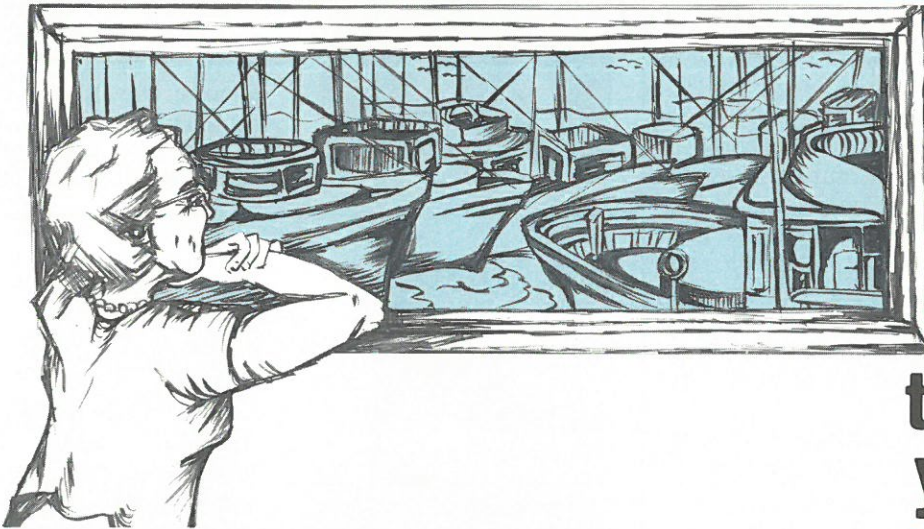




# University of North Carolina Sea Grant Program NEWSLETTER

SEPTEMBER, 1974

1235 Burlington Laboratories  
NCSU, Raleigh, N. C. 27607 Tel. (919) 737-2454



## Making the most of your catch

Mrs. Monna Jean Styron perched behind the counter at the Morehead City Yacht Basin, making change and chatting with customers. Out the window behind her, rows of proud white boats, spiffed up like sailors ready for inspection, stood at attention.

Mrs. Styron owns and operates the business she and her late husband, W. L. "Bump" Styron, took over more than a quarter century ago. Over the years, the Styrons had to expand their business—largely because more people discovered the fun of fishing. From her seat in the window, Mrs. Styron has watched sports fishermen haul tons of fish onto her docks. And each year it seemed they brought in more.

Although it's tough to determine how much fish non-commercial fishermen bring in each year, conservative estimates say that 25 per cent of the state's commercial catch is landed by sportsmen.

But too often, the fate of "the big ones we hauled in" is never told to the guys back home. Too often, Mrs. Styron and others have seen the sports catch wasted.

Some fishermen, courting visions of a handsome trophy hanging above the fireplace, don't consider their sport a quest for food. But according to Mrs. Styron and Ted Miller at the Sea Grant Seafood Laboratory in Morehead City, most sports fishermen who waste their catch just don't know how to

keep it fresh. And if they do, wives back home often aren't sure how to handle, freeze and cook fish so it tastes best.

Immediate chilling is the key to fresh fish, according to Sea Grant advisory agents. Fish should be iced before it dies, or at the longest, within a few hours of the catch. Miller, who works closely with Sea Grant seafood researchers, recommends a salt and ice mixture for speedy chilling. Advisory agents are also encouraging party boats to carry more ice.

Processors, too, are increasingly interested in the sports catch, Miller says. Trends point to processors serving both sports and commercial fishermen, he adds. In Morehead City, Capt. Ottis's processing plant—complete with scaling machine—scales, fillets and packs fish in ice for a fee and is willing to buy King Mackerel and other kinds of fish from non-commercial fishermen.

Sea Grant-supported research is also trying to help the housewife when her sportsman returns with unusual varieties of fish. Each month at the Seafood Laboratory, Mrs. Styron and 11 other Carteret County women pool their cooking skills to create new fish recipes and find out more about seafood likes and dislikes. Results of their activities are taken to each of the home demonstration clubs they represent.

(See "Preserving," page 4)



## The men who keep Sea Grant in tune

UNC Sea Grant has asked the National Sea Grant Office in Washington, D. C. to furnish support for 25 projects over the next two years.

Making sure that all the projects, spread over four university campuses, are running smoothly is a mammoth task for one man. So UNC Sea Grant divided the projects into six groups and appointed six men to oversee activities in each group.

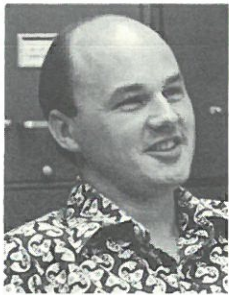
Sea Grant calls these men "area coordinators." Those chosen for 1975-76 are scientists with expertise in the area they head. One of their jobs is to alert investigators in their groups to activities of researchers doing related work. Another is to keep studies in harmony with Program goals, a responsibility which means communicating between researchers and Program administrators.

Area coordinators are also called upon to help develop a Sea Grant Program of research, advisory services and education which meets the needs of the people of North Carolina. In addition, the coordinators strive to keep Sea Grant in tune with goals of the University and other state and University programs.

Through their efforts, the coordinators provide expertise and leadership necessary to Sea Grant's success.

### Dr. Rickards

The assistant director of the UNC Sea Grant Program will oversee aquaculture and fisheries research for the coming two years.



Dr. William L. Rickards, a marine scientist whose specialty is fisheries, joined the UNC Sea Grant staff as assistant coordinator in 1971. He was named assistant director last year.

In addition to carrying out administrative duties for Sea Grant, Rickards is a visiting assistant professor of zoology at N. C. State University. From 1971-73, he was a research associate at the Department of Environmental Sciences and Engineering at UNC-Chapel Hill.

The author of more than half dozen publications on aquaculture and fisheries, Rickards earned an A.B. in biology at the University of Delaware, an M.S. in zoology at the University of Georgia and a Ph.D. in marine sciences at the University of Miami.

### Dr. Hammond



Dr. Leigh H. Hammond will act as coordinator of Sea Grant services during 1975-76. He is also chancellor for extension and public affairs and is acting director of the Center for Public Affairs and Community Services.

Sea Grant advisory services are aimed at getting research results to those who can put them to use. In addition, advisory agents take questions from individuals, companies and communities to the lab for study.

Hammond's involvement in Sea Grant goes back to 1969 when he was a member of the Coastal Plains Re-entry Commission for North Carolina. Since then he has served as co-chairman of the State marine resource planning group and as a member of the North Carolina Marine

### Dr. Webb



Dr. Neil B. Webb, North Carolina State University associate professor of food science, will coordinate activities in the area of seafood science and technology during 1975-76. Research in this area seeks answers to problems confronted by all seafood users—from fishermen and processors to consumers.

Webb has had support from Sea Grant since the Program's initiation in North Carolina in 1970. His research has covered a wide range of problems relating to seafood quality, the use of underutilized species in new products, processing and seafood processing sanitation.

Webb has worked in both university and industry and has co-authored a number of publications dealing with seafood science and technology. Prior to coming to N. C. State in 1966, he was director of technology at The Eckert Packing Co. in Defiance, Ohio.

He holds a B.S. degree in animal science from West Virginia University and M.S. and Ph.D. degrees in meat science from the University of Illinois and the University of Missouri.

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Council and as the Governor's designee as North Carolina's contact with the National Oceanic and Atmospheric Administration for coastal zone management.

An economist, Hammond was deputy secretary of the N. C. Department of Administration under Governor Robert W. Scott. He was a chief architect of plans for the Council on State Goals and Policy and he chaired a state government effort to develop a system of multi-county planning regions. Hammond also served as chief coordinator of the State Marine Resources Development Programs.

Prior to working in state government, Hammond was an associate professor of economics at NCSU. He earned degrees in agricultural economics at Clemson University and the University of Tennessee and in economics at N. C. State University.



## Dr. Langfelder

North Carolina's coast is a complex area, characterized by constant, and rapid, change. Sea Grant has proposed research to learn more about our coast, with the aim of providing insight into pressing problems.

Dr. L. Jay Langfelder, director of the Center for Marine and Coastal Studies at N. C. State University, will guide Sea Grant's coastal zone studies for 1975-76. His involvement in marine affairs through university and public service places him in a unique position to spot problem areas and direct research to seek solutions.

A professor of civil engineering at NCSU, Langfelder serves on some 10 committees which deal directly with marine and coastal matters. He serves as a member of the University of North Carolina Marine Science Council, the administrative committee for the N. C. Marine Resources Center, the technical committee of the state's Water Resources Research Institute and the technical advisory committee for the joint state-federal marine resource planning committee.

The author of articles on coastal erosion, Langfelder was educated at the Universities of Florida and Illinois.

Among them are the Office of Sponsored Programs, the Office of Institutional Research and the Regional Development Institute. He has held his present post since 1969.

Brown earned B.S. and M.S. degrees at UNC-Chapel Hill and a Ph.D. at Virginia Polytechnic Institute.

## Dr. Brown

East Carolina University's director of Institutional Development, Dr. C. Q. Brown, has been selected to coordinate Sea Grant's legal and socio-economic studies for the coming two years.

Proposed research for 1975-76 includes studies to learn more about legal, social and economic pressures confronting coastal residents and communities.

Brown is one of the founders and was the first chairman of the ECU Department of Geology. As such, he was an early leader in promoting coastal research. In establishing ECU's geology department, he stressed faculty involvement in coastal geology.

As director of Institutional Development, Brown is responsible for seven offices offering campus-wide services.



## Dr. Copeland

UNC Sea Grant Program Director Dr. B. J. Copeland will temporarily serve as coordinator of estuarine studies. A permanent coordinator will be appointed to the position later this year.

Estuarine research, proposed by UNC Sea Grant for 1975-76, includes an inventory of waterbirds nesting on North Carolina's dredge islands and an evaluation of how changes on the islands affect bird populations.

Other proposed studies are aimed at determining how much decaying marsh grasses are worth to the nourishment of shrimp and other fishery species.

Copeland, a professor of zoology, botany and marine sciences at NCSU, had led estuarine studies in connection with research relating to the effects of nuclear power plant construction in coastal areas. He became Program director in 1973.

Before coming to N. C. State in 1970, Copeland was a visiting associate professor at UNC-Chapel Hill and at the UNC Institute of Marine Sciences. Prior to that, he was associated with the University of Texas Marine Science Institute at Port Aransas. Copeland was educated at Oklahoma State University.





## Avoid fishy flavors; try superchilling

Superchilling, or reducing the temperature of fish to just above freezing soon after it is caught, can prevent that "fishy" flavor. Sea Grant advisory agents say that superchilling, outlined below, can enable you to hold your catch for up to seven days without loss of quality.

Here's how to superchill:

1. Take along a large insulated picnic box containing an adequate supply of crushed ice. Carry a supply of coarse salt separately.

2. While fish are still flipping, remove all but four (4) inches of ice from container. The ice left in the box is not to be salted, but keeps fish off the bottom of the container.

3. Mix the ice you took out of the box with salt, using one pound of salt per 20 pounds of ice.

4. Arrange the fish in layers in the insulated box with the salt-ice mixture applied liberally between each layer.

## Dip fish to lock out rank odors and tastes

It's a real setback when you've got your mouth watering for some good seafood, only to discover that the fish you froze a few months back has a rank smell and taste.

Sea Grant scientists recommend applying a dip solution to whole, dressed or filleted fish before wrapping in protective plastic and freezing. They say the solution helps keep fish tasting, smelling and looking fresh because it slows the interaction of oxygen with fish fats.

To make the solution, you'll need:

- 2 tablespoons unflavored gelatin
- 2 tablespoons + 1 teaspoon ascorbic acid
- 4 fluid ounces lemon juice
- 28 fluid ounces water

Stir gelatin into eight (8) ounces of cold water. Heat remaining water, lemon juice and ascorbic acid to near boiling. Stir cold gelatin mixture into hot liquid until it is almost clear. Cool the dip solution to about room temperature before use.

Dip and drain fish. Then wrap in plastic. To wrap, tear off 12 to 18 inches of plastic. Lap plastic over sides, then ends.

Whole fish, if fairly small, may be arranged "sardine" style. Fillets should be packed with meat side away from folds. If freezing on a small scale, researchers recommend placing packages, folds downward, on a metal tray.

## Preserving your catch

*(Continued from page 1)*

Seafood recipes, compiled by the N. C. Department of Natural and Economic Resources Seafood Marketing Division, are available from: Seafoods, Department of Natural and Economic Resources, P. O. Box 27687, Raleigh, N. C. 27611.

County home extension agents may be of further help with seafood cookery. A booklet, "Fish and Shellfish For Your Table," is available from Dr. Frank B. Thomas, 129-F Schaub Hall, N. C. State University, Raleigh, N. C. 27607 or from Seafood Laboratory, P. O. Box 51, Morehead City, N. C. 28557.

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