JOURNAL

CONSERVATION LIBRARY, KENSINGTON

**IMONTHLY SERVICE BULLETIN** (WESTERN AUSTRALIA, DEPT. OF

16(11) Nov 1967

DEPARTMENT OF PARKS AND WILDLIFE APIZATAP PAREFILIA

DEPARTMENT OF FISHERIES AND FAUNA LIBRARY. WESTERN AUSTRALIA.

CALM LIBRARY ARCHIVE NOT FOR LOAN



NOVEMBER, 1967 VOL. XVI, No. 11

DEPARTMENT OF FISHERIES AND FAUNA 108 Adelaide Terrace, Perth, Western Australia

# DEPARTMENT OF FISHERIES AND FAUNA MONTHLY SERVICE BULLETIN

# MEMBER OF THE FAUNA PROTECTION ADVISORY COMMITTEE APPOINTED PROFESSOR OF ZOOLOGY

The Department of Fisheries and Fauna extends its congratulations to Professor A.R. Main, who has been appointed as Professor to a second chair in Zoology in the University of Western Australia. Professor Main was previously Reader in Zoology. Through his work and interest he has been closely associated with our Department for many years and is well known to most officers, and is currently a member of the Western Fisheries Research Committee and a deputy member of the Fauna Protection Advisory Committee.

Professor Main was born in Perth 48 years ago. He is married and has three children.

After leaving school he worked for a time in the State public service. At the outbreak of the war in 1939, he joined the A.I.F., transferring to the R.A.A.F. in 1943. Professor Main was taken prisoner of war when the aircraft in which he was navigator was shot down over Germany in 1945.

When the war was over he joined the Agriculture Department as a clerk and enrolled in the Faculty of Science in the University of Western Australia. He obtained his B.Sc. degree in 1950, and after a period of study at the University of Chicago and at Oxford he returned to the University of Western Australia and gained the Degree in Bachelor of Science with 1st Class Honours in Zoology in 1952.

The degree of Doctor of Philosophy (Ph.D.) was conferred in 1956. Professor Main has been Lecturer in Zoology since 1952. He was promoted Senior Lecturer in 1956 and to Reader in 1961.

Professor Main is distinguished for his study of Australian animals of arid and semi-arid zones, notably frogs and marsupials. He is the single or joint author of some 37 publications.

# DIRECTOR VISITS TASMANIA

The Director, Mr. A.J. Fraser attended the supplementary Commonwealth - States Fisheries Conference in Melbourns on October 3 and 4. The conference had been called at the direction of the Ministers to discuss matters arising from the recent meeting of the latter in Perth.

Mr. Fraser accepted an invitation, whilst in the Eastern States, to address the annual conference of the Professional Fishermen's Association of Tasmania at Wynyard on September 27. The subject of Mr. Fraser's address was crayfish management in Western Australia.

# NEW BOAT PENS FOR FREMANTLE

The Minister for Works, Mr. Hutchinson, recently released details concerning the construction of 72 new boat pens in the Fremantle fishing boat harbour. The additions are estimated to cost \$73,000.

Work on the pens will commence in this month and finish in about 4 months. They will be built on the southern side of the fishing boat harbour between the existing dinghy pens and the lay-by jetty.

Thirty - two 40 boats and forty 30 boats will be accommodated in the new pens, swelling the present number to around 470.

These pens are the first of their kind to be installed at Fremantle, although a structure of similar type is in use at Geraldton.

It is expected that these new pens will be financially self-supporting.

## JURIEN BAY TO RECEIVE 'FRESHER' WATER

In a recent letter to the Minister, the Minister for Works and Water Supplies, Mr. Hutchinson, advised that a source of good water has been proven in the vicinity of the Jurien Bay township. A reticulation scheme has been designed, based on bores located some  $2\frac{1}{2}$  miles north-east of the town.

During the last financial year \$12,000 was expended to equip the necessary bores, and an amount of \$67,000 has been allocated on this years' Loan programme to complete the project. The work is to commence in December of this year, and it is anticipated that on completion in March 1968, 54 services will be ready for connection.

### TEGGS CHANNEL TO BE DREDGED

The Minister for Works, Mr. Hutchinson, recently made known that work costing \$60,000 would go ahead this financial year to provide a satisfactory entrance for fishing craft to the safe anchorage of Teggs Channel, Carnarvon. A survey has been completed and the most suitable route for dredging selected.

The work, which is scheduled to commence in May, 1968, and completed in August, 1968, involves dredging 56,000 cubic yards of sand to provide a minimum depth of 12 feet below low water, as well as associated navigation marks.

# MR. J.E. MUNRO REPORTS ON HIS VISIT TO ESPERANCE

In response to a request from the Esperance Shire Council, the Assistant Supervising Inspector, Mr. J.E. Munro, visited Esperance and environs during the period September 19 to 21.

Mr. Munro attended a meeting of the Council and took the opportunity to address the members on matters concerning the local fishery. The issue of professional fisherman's licenses was discussed with that body as well as with the local Clerk of Courts, who is the local licensing officer.

In his report, Mr. Munro, says that recent rains caused flooding of some 4,000 acres in the Young River-Stoke Inlet area. Stoke Inlet broke out to the sea, for the first time since the 1920s.

Esperance township now has a population of 3,500 people with a further 2,000 people living in the outlying districts. During holiday periods an influx of 2,000 tourists or more visit the town annually. Despite this, Esperance has never had a commercial fishery of any great importance. This is mainly because of its isolation and the paucity of good quality table fish.

Fish populations present in commercial quantities are made up mainly of ruffs, garfish, trevally, groper, samson fish and shark. In spite of this, the absence of a fishing fleet in the harbour never fails to surprise the visitor interested in commercial fishing. At first sight, Esperance waters appear to have everything necessary to maintain a commercial fishery, and this promise has lured many fishermen to the district. However, they have without exception failed to establish themselves; the lack of quality fish, the areas great distance from markets and the lack of a local market all combined to render the ventures abortive.

### AERIAL OBSERVATIONS:

Mr. Kitch Godfrey has reported some of the observations he made during the fauna survey flights in September.

### Small Tirtles

Numerous small turtles, apparently green turtles, were sighted approximately 50 miles north-west of Broome. They appeared to be less than half size. Mr. Godfrey said that this was the first time that such large numbers of small turtles were observed since the aerial tuna surveys commenced last December.

## Bernier Island

The survey aircraft flew over this island on September 22 in a northerly direction at a height of 500 feet at 1312 hours.

A total of 19 goats and kids were seen in small groups up to 5 in number, north of Boulder Point. Apparently some goats were lying up or concealed in bushes.

On the return flight, the party flew over Bernier Island on September 28 (in a southerly direction) at a height of 500 feet at 0915 hours.

A total of 24 goats and 3 kids were seen in the same area.

Reporting on the general conditions, Mr. Godfrey said that it was warm and many goats could have been under cover. Several were close to bushes with only head and neck showing. The area where the goats were sighted is the most thickly covered part of the island.

The sand erosion and sparse growth along all the edges and at the southern end of the island were quite apparent from the air.

# PATROLLING THE 12-MILE LIMIT

The decision of the Commonwealth Government to declare an "exclusive fishing zone" between three and twelve miles from shore in no way effects the operations of Australian fishermen. The new zone actually lies within the area of "proclaimed waters" under the Commonwealth Fisheries Act. The only change is that Australia will now have jurisdiction over foreign as well as local fishermen within the new zone. Previously the Commonwealth could in outside waters, legislate only for Australian nationals.

Consideration was given to the question of patrolling the new zone at the recent Commonwealth/States Fisheries Conference. As an outcome the matter is to be referred to the Department of Defence with a view to obtaining assistance from the Navy and Air Force.

When this proposal was discussed, it was recognised that the Services would be unable to provide a complete cover of the new zone. It is therefore being suggested that attention should be given to a few of the more sensitive areas where important fisheries were being exploited by Australians and/or where foreign operations had been taking place.

Areas of the West Australian coast suggested for patrolling were as follows:-

# Bunbury to Shark Bay.

As the Western Australian Government carries out regular patrols during the crayfishing season, it was felt that no regular patrols should be undertaken by the Services. However, it was considered that Naval vessels moving through the area should be alerted to look for foreign fishing vessels and that arrangements be made for ad hoc patrols as necessary.

# North - West Coast.

Owing to the distance involved, the provision of patrol presents serious problems. As Australian fishermen become more active in the area, foreign fishing operations will be reported. If foreign fishermen extend their fishing operations into the area, the situation will naturally become more difficult.

At the moment it is virtually impossible to suggest a patrol requirement. However, the opportunity should be taken whenever Service vessels are in the area for patrol work to be undertaken.

# FIRST STAGE TO IMPROVE FACILITIES AT ONSLOW TO COMMENCE.

Details of a \$271,000 scheme to improve the access to Beadon Creek at Onslow were announced recently by the Minister for Works, Mr Hutchinson.

The allocation of \$75,000 from the current Loan programme has been approved for the first stage of the work. This will include the construction of a rock groyne on the west bank of the creek mouth to provide an improved navigable channel for lighters and small craft at low water.

Tenders for the construction of the groyne will probably be called early next year and dredging will commence at the end of the cyclone season.

# TUTTANNING BIOLOGICAL STATION TO RECEIVE FIRE FIGHTING EQUIPMENT

Fire fighting equipment is to be installed on the Tuttanning (East Pingelly) Reserve. The Department of Public Works has advised that it will comprise a self-priming centrifugal pump complete with close-coupled petrol engine with a capacity of 3,000 gallons of water an hour. A 2,000-gallon tank on a 10-foot stand is to be located on the north side of the station building. The estimated cost of this unit is \$1,2000.

The facility, when completed, will have a pumping rate and subsequent tank capacity to fill and empty twice per hour 5 to 10 fire fighting units each of approximately 100 - 150 gallons capacity during the period of actual fire fighting.

# CRAYFISH INDUSTRY ADVISORY COMMITTEE VISITS FISHING CENTRES

Since the Crayfish Industry Advisory Committee first met in February 1966, it has held a total of eight meetings in six centres.

The Committee will make its second journey north, and hold meetings at Geraldton and Dongara, during the period commencing November 1, 1967. Professional fishermen as well as other people associated with the crayfishery will be given the opportunity to appear before the Committee to give evidence, if so desired.

### A NOTE TO ALL LICENSING OFFICERS

All licensing officers are requested to warn the licensee of a fishingboat that it is his responsibility to ensure that each person on his boat is the holder of a professional fisherman's license issued under the authority of the State Fisheries Act and if applicable, the Commonwealth Fisheries Act.

# DEPARTMENTAL OFFICER WINS PRIZE IN ATR TRIAL

Congratulations are extended to Mr. Roger Husband of Head Office staff, for his success in the Week-End News Air Trial held over the weekend October 7 to October 9. Flying a Beechcraft Musketeer', Roger won first prize for the best performance by pilots with less than 150 hours flying to their credit. This cross-country flying feat with overnight stops at Kalgoorlie and Geraldton is so much more creditable when it is realised that Roger obtained his unrestricted pilot's license only early this year.

#### TUTTANNING FIELD DAY

The Department, in conjunction with Professor A.R. Main, Zoology Department, University of W.A., is again conducting a field day at the Tuttanning Reserve, East Pingelly. It is to be held on Friday, November 3, and will commence at 2.000 P.M.

Field Days of this type are considered an essential part of reserve management. They provide the necessary means to present reports of progress made to the attention of people interested but not actively engaged in this work. It is considered that with this added knowledge the work of the conservationist may be more fully appreciated and assisted by the public generally.

2,4

Who lost Mark Anthony the World? A Woman!

- Otway

# COMMONVEALTH AND STATE FISHERIES MINISTERS CONFERENCE.

Mr. C.F. Adermann, the former Minister for Primary Industry, said in his opening address, at the recent Ministers' meeting in Perth that in the light of developments in the international law of the sea over the past few years the Commonwealth Government had decided to extend its fishing limits from three to twelve miles. Legislation to give effect to this decision was being prepared for submission to Parliament. In practice, the adoption of a 12-mile limit for fisheries will have the effect of protecting and encouraring the development of the fisheries of Australia, and the Territories. Such new legislation should result in a substantial measure of protection for the people engaged in the valuable crayfishery and the developing prawn fishery along our northern coastline.

At the last Conference held, one of the most important decisions taken was to authorise the calling of a conference of all sections of the fishing industry, Mr. Adermann said, in order to appraise the potential for the development of this industry in Australia.

This Conference was held in Canberra earlier this year and was the first occasion on which Government officials and members of all sections of the fishing industry had met on an Australia-wide basis to discuss problems of development and the prospects for developing specific fisheries. Based on reports from departmental officers who attended, the Conference was a major step forward and highly successful.

Mr. Adermann also spoke of an important step taken by the industry representatives at the Development Conference. This was the decision to establish an organisation to represent the fishing industry on an Australia-wide basis.

"I feel sure", Mr. Adermann said, "you will all welcome this new development to organise the industry on a firm footing and to establish an organisation that will be able to speak for the industry."

He then went on to explain the in recent years there had been a tendency for our fishermen to neglect traditional fisheries that supplied our domestic markets with fresh fish for the more attractive export-based fisheries. This has led to a rapid build-up of imports of foreign-caught frozen fish to meet the public demand.

Mr. Adermann concluded his address by saying that he would like to refer to the acknowledged need for fisheries education and training. He mentioned that the Commonwealth and States had agreed to the appointment of an officer to organise an education programme.

# THE TUTTANNING RESERVE

This reserve was vested in the Fauna Protection Advisory Committee on January 28, 1960. It is situated some eighteen miles east of Pingelly and contains outstanding examples of extreme diversity of habitat types in a small area. It is 3,452 acres in extent and consists of lateritic highlands in the northern and southern areas, between which erosion has uncovered masses of granate and produced extensive granitic soils. It is particularly rich in native animals while the plant assemblage covers some seven well-marked associations ranging from sand plain to a white gum forest. Some of the fauna species sighted frequently include grey kangaroo, tammar, brushtail possum, mallee fowl, yellow-winged honeyeater, western rosella, twenty-eight parrot, grey currawong, common bronzewing piceo, bettong, trichosurus, magpie, isoodon, bettongia, frogmouth, golden whiseler, grey fantail, kookaburra, rufus whistler, mistletoe bird, spotted pardelote, squeaker and crow.

The white gum forest is found in the more fertile loams in the valleys, where it is associated with box poison and jam. Two different associations of Acacia are evident, the more important being that dominated by jam, occurring on the better-class soils and merging into the white gum area. The other is a black wattle association occurring along the bottoms of the valleys and along the water courses. Sheoak forms almost pure stands in the granitic soils while thickets of mallet clothe the steap rocky slopes below the gravelly tops of the hills. Few plants regularly grow in association with mallet but, in this reserve, bullock poison forms a constant understorey. York gum dominates the flora in certain places, while in the lateritic soils on the top of the scarps there has developed a mixed association dominated by dryandra and containing several other members of the proteaceae, together with representatives of other families.

It is the sand-plain association, however, for which the area is most noteworthy. This vegetation type occurs in seven localities scattered throughout the reserve, each of them being distinctive in one or more respects. For example, one of these localities is distinguished by the christmas tree, another by the narrow-leaved banksia.

In November, 1964, the State's first biological research station was opened by the Minister for Fisheries and Fauna on this reserve and since then major ecological research programmes have been conducted.

The Department, in conjunction with the University of Western Australia, holds annual field days at the reserve as these are considered an important aspect of reserve management.

The Tuttanning Reserve, with its remarkable diversity of fauna and flora, and despite its limited area, is one of the most valuable of all the nature reserves in Western Australia.

# TUNA SURVEY

The tenth in a series of aerial tuna spotting surveys was flown between September 22 to September 28, 1967.

### Comments:

Slight changes in water colour conditions were observed during this survey. The muddy water from the river mouths appeared to be moving north in a weak stream. In the northern area muddy conditions existed close to the coast and in isolated areas off shore; it seems that the muddy conditions off-shore are due to strong currents, associated with spring tides. This observation is supported by the fact that, in these off-shore areas, the water had cleared on the return flight when the neap tides were approaching.

Except for the "semi-permanent" line situated near North West Cape, no significant current lines were observed.

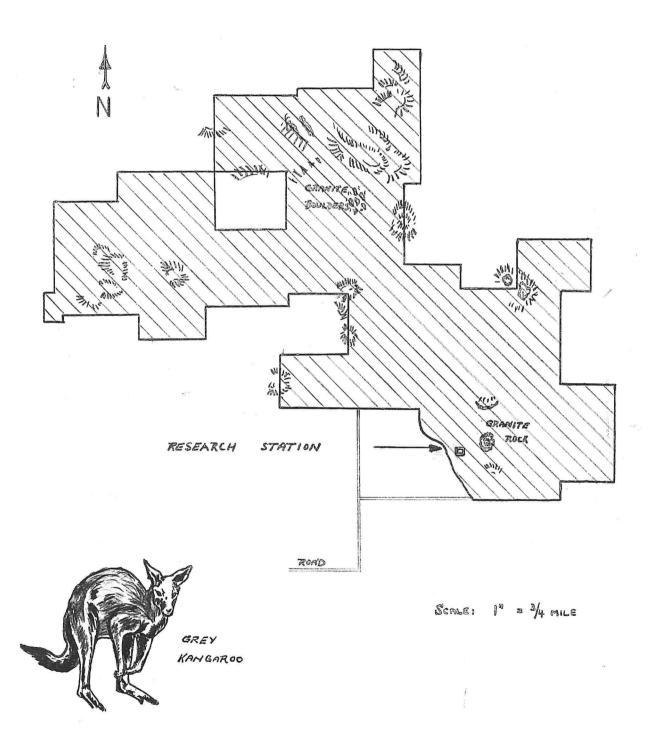
Weather conditions were good north of North West Cape but strong winds were encountered south of the cape and spotting conditions were affected adversely.

Fish school sightings were fewer than those made on the August flight. Ninety five percent of the sightings were made in the off-shore area between Nickol Bay and Port Hedland; bait school sightings were also fewer.

The survey was again extended to Wyndham and the flight pattern was designed to include areas which could be potential prawning areas.

Sea bird sightings were lower than those made on previous flights. The largest concentrations of sea birds sighted occurred in the area off—shore from Port Hedland where tuna sightings were made.

# DIAGRAM SHOWING THE TUTTANNING RESERVE



A bloom of the planktonic organism, Trichodesmium, appeared to be commencing in the area north of Brooms.

Table I summarises the sightings of schools by size and area; Table II gives an analysis of the size composition of the schools sighted; Table III summarises the number and size of the bait schools sighted.

# STAFF NOTES

The Supervising Inspector Mr. J.E. Bramley visited the Shark Bay area and other fishing centres en route during the month of September.

\* \* \*

At the Annual Staff Conference held during the week commencing October 16, eighteen officers new to the Department were introduced for the first time. May we again extend a warm welcome to them all and wish them also a successful career with our Department.

\* \*

The Social Club corducted a very enjoyable evening at the conclusion of the Conference. The cabaret style evening was held at the Swan River Rowing Club, Canning Bridge, and was attended by 140 people, including some former members of the staff now retired, viz Mr. M. Goodlad, Mr. J. Traynor and Mr. L.G. Smith. The highlight of the evening was a presentation made to Mr. Fraser by the Field Officers. For once we had the opportunity to find our Director speechless.

le sie sie

The Fauna officer, Mr. H.B. Shugg certainly shared his cake on the first day of the Conference, when he showed his flair for public speaking. Mr. Shugg included the following item on the agenda for discussion by the Conference. - "Is the Fauna Branch getting a fair share of the cake?".

Almost every speaker on the first day could not resist to acknowledge this challenge. They were eager to grasp the opportunity to refer to this, and in doing so, they had no problem to get the response every public speaker mopes for.

\* \* \*

I must get out of these wet clothes and into a dry martini.

- A. Woolcott

13.

Table I

Outward Flight (School Sightings)				
Area	Small	Medium	Large	Total
Fremantle-Carnarvon Carnarvon-Onslow Onslow-Pt. Hedland. Pt. Hedland-Broome Broome-Derby Derby-Mitchell Plateau Mitchell Plateau-Derby Derby Wyndham	15 11 3	1. 70	50	16 23 3
Total	29	8	5	42

Inward Flight (School Sightings)				
Small	Medium	Large	Area	Total
1	1	### CHAPTER   ## C	Wyndham-Broome Broome-Onslow Onslow-Carnarvon Carnarvon-Geraldton	1 2 =
2	1		Geraldton-Fremantle  Total	3

Table II

Fish Size*	School Size			
Section 1	Small	Medium	Large	Total
Smell Medium Large	15 17 0	8 0	0 5 0	15 30 0
Total	32	8	5 .	45

Cont. P. 14.

\* Small - 15 Lbs.

\* Medium -  $15-4\Omega$  Lbs.

\* Large = 40 Lbs.

Table III

CANONIA CHARLES CONTRACTOR CONTRA				
Bait School	s Sighted			
Small Medium Large	45 10 2			
Total	57			

### W.A. LEADS IN FISH PRODUCTION

A feature article in the September issue of the Current News Topics' issued by the W.A. Government Tourist Development Authority says that Western Australia contributed \$15.7 million, or 34.3 per cent of the gross value of Australia's fish production, in 1965-66. In that period, production rose by \$3.4 million to \$45.8 million. New South Wales, with a greater weight of fish produced, nevertheless trailed the West by \$5.5 million when it came to value.

Australian crayfish production in 1965-66 rose by 3.5 million lb. to 29.9 million lb, mainly because of a 1.4 million lb, rise in Western Australia, which produced 59.5 per cent of the total catch.

New South Wales led the States in live-weight fish. It produced 31.8 million 1b, or 30.9 per cent of the national total of 103.1 million 1b, for 1965-66. Western Australia was fourth with 14.3 million 1b.

The principal fish taken was tuna and the national catch of this species rose from 15.8 million 1b, to 17.8 million 1b.

The South Australian Fishermen's Co-operative Ltd., will import whole tune from abroad for canning this year because of the big drop in the South Australian catch. Normally responsible for two-thirds of the Australian total, the catch in South Australia dropped from 6,500 tons in 1966 to 3,750 tons this year.

Australians ate 3.31b a head of Australian fresh and frozen fish in 1965-66 compared with 3.8 lb a head of imported fish of similar categories.

## FAUNA OBSERVATIONS

Fauna Warden R.F. Dear reports that whilst driving along the North-West Coastal Highway on September 23, 1967, he observed 47 flock pigeons. These were seen in the early afternoon on a claypan 2 miles north of Yanrey Station. They seemed to be picking up grit as seeds could not be found where they were feeding. The birds were in adult plumage and no juveniles were observed.

# VOCATIONAL TRAINING AND EXTENSION SERVICES FOR FISHERMEN

At the Commonwealth State Fisheries Conference held in Perth from September 4 to 6, the need for vocational training and extension services for fishermen was again stressed. This need was said to have been longed recognised.

Development has been defined as a property of human activity and in the past it has largely been the shortage of skilled, exPerienced personnel (in both industry and Government) which has retarded development of the fishing industry. In agriculture, such limitations were long ago recognized and vocational training and formal education courses ranging from classes in school to university degrees and post-graduate training. Extension services are also an accepted and growing feature of both Commonwealth and State agricultural services.

Participants at the Australian Fisheries Development Conference in Canberra earlier this year considered the need for general and specialised vocational training and technical education to be just as acute in the fishing industry. It was pointed out that this would become increasingly so as new equipment, including larger boats and more sophisticated electronic instruments, were introduced. The particular need for special training for fishermen entering the northern fisheries, of which local people have had little experiences, was recognized.

The Development Conference recommended that "extension services be established and existing services be expanded to provide for the dissemination of the results of all research (including that being carried out overseas which is relevant to Australian conditions), and for an intelligence service to furnish weather, market and other relevant information. "

The importance of such an extension service to provide informal, out-of-school education to an industry in which skills and specialised knowledge are based on tradition tempered by personal experience, is obvious.

Such a service would not only bridge the gap between the fishermen in the remote ports and the research worker or fisheries technician in Australia or overseas, but would do much to change the outlook of the more conservative fishermen by causing them actively to seek innovations and ways of improving current practices.

The media and methods which might be employed in fisheries extension are:-

- (a) individual contact;
- (b) meetings, group discussions, seminars, and
- (c) mass media such as good publications, press, radio television etc.

With the need for training and extension services being indeed recognized throughout most Australian States, and also with the appointment of an Extension and Publicity Officer by this Department, the Western Australian fishing industry is well towards the way of obtaining, as the Director once said, "a new race of fishermen."

# TRAINING: WHAT TO TEACH

As deep sea fishing becomes more complex and the task of the skipper becomes more demanding, the need for a higher standard of training becomes apparent. Here, D.B. Thomson, Assistant Professor of Fishing Gear and Methods at the University of Rhode Island, U.S.A. looks at the syllabuses operated by various teaching bodies.

The growing interest in fishermen's training in many countries has led to the establishment of a number of fisheries training programmes. These in turn have raised the question, what can, and what ought to be, taught to fishermen over and above the conventional subjects of navigation, seamanship, lifesaving and first aid?

### THE PIONEERS

The U.S.S.R. and Japan are generally recognized to be the pioneers in fishermen's training. The one has taken a very practical, and the other a more scientific, approach to the problem. Most European countries have, or at some time have had, a fishermen's training programme of one sort or another, but in the main they have been limited in scope and extent.

Many African and Asian countries with developing fisheries have been conscious for some time of this need and quite a number now have well developed training programmes.

Canada now has a number of fisheries schools and one College of Fisheries. In the United States a two-year commercial fisheries training programme is due to start at the University of Rhode Island. So, far, however, most European countries have appeared reluctant to provide high-level training for fishermen except what is necessary for obtaining certificates of competency.

# R.V. LANCELIN JOINS PATROL FLEET

The 45-foot research vessel 'Lancelin' was handed over to the Inspection Branch on October 13, to commence duty as a patrol vessel.

The ex-Army tow boat, which originally was constructed for the Ministry of Munitions, has indeed made one of the most valuable contributions to the Western Australian Fishery. 'Lancelin' has played no small part in the development of all of the major fisheries on the extensive western coastline. The search for the wealth of the sea has taken her as far north as the waters off Broome and as far south as Cape Naturaliste. It has explored the waters for prawns, scallops, crayfish and also pelagic fishes.

Lancelin' has had a colourful career. In March, 1956, it survived a cyclone that ravaged the Onslow area. As the cyclone moved down the coast Lancelin' made for Wapet Creek. During the height of the cyclone the barometer fell to 28.56 inches, with a wind velocity of 100+ miles per hour and the tide rose to 14 feet (normal springs 7 feet maximum). The crew lost some of their effects, and quite a few stores were destroyed, but no one was injured. Even though the Lancelin' was high and dry it was found when conditions returned to normal, that damage to the vessel was only minor.

### THIS IS EXCELLENT FOR CONSERVATION

The Department's Warden stationed at Wittenoom, Mr. R.F. Dear, recently visited the Mt. Goldsworthy Iron Ore Project. In his report he states that all employees of Mr. Goldsworthy have their firearms confiscated by the Police on arrival and a holding charge of \$2.00 is made.

This is an excellent procedure and should curtail any indiscriminate shooting in the area.

When bad men combine, the good must associate.

- Burke.

18.

ENFORCEMENT ACTIVITIES

PROSECUTIONS SEPTEMBER - OCTOBER, 1967.

NAME	OFFENCE	PLACE OF HEARING	DATE OF HEARING	FINE
Bland, P.	No profess- ional fishing license。	Geraldton	15=9-67	\$20
Carter, C.	U/S Crays	Perth	8-8-67	200
Čornell, E.A.	U/S Crays	Geraldton	15-9-67	:200
Kay, K.	Fishing in Closed water	Mandurah	21-9-67	25
Kleeman, R.P.	U/S Marron	Collie	11-7-67	20
Kolinec, J.	No Amateur License	Albany	7=9 <b>-</b> 67	20
Lockwood, R.E.	Excess Pots	Perth	8-8-67	25
Pavlovich, A.	Within 1 mile limit	Fremantle	31-7-67	200
Servaas	U/S Crays	Fremantle	31-7-67	100
Stone, A.	U/S Marron	Collie	11-7-67	20
Wakelan, R.G.	U/S Marron	Collie	11-7-67	20

U/S = Undersize.

\* = All licenses cancelled for seven days as from 15 November, 1967.

He who quells an angry thought is greater than a King.

- E. Cook.

## DISPOSAL OF CHEMICALS AT SEA

# REPORT FROM OFFICERS' CONFERENCE

An extremely important report sent on to the Ministers' Meeting from the Officers' Conference, a conference attended by our Director, and Deputy Director, was this one of the disposal of chemicals at sea.

The attention of the Conference was drawn to the potential danger inherent in using the sea as a dumping for chemical wastes. In Victoria, the Conference was told, chemicals have been disposed of in this way on six occasions during the past year. One of these related to the disposal of 500 tons of flammable chlorinated hydrocarbons.

During discussions, Conference became aware that this problem was not restricted to Victoria but affected all States. Further, it was not restricted to chemicals and explosives but included mining wastes in massive quantities, industrial effluents of considerable local significance and other wastes including sewerage and run-off water.

Conference understands that existing legislation provides no specific powers for the control of the dumping of waste materials at sea and the consequent danger of environmental pollution, except in territorial waters. Conference suggests that the Department of Primary Industry examine existing legislation with a view to recommending such action as might ensure control of these practices.

Conference, however, also recognises that the problem of environmental contamination is one of rapidly growing importance and the potential danger to the marine environment, which is considerable, requires urgent remedial measures. This is recognised in many countries and is one of the two major questions being studied by the Intergovernmental Oceanographic Commission.

Fur, Feathers & Fine Newsletter- Victoria.

August 1967.

### TRAINING SCHEME FOR BURUNDI

Iceland's Freedom-From-Hunger Committee has agreed to contribute U.S. \$82,700 to help finance a fishery development and marketing project in land-locked Burundi. Burundi will contribute US \$64,800 to the three-year project which will be carried out by FAO under the Freedom-From-Hunger Campaign.

The Areject calls for setting up five fishing centres on Lake Tanganyika and a sixth at a northern lake bordering on Ruanda, plus three commercial centres in the interior for marketing fish.

The United States Embassy in Bujumbura, Burundi, has made a voluntary contribution of US \$15,000 to the project, which will be assisted by volunteer experts from France. The aim of the project, is to train local crews in the use of small motor boats and in marketing their catches.

Fishing News International.

September 1967.

# FROZEN FISH PRICES UP

Prices of retail frozen fish packs rose by 80 per cent this year, though large institutional packs and blocks of frozen fillets fell in price. This was due to over-production, mainly of hake, by the Japanese suppliers.

#### NEW CANNERY

A joint fishing operation between Australian and Japanese interests may result in the establishment of a fish cannery in Fapua, New Guinea.

#### POLAND

Great efforts are being made to increase fishmeal production, since this commodity is largely imported at present, (4,300m. tons imported, 2,700 m. tons home production). Future building programmes include trawlers and mother ships with fishmeal plants capable of dealing with non-edible species as well as offal. It is hoped, eventually, to meet home needs entirely in this way, though this is a long term project.

World Fishing, England

September 1967