

MONTHLY SERVICE BULLETIN

Vol. II, No. 10

October 1, 1953

ANNUAL INSPECTORS' CONFERENCE

The Annual Conference this year will be held in the board room at Head Office from November 16 to 20 inclusive. The agenda for the conference is in course of preparation and any officer is invited to list any item for discussion. Any such item should be forwarded to Head Office not later than November 2 so that the agenda may be sent to all officers in sufficient time to enable them to give thought to the various subjects before the conference opens.

STAFF NOTES

The Superintendent (Mr. A. J. Fraser) will be leaving for the eastern States by A.N.A. on October 1. He will be in the East for approximately a fortnight on departmental business.

Assistant Inspector McLaughlan and Cadet Inspector Simpson brought the patrol vessel "Kooruldhoo" into Fremantle on September 22 from Geraldton. Cadet Inspector Simpson commenced three weeks' annual leave on September 28.

Assistant Inspector Sinclair returned to Perth on September 25 from Point Cloates and commenced three weeks' annual leave also on September 28.

Inspector J. E. Munro spent a week in charge of the Department's exhibition at the Wildlife Show in the Perth Town Hall from September 14 to 19 and then packed up most of the exhibits and proceeded to Kalgoorlie and set up another stand at the Australian Inland Mission's exhibition.

Inspector Davidson resumed duties on September 28 after annual leave.

Cadet Inspector Carmichael attended a National Service camp from September 12 to 28.

Inspector Simpson and Cadet Inspector D. Wright came to Perth on September 5 to distribute trout fry from Pemberton.

Mr. B. R. Saville secured a recommendation for appointment as Clerk-in-Charge and successfully withstood an appeal. He is now in the process of being appointed.

Miss S. M. Norwood returned from a week's annual leave on September 14.

Mr. B. K. Bowen resumed duty on September 7 after annual leave.

Mr. Ian Bartholomew resumed duty on September 28 after annual leave.

Inspector J. Traynor carried out an inspection of the Toodyay Road district from September 21 to 23 investigating a reported incursion of kangaroos.

TELEPHONE ACCOUNTS

Attention of all staff is drawn to the necessity for conducting as much departmental business as possible either by ordinary or air mail. Trunkline telephone accounts are tending to assume gigantic proportions and an effort must be made to reduce the number of calls and the duration of the calls.

WILDLIFE EXHIBITION

The annual natural history exhibition conducted by the Western Australian Naturalists' Club in conjunction with the Gould League of Bird Lovers was held in the Perth Town Hall from September 14 to 19 and was open to the public from 9 a.m. to 10 p.m. daily.

Inspector J. E. Munro was in charge of this Department's exhibit and through the co-operation of Acting Curator of the Museum and Mr. and Mrs. R. Munday, of Cottesloe, was able to present an interesting section. The crayfish model kindly loaned by the Ajax Plaster Company excited considerable interest.

It is understood that 23,000 paying persons attended the show, which constituted something of a record, and our compliments are extended to the organisers who made this show an outstanding success.

AUSTRALIAN INLAND MISSION'S EXHIBITION

Inspector Munro had the unenviable task of dismantling the Department's exhibition in the Town Hall on Saturday night and packing it for transport by road to Kalgoorlie. All the many difficulties were successfully overcome and a very successful exhibition was provided for the interest of Kalgoorlie residents.

Inspector Munro reported that the children's interest was a little overwhelming, but otherwise the trip was well worthwhile and participation most appreciated by the organisers.

HONORARY WARDENS OF FAUNA

All legal and other formalities have now been concluded and 117 additional honorary wardens appointed and gazetted and supplied with the necessary copies of Fauna Protection Act and Regulations, proclamations and pamphlets.

In the next issue of the Bulletin a list of all honorary wardens will be published and inspectors are requested to give these people as much assistance as possible as they are voluntary workers who will carry out the major part of the police work necessary under the Fauna Protection Act.

TROUT FRY DISTRIBUTION

On September 5 Inspector Simpson and Cadet Inspector D. Wright organised the distribution of 80,000 trout fry from Pemberton at the Department's boat shed. Seventy-six thousand were sold and the surplus of 4,000 were released in Craig Swamp at Belmont.

WHALING

The following report has been received from Assistant Inspector V. J. Sinclair on whaling operations at Point Cloates during the season just completed. In view of the excellence of the report it is reproduced here in full.

"I arrived at Point Cloates Whaling station on May 28, 1953. Whaling operations commenced on June 8 and the first whale of the season was taken on June 10.

"During the first two weeks of the season humpback whales were very scarce, only four being taken in the first week and five in the second. On June 12 a request for permission to take minke and fin whales was made by the Company to test their respective oil content. Permission was granted on the grounds that, although minke whales would make no difference to the quota of humpbacks, fin whales would be deducted according to formula that two fin whales were equal to two and one-half humpbacks. However, humpbacks became more plentiful in the third week and the chasers consequently concentrated on them and no minke or fin whales were taken after all. Incidentally, the Commonwealth Director of Fisheries was in some doubt as to whether the gunners at Point Cloates had mistaken minke whales for Sei whales as no reports on minke whales on this coast had previously been made. However the

gunners were sure that no such mistake had been made and a copy of their description of a minke whale was forwarded to both the State and Commonwealth Fisheries Departments.

"When humpbacks became plentiful and were taken in numbers it was found that the station was undermanned and could not cope with any large quantity. Consequently some whales lay in the water for a considerable time and when treated yielded only third grade oil. Three whales lay in the water for more than thirty-three hours, which is the maximum time allowed by the Commonwealth Statutory Rules between the shooting and hauling on deck for treatment of any whale. This was partly due to the fact that the men on the towing launch were inexperienced and two whales got out of control in heavy swell while being towed in and were subsequently beached. The time taken in refloating and treating these caused further delay in the treatment of other whales moored in the bay.

"With the arrival of more men the efficiency of the station was increased, and as many as twelve or fourteen whales were treated per day without further mishap.

"The greatest number of whales taken on any one day was fifteen and in any one week seventy-seven. This weekly total was a record for the station. On other weeks as many as sixty-six and sixty-three were taken. An average weekly catch was in the vicinity of forty.

"Very little trouble was given by the machinery and only breakdowns of a minor nature occurred, mostly with winches. On occasions water in the dams became very low and had to be conserved for the boilers. Trouble was experienced with the drier and for three days meal had to be taken by truck and deposited on the sand hills. However this meal was recovered at the end of the season. Apart from this everything ran very evenly with a minimum of trouble.

"This season the quota of 600 humpback whales was filled for the first time since the Nor'-West Whaling Company began operations in 1949. The total oil production totalled 30,600 barrels, equalling 5,100 tons. The total meat meal production was 18,086 bags, equalling 1,127 tons 10 cwt. The oil is shipped away by overseas tankers and the meat meal is shipped to Fremantle by the M.V. "Kybra", in 5,000 bag consignments. The "Kybra" is the largest vessel to enter the bay.

"During the season only four undersize whales were taken as against eleven for the 1952 season. Two of these undersize whales were taken by the Chaser "Point Cloates", one by the "Haeremai Star" and one by the "Vigilant".

"A special permit was granted to the Company for the taking of six special whales on and above their quote this season. These comprised two yearling whales and two cow and calf pairs - all for scientific research to be carried out by Mr. Graham Chittleborough, C.S.I.R.O. Some difficulty was experienced with the gunners as they were reluctant to take the cow and calf pairs, considering it unethical whether for scientific research or otherwise. However Mr. H. Larsen, Captain of the "Haeremai Star" decided he would shoot one cow and calf and this was done on September 15. The cow measured 43'0" and the calf which was a female measured 20'4". One yearling female was shot by the Chaser "Vigilant" on the 28th August and measured 31'4 $\frac{1}{2}$ ". Mr. Chittleborough considered that enough material was gained from this yearling whale for the present and therefore cancelled the taking of the second yearling whale. I believe that from these three special whales some very good material was obtained by Mr. Chittleborough for research purposes.

"Equipment at Point Cloates station consists of -

- 2 Hartman Digestors
- 2 Kvaemer Digestors
- 4 Sharples Super Decanters
- 2 De-Laval Oil Separators
- 2 De-Laval Glue water separators
- 1 Stalfer-Duktar Dryer (manufactured by "Molde", Norway)

"The Hartman cookers can digest approximately 80 tons of blubber and meat in 24 hours cooking. They take about one hour for one cooking.

"The Kvaemer cookers can digest approximately 25 tons in one cooking lasting approximately 4 hours.

"The Sharples Super Decanters are of American origin and serve the dual purpose of -

1. Clarifying the glue water to make it more suitable for the better running of the De-Laval glue water separators.
2. Recovering and discharging the meal from the glue water.

"The Sharples machines not only reduce the oil content of the meal to about 5% on a dry basis, but they also discharge the wet meal (at about 55% moisture content) in a finely shredded condition for easy drying.

"Oil storage space became very scarce in August and whaling operations were reduced to a minimum until the overseas tanker M.V. "Tamar" arrived to take on oil at Maude Landing. This oil was shipped from the station to the landing base by the company tanker M.V. "Nor-Whale". After this, two more storage tanks were built as that such a situation may not arise in future seasons. Had it not been for the shortage of men in the early part of the season and the shortage of oil space later on this season would have been concluded at an earlier date.

"Breakdowns in the Chaser "Vigilant" were very frequent and she was constantly under repair for one thing or another. Consequently she lost a good deal of time which could have been spent chasing. The "Haeremai Star" suffered damage to her propellor shaft which had to be repaired under water by means of a diving suit consisting of gas mask face piece and lead belt and boots. The Chaser "Point Cloates" was fortunate to have no serious mechanical trouble throughout the season.

"The three chasers' total catch was as follows -

"Haeremai Star"	231	killed	with an average length of 40.6ft.
"Point Cloates"	245	" " " "	" " 39.7ft.
"Vigilant"	124	" " " "	" " 38.9ft.

"The total footage for the season was 23,941'9" with a total average length of 39'9".

"Of the 30,600 barrels of oil obtained, there was an average of 51 barrels per whale, making an average of 1.2 barrels per foot.

"All considered the 1953 whaling season at Point Cloates was a successful one and was concluded at an earlier date than was originally anticipated.

"The following is the approximate disposition of men on key jobs when the station is in full production -

Boilers - 5 men.
Flensing Deck - 2 shifts of 3 men and 2 winch drivers
Top cutting deck - 2 shifts of 9 men and 2 winch drivers
Power house - 2 shifts of 1 man.
Motor Launches - 4 men
Separator Room } - 2 shifts of 3 men
Super Decanters }
Maintenance } - 8 men.
Fitters Shop }
Meat meal dryer - 2 shifts of 3 men
Cookers - 2 shifts of 2 men
Blacksmith shop - 3 men
Each of the three chasers has a complement of Captain and 9 men.

"Details of Harpoon gun and equipment -

Gun Calibre = 90mm. or $3\frac{1}{2}$ inches diameter.
Harpoon length (fully equipped) C.M.V. Brand 5'11 $\frac{1}{2}$ "
Larvik Brand 6'1 $\frac{1}{2}$ ".
Total weight approximately 170 lb.
Warhead length = 14", diameter at base = $3\frac{3}{4}$ ".
Charge weight = 2 lbs. black powder (approximately)

"The above details of the harpoon gun are correct as far as I know, but may vary with different whaling stations."

WHALE MARK FOUND

Last August the following report was received from Assistant Inspector V. J. Sinclair -

"I have to report for your information that on July 27, 1953, a whale marker was found in the back meat of humpback whale serial no. 203 which was a female measuring 46'7".

"This marker was found by Mr. C. J. Osborn of 65 View Street, Collie, Western Australia. It was handed to Mr. H. B. Hatten, Commonwealth Whaling Inspector at Point Cloates, on August 10 and he in turn forwarded it to the Director of Commonwealth Fisheries, Sydney. This marker was numbered 5136.

"The whale in question was shot when Fraser Island light house bore south distant 2 miles. Fraser Island light house lies in latitude $22^{\circ}38'S.$, longitude $113^{\circ}39'E.$ "

Subsequently advice was received through the Chief of the C.S.I.R.O. Fisheries Division, Cronulla, from the National Institute of Oceanography that mark 5136 was fired from the R.R.S. "William Scoresby" on January 29, 1936. The species concerned was a humpback and the position was within circle of radius two miles and centre on $60^{\circ}01'S.$ $88^{\circ}55'E.$ which is approximately 720 nautical miles south east of Heard Island.

LOSS OF FISHING LAUNCH "MAKO"

It was reported that the above launch was wrecked at Drummond's Cove, 8 miles north of Geraldton, at about 8 a.m. on September 6. The "Mako" was a 28 ft. launch, owned and operated by Mr. Victor Wann of Wonthella via Geraldton.

GERALDTON FISHERMEN'S ASSOCIATION

It was reported that at the annual meeting of the above Association Mr. W. Bradley was elected president and Mr. T. Hackett secretary.

PROCEDURE FOR INSPECTORS

by J. E. Bramley

Seizure of Nets

Sections 19, 20 and 21: These sections of the Fisheries Act should be read and thoroughly understood before attempting any patrols.

Section 21 should always be read in conjunction with the proclamation prescribing the size of mesh and length of nets for the waters on which a patrol is about to be made. The reason for this is that Section 21, para. 1, reads "If any person shall, for the purpose of catching fish, use any net of a length or depth greater, or having meshes smaller....."but when this Section is read in conjunction with the appropriate proclamation, it will be seen that the powers for dealing with such an offence are widened as the proclamation inserts the words "used or intended to be used".

Acting under these sections, when an inspector comes across a man with a net in his boat, he should declare himself as an Inspector of Fisheries and note the following:-

- (a) whether the net is wet or dry;
- (b) whether fish are in the boat and, if so, what species.

If the net is dry the person in charge should be questioned as to what fish he intends to catch and where. After receiving an answer the inspector should hang a portion of the net in the water for ten minutes and then proceed to measure the mesh, exerting approximately one half-pound pull. The inspector, if satisfied the mesh is illegal should ask the person in charge if he would like to check the measurement.

If the net is wet the inspector should, immediately after noting the fish in the boat, proceed with the measuring, using the method just mentioned and asking the person in charge to check.

After the inspector is satisfied in both instances that the mesh is illegal he should proceed as follows:-

- (1) Take the person's surname and proper christian names and residential address, including the name of the street, number of the house and locality. (Initials or nicknames are not to be used)
- (2) Ask the person whether he is licensed and to produce his license. Also ask whether the boat is licensed.

- (3) Note whether the boat is numbered.
- (4) Note the locality in which the person was apprehended and state whether the net was dry, wet or partly in the water. Also state species, number and size of fish in the boat.
- (5) If there are any other persons in the boat they should be dealt with in the same manner as stated in paras. (1) and (2).
- (6) After completing the above the net should be seized. On arriving back at the net shed on completion of the patrol, the net should be handled and recorded as instructed in the previous Bulletin and a full report forwarded to Head Office.

Section 21 (Para. 3): This section gives the inspector the power to seize any unlawful net left unattended in any waters specified in any proclamation issued under Section 19 of the Fisheries Act or on a boat in those waters specified. If an inspector is working under this section of the Act he will have to make himself conversant with Section 49 of the Act also, as it is under this latter section that action is taken.

The procedure is as follows:-

- (1) The net should be correctly measured. If it is found dry on a boat then it is to be measured as previously stated for a dry net. If it is found set in the water it should be measured and a note made of what fish it contains and their sizes.
- (2) When the above have been attended to and the net taken to the net shed, it should be correctly measured for length and depth. An examination should be made of both lead and cork lines for ties, splices, change in thickness of ropes, difference in sizes of corks and leads. The hanging should be noted as well as the method of joining each wing together and any other peculiarity that may help in identification.

- (3) Next exhibit the prescribed notice of finding the net in accordance with Section 49 and forward a full report to Head Office with Form F1.
- (4) Should the net be claimed the full name and address of the person making the claim should be taken and his license asked for. He should then be asked to identify the net. A portion of the net should be soaked in water and the net measured as previously stated.
- (5) Report everything to Head Office, giving the person's name and address and, if possible, his license number. If he is not licensed state so.
- (6) Make arrangements for the net to be taken before a magistrate and notify the claimant when and where the claim will be heard.

In this article only mesh was mentioned but more attention should be shown to the length of nets as this is just as important as the size of mesh.

PEARLING

In view of the induction of 35 Japanese operators into the pearling industry to relieve the past labour shortage, the following production figures for 1952 and 1953 will be of interest.

<u>YEAR</u> (up to Aug. 31)	<u>NO. OF</u> <u>SHIPS</u>	<u>PEARLSHELL LANDED</u>				<u>PEARLSHELL</u>
		Tons	Cwts	Qrs	Lbs	<u>SHIPPED</u> <u>FOR EXPORT</u>
1952	20	191	8	2	24	(cases) 1,054
1953	23	289	9	1	27	1,329

CRAYFISH PRODUCTION

The following tables set out a comparison of the crayfish production and export for the years 1952 and 1953.

Abrolhos Island Crayfish Production

<u>Group</u>	<u>1953</u>	<u>1952</u>
North Is.	123,243 lb.	132,437 lb.
Wallaby Is.	573,081 lb.	441,684 lb.
Rat Is.	647,967 lb.	579,773 lb.
Southern Group	294,020 lb.	395,556 lb.
<u>Total</u>	<u>1,638,311 lb.</u>	<u>1,549,450 lb.</u>

Catch per Man, Abrolhos Island

<u>Group</u>	<u>1953</u>	<u>1952</u>
North Is.	17,606 lb.	16,555 lb.
Wallaby Is.	22,041 lb.	22,084 lb.
Rat Is.	16,199 lb.	18,118 lb.
Southern Group	17,294 lb.	16,481 lb.

State Export of Craytails and Whole Crayfish

	<u>1953 (Jan.-Sept.)</u>	<u>1952 (Jan.-Sept.)</u>
Frozen Craytails	2,828,178	2,622,473
Frozen Whole Crayfish	18,120	24,036
<u>Total:</u>	<u>2,846,298</u>	<u>2,646,509</u>

PROSECUTIONS

The following prosecutions were successful during the three months ended September 30.

Date	Defendant	Court	Charge	Result
17.7.53	Clifton, T.B.	Derby	Dynamite Fish	Fined £10
do.	Magnuson, W.J.	do.	do.	" £10
do.	Norbury, M.J.	do.	do.	" £10
17.8.53	Mellows, N.	Fremantle	Fish in closed waters	" £5
do.	Miragliotta, C.	do.	Undersize crayfish	" £2
14.9.53	Romagnolo, C.	do.	Fish in closed waters	" £5
do.	Gazia, G.	do.	do.	" £5
do.	Amato, N.	do.	do.	" £5
do.	Oteri, S.	do.	do.	" £5
do.	Travia, G.	do.	do.	" £5
do.	Paparello, L.	do.	do.	" £5
21.7.53	Finlay, S.	Geraldton	Undersize Crayfish	" £3
do.	Davis, C. (Jnr)	do.	do.	" £8
do.	Travia, F.	do.	do.	" £4
do.	Hewitt, K.	do.	do.	" £3
do.	Hewitt, J.T.	do.	do.	" £5
do.	Hewitt, H.J.	do.	do.	" £7
do.	Cato, F.	do.	do.	" £5
1.9.53	Kijenna, M.	do.	do.	" £2
do.	Linguist, H.	do.	do.	" £10
do.	do.	do.	do.	" £10
do.	do.	do.	do.	" £10
do.	do.	do.	do.	" £15
do.	Bradley, W.	do.	do.	" £2
do.	do.	do.	do.	" £5
do.	do.	do.	do.	" £5
do.	Aho, K.	do.	do.	" £2
do.	do.	do.	do.	" £5

Date	Defendant	Court	Charge	Result
1.9.53	Lansdell, J.	Geraldton	Undersize Crayfish	Fined £5
do.	do.	do.	do.	" £7
do.	do.	do.	do.	" £7
do.	Long, J.	do.	do.	" £2
do.	Sweet, R.	do.	do.	" £3
do.	Riggs, J.C.	do.	do.	" £2
do.	Taylor, T.W.G.	do.	do.	" £2
do.	Wyatt, W.	do.	do.	" £5
do.	Barker, G.	do.	do.	" £3
do.	do.	do.	do.	" £5
do.	do.	do.	do.	" £5
do.	Putalla, J.	do.	do.	" £5
do.	Tipping, P.	do.	do.	" £10
do.	do.	do.	do.	" £10
do.	Kannikoski, L.	do.	do.	" £2
do.	Hitchins, H.	do.	do.	" £5
do.	Attwater, A.	do.	do.	" £5
do.	Barker, W.	do.	do.	" £3
do.	do.	do.	do.	" £5
do.	Johnson, H.G.	do.	do.	" £2
do.	do.	do.	do.	" £5
do.	do.	do.	do.	" £5
do.	Hancock, R.	do.	do.	" £5
do.	Miragliotta, F.A.	do.	do.	" £7
do.	Hewitt, K.	do.	do.	" £7
do.	Cherico, A.	do.	do.	" £7
do.	Davis, C. (Jnr)	do.	do.	" £8
do.	do.	do.	do.	" £10
do.	Miragliotta, R.	do.	do.	" £6

Date	Defendant	Court	Charge	Result
1.9.53	Hewitt, J.T.	Geraldton	Undersize Crayfish	Fined £10
do.	Grego, T.	do.	do.	" £15
do.	Gedero, D.	do.	do.	" £3
do.	Wann, V.R.	do.	do.	" £5
14.7.53	Mitchell, D.A.	Perth	Undersize Sea Mullet	" £2
do.	do.	do.	Obstruct Inspector	" £10
do.	do.	do.	Fish in Closed Waters	" £5
do.	Mitchell, W.H.	do.	Undersize Sea Mullet	" £5
do.	do.	do.	Fish in Closed Waters	" £5
do.	Teaque, W.	do.	do.	" £5
do.	Delacy, F.	do.	do.	" £5
17.8.53	Gazley, T.	do.	Undersize Crayfish	" £2
27.8.53	Mutsaers, P.	do.	Fish in Closed Waters	" £6
9.9.53	Coucher, W.	Pinjarra	do.	" £5
do.	Mackintosh, T.	do.	do.	" £5
do.	Hayes, W.	do.	do.	" £5
11.8.53	Batty, E.J.	Bunbury	Shoot Wild Duck	" £5

DISAPPEARANCE OF LARGE MULLET

In view of the controversy which still rages up and down on this subject, hereunder is a copy of a letter received by one of our inspectors some years ago from a person with a sound knowledge of the conditions which existed many years ago.

"It has been said that three or more mungurs had been used by our Murray District natives. This is not correct. There was only one mungur and that was in the Serpentine River. I mention this fact as many have said that the natives destroyed and caused the

"large fish to become scarce.

"The natives ceased operating the mungur
"during the 'seventies at which time, I have been told
"by many old residents who have passed on, the rivers,
"lakes and estuaries were still full of large fish,
"mainly mullet.

"A factory was opened in 1876 and nothing other
"than 4" mesh was allowed to be used. A reduction in
"size of the mesh was always opposed as it was contended
"that if this were done it would only be a matter of
"a few years before the industry would be crippled, and
"sure enough that has happened.

"During the 'eighties and 'nineties large
"mullet were so plentiful that the factory fishermen
"would leave about 4 a.m. and return about 9 a.m. with a
"catch of between one and two dozen tins of large mullet,
"each fish filling three tins.

"Fish were so plentiful that the men had only
"to go into the Northern Estuary to get all they required.

"It was not until the smaller mesh net was
"in use that the lakes and rivers were netted by some to
"make a living.

"Canning at Mandurah ceased in 1902 and the factory was
"removed to the southern side of the Northern Estuary,
"about 9 miles from Mandurah, and preserving continued
"there until 1912, when it was compelled to close down
"owing to small fish and small supplies. By this time
"the mesh had been reduced to 2 $\frac{1}{4}$ ". Most of the nets were
"tanned down to 2" mesh and this led to the destruction
"of tens of thousands of fish that should never have been
"caught.

"Much has been said as to how the large mullet
"and other fish disappeared from these waters. I
"contribute this mainly to the continued reduction in
"mesh and its use in open and prohibited waters throughout
"the year.

"In the first days of netting in Mandurah
"waters a prescribed mesh had not been enforced, but
"as time went on and small mesh nets were used and
"destruction became greater, sufficient action was not

"taken to save the industry. Each time the mesh came down
"1/4" so the fish disappeared.

"I have heard some critics say that the dry
"seasons 1914 and after were largely responsible for
"the disappearance of large fish and creating the shortage,
"but the large fish had gone and the fish were scarce
"years before 1914. One reason why the factory was moved
"from Mandurah to the Northern Estuary was the shortage
"of fish and the new site being nearer the fishing area,
"more time could be spent in locating them.

"If these waters were closed for three years
"or a minimum mesh of 3" for that period enforced, and
"coastal netting restricted, I am certain that my
"contention would be proved that small mesh nets have
"crippled the fishing industry at Mandurah.

"Some fishermen operating here say that this
"is not correct and argue that if the fish they catch
"with small mesh nets were let go they would go to sea
"and that would be the end of them and our waters would
"still be short of them. If this is so why then did we
"have our waters teeming with fish 60 years ago?"

THE CLEARING HOUSE

Press, Radio and Television Help to Sell
Rock Lobster in United States

Through a nation-wide advertising campaign, using newspapers, magazines, Sunday supplements, trade journals, radio and television, South African rock lobster is regularly made known to more than 40,000,000 people in the United States. This campaign, coupled with the inherent quality of the product, efficient distribution, attractive labels and good packaging, has made the Union the largest supplier of rock lobster tails to North America. In 1952 more than 5,000,000 lb. of frozen tails were exported to 26 different importing firms.

Mr. Richard Kulze, the man responsible for bringing South African rock lobster to United States food tables, is at present in South Africa on his fifth visit since 1947. As attorney of the South African Rock Lobster Association in New York, he serves as adviser to the producers and distributors, organises advertising campaigns and generally ensures that the product keeps to the quality expected of it in America.

Mr. Kulze is a New York attorney and an authority on international trade. He is a director of the New York Board of Trade and is General Counsel to its International Trade Committee. For 24 years he has helped to promote international trade and recently received a special citation for his work in this field from the International Trade Committee of the Advertising Club of America. During the war he served as a colonel in the United States Air Force and was Chief of Control and Chief of Public Relations of the Middletown Air Service Command, comprising nine states on the Atlantic seaboard.

In 1938 he undertook to promote South African rock lobster exports to the United States. Acting as the liaison between producers, distributors and consumers, he was achieving considerable success in his work when the war intervened and closed the trade until 1945/46. Since then, his South African Rock Lobster Association has been of immense value to the industry and must rank among the best and most efficient product promotion organisations serving Union producers.

In an interview with the "South African Shipping News and Fishing Industry Review", Mr. Kulze said that one of the big reasons for the increase of South African rock lobster exports to the United States since the war was the great improvement in the quality of the product. "On arrival in New York", he said, "all consignments are taken into the cold stores where samples, taken at random, are subjected to rigid ocular and nasal tests by the United States Food and Drug Administration. They break open the tail, they look at it and they smell it. It is a stiff test and a product has to be good to come through it. For four years there have been no rejections."

Mr. Kulze paid tribute to the excellent work done in South Africa by the Fishing Industry Research Institute under Dr. G. M. Dreosti. By maintaining an efficient control over the product, the Institute was assisting producers and consumers. It set a high standard and, through research work and supervision, helped the producers to keep to this standard. The Institute and the industry showed commendable respect for the American consumer's insistence on only the best quality foods.

"Since the re-organisation of the industry after the last war, the tails, properly wrapped in 'Cellophane', have all been labelled 'Genuine South African Rock Lobster Tails'. Through advertising and other publicity methods, the label has been made known throughout the nation. At one time most of the tails were sold to bulk buyers such as restaurants and hotels. The American housewife is now the biggest consumer and for her we have devised a popular-size pack. This pack, contains two small tails, and weighs 11 ozs. When it was introduced in 1951 an American packaging magazine described the wrapper as the outstanding colour job of the year.

"Advertising has done a good deal to increase sales of the product, but the most important people in our promotion campaign have been home economists writing as food editors for the popular magazines and Sunday supplements. In South Africa they might be known as domestic science columnists. They provide hints on how to run the house and in particular recommend certain foods and give recipes.

Kitchen Experiments

"They have a vast following in America and a recommendation in one of their columns is worth thousands of dollars in advertising. We supply our frozen rock lobster tails to them and they experiment with them in their kitchens. If they are impressed, they may give their recipe on the home economy page. Several home economists have featured our rock lobster. The result has been a growing demand from American housewives."

The rock lobster industry was fortunate, he continued, in the shipping services available to it. Both the Farrell and the Robin Lines provided excellent facilities for the 7,000 mile journey between Cape Town and New York. The ships had refrigerated space with temperatures ranging down to -5^oF. On arrival in New York, the 20 lb. cases are taken off on pallets at the rate of 3,000 cases an hour and a normal cargo of 15,000 cases could be discharged and packed away in the cold stores within five hours.

Although several other countries exported rock lobster to the United States, South Africa was the largest supplier. In 1934 it sent only 1,000 lb., by 1938 this had risen to about 1,300,000 lb., and last year Americans consumed more than 5,000,000 lb. of tails and some 1,600,000 lb. of canned rock lobster. In the same year, Australia exported 3,000,000 lb. to America and the Bahamas, British West Indies, Cuba, Mexico and New Zealand were among the most important of the other exporting nations.

Lobster producers in Canada and in the state of Maine once feared that South African rock lobster would damage their trade. The early fears have proved unjustified. According to the records of the United States Bureau of Census, sales of lobster from these areas have increased many times over in recent years. In 1920, the United States consumed 5,000,000 lb. of lobster; in 1952, 23,000,000 lb. were consumed.

"South African rock lobster", concluded Mr. Kulze, "has become a very popular product in the United States. The present demand for it should continue and even increase. With Union factories concentrating on a high quality product, I feel sure that the American housewife will agree with our slogan 'Rock lobster at its best comes from South Africa'".

("The South African Shipping News and Fishing Industry Review", London, August 1953)

Florida's Controlled Seining Program

Florida's controlled seining program, designed to thin out overly heavy populations of bream and crappie as well as rough fish in six important lakes, is deep into its second year. The emotionalism aroused by the experiment has eased off somewhat, but many Florida fishermen still fear that bass and pickerel fishing will suffer. Supporters of the project, however, are quoting the progress report written by John Dequine and his staff to show that the top-ranking game species have been aided instead of harmed. The report itself draws no such conclusions, but is confined to the presentation of data.

An increase of 77 per cent in weight in relationship to length was noted in bluegills taken from Lake Reedy, where the heaviest removal of fish had taken place. No indications of decreased yield in bass and pickerel were noted. Angler catches of bass appeared to be improved in three lakes. Financially, the state is better off by \$69,000 from fees collected from the netters, and the wholesale value of the commercial catch was nearly \$1,200,000. Later information could change all this, for better or for worse. But the experiment is being watched by many. Overpopulation of certain fish is becoming a more widely recognised plague as years pass. Florida may be demonstrating something that can be of great value elsewhere.

("Field and Stream", New York, August 1953.)

Sea-Oddities

How do the rare Emperor penguins at their rookeries on Adelle Land, keep alive on the ice, through the terrible winter blizzards, with their only food fish which they must catch from the icy, half-frozen sea? How do they keep warm their eggs and feed their chicks? One of the mysteries of natural history is this bird's ability to withstand the intense cold of Antarctica. It was in an attempt to solve these questions and some others that led the latest French Antarctic Expedition, recently in Melbourne, to Adelle Land and to choose winter as the time for the attempt. The members of the expedition, which was led by Monsieur Mario Marret, believe they have some of the answers to the mystery surrounding this bird, but are not making any public

statements until they have delivered their report to the French Government. M. Marret did disclose, however, that from one of the six rookeries on Adelie Land the penguins had to make a trip lasting about a fortnight - walk, in fact, for the penguins cannot fly - over 100 miles of pack ice to reach the sea. There the birds "would eat about 8 lb. of fish, and walk back and disgorge it to feed their young", he said. Who said the allotted ways of man are hard? Evidently an Emperor penguin wouldn't think so.

("The Navy", Sydney, N.S.W., June, 1953)

Sea-Oddities

Sea animals - whales, dolphins, walrus, etc., - are unquestionably the highest-powered creatures in the world. Scientific investigation has proved that their muscles are much more efficient than those of land animals. Dr. J. Gray, after a series of experiments on the propulsive power of the dolphin, came to the conclusion that: "If the resistance of an actively swimming dolphin is equal to that of a rigid model towed at the same speed, the muscles must be capable of generating energy at a rate at least seven times greater than that of other types of mammalian muscle. Proportionately the power used by a whale forcing its huge bulk through the water is almost incredible. Estimates made on the propulsive power of a blue whale in the act of coasting along at 10 knots an hour show it to be about 50 horsepower; when, therefore, the whale accelerates to 25 knots the energy it develops must be anything between 400 and 500 horsepower. Frank W. Lane, in his fascinating book "Nature Parade", said that: "During the Scott Antarctic Expedition some of the sleigh dogs were standing on an ice-floe. Two killer whales attacked them. The killers dived deep beneath the ice and then swam swiftly upward. They struck the ice-floe with such force that the ice, which was $2\frac{1}{2}$ feet thick, was splintered into fragments, and the dogs just escaped. A member of the first Peary Expedition has recorded that he saw ice at least 4 inches thick, broken by a walrus butting its nose against it." The tunny fish is also extremely powerful and so is the monstrous devil-fish, or manta. "Commander T. B. Thompson, of the United States Navy, has recorded how he was in a heavy 26-foot whale

boat containing seven men when a manta was harpooned. With alternate beats of its great flippers the brute - a devil-fish weighs 3 or 4 tons - towed the boat for over an hour at a speed which varied between 8 and 12 knots. How much longer the manta would have continued to haul the whaleboat is not known, for after twelve 45 bullets had been fired into its body the fish sank and the harpoon pulled out."

("The Navy", Sydney, N.S.W., July 1953.)

Prawns - And a Life of Crime

by Kylie Tennant

For some years now my friend, Hilton, has been leading a life of crime. Last time I saw him he maintained he was so "cop-happy" he jumped at the sight of a uniform.

"Did you see", he said, "where, the other night, they caught two boats and one got away? The one that got away was mine".

Hilton trawls for prawns on the Parramatta River, where, he says, there are more fisheries inspectors than prawns.

When there is too much rain, the prawns go out to sea; during the dry weather, the prawns, which lead a life nearly as mysterious as Hilton's, were so few that my friend was reduced to selling gummy shark from door to door as deep-sea mullock. This, Hilton complained, was not only dishonest, but sheer ruin, because gummy shark was bringing 3/- a pound in the markets and the best whiting only 3/3.

So he is now back on the river, put-putting up and down in the hours before dawn and being soundly cursed by citizens who value their sleep.

Hilton and I cemented a life-long friendship when, years ago, he helped me buy a cart. There were all kinds of carts, vans, and sulkies standing wheel to wheel in a vast shed with one ancient man in charge. The ancient swore that each vehicle was as firm as a rock.

Hilton would test the statement by seizing the cart in his powerful hands - he is over 6 ft. tall - and shaking it violently. If it fell to pieces, we moved on to the next. I could not enough admire his cool determination, but the vendor was pleased to see us go.

Without wishing to be too antisocial, I hope that I do not spoil Hilton's luck by saying that he has never been caught. He has lost nets and gear - confiscated because his trawler was in forbidden grounds - but he always manages to tip his catch overboard and destroy the evidence.

One of Hilton's mates has run up fines totalling more than £1,000 and is just about to go into gaol to "cut them out". This mate is happy in his belief that you cannot be arrested twice in the same day for the same offence. So whenever he is caught trawling in closed waters he goes straight out and does another trawl.

Knowing that Hilton had the ideal temperament for a prawn burglar, I was not concerned about him, but I did feel some anxiety for his charming wife and daughter. Foolishly, I asked him if he thought it was worth the worry.

"I'm doing more to preserve those prawns than the fisheries," Hilton declared, "In fact, come to think of it, I'm a public benefactor.

"If me and my mates let up while the river's closed, the bottom would silt up. The prawns like a clean bottom, and with all the mud that pours into that river you've got to keep scraping the bottom. Next year's prawns are in the mud now.

"It's like a farmer ploughing his fields. He can't afford to lay off.

"I'm for the preservation of prawns", he added warmly, "I've seen buckets of them too little to be good, even for bait, killed and thrown away. It's the small-mesh nets they use. Me and my mates make our own nets with a bigger mesh. Then we don't have to go to the trouble of picking over baskets full of measly little prawns.

"The fisheries" - Hilton spoke bitterly of the fisheries, their inspectors, their ignorance of crustaceae in general, and of prawns in particular. - "Let them make a big mesh compulsory and they'll really be doing something useful."

Bent on preserving the prawn for posterity, Mr. Clive Evatt was the first to decree that waters above the harbour bridge were closed waters. His successors compromised by an elaborate system of opening the river or parts of it at certain times of the year.

The closure of the waters created that confusion observable when natives are driven from the hunting grounds of their forefathers. Custom and interminable squabbling had settled certain stretches of river as the perquisite of the Italians; other areas belonged to the Greeks; and the "white men" (Hilton's phrase) had their own grounds reserved for their prawning. They left each other severely alone.

With the closing of the river all was confusion. The Greeks encroached on the grounds of the Italians, and the Italians trespassed on the "white men", who fished all over the place.

Strong words and blows were exchanged. Gone was the peace when, in the first light, the prawns rose from the mud and the trawlers came out in the calm to sweep their mile-long trawling run.

Having sunk their money in boats suited to the estuaries, the fishermen could not go elsewhere. They were outlaws.

Whereas before they had nothing to dodge but the Taxation Department, they must now run the gauntlet of virtuous observers ashore who rang the police at the first furtive revving of engines. Police boats ranged up beside them with lights and questions, inspectors pounced as they brought their catches ashore.

So involved did I become in the fortunes of Hilton and his mates that I entered the Fisheries Department - but not without private fears should I be filed away in a basement until I divulged the address of my friend Hilton. Was I an accessory after the fact?

My trepidation was lulled by the courtesy with which I was received, and the enquiry whether I would like a newspaper to read while I waited. Presently the discreet footsteps of those carrying teacups died away down the black and white marble corridors, the bustle of mid-morning refreshment was over and it was indicated that I might approach the greater ones.

This time the courtesy was tempered by a certain fretfulness. If the Parramatta River rose and became dry land, I was given to understand, it would be a relief to all parties.

"Oh, we keep after them", a senior officer assured me. "The water police co-operate; we confiscate hundreds of nets.

"Personally I wouldn't eat a prawn that came out of the Parramatta River. I took home a few from a catch we confiscated the other week. I boiled them and, believe me, those prawns tasted of tar. There's the effluent from the factories, the run-off from the roads, the drains - the pollution in fact. We are taking steps to deal with it.

"You can say that we have the matter in hand. First we must decide what degree of pollution is normal and then there is the question of sending men up the drains to track down the sources. Also there is the co-operation of all authorities with control of the foreshores. Now, does that cover what you want to know?"

I said humbly that I could see why they had closed the river.

"It's open between September and April," the official said.

This was going to be a blow to some of Hilton's mates who, on principle, never work any but closed waters. ("They think it better", Hilton had said austerely.)

I would have liked to ask about the two fisheries inspectors who had come down one night and, finding a cart belonging to a fisherman, had unharnessed the horse and harnessed it again with its head facing towards the cart. Light touches such as that so relieve the strain of incessant strife.

"There is a regulation against noisy mufflers", my informant continued. "We can get them on that. And then, too, we can prosecute on another regulation against unnecessary noise. Any fisherman between sunset and dawn - wait a minute, I have the regulation here, I can give you the number - shouting, singing, or calling out is committing an offence."

I thought of the lady on the Drummoyne shore who had said: "There's one Greek who comes past here about four in the morning - and what a voice! He has one of those magnificent baritones they let loose in operas in other countries. He can wake me", she added dreamily, "any time".

"They shout and use bad language", the fisheries man said grimly.

I asked if Hilton was right in thinking that nothing was known of the life cycle of the prawn.

"We have a man - a scientist - working on that now - full time". The officer impressively waved a set of papers. "Here are whole lists of questions we want answered about the prawn's habits. Where do they breed? What do they feed on? Diseases of prawns". He read out a long list. "You see? Until we know more we cannot proceed with any certainty".

I made a mistake. "One of Hilton's friends" I said, "when taken red-handed in his prawn-burgling, always goes out and does another trawl. He says he cannot be prosecuted for the same offence twice in one day".

I do not know how I got out of the Fisheries alive. I must send word that Hilton's mate is labouring under a delusion.

My curiosity on the subject of prawns being far from sated, I rang Mr. Frank McNiell, who is the Australian Museum's authority on crustaceae.

"Oh, yes", he said, "scientists here have traced the life cycle of Australian prawns. The king prawn and the school prawn breed out at sea, the greasy-back in the estuaries. Conditions are chaotic because the fishermen are burning the candle at both ends. They are fishing on the breeding grounds out at sea as well as fishing in the estuaries where the prawns are nurtured.

I gave Hilton the benefit of my researches. "You don't know anything about prawns," I said.

Hilton was firm. "The river's the best prawning there is", he said. "It only needs a clean bottom - and fewer inspectors.

(Sydney Morning Herald, Sydney, August 22, 1953)

(The reprinting of this article must not be taken to mean that we support Mrs. Tennant's views. Fortunately all fishermen are not of Hilton's type - Ed.)

It saves waste, and the Larger Mesh Leaves
more for tomorrow

We have received the following comments from the Ministry of Agriculture and Fisheries on the article in our issue of August 8th which described the use by Northern Trawlers Ltd., Grimsby, of 5 $\frac{1}{2}$ in. mesh cod-ends on their trawlers fishing at Bear Island in June of this year.

(Readers will recall that these experiments were said to be a great success; not only did the trawlers have good catches, but their decks did not become cluttered up with unsaleable small fish.)

The Ministry has advocated the use of larger meshed trawls for the North Sea since the early 30's and for distant waters since 1949. As the new mesh regulations come into operation in April, 1954, it is most encouraging to learn that some in the industry have anticipated that date and are already using a large cod-end mesh with considerable advantage. The consistently good fishing by Northern Trawlers during the recent June fishing at Bear Island demonstrates the value of the large mesh in terms of weight of fish caught.

In comparison with the 110mm. mesh to be introduced next April flax cod-ends used by Northern Trawlers were 124.6mm. Since November, 1949, the Ministry's research vessel "Ernest Holt" has been using 110mm. cod-ends of manila 50's 4 strand twine, with complete success; the nets have withstood the lifting of 80-100 basket hauls as one bag. It is necessary to note that a large mesh requires a thicker twine in order to obtain the same strength as a smaller mesh.

Several Benefits

There are several benefits to be derived from the use of a large cod-end mesh. Small fish, whether below the size limit or unsaleable, pass through the mesh and escape. Thus the catch of such a net does not require so much sorting. Furthermore, experience gained from many comparisons of nets of different sized mesh indicates that, especially under heavy fishing conditions, more of the larger fish are caught and retained by the larger meshed net. This would apply especially at Bear Island in June, and anywhere else where heavy catches are taken of a rather small run of fish. The "Ernest Holt" has had evidence on several occasions since 1949 that she has been more heavily fished than commercial trawlers fishing the same grounds with the normal cod-end mesh.

Waste Avoided

The specification of the "Ernest Holt's" trawl was circulated to the industry. One commercial skipper who used such a net objected to the large size of the haddocks seen escaping from the cod-end. However, from 8 baskets of haddock taken from a haul in the Eastern Barents Sea by the "Ernest Holt" using her standard 110mm. mesh, only 3 baskets of saleable haddock were obtained, showing that even mesh of this size retains haddock too small to sell.

During June, 1952, when she was fishing and marking fish at Bear Island, more than 50 per cent. of the "Ernest Holt's" catch was below marketable size, whilst commercial trawlers had to reject more than 80 per cent. of their day's catch. Rejection of unsaleable fish is normal at Bear Island in June, and it was estimated that the amount of small codling "dumped" dead during the "Ernest Holt's" stay there in June, 1952, would have filled between 70 and 80 trawlers of average size and represented approximately 15,000 tons on that one ground alone.

"More for Tomorrow".

It must be emphasised that these small fish were not below the present legal minimum of 30cms. ($11\frac{3}{4}$ "") for cod. The demand for small fish at the main distant-water ports of Hull and Grimsby is such that the rejection point varies between 19 in. and 22 in. - from 48-55cms. If this is the self-imposed size limit of the Humber ports, the new 110mm. mesh will certainly help trawlers to obtain such fish with a greatly reduced destruction of fish too small to sell. These will then be free to grow to a respectable size for the morrow.

("The Fishing News", London, August 29, 1953)

DO YOU KNOW

that last year the crayfish industry brought nearly 3,000,000 American dollars to Australia and ranked second only to wool as a dollar-earner?

The seas near Rottnest teem with dollars because the reefs around the island are crayfish nurseries. The taking of young crays from these reefs can only result in the depletion of marketable crays all along our coast and a big loss of vital American dollars.

YOU TOO CAN BECOME A DOLLAR EARNER for Australia by observing the Fisheries Department's regulations which say:—

- (a) That nobody shall use more than two cray-pots anywhere within one mile of Rottnest.
- (b) That crayfish with spawn attached must not be taken by any means. If any of these happen to find their way into your pot they must be returned to the sea immediately.
- (c) That all crayfish taken must equal or exceed the legal minimum size of 2 $\frac{3}{4}$ in. measured from the base of the horns to the end of the carapace or body.

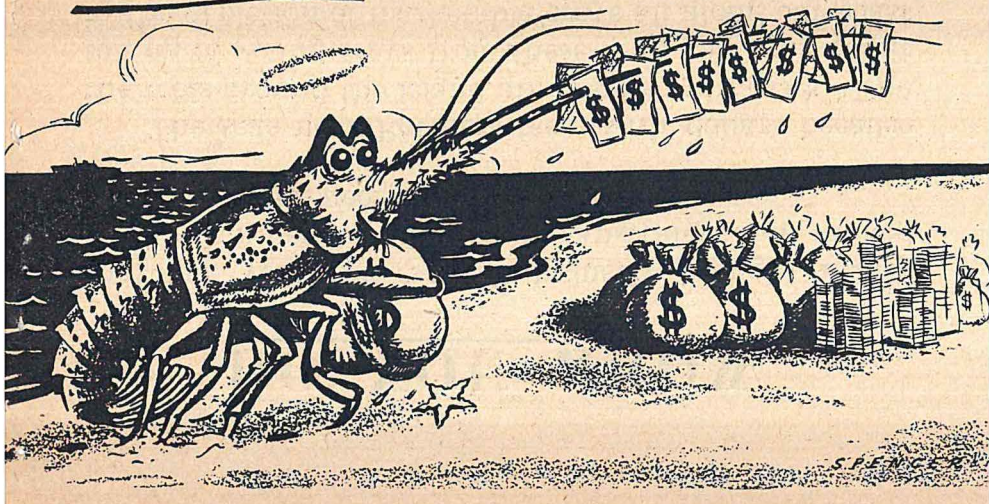
Will you play your part by carefully observing these regulations? They have been designed to conserve one of our finest natural resources and largest dollar earners.

There are severe penalties for breaches!

A. J. FRASER,

Superintendent of Fisheries.

Our Friend - **THE CRAYFISH!**



PEMBERTON-WARREN TROUT ACCLIMATISATION SOCIETY

STATEMENT OF RECEIPTS AND EXPENDITURE
No. 1 ACCOUNT

RECEIPTS		EXPENDITURE	
Government Grant	1000 0 0	Wages	1545 0 0
Fish Sales	1523 13 4	Transport of Fish	25 8 5
Freight Recoup	2 3 0	Manager's Travelling	254 4 1
Travelling Recoup	16 2 0	Fish Food	252 7 2
Sale of Wire	14 5 0	Light—S.E.C.	14 15 6
Recoup of Wages:		Insurance	21 2 6
Ex No. 2 Account	14 7 0	Clerical	23 3 0
Insurance	7 19 6	Telephone	15 7 10
		Stationery and Printing	55 13 11
Percentage of Admissions	22 6 6	Advertising	55 2 1
	78 15 0	Postage and Duty	8 11 4
		Cartage and Freight	28 3 9
Balance of Expenditure over Receipts	£2657 4 10	Maintenance of Ponds	143 6 0
	384 18 9	Rearing Ponds (construct)	295 8 2
		Hatchery Maintenance	2 3 6
		Sundries	84 1 4
		Petty Cash	3 6
		Sanitary	7 11 8
		Equipment	178 9 10
		Rent:	
		National Park	10 0 0
		P.W.D.	20 0 0
			30 0 0
		State Council Levy	1 0 0
		Bank Charges	1 0 0
	£3042 3 7		£3042 3 7

STATEMENT OF ASSETS AND LIABILITIES
PROPAGATION ACCOUNT

LIABILITIES		ASSETS	
Balance owing to P.W.D.	277 1 11	Balance in Current Account with R. & I. Bank	224 1 3
Sundry Creditors	91 11 10	Fixed Deposit	90 0 0
Water Rates to Swimming Pool Board	12 0 0	Sundry Debtors	416 14 0
Portion of Govt. Grant to No. 2 Account	50 0 0	New Ponds and Pipe Line	5299 14 4
M. E. Jackson	9 9 0	Old Ponds	648 0 0
Outstanding Cheques:		Depreciation	64 16 0
J. Sherrington	6 19 6	Buildings	147 8 0
E. J. Hawke	1 10 0	Depreciation	3 6 1
	8 9 6	Furniture	122 13 1
		Depreciation	9 3 11
Balance Assets over Liabilities	£448 12 3	Plant and Equipment	359 13 7
	6826 11 7	Depreciation	44 19 2
		Boat Shed	93 18 8
		Depreciation	4 13 11
			89 4 9
	£7275 3 10		£7275 3 10

STATEMENT OF RECEIPTS AND EXPENDITURE
No. 2 ACCOUNT

RECEIPTS		EXPENDITURE	
Brochures	200 14 0	Travelling	17 11
Donations:		Wages	64 16 1
J. E. Watson	1 0 6	Sanitary	6 11 10
Tourist Omnibus	5 15 0	Entertainment	20 14 0
S. E. Young	1 1 0	Curator's Vehicle	21 6 6
C. A. Glew	1 0 0	Fish Purchases	125 0 0
Manjimup Cycle Club	2 1 6	Camp Site Wages	22 10 0
F. E. Edmondsory	1 1 0	Printing	2 9 3
Anonymous	3 19 0	Planting Fish	16 2 0
	15 18 0	Boat Purchase	41 5 6
Admissions	322 10 0	Stationery	16 7
Licences	57 18 0	Advertising	2 0 6
Fish Sales (Contra)	15 0 0	Deposit on Cottage	100 0 0
Curator's Vehicle Repayments	128 0 0	Furniture	69 17 6
Camp Site	7 0 0	Admissions transferred to No. 1 A/c.	78 15 0
Interest on Fixed Deposit	2 14 6	Bank Charges	1 0 0
			574 2 8
		Balance Receipts over Expenditure	175 11 10
	£749 14 6		£749 14 6

STATEMENT OF ASSETS AND LIABILITIES
No. 2 ACCOUNT

LIABILITIES		ASSETS	
Balance Owing on Purchase of House from G. F. Lunn	390 0 0	Cash on Hand, Balance in Current Account with R. & I. Bank	556 4 10
Balance of Assets over Liabilities	991 12 9	Anglers Cottage	490 0 0
		Furniture	69 17 6
		Boat and Oars	41 5 6
		Government Grant	50 0 0
		Sundry Debtors	174 4 11
	£1381 12 9		£1381 12 9

Audited and found correct:
G. B. TODD, Auditor.
N. W. MARTIN, Hon. Sec./Treasurer.

NOTE.—Licences for an amount of £8/8/- not received until after the 30/6/53 and not included in receipts.

PEMBERTON-WARREN TROUT
ACCLIMATISATION SOCIETY

TWENTY-SECOND ANNUAL REPORT

TO 30th JUNE, 1953.

As in other years, the "Times" publishes the annual report of the Pemberton-Warren Trout Acclimatisation Society, realising that the stocking of the rivers of the South West with trout is of wide interest.

The highlights have been:

(1) The opening of the new series of rearing ponds in National Park and their ultimate success in operation,

(2) The "take" of a million eggs from a thousand domestic rainbow,

(3) The success of the transport unit and distribution scheme taking large bulk parcels to distribution centres;

(4) The launching of the "Fish for the Inland" scheme, and

(5) The export of 90,000 rainbow ova to Victoria as a gift in return for those sent to Western Australia in 1930-1931.

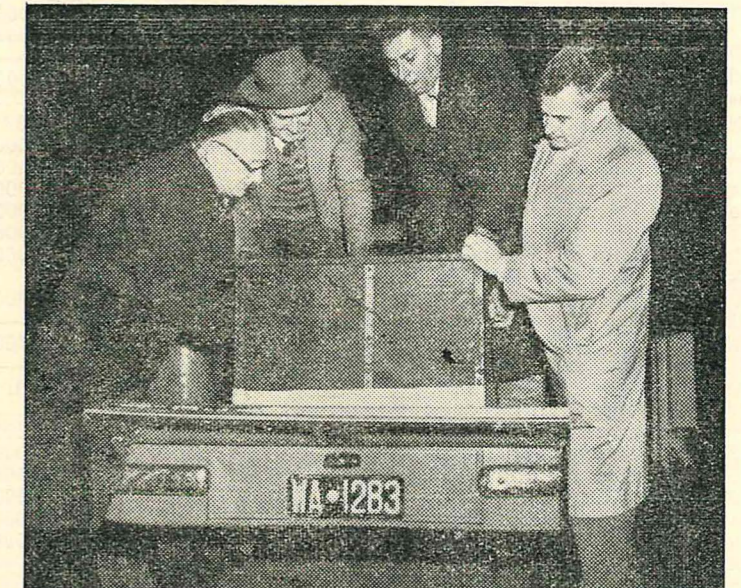
Rearing Ponds

A new series of eight rearing ponds were opened on September 6 by the then Minister for Fisheries, Mr. V. A. Abbott, a function that proved to be very successful and added considerably to the prestige of the society. The tremendous effort put into this project by the council and staff has been well justified. After the opening, six of the eight ponds were planted down with 50,000 rainbow fry. Two ponds were heavily stocked with up to 80,000, partly because we had more fry than could be accommodated, and partly because we were anxious to know the top limit of their holding capacity.

The first year's objective was not to obtain high growth rates, but rather to see how economically a reasonable type of fingerling could be produced. The aim was the maximum results with a minimum of labour costs. No cleaning of ponds was undertaken, the bottoms were not cleaned for the whole season. The eddying motion in the circular ponds concentrated wastes in the centre and at about three-monthly periods, the grilles were lifted slightly and it then washed through into the drainage system. Feeding costs had worked out much

better than hoped; this was indicated by the fact that costs of feed had only risen by £64 for the production of an additional 130,000 advanced fingerlings, due largely to the continued co-operation of Robb's Jetty meat works. No grading was attempted so that losses

Few hatcheries in the world have been successful by this method. Had it not succeeded it is very doubtful whether we would have been able to maintain an adequate supply of trout for Western Australia, as the trapping of wild fish had only met with limited success.



Trout men, Messrs. Glew, Simpson, Shoobridge and Kelly, unload ova at the airport for despatch to Eastern States.

were high, but not so high as to warrant additional labour in this operation.

The new outfit has operated on an additional labour cost of one and a half man hours per day. The stock was thinned down in December and again in May.

Ova

The "take" of a million ova from the thousand rainbow females held in the ponds was an achievement, the significance of which may not be readily appreciated by the layman.

The actual "take" amounted to 1,023,000 rainbows and 30,780 browns, and these constituted a serious embarrassment as the hatchery provisions and equipment had only been designed to hold half a million eggs. However, after battling for many years to secure the greatest quantity of eggs possible, nobody had the heart to dispose of any surplus and emergency equipment was pressed into use and the staff had a busy time under difficult conditions.

Distribution

With the surplus of half a million fry which could not be accommodated for more than a few weeks, it was essential that as many as possible should be distributed before overcrowding caused trouble.

An advertising campaign, broadcast talks, and other publicity brought a ready response, particularly from the Great Southern area, where sales of 336,000 were effected. All of these were picked up at the hatchery by the purchasers, and in order to clear the surplus a bonus parcel of 2,000 was given away with each 1,000 purchases. Most purchasers appear to have had little trouble in transport, excepting where dirty containers prejudiced operations. One parcel was successfully taken to Ravensthorpe after being 14 hours on the road. The bulk delivery of 80,000 to Perth, for the convenience of purchasers further north, worked out remarkably well for a first attempt.

Neither the transport operators, nor the buyers knew quite what to expect, but everybody entered into the spirit of the experiment, which was not without some humour. One party turned up with a petrol tank from a Dodge car of 1910 vintage to convey their fish, while another brought two pickle jars for 1,000 fry. All got some fish, and we hope some were safely planted in the waters of these enthusiastic people. The second parcel of 124,400 fingerlings was distributed in December, and these went to the Great Southern areas, Mount Barker, Kojonup, Pingelly and Beverley being selected as distribution centres. The bulk transport unit which had been evolved was able to move 20,000 without difficulty. Road boards and private individuals co-operated splendidly, in opening up this new operation.

There was one tragedy with the parcel that went to Beverley. The unit relied entirely on the continuous operation of a 1 h.p. engine and once this broke down, nothing could save the concentration of fish in the tank. A big loss of fish was only a minor matter compared with the inconvenience which it caused the purchasers who had come for many miles to collect their trout at Beverley. It was then decided that no future distributions of this nature would be made unless a duplicate engine could be carried. The third distribution was of 33,500 advanced fingerlings in

May. At this time priority was given to registered societies to stock their particular areas. A total of 40,000 was offered, but this was more than the societies could absorb, and the balance was offered to private buyers in the coastal areas.

Means of distributing large quantities of trout over large areas had presented a real problem and it looked at one stage as though transport might be the limiting factor in production. However, the Fisheries Department came to the rescue and took a considerable load from the society, and it made it possible for people having small areas of water throughout the State to try out a few trout.

Summary: Sale Of Fry And Fingerlings

Fry in August to September, 1952:	
To private buyers	276,000
To Societies	66,000
Total	342,000
Fingerlings, Nov. to Dec., 1952:	
Pemberton	8,000
Harvey	24,400
Murray	20,000
Pingelly	20,000
Kojonup	20,000
Mount Barker	20,000
Beverley (lost in transit)	12,000
Total	124,400
Advanced Fingerlings, April and May, 1953:	
Blackwood	11,500
Murray	5,000
Serpentine - Jarrahdale	5,000
Gingin	4,000
Harvey	4,000
Pemberton-Warren	4,000
Total	33,500

Fish For The Inland

When the advertising of the surplus of fry took place last August, the tremendous response from the Great Southern areas took us by surprise.

The dams of the Great Southern had never been looked upon as potential trout waters. The experiments by Mr. J. Huddleton, of Katanning, showed that the trout could thrive in the comparatively impure waters of the dams and pools further inland. While they contained a certain amount of salt, no other lethal chemicals appeared to be present. The tremendously high food values suggested that high growth rates could be expected if the temperatures and oxygen factors would sustain trout.

The Superintendent of Fisheries, Mr. A. J. Fraser, and the writer, felt that it would be wise to make a tour of that area and ascertain the potential, and endeavour to clear up any misconceptions that might exist. The visit left the impression that there were thousands of acres of water which would hold good trout provided owners would undertake stocking and re-stocking, as natural reproduction seemed unlikely. The best results to date have been reported from Mr. R. Abbey, of Beverley, who took delivery of some fry in August from the bulk delivery to Perth, and planted them in a virgin dam. In May he secured a number of young rainbows from his overflow which were 6 inches long and in very good condition.

Much has yet to be learned about trout in these waters. The policy for the moment is to plant wherever owners are prepared to make the experiment and to await results. Sooner or later the limit of tolerance of the rainbows under these conditions will become known.

A Gift Returned

In 1930-31 the Victorian Government through the good offices of the then Chief Inspector of Fisheries, Mr. F. Lewis, made a gift of 100,000 ova to the Parents and Citizens' Association to assist Mr. C. A. Glew in his experiments in establishing trout.

Much has happened in trout acclimatisation in Western Australia since then, and when last year it was evident that we would have a surplus of ova each year from then on, it seemed a good opportunity to expand our knowledge to the packing of eggs for export. It also seemed appropriate that we should make a gesture to the Victorian Government in return for their early assistance. Mr. A. Dunbavin Butcher, Director of Fisheries in Victoria, was happy to co-operate and undertook to hatch West Australian ova under the conditions of their new hatchery at Snob's Creek.

This operation is just about to take place as this report is being written, but the Society looks forward to good results from its first effort at exporting trout ova.

Staff

During the year no major changes have taken place. Mr. Frank Shoobridge had proved himself capable of taking over the full responsibility for hatchery work and his status hatchery manager. Mr. Vic has been increased to that of

Rowe has assisted him in a very capable manner throughout the year and during 1952 hatch assistance had been given by the Fisheries Department in making Mr. J. Simpson and Cadet B. Carmichael available.

Angling

It has been extremely difficult to get a picture of the number of trout actually caught and what is happening in the stream. The success of the creel census by means of a report sheet was not repeated this year and many anglers who must have caught trout did not return a record. Such figures that are available are as follows:

	1951-2	1952-3
Licences	150	130
Reports returned	40	26
Total trout reported	287	454

The 454 recorded no doubt includes the best catches; how many the other 104 licence holders caught can only be guessed.

There is little doubt that a great proportion of the increase was due to the experimental planting of some mature fish, but there is no indication of the numbers. The original idea was to tag all fish released in the hope that anglers would return the tags. This, however, went astray with the failure of the belly tagging method. It is evident the few that survived had an effect on the anglers' catch, and it is hoped that in the coming season the lesson learned will be turned to good advantage.

It is unfortunate that some form of sub-committee or club could not take over the angling side of the Society's activities. It is quite apparent from the magnitude of the propagation

side that the main executive officers cannot give much time to devote to the angling side, and a great opportunity is being lost. There is a need for a sound stream policy, but our knowledge of what is happening in face of stocking is very limited. There is no denying that the first flush of fishing had passed and indications are that the planting of larger trout is the best means of maintaining a fishable population.

Finance

In spite of heavy expenditure and increased activity, the Society has been able to meet its costs; the credit balance in the propagation account has fallen from £533 to £224, but this difference is mainly made up in the deficit in the new ponds and installation of capital plant, such as the new auxiliary pipe line to the hatchery. There is still £202 owing to the Public Works Department on ponds, but it is hoped to clear this in the coming year. This will bring the total capital cost on the rearing ponds to £5576; of this £4900 was a capital grant from the Government and the balance of £675 has been found from the Society's own running costs.

A gratifying feature of the year was the revenue from sales of fish, which reached the figure of £1523. In addition to this, trout to the value of £1600 have been given away. With continually rising costs it will be necessary to sell at least £1500 worth of trout each year if the present scale of operations is to be maintained. The largest proportion of sale have gone to private purchasers, which has entailed a tremendous amount of organisation and correspondence.

In the domestic account, good earnings from admissions to visitors to the ponds and sales of brochures has been maintained at £522, licence revenue has been almost the same as last year, £47 to £46. The decision to invest some funds from these sources accumulated over the past few years in an angling camp should provide a further source of revenue and at the same time provide a valuable service to the community.

Appreciation

The goodwill of the community towards the Society continues to be apparent in many directions.

Fortunately it was not so necessary to draw on this as was the case in the past. The Society's operations were becoming more stable and self supporting; there was less necessity to draw on voluntary labour as far as actual work was concerned, but there was still an increasing responsibility in administration which fell on the executive officers. In this regard, the writer is particularly grateful to Mr. N. Martin as secretary and to Mr. J. Grosser as vice-president for their valuable work during the year.

Some concern was felt as to the added cost of feeding the large stocks in the new ponds, but the excellent co-operation from Messrs. Thomson Bros., Messrs. Sherringtons and W.A. Meat Works, Robb's Jetty, and our friends in the Fisheries Department had made it possible to meet this difficulty. Our appreciation goes to these people and many others who have helped us during the past year.

A. R. KELLY,
President.