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MONTHLY STAFF BULLETIN

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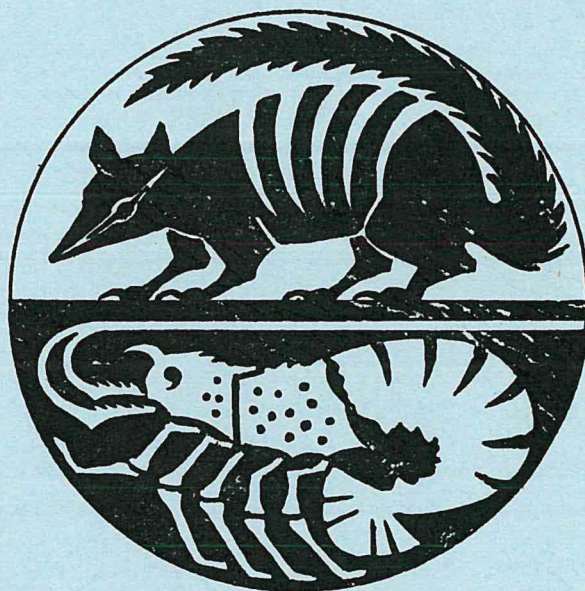
DEPARTMENT OF PARKS AND WILDLIFE

STAFF

BULLETIN

DEPARTMENT OF
FISHERIES AND FAUNA
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WESTERN AUSTRALIA

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SEPTEMBER, 1969

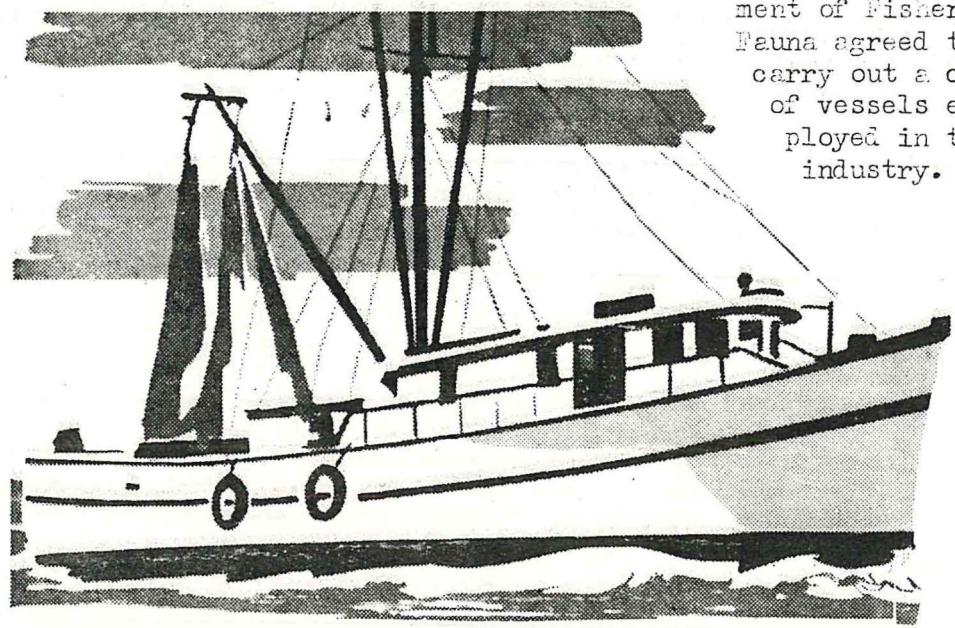
VOL. XVIII, No. 9

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

DEPARTMENT OF
FISHERIES AND FAUNA
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WESTERN AUSTRALIA

FISHING BOAT REGISTER 1968

In 1967 the Department of Fisheries and Fauna agreed to carry out a census of vessels employed in the industry.



When licensing their vessels for 1968 all commercial fishing boat owners were required to complete a detailed questionnaire which provided for the reporting of descriptive detail of the boat, its main engine, fishing gear and equipment together with certain other information of home port, crew, etc. The questionnaires were processed by the Bureau of Census and Statistics to provide detailed cross classifications such as the number of boats by length of boat, value of boat, type of fishing gear. The statistics are available to all those associated with or interested in the fishing industry and provide information useful to the Department, other research organisations, fishermen's associations and private firms and persons.

A single census of this nature is of limited value because it does not measure the growth of the industry or changes in the composition of the fishing fleet. Availability of data over a period of years will provide the basis for a statistical series from which trends in sizes, types, gear etc., can be studied.

These questionnaires were programmed by a computer in Canberra and the first "Print out" has been received by this Department concerning all the boats engaged in the fishing industry in this State in 1968. This "Print out" provides unprecedented comprehen-

sive information.

The first table is a complete register of all the boats and their registration numbers. The second table shows in category the length of boats, the number of boats, the value of the boats and the value of the fishing gear. This table is summarised in Table A below.

Table A

Length of boat (in feet)	Number of boats	Number of crew	Value of boats \$	Value of fishing gear.
under 20	484	704	291,028	340,625
20 and under 30	440	793	2,881,790	696,774
30 " " 40	254	636	2,901,900	661,690
40 " " 50	93	306	1,822,100	333,451
50 " " 60	55	209	1,857,200	282,200
60 " " 70	27	107	1,285,500	126,460
70 " " 85	5	21	241,000	36,000
85 " " 100	-	-	-	-
100 and over	3	25	540,000	1,560
Total	1,361	2,801	11,820,518	2,478,760

Other tables show the number of boats and their length as variable, that is:-

1. Length of boat by year built
2. " " " " beam in feet
3. " " " " draught in feet (unladen)
4. " " " " main engine H.P.
5. " " " " fuel type or without engine
6. " " " " detection equipment
7. " " " and holding a Commonwealth boat license
8. " " " by number of tender boats
9. " " " " refrigeration type (8 types)
10. " " " and having a radio transmitter

Another table shows the number of boats, the number of crew, the value of boats and the value of fishing gear for each home port. This information has been reproduced in Table B below:

TABLE B

Home Port	Number of boats	Number of Crew	Value of boats \$	Value of fishing gear \$
Esperance	3	4	10,660	2,260
Albany	150	300	162,070	151,360
Bunbury	57	83	171,096	64,570
Mandurah	125	155	115,075	114,480
Perth	75	85	42,969	31,120
Fremantle	527	1386	7,612,730	1,415,916
Port Denison	44	80	380,500	81,040
Geraldton	327	616	3,119,800	597,109
Denham	40	68	111,580	14,265
Carnarvon	1	3	8,000	200
Onslow	2	4	6,000	600
Point Samson	5	10	78,800	4,800
Port Hedland	2	2	1,950	150
Wyndham	3	5	1,288	890
Total	1361	2801	11,820,518	2,478,760

Other tables show the number of boats with their home port as the variable, that is :-

1. Home port by year built
2. " " " hull construction (e.g. wood, etc.)
3. " " " length of boat
4. " " " draught
5. " " " gross tonnage
6. " " " radio transmitter
7. " " " and holding a Commonwealth boat license

Another table shows the number of boats, the number of crew, the value of the boats, the value of fishing gear, and has the draught of the boats as its variables; e.g. the number of boats under three feet draught. A further table shows the above four basic factors with the draught of boats and their respective tonnages as the variable, another has the main engine H.P. as the variable. This table also shows whether they carry a sail or not, their type of fuel and their capacity of the fuel tanks in gallons.

The "Print out" has a further 34 tables and each of these show the number of boats, the number of crew, the value of the boats, the value of the fishing gear and have as their variables the following:-

1. Type of refrigeration
2. Refrigeration capacity
3. Year of construction of boat
4. Length of boat per year of construction
5. Length of boat per year of construction and their maximum beam
6. Length of boat per year of construction and their maximum draught.
7. Length of boat with H.P. of main engine
8. Length of boat with fuel type used
9. Length of boat with fish detection equipment
10. Length of boat with Commonwealth licenses
11. Length of boat without Commonwealth licenses
12. Length of boat with number of tender boats
13. Length of boat with type of refrigeration
14. Length of boat with radio transmitter
15. Length of boat without radio transmitter
16. Length of boat per home port and per year of construction
17. Length of boat per home port and type of hull construction
18. Draught of boat per home port
19. Tonnage of boat per home port
20. Home port of boats carrying radio transmitter
21. Home port of boats not carrying radio transmitter
22. Home port of boats holding Commonwealth license
23. Home port of boats not holding Commonwealth license
24. H.P. of main engine and year of engine manufacture
25. Draught of boat and respective tonnage
26. Fuel type and capacity
27. Refrigeration type and capacity
28. Type of fishing by length of boat
29. Type of fishing by tonnage of boat
30. Type of fishing by H.P. of main engine
31. Type of fishing by type of fish detection equipment
32. Type of fishing by refrigeration capacity
33. Type of fishing by type of refrigeration
34. Type of fishing with Commonwealth registration

* * * * *

WHERE ARE THE TUNA?

Mr. J. P. Robins, B.Sc. Research Officer (Development), gave the following talk on A.B.C. Radio on August 12, 1969:

"There are about 22 species of tuna distributed in the world's oceans and 13 of these occur in Australian waters. This talk will be confined to those species of present economic importance in the Indian and Pacific Oceans but more particularly to those in the Indian Ocean.

Those species of commercial importance which occur in the Indian and Pacific Oceans are Yellowfin, Bigeye, Bluefin, Albacore and Striped Tuna. Some idea of the abundance of these species can be gained from the following figures:-

In the Indian Ocean the production figures for Yellowfin are 25,000 tons per year, Bigeye about 25,000, Bluefin 40,000, Albacore 15,000 and Striped Tuna about 5,000 tons. In the Pacific the Japanese fishery produces between 60,000 and 74,000 tons of Yellowfin, 27,000 tons of Bigeye, 30,000 tons of Bluefin, 72,000 tons of Albacore and about 170,000 tons of Striped Tuna, while the United States produces about 90,000 tons of Yellowfin, 7,000 tons of Bluefin, 24,000 tons of Albacore and 60,000 tons of Striped Tuna. In Australia the production of Southern Bluefin Tuna is about 7,000 tons and Albacore about 50 tons per year.

In 1966 the world production figures were:-

Yellowfin 252,000 tons; Bigeye 111,000; Bluefin 99,000;
Albacore 185,000; Striped Tuna (Skipjack) 283,000;
Bonito 128,000; Frigate Mackerel 4,000; and Mackerel
Tuna 4,000 tons.

Tuna in Western Australian Waters

Japanese longline catches show that the distribution of Yellowfin extends northwards and westward from Nor'West Cape right throughout the tropical region. The inshore distribution as judged from trolled catches extends from at least Broome to Shark Bay and in season a few reach Cape Naturaliste.

There is no evidence of catches of Bigeye Tuna from local commercial fishermen but a few are taken by Japanese longline off the South West coast. Several years ago some specimens were longlined off the South West corner of Western Australia by a chartered vessel on a survey for tuna in South West Australian waters; others were longlined during an exploratory cruise by the Japanese research vessel "Shoyo Maru" in Southern Australian waters in 1960, but were taken in small numbers.

Juvenile Southern Bluefin Tuna have been found to occur southward from Shark Bay to along the southern coast from November to August. The adults of this species are taken by Japanese longline vessels which operate in three fairly well defined areas off Western Australia. Centres of these grounds are situated -

1. South of Timor,
2. Approximately 200 miles west of Carnarvon and at about 45° S., 90° E., respectively.

If an inshore fishery for juvenile Bluefin commences, then the season on the south coast could extend from March through to July.

A few specimens only of striped tuna have been recorded from the Abrolhos (in August) offshore from Onslow (in January) and further north in the area of the Sahul Shelf (Sahul Shelf lies to the north of the North Western Australian coast).

A series of aerial surveys for tuna off the North West coast of W.A. was carried out at regular intervals by the Department of Fisheries and Fauna from December 1966 to February 1968. During the period of the survey a total of 2,235 schools of tuna were sighted. The sighting data were analysed to determine firstly the size composition of the schools and secondly the size of the fish within the schools.

The areas which appeared to hold the highest potential for a tuna fishery are, firstly, the area from North West Cape to about Port Hedland and, secondly, from about Cape Bossut (about 40 miles south of Broome) to Cape Leveque, which is about 100 miles north of Broome.

The months of the year in which schools were sighted extended from December to June inclusive, but there is some variation in abundance between these times. The peak of the sightings in each area also varied. The peak sightings occurred in the following areas:-

From Fremantle to Carnarvon, peaks occurred in February and May; from Carnarvon to Onslow the peak extended from March to June inclusive; from Onslow to Port Hedland the peak occurred in December and January; from Port Hedland to Broome in March and then again in June and July; and from Broome to the north it occurred in June and July.

The present state of knowledge of the environmental conditions which operate seasonally off the West and North West coasts of Australia is quite meagre. In the event of a tuna fishery developing in these regions, with vessels suitably equipped to make environmental observations, then, in co-operation with the appropriate government department, knowledge of the behaviour and distribution of species of the tuna which will be fished should become known relatively quickly and put to maximum use."

* * * * *

A NOTE FOR BOWLERS!

The Social Club Secretary has received the following notification, and any member of the club may take advantage of the offer:

"Perth Bowling Club is building new and modern premises overlooking Langley Park and the Swan River, with the entrance from Plain Street, It is anticipated the building will be completed by October, 1969, and some car parking will be available.

You and members of your Social Club are invited to join the Perth Bowling Club and so enjoy the facilities by just relaxing or having a quick game of bowls, etc. during the lunch break or after work.. The bar facilities will be open daily from 10.00 a.m. to 11.00 p.m. and two 2-hour sessions on Sundays.

Those who are already members of a Bowling Club can join as Provisional Members for \$6.00 - Associate Members \$4.00. (The nomination fee has been waived for the next 12 months).

The fee for new members is \$13.60 for males and \$8.00 for ladies, with a nomination fee of \$6.00 and \$2.10 respectively.

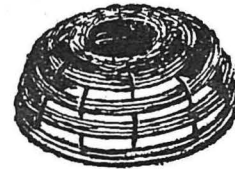
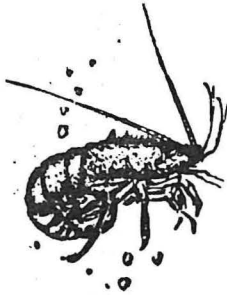
Other entertainment includes indoor carpet bowls, darts, etc. and social evenings.

Lawn bowls is now the highest participant sport, a game where husband and wife can participate and enjoy together. Join now by forwarding your cheque to the Secretary, Perth Bowling Club, The Esplanade, Perth, or obtain further information from Mr. N. Fraser - telephone 23.2272.

* * * * *

ROCK LOBSTER SEASON CLOSES

The fishing season for rock lobster came to a rather quiet end on August 14. Most fishing centres were a picture of little fishing activity well before that date. Nearly all the fishing vessels had returned to their home ports to be slipped and prepared for the next mainland season which will commence on November 15. The Houtman Abrolhos fishing season will commence also at its usual time - March 15, 1970.



Elsewhere in this bulletin the Director speaks of the underlying factors governing the catch from season to season.

* * * * *

STAFF NOTES

Mrs. J. T. Daly, Typist, has been relieving at Head Office during the absence of regular typists Miss J. Daniel and Miss J. Judge on annual recreation leave.

* * *

The Supervising Inspector, Mr. J. E. Munro made a surprise visit to Head Office during August. Officers will recall that Mr. Munro underwent major surgery earlier this year. Although still having to rely on crutches to move about, Mr. Munro is very confident that they have just about served their purpose.

* * *

Remember! The Annual Staff Cabaret is to be held on Friday October 24, commencing at 8.00 p.m. The venue will be "Venezia House," which is next door to the "La Tenda" night club. This year we are adopting a professional attitude for the first time when organising our night out - everything is provided and under the one roof. The Management of "Venezia House" have assured the Social Club Committee of a night with a pleasant difference.

* * *

FIELD OFFICERS' COURSE RESUMES AT CRONULLA

The Field Officers' Course for fisheries personnel is to be resumed this year. The last course was held in 1966. The Course will be held at C.S.I.R.O. Division of Fisheries and Oceanography from Monday, October 13, to Friday, October 31, 1969.

Through the work of the Education Committee of the Australian Fisheries Council a Fisheries Education Adviser, Mr. R.L. Jensz has been appointed to revive the school. Mr. T.W. Burdon, Secretary of the Fisheries Education Committee has advised that emphasis in the course will be on fisheries management and one important section will deal with Commonwealth fisheries legislation. The new course differs considerably in content from previous courses and could be profitably attended by officers who have previously attended courses at Cronulla.

The Minister for Fisheries and Fauna, Mr. G.C. MacKinnon, M.L.C. has approved the attendance of Senior Inspector N.E. McLaughlan, Inspector D.P. Gordon and Assistant Inspector J.G. Williams at the school this year.

* * * * *

TRAINING SCHOOL POSTPONED

The proposed training school for Cadet and Assistant Inspectors, Cadet Fauna Wardens and Technical Assistants which was to be held during the two weeks preceding the Annual Staff Conference has been cancelled - for the time being only.

This change of plan has been brought about, mainly due to the absence of a number of senior officers on sick leave and others attending the Fisheries Officers school at Cronulla. It is envisaged, at this stage, that the training school will be held in the early part of 1970.

* * * * *

Youth is a wonderful thing; what a crime to waste it on children!

Shaw.

WESTERN AUSTRALIAN WILD LIFE AUTHORITY

Since the Inaugural meeting of this statute body in July 1968 it has held a total of seven meetings of the Authority, four of its Reserves Committee, and two of its Game Management Committee.

The Authority under the Chairmanship of the Director, Mr. B.K. Bowen, has, among other matters, prepared a number of management programmes for sanctuaries. It has also classified, in accordance with Section 12A of the Fauna Conservation Act, a number of sanctuaries. Under this section the Authority may classify areas of land comprising the whole or part of a sanctuary as follows:

- a) prohibited areas;
- b) limited access area;
- c) Shooting or hunting areas;
- d) unlimited access areas;
- e) such other classes of areas as the Authority thinks necessary for the purpose of giving effect to the objects of the Fauna Conservation Act.

Classification of sanctuaries by the Authority are made effective with the approval of the Minister for Fisheries and Fauna, by publishing a notice in the Government Gazette. Such a classification or reclassification of an area shall not be made unless the Minister first approves in writing that it may be made or that the occupier of the land approves in writing, and if the occupier is not the owner of the land, the owner has also to approve in writing to the making of the classification.

News items—

* * * * *

Mr. T. L. Riggert, Research Officer, Fauna Research Branch, will be proceeding on Annual Recreation Leave as from September 29. During his period of leave Mr. Riggert will make a private visit to the U.S.A. Whilst there, he intends to visit a number of leading waterfowl research centres.

* * * * *

ANNUAL STAFF CONFERENCE
OCTOBER 20 to 24, 1969

All officers will be required to attend the Conference, commencing at 9.00 a.m. Monday, October 20. The venue is the Conference Room, 13th Floor, Government Offices Building, corner of Kings Park Road and Havelock Street, West Perth.

The Fisheries Field Officers Sub-Association meeting will be held at 10.30 a.m. on Monday, October 20. The venue will be as above.

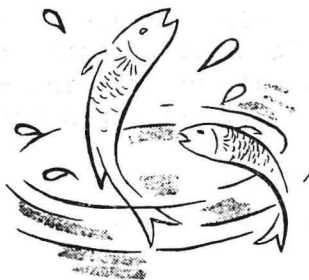
Inspectors will be required to attend Branch discussions, under the Chairmanship of the Chief Inspector, on the afternoon of Monday, October 20, all day Tuesday, October 21 and all day Wednesday, October 22. These discussions are to be held at the above venue.

Fauna Wardens will be required to attend Branch discussions, under the chairmanship of the Chief Warden of Fauna, on the afternoon of Monday, October 20, all day Tuesday, October 21, and all day Wednesday, October 22. The venue for these discussions will be the board room, "Koonwarra House," 233 Adelaide Terrace, Perth.

Officers attending from country centres may use public transport, the cost of which will be paid by the Department. Any officers wishing to bring his private vehicle to Perth may claim the cost of petrol and oil for the return journey. North-west officers travelling by aeroplane will need to book their own seats.

Travelling allowance will be paid in Perth from Sunday night October 19, to Friday night October 24, inclusive, plus time spent travelling.

* * * * *



42nd ANZAAS CONGRESS
PORT MORESBY, T.P.N.G.

The 42nd ANZAAS Congress will be held in Port Moresby, August 17-21, 1970. The holding of such a large gathering in a town with a population of 50,000 and with limited facilities of accommodation has raised a number of problems which cannot readily be solved. It is possible, to overcome this problem, that ANZAAS will be able to charter a ship with approximately 750 berths, which would more than double the accommodation available in Port Moresby and at the same time serve as a conference centre during the Congress week. It would, however, also make for a longer and more expensive round trip for those who selected to travel to and from the Congress by ship.

The organisers of the Congress have asked to be informed by those people wishing to attend and of the type of transport and accommodation they require.

* * * * *

GIANT PETREL

A Giant Petrel (Macronectes giganteus) tagged in March 1969 on Signy Island (South Orkney) Antarctica ($60^{\circ} 43'S$, $45^{\circ} 36'W$) was recovered on June 27, 1969, off Albany, Western Australia ($35^{\circ} 08'S$, $117^{\circ} 57'E$). The bird was caught by a fisherman in the presence of Mr. J.P. Robins, Fisheries Research Officer, and then released. When tagged by the British Antarctica Survey the bird was a nestling.

Bird tagging or ringing began in Denmark in 1898 and is now practised all over the world. It has established many remarkable facts about the movements and length of life of wild birds.

Most of the ringing is carried out by amateur ornithologists who have received special training for the work. Sometimes they fit the ring while the bird is still a nestling; this has the advantage that we know the exact age and birth-place of the bird. Only a small proportion of the ringed birds are found again, so every recovery is of value.

* * * * *

DIRECTOR COMMENTS ON ROCK LOBSTER SEASON
JUST ENDED

The Director, Mr. B.K. Bowen, B.Sc. gave the following talk on A.B.C. Radio on September 9, 1969.

"Another rock lobster season has closed, and most of the 800 fishing vessels which operate in this lucrative industry are back in their home ports. The catch for the season will probably be about 3 million pounds less than last year's record of 21½ million pounds. In fact, on present indications the industry can look forward to a few years of catches around the 17 million pound mark. The question may well be asked, "What are the underlying factors governing the catch from season to season?"

In answering this, we must first point out that most of the large rock lobsters have been caught from the recognised fishing grounds, and most of those rock lobsters now caught each year were undersize during the previous season. This means that the fishery is now largely dependant upon recruitments from the undersize fraction of the population. The next question then is "What variations do we see in the numbers of undersize rock lobsters?" The answer to this that the variations are extremely high, at least in those areas near the extremities of the rock lobster population. Each female rock lobster releases in the order of 2 a million larvae into the water each year. These remain in the water mass for the next 10 to 12 months, and a number of the larvae have been caught over 200 miles off the coast. During their 12 months larval life, the rock lobster is at the mercy of changing water temperatures, changing currents and numerous predators. An extremely high percentage of larvae are lost during this period.

After 12 months the rock lobster takes up a bottom living existence in the shallow waters. At this stage they are not found in the normally recognised reef habitat, but are close by amongst the various sea grasses. At about 2 years of age a few rock lobsters move onto the reef area and take up space on the available reefs. In years of good settlement, i.e. when a large number of the larvae have found their way back to the coast, there would be a large number of 2 year old rock lobsters seeking reef space. By the following year all of the 3-year old rock lobsters would have moved on to the reef system. It takes about another year to grow to legal minimum length. Now, if the number of three year olds is high then a high proportion of them will die, perhaps

through lack of food or perhaps through lack of adequate reef shelter. And so, these rock lobsters, which hatched from the "berry" or eggs on the adult female some 4 years previously, and which managed to escape the various forces acting upon them during their larval and bottom dwelling existence, finally enter the fishery to cope with the problem of being caught by a professional or amateur fisherman.

Because of the length of larval life during their oceanic existence, and the high death rate which occurs during this time, the numbers which actually settle in the shallow waters can vary considerably. However, there is a compensating factor which tends to regulate the numbers finally entering the fishery. If the number of 3-year olds on the reef is small, there is adequate shelter and food. As a result the proportion which die before reaching 4 years of age is very much less than when the number of 3-year olds is high.

However, this compensating factor can only dampen down the variations. It does not completely regulate the numbers. For instance, the number of 3-year old rock lobsters on the reef during January of this year was lower than the number of 4-year olds of a few years ago. This means that even if there was no mortality at all between 3 and 4 years of age during this year the number of 4 year olds will still be smaller at the end of the year than in previous years.

The big question which fishermen ask is whether this reduction in recruitment is caused solely by the oceanic environment, or whether fishing on the adult female rock lobster has been partly responsible. The answer to this will not be known for some years, but the Department is of the opinion that fishing is not the major cause.

Staff Notes

The Director's Receptionist, Miss J. Judge has gone on "safari." Making the most of it, Miss Judge boarded a 'plane for Darwin and from there she went "Walkabout" by bus, all the way to Perth.

* * *

A warm welcome is extended to Mr. N.G. Hall, Research Officer, Fisheries Research Branch, who commenced duties with this Department on Monday, August 25, 1969.

* * *

Congratulations are extended to Mr. B.L. Hawkins on his promotion to Inspector G-11-1 Grade 2 (Relieving) and to Mr. P.G. Edsall on his promotion to Technical Assistant G-VII-1/3.

* * *

Improve your letter and
report writing

Last month the "M.S.B." contained material on the correct use of the telephone. This month, for a change of pace, there are some notes that may assist you when writing your next report.

1. Avoid stale and stereotyped expressions.

Stereotyped

Improved

We wish to acknowledge
receipt of

We have received

We have your order and wish
to thank you for same

Thank you for your order

Kindly advise

Please let us know

Your letter of recent date

Your letter of September 5

We have not been favoured
with an answer

We have not received your
answer

We beg to inform you that

omit entirely

Thanking you for your kind
attention to this order,
we remain

We shall appreciate your
careful attention to this
order

2. Obsolete Words and Phrases

These do not belong to current language and obstruct the message.

according to our records

as the case may be

has come to hand

as to your proposition

I have before me your letter

assuring you of our prompt
attention

in due course

at an early date

in reply wish to state that

at the earliest possible moment	referring to the matter
at your earliest convenience	regarding your communication of
awaiting your further orders	the writer wishes to say
contents carefully noted	the above subject company
duly noted	under the above subject
enclosed you will find	esteemed favour
even date	trust this will be satisfactory

3. Difficult or simple

Compare the difficulty of the words and phrases in the first column below with the relative simplicity of those in the second column.

Your communication	Your letter
After a comprehensive appraisal of the circumstances	After studying the facts
Please endeavour to terminate the investigation as exped- itiously as possible	Please try to finish the investigation as soon as you can
Take it under advisement	Think it over
Commenced operations	Began work

It is hoped that Departmental officers may find some of these notes useful in their everyday performance of their duties. They may also act as a guideline for improving your own style.

A report is any communication about conditions. It may go outside to other Departments or to clients. Within the Department it may move upward to superiors or downward to subordinates; horizontally to colleagues or to other Branches.

The memo (memorandum) report is much more substantial than a simple memo - though it may have the memo layout.

The written or typed signatures of the sender and the date appear at the end. This form of report is usually restricted to the Department - but copies could go to associated organisations interested in the contents of the reports. The report has to be in language that will not be misunderstood. Word-choice must be objective, i.e. having the same meaning to everybody. It must not be ambiguous, nor must it reflect only the writer's personal feelings about the matter. The writer must be able to say what he has to say in a detached objective way.

Instead of

heavy rainfall
a great many

Say

actual measurement
actual number

Briefity is important in a report but should not be so extreme as to omit relevant material.

Key Sections

Put first things first. Always let the reader know what it is about and what is coming.

The title is the first intimation of the report's purpose. The subject line tells more, the introduction offers a summary of the problem, the requirements, the work, the conclusions.

* * * * *

NORTH WEST FAUNA OBSERVATIONS

Mr. L. R. Moss, the Department's Fauna Warden stationed at Carnarvon, made the following observations during the period July 15 to July 22. In the Carnarvon-Gascoyne area he found the Wedge-tailed Eagle, the Emu, the Galah, the Crow and the Little Corella plentiful. Other birds sighted between these two centres included Crested Pigeon, Painted Finch, Black-tailed Tree Creeper, Grey Honeyeater, Mudlark, Silvereye, Straw-necked Ibis, Maned Goose, and one Black Bittern. According to the Gascoyne Shire Clerk this was the first Black Bittern observed in the area. Serventy and Whittell, in their handbook "Birds of Western Australia", record its distribution as State-wide.

During a patrol to the Coral Bay (Point Maud) area, Warden Moss observed 2 Brolgas near the Minilya River, Redcapped Dotterel in the salt flats area near Coral Bay and Euros on the flat scrub areas near Warrora Homestead. Very few Red Kangeroos were observed near the roads during the patrols.

* * *

OFFENCES UNDER FISHERIES ACT

NAME	D.O.O.	D.O.H.	COURT	NATURE	FINE
BROWN C.	19.1.69	21.8.69	Pinjarra	U/s Marron	\$33.60
BROWN K J	18.4.69	30.7.69	Perth	Closed waters	Dismissed
COOPER K J	18.4.69	30.7.69	Perth	Closed wtrs.	\$200
CURCIER C.E.	29.3.69	15.8.69	Geraldton	U/s Crays	\$236
EKE K.G.	21.4.69	30.7.69	Perth	Closed wtrs.	\$200
FARDIG B.M.	19.4.69	8.8.69	Perth	Closed wtrs.	\$50
FLORIAS D.	21.3.69	18.7.69	Geraldton	U/s Crays	\$194
FOGGON W.R.	19.4.69	8.8.69	Perth	Closed wtrs	\$50
GARDNER J R	25.1.69	21.8.69	Pinjarra	U/s Marron	\$59
GAVRANICH P F	27.3.69	18.7.69	Geraldton	U/s Crays	\$242
HAMS D.	19.1.69	21.8.69	Pinjarra	U/s Marron	\$33.60
HIPPER M.C.	2.4.69	15.8.69	Geraldton	Unbranded craypots	\$20
" "	"	"	"	Excess craypots	\$60
JARVIS S.R	19.1.69	21.8.69	Pinjarra	U/s Marron	\$42.50
JARVIS S.	19.1.69	21.8.69	Pinjarra	U/s Marron	\$21.20
LAZAROU G.	9.3.69	18.7.69	Geraldton	Obstructing	\$100
MATHEWS B.	17.4.69	30.7.69	Perth	Closed wtrs.	Dismissed
PALMER R S	19.1.69	21.8.69	Pinjarra	U/s Marron	\$33.60
ROCKE J.A.	25.1.69	21.8.69	Pinjarra	U/s Marron	\$59
SLOAN K.	19.4.69	8.8.69	Perth	Closed Waters	\$250

U/s = Undersize

OFFENCES UNDER FAUNA CONSERVATION ACT

NAME	D.O.O.	D.O.H.	COURT	NATURE	FINE
ELLERY G.N	10.7.69	8.8.69	Perth	Non Rendition of Returns	Nil
HAWKINS H	15.2.69	8.8.69	Perth	Taking Fauna in Closed Area	\$10
WATERS B	15.2.69	8.8.69	Perth	Taking Fauna in Closed Area	\$10

Why We Need the Expert

(Sub-title: Someone is Needed to Translate the Gobbledegook).

(Note: The Author wishes to remain anonymous).

It all started because one of our brighter outstation boys reads trade magazines. Unfortunately it did not stop there. An inter-office memo arrived advising that from what he could understand from the "attached description," his office required a "Turbo Encabulator." The "attached description" read as follows:—

"THE TURBO ENCABULATOR"

"Work has been proceeding in order to bring to perfection the crudely conceived idea of a machine that would not only supply inverse reactive currents for use in unilateral phase detractors but would also be capable of automatically synchronising cardinal grammeters. Such a machine is the 'Turbo Encabulator.'

The prototype machine had a mounting plate of prefabricated amulite surrounded by a malleable logarithmic casing in such a way that the two spurving bearings were in a direct line with the pentametric fan. The main winding was of the normal lotus-O-delta type placed in panendemic semi-boloid slots in the stator, every seventh conductor being connected by a non-reversible tremie pipe to the differential girde spring on the 'up' end of the grammeters.

Forty-one manestically spaced grouting brushes were arranged to feed into the slip-stream a mixture of high S value phenylhydrobensamine and 5% reminative tetryliodo-hexamine. Both of these liquids have specific pericosities given by $P = 2.5 Cn^{6.7}$ where n is the diathetical evolute of retrograde temperature phase disposition and c is Cholmondeley's annular grillage coefficient. Initially n was measured with the aid of a metaphor refractive pilfrometer but up to the present date nothing has been found to equal the transcendal hopper dadoscope for accuracy.

Undoubtedly the Turbo Encabulator has now reached a very high level of technical development. It has been successfully used for operating nofer trunnions. In addition whenever a barescent-skar motion is required it may be employed in conjunction with a drawn reciprocating dingle arm to reduce sinusoidal depletionation."

Of course we could see that the Turbo Encabulator could have application in our field, although even with our non expert eyes we could see that if the machine revolved in a clockwise direction, its efficiency on the local 240 volt, 50 cycle A.C. electricity would be reduced.

As I said, we are only lay-men and the obvious solution was to refer the whole matter to our Electrical Engineering Consultants. After several weeks we were pleased to receive the following report, which I am happy to say was immediately acted on:—

"REPORT ON THE TURBO ENCABULATOR"

"The specification has been the subject of critical examination and, on analysis, it would appear that the following amendments would prove advantageous:—

The terminology wherein this unit supplies inverse reactive currents would more correctly be worded 'peak inverse reactive currents for use in asymmetrical vector rotation distractors.' This would illogically introduce gross distortion in any complex straight line wave form to result in the production of asymptotes and associated isotopes.

The automatic synchronising of cardinal grammeters is a matter of some concern; this would be more readily effected by remote control injection from an unstable vat excitation known as V.69. The possibility of automatic synch would thus be an exacting measure involving the known pure chance parameter.

The prototype will be examined on delivery to the liquid consumer and information then obtained from an ever increasing cycloidal approach will be glass-container fed into a computer. It is worthy of mention that the computer accuracy is guaranteed to be $\pm 10,000$ in $10K$ parts over a period of 10×77 light years. Such accuracy would facilitate proving the statement that every seventh conductor is connected by non-reversible tremie pipe. The main winding of the encabulator stator must be of adequate finite cross-section to withstand the surges resulting from the V.69 injection. If of Italian origin, it is suspected

the winding form would follow that of a bugatti-O-delta pattern on an alpine path. Under minimum load conditions, it is recommended the bearings be superheated steam cooled and the re-heating be undertaken to 8210°C. prior to re-entry. It is not expected that any difficulties will be encountered in expansion of the logarithmic gold casing if these materials under these temperatures are 'seen' by the bearings.

The slipstream mixture, no doubt, will be fed into a stove-pipe jet to realise after-burning conditions; for initial ignition it is recommended that daylight frequency range spectrometer bombarding be introduced, with captive side-winder back-up as emergency ignition. This facility would, undoubtedly, result in complete disintegration of the encabulator, with the consequent elimination of any firing problems.

Liquid pericosities, as given by the equation $P = 2.5 Cn^{6.7}$, is a relationship that must be accepted; however, it is considered the hoover-dooover would equally fill the accuracy requirements, even though the 'accidental' modification was introduced to the later 'incidental' version of the 'transcendental' hopper dadoscope. Equipment of this nature should be calibrated against glowing exhaust gases from an electric motor under no-load conditions. By mass collection of isolated electrons from the exhaust stream, close accuracy to + 98% may be possible, and thus related with confusion to the dadoscope chart. The dadoscope which uses step-down transformers for accuracy will scribe a hair line graph 0.675" width. The chart itself is only 1.476" wide with a driving mechanism comprising an 18,000 RPM, 700 HP, external combustion engine.

The reciprocating dingle arm which reduces the sinusoidal depletion is an ingenious device which must be noted. This will produce simple harmonic motion in the nofer trunnions and seventeenth order harmonicas may result. Harmonicas of this magnitude will, upon negative feed back to the pentametric fan, produce pulsating air flows with pulsation rate of twice daily under prescription.

It is agreed that the Turbo Encabulator has reached a high level of development but it is strongly recommended that these units be reserved for Marine use and fitted to vesels such as the "Queen Mary" or "H.M.S. Bulwark."

THE ADMINISTRATOR—December, 1968

MAKE A DATE

..... ANNUAL STAFF SOCIAL

- OCTOBER 24, 1969.