



DEPARTMENT OF THE INTERIOR

INFORMATION SERVICE

FISH AND WILDLIFE SERVICE

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Sulfa drugs are successfully invading a new disease field--the fish hatchery--according to the Fish and Wildlife Service, United States Department of the Interior.

Furunculosis--the disease most dreaded in the trout hatchery--has yielded to treatment with sulfamerazine as the result of investigations conducted by Dr. James S. Gutsell, fishery biologist in the Service's experimental hatchery at Leetown, W. Va. The new treatment, however, has been tried experimentally only at the Leetown hatchery. If tests prove its effectiveness in trout hatcheries in other parts of the country, under local conditions, fish culturists will no longer suffer the heavy annual mortality of brook and brown trout caused by this disease which heretofore has been considered incurable. Anglers, likewise, will benefit because more trout can be reared to legal size for their fishing.

The bacteria of furunculosis occur in the blood stream causing disintegration of the tissues of vital organs, hemorrhages through the breakdown of blood vessels, and "boils", from which the disease gets its name. Furunculosis is dreaded in hatcheries, not only because of the very heavy losses during outbreaks of the disease, but also because of the extreme care needed to prevent the disease from spreading to healthy fish. Once this disease appears in a hatchery, the only known way to get rid of it has been to destroy the diseased fish.

This was done in 1934 when the disease appeared in the Leetown hatchery. In August 1945, when the disease reappeared among fingerling brook trout, Dr. Gutsell was assigned the task of finding a cure for it with sulfa or other drugs.

The original treatments consisted in administering sulfamerazine, sulfathiazole, and furacin (a new drug not yet on the market), by mixing them with the food and in adding furacin to the water in the troughs.

The improvement with sulfamerazine was rapid and impressive. The mortality sharply declined in less than a week and stopped in 12 to 15 days. Other sulfa drugs were much less effective than sulfamerazine. The dosage used was 8 grams per day per hundred pounds of fish. Dr. Gutsell and an associate, Dr. Stanislas Snieszko, a bacteriologist, are now continuing their experiments to determine the minimum quantity required to effect a cure.

In this country furunculosis chiefly affects brook and brown trout reared in hatcheries. In Europe, however, it is very destructive of wild trout and salmon.

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