FISHERIES DEPARTMENT, WESTERN AUSTRALIA

MONTHLY SERVICE BULLETIN

Vol. V, No. 10. October, 1956

STAFF NOTES

Supervising Inspector J.E. Bramley resumed duty on September 10 after annual leave.

Other officers who returned to duty in September were Inspector A.J. Bateman on September 10 and Captain H.C.W. Piesse on September 16.

Officers on leave at the moment include Inspectors W. Davidson and G.H. Lyon, who will return to duty later this month, and Assistant Inspector D. Wright, who is expected to commence his National Service training on the completion of annual and accrued leave.

Mr. G.H. Lyon has been promoted from Assistant Inspector to Inspector Grade 2, classification G-II-1, as from September 18, 1956.

We welcome to the staff Mr. John McK. Mitchell, who commenced at Head Office on September 24 in the position vacated by Mr. I. Bartholomew.

Fauna Warden G.C. Jeffery plans to take his annual leave in November prior to commencing long service leave.

Inspector R.M. Crawford, of Geraldton, came to Perth late in the month and with Assistant Inspector S. LaRoche left Fremantle on September 30 on the p.v. "Garbo" to patrol close waters in the

Abrolhos area. During Mr. Crawford's absence Inspector B.A. Carmichael, who completed his term as whaling inspector at the Nor'-West Whaling Company's Babbage Island Station, is temporarily acting in charge of the Geraldton district and is not expected to arrive at Head Office until about the middle of October. Inspector Carmichael plans to marry Miss Rona Atley in Geraldton on November 3, when he will be on annual leave.

Senior Inspector J.E. Munro, who had been unable to take his leave in September as planned, now proposes to commence it on October 15.

Assistant Inspector R.J. Baird expects to proceed on annual leave in November.

INTERNATIONAL WHALING COMMISSION

The eighth annual meeting of the International Whaling Commission took place in London from July 16 to 20.

In welcoming the delegates, the Parliamentary Secretary to the Ministry of Agriculture, Fisheries and Food (Mr. G.R.H. Nugent, M.P.), offered congratulations to the Commission on its work and underlined the increasing urgency of conservational measures as whaling efficiency increased and whale stocks decreased.

With the exception of Brazil, all of the 19 contracting Governments were represented. Delegates or observers were present from Australia, Canada, Denmark, France, Iceland, Italy, Japan, Mexico, the Netherlands, New Zealand, Norway, Panama, Portugal, South Africa, Sweden, the U.S.S.R., the United Kingdom and U.S.A. The Food and Agriculture Organisation, the International Council for the Exploration of the Sea and the International Association of Whaling Companies were represented by observers. Australia's representatives were Mr. F.F. Anderson, Director, Commonwealth Fisheries Office, Canberra, and Dr. R.G. Chittleborough, Research Officer, Division of Fisheries and Oceanography, C.S.I.R.O., Perth. The

Chairman of the Commission (Dr. G.J. Lienesch, of Holland) presided.

Information before the Commission showed that a total of 19 factory ships with 257 chasers were engaged in the Antarctic during the 1955/56 season. Inclusive of sperm oil, the total oil production was 2,134,012 barrels (= 355,668 tons) as against 2,061,789 barrels (343,631 tons) in the 1954/5 season. Some idea of the magnitude of the industry can be gained by considering that at £A87 to £A100 a ton, the total value of last season's take was of the order of £A33 million.

The primary purpose of the International Commission is to endeavour to maintain a balance between killing and natural recruitment rates by restricting the total catch of whales. The views of scientific observers concerning the size of the whale stocks, and of the whaling companies on the economics of the industry, are placed before the Commission.

Scientific opinion was almost unanimously in favour of a reduction in the catch because stocks appeared on the available evidence to be suffering a decline. The Commission recommended (with one dissentient) that the existing catch limit of 15,000 blue whale units be reduced in the 1956/7 Antarctic season to 14,500 units.

It was reported that there was generally a decrease in breaches as compared with the year before. Information was made available by the Soviet delegates concerning the use of porous rubber fenders as an alternative to the present use of whale carcases for this purpose. The U.S.S.R. agreed to place full particulars of these fenders at the disposal of the Commission.

A decision was reached that the scientific sub-committee meet again if necessary prior to the next meeting of the Commission, which will commence on June 24, 1957, in London.

(Note: Whether next year's Antarctic catch will be reduced is as yet uncertain. The opposition to the proposed reduction by 500 units came from one country, Holland. If the opposition is followed by an official

protest to the Commission within 90 days, the catch will remain at 15,000 units, regardless of the warning by scientists that too heavy a toll is being placed on the whale stocks).

FISHERMEN'S ADVISORY COMMITTEE

As intimated in the previous issue, the Fishermen's Advisory Committee last month heard evidence in Geraldton and Fremantle in respect to the conservation of the Geraldton - Abrolhos and Fremantle district crayfish fisheries. After consideration of all the points raised, the Committee decided to recommend that the opening and duration of the next open season in each district should be similar to the last ones.

A number of recommendations made by the Committee in relation to closed waters and other restrictions are receiving consideration and will be reported as decisions on them are reached.

MULLET IN THE SWAN

It will be remembered that in Vol. V, No. 3, of March, 1956, Senior Inspector J.E. Munro reported great quantities of sea mullet in the Swan and Canning Rivers during February. In a further report Mr. Munro says that large concentrations of 5" fish were seen during April also, and that at the present time sea mullet of about 8" continue to inhabit the upper reaches and, in addition, can be seen in Perth Water.

He points out that while there is no proof that the fish now in the river are the same population as observed during the latter part of last summer, the possibility that they are the same cannot be overlooked. It will be interesting to watch the mullet catch figures during the coming summer.

FAO AND FISHERIES

"FAO was created to bring action to bear upon the problems of achieving an equilibrium between an expanding world population on the one hand and, on the other, food production, adequate distribution and consumption.

"The sea contains a renewable food resource which though known and used by man from earliest time, has until recently been comparatively neglected and one, moreover, which holds the possibility of greater development."

In these few words, in his preface to the very fine "Fishing Boats of the World" (1955), Dr. D.B. Finn, Director of the Fisheries Division of FAO (Food and Agriculture Organisation), an agency of the United Nations, very aptly defines the functions of the Fisheries Division.

That Division of his is doing a man-size job in providing assistance of many different kinds for improving the productive capacity of the fisheries of the less-developed nations, and promoting the efficiency and welfare of the fishermen. Besides maintaining a permanent staff of front-rank fisheries men - biologists, technologists, chemists, naval architects and the like - FAO has sent out to all parts of the world many leaders in their own branch of fisheries to advise on newer, more efficient methods of fishing, distribution and marketing, mechanisation, utilisation, refrigeration, fish culture, and so on. It publishes quarterly FAO Fisheries Bulletin, which covers the widest possible field of the world's fisheries, and likewise quarterly FAO Fisheries Abstracts, which provides a particularly wide coverage, in abstract form, of advances in fishery technology.

Several special publications have also appeared, and it is under the aegis of FAO that the Indo-Pacific Fisheries Council (of which Australia is a member) and other similar regional councils, have been created as media for the dissemination and exchange of views and experiences at their more or less regular meetings, each held in a different country.

Two international congresses have already been held, the first a Meeting on Herring Technology at Bergen, Norway, in 1950, and the second the International Fishing Boat Congress in Paris, France, and Miami, Florida, in 1953. A third, the International Fishing Gear Congress, is planned for Hamburg in October, 1957. At this meeting it is intended to bring together from many parts of the world specialists working in the field of fishing gear research, design and manufacture to discuss such subjects as net yarns, net-making, the rationalisation of fishing gear design, including the use of electrical equipment.

The Hamburg meeting will last a full week. It will concentrate on recent developments in fishing gear design, materials and construction, and will pay some attention to such subjects as the measurement of gear performance, fish detection, and underwater behaviour of gear and the reaction of fish to it. It is hoped by this meeting to focus world attention on the increasingly important subject of fishing gear technology, and a comprehensive handbook of fishing gear and methods, the first of its kind, will be published.

SAFETY OF PEARL-SHELL DIVERS

It will be remembered that in Vol. V, No. 7, of July, 1956, the report of the Coroner (Mr. A.L. O'Brien) on the death of the head diver of the Greek pearl diving crew was recorded. After hearing evidence, the Coroner recommended that guards should be fitted around the propellers of luggers to prevent the diver's airline being severed. Advice has now been received from the Harbour and Light Department, to whom the recommendation was referred, that after very close and careful consideration it had decided not to implement it. An Engineer-Surveyor of that Department had reported that while the recommendation was not impracticable, it would impair the efficiency of the craft. There had been several instances of a diver's airline being severed by the propeller in the past, he said, but there was no other record of tragedy resulting. It appeared that the deceased had fallen forward after the line parted and had broken the thin glass in his helmet. The Surveyor explained

that experienced divers used a heavy plate glass which could not be broken with a hammer.

In view of the Surveyor's report, it was agreed that it would be unfair to penalise the pearlers by unnecessarily reducing the efficiency of their vessels.

CONVICTIONS RECORDED

July 1 to September 30, 1956

Date	Defendant	Court	Charge	Result
13.8.56	Cappelluti, S.	Fremantle	U/size Crayfish	Fined £8
8.3.56	Hams, W.C.*	Geraldton	do.	" £5
21.3.56	Delaney, T.*	do.	do.	" £4
13.3.56	Burnett, R.T.*	do.	do.	" £4
13.3.56	Delaney, T.*	do.	do.	" £8
13.3.56	Nisbett, J.*	do.	do.	" £4
13.8.56	Fremantle Fishermen's Co-op.	Fremantle	Berried Crayfish	" £3
13.8.56	Landsell, J.	Geraldton	U/size Crayfish	" £20
13.8.56	Landsell, J.	do.	do.	" £10
13.8.56	Delaney, T.	do.	do.	" £10
13.8.56	Nisbett, J.	do.	do.	" £4
25.9.56	Grubba, J.	do.	do.	" £4
25.9.56	Finlay, S.	do.	do.	" £10
25.9.56	Barker, G.	do.	do.	" £8
25.9.56	Scott, C.J.	do.	do.	" £5

* Omitted from previous list

CONVICTIONS RECORDED (Contd.)

Date	Defendant	Court	Charge	Result
25.9.56	Finlay, H.	Geraldton	U/size Crayfish	Fined £4
25.9.56	Groom, R.	do.	do.	" £5
25.9.56	Kijenia, M.	do.	do.	" £10
7.8.56	Johnstone, L.J.	Harvey	U/size Marron	" £2
14.8.56	Nelson, E.R.	Perth	U/size Fish	" £5
28.8.56	Thomas, D.	do.	Non-submission returns	" £1
27.9.56	Woodhouse, R.J.	do.	U/size Fish	" £2
27.9.56	Crocus, R.J.	do.	do.	" £2
27.9.56	do.	do.	Close Waters	" £2
5.9.56	Wood, T.	Pinjarra	Fishing closed waters	" £5
do.	Matthews, D.	do.	do.	" £5
do.	Curral, H.	do.	do.	" £5
do.	Stone, A.C.	do.	do.	" £5
do.	Matthews, W.	do.	do.	" £5
5.9.56	Okomoto, A.	do.	U/size Fish	" £2
5.9.56	Watts, Alice L.	do.	do.	" £2

CONVICTIONS RECORDED (Contd.)

Date	Defendant	Court	Charge	Result
Fauna Protection Act :				
23.8.56	Young, Mrs. Z.	Perth	Overcrowding of birds	(5 charges) Fined £4
5.9.56	Morrison, J.	do.	Taking protected fauna (kangaroos)	" £2
5.9.56	Parke, R.V.L.	do.	do.	" £2
5.9.56	Nelson, R.G.	do.	do.	" £2

TROUT IN FARMERS' DAMS

Following publication in a recent issue of Outdoors and Fishing (Sydney) of a paragraph stating that trout had been successfully acclimatised in dams in the Lake Grace district of W.A. but that they could not be taken with rod and line, the Department wrote to Mr. Duncan McL. Stewart, of "Craignish", Lake Grace, who had established and caught trout in his dams.

He has now replied that all the trout he has taken have been with rod and fly. He says he has landed about a dozen fish, and also lost a few. His best results have been with a very light line and cast, using a "Beaver Kill" fly. He stresses that the art of fly-fishing is to find the insect which at the moment is the most acceptable to the trout, and then to imitate it in the artificial fly.

The first plantings were made in the Lake Grace district just on two years ago. Mr. Stewart says that fish up to 2¼ lb. have been netted

in some of the local dams. The largest he has taken with a fly was 12 in. in length, about 18 months after planting as fry. He avers that the fish are in splendid condition, "equal to any that I have seen or caught in England and Scotland."

ABROLHOS CRAYFISHERY

As will be seen from the table on page 135, the total production for the 1956 Abrolhos season was slightly less than for the previous year. As there was a slight increase in the number of men fishing, the catch per man also declined. The drop in production and the fall in the catch-per-man, however, cannot be considered as serious nor are they any indication that the fishery is failing. It will be recalled that the March cyclone delayed the opening of the season by a fortnight and this restricted fishing operations to some extent.

WILD LIFE EXHIBITIONS

Senior Inspector J.E. Munro during September was in charge of departmental exhibits at two wild-life shows, that held in Perth Town Hall from September 10 to 15 under the auspices of the W.A. Naturalists' Club and the Gould League, and that in the Kalgoorlie Town Hall from September 25 to 28, organised by the Australalian Inland Mission.

Many thousands of visitors, predominantly organised groups of school children, saw the Perth exhibition. The departmental exhibit was one of the centres of attraction, and Mr. Munro was kept particularly busy answering the myriad questions fired at him.

The following extract from the "Kalgoorlie Miner" of September 26 refers to our exhibit at the A.I.M. Show -

ABROLHOS CRAYFISHERY

	1953 SEASON			1954 SEASON			1955 SEASON			1956 SEASON		
	Total	Catch per Man	No. of Men	Total	Catch per Man	No. of Men	Total	Catch per Man	No. of Men	Total	Catch per Man	No. of Men
	lb.	lb.		lb.	lb.		lb.	lb.		lb.	lb.	
North Is.	123,243	17,606	7	208,972	13,931	15	278,681	15,482	18	395,831	12,769	31
Wallabi	573,081	22,041	26	679,783	18,883	36	717,699	18,402	39	713,153	16,979	42
Easter	647,967	16,199	40	814,848	19,784	41	802,879	17,082	47	774,172	20,373	38
Pelsart	294,020	17,294	17	415,797	19,800	21	672,885	14,952	45	561,512	14,038	40
TOTALS .	1,638,311	18,203	90	2,119,400	18,756	113	2,472,144	16,592	149	2,444,668	16,189	151

"Scores of school children who were conducted around the exhibits by their schoolteachers, regarded the section arranged by the Fisheries and Game Department as one of the most popular in the hall."

The Superintendent (Mr. Fraser), as Chief Warden of Fauna, has accepted an invitation to perform the official opening ceremony at a similar Show to take place at Katanning on October 25.

AN ALL-AUSTRALIA FISHERMEN'S CO-OPERATIVE

The Australian Professional Fishermen's Federation has registered in Canberra a co-operative society to embrace fishermen throughout the Commonwealth.

So says a report from Sydney.

The formation of the society is part of the Federation's plans for expanding the industry, the report goes on. It will import fishing gear and other requirements for the industry to be sold to fishermen at reduced prices. Profits of the new co-op. will go to the Federation.

Directors are Messrs. J. Lihou (Queensland), R. Fowler (South Australia), W. Matthei (Western Australia), F. Barrand and S. Lockwood (Victoria) and J. Facey (New South Wales).

FISHERIES MINISTER LEAVING FOR HOME

The Hon. L.F. Kelly, M.L.A., Minister for Fisheries, who is at present visiting the United States and Canada in company with the Under Secretary for Mines (Mr. A.H. Telfer), will sail from Vancouver on October 23. He is expected to take up his normal duties in Perth on November 26.

THE CLEARING HOUSE

Fish Oil Research May Lead to New Products

Those properties of fish oils which chemists call "unsaturated long-carbon-chain fatty acids" and which are partially responsible for the low price which fish oil sometimes brings in the market, may be transformed from liabilities to assets, U.S. Fish and Wildlife Service research experiments indicate.

Involved is recent work by the chemists in the Fishery Technological Laboratory in Seattle, Washington, to develop new chemical products from fish oil. It well may have opened the door to the utilisation of fish oil in the manufacture of many products just as other efforts by chemists have paved the way for the manufacture of new products from coal.

This experimental programme is being conducted in Service laboratories and in several Universities under contract with the Fish and Wildlife Service. Another experimental programme endeavouring to find new uses or better utilisation of fish oil in its natural state, is being carried on at the Service's Fishery Technological Laboratory at College Park, Maryland, with several colleges cooperating.

A goal in the first programme was achieved recently when some of the "unsaturated long-carbon-chain fatty acids" were isolated on a laboratory basis by some of the Service chemists in Seattle. Yet to be solved is the problem of isolating these unsaturated fatty acids commercially.

Chemists cannot say just what products will result from their work but they feel that once these unsaturated fatty acids are available to industry a number of new or synthetic products will be noted. As various compounds are developed at the Laboratory, the Service will release information to industrial chemists giving the physical and chemical characteristics of the material and a description of how the material was isolated.

Other efforts to develop new chemical products include work on fish meal and oil at the Service laboratory at Ketchican, Alaska; studies on the structure and analysis of highly unsaturated and saturated acids, the problem of odour in fish oils and the chemistry of inclusion-type complexes in fish oils, at the University of Minnesota; oxidation of fish oils at the University of California; and the possibility of utilisation of fish oil derivatives in ore flotation, at the University of Minnesota.

The studies on new uses of fish oils through improvements in their quality include a study of the chemical and physical characteristics of the oils, North Carolina State College; chromatographic analysis of the constituents of marine oils, Texas A & M Research Foundation; study of the nonglyceride fractions of fish oils, University of Delaware; use of fish oils in high energy poultry rations, University of Connecticut; preparation of new resins from fish oils, Arthur D. Little Company, Cambridge, Massachusetts; fish oil insecticides and fungicides for the citrus industry, Florida Southern College; fish oils in the lubrication of leather, University of Cincinnati. There is also a study on the use of fish oil in swine diets at Oregon State College.

("Western Fisheries" Vancouver, B.C. July, 1956.)

Black Pearls

Not even an oyster can make a black pearl. Just how Japanese specialists do so is still a secret. The art is supposed to be based on the idea that the core and the outer layers of pearls have different heat expansion coefficients. The outer layers are loosened from the core substance under heat after which a pigment is forced into a small hole drilled in the pearl. The pigment seeps evenly between the core and the outer layers of the pearl. It is claimed that the pearl thus created does not lose its lustre. This jewel has become quite popular with the ladies.

("Western Fisheries" Vancouver, B.C. July, 1956.)

Mudd's New Factory's Weekly Capacity Includes One Million Fish Sticks

Though the demand for wet fish has declined, the losses have been more than compensated for by a terrific rise in the popularity of quick-frozen packs, fish sticks and fish cakes, Mr. T.B. Northcote, managing director of H. Mudd and Son, told a press conference this week.

Mr. Northcote spoke at the opening of Mudd's new Grimsby factory which is capable of turning out more than a million fish sticks a week.

Though not yet in full production, the factory has already manufactured, ready for use, half a million sticks a week and a quarter of a million fish cakes.

Sited behind Mudd's wet and dry fish processing plant, the new premises consist of two sections, respectively 125 by 60 and 175 by 60 ft. in area. The new plant has been designed to get as near to 100% mechanisation as possible.

Huge cold storage facilities in a virtual air-lock have been built at one end behind a range of Jackstone Frosters.

Great care has been taken to ensure that the 150 to 200 workers enjoy the best possible conditions, and every trace of frying-odour and steam is drawn out of the building by special fans working a tunnel system.

Mr. Northcote told reporters "I think there is no doubt that we can produce in our present factory upwards of a million fish sticks a week if necessary".

The new premises also contain sections for the processing and manufacture of quick-frozen consumer packs, shellfish and other fish delicacies.

For the production of Scampi, Mudd's have a machine invented by themselves for washing and processing.

During the tour of the works, Mr. E. Riding, Assistant Under Secretary (Finance), Queensland, Australia, was an interested spectator.

H. was accompanied by Mr. W.H. Williams, District Inspector for the Ministry of Fisheries.

("The Fishing News" London July 27, 1956.)

30,000 Lake Trout Planted in Superior

The U.S. Fish and Wildlife Service recently planted more than 30,000 lake trout in Marquette Bay, Lake Superior.

Of that number, 29,697 were yearling lakers and the remaining 800 were two-year-old trout that had been tagged.

Three different types of tags were used to test which is the most effective and to help learn something about distribution and movements of lake trout.

Some of the trout were marked with Peterson tags, nickel pins forced through the base of the dorsal fins and having disc-shaped plastic tags affixed to them. Other trout were marked with streamers, oval-shaped tags affixed to the base of the dorsal fin by means of nylon thread. The third type of tag employed was the jaw tag.

("Fishing Gazette" New York July, 1956.)

New Spray Cleaner Takes Off Grease

A new and highly effective spray cleaner and degreaser for engines, grilles, fans, floors, textiles and other surfaces soiled by grease or oil is being produced by Krylon, Inc. After application of the new spray cleaner, the grease or oil deposits may be rinsed away with water.

("Western Fisheries" Vancouver, B.C. July, 1956.)

U.S. Biologists Track Salmon by Radio

Radio equipped adult salmon are now charting their spawning routes up western rivers to aid man's programme of devising better methods of helping them over natural and man-made obstacles.

The "radio" is a sonic tag attached to the back of the fish by investigators of the Fish and Wildlife Service of the Department of the Interior. Sound waves transmitted by the tag are picked up by calibrated receiving equipment. Use of the device permits pinpointing the position of the fish and plotting its movements.

The sonic tag enables biologists to study in detail the movements of salmon in relation to existing dams. The detailed knowledge resulting from the observations is necessary for the effective operation of fish passage facilities and for the design and location of new facilities, Parker Trefethen, fishery research biologist with the Pacific Salmon Investigation of the Fish and Wildlife Service at Seattle, said recently.

The sonic tag is a self-contained miniature underwater sonic transducer. It is $2\frac{3}{8}$ inches long, .86 inches in diameter, and is balanced by its content of air to weigh only 2 grams when submerged so that the fish is unaware of the burden.

The electronic current, the battery power source and the resonating barium titanate crystal are all contained within the tag. The crystal resonates intermittently at 132 kilocycles per second and the sound wave transmitted into the water can be detected up to 2000 feet for 100 hours. The sound does not bother the fish.

The tag is attached to a fish underwater without handling the fish or without immobilising it. A "hog-ring" rigidly attached to the tag is clinched into the back of the fish behind its dorsal fin with a special pliers.

For attaching the tag the fish is led into a four-foot square trap where the water is about one foot deep. The tag is attached after the fish becomes quiet

and maintains a constant position. The biologists point out that this method minimises the effect of tagging on the natural behaviour of the fish and does no harm beyond disturbing its movements for a few seconds.

After the tag is attached the fish is released from the trap and the fish and Wildlife Service biologists board their receiver equipped boat and start the chase, following the fish until the transducer battery wears out.

The equipment can also be used to study the movements of salmon in a marine environment and as they progress through an estuarial environment into fresh water, Trefethen said. It can also be applied to the study of behaviour patterns of other large fish and aquatic animals in lakes, rivers and in the sea.

Information which has been previously unobtainable because of the natural limitations of turbidity and turbulence can be obtained with the sonic equipment.

("Western Fisheries" Vancouver, B.C. May, 1956.)

How's Your Compass?

The cheapest form of life insurance is to insure that you have an accurately adjusted compass in the pilot house, with magnets positioned on the eight cardinal points so that the instrument registers a true bearing. You cannot just place a compass aboard to serve any useful purpose without adjustments to offset magnetic attractions. Watch the checking of your compass on the known harbour courses. You will be surprised how wrong you could be. An automatic steering device depends on an accurate compass when you are running point to point in narrow channels, and in a fog.

("Western Fisheries" Vancouver, B.C. May, 1956.)

L & H Build Fibre Glass Boats

A strong indication that fibre glass boat-building has come to stay in South Africa has been given by the entry into the promising industry of the Union's largest boatbuilding firm.

Over the past 30 years the firm of Louw & Halvorsen Ltd. has built more than two-thirds of South Africa's large fishing craft. To-day it has substantial yards and repair establishments in Cape Town and also has flourishing branches in Durban, Laaiplek and Walvis Bay. And, as a new associate, it has the firm of Bonded Fibreglass (Pty.) Ltd., which is producing four to five glass reinforced polyester resin boats a week in the Louw & Halvorsen workshops near the Sturrock Graving Dock in Cape Town.

In an interview with the South African Shipping News and Fishing Industry Review, Mr. J.C. de Beer Louw, Chairman of Louw & Halvorsen, said that he regarded fibre glass boats as a useful addition to the range of craft turned out by a modern boatbuilder. "But it is essential", he said, "to manufacture craft specially designed to make the best use of the lighter material. When we make a fibre glass boat we also develop a design suited to its lighter construction. For example, our 12 ft. long dinghies have a flatter bilge and a wider beam on the water than the conventional wooden dinghy. We believe there is a big future for these craft provided we design them and build them to obtain the best possible advantages from the new material."

One of the boats which is likely to prove popular is a 10 ft. sailing pram. These small, light boats are said to be ideal for training children in the rudiments of yachting.

According to Mr. R.B. Stevenson, a director of Bonded Fibreglass, the firm is developing new methods of moulding the boats and ia also extending its production range to include car tops, surf boards and water skis.

("South African Shipping News and Fishing Industry Review" Cape Town August, 1956.)

How Other People Catch Fish

What is known as snag-line fishing is practised in the south of the U.S.A. It is patterned somewhat after the Russian method.

A snag-line tackle consists of 2,000 to 10,000 hooks. Spear point hooks are threaded with No. 12 to 20 nylon filament twine, 20 in. in length doubled and looped onto the main line, 10 in. apart. The main line may be anything from No. 24 to 36 nylon thread. The lines in 500 hook sections are then reefed to an iron rail which is mounted aft, with the clear end extending slightly beyond the stern so as to allow the hooks to clear the boat when running out, with oars or motor.

Each rail will hold 1,000 hooks. The lines are staked at each end and the depth fished depends upon the length of the buoy cords which are placed at intervals along the line.

In river fishing, anchors are used on the outer end instead of stakes, because of the greater depths. The catching qualities of this tackle are amazing, because no bait is used.

While spoonbill and sturgeon are mostly snagged, the smaller fish, such as catfish, buffalo, redfish, speckled trout (weakfish) and other varieties really bite the naked hook. The bulk of spoonbill caught are produced with snag-lines.

This is an F.A.O. abstract of an article in American Journal Fishing Gazette.

("The Fishing News" London July 27, 1956.)