

TROUT HARVEST AND MANAGEMENT PROBLEMS
AT THE ELKHART RIVER, NORTH BRANCH

Jed Pearson
Fisheries Biologist



FISHERIES SECTION
INDIANA DEPARTMENT OF NATURAL RESOURCES
DIVISION OF FISH AND WILDLIFE
607 State Office Building
Indianapolis, Indiana 46204

1980

TROUT HARVEST AND MANAGEMENT PROBLEMS AT THE ELKHART RIVER, NORTH BRANCH

Introduction

Indiana's trout stream management program consists of put-and-take stockings in approximately 20 streams. These are primarily located in the northeast corner of the state. Usually within two weeks prior to Opening Day (last Saturday in April), rainbow or brown trout averaging at least seven inches long are stocked at densities dependent on expectations of angler use.

Recent surveys conducted at several trout streams indicated that angler interest was low and trout returns were poor. Several other problems were noted at some streams. These included poor access, emigration of stocked trout, limited trout habitat, unaesthetic surroundings, and little enthusiasm for the program.

As trout production costs have risen, it has become more important to take a critical look at each trout stream. Those streams which have severe management problems should be deleted from the stocking program while the streams that support a large interest in trout fishing and high trout returns, should form the basis of the stocking program.

In 1980, a review of trout harvest and management was undertaken at one of two trout streams in Noble County: the Elkhart River North Branch. The following report includes a description of the area, results of the Opening Weekend creel survey, a discussion of management problems, and a recommendation that the stream be deleted from the stocking program.

The Study Area

The Elkhart River, North Branch begins in LaGrange County as the outlet from Messick Lake in the Indiana Lakes Chain (Figure 1). The stream flows southward into Noble County for about five miles before entering Jones Lake, part of the West Lakes Chain. After leaving Waldron Lake, the North Branch

flows southwesterly toward the town of Ligonier where it joins the South Branch and eventually enters Lake Michigan via the St. Joseph River.

For over 20 years trout have been stocked along the stream in the area halfway between Messick and Jones Lakes, usually at the bridge crossing along the County Line Road west of Wolcottville.

The stocked section north of the County Line Road is meandering, has good in-stream habitat, and good bank cover. The adjacent farmland is pasture. The stream south of County Line Road is a straight, open ditch with practically no in-stream or bank cover. The adjacent farmland is row-crops. The width of the stream through the stocked section is about 30 feet with an average depth of one foot. The stream bottom consists of gravel and sand, the water is usually clear. However, water temperature exceeds 80°F during summer. White sucker, hog sucker, rock bass, green sunfish, several minnow species and darter species comprise most of the native fish population. Carp are not abundant.

Within the last year, land along the banks south of the bridge has been posted No-Trepassing. Also within the last few years, livestock usage of the stream for watering and crossing has increased. An abandoned dump is present along the east bank north of the bridge.

Stocking and Creel Survey Methods

On Thursday afternoon, April 24, 500 rainbow trout were stocked off the County Line bridge in the Elkhart River, North Branch. The average length of the trout was 9.1 inches. On Saturday morning, April 26 (Opening Day) a creel survey was initiated to determine fishing pressure and trout harvest. A creel clerk was stationed at the site from 7 a.m. until 7 p.m. on Saturday and from 8 a.m. until 1:30 p.m. on Sunday. The creel survey was terminated at 1:30 p.m. when the adjacent landowner informed fishermen they were trespassing.

Results

Total fishing pressure during the period was 116 angler-hours. Three-fourths of the fishing pressure occurred on Saturday while one-fourth occurred on Sunday. The average number of fishermen per hour on Saturday was six and ranged from zero at 3 p.m. to 15 at 11 a.m. The average number of fishermen per hour on Sunday was three and ranged from zero to five. The average fishing trip lasted 2.6 hours on Saturday and 2.2 hours on Sunday.

Anglers harvested 88 trout on Saturday (18% return) and 15 trout on Sunday (3%). The creel clerk also harvested nine trout on Saturday*. Therefore, the total trout catch of 112 trout, represented 22% of the stock.

Thirty-eight fishermen fished on Saturday and 13 fished on Sunday. Of these, about two-thirds were local anglers while about one-third were from Fort Wayne and other more distant areas.

Discussion and Recommendation

Fishing pressure at the Elkhart River, North Branch during the 1980 Opening Weekend was low, compared to nearby Clock Creek where pressure approaches 200 angler-hours. Most other trout streams typically receive over 100 angler-hours on Opening Day.

The rainbow trout return rate was also lower than the rate observed at Clock Creek. Despite being low, the return rate at the North Branch was similar to rates at many other Indiana trout streams.

To date, no general harvest criteria or minimum guidelines have been established to justify continuing trout stockings. However for Clock Creek, the only other District 3 trout stream, minimums of 50% return and 200 angler-hours on Opening Weekend have been set for management goals. Based on these criteria, the North Branch does not warrant re-stocking.

*time spent fishing by the creel clerk is not included in the fishing pressure totals.

Problems of poor habitat, livestock use, and no-trespassing signs, coupled with low angler interest and low trout returns make this section of the North Branch of the Elkhart River a poor quality trout stream, especially in the downstream section within Noble County. Based on this, it is recommended that this section of stream be deleted from future trout stocking list. However, the section of stream upstream from the County Line bridge could continue receiving trout. Since this area is located within LaGrange County (District 2), any future trout management of the North Branch will be under the direction of the biologist from District 2.

Submitted by: Jed Pearson, Fisheries Biologist
Date: 5/22/80

Approved by: GARY HUDSON
Gary Hudson, Fisheries Supervisor
Date:

Approved by: William D. James
William D. James, Chief of Fisheries
Date:

FIGURE 1.

