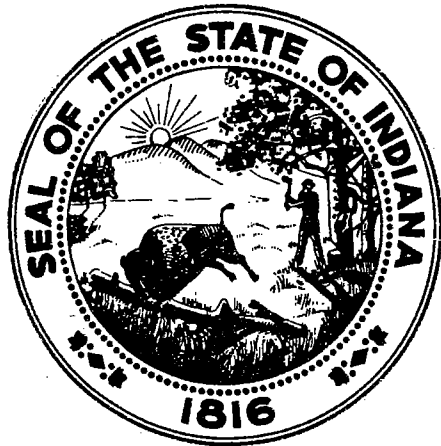


ELKHART RIVER FISHERY SURVEY

Neil D. Ledet, Fisheries Biologist



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

1985

SPECIES, NUMBER AND PERCENTAGE OF FISH COLLECTED BY ELECTROFISHING SIX
SECTIONS OF THE ELKHART RIVER, MAY 22 THROUGH 24, 1985.

SPECIES	NUMBER	PERCENT
Golden redhorse	200	15.4
Rock bass	131	10.1
Common shiner	130	10.0
Smallmouth bass	102	7.9
White sucker	88	6.8
Northern hog sucker	85	6.6
Bluegill	84	6.5
Longear sunfish	78	6.0
Spotted sucker	69	5.3
Creek chub	66	5.1
Largemouth bass	45	3.5
Chestnut lamprey	41	3.2
Pumpkinseed	33	2.5
Carp	29	2.2
Grass pickerel	22	1.7
Bowfin	14	1.1
Spotfin shiner	13	1.0
Bluntnose minnow	13	1.0
Black crappie	12	0.9
Green sunfish	10	0.8
Brown bullhead	5	0.4
River redhorse	5	0.4
Warmouth	4	0.3
Northern pike	3	0.2
Johnny darter	3	0.2
Channel catfish	2	0.2
Yellow perch	2	0.2
Golden shiner	2	0.2
Fathead minnow	2	0.2
Yellow bullhead	1	0.1
Pirate perch	1	0.1
Central mudminnow	1	0.1
32	1,296	

LENGTHS AND NUMBER OF SMALLMOUTH BASS COLLECTED
AT THE ELKHART RIVER, 1985.

TOTAL LENGTH (inches)	NUMBER
4.5	1
5.0	13
5.5	30
6.0	12
6.5	9
7.0	3
7.5	5
8.0	5
8.5	6
9.0	3
9.5	3
10.0	2
10.5	3
11.0	1
11.5	1
12.0	1
12.5	2
14.5	1
16.0	1
	102

LENGTHS AND NUMBER OF ROCK BASS COLLECTED
AT THE ELKHART RIVER, 1985.

TOTAL LENGTH (inches)	NUMBER
3.5	2
4.0	12
4.5	11
5.0	6
5.5	5
6.0	10
6.5	21
7.0	21
7.5	9
8.0	11
8.5	13
9.0	5
9.5	2
10.0	1
10.5	2
	131

ELKHART RIVER FISHERY SURVEYS

	<u>1971</u>	<u>1985</u>
□ Survey dates:	June 2 through July 15	May 22 through 24
□ Number of fish samples:	22	6
□ Rotenone samples:	9	0
□ Electrofishing samples:	13	6

COMPARISON OF 1971 AND 1985 ELECTROFISHING
CATCHES AND CATCH RATES

	<u>1971</u>	<u>1985</u>
□ Electrofishing hours:	25.5	2.75
□ Number of fish collected:	4,889	1,296
□ Number of species collected:	44	32

	<u>Number</u>	<u>Catch/Hour</u>	<u>Number</u>	<u>Catch/Hour</u>
□ Smallmouth bass	96	(3.7)	102	(37.0)
□ Rock bass	321	(12.5)	131	(47.6)
□ Northern pike	17	(0.66)	3	(1.0)
□ Largemouth bass	38	(1.4)	45	(16.3)

ELKHART RIVER AND HYDRO CANAL FLOW MEASUREMENTS
TAKEN JUNE 6, 1985

□ Elkhart River at County Road 31 bridge

Flow = 0.4 ft. per second at 2 ft. water depth.

□ Benton Hydro Canal at County Road 31 bridge (stream survey station #2)

Flow = 1.2 ft. per second at 2.3 ft. water depth.

□ Elkhart River below Goshen Dam

Flow = 0.5 ft. per second at 3.0 ft. water depth.
(100 yards below the dam)

□ Hydro Canal below the Goshen Dam

Flow = 0.8 ft. per second at 2.2 ft. water depth.

□ Elkhart River at Shanklin Park (stream survey station #4)

Flow = 2.6 ft. per second at 1.5 ft. water depth.

□ Hydro Canal below the old Goshen Hydro Building (stream survey station #5)

Flow = 0.5 ft. per second at 1.5 ft. water depth.

□ Elkhart River at Rogers Park (stream survey station #6)

Flow = 1.4 ft. per second at 1.8 ft. water depth.

* A blackstripe topminnow and brook silverside were collected from the Elkhart River 6/6/85 by seining.

* Water was $2\frac{1}{2}$ inches below the crest of the Benton Dam 6/6/85 (actual measurement).

* Caddis flies, stone flies, May flies, crayfish, and many larval fish were observed 6/6/85.

* There were lots of mussel shells on the sand and gravel bars.

DATE: 5/23/85

STATION: 1

STREAM: Elkhart River

1. QUADRANGLE: Goshen TWP 35N R 7E S 7

2. NEAREST TOWN: Benton

3. WEATHER CONDITIONS: Sunny AIR TEMPERATURE _____ °F

4. AVERAGE WIDTH: _____ AVERAGE DEPTH: _____

5. BOTTOM MATERIALS: Sand, gravel, silt

6. FLOW (cfs) _____

7. SHORELINE VEGETATION: Hardwood trees

8. INSTREAM COVER: ABUNDANT _____ COMMON SCARCE _____

9. COLOR: BLUE _____ GREEN _____ TEA BROWN(MUDDY) _____

10. SHADE: DENSELY SHADED _____ PARTLY SHADED OPEN _____

11. AQUATIC VEGETATION: _____

12. DAMS: _____

13. DESCRIPTION OF SAMPLE SITE: Electrofishing was conducted from the U.S. 33 bridge downstream to the Benton Dam. This sampling site was Station #11 in the 1971 Elkhart River survey.

14. EVIDENCE OF EROSION OR POLLUTION: _____

15. WATER QUALITY MEASUREMENTS:

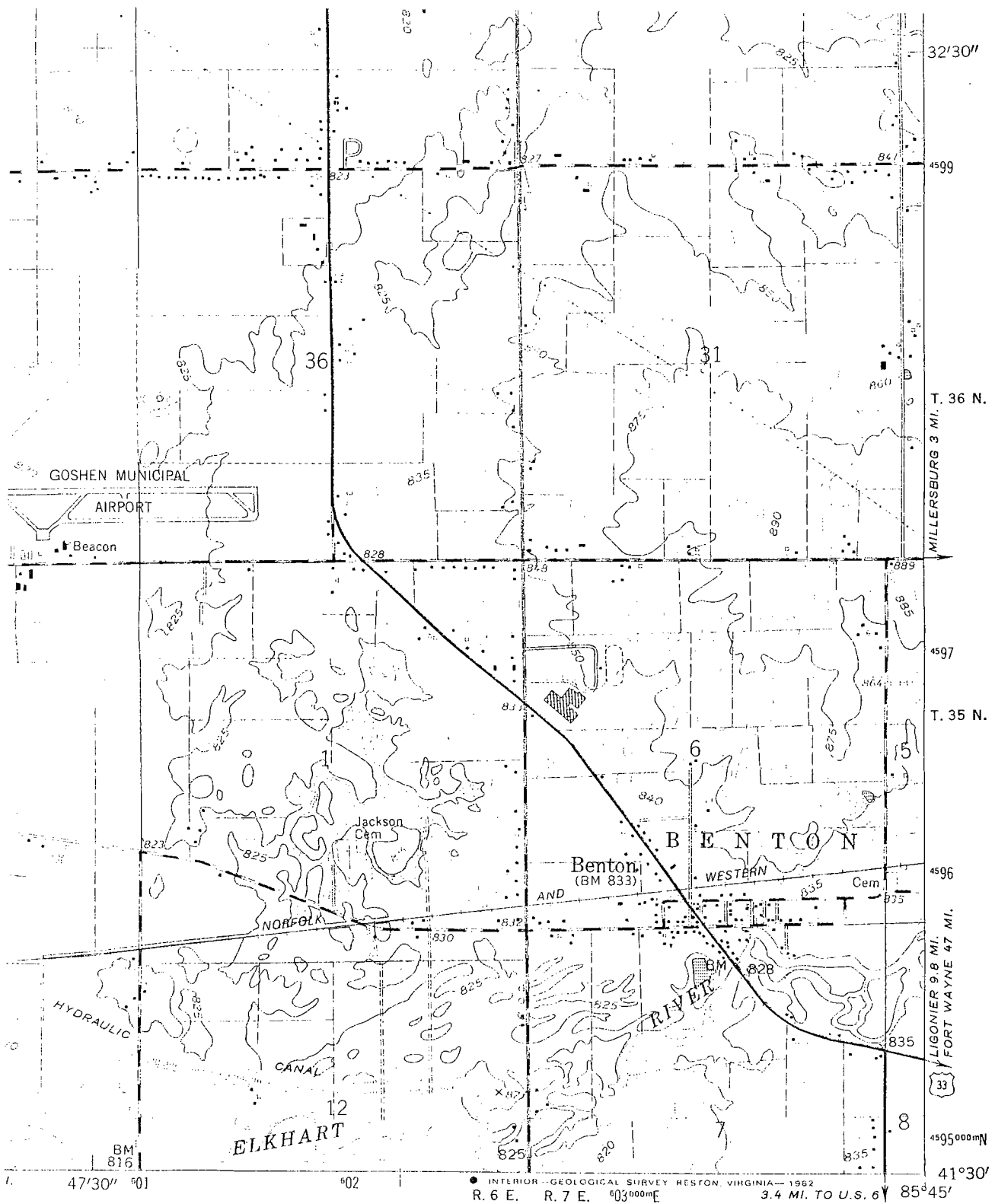
	WATER TEMP	DISSOLVED OXYGEN	pH	ALKALINITY	B.O.D.
SURFACE	64° at 4 p.m.	9.6 ppm	9.0	256.5 ppm	
2'					
4'					
6'					
8'					

16. FISH COLLECTION METHODS

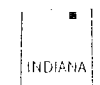
EFFORT

1. D.C. electrofishing	30 minutes (one fish dipper)
2.	
3.	

17. REMARKS: No lampreys collected. Lots of big carp were observed but not collected. No water was flowing over the Benton Dam. The water level was about six inches below the crest of the dam. One northern pike, approximately 20 inches in length, was observed but not collected.



1 MILE
ET



QUADRANGLE LOCATION

Revisions shown in purple and woodland compiled in cooperation with State of Indiana agencies from aerial photographs taken 1979 and other sources. This information not field checked. Map edited 1981
Purple tint indicates extension of urban areas

ROAD CLASSIFICATION

- Heavy-duty ——— Light-duty - - - - -
- Medium-duty - - - - - Unimproved dirt
- U. S. Route (Shield symbol) State Route (Circle symbol)

(LAKE WAWASEE)
3666' NW

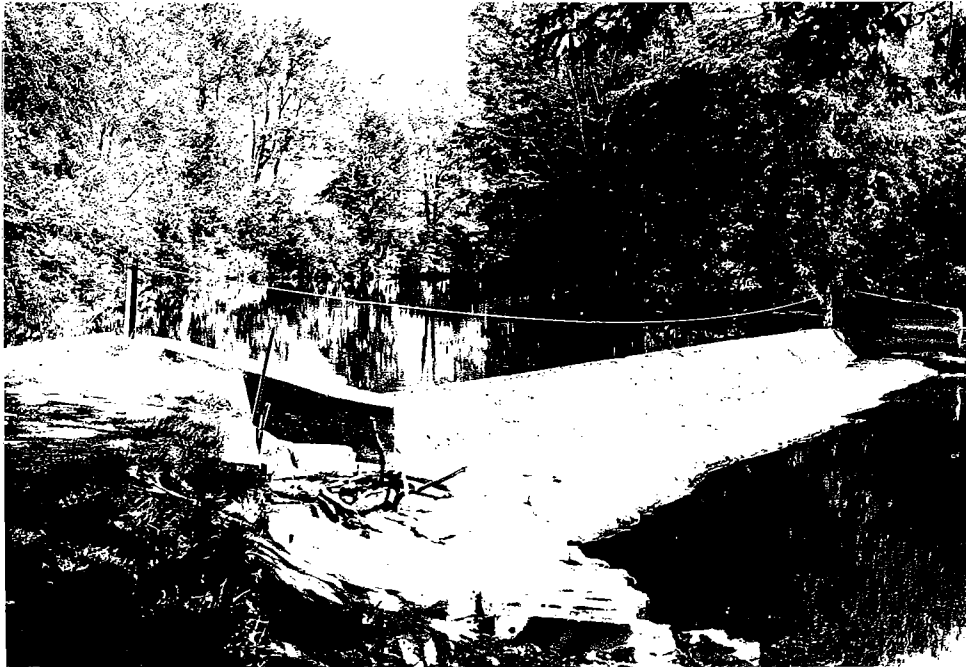
GOSHEN, IND.
N4130-W8545/7.5

1959
PHOTOREVISED 1981
DMA 3867 III SE-SERIES V851

6204

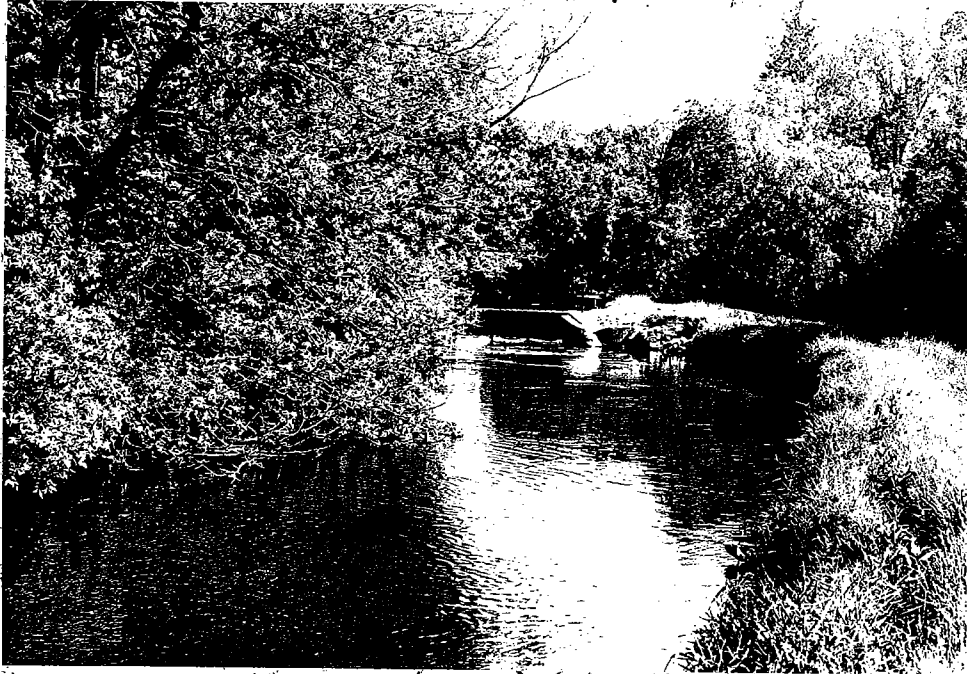


Elkhart River at U.S. 33(Benton,Indiana).



Benton Dam.

COUNTY ROAD 31



COVERED
BRIDGE

STATE
STRUCTURE

NEEDS BOARDS

BENTON
DAM

130' LONG DAM

ELKHART
RIVER



