

Institute of Fisheries Research

(Continued from Page 1, Section 7)

dent Graham further considered the matter and at a meeting in August 1945, Dr. Coker reports "There was unanimous agreement that there should be an Institute of Fisheries Research and that it should be associated with the University in Chapel Hill. It was agreed with equal unanimity that we ought to have as a foundation an up-to-date survey of the state's marine fisheries and the resources on which they are based."

Dr. Harden F. Taylor, noted marine scientist, conducted the survey. This was preceded, of course, by exhausting efforts to obtain the necessary funds. The university officials requested the cooperation of the Department of Conservation and Development and the department responded by donating buildings at the section base near Morehead City as headquarters for the survey and the institute. When the Knapp Foundation Inc., of New York, later offered \$130,000 for establishment of the institute, the state (through the efforts of Roy Hampton and other members of the Board of Conservation and Development, as well as Dr. Coker) provided matching funds.

Dr. Coker was its first director, but he resigned Aug. 1, 1948, to become chairman of the executive committee. He was succeeded by Mr. Ellison. The present chairman of the executive committee is Dr. Donald P. Costello, head of the department of zoology, University of North Carolina.

The institute has concerned itself with solving the practical problems of the fisherman, working closely with the Department of Conservation and Development so that fisheries regulations and laws could be based on wisdom instead of whim. This involves, of course, scientific research which has added to the general knowledge of marine biology and has uncovered information applicable specifically to the marine life of North Carolina waters.

In 1948 the institute undertook a study of the commercial shrimping grounds on the continental slope of the North Carolina coast. The slope was charted, depth of water and hazards to fishing marked and through this work a new fishery in the Southport area was opened.

Study Made

Carter Broad, shrimp specialist on the institute's staff, conducted a study of the shrimp population in Pamlico Sound and through that work the nocturnal habits of the brown spotted shrimp were discovered.

When it was shown that these shrimp could be taken by trawl at night only, the Department of Conservation and Development lifted its restrictions against night trawling.

It has been estimated that the opening of this fishery amounted to approximately two million dollars to the shrimping industry over the four-year period from 1950 to 1954.

From 1952 to 1954 intensive study of the life history of the brown-spotted shrimp was undertaken. This was another interlocking phase of the institute's purpose, to obtain basic facts through pure scientific research as well as to deal with immediate, pressing practical problems.

Dr. Coker, in a report before the advisory council of the institute in 1949, said, "As long as we have state support there will always be the demand, and a proper demand, for getting right down to practical problems. There will be the insistence that we solve the problem of the shrimp, the oyster, the menhaden, the croaker, and other fishes."

"I can say, however, with the strongest conviction, that no one is going to solve the shrimp problem, or the oyster problem, or the croaker problem, until we know more about the basic physical, chemical and hydrographic conditions which inevitably play so great a part in the migrations, the reproductions and the cycles of abundance of these resources."

"We are short-sighted, indeed, if we do not always maintain a proper balance between studies of conditions in the seas and the sounds. In the long run, studies of the latter sort are highly practical."

Oyster Rehabilitation

Oyster producing bottoms of the state have been surveyed since 1948, shells and seed oysters have been planted, oysters transplanted and a vast amount of knowledge on the state's oyster industry compiled. The studies were conducted by Dr. Chestnut, who served as the institute's shellfish specialist.

Hydrographic studies of the state's sounds, tributary waters and the ocean were undertaken by the institute which obtained the cooperation in this project, of the Woods Hole Oceanographic Institute and the Fish and Wildlife Service.

Brief biographies of the institute's personnel follow:

Dr. A. F. Chestnut

Born in Stoughton, Mass., and educated there in the public schools, Dr. Chestnut received his bachelor's degree in biology from the College of William and Mary in 1941. Then he enrolled at Rutgers University where he obtained master and doctor's degrees in zoology in 1943 and 1949.

He was employed as biologist for the Chesapeake Corporation of Virginia in their oyster project during the summers of 1941 and

1942. From 1943 to 1948 he was research associate in oyster culture and in charge of the Oyster Research Laboratory of Rutgers University. He came to the Institute of Fisheries Research in June 1948 as specialist in oyster culture and in 1949 was raised to the rank of associate professor in the University of North Carolina.

A member of numerous honorary and professional societies, Dr. Chestnut also served as secretary-treasurer of the Atlantic Estuarine Research Society (1952-53), and president of the National Shellfisheries Association (1953-55).

At present he is a member of the Morehead City School Board and president of the Morehead City Rotary Club.

Dr. Chestnut's wife, the former Janet Hamilton Wood of Roanoke, Va., is also a graduate of William and Mary College. They have three sons, Alfred, John and Robert.

Dr. William E. Fahy

Newly-appointed as finfish investigator for the Institute of Fisheries Research, Dr. William E. Fahy was a research assistant in mollusc investigations from 1951

to 1955 and is now assistant professor on the institute staff. In his new capacity, Dr. Fahy has also been named coordinator for the North Carolina Striped Bass Study, a proposed three-year cooperative fishery biology research program with the U. S. Fish and Wildlife Service, the North Carolina Department of Conservation and Development, North Carolina State College and the North Carolina Wildlife Resources Commission.

Though he has worked with molluscs since coming to the institute, Dr. Fahy's new appointment places him in the field of his choice and special training. Dr. Fahy was a commercial fisherman on the Great Lakes in the summers of 1939 and 1940. At that time he was attending Cornell University.

After an interruption for service in the Army Air Corps, he graduated in 1946. During his graduate training at the University of Rochester, he conducted biological field surveys for the New York State Conservation Department, and served as research assistant and instructor at the university. He received his doctorate in zoology in 1951 and holds membership in several scientific societies.

Dr. Fahy's wife is the former Katherine L. McIntosh of Rochester. They have two sons, William and Michael.

Hugh J. Porter

Born in Bowling Green, Ohio, Hugh J. Porter spent most of his childhood in Millersville, Pa., where his father is head of the music department at Millersville State Teachers College.

Mr. Porter received his bachelor's degree at Millersville State Teachers College and later did graduate study at Pennsylvania State University. He taught mathematics and science in the public schools of Maryland until drafted into the Army.

He served in Korea as a member of the Second Infantry Division Band. After being discharged, he again went to graduate school, this time at the University of Delaware where he majored in marine biology. During that time, he was recipient of a Damon Runyon Cancer Fund Fellowship and was em-



Mr. Porter

played as a research assistant in Delaware's Marine Laboratory, both on the Newark campus and at Lewes, Del.

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Dr. A. B. Williams

A native of the midwest, Dr. Williams joined the Institute of Fisheries Research staff in 1951. He served as shrimp investigator for one year, after which he was raised to the rank of assistant professor. During that time he was in charge of shrimp research, and in the summer of 1955 he was appointed acting director of the institute.

Dr. Williams received his bachelor's degree from McPherson College, McPherson, Kan., (1943) and did his graduate studies at the University of Wisconsin and the University of Kansas where he took the doctorate in zoology in 1951. From 1944-46, he was a science teacher in Kansas public schools.

During his graduate training, Dr. Williams was a University Fellow, a teaching assistant and an



Dr. Williams

acting instructor. He is a member of several honorary and professional societies.

Dr. Williams left the institute in September to assume new duties in the University of Illinois at Chicago. His wife, the former Jean McNichol, also attended McPherson College and did graduate work in the School of Sacred Music at Union Theological Seminary, New York City. For the past two years she was director of the First Methodist Church choir, Morehead City. They have one son, David.

John G. Wegener

An experienced sailor John G. Wegener, boat captain at the institute, was born in Lehe, Germany. Before he was a grown man, he had already spent seven years at a fisherman in the North Sea, and around Iceland and Greenland.

At the end of that time he came to the United States and spent the next 20 years fishing out of Gloucester and Boston, chiefly as skipper and mate. During this time, he attended navigation school in Boston and New York.

During World War II, Captain



Mr. Wegener works on a net

Fishermen Rely On Net Products Of Beaufort Firm

Midyette Sells Fishing Gear; Standard Also Makes Sports Nets

Standard Net Co. of Beaufort, in business for only seven years, has proven its worth to the fisherman of North Carolina many times over.

Before Standard opened its offices in the Royal Building in Morehead City in 1948, the fishermen had to place orders for many of their equipment needs with sales representatives of the various thread companies. There being no stock rooms in the area, the orders were relayed a considerable distance to be filled, with resulting delays ranging from days to weeks.

Today the commercial fisherman can go to the sales rooms of the well-equipped plant, now located on the Lenoxxville Road in Beaufort, and get his order filled in the time it takes a clerk to bring it from the stock room to him.

Stock Space Tripled

The firm, with its subsidiary, the Midyette Net and Twine Co., has tripled its stock space in the seven years it has been open for business. It moved in 1952 into a spacious well-lighted plant acquired from George Eastman, Beaufort, who had used it as a furniture warehouse. The plant has fifteen thousand square feet of floor space.

The Midyette firm caters exclusively to the commercial fishing industry, selling cordage, seine twine, maitre cord, corks, net leads, cotton rope, manila rope, floats, and rings.

The company also supplies the newer synthetic twines, including nylon, dacron, and polyethylene, which are proving popular in making and mending nets. The synthetics are highly durable, needing no chemical preservatives, and possessing unusual strength.

Standard produces all types of nets, commercial and sports, and employs about 100 people in the plant itself. All net is custom-made except fish nets.

Additional workers, ranging in number from 35 to as high as 400, are women from the eastern end of Carteret County, who knit nets in their homes. Material is supplied by the firm and a company representative picks up the finished product for delivery to the plant. Jesse Goodwin of Cedar Island is in charge of this operation.

Lures, hooks and other gear needed on sports fishing boats are carried by the Beaufort firm. Although the importance and continuing growth of the fishing industry influenced the decision to locate Standard Net in Carteret County, fishing is by no means the mainstay of the firm. The needs of the industry account for only about one-fourth of the firm's gross.

For Other Industries

Industrial nets make up the largest portion of the firm's production, with orders being shipped all over the nation and to various foreign countries.

The firm is the agent for Columbian Rope, Chance Earth Anchors, Chicago Hardware, Malin Steel, Art Metal Stamping, Wire Rope, Plymouth Rope, Linen Thread, and the B. F. Huntington Co.

Officers of the Standard Net Manufacturing Co. and Midyette Net and Twine Co. are Walter Lasker, president; Mrs. Walter Lasker, secretary; and Preston Midyette Jr., treasurer. Mr. Midyette also serves as plant manager in charge of production.

Quick, friendly service and dependable products, an unbeatable combination, have won for the Beaufort firm the confidence of the fishing industry which it serves so well.

John served three years in the armed forces and in that time saw active duty in North Africa and Italy.

As well as a Master Mariner, Mr. Wegener is a master craftsman in the making of nets and other types of gear. In addition to constructing standard gear, he has made a number of experimental nets for other laboratories as well as the institute.

Mr. Wegener's wife is the former Iva Owenby of Hendersonville, N. C.

Three Assistants

In addition to the regular research staff, the institute employed this summer three students as temporary research assistants. They were J. M. DuBose, student at the University of North Carolina, R. J. Miller, student at Cornell University and B. L. Moore, student at North Carolina State.

Mr. DuBose and Mr. Moore were assistants in the mollusc investigations and Mr. Miller was an assistant in the fish investigations.

The permanent secretary, Mrs. Robbie Daniels, was temporarily replaced this summer by Miss Nona Blanchard. The buildings and grounds are attended by Harry Willis of Marshallberg. Mr. Willis has been with the institute since 1948.

In 1952 over 12,000,000 pounds of shrimp were canned at a value of about \$13,000,000.

A. W. Daniels, Charlotte, Directs Advisory Board

Heading the newly-created North Carolina Fisheries Advisory Board is A. Winfield Daniels of Charlotte.

At first thought, one wonders why a resident of a major city in the western part of the state should be chosen to head a committee dealing with a coastal industry.

But things come into focus upon closer investigation: Mr. Daniels was born on Cedar Island and now heads a large fish wholesale business in Charlotte.

Cedar Island is located at the eastern end of Carteret County, its shores lapped by both Core and Pamlico Sounds. On it are two communities, Roe and Lola. The men of these communities earn their living by fishing and it is among these people that Mr. Daniels was reared.

His first fishing experience was in sailboat and skiff. His father and grandfather before him had been fishermen and even as Winfield was growing up, the fishing industry had some years to go before power entered the picture and took a tremendous load off the muscles of the fisherman.

When Winfield was a lad, in the early 1900's, fish caught by Cedar Islanders went by boat to market — to Morehead City, New Bern and Washington, N. C. Trucking was out of the question. The only "roads" were the waterways.

Attended St. Paul's

Because his family knew education was as important as hauling a net, Winfield was sent to St. Paul's School in Beaufort. After he finished high school, he went to the University of North Carolina until the outbreak of the first World War. He then served as a commissioned officer in the Navy and later in the Merchant Marine.

Deciding to leave the life of a mariner, Mr. Daniels went to Charlotte in 1928 and there, by himself, he started to sell fish. That was the beginning of the Charlotte Fish and Oyster Co. which is today one of the leading inland wholesale distributors of fish in southeastern United States.

Aware of Mr. Daniels' background, the director of the Board of Conservation and Development, Ben Douglas, knew that he would be the ideal man to head the fisheries advisory board created by the 1955 general assembly.

Named by Governor

Mr. Daniels and six other men closely allied with the fishing industry, were formally named to the board by Gov. Luther Hodges in July.

They are George Wise, Stumpy Point; Monroe Gaskill, Cedar Island; Kenneth Meadows, Swansboro; Lewis Hardee, Southport; Dick O'Neal, New Holland, and Bill Mason, Oriental.

The first meeting took place in July at Morehead City. Mr. Hardee was elected assistant chairman and Mr. O'Neal secretary. Mr. Daniels, as the member-at-large, automatically became chairman upon appointment, as provided by law.

The duties of the fisheries advisory board are to supply information and make recommendations to the commercial fisheries committee of the Board of Conservation and Development.

Such a board was deemed advisable because, in the past, many members of the C&D commercial fisheries committee knew little about the fishing industry. As ridiculous as that may sound, it was true and was an unfortunate circumstance which emerged without premeditated malice, yet beleaguering a state organization which otherwise was capably dealing with conservation problems.

To correct the situation, the fisheries advisory board was proposed and was brought into being through a bill introduced by T. J. Collier of Pamlico County (see story page 4, section 7).

The bill directs that "the Board shall meet at the call of the Commercial Fisheries Committee of the Board of Conservation and Development and shall meet at least once annually immediately preceding the July meeting of the Board of Conservation and Development."

The law also says that members of the board shall represent every fishing area of the state and, where possible, every income group of the industry. The fishing areas have been defined as the Southport area, New River Inlet, Morehead City area, Pamlico, Hatteras and Albemarle areas.

The bill requires further that "all members of the committee, are to have a personal knowledge of the commercial fishing industry and an interest in its welfare and development. The members so appointed shall represent, as well as is practicable and possible, all income levels, and all phases of the commercial fishing industry."

The members serve staggered terms, thus assuring the fishing industry that there will always be an experienced majority on the board. The advisory board took an active part in July in amending the fisheries regulation (No. 2-154) which limits the amount of small edible fish that can be sold to dehydrating plants.

The existence of this new board is considered by men in the fishing industry as a step toward improvement in government administration of fisheries.

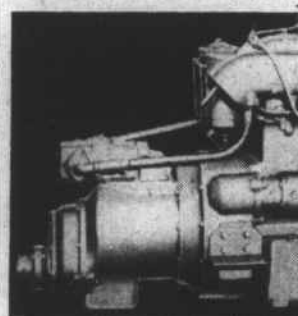
Gray Designs Engine That Fisherman Likes

The Gray Marine Motor Co. division of Continental Motors Corp. lists a total of four diesel engines, and also a wide range of gasoline engines in nine basic sizes. These are marine engines built to answer marine power problems.

For maximum economy and best idling Gray offers the Lugger Series of engines with low compression and "hot manifold." These operate at top speeds of 1800-2400 rpm, and are recommended for heavy-duty work. For applications where higher output is wanted, Gray offers the Express Series (3000-3200 rpm) with higher compression and colder manifold. Gray also builds high-speed engines for pleasure boats.

Of particular interest to fishing-boat owners is the Gray Diesel Six-D427, weighing only 1,475 lb. including reduction gear. This has a continuous output rating of 100 hp at 2200 rpm, fresh water cooling, and a new single plunger Bosch injection pump which requires no checking of lubricating oil level and no periodic refilling, because it is connected on the engine's oil pressure system for continuous flow.

All Gray diesels are four-cycle type, for fewer parts and simpler maintenance, and all are equipped



Graymarine's Six-D427 Diesel, 100 hp continuous duty rating at 2,200 rpm and weighing 1,475 lb. with reduction gear. Engine shown is equipped with a 2:1 hydraulic gear. Fresh water cooling system is standard equipment on all Gray Diesels.

with the Gray fresh water cooling system as standard equipment. The 6-cylinder Gray diesels feature cold weather starting equipment as standard, and the use of aluminum wherever possible to reduce deadweight.

The new Gray gasoline engines are the 175 hp Model 175, with dual up-draft carburetors, and a single carburetor companion Model 165. Both are 363 cu. in., with maximum power at 3400 rpm. Their weight is only 1,050 lb. Both have sodium-cooled exhaust valves, seven main bearings, individual intake porting, 12-volt electrical system as standard, and water-heated intake manifold for even idling at low speeds for long periods.

Gray also offers a 200 hp engine, Model 200, which has 427 cu. in. piston displacement for easy loading on big propellers. It has dual updraft carburetors, while its new

From a one-man beginning, the Charlotte Fish and Oyster Co. has grown to an organization which today has a hundred employees. The founder, A. W. Daniels, continues as owner and manager.

A fleet of 10 trucks stream out from the Charlotte plant to cover western North and South Carolina. To inland cities in those areas, the trucks are welcome sights, bringing the fresh, luscious seafood so alien to the upland country.

Seven salesmen for the firm pave the way for deliveries, and the enterprise shown by the founder is reflected in today's operations — for the company, in size, stands up with the largest of its type in the southeast.

The Charlotte Fish and Oyster Co. pioneered the selling of dressed fish in this state and was also the first to distribute frozen filets.

The plant's two million pound freezer turns out filets in 12-ounce and 1-pound consumer packages and in 5 and 10-pound institutional packs.

Although freezing is a major operation, the company also sells fish fresh dressed, in the round and in the rough (just as they come from the sea).

To keep the tremendous plant in operation, Mr. Daniels has to go beyond the resources of this area for his product — thus imports come from Iceland, Denmark and Canada.

He is vitally interested in the conservation of edible fish in the North Carolina coastal and inland waters and as head of the state's Fisheries Advisory Board hopes to take steps that in the future will assure North Carolina of adequate supplies of marketable fish.

The opening of the Engelhard plant by Mr. Midgett and Mr. Brittain, helped to relieve the plight of the fishermen who at times simply couldn't obtain enough ice to preserve their catch.

The original freezing machinery of the plant is still in operation. The diesel engines which originally produced power for the ice plant and for the customers of the Pamlico Ice and Light Co. are still in working order, but are used only as auxiliaries to produce power in case of emergency.

Mr. Brittain, a native of Suffolk, Va., attended school there before going to work with Standard Oil Co. After working for eight years with that firm, he moved to Engelhard to work for his brother-in-law, who was setting up his plant there.

A large portion of the plant's ice 15 years ago went to Stumpy Point, which, Mr. Brittain recalls, was the base of operations for 47 boats, as compared to 17 working out of Engelhard at the time.

Mr. Brittain has been a wholesale dealer in shrimp, at times in 1938-1939 paying as little as three cents a pound and selling as low as \$7 a box, delivered in New York. Present prices frequently range as high as \$60 a box. The ice plant has storage facilities for about 300 boxes of shrimp.

Mr. Brittain gets along well with both fishermen and dealers. He realizes how important ice is in the industry and feels deeply responsible for producing the product in sufficient quantity when the fishermen need it most.

Ocean waves as high as 112 feet have been officially measured during severe storms at sea.

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