

ELKHART RIVER BASIN  
TYPE IV STUDY  
TASK FORCE 3  
FISH AND WILDLIFE

*Please make a  
copy + send  
to Fed.*

*R*

INVENTORY REPORT  
DRAFT 2  
May 22, 1973

## I. INVENTORY

### A. Historic Review

A motorist passing through the Elkhart River Basin probably thinks of it as a disorganized array of flatlands, bottomlands, lakes, hills, and valleys. However, this array represents possibly the greatest variety of wildlife and fisheries habitats in Indiana.

During the early 1800's, all of the four major vegetation communities of Northern Indiana occurred in this basin. These were dry prairie, wetland (wet prairie) and two forest types: oak-hickory and beech-maple. At this time, with the exception of two relatively small areas of dry prairie (south-central Elkhart County and north-central Kosciusko County), the Elkhart Basin was roughly equally divided among the other three types. The dry prairie areas noted here were in reality large prairie "islands." Smaller prairie "islands" or meadowlands of from several to a few hundred acres were scattered throughout this river basin along stream-terraces and within the two forest types. The prairies of this basin were not contiguous with the so-called "Grand Prairie" of Illinois and western Indiana.

In spite of their small size, these dry prairie areas were not the first plant communities to be drastically altered. Early settlers were suspicious of land without trees. They believed, at least in part, that this land was infertile, but primarily they had found it easier to clear and farm wooded land than it was to break the deep soil of the meadowlands. The first major

no quantitative basis of comparison is available. For this reason, the Indiana Division of Fish and Wildlife undertook a comprehensive survey of the wetlands of Northern Indiana in the late fifties and early sixties.

#### B. Wetlands of the Elkhart River Basin

The wetland was to supply not only an inventory of this natural resource but was to serve as a base for comparison in future years. Along this line, another survey was made during 1970, 1971, and 1972. For both surveys, all areas, whether natural or man-made, in which the water table was permanently at or above the surface of the land were considered as wetlands.

Each area was classified according to the criteria in a United States Dept. of the Interior publication Wetlands of the United States, Fish and Wildlife Circular 39. Briefly, a description of the wetland types used is:

Type 3. Shallow Marsh: This is an area where the soil is normally waterlogged during the growing season. It is often covered with as much as six inches of water. Typical vegetation consists of grasses, sedges, smartweed, goldenrod, aster, and in wetter areas, cattail and bur reed.

Type 4. Deep Marsh: Here the soil is covered with six inches to three feet of water during the growing season. The vegetation is mainly yellow and white water lily, cattail, bulrushes, spikerushes, and various aquatic grasses.

legal township. Total survey figures on number of wetlands and acreage for each legal township were gained by expanding the sample totals by a factor of 4 to give the corrected total for that township.

The only exception to this method was again for the open water type 5. By our definition, a type 5 of one acre or more is a lake. It was considered desirable to have a complete list of these areas; therefore, all areas of this category were surveyed.

Contact-sized aerial photographs (approximately 3.2 inches per mile) were examined with the aid of a stereoscope of 4x magnification, and all apparent wet areas were outlined in the sample sections. The possible "lakes" were also marked in all sections. No great difficulty was encountered here as they show up quite readily. Using the photographs as maps, each of the outlined areas was examined during an initial reconnaissance using a light aircraft. It was found that in the vast majority of cases, all the necessary data and confirmations could be gained from the air. In the small number where it was not possible, a follow-up ground visit to the questioned area was made.

During the aerial or ground inspection, each area was classified, dominant vegetation noted, changes from photographed boundaries recorded and additional comments made. These comments included any information the observer felt pertinent, such as the area's value to wildlife, observations of wildlife, human activity including use by hunters or fishermen,

to the shallower classifications and moving some earlier classified wetlands from shallow to deeper water types.

A final factor that adds to the confusion of making comparisons is the inclusion of man-made wetlands. We are all aware that the construction of lakes as farm ponds, subdivision developments, highway borrow pits, and other uses has flourished in the last ten years and our data definitely substantiate this assumption.

While this type of development generally adds to the fishery resource, it is the least desirable type of wetland from a wildlife habitat viewpoint. In fact, whether natural or man-made, an open-water area has less wildlife usage on a per acre basis than any other wetland type.

Reviewing, first of all, the data for the entire basin (Table 1), about 60 percent of all wetlands are open water areas. The second most important type is the shallow marsh type 3. About 14 percent of the basin's wetlands are in this group. The type 3 area is extremely important because it not only has a high value for the wetland-oriented wildlife but, as the driest of the wetlands we consider, it often provides a critically needed habitat for more upland species.

The Type 3 wetland is generally a more stable habitat than, for example, are the pheasant's normal haunts. If, for some reason, due to fall plowing, fence row clearing, heavy snows or other reasons, the pheasant's usual home is unavailable, the shallow marsh and its rank vegetation often supply an emergency habitat.

and a lesser increase in total acreage of open water. This once again is true as most constructed lakes are of small size (5 acres or less).

The last table (Table 4) shows the number and acreage distribution by county. In the Elkhart Basin, wetlands seem to appear almost anywhere and everywhere. They do occur in greater frequency, however, in three large general areas. The first of these includes the entire Elkhart River drainage of LaGrange County and an equal area to the immediate south in Noble County around Kendallville and Rome City. The second major area, entirely in Noble County, is roughly bordered by Highways 5, 6, 9, and 8. The smallest of the major areas is the eastern one-third of that part of Kosciusko County in the Elkhart Basin. In the Elkhart Basin, other significant groupings and individual wetlands occur, but these three appear to be the main areas of concentration.

As shown in Table 4, LaGrange, Losciusko, and Noble Counties appear to be equal in wetland significance. Only in total acreage does any of these counties, in this case, Kosciusko, have a definite advantage.

A county-by-county comparison of data from the two wetland surveys point out some county differences. In Noble County, all wetland types, except deep marsh and open water, increased in total acreage. The deep marshes or type 4 wetlands decreased in total acreage by 60% while the total acreage of type 5 wetlands remained about constant. In Kosciusko County, increases were noted in both the deeper vegetated wetlands - types 4 and

precise information is backing and more study needed.

The following survey of habitats is a general one and, for the most part, considerations are for wildlife and fisheries in the broadest sense. Where habitats of significant value for any species or group of species were encountered, however, it is noted.

The Elkhart River Basin lies in Northeast Indiana and includes Indiana's prime waterfowl breeding grounds. This is Indiana's "prairie pothole region". The Elkhart Basin includes great expanses of high-quality marsh, and these are greatly utilized for waterfowl hunting. Trapping in the basin is generally good to excellent for muskrats and mink, but beavers are not found in the area. Raccoons are hunted heavily in this region, and they are plentiful throughout the basin.

Fishing is generally good, and trout stocking is extensive, both in the basin's tributaries and in the lakes through which some of these tributaries flow.

The streams and ditches were driven during the survey, and photographs were taken at many of the crossroads. Much of this area is high-intensity agricultural land, and, at many bridges, the adjacent land on all four corners was planted in corn or soybeans. Cover provided by an overgrown ditch this represents an invaluable break for wildlife in the cultivated-crops monoculture.

Although some of the streams and ditches surveyed do not support fishing pressure, this does not mean to say they are unimportant for wildlife. They are of immeasurable importance

production in Noble County. The 12 lakes in the Chain-o'-Lakes account for the best fishing in Noble County and fishing is comparable with that in any other area of the state.

Public access in the county is fair to good, providing permission is requested. Isolated areas are a problem, but these are few.

The North Branch receives heavy trout fishing pressure from the LaGrange County line downstream to the Waldron Lakes chain, with the greatest part of the fishing done at the county line. Bullheads, suckers, sunfish, and some largemouth bass are also caught, but trout receive the greatest fishing effort. There appears to be a good holdover rate in the river for trout. Most of the trout fishermen wade downstream from the county line, but the stream soon changes into marsh, and wading must be abandoned. The area is not often floated. Channel catfish are found from County Road 450W downstream to the confluence.

Trapping is limited due to access difficulties, and waterfowl hunting is light, although utilization by both wildlife types is heavy in the marsh areas upstream from the Waldron Lakes chain.

Water quality in the North Branch is a problem. The stream is heavily silted, particularly in the spring. It flows through extensively farmed land which suffers severe erosion, and the stream flows too swiftly to

area begins to settle out the sediment, and the stream is clear to depths of five feet at County Road 350N near the Baltimore and Ohio Railroad bridge. Pike are found from this area downstream, and there is good mallard use of this stretch in the fall after the duckweed dies back.

County Road 350W is the site of an excellent duck marsh on the river. The area floods in the spring and receives heavy use from migrating birds. Nesting in the area is also heavy, and the stretch is particularly heavily used by wood ducks - both breeding birds and migrants in the fall. Mallard Roost, an area of approximately 500 acres owned by the Indiana Department of Natural Resources, lies in the vicinity of County Road 600N. The area is heavily utilized by waterfowl and receives extensive hunting pressure early in the duck season. Rabbit hunting in this area is also particularly good.

Migrating geese use the South Branch from Albion upstream to the B&O bridge, and a large number of woodcock migrate through the area adjacent to the stream in the vicinity of River Road. Trapping is fairly heavy throughout the South Branch and the yield of furbearers rates excellent.

Siltation in the South Branch is particularly bad before the filtering influence of the gravel bottom and marshes through which it flows. A great deal of the siltation is picked up in the Albion area. The combination of slow water and higher siltation in the spring is probably the reason for the absence of smallmouth bass in the stream. Water quality improves after the marshes and the stream is clear

early December. Hunting is not heavy and is restricted almost entirely to floating as the stream is too wide and deep in most areas to permit wading.

#### C. Clock Creek

Clock Creek is a trout stream which sustains heavy fishing pressure. There appears to be a reasonable holdover rate in the stream, but most of the fish probably swim into the Waldron Lakes chain. There is no other game fish in the stream.

#### D. Croft Ditch

This small ditch has a good water flow, but offers no fishing. It does, however, support good trapping especially on the upper end, but this generally involves more work than most trappers are willing to do. The stream is heavily used by nesting wood ducks. The lower end of the stream is hunted and received good wood duck use.

#### E. Little Elkhart Creek

Little Elkhart Creek's significance to wildlife lies in the fact that adjacent land throughout nearly its entire length is excellent marsh, and the area is a prime waterfowl nesting site. It is not heavily hunted because of access difficulties.

trout. Several of the lakes in the chain are good trout lakes, and the 12 lakes in the Chain-o'-Lakes probably represent the best fishing in Noble County.

#### J. Turkey Creek

Turkey Creek was formerly a trout stream, but it has not been stocked for approximately 10 years. It is now seldom fished, if ever. The stream supports some trapping, but this activity is not extensive. Turkey Creek receives some waterfowl utilization. Adjacent land includes some marsh areas, but most of the area has been drained.

#### K. Solomon Creek

Solomon Creek supports some fishing for panfish and suckers, but the stream probably has no large gamefish. It was formerly a trout stream but is probably too sluggish for survival of trout now. The creek receives heavy duck usage for a stream its size. Mallards, teal, and wood ducks all make use of the stream during migration. Nesting along Solomon is extensive, particularly for mallards. The stream runs through the county's best farmland, and the ducks feed in adjacent corn fields. The stream is heavily trapped for high-quality muskrats and mink. Access is generally fair.

#### L. Dry Run Creek, Waterhouse Ditch, Bixler Lake Ditch, and Cromwell Ditch

These small streams carry insufficient water to be of significance to fish and wildlife with the exception of

is done from the bridges in Goshen and Elkhart, but many fishermen float the river between the two cities. Northern pike and largemouth bass are found from Goshen upstream to State Road 33. This stretch of the stream is also good for rock bass, bluegills, and crappies because of frequent pool areas. Smallmouth bass fishing from State Road 33 upstream into Noble County is excellent.

The river is hunted from U.S. 20 (truck route) in Elkhart upstream to Goshen's northwestern city limits for mallards, black ducks, teal, and wood ducks. Hunting from the millpond at County Road 38 (south edge of Goshen's city limits) upstream into Noble County is moderate to heavy and is good for the previously mentioned species and occasional geese. The millpond also serves as a ~~spring migration~~ refuge for large concentrations of waterfowl and was a nesting area for two pairs of mute swans in the summer of 1972.

Access from Elkhart to Goshen is only available at city park sites and bridges due to suburban build-up from both cities. Access is excellent along the river from Goshen to State Road 33 due to a preponderance of county-owned property, but spotty east of the highway into Noble County.

#### B. Solomon Creek

The creek is stocked with trout at State Road 313. It offers good trout, bluegill, and crappie fishing from the Elkhart River upstream until its banks become heavily vegetated

vegetation is generally very dense, and, while this creates improved wildlife habitat, it limits the stream's utilization by the public. Trapping is nonetheless extensive, and mink are more plentiful along this waterway than along most others in the county.

#### F. Stony Creek

Stony Creek offers good sucker and carp fishing during the spring spawning runs, and some smallmouth bass are caught in pools. Pool areas at the confluence of McAllister and Phillips ditches provide good panfishing and sucker fishing in the spring, and occasional largemouth bass. Trapping on this stream is not as extensive as on some others in the basin.

#### G. Hoover, Horn and Mcallister Ditches

Fishing is very limited in these ditches, but they are all trapped extensively for mink and muskrats.

#### H. Berlin, Wagner, Dausman, Swoveland, Hoke, Rock Run, and Phillips Ditches

These ditches carry insufficient water to be of significance to most fish and wildlife with the exception of songbirds and small mammals.

### 3. Kosciusko County

Only the northeast corner of Kosciusko County lies in the Elkhart River drainage system - the major portion of the county is drained by the Tippecanoe River system.

