FISH INVENTORY DATA

NORMANDY RESERVOIR

1976

Division of Forestry, Fisheries, and Wildlife Development
Tennessee Valley Authority
Muscle Shoals, Alabama 35660

September 1977

FISH INVENTORY DATA
NORMANDY RESERVOIR
1976

Introduction

This report contains information on fishes living in the littoral (cove and shoreline) areas of Normandy Reservoir on the Duck River in Coffee and Bedford Counties, Tennessee. It is the result of rotenone sampling during July 1976 by the Tennessee Valley Authority.

Technical information presented can be used by various agencies involved with fish management and fishery resource development. It should be helpful to biologists called on to investigate fish kills or other effects of changes in water quality, to evaluate the introduction of exotic fish into the reservoir, and to assess the impact of any future developmental activities around this lake.

The specific data reflect the standing crop of fish and the number, size, mass, and variety of species found and indicate reproductive success of various fishes which inhabited the cove and shoreline areas of Normandy Reservoir in 1976. The littoral zone is the most productive, where most fish and fishing activity takes place and where the most representative fish population samples can be taken in a large lake.

The report was prepared by Berry Stalcup, TVA Biologist, Muscle Shoals, Alabama.

Sample Areas and Procedures

Total surface area of Normandy Reservoir at full pool (elevation 875 ft) is 1,307 hectares. During the sampling period, July 14 to July 17, 1976, the lake elevation varied between 873.60 and 873.41 ft.

Surface water temperature varied from 23 to 24 C. Dissolved oxygen ranged from 8 mg/1 to 9 mg/1 at the surface.

All areas in the reservoir were sampled with rotenone (see map, page 4). Both sample areas contained 0.5 surface hectare; average depths ranged from 1.7 to 1.8 meters.

Field procedures for treatment of the area and collection of data followed standard sampling methods now used in cove rotenone sampling throughout the Southeast.

Summary of Findings

Average cove populations--1,022 fish and 99 pounds per acre--2,525 fish and 111 kilograms per hectare (Tables 3 and 4).

Major fish classes by number--game 72.3 percent, rough 15.6 percent, and forage 12.1 percent (Tables 5 and 7).

Major fish classes by weight--game 46.0 percent, rough 48.6 percent, and forage 5.4 percent (Tables 5 and 7).

Dominant species by number--green sunfish 21.9 percent, largemouth bass 15.9 percent, longear sunfish 11.2 percent, and bluegill 8.3 percent (Table 5).

Dominant species by weight--carp 25.3 percent, largemouth bass 14.8 percent, green sunfish 8.2 percent, and spotted sucker 6.8 percent (Table 5).

Size distribution of all fish--young-of-year 37.7 percent, intermediate 52.0 percent, and harvestable (adult) 10.3 percent (Tables 6 and 7).

Size distribution of game fish--young-of-year 27.0 percent, intermediate 61.6 percent, and adult 11.4 (Table 6).

Spawning success--good reproduction and survival of game and forage species, especially green sunfish, largemouth bass and stoneroller (Table 6).