nor'West Whaling Co.)	228	270	2	500	ft. 39.3	ft, .	24,900	ie. sakela jas post is post		bales	tons		tons
Carnarvon (Australian Whaling Commission)	271	228	Thirthand—View The State of Thirthan The State of Thirthan	500	40.5	42.6	23,858	47•7	1.15		1,362	964	
Albany (Cheynes Beach Whaling Co.)	78	41	1	120	39.8	41.2	5,774	48.1	1.19	23	116	\$00 811 811 811 811 811 811 811 811 811 8	42
TOTALS	577	539	4	1120	39.9	41.8	54,532	48.7	1.19	23	2,666	1,002	42

^{*} Only portion of whales recovered - remainder eaten by sharks.

neither company had any difficulty in taking its full quota. In fact, the Nor West Whaling Co. reported that they were able to carry out selective fishing and thus catch larger whales. The Cheynes Beach Whaling Co. was also untroubled to complete its quota of 120.

A striking feature of this season's production was the increased average length of the whales taken by all three whaling companies compared with the previous year (vide Vol. III, No. 10, October, 1954 issue of this Bulletin). The increase was 1.1ft. in the case of males and 1.3ft. in the case of females. This increase could be due to many causes, one of which is the fact that at least one station paid the gunners and crew of each boat a bonus for every whale taken that was of a greater length than last year's average of 39 ft. 8 in. The bonus was increased for every three inches over the average. The increased average length of whales taken was reflected in the output of oil per whale. The figure of 47.7 barrels per whale was slightly higher than last year. However, the output in barrels per whale-foot decreased by 0.02ft.

The bulk of the oil was "sold forward" to the United Kingdom, Sweden, Holland and Germany at a price of approximately £A106 per ton. This figure was slightly higher than last year's figure of £A100 per ton. Oil loading operations have been carried out satisfactorily this year with the result that the last of the oil should be shipped early in November.

By-products were again sold on a ready market. Whale meal, which is used as a stock food, commanded a price of about £A48 per ton, while solubles (also used as stock food) sold at £A65 per ton. Both of these products were sold within Australia. Last year an overseas market was found for baleen and 377 tons were exported. This year, however, the company concerned did not export any of this by-product.

Economically, the season has again been very successful. Taking into consideration the sales of oil and the by-products associated with its production, the approximate value of each whale caught was about £A1032. The industry is worth, therefore, something like £1,155,840 annually to this State.

SPERM WHALE TAKEN

During October, information was received that a sperm whale was taken by the Cheynes Beach Whaling Co. at Albany. The company (which completed taking its humpback quota early in August) has been maintaining a skeleton staff in expectation of taking a number of this species which are not subject to quota or season restrictions. The whale caught was a male, 41 in length, but the oil yield obtained from it was reported to be poor, and the throat and stomach worm infested.

The minimum length prescribed for sperm whales under the Commonwealth Whaling Act and International Regulations is 35 feet, but they have been known to grow to 65 feet. It is the largest of all the toothed whales and it is in this species that the once precious product, ambergris, is formed. In years gone by, sperm whale oil was highly valued for the manufacture of clear-burning candles. The immense blunt front of the head contains a great oil "reservoir" from which up to 30 barrels have been obtained from one large animal.

A RARE VISITOR

On October 19 a Wandering Albatross (Diomedeidae exulans) was picked up on Coogee Beach a few miles south of Fremantle. When secured by Inspector G.C. Jeffery, following a report from the storekeeper, the bird was found to be in an exhausted condition and infested with lice. It was taken to the University where arrangements were made for it to be fed and it was hoped that the bird would regain strength and could be released on the following weekend. However, despite a good feed of fish, the bird died next day and the carcass was donated to the Museum.

This species is quite a rare visitor to our coast and only about half a dozen birds are recorded as having been blown ashore in the last twenty five years. It is the largest of all the albatrosses frequenting local seas and has a wing span of up to 11'6".

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CONVICTIONS RECORDED

July 1, to September 30, 1955

Date	Defendant	Court	Charge	Result		
13.9.55	Rainbird, L.C.	Albany	Dynamiting	Fined	£10	
do.	Duckett, G.M.	do.	do.	11	£10	
27.6.55	Katunarich, F.	Fremant	le Undersize Crayfish	11	£2	
11.7.55	Tsilos, S.	do.	Undersize Fish	11	£2	
do.	Shardlow, E.K.	do.	Obstruction	. 11 .	£10	
do.	do.	do.	Unlicensed	11	£5	
do.	Macey, L.	do.	Net in close waters	d "	£5	
do.	Laķides, R.	do.	do.	11	£5	
30.8.55	Luiti, J.	do.	Undersize Crayfish	16	£2	
6.9.55	Mott, Leslie	Geral'n	do.	11	£3	
do.	Merendino, Vince	do.	No numbers on boat	11	£5	
do.	Johnson, C.J.	do.	do.	11	£5	
do.	Crooks, R.	do.	Undersize Crayfish	Ħ	£3	
do.	Carr, R.	do.	Obstruction	11	£25	
5.7.55	Moloney, F.J.	Harvey	Undersize marron	11	£2	
do.	Bortini, W.	do.	do.	11	£2	
do.	Turner, T.E.	do.	do.	11	£2	
do.	Henneberry, E.	do.	do.	11	£2	

Date	Defendant	Court	Charge	Result	
5.7.55	Henneberry, W.	Harvey	Undersize marron	Fined	£2
do.	Henneberry, Wm.	do.	do.	н	£2
do.	Lee, D.	do.	do.	11	£2
do.	Jenkinson, G.	do.	do.	11	£2
do.	Pimlott, L.	do.	do.	tr	£2
do.	Lucas, M.	do,	do.	n 3 H	£2
8.6.55	Pittorini, J.	Moora	Undersize Crayfish	11	£7
do.	Vicic, S.	do.	do.	11	£4
do.	Mandic, H.	do.	do.	11	£4
do.	Melvin, J.R.	do.	do.	11	£6
do.	do.	do,	do.	11	£3
25.7.55	Caputi, G.	do.	do.	16	£2
8.7. 55	Cicerello, S.	do.	do.	H .	£10
19.7.55	Lakides, R.	Perth	Unlicensed	11	£5
26.7.55	Smith, P.F.	do.	Obstruction	- 11	£30
do.	do.	do.	Illegal Net	- 11	£10
do.	do.	do.	Net on boat in closed waters	11	£4

^{*} Omitted from previous list.

DUCK SEASON

The Department has received a number of suggestions that the duck shooting season this year should open at a later date than in previous years. Usually the season commences on the weekend prior to Christmas to allow shooters to obtain a few for Christmas dinner. Reports have been received this year, however, that some ducks are still nesting at the time of going to press and it appears probable that quite a lot of young birds will be incapable of flying at the usual opening date. In view of the fact that ducks will probably still be widely scattered and shooting very poor for the opening, it is feared that many shooters who otherwise would not take immature birds might be tempted to do so if bags of mature ducks are very poor. The Fauna Protection Advisory Committee will consider the whole question at its next meeting, which will probably be held late this month, and on the information then available will make a recommendation to the Minister.

CRABBING PROSPECTS POOR

The unseasonal storms in October, following as they did the heavy rains in August and September, have dimmed hopes for a successful crabbing season in the waters of the Swan this year. A recent survey of Melville Water by departmental inspectors revealed that surface waters were potable right down to Point Walter - and Canning Dam and Mundaring Weir are still overflowing.

While we do not know much about the life history of our crabs, records show that after a heavy winter, especially after heavy late rains, the crabbing season is very poor. It appears that the salinity and water temperature tolerances of these creatures causes them to migrate to the open sea and that they do not return to estuarine waters until conditions there are favourable. With the continued flow of fresh water fown the Swan River system, it appears that conditions will be unfavourable all this summer.

THE CLEARING HOUSE

Huge Japanese Catch Threatens B.C. Markets

A tremendous salmon catch by the largest Japanese offshore fishing fleet since the end of World War II is threatening to take a big chunk out of traditional markets for B.C. fish in Europe and United States.

Up-to-date figures on the Japanese salmon haul are hard to come by, but most observers here believe the catch will exceed 60 million fish by the end of the season (early September) and some persons state that a figure of 70 million is "not unbelievable". The catch to the end of July was $53\frac{1}{2}$ million fish, of which about 8 million were taken in the Okhotsk Sea, and the remainder by the ocean fleet off the tail of the Aleutians.

Pinks Undersold

So far, the most serious threat to B.C. salmon sellers is cheap Japanese canned pink salmon being offered to New York wholesalers at \$10.65 a case, about \$1.35 under last year's average selling price for pinks on the American market. Present Canadian pink price on the domestic market is \$9.75. Canada has a 15% tariff on pinks, but opinion is divided here on whether this will keep Japanese fish off the shelves of Canadian stores.

Regardless of the domestic market, which most canners feel sure they can hold, Japanese competition in big European markets is beginning to hurt. Last year, B.C. sold 529,890 cases of pinks on the export market. About 40% of this total was sold in the U.S. Over 20% was sold to United Kingdom, and about 15% to Belgium. Large amounts were also sold to New Zealand (1.2 million pounds) and the Netherlands (1 million pounds). The Japanese can cut the throats of B.C. canners in all these markets.

Big Chum Catch

The majority of this year's Japanese catch is chums. Complete figures to the middle of July show that almost half the catch was this species. Out of a total catch of 26.7 million fish by the offshore fleet (12 motherships and 390 catchers) 12.7 million were chums. Sockeye catch was 7.8 million fish and pinks nearly 6 million. Fishery in the Okhotsk Sea (2 motherships and 58 catchers) had accounted for about 4 million fish by the middle of July, and most of these were chums.

The chum salmon caught by the Japanese fishery this year are much smaller than usual, a fact which has raised comment here that they are immature fish, and that the offshore fleet is exploiting stocks which still have a year to grow before spawning. Weight of the chums taken by the giant ocean gillnetters is between 3.5 lb. and 3.9 lb., compared to the average weight of 4.5 lb. in the 1954 season.

According to Japanese authorities, these chums are mature fish, and catch reports show that they are heading toward the Kamchatka coast, presumably to spawn. It must be remembered that the Kamchatka chums are much smaller fish at maturity than our Fraser River "dogs", which usually weigh around 15 to 18 lb. The chums caught by the Japanese fleet are only about 5 lb. at maturity.

Unusual Movement West

The rapid westward movement of the Japanese fleet this year is regarded as somewhat unusual. Starting around 175 E. long., in May, the boats began to move toward the west almost immediately, and in June were fishing west of Attu Island, the last of the Aleutian chain. In early August, the last report available to us shows that the fleet was close by the shore of Kamchatka Peninsula, at about 160 W. long., and 50 latitude. This is also a much more southerly position than usual.

The Japanese ocean fishery, then, has five major noteworthy characteristics this year. It is the largest fleet since the war. It is hauling in the

largest catch since the '30's (when the average yearly catch for a four-year period was 70 million fish). The fish being caught are much smaller than landed during the past few years. The fleet moved westward very rapidly, and was fishing off the shore of Kamchatka a month sooner than usual. All the fishing has been farther south than usual, signifying that some change in water temperatures or ocean currents has taken place.

As an indication of how close the Japanese fleet is to the coast of Kamchatka it is noted that in late July or early August, the American observers on the motherships were forced to disembark. They are under instructions to leave the vessels when the fleet moves in past the 12-mile limit.

Long-Range Problem

Japanese competition is nothing new to B.C. canners. Before the last war a normal year in the ocean fishery brought in about 70 million fish, a total that B.C. Could never hope to emulate. Last year, considered to be a very good one, B.C. fishermen landed around 21 million fish. The Kamchatka Peninsula, is a tremendous source of seafood, and there is no sign that the salmon fishery there is being depleted, a fact which will be of increasing interest to U.S. and Canadian scientists working with the North Pacific Fisheries Commission.

Salmon sellers here have a long-range problem which seems to have no solution, outside of selling their fish in tariff-protected areas - Canada and the U.S. The cultivation of these markets - which are both vast and rich, and capable of paying our prices - is the best answer to Japanese competition in Europe and elsewhere.

("Western Fisheries" Vancouver B.C. August, 1955)

Light Catches Forecast for California Sardines

The Marine Research Committee of the California Fish and Game Department has reported that the 1954 year class of California sardines appears to be

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the poorest in six years, and that only about 600,000 tons of sardines are now off the coast of the State.

The season started August 1st, and landings so far have not been good. The committee reported that there are fewer adult sardines off the Pacific Coast of North America today than were caught by commercial fishermen in the 1936-37 season. At that time 791,000 tons were landed.

The season is now underway in the northern areas, and the committee has estimated that about 300,000 tons of adult fish will be available for the commercial catch, of which about 150,000 tons could be caught. This figure is about the same as last season, although strikes and market conditions held the 1954-55 catch to about 67,000 tons.

The committee reported that the sardines off the Southern Californian coast last season were fish which had formerly spawned in Mexican waters. A larger percentage of the total spawn was off Southern California in 1954 than during the previous year.

Although reasons for the northern movement are only speculation, it was reported that water temperatures were warmer and salinity was less in 1954 than in the previous five years.

No concentration of sardines or indications of eggs or spawn have as yet been found north of Point Conception this year.

("Western Fisheries" Vancouver B.C. August, 1955)

Great Mid-Ocean Catch Generates Bitterness

Bitter reaction is manifest among Alaska fishermen and operators at the poor results of their 1955 activities at a time when preliminary reports from the Japanese fleet fishing high seas waters along the Aleutians and westward thereof indicate extraordinary catches, perhaps on the order of 60 million fish.

While direct evidence is lacking as to the proportion of the ocean catch native to Alaska streams, fishermen believe that the drain of this ocean fishery is responsible to a large degree for the disappointing catches of Red and Pink salmon in Alaska.

These men are highly vocal and with the American section of the International North Pacific Fisheries Commission due to meet in Juneau September 3, and with its advisory board Sept. 5-7, it is entirely to be expected that it will receive some vigorous representations touching this matter.

Data secured this season by the initial research investigations sponsored by the American section of the International North Pacific commission will be scrutinised very closely for any evidence they may provide as to the proportion of salmon of American origin found in the populations inhabiting the mid-ocean areas where present fishing is concentrated.

While it is true that the North Pacific Fisheries Treaty establishes a new basis by which the United States, Canada and Japan engage to collaborate in international conservation of the North Pacific fisheries in which they engage, under the obligation of abstention from those which are protected, scientifically studied and fully developed, alarmed Americans hold that nothing in the treaty abrogates the Truman Doctrine enunciated in 1945, and that it still stands as the official policy of the Department of State, and could be applied if need be to protect an American resource from destruction.

("Pacific Fisherman" Portland, Ore. September, 1955)

New Way to Preserve Fish

Successful experiments in preserving fish by vacuum-drying have been carried out in Aberdeen by a London firm.

During the process moisture is extracted from the fish, considerably reducing them in bulk and weight. The completed produce - a small "block" - is then packed in a sealed paper container. When required

for cooking all that is necessary to restore the fish to their original weight, bulk and fresh condition is to place the "block" in cold water for eight or nine hours.

Absorb Surplus

The company who have developed this process, Castrel Products of London, believe that it will be invaluable to the fishing industry as a means of absorbing surplus catches without incurring heavy cold storage costs or loss through deterioration. The vacuum-dried fish weighs only a twentieth of iced whole fish.

It is also claimed that the same process of preservation can be applied to other foods such as meat, vegetables, and fruit with similar success. The firm, who have been working on this project for about two months in co-operation with the experimental factory at Torry, Aberdeen, state that they can now process 600 lb. of fish in eight hours. They hope to secure another site in the city for the erection of a larger factory to carry out full-scale production.

("South African Shipping News and Fishing Industry Review Cape Town September, 1955.)

Annual Raid on Migrating Eels Now Begins

Lines four miles long, set with a thousand hooks, are being prepared by 200 Irish fishermen, who each pay £4 a year for the privilege.

They are out to win £75,000 before January from a silver army of millions of Lough Neagh eels, on their migration to their breeding and dying grounds in the Sargasso sea.

Men like the two hundred who are now preparing their lines have fished Lough Neagh for many hundreds of years and, even to-day, they catch about two-thirds of all the eels from the Lough and the Bann River.

The other third goes to the Toome Eel Fishery Company, which has a 5,000 year lease, starting

in 1905. The company maintains a series of trapping weirs between Coleraine and the Lough itself. Some are made of wattles or sleaghs. A series of V-shaped funnels is run across the Bann, pointing upstream. Each ends in a 10ft. opening, into which is set the cog hill net, 14yd. long and 6ft. wide.

Fishermen wait for dark, stormy nights to set the nets and periodically empty them in the darkness into concrete storage tanks. Other weirs are made with timber butterfly gates which can be kept open or closed.

There is one avenue of escape for the fish: all weirs must be so built that a tenth of the deepest part of the river is left free. This "Queen's Gap" is left open so that enough eels can reach the breeding grounds to perpetuate the species.

("The Fishing News" London

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July 1, 1955.)

Canada Starts a Fisherman's Loan Scheme

The Canædian House of Commons has passed a Bill providing for government-guarantee loans to commercial fishermen ranging up to 4,000 dollars (about £1,400) for improvement of boats and equipment. No date for the new regulations to become operative has been fixed, but they are expected to come into force by the beginning of next year.

The plan won almost unanimous support from all political groups, reports Canadian Fisherman, and it was speedily passed after the Government had amended it to permit unions as well as banks to make the loans to fishermen. Mr. James Sinclair, the Fisheries Minister, explained that loans would be obtainable by bona-fide fishermen for boats, engines, gear and shore facilities and other types of improvements "associated with primary fishing", but not for home or land improvements. Interest would be repayable over periods of two to eight years depending on the size of the sum borrowed. A borrower would be expected to "have a stake in fish-catching equipment", he said.

The scheme applies to inland waters fishermen as well as to those on both coasts.

("The Fishing News"

London

August 19, 1955)

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Canadian Swordfish Industry

According to a report from Halifax the swordfish hunt has grown in four decades from a small industry to an important item in the fisherman's income.

Today the swordfish is pursued by boats ranging from small 40-footers with two-man crews to vessels carrying as many as 20 men. although the majority are longliners with six or eight. The season lasts from late June to mid-September and occupies the energies of a thousand men in over 200 vessels.

In a good season a man can earn as much as Last year the catch reached a peak of 4.191.000 lb. with a landed value of \$1.082.000. Peak year for returns was 1953 when the landed value was \$1.105.000.

Swordfish liver oil is valued more than cod liver oil for its high vitamin content. But the fancy prices are commanded by swordfish "steaks" a delicacy for which the demand is greater than the supply. is shipped, dressed and iced, mostly to the United States.

("World Fishing" London

October, 1955)

Seduction!

Maryland (U.S.) crab fishermen are using live male crabs as bait to catch female crabs. Hitherto they have baited their crab pots with a fresh fish bait, and their catch consisted mainly of the hard (male) crab variety. Most of the fishermen have been putting about five male crabs in for bait, catching five more, and when the pots are fished there is now usually an equal number of female crabs! These soft "peeler" crabs bring a much higher price in the market.