

MONTHLY SERVICE BULLETIN
WESTERN AUSTRALIA. FISHERIESCALM LIBRARY ARCHIVE
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February 1964

DEPARTMENT OF PARKS AND WILDLIFE

DEPARTMENT, WESTERN AUSTRALIA

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Vol. XIII, No. 2.

February, 1964

STAFF NOTES

The Director, Mr. A.J. Fraser, is representing this State at an F.A.O. seminar on fisheries development, planning and administration, being held at the Australian National University, Canberra.

The seminar is being conducted for member countries of the Indo-Pacific Fisheries Council. It commenced on January 28 and will end on February 14.

* * *

The Senior Research Officer, Mr. B.K. Bowen, returned to Perth from Geraldton on January 24, after having supervised the commencement, on January 22, of the crayfish tagging programme in the Easter and Pelsart groups of Houtman Abrolhos. On January 23, Mr. Bowen addressed a meeting of members of the Geraldton Fishermen's Co-operative Society to whom he explained the current crayfish research programme. He took the opportunity to ask fishermen to co-operate by returning any tagged crayfish to the Department.

* * *

Inspector R. Smith transferred from Fremantle to Jurien Bay as Inspector-in-Charge on January 8. He replaced Inspector L.R. Frizzell who took over, on January 6, as mate of the r.v. "Lancelin", vice Mr. C.R.C. Haynes who was then on long service leave.

Inspector G.C. Jeffrey resumed duty at Mandurah, on January 28, after long service leave. Inspector R.M. Crawford, who relieved Inspector Jeffrey, has returned to Perth District Office. Fauna Warden S.W. Bowler returned from annual leave on January 29.

The r.v. "Peron" under the command of Captain J.W. White, left Fremantle on January 29 for Denham, Shark Bay. She will be joined there by three University geologists, Dr. B. Logan, Mr. D. Cebulski and Mr. G. Davies, and will then sail to an area north of Bernier Island where they will carry out a survey of the sea bed.

The survey, which is expected to continue until mid-March, is necessary before the Department commences trawling in its prawn research programme, later in the year.

FISHERMEN'S ADVISORY COMMITTEE TO MEET

The Fishermen's Advisory Committee will meet in Bunbury, for the first time, on February 11. The meeting has been convened to hear evidence on the development and preservation of the Bunbury crayfishery and on other matters relating to fisheries, generally, in the Bunbury area.

Any persons desirous of giving evidence should contact Inspector D.P. Gordon, at Bunbury, and make an appointment to appear before the Committee.

Mr. G. Travia, of Geraldton, who is the crayfishermen's representative on the Committee, will arrive in Bunbury on February 6 to spend a few days with the crayfishermen. He anticipates inspecting the local crayfishing grounds and observing the methods and gear being used by the Bunbury crayfishermen.

WHALING

On page 24 is a table of whaling production during the 1963 season. When reading the table it must be remembered that the Nor'-West Whaling Company ceased humpback whaling operations during August 1963 because the population of that species was so depleted that further operations would not have been profitable. The Cheynes Beach Whaling Company took its last humpback whale during July 1963.

It will be recalled that, in the October 1963 issue, we reported that Western Australia had decided not to object to the adoption of the resolution passed by the International Whaling Commission in London on July 5, 1963, that humpback whales be completely protected in the southern hemisphere. As it was accepted by all States and the

Australian Commonwealth, this resolution has since become binding on all States.

Inspector B.A. Carmichael, reporting on the Cheynes Beach Whaling Company's 1963 season, said that another successful year had been completed despite 33 $\frac{1}{3}$ % of whaling time being lost during the boisterous winter months. The catch rate per 100 hours of steaming time had dropped from 10.2 to 9.8 and the company thought that, besides the adverse weather conditions, the use of the less manoeuvrable bigger chasers (Cheynes II and Cheynes III) contributed to the reduced catch rate.

The company's continued success was said to be partly due to the installation of new plant resulting in greater efficiency in production. The installation of a new boiler, alone, was reported to have halved fuel costs.

Inspector Carmichael added that a new Cessna float-plane had been purchased and would be used during the 1964 season. The plane was identical to the one that had been in operation for the past two seasons. He reminded us that the use of planes for whale spotting is an essential part of modern-day whaling and contributes largely to the success of the Albany industry.

In May last, an additional pilot was engaged as the flying hours necessary for spotting purposes was more than that allowed for one pilot under the Department of Civil Aviation's regulations.

During the 1964 season a new laboratory will be used to test the protein content of whale meal. It is anticipated that, by efficient cooking and drying, the protein content of the meal will be raised to a degree where a better price can be obtained for the product.

The old chasers (Kos VII and Minilya) have been taken out of service and offered for sale in Albany. Owing to their age and poor condition it is anticipated that they will be sold for their scrap value only.

Last year two new houses were constructed at the station as well as a new kitchen. All existing factory buildings have been redesigned for greater efficiency and modernised where possible.

WHALE PRODUCTION IN W.A. - 1963

	Whales Taken			Average Length			Production			
	Males	Females	Total	Males	Females	Total	Oil (barrels)	Meal (tons)	Solubles (tons)	Other (tons)
Nor'-West Whaling Co.										
Humpbacks	32	36	68	37'2"	37'8"	37'5"	2,900	158	169	-
Sperm	24	33	57	39'1"	32'5"	35'9"	1,020	51.5	91	-
Other *	2	2	4	48'0"	50'6"	49'9"	-	-	-	-
Sub total	58	71	129				3,920	209.5	260	-
Cheyne's Beach Whaling Co.**										
Humpbacks	5	14	19	36'9"	39'3"	38'0"	905	34.67	-	-
Sperm	569	5	574	42'8"	35'8"	39'2"	23,137	1037.04	-	-
Other	-	-	-	-	-	-	-	-	-	-
Sub Total	574	19	593				24,042	1071.71	-	-
TOTALS	632	90	722				27,962	1280.76	260	-

* The production of oil, meal and solubles are included in the total production of humpbacks and sperm.

** In addition the following sperm whales were taken for scientific purposes and were included in the total production figures; females = 11, average length 32'1" males = 6, average length 31'1".

It is interesting to note that a whale mark was retrieved from one humpback taken during last season's operations. Numbered 14171, it had been fired into a calf off Albany two years previously.

Biological sampling continued throughout the season on as many whales as possible and under a special permit, 22 undersize sperm whales were taken for scientific studies by the C.S.I.R.O.

FIREARMS CONFISCATED

We are pleased to note that, for the first time in this State, firearms used by offenders against the Fauna Protection Act have been confiscated to the Crown by order of a court.

The first to be confiscated was a .22 rifle which had been seized at Wanneroo by Fauna Warden N.E. McLaughlan on August 17 last. Besides losing their rifle the two offenders, who were convicted of having taken protected fauna (grey kangaroos), were fined £10 each with £3.17.0. costs.

The second was a 12 gauge double-barrelled shot gun which had been seized at Moore River on October 25, by Fauna Warden S.W. Bowler. The court ordered confiscation of the gun and, in addition, the offender, who was convicted on a charge of having taken wild ducks before the season opened, was fined £10.0.0. with £3.11.0. costs.

SWAN RIVER NOTES

Perth Herring

Senior Inspector J.E. Munro reports that the netting of Perth herring in the Swan and Canning Rivers by professional fishermen has become quite profitable. These fish, previously considered to be a nuisance by net fishermen, are now being used as crayfish bait and a keen demand has resulted. Although the price (6d. lb.) is not quite as high as that for mullet, the quantity available and the comparative ease with which Perth herring can be netted, makes them a better commercial proposition.

Scaly Mackerel Reappear in Rivers

Scaly Mackerel are being caught in small quantities in both the Swan and Canning Rivers after having been absent for some 20 years. This was reported also by Mr. Munro who added that these fish were once very prolific in both rivers but only in recent months have they made a reappearance.

Fishing Nets Being Stolen

A further comment from Mr. Munro last month, was that the stealing of fishing nets around the Swan and Canning Rivers had become rife. Nets were being taken from fishermen's dinghies as well as from out of the water. One fisherman, he said, had reported losing, in one night, 500 - 600 yards of set net, while another complained of losing five wings of new mullet net. Mr. Munro added that these were not isolated cases.

VEGETARIAN MULLOWAY

Mr. G.E. Dixon, of Head Office, reports having seen a school of small Mulloway (river kingfish) rising alongside his yacht to feed on sour grapes, grape skins and pips which had been thrown overboard. Even a small plum stone was seen to disappear into one's mouth.

Mr. Dixon says that, at the time, he and his family were lunching aboard his yacht tied to a jetty at the Royal Freshwater Bay Yacht Club on January 19. A chance glance over the side into the clear water revealed the school which rose to meet any tit-bit dropping towards the bottom. Even though other small fish were plentiful in the vicinity, the mulloway appeared very hungry and would rise to within three feet of the surface to feed. He said there appeared to be approximately fifteen in the school and he estimated their weight at between $1\frac{3}{4}$ and $2\frac{1}{2}$ lb. each.

NOTES FROM THE NEWS

Domesticated Eagle

A routine inspection by Fauna Warden N.E. McLaughlan of a property at Gooseberry Hill during August 1963, disclosed a young Whistling Eagle being held in captivity. He was told that the eagle had been found at Esperance, abandoned, some five months previously. Although the bird was being well looked after, the Whistling Eagle is a protected species

and therefore had to be released from its cage.

A press report last month said that "Rufus", as the bird had been called, on being released, spent a few days flying around until it eventually flew off in the company of a crow. However, four days later the eagle walked through the open front gate suffering from a gunshot wound in a wing. The bird, after attention, eventually recovered from the wound, but although free to fly off whenever it so desired, was said to be content to stay at home.

Live Crayfish for Paris

Early last month, a trial consignment of live crayfish was reported to have been airfreighted by a leading Perth fishing company to Paris.

The project was said to be of an exploratory nature and it was considered by the firm that, provided the crays survived the journey, the regular export of live crayfish to Paris was a distinct possibility. It was believed that Western Australian crayfish could be landed in Paris for about 12/- lb. and at that figure its price would be competitive.

The report continued that the crays were caught off Quinn's Rocks early one morning. They were rushed to the company's West Perth depot where they were placed in cartons after first having been wrapped in newspaper and plastic. A quick trip to Perth airport and they were soon on their way to Paris where, it was expected, they would arrive the following morning.

Hand Fed Marron

A further report on the success of marron in farm dams was recorded recently in the press. It said that a few years ago, as an experiment, a farmer east of Collie put several marron he had caught into his dam. He hand fed them on chopped kangaroo meat and they multiplied and thrived to such an extent that his dam was said to be "full" of marron. They were fed at about the same time each evening when the meat was placed in the water along the edge of the dam. The marron had become so used to hand-feeding that one observer, who saw them being fed, said that at least 500 were waiting in the shallow water for their evening meal.

Whenever the farmer fancied a marron meal he simply netted a few of the biggest. However, the marron were said to be multiplying so rapidly that feeding them was becoming a problem although, fortunately for the farmer, kangaroos were plentiful in that area in which an open season applied.

Sea Stinger Kills Girl

Last month, a nine year old Queensland girl was stung to death while bathing in the sea near Cairns. The girl ran screaming from the surf and fell dead on the beach.

This was Queensland's sixth fatality, attributed to a sea stinger in less than ten years.

Dr. R. Endean, Senior Lecturer in the Department of Zoology of the University of Queensland, said that it could be safely assumed that the child's death was caused by a sting from Chironex fleckeri - the jellyfish thought to have been responsible for the previous Queensland sea-sting fatalities.

Although the stinger, commonly called the box jellyfish, was known to be able to swim quite fast and to dislike noise, very little was known about its venom and its ability to kill. The animal was said to have as many as 60 tentacles which could extend from one foot to 12 feet. Each tentacle had thousands of minute cells capable of injecting poison through harpoon-like darts.

Pelicans Nest in Peel Inlet

Following up a report from Mrs. H.W. Norris, of Beverley, two of our officers, on January 16, found an established pelican nesting site on a cay near the southern shore of Peel Inlet. They were Fauna Officer H.B. Shugg and Fauna Warden N.E. McLaughlan, who confirmed that these birds, not previously recorded as breeding south of Shark Bay, had in fact, raised quite a number of young, ranging from fledglings to newly hatched squabs. A more detailed report on their findings will be included in the next issue.

CLEARING HOUSE

FISHERMEN HELP SCIENTISTS HELP FISHERMEN

In their constant efforts to help fishermen catch more fish with less effort, scientists of the Bureau of Commercial Fisheries laboratory in San Diego are getting more and more scientific help from skippers and crewmen of the fishing boats themselves.

Several tunaboats recently have been equipped with scientific instruments that may, in the end, tell the story of how fish escape from the net while the set is being made.

With help from the fishermen, BCF scientists are finding out a good deal about how fish behave when fishermen go after them with a net. It is fairly certain that tuna live in the layer of warm water at the surface of the ocean. Below this layer is a mixed layer of warm and cold water, and below the mixed layer is the deep water, too cold for the tuna.

Scientists believe that when a net is set, and the mixed layer is deep and the net is short, fish swim under the net and get away. If the mixed layer is shallow and the net reaches the cold water barrier, the fish are trapped and the set is successful. Scientists are collecting data to find out under what circumstances the fish will swim into the cold water to escape the net, and what effect exactly the cold water barrier has on the behavior of the fish. The zone of temperature change is called the thermocline in scientific language.

The fishermen are helping by gathering information about the thermocline. The Royal Pacific, Nautilus, Carol Virginia and West Point, all big seiners working out of San Diego, have aboard instruments called bathythermographs which when cast overside measure the temperature of the sea water at depth, and thus tell the investigators where the thermocline is at any particular time. The depth of the thermocline is said to vary anywhere from 50 feet to 200 feet in the Eastern Pacific. Clearly, if a fisherman sets a 25-fathom net in 200 feet of warm water, the fish have 50 feet of comfortable water to make their get-away in. But if the thermocline is up to 50 feet from the surface, a 25-fathom net will make contact with the thermocline and trap the fish.

Fishermen have shown great willingness to work with the scientists by making frequent bathythermograph casts from their vessels, and the Bureau is seeking to interest more tuna skippers into coming into the programme. The Bureau scientists need about 2500 casts to get useful information on the thermocline, and some skippers are making as many as 100 BT casts on a single trip, according to Gerald V. Howard, laboratory director at Point Loma. This is a programme, Mr. Howard points out, where a fisherman can help himself in the long run by helping the scientists with their scientific investigating at sea.

(Pacific Fisherman Washington D.C. November, 1963)

ANTIBIOTIC ICE

Tests carried out recently by the Department of Scientific and Industrial Research in the U.K. showed that antibiotic ice preserves the freshness of fish two to three days longer than ordinary ice.

Antibiotics for food preservation are illegal in Australia.

(Fish Trades Review Sydney November, 1963)

TARIFF MOVE CALLED OFF

The Australian Fishermen's Co-operative Ltd. has abandoned its plan to seek a protective tariff on imported frozen fish according to the annual report of the South Australian Fishermen's Co-op. Ltd.

The report says: "A meeting of the Australian Fishermen's Co-operative Ltd., last February, decided to endeavour to have a tariff imposed on imported frozen fish to give some protection and help to Australian scale fishermen.

"To prepare such a case involves a great deal of work and considerable expense, and it was decided that such a job could be undertaken only with the full support of individual fishermen. Therefore, fishermen throughout Australian were asked through various organisations in each State to subscribe 10/- each.

"The response was so disappointing that the matter has now been dropped.

(Fish Trades Review Sydney December, 1963)

FAO GET GO-AHEAD TO EXPAND

A Commission of the Food and Agriculture Organisation's Conference recently unanimously approved a resolution asking FAO to expand its work in fisheries.

The Commission discussed the possibility of setting up a new international organisation that would deal exclusively with fisheries, but then decided that it would be better to strengthen FAO's present Fisheries Division.

Delegates to the Commission recognised that though with limited resources, FAO had done good work in fisheries, man must look more and more to the sea for his food, therefore international co-operation in fisheries - in research, putting motors on fishing craft, marketing, improved fishing gear and methods - must increase considerably.

The Commission said that world fishing catches "have doubled over the period 1951-62 and this trend could considerably increase if rational methods of fishing were generalised."

It approved all expansions contained in the fisheries section of FAO's proposed programme of work and budget for 1964-65.

(Fishing News

London

December 13, 1963)

FROM A NATURALIST'S NOTEBOOK

Lobster-catching by skin divers along the Channel coast last summer introduced a new menace to our shell fisheries, in that such a practice could spread quickly with the remunerative value of such captures amongst local hoteliers. I have previously drawn attention to the menace of aqua-lung "sportsmen" spearing large flat-fish as a hobby in estuarine waters and marine lakes, and one would recommend all River Boards and Sea Fisheries Committees to make such methods of fishing illegal, if they are not already so.

We heard such a song about gill-netting and trawling salmon offshore, but no precaution seems to be taken to check these enthusiastic hunters from spearing salmon in the estuary pools. Around Salcombe last summer skin diving was stated to be replacing lobster-plotting. The divers picked

up the lobsters in a gloved hand and put them into a basket, and by this method had a greater catch per man-hour than fishermen at less expense. Owing to the generally cold waters, the practice does not last long after summer.

(Fishing News

London

December 13, 1963)

EXPLOIT THESE THREE SEAS SUGGESTS FAO

The FAO Conference has asked the Director-General to help member governments in preparing joint projects to exploit marine resources in the Bay of Bengal, the Arabian Sea and the Persian Gulf.

The Conference's Commission Two asked FAO's help in getting financial and other help from the United Nations' Special Fund and from other agencies in executing the projects.

The Government of Pakistan, jointly with other governments, had proposed two such projects, one for fishing in the seas adjoining the east coasts of Pakistan and Burma, and the other for the Arabian Sea, the Persian Gulf, and other waters adjoining the coasts of Iran, Pakistan, Iraq, Kuwait, Saudi Arabia and other countries. All these countries supported the proposal.

A resolution adopted by the Commission asked Mr. B.R. Sen, the Director-General, to give urgent assistance to these countries in the joint projects, pending the help which might be obtained from the UN Special Fund and other agencies.

The resolution says there was urgent need "for comprehensive projects to be carried out by the governments . . . severally and jointly, with the help of FAO and the financial assistance of the UN Special Fund and/or other aid resources . . ." The projects would include oceanographic and biological surveys and exploration of fishery resources; economic and marketing surveys of fish and fish products; measures to improve fishing boats, gear and nets, and work on the design and location of fish harbours, jetties, cold-storage and processing plants.

(Fishing News

London

December 20, 1963)