
CHECKLIST OF AMPHIBIANS, REPTILES AND MAMMALS
OF THE TREE FARM NATURAL AREA,
DEFIANCE COUNTY, OHIO¹

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ABSTRACT

The Natural Area known as the "Tree Farm" is a 78-acre Beech-Maple-White Oak forest in east-central Defiance County. Standard collection techniques revealed 6 species of amphibians, 7 reptiles, and 14 mammals present in the area, which, on the basis of work in the other, similar areas in the county, should be a fair approximation of the actual species composition of this area.

INTRODUCTION

The Ohio Biological Survey, in 1959, undertook a project aimed at assembling

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a list of Natural Areas in Ohio which would be of interest to biologists, naturalists, teachers, and conservationists. These were to be unique examples of Natural Areas in the region or the state. Of the list of 221 such areas in the State, 51 percent were personally inspected by Herrick (1965). In 1966 the Survey funded a series of projects designed to gather basic information on various aspects of the ecology and geology of these areas. Two such areas are located in Defiance County:—Krill's Lake in northwestern Defiance County, and an area known as "Tree Farm." This report deals with a survey of the amphibians, reptiles, and mammals of the "Tree Farm" area. It is not intended to be an exhaustive, terminal study, rather, it is designed to serve as a basis for further analysis of the ecological relationships in this area.

The "Tree Farm" is located in Sec. 23 of T4N R5E, in eastern Defiance County. It is a 78-acre Beech-Maple-White Oak forest located in an area of Hoytville soil (Baker, 1964). The area is situated between State Route 281 and the Maumee River, about 1.5 miles west of the Defiance-Henry County line. It is bisected by a small stream, dry most of the year, which flows north into the Maumee River. The area is owned by Mr. Elmer Greenler of Route 6, Defiance, who plans to keep it in essentially its present condition, logging only mature trees and collecting maple syrup. The area is entirely wooded except for a small opening on the east side, and is bordered on the east and west by cropland. The general topographic relationships of the area are presented in the accompanying map (fig. 1).

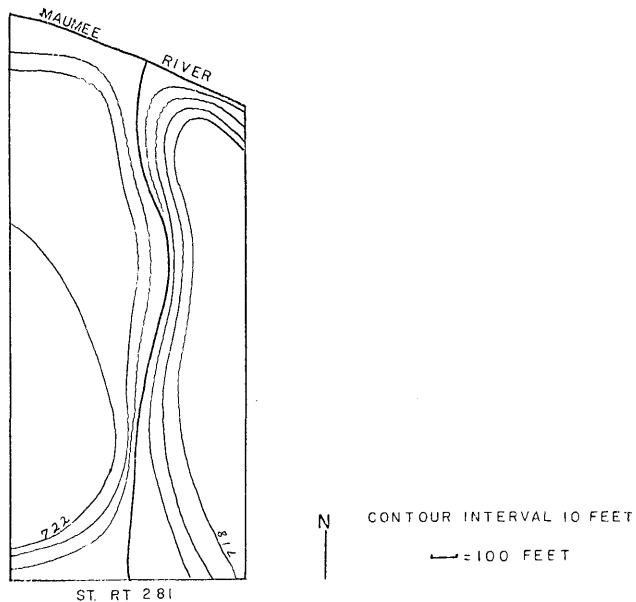


FIGURE 1. Topographic features of the Tree Farm Natural Area, T4N, R5E, S23, Defiance County, Ohio.

This study was begun in July, 1966, and was continued for one calendar year. Purpose of the study was to determine the species of amphibians, reptiles, and mammals present in the area. The project is a part of the continuing program of The Defiance College. Donald Leonard and Gary Scherger, students at Defiance College, were responsible for most of the field work.

METHODS

Mammals were collected in lines of 100 tin-can live traps (Ruffer, 1961), baited with a mixture of peanut butter, oatmeal, and raisins. Traps were placed at about 20-yard intervals, with one trap per station, during three-day trapping

periods. By this method, the entire area was covered at least three times, with some limited sections having more intensive trap pressure. In addition, six to eight number two "Havahart" live traps were set in various places in the area to capture larger mammals. These trapping procedures, plus visual sightings, provided the mammal records.

Amphibians and reptiles were collected by hand in more than twenty three- to five-hour trips, including several night trips made to collect frogs and toads. In addition, two one-inch mesh turtle traps were placed in the Maumee River and at the mouth of the stream to collect turtles. All animals captured were either marked and released, or removed from the area.

RESULTS AND DISCUSSION

These efforts produced records of six species of amphibians, seven reptiles, and 14 mammals, which are presented in the following checklist. Records marked with an asterisk were obtained by sight only. Samples of all other specimens were retained in the Natural History collections at The Defiance College. The number following each species indicates the total number of captures of that species during the entire year's survey. Nomenclature was taken from Conant (1958), Bole and Moulthrop (1942), and Hall and Kelson (1959).

Class Amphibia

Order Caudata

Plethodon cinereus cinereus—Red-Backed Salamander (2)

Order Anura

Family Bufonidae

Bufo americanus—American Toad (9)

Family Hylidae

Pseudacris triseriata triseriata—Western Chorus Frog (4)

Family Ranidae

Rana catesbeiana—Bullfrog (2)

R. clamitans melanota—Green Frog (2)

R. pipiens pipiens—Northern Leopard Frog (4)

Class Reptilia

Order Chelonia

Family Chelydridae

Chelydra serpentina serpentina—Common Snapping Turtle (3)

Family Kinosternidae

Sternotherus odoratus—Stinkpot (4)

Family Trionychidae

Trionyx spinifer spinifer—Eastern Spiny Softshell (2)

Order Squamata

Family Colubridae

Natrix sipedon sipedon—Northern Water Snake (2)

Thamnophis sirtalis sirtalis—Eastern Garter Snake (3)

Coluber constrictor foxi—Blue Racer (1)

Class Mammalia

Order Marsupialia

Didelphis marsupialis virginiana—Opossum (2)

Order Insectivora

Blarina brevicauda kirtlandi—Short-tail Shrew (4)

Scalopus aquaticus machrinus—Common Mole (1)

Order Lagomorpha

**Sylvilagus floridanus mearnsii*—Eastern Cottontail (6)

Order Rodentia

Family Sciuridae

- **Marmota monax monax*—Woodchuck (2)
Tamias striatus ohionensis—Eastern Chipmunk (4)
Sciurus niger rufiventer—Fox Squirrel (4)
 **Tamiasciurus hudsonicus foquax*—Red Squirrel (1)

Family Cricetidae

- Peromyscus maniculatus bairdii*—Prairie Whitefooted Mouse (3)
P. leucopus noveboracensis—Wood Mouse (103)
Microtus pennsylvanicus pennsylvanicus—Meadow Mouse (1)

Order Carnivora

Family Canidae

- **Vulpes fulva fulva*—Red Fox (1)

Family Procyonidae

- Procyon lotor lotor*—Raccoon (2)

Order Artiodactyla

Family Cervidae

- Odocoileus v. virginianus*—Whitetail Deer (2)

With a total of 2767 trap nights, 127 captures were made, with 103 of these being *Peromyscus leucopus*. Trap success (TS), calculated according to the formula given by Jackson (1952), revealed a total corrected TS for *P. leucopus* of 3.82 percent, whereas the TS was 4.71 percent of all captures. These figures fall well within the trap success ranges for similar habitats in Defiance County (Ruffer, unpublished data). The abundance of *Peromyscus leucopus* seems to be typical; similar habitats either have a similarly disproportionate number of individuals of this species, or, in three other similar habitats, have none at all. This may reflect a real difference in population size, or merely a reaction to the type of trap used. In a two-year period of study, we have failed to add to this list.

This area provides not only a good example of the vegetation of the region, the reason for its being designated a natural area, but a fair overview of the amphibian, reptile, and mammal fauna of both the "Tree Farm" and of similar habitats in Defiance County. If, as planned, the "Tree Farm" remains essentially undisturbed, it will provide an almost unique area for ecological studies in the highly agricultural and developed areas of Defiance County. Many similar habitats have either been removed for agricultural purposes, are extensively grazed, or have been developed for private dwellings.

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