Miss Woods



NT, WESTERN AUSTRALIA

MONTHLY SERVICE BULLETIN

Vol. II, No. 8 August 1, 1953

## STAFF NOTES

Mr. J. E. Bramley, Supervising Inspector, returned to duty about mid July following a spell in the Repatriation General Hospital, Hollywood. Mr. Bramley's disability was the result of his naval service during the last war.

Mr. Ronald M. Lo Presti has joined the staff as Cadet Inspector.

Mr. J. S. Simpson, Trout Inspector, spent some time during July visiting the Great Southern and South-West in connection with proposals for the acclimatisation of trout in local streams.

The Minister for Fisheries (Hon. L. F. Kelly, M.L.A.) visited Albany during the last week of July and discussed with local fishermen many matters of mutual interest.

Mr. L. C. Oliver, temporary Assistant Inspector, terminated his employment with the Department on July 28.

Mr. J. E. Munro, Metropolitan Inspector, paid a flying visit to Albany during July. He acted as Supervising Inspector during Mr. Bramley's absence.

The Superintendent (Mr. A. J. Fraser) attended the annual meeting of the Murray Trout Acclimatisation Society at Dwellingup on July 18. Later in the month, in company with Messrs. A. R. Tomlinson (Chairman, Agriculture Protection Board), H. B. Shugg, Acting Senior

Clerk, and J. Traynor, Fauna Warden, he visited the Gingin-Moore River area to investigate complaints of kangaroo depredations.

## C.S.I.R.O. OFFICERS

Congratulations are extended to Messrs. K. Sheard, J. M. Thomson, I. S. R. Munro and A. M. Olsen, Research Officers of the Division of Fisheries, C.S.I.R.O., who have been promoted to the rank of Senior Research Officer. Mr. Sheard, who is a native of Western Australia and a local graduate, is Officer-in-Charge of the W.A. Regional Laboratory of the Division of Fisheries. Mr. Thomson, who is also a native of this State and a graduate of the University of W.A., is at present overseas furthering his studies in fisheries biology. Mr. Munro is stationed at the headquarters of the Division at Cronulla, N.S.W., and Mr. Olsen at the Tasmanian Regional Laboratory in Hobart.

Mr. R. C. Spencer, Research Officer of the Hydrology Section of the Division of Fisheries, returned to Perth early in July after 3 years' absence in Cronulla. Mr. Spencer, who is well-known in this State, will be in charge of the Division's hydrological and oceanographical investigations in Western Australia.

Mr. W. B. Malcolm, Research Officer, Division of Fisheries, has returned to Western Australia and is continuing with his work in relation to the life history of Australian salmon, ruff and snapper.

## PROSECUTIONS

The following is a list of convictions recorded as a result of prosecution action during the 3 months ended June 30.

| Date | Defendant | Court | Charge | Result |
|---|---|---|---|---|
| 29.4.53 | Breedon, R.A. | Busselton | Take ducks in close season | Fined £1 |
| do. | Layman, F. B. | do. | do. | " £1 |
| do. | Layman, P. | do. | do. | " £1 |
| do. | Roney, G. | do. | do. | " £1 |
| do. | Cammilleri, D. | do. | do. | " £1 |
| do. | Scott, A. F. | do. | do. | " £1 |
| do. | Pearce, E. R. | do. | do. | " £1 |
| do. | Perry, D. J. | do. | do. | " £1 |
| do. | Wells, N. | do. | do. | " £1 |
| 12.5.53 | Mitchell, W. A. | Perth | Undersize sea mullet | " £2 |
| 27.5.53 | Amato, C. | do. | Undersize crayfish | " £3 |

## MINISTERIAL DIRECTIONS TO LICENSING OFFICERS

The Minister for Fisheries, in pursuance of his powers under Section 17 of the Fisheries Act, 1905-1951, issues the following directions to licensing officers:-

1. A professional fisherman's license shall not be granted or renewed unless -

   (a) the licensing officer is satisfied that the applicant's livelihood is mainly derived, or intended to be derived from the capture and sale of fish, or

(b) where the applicant previously held a professional fisherman's license, the licensing officer is satisfied that, during the currency of that license, the applicant's livelihood was mainly derived from, or a substantial portion of the applicant's time was devoted to, the capture and sale of fish.

2. (1) Notwithstanding the non-fulfilment of requirements (a) and (b) set out in direction 1 immediately preceding, a professional fisherman's license may be granted to a person who is the employee only of a group of bona fide licensed fishermen for the purpose of fishing in a seasonal fishery.

(2) Where such a license is granted, conditions shall be endorsed thereon -

(i) limiting, if necessary, the period during which the license shall be in force;

(ii) defining the places at which the license shall be in force;

(iii) defining, if necessary, the manner of taking the fish, and the species and quantity of fish to be taken.

It will be noted that the responsibility of determining whether an applicant for a fisherman's license (or for renewal thereof) shall be granted or refused now rests with a licensing officer. It is essential therefore that before coming to a decision as to whether the license should be granted or refused the matter should be very carefully considered and the officer must place himself in possession of all the facts possible. Care must be taken to see that no point in favour of an applicant is overlooked. It is unlikely that the Minister will uphold any appeal against the decision of a licensing officer if that decision is made in good faith. Personal bias must therefore be set aside, and the officer's decision be based on the officer's conception of what is in the best interests of fishermen generally. These new directions have immediate effect.

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## EXPORT OF RAINBOW TROUT EGGS TO VICTORIA

In 1930 and 1931 the Victorian Department of Fisheries and Game, through the good offices of Mr. F. Lewis, the then Chief Inspector, made a gift of 100,000 trout eggs to the Pemberton Parents' and Citizens' Association in order to assist Mr. C. A. Glew, originator of trout acclimatisation in Western Australia, in his experimental work. As a result of the successful planting of the fry produced from these eggs, trout acclimatisation has prospered in this State and today trout angling is to be had in many parts of the South-West. While it is completely impossible to say with any certainty how many of the progeny of the first fry planted now inhabit our streams, it is known that the first trout caught in this State - an 11¼ lb. brown in East Brook, near Pemberton - was one of those hatched from the first eggs imported.

Although several consignments of ova were imported from the eastern States following the initial plantings of fry, the success achieved by the Pemberton Society in developing highly successful techniques has rendered unnecessary the importation of eggs from the east since 1936. The annual production of ova at the hatchery has grown from 10,000 in 1939 to upwards of 1,000,000 in 1952.

Having a surplus of locally produced eggs, the Society this year sought to widen its experience by packing ova for export, and in this venture enlisted the co-operation of Mr. A. Dunbavin Butcher, the present Director of the Fisheries and Game Department of Victoria. Mr. Butcher's services were sought because it seemed particularly appropriate that any parcel of eggs sent as a gift should be offered to the Victorian Department as a quid pro quo for their assistance in the initial stages of work in the West.

The ova which were sent to Victoria were taken on June 15, 1953, from rainbow trout held in the ponds at Pemberton, and were subsequently developed to the eyed stage in the local hatchery. They were packed in a special container on moss with ice to keep them cool and moist in transit. Mr. A. R. Kelly, President of the Pemberton-Warren Trout Acclimatisation Society, and Mr. F. Shoobridge, Manager of the Hatcheries, left Pemberton

by road at 1 p.m. on July 7 to deliver the consignment at Guildford Airport for loading aboard the east-bound plane leaving the same evening. The eggs duly reached Melbourne about 9.30 a.m. on the following day and were taken direct to the hatchery at Snobb's Creek, where hatching will be completed.

It is of interest to note that the time occupied in transfering the ova from hatchery to hatchery was less than 24 hours as against 80 hours in 1931 when the first parcel of eggs was delivered by air.

## CORMORANTS

Following a request by the Yacht Racing Association to the Minister for the lifting of protection on cormorants, which were fouling members' craft moored on the Swan River, the Fauna Protection Advisory Committee at its meeting on July 17 decided to wait on the Minister to discuss the application and to demonstrate that from the point of view of the Committee the lifting of the protection on the little pied cormorant and the small black cormorant (the large black cormorant is unprotected) was scarcely warranted. Arrangements had previously been made for Mr. J. Traynor, Fauna Warden, to obtain three or four cormorants on the Swan River, and these were taken to the Minister's office on July 20.

The deputation from the Committee, which comprised the Chairman (Mr. A. J. Fraser), Dr. D. L. Serventy, Mr. H. B. Shugg (Acting Secretary) and Warden Traynor, explained that the Association's suggestions, which envisaged the payment of bonuses, the shooting of shags both on the Swan River and in their nesting places, were impracticable, bearing in mind that cormorants nested and rested not in confined areas but in any of the hundreds of swamps lying between Shark Bay and Cape Leeuwin. Dr. Serventy pointed out that to make any impression on the population it would require a major operation with an army of shooters which would cost a colossal sum. Besides being impracticable, any attempt of this nature would, Dr. Serventy continued, lead to a serious disturbance of wild duck and other water fowl which used the same nesting areas and whose breeding season to a large extent coincided with that of the cormorant. He went on to say that shooting on

the Swan River would be most unpopular and dangerous, and that in any case the result would not be very satisfactory as at the first shot the cormorants would rise and disperse. He maintained that destruction by poisoning would be a dangerous procedure because of the danger to all other useful birds. Dr. Serventy intimated that the only cormorant which was not protected was the large black cormorant, and this bird was removed from the protected list because it was the only one which fed to any extent on fish of commercial value. The little pied cormorant was the bird to cause fouling of boats, which caused the greatest concern to the Yacht Racing Association, and the percentage of commercially valuable fish which it took was extremely low. He said that the pied cormorant was the sole producer of guano, and with growing superphosphate shortages, destruction of this species without restriction would be very short-sighted.

To illustrate the Committee's contention on the feeding habits of these birds, the two little pied cormorants and the one small black cormorant which had been secured by Mr. Traynor, were dissected by Dr. Serventy. The stomach contents were as follows -

1. Little Pied Cormorant - 2 gobies.

2. Little Pied Cormorant - 1 spider crab, 1 shrimp.

3. Small Black Cormorant - 5 anchovies.

(N.B. The little pied cormorants were shot while actually feeding and the small black cormorant was taken when returning from feeding.)

After general discussion the Minister decided that a meeting would be arranged between representatives of the Yacht Racing Association and the Fauna Protection Advisory Committee to be held in his office on a date to be fixed. Arrangements would be made for both the Committee and the Association to obtain and produce cormorants for inspection.

## DEPARTMENT TAKES UP BOAT-BUILDING

Recently, as part of its plan to train younger inspectors in boat-building methods, the Department undertook the construction of a bondwood flat-bottom

sheered dinghy for use on local waters. The new dinghy, which can easily be loaded on and off a trailer or utility by one man, is 13 ft. long by 3 ft. 6 in. beam, and was built under the superintendence of the Supervising Inspector (Mr. Bramley), who personally made the moulds and cut the timbers. This dinghy was launched towards the end of last month and used for an extensive patrol of the lakes in the Mandurah district by Messrs. Melsom and Traynor on July 24 and 25. They found it most satisfactory; it manoeuvred very well and quickly, and was very light to handle.

This is in fact the second bondwood boat built on the Department's premises, and it is proposed to build more of such boats, firstly to make the field staff more mobile, and secondly to give the younger inspectors some idea of boat-building techniques.

Not taking into account the cost of labour, the new dinghy cost about one-fifth of the price quoted by local boat-builders. The Department's warmest thanks are extended to Mr. Bramley, who originally conceived the idea, for his foresight and initiative.

## KANGAROOS IN GINGIN DISTRICT

Following correspondence with the Gingin Road Board concerning the depredations of kangaroos in its district, a party comprising the Chief Warden of Fauna (Mr. Fraser), the Chairman of the Agriculture Protection Board (Mr. Tomlinson) and Messrs. H. B. Shugg, Acting Secretary, Fauna Protection Advisory Committee, and J. Traynor, Fauna Warden, spent the period July 22-24 in the Gingin area.

An inspection was made on the first day by the party north-west of Gingin to Regan's Ford on the Moore River, and thence to Mr. W. de Burgh's property at Cowalla.

On the following day, accompanied by Mr. de Burgh himself, the party covered a large part of the district to the north and west of the Moore River to as far west as the coastal hills. This gave the visitors a first-hand appreciation of the scope of the problem. The introduction of newer methods of farming, i.e.,

the use of trace elements (zinc, copper, tin, etc.) has more or less revolutionised farming techniques in this country, which has hitherto been largely valueless. Large areas are now being cleared and sown down with lupins, but the disturbance of the natural habitat of the kangaroos in the thickets, and the provision of succulent food in the shape of lupins, have brought about a very difficult problem indeed. Great numbers of tracks of kangaroos, particularly under fences, were observed and indeed quite a few kangaroos were seen, as well as several mobs of emus.

On the last morning the party was present at a meeting of the Road Board, called for the purpose of putting forward the Board's case. The main points discussed were the increase in numbers of kangaroos, the likelihood of interference with closer settlement schemes by their depredations, and the existing system of licenses and royalty payments. After being informed of the responsibilities which would devolve upon it if kangaroos were declared vermin, as originally requested, the Board changed its request to one that an open season be declared in the district and that licenses and royalties be abolished. Mr. Fraser informed the Board that there appeared much justification for the declaration of an open season, but not for the abolition of royalties and licenses. He promised, however, that the information which had been gathered by the party would in due course be placed before the Fauna Protection Advisory Committee for consideration.

Mr. Tomlinson addressed the Board at some length in relation to vermin control generally, following which the meeting closed and the visitors were entertained at luncheon by the Board. The party returned to Perth the same afternoon.

## BUSTARDS IN NORTH-WEST AND KIMBERLEY AREAS

Mr. D. C. Gooding, Vermin Control Research Officer of the Department of Agriculture, who has recently spent some time in northern areas, reports that he saw no bustards at all while travelling through the west Kimberleys this year. This, he says, was in marked contrast to last year, when the numbers seen were fairly

large, approximately 10 or 12 each day. The area covered by this year's survey was approximately double that of 1952. Mr. Gooding thinks that the adverse season experienced in these parts last year may have been a controlling factor on the population of these birds. The year 1953, he reports, will probably be as bad seasonally as, if not worse than, that of 1952.

In 1952 there was some carry-over of food from the previous good season, whereas 1953, which follows a bad season, may lead to very poor survival of any wild fowl. Further observations made in the Port Hedland, Abydos, Woodstock, Bamboo Springs, Bonnie Downs, Nullagine and Marble Bar areas showed no record of any bustards.

## WHALING IN WESTERN AUSTRALIA

The table below shows the production of whales at all West Australian stations from the opening of the current season to Saturday, July 25.

| Station | No. of whales taken | | | Average Length (Ft.) | | |
|---|---|---|---|---|---|---|
| | Male | Female | Total | Male | Female | Both sexes |
| Carnarvon | 148 | 144 | 292 | 38.78 | 41.05 | 39.88 |
| Point Cloates | *77 | 119 | *196 | 38.85 | 40.62 | 39.93 |
| Albany | 38 | 31 | 69 | 39.36 | 40.03 | 39.66 |
| Totals or Averages | 263 | 294 | 557 | 38.87 | 40.77 | 39.87 |

* Includes four whales eaten by sharks. Sex doubtful.

It is interesting to compare these figures with those obtained by the floating factory "Frango", which operated in Shark Bay in 1938. "Frango's" take for the season totalled 913 whales (511 males; 402 females). The males averaged 38.61 feet in length, while the females averaged 40.2 feet.

This year's production of oil at the three stations is set out below. For purposes of comparison, "Frango's" 1938 figures are also given.

| STATION | OIL PRODUCED | | |
|---|---|---|---|
| | Total | Average per whale | |
| | tons | tons | barrels |
| Carnarvon | 2,544 | 8.7 | 52.3 |
| Point Cloates | 1,733 | 8.8 | 53 |
| Albany | 605 | 8.7 | 52.4 |
| "Frango" | 7,000 | 7.7 | 46 |

In addition to oil, Carnarvon produced 886 tons of meal and 1,073 tons of solubles; Point Cloates 379 tons of meal; and Albany 82 tons of meal, ¾ ton of fertiliser and 31 tons of pet meat.

The humpback quotas for the current season are 600 each for Carnarvon and Point Cloates and 100 for Albany.

## PROCEDURE FOR INSPECTORS

by J. E. Bramley

Following the note in the July Bulletin, concerning the procedure when making seizures, etc., I would like to point out that the next step to take, and a very important step, is the handling and marking of gear after a seizure has been made. To emphasise the importance of this procedure, I would like to instance a case recently heard in the Perth Police Court when Mr. Paul Smith prosecuted the Fisheries Department for the unlawful detention of a fishing net. This has already been referred to in earlier Bulletins.

On the occasion in question a net had been wrongfully seized from Mr. Paul Smith, and on the application of his solicitor the net was returned to the owner after Mr. Smith had identified it. Some few days later Mr. Smith notified the Department through his solicitor that portion of the net returned to him was not his net, but that a net he had seen in the Department's boat shed was the one that should have been returned. The Department refused to give Mr. Smith this net, as it was satisfied it was not his net. One net was numbered P687 and the other P693. Mr. Smith's application to the Court for the return of the net was dismissed.

The dismissal of this case was secured only because the correct procedure was used in handling the seized gear. That procedure is as follows -

1. Immediately on arrival back at the boat shed after making a seizure the inspector labels the net in question. This label bears the appropriate serial number, the date of the seizure, and the name of the person from whom it was seized. If the net was unattended when found, it should be marked "owner unknown".

2. The relevant information is entered in the shed net register immediately. One must not wait until the next day to do this

3. If the seizure has been made late at night and it is not possible to measure the net, this is done first thing the next morning if possible, but never more than 24 hours after the seizure.

4. A description of the net is entered in the net register and its length, etc., written on the label attached to the net.

5. Immediately after completing these formalities a report is made of the seizure. This report is despatched to Head Office as soon as completed.

6. The report contains all evidence and information as set out in the July Bulletin, as well as the following -

Any unusual characteristics that may help to identify the net at a future date, such as the condition and size of the corks, leads and lines; the method of joining the lines and wings of net together; the condition of the rope ends, whether knotted, spliced, or served; any mends in the net, also any variation in the ply of the cotton; and last of all the mesh. If there is any change in the size of the mesh full particulars are noted.

## GNOW, OR MALLEE FOWL, IN GINGIN DISTRICT

While in the Gingin district recently, the departmental party was conducted by Mr. W. de Burgh to a spot where a pair of mallee fowl had excavated a nest. The excavation was about 2'6" in depth and perhaps 4' in width, and a large number of leaves had been got together for placing in the nest. The birds were absent when the party was there, but from the description furnished by Mr. de Burgh, who had seen them only a day or two previously, there is little doubt as to their identity.

The mound-building mallee fowl, as its name implies, is largely restricted to mallee areas, and there is no previous departmental record of the bird having been seen in the Moore River country.

At one time fairly plentiful, closer settlement has greatly restricted the range of the gnow, which is today comparatively rare.

## THE CLEARING HOUSE

### Maryland Fishermen

Maryland fishermen - both anglers and netters - are giving attention to some suggestions recently made by R. W. Eschmeyer of the Sport Fishing Institute and bearing on the hot hassle over which group shall be favoured by regulations governing the take of fish from Chesapeake Bay. The striped bass, of course, is the species of paramount importance here.

Hook-and-line fishermen contend that their sport is falling off alarmingly; the commercial contingent retorts that the striper population must be holding up because their production is and statistics show it. However, it is pointed out that the number of haul seines and the yards of gill net fished have increased greatly in recent years, which would tend to hold up production figures even though fish might be scarcer.

After reviewing the situation in considerable detail, Eschmeyer concludes that the Chesapeake can support a limited and controlled commercial fishing industry and also have good sport fishing. But, he argues, there is reason to believe that the present commercial-fishing activity must be somewhat curtailed before hook-and-line fishing can improve much. The bona-fide, full-time commercial fishermen - who have generally wanted a good management plan - are urged to throw in with sportsmen and work together. Neighbouring states could well watch this one.

("Field and Stream", New York, June 1953)

### Tennessee Sportsmen

Tennessee Sportsmen who, away back in 1940, threw in with TVA biologists and helped tag thousands of game fish in Norris Reservoir are finding that such chores pay off not only in the personal satisfaction of a job well done but in proving the worth of management measures.

An annual tagging programme, it will be recalled, began before the opening of TVA water to year-round

fishing. It has been continued. Doing away with any closed season on those vast impoundments caused plenty of headshaking throughout the land. But by knowing the number of fish tagged and later caught, the percentage of the total fish crop harvested could be reckoned. Over the years it has been demonstrated that, despite the most liberal regulations, Norris Reservoir is still underfished! On the average, only about 17 per cent of the annual fish crop is caught. The high point came in 1949 when 25 per cent was taken. Authorities believe this increase in harvest is due to the fact that fishermen are learning more about how to fish these big, deep waters.

What's true at Norris, of course, will not necessarily apply elsewhere, but the findings in Tennessee should be somewhat reassuring to those doubters who feel that liberalized regulations for the taking of warm-water fish are menacing the future. Despite the wide acceptance by fisheries managers of the theory that under many conditions and with some of our most popular fish species, harder fishing means better fishing, it's difficult for plenty of anglers to believe it.

("Field and Stream", New York, June 1953)

## The Art of the Whaler

by J. W. Morris

Norwegian gunners on Carnarvon-bases whalers are masters of their craft

To be one of the exclusive "200" who man the harpoon guns of world whaling fleets is indeed an achievement in itself, but to qualify for such a rating requires skill of high order as well as profound experience in the habits of whales and handling fast ships in all kinds of weather.

Gunners of the exclusive "200" have won their laurels the hard way and notwithstanding the tens of thousands employed in the whaling industry of the world only a few each year are elevated to whale catcher master and its dual position as harpoon gunner.

Experience and intuition are essential qualifications for this important and costly profession,

but to attain such status each nominee must cram a lifetime of practical whaling into his first 20 years at sea, then add to it his observations of whales and their habits until he is sure that one harpoon means one dead whale.

There is a vast difference between a harpooned whale and a "fast fish" as gunners know, for a harpooned whale is still alive and because of bad judgment in aim, or faulty adjustment of time fuses in the head of the harpoon, the whale will continue swimming until a second harpoon strikes it in a vital spot.

A "fast fish" means that complete co-ordination of all whaling drill has been followed and that the gunner has fired his harpoon so that it penetrated the whale in the vital area around the heart and the explosive head exploded to kill the whale within seconds of penetration.

Such efficiency in co-ordination of orthodox whaling drill cannot be attained quickly, and an example of the concern shown by whaling masters over the time-lag in training gunners was revealed recently when the Norwegians opened a harpoon gunners' school at Tonsberg.

Norwegian whalers can be classed as the ultimate in efficiency in world whaling fleets, yet this school proved that whale gunnery could be taught only the hard way by years and years of experience.

At Tonsberg the Norwegians with their usual ingenuity devised a whale-like target which rose and fell, like a whale surfacing to blow, as it was towed by a fast launch at nine knots, and although gunners became expert aimers on this mechanical whale they proved failures when they reached the Antarctic.

This school proved that the mechanical target did not in any way imitate the whale as it swum contentedly along at from nine to twelve knots an hour, nor did it give any indication of change of course which whales naturally do as they gavotte about in a playful mood surfacing to blow when and where they think fit.

In fact, gunners could estimate and predict the course of the mechanical target with certainty, for its course and speed were constant, but the real whale just would not do what the gunnery school expected the target to do, so gunners had to get their real experience the hard way.

Teaching a gunner in the Antarctic is a costly business and although the gunnery school taught gunners to fire and aim, many who qualified from the school found that they recorded up to 300 misses out of 350 shots for their first, second, third and even fourth years as gunners in the Actarctic.

The actual cost of each shot exceeds £3, which includes time-fuse, powder and cartridge for the 90 m.m. harpoon gun, but if the harpoon is lost it adds another £20 to the total. But such costs are incidental to the factory ship because the cost of operating the catcher at £250 each day adds further excessive training to the harpoon gunner.

Experience, however, pays in the long run and whaling masters do not mind the initial losses in training. Then, if it is seen that a nominee gunner has intuition and initiative in training they spare no effort to give him every opportunity to prove his worth to the industry.

During this training period, when gunners by virtue of their inexperience and uncertainty watch every movement of the whale they are trying to shoot, stark revelations of the unpredicted and unconventional habits of the whale automatically register in their minds.

Such observations automatically recorded by the gunner during his initiation under the trying conditions of antarctic weather pave the way for his success, and once he has overcome his stage-fright and inexperience the art of killing whales becomes easy and humane to him.

Notwithstanding the fact that experiments have been proceeding for many years to perfect killing whales by electrocution, it still remains that the accuracy of the harpoon gunner will determine whether a whale is killed humanely or not.

An electric-energised harpoon needs the same skill to shoot it into a vital spot as an explosive headed harpoon would; therefore, a whale stunned by electricity would be classed as a miss just as a whale which has to have two or three explosive harpoons in it would be classed as a "bomb".

Harpoon gunnery will at all times depend entirely upon the human element because the conditions of the chase and the catch are determined solely by the antics of the whale, and ultra-scientific mechanical adjuncts to the harpoon gun will not in any way reduce this factor.

Typical of the skilled Norwegians who have attained membership of the exclusive "200" is Captain Juel Jansen, master and harpoon gunner of the Australian whale catcher Carnarvon which operates for the modern whaling shore station at Babbage Island, Carnarvon.

Captain Jensen has spent an entire lifetime in Norwegian whaling fleets and it was his expertness and experience which caused the Australian Government to sign him on for a three-year contract to establish the Australian whaling industry on a firm basis.

Before coming to Australia Captain Jensen was master and gunner of the W/c Pol 12 attached to the factory ship Norhval, owned by Melsom and Melsom of Tonsberg, and his services to this fleet were marked by loyalty and efficiency.

Captain Jensen, like his fellow-master of the whale catcher Gascoyne (Captain Sivert Gjelstad) have introduced to the Australian whaling industry the humane technique of killing whales by well placed harpoons.

His record for the season ending June, 1952, was three misses out of a total of 320 whales killed, but two of these misses would have not been recorded if the time fuse had functioned, therefore his score really amounts to one miss out of 320 harpoons.

The average length of the 650 whales killed by the two men was 42 ft., or seven feet over the minimum permissive length of 35 ft.

Captains Jensen and Gjelstad say that experience in the habits of whales is the decisive factor in humane

killing, and it is to their interest and to that of the enterprise that a whale is a "fast fish" with only one harpoon.

They also claim that undersized whales are accidental, as when the whales submerge they change sides and when they surface to blow the gunner has not the opportunity of seeing his error until too late, as only split seconds are available for firing and aiming and in this time the gunner is concentrated on his gunsights.

According to these experts, harpoon gunnery will remain for many decades as a profession wherein skill, intuition and good eyesight are the qualifying factors for membership to the exclusive "200". Their records substantiate the claim. It is a profession where incentive plays its part, for wages are high to those who can kill the elusive whale economically and humanely and their services are in demand among the whaling fleets of the world.

("The Western Mail", Perth, July 2, 1953)

## Whaling Commission Meets

### "Miracle of Human Achievement"

The fifth annual meeting of the International Whaling Commission opened in the conference room at the Ministry of Agriculture and Fisheries, London, last Monday morning, when Mr. G. R. H. Nugent, Joint Parliamentary Secretary to the Ministry, officially welcomed the delegates of 17 countries. After the Minister's address the Press were excluded, and the rest of the proceedings - expected to last all the week - were conducted in privacy.

Mr. Nugent said that members of the commission were making a practical expression of the great fellowship of the sea. In forming and maintaining the commission they had recognised the common interest of all seafaring nations in the business of whaling, and the need to preserve the whaling stocks of the world. "Your commission is one of the major miracles of human achievement", he said.

The modern factory ship, the high-speed catchers, the echo whale sounder, the electric harpoon, and spotter aircraft combined to give immense catching power, he

continued. If this power were used without restraint, in the course of a season or two they would almost exterminate the whale and destroy the industry for all time. In the process they would, incidentally, knock the bottom out of the whale-oil market and make even the 1930 prices look good.

Their work was to maintain the whaling industry for posterity as well. If breeding stocks were to be fully maintained they needed to know much more about the habits and movements of the whale population to ensure that the present catching limits were safe. "I know that you are giving much thought and study to that side of your work", he remarked. Mr. Nugent added that there were still some countries interested in whaling outside the convention. "I urge them most strongly to join this convention, which alone can ensure the continued life of the whaling industry".

The 17 countries represented, under the chairmanship of Mr. Remington Kellogg, of the U.S.A., are Australia, Brazil, Canada, Denmark, France, Iceland, Japan, Mexico, the Netherlands, New Zealand, Norway, Panama, South Africa, Sweden, the U.S.S.R., the United Kingdom and the U.S.A. Four other countries - the Argentine, Italy, Peru and Portugal - and three international bodies sent observers.

Mr. R. G. R. Wall, fisheries secretary to the Ministry of Agriculture and Fisheries, represented the U.K. With him was Mr. N. A. Mackintosh, of the Ministry, and they were assisted by nine experts, the largest number attached to any of the delegations, the next largest being six with the Norwegians.

No indication was given as to the scope of the discussions, but it was announced that an agreed official statement would be issued to the Press at the end of the conference.

("The Fishing News", London, June 27, 1953)

## Fishermen's Training School at Saldanha Bay Naval Gymnasium

From the beginning of next year, young men wishing to become fishermen will receive a special training course at the South African Naval Gymnasium at Saldanha Bay. This course will be open to medically fit Europeans between the ages of 16 and 22, possessing a Standard VII certificate. Training will take a year and for 1954 thirty trainees will be admitted.

This vocational training scheme represents the culmination of more than 20 years of efforts by Dr. Cecil von Bonde and other leaders in the fishing industry to develop schools for fishermen. In July, 1931, about the same time that he was urging the fishing industry to take a look at the pilchards abounding in St. Helena Bay, Dr. von Bonde made a plea for fishery schools.

At that time, and even today, many in the industry recognised the need for two types of training. The practical or vocational school would provide a competent and well-trained fisherman for the boats. The trainee would receive instruction in navigation, seamanship, engine maintenance, signalling, looking after nets, and in several other aspects of fishing.

In a longer and more detailed schooling young men could be trained for work ashore. The latter would take a comprehensive course which included such subjects as fisheries science, plant operation, accounting, fisheries economics and so on. This fisheries school or university course would correspond to the instruction provided in the various agricultural colleges.

## Naval Discipline

The detailed course has still to come, but from 1955 onwards the industry can count on a trained nucleus of young fishermen. Not only will they have been well-grounded in fishing practice, but they should also show the benefits of a full year under naval discipline, for the 30 trainees are to be accepted as full-time cadets for one year in the South African Navy.

This, probably the most admirable feature of the new scheme, will provide the Navy with a valuable reservoir of trained men for use in an emergency. The 30 fishing trainees, we can call them recruits, are to receive free board and lodging at the Gymnasium, they

will get free medical treatment, free uniforms, and, instead of having to pay for their training, they will receive Navy rates of pay for full-time service. In addition, the fishing course exempts the recruit from normal part-time military training.

For the first six months of the course, the fishing trainees will get exactly the same training as the naval recruits. They will learn seamanship and navigation, signalling and other naval instruction. Then for the second six months they will go onto the full fishing course under an instructor to be provided by the fishing industry. Under this instructor they are to learn how to handle fishing gear, how to operate echo sounders, radio telephones, and will also be taught elementary marine biology and fishery knowledge.

With the course completed, the trainees will be placed on selected fishing boats more or less as learners for about six months. After they have gained full experience in practical fishing and in the operation of boats, it is hoped that they will be able to pass the now necessary examinations for bosun, mate, skipper with the minimum of coaching.

These examinations follow the passing of the South African Merchant Shipping Act of 1951, which, in its wide scope, completely embraces the fishing industry and will, within three years, prevent South African fishing boats of more than 25 gross tons from going to sea without certificated skippers, mates and assistant marine enginemen.

In imposing this Act, the Department of Customs and Excise has shown due leniency to South African fishermen. It has recognised that for years the only qualification for a boat skipper was a knowledge of the fishing grounds, instinctive ability to handle a boat and usually experience in actual fishing. But the fishing industry has grown too large for such rudimentary qualifications and the increasing number of boat wrecks over the past few years has caused considerable alarm among mariners and fishing industrialists.

Within three years, therefore, all skippers, mates and drivers will have to sit down and write for their certificates. For the experienced fishermen, who obviously cannot afford the time to attend a full-time

school, special part-time instruction is to be given at the main fishing centres. This instruction should enable them to qualify for the certificates created under the Act. In the meantime the new fishing-cum-naval training scheme will ensure that future fishermen will not have to sit down in later years and learn what they should have first studied before they went to sea.

Committee

The story of the proposed fishermen's training scheme goes back to January and February this year when a committee appointed by the Fisheries Development Advisory Council sat down to discuss a practical training scheme and prepare a report. The Committee (Dr. C. von Bonde, Chairman; Dr. J. M. Marchand; J. F. Stubbs and F. J. van Zyl) did its job thoroughly. In addition to drawing on the experience of its members, it called in such well known teachers of seamen as Commodore J. Dalgleish, who inaugurated the Trawler School of Irvin and Johnson (South Africa) Ltd., and Captain G. V. Legassick, Captain-Superintendent of the South African Nautical College, to attend and make their suggestions.

After discussions, the Committee felt that the school should be incorporated with the Naval Gymnasium at Saldanha Bay. The Chief of General Staff (Major-General du Toit) and the Naval and Marine Chief of Staff (Commodore Biermann) were approached and they expressed themselves wholly in favour of the scheme.

The initial committee has now become the standing committee to deal with the scheme on behalf of the Fisheries Development Corporation of South Africa Ltd. and the fishing industry. It will secure the services of a suitable instructor, or instructors, and will generally ensure that young South Africans seeking an interesting and sometimes highly remunerative career will receive proper training and so be given every opportunity to succeed in their vocation.

("The South African Shipping News and Fishing Industry Review", Capetown, July 1953)

## Echo Sounder Counts Fish

Echo sounders have been used for fisheries exploration and various biological investigations for some time; however, their uses in conservation management has only recently been tried. Canadian researchers are considering echo sounding surveys as a method of estimating yearling herring populations and thus being more capable of establishing a reasonable catch limit. The Canadian researchers feel that if a minimum required spawning population were known and accurate population estimates could be made a catch quota could be established, which would minimize the number of spawners in excess of those needed to maintain the fishery.

An echo sounding survey of the herring population of the British Columbia Coast was made in February and March of 1952. The investigators were able to distinguish herring from other species of fish by the type of mark made on the recording paper. "Traces" from herring were reported as soft with an edge which was clear, but not sharp. The amount of fish on any trace was calculated from its size and density using a calibration determined by fishing experience. The echo sounding method proved "sufficiently" accurate in successive tests and was considered a promising method of population estimation. An echo sounding study of herring for a 24 hour period revealed that during the afternoon, the fish were in small, deep, compact schools touching the bottom. When evening approached, the herring rise from the bottom and spread out into a "more or less" continuous body. During hours of darkness, the fish again settled to the bottom. At sunrise, they moved to the surface and broke into small compact bodies. The experiments of estimating herring population has been described by Allen S. Houston of the Fisheries Research Board of Canada. The Canadian method may offer a new approach to intelligent fisheries management of a number of marine fishes.

("Pacific Fisherman", Los Angeles, California, July 1953)