

The Florida Lobster, Tagged Shrimp, and Artificial Reefs

. . . . **The Atlantic Fisheries Technological Conference** is scheduled for 5-8 November 1978 at the Williamsburg Lodge, Williamsburg, Va., reports John Long, Secretary, 23rd AFTC. Its purpose is to provide a forum where fisheries technologists can discuss research objectives and methods, exchange research concepts and hypotheses, and present informal reports on researches completed or in progress. More than 50 speakers will participate and proposed topics include energy, underutilized species, economics, seafood composition, quality, and nutrition. Forms for papers, reservations and registration are available from John Long, Secretary, 23rd AFTC, Department of Food Science and Technology, Virginia Polytechnic Institute and State University, Blacksburg, VA 24061

. . . . **Intensively exploited for many years** by commercial trap fishermen and recreational divers, the Florida lobster, *Panulirus argus*, fishery is showing signs of overfishing—small catches of small lobsters despite greatly increased effort—reports the University of Miami's Rosenstiel School of Marine and Atmospheric Science. Thus, specialists from that School, the University of Florida's Department of Food and Resource Economics, and the Florida Department of Natural Resources have combined forces to formulate management policies aimed at protecting the stock while helping the fishermen keep lobster on the menu

. . . . Texas, and other Gulf coast shrimpers, **have been harvesting some**

very valuable tagged shrimp along with their regular hauls in recent weeks, the Texas Parks and Wildlife Department reports. The tagged shrimp are part of a scientific study being conducted cooperatively by that Department, the National Marine Fisheries Service, Texas A&M University Sea Grant Program, Mexico's Instituto Nacional de Pesca, and other Gulf coast states. The aim is to learn more about the movements, migrations, growth rates, and mortality of brown shrimp, the most important commercial marine species for Texas fishermen. The tagged shrimp, if picked by computer, could bring from \$50 to \$200, if the whole shrimp with tag attached is returned to state or Federal fisheries biologists

. . . . A recent South Carolina Marine Resources Division study indicates that **anglers there spend some \$10 million per year fishing at artificial reefs**. That's about 20 percent of the total economic impact of all offshore fishing on the State of South Carolina during 1977. Meanwhile, the Division filled a 100-foot tugboat with 6,000 baled tires and sank it on their 4KI artificial fishing reef 3 miles off Kiawah Island. That reef, which now consists of 36,000 tires, 7 ship hulls, and 70 discarded auto bodies, provides good angling for sheepshead, black sea bass, mackerel, and cobia. It is one of nine such reefs built by the Department to enhance coastal fishing

. . . . To help **prevent the growing problem of crab pot theft**, the South Carolina Wildlife and Marine Re-

sources Department has instituted a new system of marking crab traps. In July, all commercial crab fishermen were given 60 days to mark each of their pots with special identification tags provided by the Marine Resources Division. Crabbers have for years been required to mark their pot floats with identification numbers, but that system has not prevented the theft of the crab pots, the Department reports. The tamper-proof plastic tags were provided at no cost to the crabbers by conservation officers who placed them on the pots

. . . . Biologists from South Carolina and Georgia began a cooperative study, funded in part by the National Marine Fisheries Service, early this year to determine **how better to manage the declining population of shad** and other related fish species, the South Carolina Wildlife and Marine Resources Department reports. The shad catch in South Carolina peaked at 577,000 pounds in 1889 and has declined ever since, according to the Department. Last year's commercial landings for the state totaled about 80,000 pounds worth about \$53,000, although the Department believes that much of the shad catch may go unreported because of the nature of the fishery. The study will involve interviews with fishermen and seafood dealers, as well as review all research done over the years on these fish in both states

. . . . **Cheaper animal fats, substituted for more costly fish oils** in commercial fish rations, could save trout and salmon ranchers, as well as state and Federal hatchery operators, a considerable amount of money, according to researchers at Oregon State University's Department of Food Science and Technology. Testing to see if the fish were eating more fish oil than they needed, the researchers found that the fish require a diet containing 10 percent fish oil instead of 50 percent. In trying various cheap, readily available energy foods to replace fish oil, the researchers found that trout and salmon grew well on a diet containing lard, and fish feed manufacturers are now reported looking at ways to incorporate animal fats into commercial fish rations