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MONTHLY SERVICE BULLETIN
WESTERN AUSTRALIA, FISHERIES
October 1963
DEPARTMENT OF PARKS AND WILDLIFE

DEPARTMENT, WESTERN AUSTRALIA
MONTHLY SERVICE BULLETIN
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October, 1963.



STAFF NOTES

The Administrative Officer, Mr. B.R. Saville, will lead the Fishermen's Advisory Committee to Geraldton on October 8. He will act as chairman during the Committee's hearings at that centre on October 9 and 10 and on October 11 at Dongara. The following week he will chair meetings of the Committee at Fremantle. He will be accompanied by the Committee's secretary, Mr. H.B. Shugg, and members, Messrs. W. Matthei, of Yunderup, and N.H. Wright, of Quindalup. Mr. G. Travia, the representative of crayfishermen on the Committee, will also attend the meetings at Geraldton and at Fremantle.

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At an informal function at Head Office on September 27, the Director, Mr. A.J. Fraser, on behalf of the staff, presented a vanity case to Miss H.M. Sivwright as a token of their esteem. As recorded in the previous issue Miss Sivwright resigned from the service to undergo a special course in teaching at Port Moresby before taking up a three-year teaching appointment with the Sacred Heart Mission in Papua.

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We also said farewell during the month to Mrs. M.A. Stone who was temporarily replaced as senior typist by Miss M. Austin who, in turn, will later transfer to the office of the Town Planning Commissioner

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We welcome to the staff Miss Gae Scanlon, who commenced duty with us on September 23 and who has taken charge of the library following Miss Sivwright's departure.

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We also welcome to the staff Eric Reginald Hammond and Albert Edward Tanner, who were appointed as Inspectors, Grade 2, on September 16 and 23, respectively. Mr. Tanner will be stationed at Lancelin while Mr. Hammond will assist Inspector T.B. Baines who has been promoted to Inspector, Grade 1, and will take charge of the mobile patrol unit.

Congratulations are also extended to Messrs. R.G. Emery and L.R. Frizzell who have been promoted from Assistant Inspectors to the new position of Relieving Inspector Grade II and Inspector-in-Charge at Jurien Bay, respectively. Both items are classified as G-II-1.

Our best wishes are extended to Mr. P.A. Smith who transferred to the clerical division of the Service on September 21. He has been appointed as a clerk in the Registrar General's Office.

Officers who will be on leave of absence this month include Mr. A.J. Bateman, Fleet Maintenance Officer, who will commence annual leave on October 19, and Mr. H. Byleveld, of Head Office, who will commence two weeks' military leave on October 21 followed by one week's annual leave.

We are pleased to report that Cadet Inspector Peter Willey who underwent an emergency appendicectomy at Royal Perth Hospital on September 13, has recovered and returned to duty after two weeks' sick leave.

Officers to resume duty last month included Miss. H. Gilfellow and Mr. C.E. Casselton, both of Head Office, who completed Annual Leave on September 6 and 27 respectively

Technical Officer J.S. Simpson will resume duty after annual leave on October 1.

Fauna Officer H.B. Shugg attended an all day seminar on supervision held at the Cottesloe Civic Centre on September 19. The seminar was organised by the Public Service Commissioner's Office in collaboration with the Management Division of the Perth Technical School, and took the form of group discussions under the chairmanship of Mr. H. Ende. Mr. Shugg's comment: "A well-organized and stimulating day".

PERSONAL PARS

We had the pleasure of a visit during the month from Mrs. Thistle Y. Stead who for many years was secretary of the Wild Life Preservation Society of Australia and editor of its journal. During her brief stay in Perth, Mrs. Stead addressed a meeting of the Western Australian Naturalists' Club on nature conservation in Australia, but spent most

of her time in the field photographing and studying our wildflowers.

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Early last month a representative (Mr. Chitani) of the Hakodate Fishing Net Mfg. Co., of Japan, called on the Director for discussions with him and departmental officers. Mr. Chitani was accompanied by Mr. A.W. Singer, the local Manager of Gollin & Co. Ltd., an international firm of merchants. Senior Inspector J.E. Munro introduced Mr. Chitani to leading figures in the fishing industry at Bunbury, Busselton and Geraldton. As an expression of appreciation of the co-operation received, Mr. Chitani offered to design and supply an otter-trawl and some collapsible lobster pots. We are also seeking the supply of a trammel gill net to specifications set by the Senior Research Officer, Mr. B.K. Bowen, for use in sampling pre-moult crayfish.

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Other visitors during the month included personnel of the economic survey unit set up by the Fisheries Division of the Department of Primary Industry to carry out an economic survey of the Western Australian crayfish fishery. Introduced to the Director by Mr. A.G. Bollen, Assistant Director of the Fisheries Division, the other personnel (who arrived in Perth by air on September 29) were Mr. R.M. Taylor, Project Officer; Mr. D. Barker, Research Officer; and Mr. W. Hughes, Technical Officer (Gear). Mr. Bollen will go to Geraldton to oversee the initial stages of the survey, but will return to Canberra on October 10. After completing the Geraldton section of their investigation, the survey team will interview fishermen of the Fremantle district and expect to complete their task and return to Canberra on October 25.

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BUNBURY CRAYFISH CLOSURE TO STAND

Despite the protests referred to in the previous issue of this Bulletin, and the representations made to him by a deputation (which included Bunbury fishermen and a processor) the Minister for Fisheries, Mr. Hutchinson, has accepted Departmental recommendations that the Bunbury grounds remain part of the area covered by the close season from August 15 to November 15 in each year. The main reasons for rejecting the recommendation that a separate season apply at Bunbury were :-

1. The Western Australian crayfishery is the most productive and valuable single fishery in Australia and we must consider the interests of the crayfishery as a whole and of all those engaged in it.

2. For those reasons applications by groups of fishermen elsewhere for concessional treatment have had to be rejected.
3. We are dealing with one species of crayfish and one composite fishery. Variations occur in the actual time of spawning, but over the whole area it is merely a matter of days: hence, what holds good for Fremantle, for example, also holds good for Bunbury.
4. In other sections of the crayfishery, virtually all mature females are either carrying "the tar spot", i.e. they have been fertilized or else are bearing eggs externally from August onwards. The same conditions, on the Bunbury men's own admissions, apply south of the 33rd parallel.

FAUNA NOTES

Red-capped Dotterels breed in July.

We apologise to Inspector A.V. Green, of Geraldton, for not recording previously a most interesting report he forwarded on observations on July 5, - of adults and young of Red-capped Dotterels (Charadrius alexandrinus) near the Geraldton office. In his report, which was inadvertently filed away, Mr. Green pointed out that the breeding period for this species is recorded in Cayley's "What Bird is That" as being from August to December. It should be remembered, however, that that work refers, principally, to Eastern States species and does not always include Western Australian variations. Mr. Green first saw the birds when they were crossing the road and heading towards the beach. There were two adults with two very young birds still covered with down. When approached the female resorted to the "broken wing display" while the chicks squatted on the ground. Mr. Green said that, except for their colouring, they looked very much like crouching frogs.

There are differences of opinion between many ornithologists and animal behaviourists, whether conscious or unconscious responses trigger "injury feigning" behaviour of some birds. Some see it as deliberate protective behaviour which has definite survival value, while others give the bird less credit and interpret it as a result of psychological conflict which actuates a form of catalepsy. Whatever the actuating mechanism, many species of birds feign injury or illness when their young are approached, but it is particularly common amongst the ground nesting species, of which the red-capped dotterel is one.

Report of Tammar north of Geraldton.

While assiduously following a possible breach of the Fauna Protection Act last August, Inspector A.V. Green received a report on the occurrence of small wallabies at Balline Station, north of Port Gregory. The report was followed up by Fauna Warden S.W. Bowler, who with Inspector Green and Assistant Inspector L.R. Frizzell, searched the Balline Station area and also a property known as "The Swamps", about 7 miles east of Port Gregory. Although no tammar was sighted by the searchers, the skin of a wallaby that had been shot by Mr. Taylor was inspected and later forwarded to the Western Australian Museum. It appeared to be from a tammar. A further search of the area will be made as it is important to establish whether there is a mainland distribution of the species to complement that on East and West Wallabi Islands in Houtman Abrolhos. The existence of a number of species on the Abrolhos, well north of their mainland range, was long considered to be an indication that at the time the islands were separated from the mainland, many south-western species occurred far north of their present distribution. It was considered that their range had shrunk on the mainland through the gradual desiccation of our northern and inland areas and that their survival on the Abrolhos was due to its insular climate. However, discoveries in recent years that some of the species still occurred on the mainland north of their previously known distribution boundaries, have cast more than a shadow of doubt on the theory. Paradoxically, there is understood to be some latterday evidence in the distribution of reptiles that supports the old theory.

Report of Dalgite at Margaret River.

Last month we received a most intriguing report from Honorary Warden E.V. Teede, of Bunbury, that a strange animal had been sighted by Mr. A. Pell of Prevelly Park. According to Mr. Pell the animal had three peculiarities -

1. when it moved it appeared quite ungainly;
2. it had a fairly long tail with a white or creamy coloured crest;
3. it had very long ears.

These features were sufficient to make him stop and reverse to where he had seen it cross the road. By the time he alighted, however, it had entered some thick scrub on the road side and he was unable to find any trace of it. Later, when Mr. Teede showed Mr. Pell a plate in Troughton's "Furred Animal's of Australia", Mr. Pell unhesitatingly pointed to the reproduction of a dalgite.

When this report was referred to the Director of the Western Australian Museum, Dr. W.D.L. Ride, he said that this sighting was very important indeed. He hoped it meant that the dalgites of the south-west would stage a comeback, because in his opinion there was no doubt at all from the description that the animal Mr. Pell had seen was a dalgite. Dr. Ride added that these animals were uncommon in the south-west up to the 1930's, and pointed out that we have come to regard them as being possibly extinct.

In an effort to follow up the observation, Fauna Warden N.E. McLaughlan went to the area with a number of small mammal traps. He reported that the place where the sighting occurred was approximately one mile from Prevelly Park, on the Margaret River Road. The area was one of thick and almost impenetrable scrub on sandy soil interspersed with limestone outcrops. The vegetation consisted mainly of peppermint with some jarrah, banksia, redgum, acacia, bracken, zamia palms and blackboy. Although he kept the area under inspection during daylight and at night, and used a spotlight at night, Mr. McLaughlan found no trace of dalgites though he reported that rabbits were observed and there were numerous burrows and fresh scratchings. The traps, baited with "bardies", toast, and crushed peanuts, were worked over three nights but caught only one common rat. Further searches will be made as time permits, but we would like honorary wardens and any inspectors passing through the district to be on the qui vive.

MONOFILAMENT NYLON NETS

We were advised last month, by Mr. A. Spencer, that in accordance with a decision of the 1962 Commonwealth-State Fisheries Officers Conference and Ministers' meeting (of which he was Secretary) a working party has been set up to plan, supervise and report on the testing of monofilament nets. The party comprised Mr. P.D. Lorimer, of the Department of Primary Industry; Mr. J. Robins, of the Division of Fisheries and Oceanography, C.S.I.R.O.; Mr. A. Temple, of the Victorian Department of Fisheries & Wildlife, and Mr. J. Williams, of the State Fisheries office, New South Wales. It would co-opt other officers to work with the group as required.

Subsequently, we were pleased to receive the party's first report, dated September 17. The group outlined in the report a number of serious difficulties which limited their action. They pointed out that coastal and estuarine fishermen used nets of varying mesh sizes, lengths and depths and had different methods of hanging them.

They recommended that pairs of nets be constructed, one of each pair as nearly as possible representative of existing types of net, the other of oval segment monofilament, identical except for the material, and that these pairs of nets be fished one against the other according to a predetermined plan. The group further recommended against tests being conducted by one fishing net which contained alternative or randomized panels of the two materials under test. They said that overseas tests using this method were believed to have produced false results as the more visible panels diverted the fish to the less visible panels resulting in most of the fish being caught in the latter. They said that, at this stage, it was impossible to state the minimum number of pairs which would be required to give, under each combination of conditions, a sufficiently accurate measure of their relative fishing powers.

They estimated that the cost of a pair of nets would vary from £600 to £750, not including the cost of labour. They pointed out that other costs would have to be met before the comparative tests could be completed including transport, net-boats and staff, and that these would not be inconsiderable. In conclusion, they resolved that until a decision was reached on who would meet the costs, and if or when the money would be available, further reports were not warranted.

HUMPBACK WHALING TO CEASE COMPLETELY

The last meeting of the International Whaling Commission, at which Australia was represented, adopted a recommendation from its Technical Committee that complete protection should be afforded all humpback whales in the southern hemisphere. In plenary session, Australia moved to restrict the prohibition to waters south of the 40th parallel of south latitude, but this was lost and complete protection for the species in the southern hemisphere was adopted.

Bearing in mind the right Australia had to lodge a formal objection within 90 days to prevent her from being bound by the resolution, it was decided to consult with the parties concerned before determining whether or not the State should recommend to the Commonwealth Government that it lodge an objection to the Commission's restricting recommendation which would write "finis" to humpback whaling by the two existing Western Australian companies. After consultation with the representatives of the companies, who had also attended the International Whaling Commission, it was agreed that there was no immediate future in humpback whaling, and that there would be little point in asking the

Commonwealth Government to lodge a formal objection. This opinion was forwarded to the Director of the Fisheries Division of the Department of Primary Industry, Mr. C.G. Setter, who it was expected would recommend to his Minister that Australia accept the prohibition.

THE CARAPACE IS A CRAYFISH

It will be remembered that, at the last Staff Conference, Senior Inspector J.E. Munro asked for a legal opinion to be obtained whether possession of undersize heads (= carapaces) of crayfish was sufficient evidence that a person was in possession of undersize fish, for the purposes of section 24 (1) of the Fisheries Act.

The Acting Crown Solicitor, (Mr. C. le B. Langouant) in a memorandum dated September 13, expressed the opinion that a carapace or head section of a crayfish was a "substantial" part of the crayfish and, therefore, there was warrant for asserting that such a part constituted a "fish" for the purposes of the section quoted. Mr. Langouant referred to the decision of the Full Court in the case of James Eric Munro versus Vinci Lombardo, where it became necessary to decide whether a crayfish "tail" was a crayfish. The opinion then expressed by the Full Court was that a substantial part of a crayfish was a "crayfish", and that the "tails" in question were such substantial parts and, therefore "crayfish".

Concluding his opinion, Mr. Langouant wrote :-
"Furthermore, it should be borne in mind by your Inspectors that, in an appropriate case, possession of an undersize head or carapace will be good evidence that the possessor has recently been in possession of an entire crayfish which was undersize".

WESTERN FISHERIES RESEARCH COMMITTEE

The annual meeting of this committee, of which the Director is chairman, will be held in Perth from October 23 to 25 inclusive. The main business to be transacted will be a review of progress made and future work to be undertaken in respect of the crayfish, prawn, salmon, tuna and whale research programmes. Some discussion, it is believed, will also take place in relation to the crayfish economic survey, to which reference has been made elsewhere in this issue.

CLEARING HOUSE

CONTINUING RESEARCH ON PROBLEMS OF CONSERVATION

Some fishermen are critical of the time and money spent on research.

Mr. F.G.T. Holiday of the Natural History Department at the University of Aberdeen answered the question: "What's it all in aid of?" in a recent Scottish Home Service broadcast.

"From the fisherman's point of view," he said, "fishery research work seems to fall into two parts. First of all there's the immediate problems of shooting and hauling the gear; for instance work on new types of nets, and the forecasting of fish stocks. But a large amount of effort is put into work which often appears to fishermen to be of no practical value at all! It may be interesting and curious - but so what!

"Who really wants to know about such things as how many eggs a fish spawns and how these eggs develop? Does it really help us to know what fish eat? Have rare fish and such freaks as bi-sexual fish any right to claim the time and energy of a research worker that you think ought to be devoted to improving the lot of the fisherman? Is even the work on fish conservation worth while, unless the foreigners all do their share too?

Predictions

"What most fishermen want is to locate plenty of good quality fish, catch them with a minimum of effort and bring them back in the right condition for a good sale. But much though we would like to, we can't order the fish to appear regularly at the right time and place and in the right condition. What we can do is find out as much as possible about the fish so that we can predict what they'll do - and plan accordingly. If the fisherman or the scientist can predict accurately, then you have a successful fishery.

"But how can you predict what a fish is likely to do until you know what it is capable of doing? You must know the fish outside and in to be able to make the right prediction. To be able to say what is wrong with the herring and its fishery you must first know what should be right! It's no use just looking at the adult fish - even though these are the ones that land on the fish merchants' slab. For every adult that survives hundreds have died. Although we only make use of the finished article we must know every part of its life. The herring in the nets have taken three or four years to get there.

More is Needed

"You may admire the lines and trim of your fishing boat, but you don't ignore the work that has been put into each of the rivets. Everything ultimately depends on them, and so it is with fish and fisheries research.

"Last, and perhaps most important of all, conservation pays in proportion to the effort you put into it and also to your share of the total catch. The British share in several fisheries is quite large (73 per cent for North Sea haddock and 70 per cent for Faroese in 1960). This is the measure of what you have to gain, whatever anyone else does, and that's why we must continue research on problems of conservation. In fact, the more efficient you make your vessels and gear, the more conservation is needed."

(The Fishing News

London

August 16, 1963.)

PROTEST AGAINST PLAN TO DUMP FISH PASTE IN SEA

A Company which wants to dump 100 tons of meat paste and fish paste in the sea, because it is changing the shape of its bottles, was attacked at a meeting of the North Eastern Sea Fisheries Committee in York last week.

Committee members claimed it was "immoral" and "disgraceful" when the Freedom from Hunger campaign was at its height.

Mr. Thomas Turner, a Whitby trawler owner, said: "Surely the only place to dump food like this is in a hungry child's tummy."

The company concerned, Cerebos, manufactures meat and fish paste at Hartlepool. It plans a packaging change and asked for the committee's observations on an application to dump approximately 800,000 bottles of paste in the mouth of the Tees, four miles off Redcar, Yorks.

Members were worried about the effects of the dumping on fishing nets. Several others spoke up bitterly against the waste of food.

Mr. L.P. Money, chief fishery officer, said the company had told him the paste was perfectly edible. Their only reason for wanting to dispose of it was the policy change.

Coun. Clive Hillman said: "I think we should make the strongest possible protest on moral grounds. It is wicked to throw good food into the sea when millions of people are starving in other parts of the world."

The committee will write to the Company opposing the dumping.

Cerebos stated later that it had no intention of dumping the pastes in the sea if they could be accepted by a charitable organisation.

They were offered to charity in March but could not be accepted because of transport costs.

(The Fishing News

London

August 9, 1963)

PRAWNERS EARN £1,000 A WEEK

- BUT THEY WANT A "PROTECTIVE" DUTY -

Fishermen, who are earning up to £1,000 a week catching King prawns for export, are seeking a protective tariff to stop Japan, India and China supplying cheaper prawns to the Australian public.

The Tariff Board heard the fishermen's claims for protection in Brisbane earlier this month and will get the importers' side of the story in Canberra next month.

The Australian prawn industry is booming at present due to a world scarcity of King prawns and big export orders from Japan and U.S.A. Not since 1956 has the prawn industry been so good to catchers, processors and exporters.

None for Sale

About six months ago, small trawlers were a drug on the market and fishermen were crying their eyes out because no one wanted to buy them.

Now fishermen are demanding and getting exorbitant prices for vessels from investors who have come into the industry for the easy money.

One north coast fisherman recently sold his 17-year-old boat for almost twice the amount it cost him originally. He is putting the money into a new boat.

New Fleet

A survey by a marine engineering firm this month revealed that from Kempsey to the Clarence 21 trawlers are being built, while from the Clarence to Tweed Heads another 23 trawlers are under construction.

Capital outlay on the new trawlers is at least £250,000.

People putting money into the industry expect to get it back - plus a big golden nugget of interest - in three years.

This is because Japan has placed firm orders in Australia for £3½ million worth of King prawn tails while America has offered to take all the prawns we can send her.

At the moment, Japan is outbidding the Americans by 2/- to 3/- a lb for prawns and processors are pressed to meet current orders.

The Japanese are paying an average price of 10/- a lb for uncooked prawn tails delivered to the dockside at the main Australian ports.

Prawns for America, however, are shipped at the exporters' risk and payment is delayed until they are first auctioned in New York then freight, insurance and commission is deducted.

The boys making the big money at present are fishermen on the Far North Coast of N.S.W. and at Tin Can Bay, Queensland, with catches of from 1,000 lb to 2,000 lb of prawns a night on the ocean grounds.

Processors pay them 2/4 lb "on the bank," which means that a normal night's fishing turns in anything from £225 to £450, depending on the size of the catch.

The bigger boats have only to go to sea three nights a week to cop more than £1,000.

Naturally nobody would dream of working at weekends - when would they get time to "blow" their money!

Processors on the east coast, whose production lines have been organised for years, have already sent substantial orders of prawns to Japan this year.

One of the effects of this has been to starve Sydney and Melbourne of fresh prawns.

This has led to high prices in shops and forced wholesalers to seek prawns from abroad.

Imported prawns are not cheap by any stretch of imagination but without them three-quarters of the cafes and prepacked meal processors would go out of business.

At this stage it seems hard to justify a duty on imported prawns.

Snap Tariff Urged on Prawn Imports

The Queensland Fish Board has asked the Commonwealth Trade Department for emergency tariff protection on prawns to save Queensland fishermen from possible ruin.

The board has sought the temporary protection pending the result of a Tariff Board inquiry.

Fish Board chairman Mr. A.T. Fullagar said, "The Tariff Board will probably take some time before making its decision.

"But the matter is urgent and we have applied for temporary tariff protection on behalf of Queensland prawners."

Emergency

Mr. Fullagar said that the emergency had arisen because the Federal Budget had removed the 12½ per cent sales-tax on imported prawns.

He said, "The 12½ per cent sales-tax on landed cost enabled Queensland prawns to compete reasonably with imported prawns.

"But with the tax removed, Australian prawners cannot hope to compete because the imported prawns come from India and Hong Kong, which have low living standards and low costs."

About the same time that Queensland's cry for help was made in Canberra, the Commonwealth Statistician, Mr. Archer, issued preliminary figures showing that more than a million pounds of prawns were exported last year.

Exports of cooked prawns rose from 61,000 lb in 1961-62 to more than 247,000 lb in 1962-63.

The rise in uncooked prawn exports was even more spectacular - from 60,000 lb in 1961-62 to 977,000 lb in the past financial year.

(Fish Trades Review

Sydney

September, 1963)

CAN FISH LEARN TO AVOID FISHERMEN?

In a recent broadcast, Mr. J.H.S. Blaxter, a scientist at the Marine Laboratory, Aberdeen, talked of the ability of fish to learn by experience. Can they, in fact, learn that it is dangerous to get in the path of a trawl or to get too interested in a baited hook?

It seems that fish do learn by association; that is, fish in a tank will learn to associate a stimulus in the form of a noise, taste or temperature change with "feeding time" and when stimulated in this way, will eventually go to the place where food has been given. In one test, this involved swimming up a slight ramp, and after a time, the fish would swim up the ramp when the stimulus was applied, even though there was no food.

30 Experiences

However, it takes about 30 such experiences to imprint this or any new behaviour pattern, but after this, the pattern will be retained for anything up to nine months.

We are fairly certain that fish such as salmon and trout, which are repeatedly threatened by the angler, can become very difficult to catch, having learned by experience. In commercial fishing we do not know how often fish may take avoiding action to escape fishing gear and how often they are successful with each experience they survive. We do not know whether this experience can be passed on to other fish, so that an older fish could lead others out of danger, for example. Tank experiments may teach us something here, but we have no guarantee that fish will behave in the same way in a tank as they do in the sea.

The question of the fishes' age can confuse the issue. Age brings experience, but it also brings greater size and swimming power - up to a point, when old age might diminish the powers of escape. Which is the operative factor? This is one of the many questions to which science plans to find an answer in future research.

(World Fishing

London

September 1963)

SALT WATER CONVERSION

How do sea mammals, sea birds, turtles and marine iguanas which live on rocky ocean islands completely lacking in fresh water manage to thrive without this basic necessity? Many of these animals have special salt glands, which in the case of gulls, are situated under the eyes. These secrete a saline solution five times more concentrated than blood and twice as salty as sea water. Thus sea water is used and the excess salt eliminated via these glands.

(Sea Secrets

Miami

April, 1963)

CONSERVATION

The new pesticide laboratory at the Patuxent Research Center in Maryland has been officially opened. Operated by the Bureau of Sports Fisheries and Wildlife, it will dig deep into the relationship between game creatures and today's poisons used by foresters and farmers. It's an answer to a longstanding need.

(Field & Stream

New York

July, 1963)