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DEPARTMENT OF THE INTERIOR

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FISH AND WILDLIFE SERVICE

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FISH AND WILDLIFE BIOLOGISTS PUT FISH INTO CREELS

Biological studies designed to put more fish in the sport fishermen's creel are being conducted in eight laboratories operated by the Fish and Wildlife Service, John L. Farley, Service Director, said today. Results of these studies are made available to State conservation officials and others interested in the propagation of fish.

Nutritional studies for trout and salmon are being made at Cortland, New York, and at Willard, Washington, respectively. At Leetown, West Virginia, and at Seattle, Washington, studies are being made on the various diseases of trout and salmon, particularly those diseases which strike at fish in the hatcheries. Studies at Entiat, Washington, relate to various phases of fish culture, and best type of apparatus, pond construction and other matters pertaining to the physical, biological and chemical end of fish rearing.

At three other laboratories--Convict Creek, California, Logan, Utah, and in the Great Smoky-Shenandoah National Park area--the studies pertain to stream and other water conditions and their effect on trout, especially hatchery raised trout. In addition there is the project designed to rid the Great Lakes of the sea lamprey.

Propagation of warm-water fish does not offer as many problems as does the rearing of trout and salmon. This is probably because the warm-water type can be raised in ponds where natural food abounds and where the fish have greater freedom of movement. Also, warm-water fish culture is not as specialized as trout and salmon culture. Special studies are being made, however, at the University of Oklahoma on the growth and survival problems of channel catfish in ponds. The channel catfish is both a game and a commercial fish.

Nutritional studies are important because the food item is a considerable part of the cost of propagating fish and because improper feeding can cause heavy losses in hatchery fish and retard the development the fish need to combat the rigors of life in natural waters.

In the development of practical diets, vitamin needs, the effect of diets upon body tissue, the effect of metabolic products on the carrying capacity of ponds are among the things studied. Results include getting much more poundage per unit of cost and time and more success in transferring fish from the hatchery to the distant streams.

Numerous studies are being made on fish diseases due, probably, to virus and bacteria. Determining the cause and cure of various infections which have occurred in rainbow trout hatcheries in one objective.

At the salmon cultural station, work is being done on the development of hatchery techniques, improvement of incubation equipment, effects of temperature changes, feeding trials, methods of maturing salmon, electrical diversion of fish into fishways and away from power and irrigation outlets, proper construction of ponds to assure maximum fish production and numerous other problems.

The field investigations being done in California, Utah, and in the Great Smoky-Shenandoah area cover two general fields. One is a series of studies of the adaptations which a hatchery fish must make to fit into natural stream and high mountain lake environment. The other concerns various things which affect naturally produced trout in their native waters.

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