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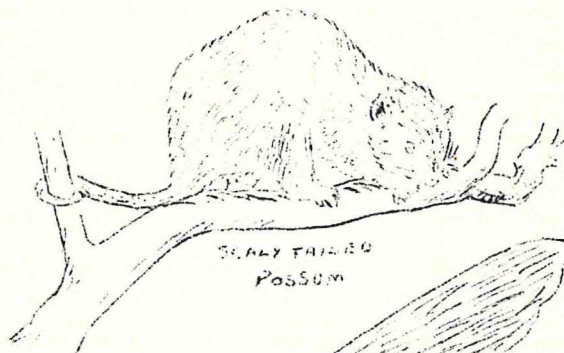
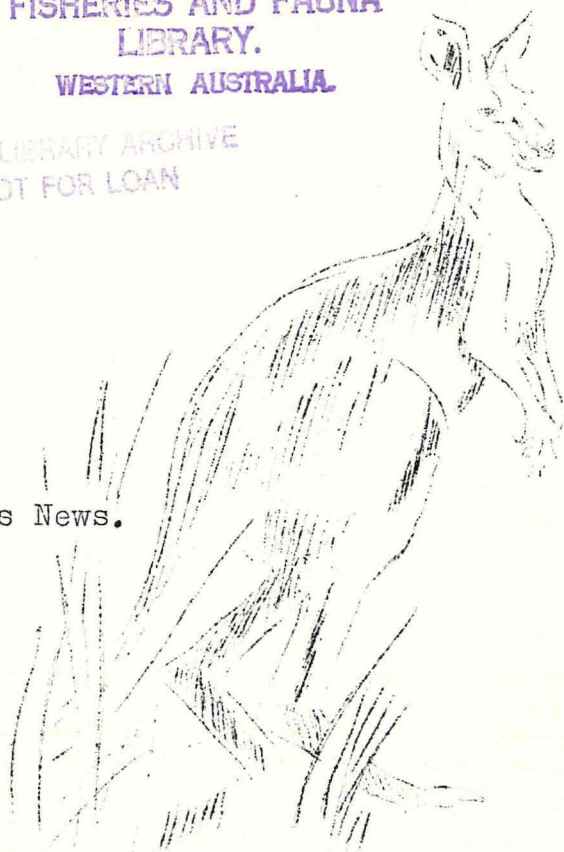
October 1966

DEPARTMENT OF PARAS AND WILDLIFE

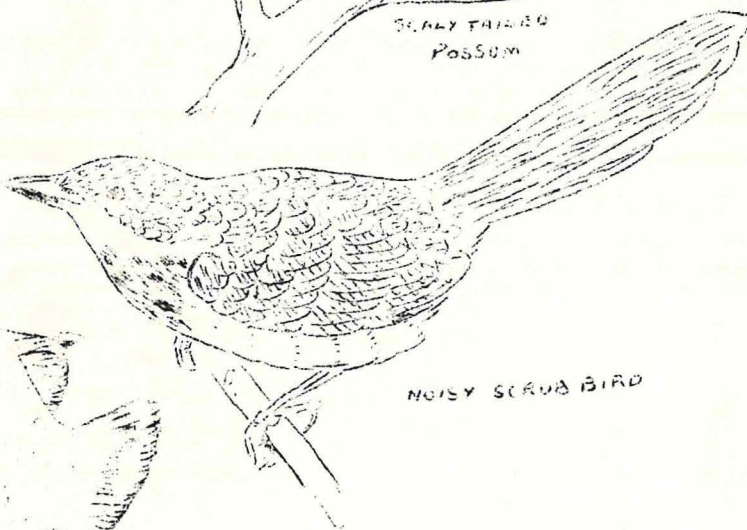
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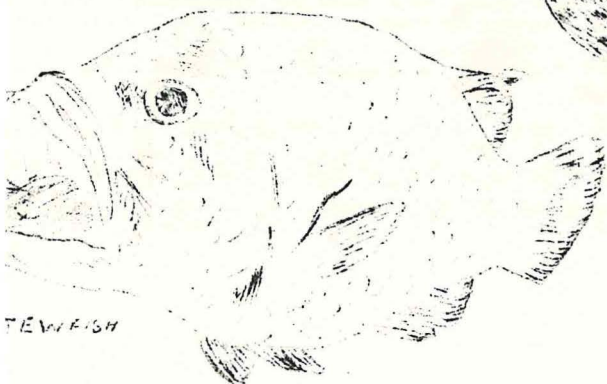
1. The local scene.
2. Australian and Overseas News.
3. Staff Notes.



SCALY THAIRED
POSSUM



NOISY SCRUB BIRD



SEA BREAM

OCTOBER, 1966.
VOL. XV. NO. 10.

PSYCHOLOGICAL STRESS IN BIRDSRed Eared Firetails:

Observations by a local aviculturist which have been confirmed by an eminent German scientist have revealed that psychological stress can cause mortality in caged birds if alien factors are introduced to their aviary.

The case in point was the sudden death of Red eared Firetails in an aviary following the introduction of noisier Cockateils.

The Red eared Firetails of course are described best as a secretive bird liking quiet and peaceful surroundings.

Its nest in natural surroundings is a bulky structure compactly built of long grasses with a spout like entrance thinly lined with feathers and plant down. In forest areas it usually builds in small trees and is usually well camouflaged.

As a result of these observations stringent conditions have been laid down and they will be strictly observed.

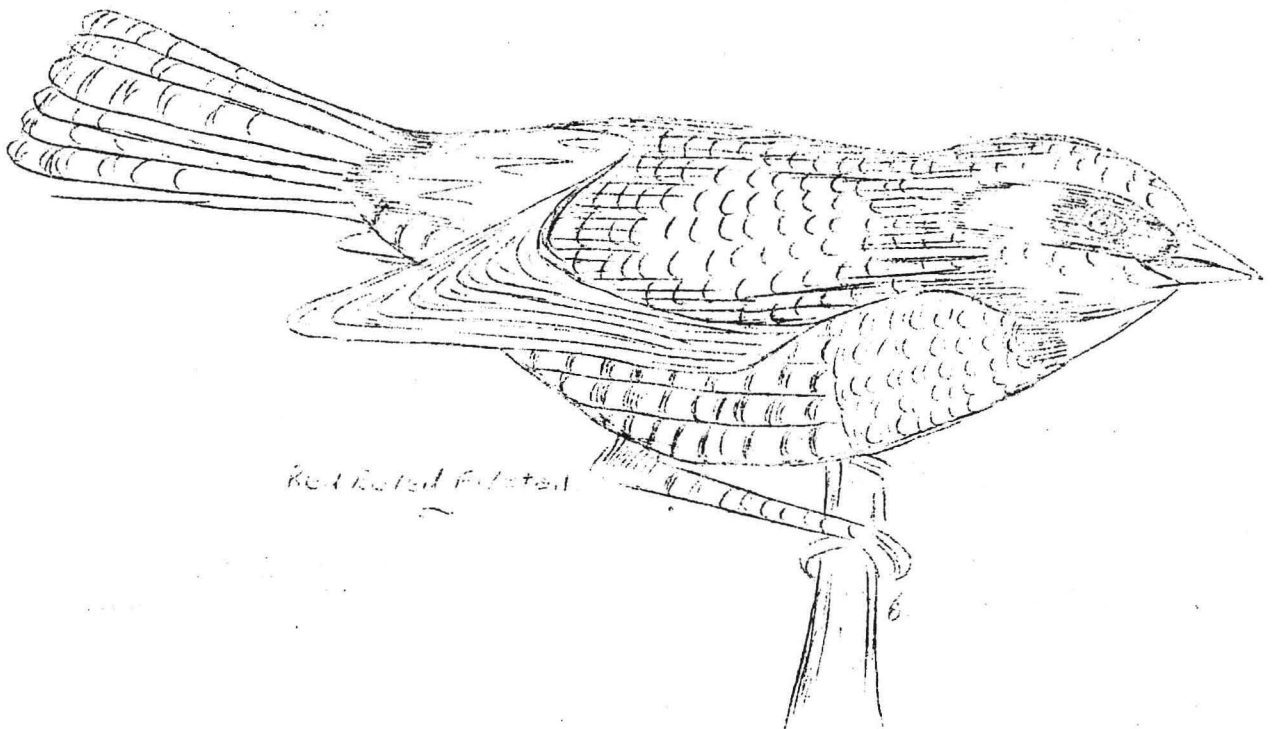
They are -

1. Each pair of birds shall be confined in a space not less than 2,000 cubic feet, preferably measuring 20' x 10' x 10'.
2. No more than two pairs of birds shall be held in the one cage irrespective of its size.
3. Aviaries are to be thickly planted with native shrubs which will not have to be trimmed as disturbance of the birds when cutting the shrubs can cause mortality.
4. The vegetation must be heavily watered.
5. Heads of sword grass (*Lepidosperma* Spp.) to be regularly supplied to the birds with fresh supplies at least weekly.
6. Shelter from winds at ground level to be provided preferably with something like galvanised iron to a height of at least 2'6" from the ground.

2.

7. No other species of fauna whatsoever to be kept in the same cage as Red eared Firetails irrespective of the size of the cage.

Approval to keep these birds will only be given if the Department is satisfied that the applicant is able to faithfully observe the above conditions and properly care for the birds.



LIVE PEARL SHELLS FOR NEW GUINEA

The Minister for Fisheries and Fauna, Mr. G.C. MacKinnon approved Pearls Pty. Ltd., request to remove 70,000 live shells from Kuri Bay. These shells are for the company's new pearl culture farm at Fairfax Harbour, Port Moresby and are to be transported by June 30, 1967.

This has been made possible through new small baskets especially designed for the job and these make it possible to carry 14,000 shells in one trip aboard the "Kuri Pearl".

IN THE NORTH WEST

Supervising Inspector J.E. Bramley carried out an inspection of the Shark Bay-Carnarvon area early in September. He was prevented from going further north than Onslow by the closure of the north road following heavy rains.

On patrols on the p.v. "Vlaming" the trawler "Nanango" was contacted working out of Cape Leseur. The "Nanango" had been trawling for 12 hours during the night for a reward of only 200 lb. prawns. Carnarvon operators had not been having much better luck and one skipper stated that the previous nights operation were totally unsuccessful.

However at Exmouth the processing works was busy with prawns coming in in good quantities. Very few banana prawns were being received and the feeling is that they will be missed this year.

At Shark Bay net fishing had picked up and all fishermen were doing well. The main catches were whiting, garfish and mullet with a few yellow fin bream. Line fishermen, concentrating on mackerel, were obtaining good catches.

Some concern is being expressed in the area over the quantity of fish being removed by "professional" amateurs who are taking fish in up to 3,000 lb. lots in freezer equipped trailers. Not only are the professional fishermen suffering but there is a potential danger of ruining the tourist attraction of the fishing ground.

Fishermen at Exmouth claimed fish were scarce. However, some yellow fin bream were being netted.

On the fauna side a number of Pelicans were sighted at Sunday Island banks by Mr. Bramley and he stated that he had not previously seen them in this area.

Kangaroos were thick on Hamlin Station where shooting is not allowed and they were not concerned by passing vehicles. Wild turkeys were seen on the station and reports were that they were fairly plentiful near the Salt Works. A number of ducks, swans and snipe of several varieties were seen at Hamlin.

Between Carnarvon and Exmouth kangaroos and emus were the only fauna noted. Bird life was confined to scrub adjacent to tanks and troughs.

FIELD DAY AT TUTTANNING RESERVE

This Department will conduct a Field Day at the Tuttanning Reserve, Pingelly, on Friday October 28, 1966, commencing at 1.00 p.m.

The Minister for Fisheries and Fauna, Mr. G.C. MacKinnon and the Director, Mr. A.J. Fraser are to attend this function.

The Field Day is being held to show interested people, both from the Pingelly area and elsewhere what work the Department does with these reserves.

NEW VENUE FOR ANNUAL STAFF CONFERENCE

Officers will be pleased to learn that the Conference is to take place in the Conference Hall, 13th floor, New Government Offices, corner Kings Park Road and Havelock Street, West Perth.

It is scheduled for the week November 7 to 11. This venue should prove quite suitable. The facilities of the Public Works Department Social Club Cafeteria will be available to officers for morning and afternoon tea, as well as luncheon.

MINISTER TO MEET FISHERMEN

The Minister for Fisheries and Fauna, Mr. G.C. MacKinnon accompanied by the Director and other departmental officers will attend a meeting at Geraldton on Sunday October 2.

It is expected that certain anomalies^s existing in the Crayfish Industry will be placed before the meeting.

CRAYFISH INDUSTRY MEETING AT GERALDTON

The Crayfish Industry Advisory Committee is to hold meetings at Geraldton on October 17 and 18. Members of the Committee propose to inspect various establishments of the industry and discuss all aspects of the industry with representatives.

This Committee was set up in 1965 to enquire into and report to the Minister for Fisheries and Fauna upon any matter referred to it in relation to the crayfish fisheries

in Western Australian waters. It is to advise the Minister on questions relating to the management, control, protection, regulation and development of those crayfish fisheries, and may make such recommendation as it thinks fit in relation thereto.

Similar meetings will also be conducted at Dongara, Jurien Bay and Lancelin on October 19, 20 and 21 respectively.

A meeting at Fremantle is to be arranged for a later date.

NOISY SCRUB BIRD ON T.V.

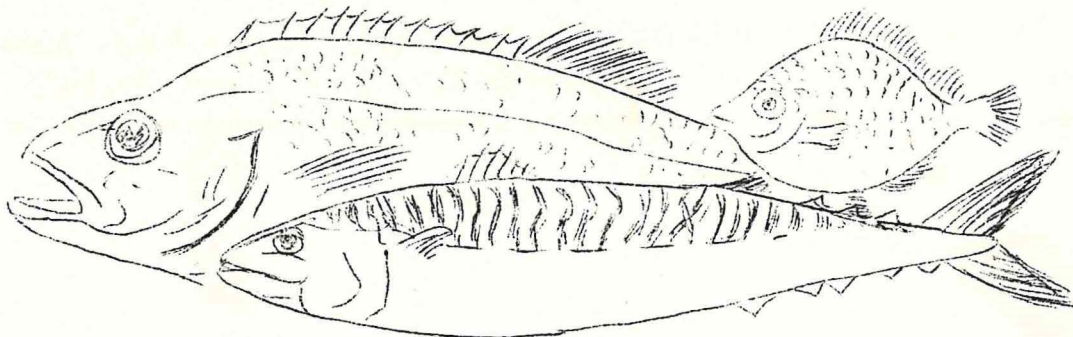
The A.B.C. has advised the screening date of the film on the Noisy Scrub bird, produced by Graham Pizzey. The format of the original idea was changed and the final result is three 30-minute films under the series "The Nature of the West". The Noisy Scrub-bird material has been used in Episode I.

The first of the series will be shown at 12.00 noon on Sunday, October 16. The other two screenings will be made at the same time a week and a fortnight later.

BINNINGUP BEACH CLOSED TO NETS

The Minister for Fisheries and Fauna, pursuant to the powers conferred by section 10 of the Fisheries Act, 1905-1965, has prohibited all persons from taking any fish whatsoever by means of fishing nets at Binninup Beach.

This closure to the use of nets shall apply for a period of five years as from September 2, 1966. It includes all the portion of Western Australian waters along the foreshore one-quarter of a mile in each direction from Coronation Drive and to a width of one-quarter of a mile from the high water mark.



YOUNGER MEN NOT GOING FISHING.

Australia needs a new race of fishermen - men prepared to leave their kitchen fires and go to sea. The Director of Fisheries in Western Australia, Mr. A. J. Fraser, said this at a meeting which included professional fishermen and cannery experts.

Mr. Fraser said that Australia must be prepared to train fishermen with the help of State and Federal Governments. The future in fishing lay in the ocean not in inlets and harbours.

To become a fishing nation, Australia should turn to the more hazardous but rewarding sea.

The high proportion of Victoria fishermen over 40 years of age - 58 per cent. - is 'alarming' according to the Victorian Department of Fisheries and Wildlife.

The Department claims that if a full census to be carried out shortly confirms this, it will suggest that the industry is not attracting younger men.

Unless this state can be remedied the lack of experienced manpower in future years may not only restrict development but lead to a slow decay of the industry.

A recent survey warns that a present boom in scallop fishing in Port Philip Bay might be short lived.

Scallop exports from Victoria in 1964 - 65 per cent. of Australian's total, were worth \$A820,000.

RECRUITMENT OF NEW MEN IN THE BRITISH
FISHING INDUSTRY.

A well organized program of onshore and on-the-job training ensures the British industry a pool of skilled men. An English fishing company executive told the annual meeting of the Fisheries Council that the best way of retaining men once they are trained is to "offer rates of remuneration appreciably above those which they could possibly earn ashore."

First of all I would like to say that the British Fishing Industry is centred in a relatively small number of major ports, which are well organized. Each of these ports have a considerable number of trawlers operating from them, and on most matters - such as recruiting policy - the owners work together closely, usually through a local Port Association. This is a very different situation to that which prevails on the East Coast of Canada, and probably to some extent on the West Coast.

In the United Kingdom government bodies, such as the Department of Agriculture and Fisheries, and the White Fish Authority do assist industry with recruiting problems. Their assistance is, however, of a general nature, including publicity and the production of informative booklets and leaflets on the industry. The British Trawlers Federation, which represents trawler owners from all major fishing ports in England, also helps with industry recruitment, but rather in the same way as the Government bodies. The real work is done by the Port Associations and special schools which have been set up locally in the various ports for the purpose of recruiting and training fishermen.

The policy adopted at the various ports differs in detail, but as a general principle their main aim is to recruit boys at school leaving ages. Some ports have had schools and recruiting policies in existence for many years, whereas at other ports they are relatively new. The achievement at the various ports can perhaps be measured in as much as the ports which have had enlightened recruiting and training programmes for the longest time, generally have fewer

crew problems. To be more specific, however, I would like to mention some of the factors which are common to all the recruiting and training efforts which I believe are largely responsible for the success which is achieved.

One of the most important factors is that at each port there is a personnel officer, or liaison officer, or recruiting officer who is usually connected directly with the local Association office, rather than the training school. He is permanently and continuously employed not only in seeking out new recruits, but in supervising the progress and training of the recruits which he has already found. The aim of this officer is to recruit the right type of boy direct from school, and encourage him particularly during his first six or twelve months in the industry. Most ports try to start young boys in the galley for a trip or two where they can get their sea legs and find out what is going on without getting into too much trouble. The period as a deckhand learner, where the real training starts, varies from port to port, but most insist on a minimum of one hundred days at sea before a boy can be promoted to a full deckhand. In most ports, it is necessary to complete a fairly simple course at the fishing school, but this is usually done only after the boy has spent at least six months at sea on a trawler. This is most important, as otherwise much time and money is wasted training boys who will never stay at sea on a trawler.

The officer in charge of recruiting spends time going around local schools, where he talks to groups of boys who are approaching school leaving age. One of the most important factors is often for the recruiting officer to contact the parents of boys who show interest. One Association immediately sends a letter to the parents if a boy expresses interest, and this is followed up by an interview. Generally speaking, recruitment in the area surrounding a port is most successful, but some port Associations do venture further afield. Having obtained a recruit, the follow up work is most important. In most ports the officer in charge sees each of the boys every time they land and obtains a report on their conduct from the Skipper or Mate. As far as possible the officer also watches their behavior whilst at home inbetween trips. This follow up interest in the progress of each boy is vital to a successful programme.

The success of these recruiting and training efforts does vary from port to port. One port for example is happy to retain about 40 per cent of the recruits if they serve the industry well, at least for a number of years. There tends to be a further fallout later when as men they reach their midtwenties. There is little doubt that this arises as a

result of pressures at home following marriage.

I have with me a selection of literature which is being used in connection with these recruiting and training programmes at the present time. You will particularly note that payments are made to fishermen whilst they are attending courses at fisheries schools, and in addition some assistance with accommodation is usually available.

Having said all of this, however, there is little doubt in most of our minds that one factor which I have so far not mentioned is more important than all the rest put together. In order to get boys to go to sea on trawlers, it is necessary to offer rates of remuneration appreciably above those which they could possibly earn ashore, where conditions are so much easier. At the same time it is necessary to show them that the money which it is possible for them to earn in the foreseeable future is considerably more than they are likely to achieve ashore, and that this will continue to be the case. Personally, I see no alternative to this. No matter what we do the fisherman's job will never be an easy one, and it will always be necessary to pay significantly more for his services than could be earned in the sort of alternative employment which might be open to him ashore.

RESEARCH INTO AN IMPORTANT AUSTRALIAN RESOURCE.

Big catches of marine crayfish (spiny lobster) larvae taken during a recent oceanographical cruise by H.M.A.S. Diamantina off Western Australia are expected to prove of considerable importance in piecing together the life history of crayfish in that area.

The Western Australian crayfishery is Australia's most valuable fishery and a large earner of export income. Australia vies with South Africa as the world's largest producer of crayfish, the annual Western Australian catch being between 18,000,000 and 20,000,000 lb.

In recent years, however, the catch has been falling, despite a considerable rise in effort and some fears have been expressed about the future of the industry.

License limitation, pot limits and the introduction of escape gaps to allow undersized crayfish to escape have been enforced in an effort to stabilise the fishery, while an extensive research programme has been undertaken.

More larvae

On a recent three-week cruise off Western Australia the Royal Australian Navy's oceanographic survey ship HMAS Diamantina with C.S.I.R.O. scientists aboard caught more crayfish larvae in its sampling nets than it did in all similar cruises in the past.

Crayfish larvae have been taken at considerable distances offshore in Western Australia, and it has become clear that on hatching the young crayfish are carried far out to sea by ocean currents. At a later stage of development these young larvae return to offshore reefs and settle as immature crayfish.

Because numbers of larvae taken on previous cruises were small, little was known about the extent of larval dispersion, or about the exact pattern of growth from larval stage to immature crayfish.

During her recent cruise Diamantina took particularly large hauls of crayfish larvae on the surface at night they come to the surface and swarm together.

Now research workers are seeking to determine whether ocean currents in the hatching area might in some years move in such a way as to cause serious losses among larvae, while in other years they may operate to allow more abundant settlement.

Studies of the region have shown that for at least part of the year Western Australian waters are characterised by the presence of an intensive circular current system. Crayfish larvae might leave the reefs, and return to them, by such a current. If, however, for any reason a larval crayfish was removed from this circulating current, then its chances of return to the settling reefs would diminish.

(Fishing News International London June, 1966)

AUSTRALIA PLANS TO EXTEND LIMITS.

Australia is considering extending its existing three-mile fishing zone to 12 miles. No extension of the breadth of the three-mile territorial sea is contemplated.

In recent years some 75 countries, including Britain have extended their fishing limits.

Australia's position in regard to the resources of the continental shelf beyond territorial limits is protected

BRITISH INTEREST IN AUSTRALIAN PRAWNS.

Further evidence of the growing outside interest in Australian fisheries potential is the decision by Ross International Fisheries Pty, Ltd., a division of the Ross Group of Britain, to spend \$1,000,000 over the next three years on fisheries exploration and research in northern waters of Western Australia.

At a first step the company has bought a 100-ton refrigerated ship and two Queensland prawn trawlers to prospect for new prawn beds in the area. Other plans include deep sea trawling, the establishment of a tuna fishery using the longline technique and the building of a small fleet of all-purpose steel fishing trawlers designed to meet Western Australian conditions.

Ross International already has interests in Western Australian prawning and crayfish enterprises and recently the group company established two new sales companies in the United States to market frozen crayfish tails and prawns from its operations in Australia and the Persian Gulf.

(Fishing News International London May, 1966)

INDIAN OCEAN.

Russian Explorations.

Russia, too, regards parts of the Indian Ocean as "most promising as regards the development of fishing". (see WORLD FISHING, March, p.67 and June, p. 47). The research ship Mikhail Limonosov recently sailed for the Indian Ocean with 65 scientists from the Ukrainian Academy of Sciences on board, to make "physical and biological observations."

The programme of the cruise has been co-ordinated with the work of fishery research ships operating in the Indian Ocean. The scientists will study heat exchange between the ocean and the atmosphere, the distribution and composition of plankton, biological productivity of the sea, ocean floor relief and geography in the Arabian Sea and the northern part of the Indian Ocean. In 3½ months in the ship will sail

about 15,000 miles, calling at Beirut, Karachi, Bombay, Colombo and Singapore. The expedition is headed by Gell Neumin, who has been on several previous cruises on the Mikhail Lomonosov.

(World Fishing

London

July, 1966)

RUSSIANS IN SEARCH OF TUNA.

In its avid pursuit of the world's fish the great and growing fleet of the Soviet Union has touched most commercial species, including the ocean ranging tuna.

One such operation saw a factory ship of more than 5,000 tons work in conjunction with six 53 ft. catching vessels, powered by 90 hp engines using the Japanese long-line method. Five of these tuna factories have been built in Japan and the vessel described, the Leninskij Luch, entered service last year. Her area of operation appears to be around the Red Sea and the north-east Indian Ocean and there has been considerable speculation as to how the performance of the Soviet system compares with, say, that of the Japanese longliners.

It is interesting to hear from Mr. W. A. Wilkinson, a development officer in the Kenya fisheries department who has studied Japanese tuna fishing and who, earlier this year, went aboard the Leninskij Luch when she was in Mombasa 'to see at first hand how the ship functioned and to appraise the technical equipment aboard'. He found that the ship was very well equipped and had excellent messing and living accommodation for officers and crew.

From what he learnt, however, he estimated that tuna production from the 250 baskets a day worked by each catcher boat, 'would not meet half the running costs of this large vessel'. Japanese catchers in the same area were working about 350 baskets a day and Soviet costs were thought to be four to five times greater than the running and other costs of these vessels.

While the Japanese were interested in all species, including marlin and sailfish, the operators of the Soviet ship wanted only yellowfin tuna as they regarded this as the most suitable fish for their canning plant. But the quality of the canned tuna sampled on board was considered inferior by international standards. The colour, taste and firmness of the flesh, said Mr. Wilkinson, was not up to standard

sampled on Japanese vessels. This product would be difficult to dispose of on the discriminating world market, and was obviously destined for USSR consumption only.

Fortunately for the Soviet fishing effort the consumer does not appear to dictate what fish shall be brought in and in what form. Factory ships, such as the Leniskij Luch, are built and run as Mr. Wilkinson notes 'without regard to production costs or fear of economic competition from other countries'.

This tuna fleet goes out for a period of about 120 days, fishes for 90 of them and returns with a product that will find a market whatever its quality. It is a lavish approach to commercial fishing and the day may come when Soviet planners may look to other less expensive ways of obtaining animal protein. One of these ways will almost certainly be through intensive farming of fish.

(Fishing News International London July, 1966)

AUSTRALIA IS NOW PROCESSING PEARLS.

Commercial processing and marketing of Australian-produced half pearls has begun in Sydney.

There are 15 pearl culture farms - 12 of them joint Australian-Japanese ventures and three operated by Australians - scattered across Northern Australia but till now half and round pearls have been sent to Japan for processing and marketing.

The new Sydney operation receives half round pearls, or blisters, from an Australian-owned culture farm, processes them and sells them locally and overseas. The quality of the half-round pearls is reported to be excellent.

Culturing of pearls began in Northern Australia in 1956 and in 1965 production was estimated to be worth \$A2,775,510. Australian cultured pearls are the largest in the world and measure up to 18 mm. in diameter and under local conditions their growth rate is half that of the cultured Japanese pearls.

(Fishing News International London July, 1966)

STAFF NOTES

Fauna Officer Mr. H.B. Shugg returned from overseas study trip on September 16. Mr. Shugg was very impressed with the work that is being done in the United Kingdom and on the Continent in conservation. Some aspects of his trip will be included in future bulletins.

* * * *

One week's annual leave was recently taken by the Administrative Officer, Mr. B.R. Saville, followed with three weeks leave by the Clerk-in-Charge, Mr. A.J. Mearns as from September 19. The Records Clerk, Mr. C.C. Casselton will proceed on annual leave as from October 10.

* * * *

Fauna Warden S.W. Bowler proceeded on annual leave as from September 12. During his absence Fauna Warden T. Evans from Pingelly relieved in the Perth area.

* * * *

The Senior Research Officer, Mr. B.K. Bowen completed his term of study at the Administrative College, at Mt. Eliza, Victoria, and resumed duties on September 19.

* * * *

The ranks of the inspection staff have been weakened with the resignation of Inspector R.G. Lindsay and Assistant Inspector K. Enright as from September 28 and October 14 respectively.

* * * *

Assistant Supervising Inspector, J.E. Munro, Inspector E.R. Hammond, Assistant Inspectors P.W. Harrison, L. Silvester and Assistant Fauna Warden P. Lambert will proceed on annual leave as from October 3. Mr. A.T. Pearce will relieve at the Perth District Office during Mr. Hammond's absence. Cadet Inspector J.R. Chantry will proceed on annual leave as from October 10. Assistant Inspector D. Blackman proceeds on annual leave for the period October 3 to November 8. He is being relieved at Shark Bay by Assistant Inspector J. Neal.