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UNITED STATES FISH AND WILDLIFE SERVICE

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FWS AWARDS 17 FISHERY RESEARCH CONTRACTS

Seventeen contracts for research, biological investigations, and economic studies have been awarded by the Fish and Wildlife Service within the last few days, Secretary of the Interior Fred A. Seaton said today.

The projects are part of the continuing programs conducted by the Department's Fish and Wildlife Service to assure a sustained supply of fish and to provide for better utilization of fish and fishery products, the Secretary explained. Money for these contracts was provided through the Saltonstall-Kennedy Act which makes available a portion of foreign fisheries import duties to carry out research on means of strengthening the American fishing industry.

Secretary Seaton was advised by Ross L. Leffler, Assistant Secretary for Fish and Wildlife, that in some of the contracts, fishery biologists seek data which would help the Service guard against over-use of a resource. Other contracts would help the Service predict fluctuations in fish populations or perhaps eliminate or modify the fluctuations; three of the contracts deal with fishery economics and certain conditions which affect the systematic harvesting of a resource. Some contracts relate to the "atoms for peace" program by studying the use of radiation in fish preservation, while still others deal with chemical studies of fish oils which may result in new uses for those oils.

Species being studied biologically include salmon, king crab, blue crab, shrimp, and menhaden. The economic studies are being made on Pacific halibut, Maine fish and shellfish, and a third study is on the effect of price changes on several selected varieties of fish and shellfish.

There are four other contracts which relate specifically to the Alaska salmon fishery and one to Alaska's king crab. All salmon contracts are with the University of Washington and include tagging salmon in Cook Inlet and Prince William Sound, $45,000; tagging salmon off Prince of Wales Island, $35,000; observations of red salmon on the Kvichak River system, $56,700; cataloging streams in Southeastern Alaska, $15,000. The University of Southern California has the contract to study the king crab in the Cook Inlet area. This is a two-year project for $62,400.

The research contract with the Gulf Coast Research Laboratory of Ocean Springs, Mississippi, is for a three-year $100,000 project to determine whether the menhaden in the Gulf of Mexico are all of one race or of many races. Biologists consider this knowledge essential for any scientific study of the resource, since fish of various races of the same species are apt to react differently to a given set of conditions.

The ultimate objective of this menhaden study is to help the biologists predict fluctuations in the menhaden supply. There is no apparent threat to the menhaden fishery, biologists say, but add that they prefer to make the necessary studies while the fishery is in a healthy condition. In the late 1800's menhaden was one of the best fisheries in the New England area. Then it suddenly disappeared and did not reappear in those waters until five years ago.

Tulane University of New Orleans has an $11,000 14-months contract to study the larvae and young of the menhaden, another phase of the work which will be used in management plans for the resource.

With Tulane also the Service has placed a contract for $14,000 for a study of the anatomical differences between the white and brown shrimp. Biologists believe that close scrutiny of the anatomy of the shrimp will give them valuable clues to the habits and life history of that shellfish.

Among the contracts awarded on the use of radiation in the preservation of fish were those to Florida State University and Oregon State College. Florida State will have $14,200 to study the effects of radiation on blue crab meat and Oregon State will have $13,000 for ionized radiation on Pacific Coast shellfish and smoked fish.

The Fish and Wildlife Service has already devoted considerable effort to studying the use of radiation for fish preservation. It has projects under way at each of its five laboratories and has additional contracts with Massachusetts Institute of Technology, Food Chemical Research Laboratories, and Maryland State College.

The present study is primarily a screening operation designed to select for possible initial commercial utilization those of the nearly 200 edible species of fish that are most adaptable to the proposed new processing methods. One technique is high-level radiation, or "cold sterilization", which kills all bacteria; the other is low-level radiation, or radiopasteurization, which kills most of the bacteria.

There are three contracts with the University of Minnesota included in the group just awarded. These are: research on the use of derivatives from fish oil, $15,000; determination of the structure of the saturated and unsaturated acids of fish oil, $13,900; and the study of the chemistry of the odor problem in fish oil, $13,000.

A laboratory study of the blue crab will be made by the Oyster Institute of North America. This is a two-year project and will cost $80,000. The factors which affect survival of the larvae and young crabs will be studied. The effects of temperature, the changes in chemical composition of the water and salinity will

be considered. The findings will be related to natural conditions in an effort to learn whether or not there is some way by which the resource can be protected against the vagaries of nature, or by which these effects can be predicted.

One of the contracts dealing with fishery economics is with the University of Washington which will study the possible economic impact of Government fishing regulations and industry-imposed regulations upon the Pacific halibut fishery. Severe fluctuations of boatside prices in 1953 compared with the relatively stable boatside prices in 1956 will be the basis for the study. It is suspected that the 1953 price fluctuations were severely influenced by supplies coming to the docks faster, at times, than the halibut could be economically handled and directed into the channels of trade. During the 1956 season the halibut fishermen established a fleet rotation system which resulted in a steady flow of halibut into the various facilities, with a greater stabilization of the price structure. The Service is asking that all factors affecting both the stable and unstable price structures be documented. The cost will be $39,700 spread over a two-year project.

The interrelationships of biologic and economic forces upon fishery resources are being studied by the Department of Sea and Shore Fisheries of Maine. The study will seek, for example, to determine what effect price declines in one fishery have upon the harvest of the resources of another in that area. In addition, research will be made on the effects of a failure in a particular fishery resource upon the prosecution of other fishery resources. This is a $25,000 contract.

Rutgers University of New Jersey has been awarded a contract for $29,700 for a two-year economic study to determine the basic factors that affect demand and prices paid for principal species of fish and shellfish. Such information assists fishermen and fishery products distributors in making more informed decisions on how their products should be priced to effect the greatest amount of profitable sales. The study will include canned tuna; fresh, frozen and canned salmon; fresh and canned oysters; and fresh Atlantic blue crab.

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