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TRANSPORTATION

PROJECT REPORT

Fisheries Survey of the
New York State Barge Canal,
Knowlesville to Oneida Lake

January 1984

NEW YORK STATE
DEPARTMENT OF TRANSPORTATION
WILLIAM C. HENNESSY, Commissioner



Fisheries Survey of the
New York State Barge Canal,
Knowlesville to Oneida Lake

January 1984

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INTRODUCTION

The New York State Department of Transportation conducted a two-year fisheries survey in the New York State Barge Canal with the goal of obtaining a qualitative baseline inventory of fisheries resources. The first year examined, in addition to conducting the survey, possible dredging and spoil disposal effects on fish populations in four widewater areas between Knowlesville and Fairport (Canal Section 7) (Kucharski, 1982). The present study continued the survey to Oneida Lake (Canal Sections 5 and 6). Canal Sections 5 and 6 had never been thoroughly surveyed with the exception of a few stations in two previous studies (Sawyko, 1982; Haines and Ellis, 1977). More historical collection information was available from Canal Section 7 (see Kucharski, 1982, Appendix).

A variety of habitats were sampled using electroshocking, gill and trap nets, and beach seines. The collected data were used to meet the following objectives: to identify the fish species present, to determine their range; to determine the species composition and relative abundance of species within stations, study sections, and habitat type; to determine the length frequencies of selected species; and to collect scale samples for later age and growth studies. Each station was characterized as to depth, vegetation, substrate, current, temperature, pH, dissolved oxygen, conductivity or total hardness, and secchi disc transparency.

Data were summarized with the intention of providing the maximum amount of information. The number of fish caught and their weight in grams are presented. The catch was also separated by gear type. Diversity and effort indices were calculated. Available historical data were summarized and is presented in the Appendix.

The data from the first year's study (Canal Section 7) were summarized in the same format as the present study for comparison. Also included are the results of samples taken to determine if the widewaters serve as overwintering habitat during annual drawdown of the canal. Isolated pools at the Knowlesville and Holley widewaters were seined. In addition, the results of electroshocking samples that were taken in the Knowlesville and Fairport areas one week after the canal was filled are presented.

METHODS AND MATERIALS

Habitat Types and Sampling Stations

Canal Sections 5 and 6

Because of the uneven spacing of locks, eight sections (A-H), were delineated, each selected because of a general similarity of habitat or because of geographical borders such as a lake or a river junction (Fig. 1). Seven general habitat types were noted: natural channel, artificial cut channel, shallows (wetland), shallows (non-wetland), stream mouth, oxbows, and riffles. A total of forty-six stations were selected and sampled with electroshocking and with at least one other net type (gill net, trap net, or beach seines). In some sections, supplemental stations were sampled with nets only, selected because a given habitat type was not apparent when sites were originally selected from maps, additional interesting sites were present, or when time permitted (Table 1, Fig. 2 pages 96-116). To gain further information, sections A, G, and H were resampled in August (nets only). The second sample used the same sites and methods as the first.

Canal Section 7

For comparison with Canal Sections 5 and 6, data from the first year's study were reorganized. Each of the four widewater areas was defined as a section. These included the main canal bridge sites up and downstream of the wewaters. Three general habitat types were noted: artificial cut, shallows (wetland), and oxbows. Since samples were taken several times during the course of the study, only the July samples were included in the analysis. Stations were sampled with electroshocking and at least one other net type. See Kucharski (1982) for location of sample sites and methods.

Field Sampling Methods

Electroshocking

A 7 m pontoon boat fitted with a 9 HP outboard motor, a 240 V (20 amp) generator and electroshocking booms (2 m wide) were used to sample the sites listed in Tables 1 (except for supplemental stations) and 51a. Rectifying diodes converted AC to DC current. An autotransformer was used in waters of high conductivity to decrease current flow. Fishing effort was 20 minutes per station. Channels were shocked at mid-channel; other habitat types were shocked to obtain a representative sample of the area. These reaches are noted where appropriate on the maps in Fig. 2.

Electroshocking took place on May 12-13, 1983 for the spring samples in Canal Section 7; between May 23 and June 3, 1983 in Canal Sections 5 and 6. Samples from the first year's study were taken in early July, 1982.

Netting

Experimental gill nets were 53 m long and 2 m wide with seven 7.5 m panels ranging from 2.5 to 10.2 cm (square measure) in 1.25 cm increments. The smallest mesh was anchored near shore and was set into the deeper water to accommodate its entire length.

In Canal Sections 5 and 6 hoop-style trap nets were used. They were 6 m long, 1.2 m in diameter and had two throats, 7.6 m wings and a 30.5 m leader. Mesh size was 2.5 cm (square measure). Canal Section 7 used Oneida-style traps with similar dimensions. Traps were used in shallow water habitats (1.5-2.5 m depth). Trap and gill nets were set overnight for an 18-24 hour period.

A 7.5 beach seine was used to sample shallow water shoreline habitats. Two to three hauls were used at most stations.

Biological Parameters

Fish were weighed, measured, and identified according to species (red-horses were identified to genus due to the difficulty of accurate field identifications). Minnows, shiners, and juvenile fishes were preserved for later laboratory identification. Scale samples were taken from all gamefish in all sections and from panfish in sections A, E, and H (from 10 individuals in each 2.5 cm. increment). They were collected for the Department of Environmental Conservation use; they were not analyzed for this report.

Water Chemistry and Habitat Characteristics

Since the canal is shallow and considered to be well mixed (Ellis and

Haines, 1972a; Bannister, 1971), water temperatures, pH, total hardness or conductivity, and dissolved oxygen were taken at the surface. Each station was characterized as to depth, vegetation, substrate, and current. Data were recorded at each station each time nets were set or electroshocking was done (Table 2).

RESULTS AND DISCUSSION

Canal Sections 5 and 6

A total of 37 species of fish from 13 families were sampled (Table 3). The catch from each station was separated by gear type and is summarized in Tables 4-49. The Shannon-Weaver diversity index was calculated for each gear type and for the total sample. Stations in sections A, G, and H that were resampled in August are included in Tables 4-6 and 38-49.

Data were then summarized for each section (A-H) (Table 50) and for each habitat type (Table 51). For sections where samples were taken twice, only the first was included. Diversity indices were calculated as well as an effort index, expressed as the number of fish shocked per minute or fish caught per net.

Large and smallmouth bass were the major gamefish species. Pike and walleye were rare; three rainbow trout were caught. Panfishes were the most abundant group accounting for two-thirds of the total catch. Carp and suckers were few in number (9%) but were 58% of the total weight (Table 50 or 51).

The range of each species can be seen in Table 50. Walleyes are absent from sections B, C, D, and H but since they were rare, they may have been present but not sampled. Rainbow trout were caught only in section C (Tables 14, 20 Fig. 2, pages 41 and 104) and near Belgium in section F (Table 36, Fig. 2,

page 111). Large and smallmouth bass were ubiquitous. Generally, panfishes were common and occasionally abundant in all sections. However, black and white crappies, white perch, and yellow perch were absent in sections H. Suckers were present in all sections but were uncommon. Carp were caught in all sections and most abundant in section C. Gizzard shad were more abundant towards the west. Catfish and brown bullhead were present in all sections; yellow bullhead were rare. Minnows and shiners had a spotty distribution which is probably related to sampling methods. Refer also to the Appendix (historical data) for comparison.

There were fewer species and number of fish caught in natural river or artificial cut channels, while shallow or backwater areas had large numbers (Table 51). The one riffles habitat had few fish. However, during the electroshocking sample, many fish were shocked but carried away by strong currents at the base of the dam. Panfishes were particularly abundant in shallow water habitats (shallows, oxbows, and stream mouths) where submerged vegetation was present (Table 2).

The large numbers of panfishes influenced the effort and diversity indices. In shallow water habitats the abundance of panfishes, especially bluegill and pumpkinseed caused higher effort values but a relatively low diversity index. On the other hand, natural and artificial channels showed a low effort index but a high diversity value (Table 51). The same trend is apparent in Table 50 (summary by section). Gill nets (set in deeper water) had a low effort index but high diversity. Trap nets (set in shallow water) showed the opposite trend; electroshocking was intermediate, depending on the habitat. These results indicate that channels have several species that are highly dispersed while a few species are highly concentrated in shallow water areas.

Sections A, G, and H were resampled with nets in August. The results are summarized in Tables 4-6 and 38-49. If the net samples only were compared, the second sample was similar to the first in sections G and H, except for a slight decrease in numbers of bluegill caught in a trap net at Buoy 109 in section H (Table 44). Where numbers are sufficient to compare, the average weights of panfishes and perhaps of largemouth and smallmouth bass decreased from the first sample. The second samples in section A showed a marked decrease in the numbers of white perch throughout the area and especially at Port Gibson. There was also a decrease in the number of bluegills while there was an increase in the numbers of white and black crappies. An increase in crappies in late summer was also observed in Section 7 (Kucharski, 1982). Panfishes also showed a decrease in their average weights. This trend was observed for the total sample at a given station even though the numbers caught remained about the same. Since the first sample began in late June, breeding or larger adults may have been caught while the subsequent sample caught younger or spent fish.

Length frequencies were prepared for largemouth bass, pumpkinseed, bluegill, and gizzard shad. Numbers of fish were not sufficient for other species. These are presented in Figures 3-6. Electroshocking commonly sampled smaller fish. Several size classes are suggested although scales must be analyzed to determine this conclusively.

Dissolved oxygen remained at or near saturation at all stations even though water temperatures became high beginning in July (Table 2). Readings of pH were about 8.0-8.5, with a range of 7.45-10.3. Conductivity or total hardness was variable and even differed within stations at different times. Secchi disc transparency was about 0.5 m to almost a meter in sections A-F. Sections G and H had readings to about 2 m (Table 2).

Artificial cut sections were characterized by rip rap shores and little or no littoral zone. Natural channels had abundant littoral areas with vegetation overhang, shrubs and debris in the water, and submerged vegetation. Shallows and backwater areas had abundant submerged and emergent vegetation. Descriptions of each station are summarized in Table 2.

Canal Section 7

Data from the first year's study of Canal Section 7 was summarized in the same format as this study. A list of sections, habitat types, and sampling stations are presented in Table 51a. The total catch in each section is presented in Table 52; the catch in each habitat type is presented in Table 53. Since these stations were sampled more than once, only the July samples were included. Diversity and effort indices were calculated.

A total of 27 species were sampled. Large and smallmouth bass were the major gamefish species. Walleyes were common but northern pike were rare. Black crappies were the most abundant panfish while bluegill and pumpkinseeds were relatively rare. Carp and suckers were the most abundant group making up 39.6% of the total numbers and 60.3% of the total weight.

Several species were absent in Section 7 that were present in Sections 5 and 6. These were: bowfin, yellow bullhead, fathead minnow, bigmouth shiner, comely shiner, satinfin shiner, stoneroller, banded killifish, emerald shiner, and rainbow trout. However, the last two species have been reported in this area by another survey (Sawyko, 1982). Two species were present in Section 7 but not in Sections 5 and 6: quillback sucker and white bass.

The shallows-wetland areas (widewaters) appear to be the major fish habitat. Effort and diversity indices are higher than those in nearby artificial cut

channels or the one oxbow habitat. The widewaters provide littoral areas for cover, feeding, spawning, and nursery sites. The channels have shallow water only along the shore where there is sparse vegetation overhang and rip rap boulders.

Canal Section 7 is annually dewatered from late November through early May. However, there is some evidence that the widewaters serve as over-wintering sites. On April 27, 1983, prior to filling the canal, isolated pools were sampled with 15 m beach seines at the Knowlesville and Holley widewaters. The results are presented in Tables 54-55. At Knowlesville there were many adults of several species: largemouth bass, yellow perch, brown bullhead, pumpkinseeds, redhorses, and black crappies. Many were gravid or had breeding tubercles. Fewer adults were caught at Holley. The majority of the catch at both sites were juvenile fish, "minnows" and shiners. These pools are generally spring-fed forming riffle and pool areas which are probably well-oxygenated throughout the winter. Dissolved oxygen readings made at the time of the sample were high (9.7-11.2 mg/l at 14.7-15.5°C).

A week after the canal began to be filled, electroshocking samples were taken in the Knowlesville and Fairport areas. The methods were the same as the previous year. There were fewer fish caught than the July samples of 1982 (Table 52, 53) but the same species of fish were present as at other times of the year. In addition, those caught were of adult size. Length frequencies of largemouth bass and pumpkinseed are comparable to those of July, 1982. All the gizzard shad, however, were in a smaller size class (Fig. 7).

Thus, it appears that at least some fish are able to survive drawdown. The presence of adults in spawning condition and of juveniles in April indi-

cate that spawning also occurs. The numbers and types of fish sampled just a week after the canal was filled suggests that some fish are able to overwinter near to where they were caught. The role of the Genesee and Niagara Rivers as a source of colonizing or migrating species has yet to be determined.

SUMMARY

Most of the species sampled from Knowlesville to Oneida Lake showed a wide distribution, with the exception of the few species mentioned above. Panfishes were the most abundant group in Canal Sections 5 and 6 while carp were uncommon but accounted for a large proportion of the weight. By contrast, in Canal Section 7, carp and suckers were the major group by numbers and weight. Gamefish were ubiquitously rare although large and smallmouth bass were more common in Section 7.

There was a greater diversity of habitat in Sections 5 and 6 than in Section 7. There were more littoral, shallow, and quiet water areas where submerged and emergent vegetation, overhang, and debris proliferated. The abundance of fish species who prefer this habitat was apparent, such as bluegills, pumpkinseeds, largemouth bass, crappies, and others. The diversity of habitat may account for the ten more species sampled in Sections 5 and 6. Fewer fish were caught in the deeper water channels, especially at mid-channel where electroshocking took place; carp, gizzard shad and white perch (most perch were caught at Port Gibson) were the major species.

Canal Section 7 had a relatively small catch contrasted with Canal Sections 5 and 6 even though the amount of effort per section was roughly comparable and samples took place at the same time of the year (although a

year apart). This is probably due to the limited habitat which is mostly in the widewaters, less diversity of habitat and the effects of annual drawdown.

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LITERATURE CITED

- Bannister, R. D. 1971. Pollution survey of the New York State Barge Canal. Unpublished research report. State University College of New York at Brockport.
- Ellis, R. H. and T. A. Haines. 1974a. An ecological study of the Rochester-Lockport section of the New York Barge Canal, July-August 1974. Unpublished report prepared for the New York Division of Parks and Recreation.
- Haines, T. A. and R. H. Ellis. 1977. An Ecological Study of the Rochester-Clyde Section of the New York Barge Canal. Unpublished report submitted to New York State Office of Parks and Recreation.
- Kucharski, K. M. 1982. Effects of dredging and dredge spoil disposal on fishery resources in the New York State Barge Canal. NYS DOT Transportation Project Report.
- Sawyko, P. M. 1982. 1979 and 1980 fisheries survey of the New York State Barge Canal System. Rochester Gas and Electric Corp. Report No. B-x-118.

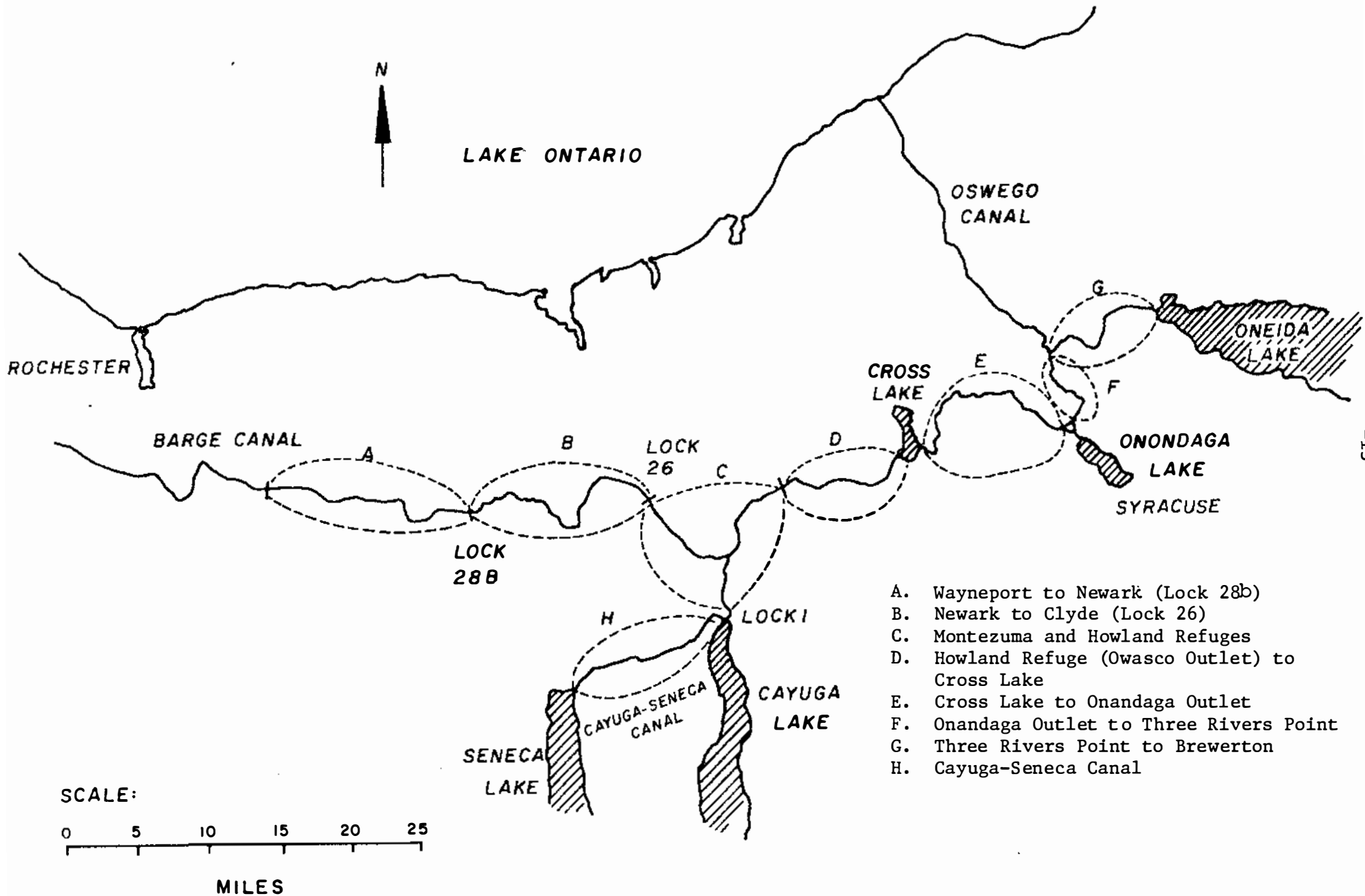


Figure 1: Map showing the arbitrary boundaries of sections A and H in Canal Sections 5 and 6.

Table 1. List of habitat types and sampling stations in each section (Canal Sections 5 and 6). Each station was electroshocked in late May-early June plus sampled with nets in July; Supplemental stations were netted only. Sections A, G, and H were resampled with nets in August.

Habitat Type	Section			
	A	B	C	D
	Wayneport to Newark (Lock 286)	Newark (Lock 286) Lyons to Clyde (Lock 26)	Montezuma and Howland Refuges	Howland Refuge (Ontario Outlet) to Cross Lake
Natural Channel	--	Buoy 631-west of Clyde	Buoy 529-near Montezuma Marina *Buoy 14-C+S Canal	Buoy 454 *Buoy 483
Artificial Cut	Limerick Road Bridge (Palmyra)	Buoy 673 west of Lyons	--	--
Shallows (Wetland)	--	Buoy 629 Clyde	Buoy 524-North of Montezuma Marina	Buoy 445
Shallows (Non-wetland)	Widewater-Port Gibson-Neward	*embankment east of Bridge E 100 - Highway 14 Clyde	--	*at Bridge E 81 *Buoy 437
Stream Mouth	Ganargua Creek (Palmyra)	Clyde River Buoy 627 *Buoy 665 Clinton's Ditch	Crane Creek *Buoy 508 (Howland)	Cold Spring Brook
Oxbow	--	--	Buoy 565-Mays Point *Buoy 579	Hickory Island
Riffles	--	--	--	--

* Supplemental Station

Table 1 continued.

Habitat Type	Section			
	E	F	G	H
	Cross Lake to Onondaga Outlet	Onondaga Outlet to Three Rivers	Three Rivers to Brewerton	Cayuga-Seneca Canal
Natural Channel	Buoy 397	Buoy 234	Buoy 185 A	Buoy 103
Artificial Cut	State Ditch Buoy 401	---	Big Band Cut Buoy 202	--
Shallows (Wetland)	Fobes Island	--	Shroepfel Island	*Buoy 109
Shallows (Non-wetland)	Buoy 340	Buoy 232	Buoy 193	Lock 4 - Power Plant
Stream Mouth	Crooked Brook	unnamed stream	--	Kendig Creek
Oxbow	Seneca River Oxbow *Maloney Island	--	Oneida River near Bridge E69 A	Oxbow Buoy 114 *at Buoy 79-80
Riffles	--	--	--	Below power plant

* Supplemental Station

Table 2. Summary of habitat characteristics and descriptions.

Section A	Sampling date 1983	Depth (m)	Vegetation	Substrate	Current	Temperature (°C)	pH	Dissolved Oxygen (mg/l)	Conductivity or Total Hardness	Secchi Disc Transparency (m)
Artificial Cut Limerick Road	5/23	1.2	some shoreline overhang-no submerged vegetation	rip-rap	slow	15.9	8.2	8.9	647.6 umhos/cm	0.6
	6/7	3.25	"	"	"	18.3	8.5	8.0	282 ppm	0.5
	8/10	3.40	"	"	"	25.5	8.5	6.6	765 ppm	0.35
Shallows (non-wetland) Port Gibson Widewater	5/23	1.2	extensive submerged vegetation; scattered emergents	gyttja; rip rap along northern shore	quiet	17.1	8.4	10.0	622.9 umhos/cm	0.73
	6/1 (channel)	4.0	some overhang	rip-rap	slow	17.7	8.5	13.0	315 ppm	0.55
	6/16 (Shallows)	1.8	submerged vegetation	gyttja	quiet	28.3	8.5	10.6	252.2 ppm	0.9
	8/10 (Channel)	4.45	some overhang	rip-rap	slow	27.2	8.5	8.0	702.1 ppm	0.55
	8/15 (Shallows)	1.8	reduced submerged vegetation	gytjja	quiet	25.5	8.5	12.2	672.4 ppm	1.1
Stream Mouth Ganargua Creek	5/23	1.2	some overhang, logs and branches	gyttja at mouth, gravelly cobble near dam	fast	15.2	8.4	8.6	665.8 umhos/cm	0.6
	6/6	1.5	"	"	fast	17.7	8.5	7.4	288.2 ppm	0.45
	8/10	2.0	"	"	fast	26.1	8.5	7.0	749.7	.33

Table 2 continued.

Section B	Sampling date 1983	Depth (m)	Vegetation	Substrate	Current	Temperature (°C)	pH	Dissolved Oxygen (mg/l)	Conductivity or Total Hardness	Secchi Disc Transparency (m)
Natural Channel Buoy 631	5/24	0.6-3.7	abundant overhang	silt	slow	16.2	8.0	10.2	555.1 umhos/cm	0.80
	7/20	3.5	abundant overhang sparse submerged vegetation	silt	slow	29.4	8.5	10.0	240 ppm	0.45
Artificial Cut Buoy 673	5/24	1.2-3.7	abundant overhang and emergents	gyttja	slow	17.1	8.1	9.3	695.3 umhos	0.73
	7/19	4.0	"	gyttja	slow	28.3	8.5	8.6	268 ppm	0.55
Shallows (wetland) Buoy 629	5/24	0.3-0.9	extensive submerged and emergent vegetation	organic material	none	16.3	8.3	10.7	663.8 umhos/cm	0.63
	7/21	"	"	"	"	26.7	8.5	7.3	no reading	0.45
Shallows (non-wetland) Bridge E-100	7/21	0.5-1.0	small embayment some emergents and submerged vegetation	organic debris	none	26.6	8.5	7.1	no reading	no reading
Stream Mouth Clyde River Buoy 627	6/24	0.6-2.4	abundant overhang and debris; no emergents, sparse submerged vegetation	organic debris	slow, high water	16.4	8.0	12.0	662.3 umhos/cm	0.80
	7/20	1.5	"	"	very slow	27.2	8.5	7.2	no reading	0.30
Clinton's Ditch Buoy 665	7/19	0.3-0.5	abundant submerged vegetation, overhang and debris	organic debris	quiet	26.6	8.5	6.2	232 ppm	0.4

Table 2 continued.

Section C	Sampling date 1983	Depth (m)	Vegetation	Substrate	Current	Temperature (°C)	pH	Dissolved Oxygen (mg/l)	Conductivity or Total Hardness	Secchi Disc Transparency (m)
Natural Channel Buoy 529	5/28	3.7-4.6	abundant overhang, some submerged vegetation; much debris	sandy clay	moderate, flood conditions	13.1	8.3	11.0	780.3 umhos/cm	0.73
	6/29	4.25	"	"	slow	25.0	8.5	6.1	224 ppm	0.45
Buoy 14 Cayuga-Seneca Canal	7/5	3.0	sparse overhang and debris, no submerged vegetation	silt	slow	27.7	8.5	7.7	132 ppm	0.80
Shallows (wetland) Buoy 524	5/28	0.6-0.9	abundant submerged vegetation some overhang, much debris	organic debris in sand	quiet	13.2	8.4	10.3	850.6 umhos/cm	0.56
	6/30	1.3	"	"	"	26.1	8.5	9.85	244 ppm	0.30
Stream Mouth Crane Creek	6/3	1.8-2.4	abundant debris overhang, and submerged vegetation	organic debris	rapid	18.6	7.9	8.2	1541.4 umhos/cm	0.34
	6/29	2.5	"	"	quiet	25.6	8.5	6.2	216.1 ppm	0.45
Seneca River Buoy 508	6/29	1.5	some submerged vegetation; no overhang	gyttja	quiet	25.6	8.5	9.2	240 ppm	0.30
Seneca River Buoy 500	5/28	3.6-4.6	some submerged vegetation; little overhang	gyttja	quiet	12.95	8.3	10.7	806.9 umhos/cm	0.73
Oxbow Buoy 565	5/28	1.8-2.1	abundant debris some submerged vegetation	gyttja	quiet	15.3	8.5	10.3	762.4 umhos/cm	0.52
	7/5	5.6	"	"	"	27.8	8.5	9.5	301 ppm	0.50
Buoy 579	7/6	1.5	abundant debris some submerged vegetation	gyttja with some boulders	slow	26.4	8.5	5.7	288 ppm	0.30

Table 2 continued.

Section D	Sampling date 1983	Depth (m)	Vegetation	Substrate	Current	Temperature (°C)	pH	Dissolved Oxygen (mg/l)	Conductivity or Total Hardness	Secchi Disc Transparency (m)
Natural Channel Buoy 454	5/27	4.6	no overhang; some submerged vegetation near shore	silt	fast (flood conditions)	13.1	8.1	9.7	796.9 umhos	0.77
	7/25	2.2	"	sand	slow	26.7	8.5	8.0	188 ppm	0.5
Buoy 483	7/26	5.5	pasture-no overhang or submerged vegetation	silt	slow	27.0	8.5	7.2	192 ppm	0.55
Shallows (wetland) Buoy 445	5/27	0.6	abundant submerged vegetation, scattered emergents some water lilies	gyttja	quiet but flooded	14.0	7.85	8.6	856.9 umhos/cm	0.60
	7/26	0.3-1.4	"	"	quiet	27.0	8.5	8.0	no reading	0.50
Shallows (non-wetland) Bridge 81	7/26	0.3-0.5	scattered cattails; some submerged weeds	sandy silt	subject to boat wakes	no reading	no reading	no reading	no reading	no reading
Buoy 437	7/26	0.3-0.5	overhang, some weeds	sandy silt	subject to boat wakes	no reading	no reading	no reading	no reading	no reading
Stream Mouth Cold Spring Brook	5/27	1.8-2.1	abundant overhang and debris	gyttja	slow	11.65	7.95	9.1	1609.7 umhos/cm	0.96
Oxbow Hickory Island	5/27	0.6-0.9	pasture, abundant overhang and debris	silt	slow	13.2	7.7	10.1	817.8 umhos/cm	0.58

Table 2 continued.

Section E	Sampling date 1983	Depth (m)	Vegetation	Substrate	Current	Temperature (°C)	pH	Dissolved Oxygen (mg/l)	Conductivity or Total Hardness	Secchi Disc Transparency (m)
Natural Channel Buoy 397	6/3	4.0	some overhang, sparse submerged vegetation	silt	fast	16.35	8.3	10.4	788.3 umhos/cm	0.53
	7/12	2.5	"	"	moderate	27.2	8.5	10.0	224 ppm	0.60
Artificial Cut Buoy 401	6/3	3.7	steep, high embankments; no vegetation	rip-rap, gravel	fast	15.9	8.3	10.4	744.4 umhos/cm	0.63
	7/12	4.1	"	"	moderate	27.2	8.5	12.8	204.8 ppm	0.65
Shallows (wetland) Fobes Island	6/2	0.3-0.9	some overhang, emergents, weeds, and debris	sandy-silt	fast (downstream of dam)	16.1	8.3	11.4	770.6 umhos/cm	0.55
	7/13	2.25	"	"	moderate	26.1	8.5	7.8	218 ppm	0.60
Shallows (non-wetland) Buoy 340-343	6/2	0.3-1.2	sparse overhang or weeds	sandy, silt	quiet near shore, subject to boat wakes	15.65	8.2	10.7	786.1 umhos/cm	0.69
	7/11	3.1	"	"	"	25.6	8.5	10.6	228 ppm	0.75
Stream Mouth Crooked Brook	6/2	0.3-1.2	much debris and overhang	silt and large rocks	quiet	15.0	7.8	9.9	699.4 umhos/cm	0.69
	7/13	"	"	"	"	26.7	8.5	8.0	228 ppm	no reading
Oxbow Seneca River	6/3	0.3-1.2	abundant overhang and emergents on north shore. south side. residential	gyttja	slow but flooded	19.2	8.45	11.2	788.4 umhos/cm	0.52
	7/12	2.5	"	"	quiet	28.3	8.5	9.8	212 ppm	0.70

Table 2 continued.

<u>Section F</u>	<u>Sampling date 1983</u>	<u>Depth (m)</u>	<u>Vegetation</u>	<u>Substrate</u>	<u>Current</u>	<u>Temperature (°C)</u>	<u>pH</u>	<u>Dissolved Oxygen (mg/l)</u>	<u>Conductivity or Total Hardness</u>	<u>Secchi Disc Transparency (m)</u>
Natural Channel Buoy 234	6/1	3.7-5.5m	mostly residential some overhang no submerged vegetation	silt	slow	15.55	7.6	9.9	1110.7 umhos/cm	0.63
	6/13	"	"	"	"	24.4	8.5	11.6	336 ppm	1.9
Shallows (non- wetland Buoy 232	6/1	0.6-1.5	extensive submerged vegetation, logs and shrub debris	rocks and organic silt	quiet	15.95	8.4	10.1	966.6 umhos/cm	0.83
	6/14	1.3	"	"	"	23.3	8.5	11.8	284.1 ppm	0.75
Stream Mouth unnamed stream	6/1	0.45	some submerged vegetation	sand-silt	slow	20.0	8.1	1.8	598.3 umhos/cm	to bottom
Buoy 248	6/13	0.3-0.5	abundant submerged vegetation	"	"	31.7	8.5	12.2	240 ppm	"

Table 2 continued.

Section G	Sampling date 1983	Depth (m)	Vegetation	Substrate	Current	Temperature (°C)	pH	Dissolved Oxygen (mg/l)	Conductivity or Total Hardness	Secchi Disc Transparency (m)
Natural Channel Buoy 185A	6/1	5.5	submerged vegetation only along shore; little overhang	silt	moderate	16.5	7.65	8.2	301.0 umhos/cm	0.14
	6/8	5.8	"	"	"	18.9	8.5	8.7	152 ppm	2.3
	8/8	6.1	"	"	"	28.8	8.5	8.2	339.2 ppm	1.15
Artificial Cut Big Bend Cut Buoy 202	6/1	1.2-2.4	vegetation overhang	rip-rap shores; silt	moderate	16.8	7.45	8.6	291.7 umhos/cm	1.65
	6/8	6.8	"	"	"	18.9	8.5	8.8	136 ppm	2.1
	8/8	5.5	"	"	"	28.3	8.5	8.4	346.3	1.1
Shallows (wetland) Shroepfel Island	6/1	0.1-0.6	abundant submerged floating and emergent vegetation	gyttja	quiet	17.3	9.0	15.0	382.2 umhos/cm	to bottom
	6/8	1.5	"	"	"	18.9	8.5	9.6	148.8 ppm	"
	8/8	1.25	chocked w/ water chestnut	"	"	27.7	8.5	8.1	346.3 ppm	1.1
Shallows (non-wetland) Buoy 193	6/1	0.3-1.2	some submerged vegetation; sparse overhang and debris	sand and silt	moderate near channel, quiet at shoreline	16.75	7.65	8.5	313.9 umhos/cm	1.1
	6/9	2.0	"	"	"	20.0	8.5	8.6	128.4 ppm	1.6
	8/8	1.8	"	"	"	29.4	8.5	8.0	262.95 ppm	1.05
Oxbow Oneida River near Bridge 69A	6/1	0.3-1.5	extensive emergents on western shore; overhang on eastern shore	silt	quiet	19.3	8.2	8.5	262.3 umhos/cm	0.12
	6/13	3.1	"	"	"	24.9	8.5	9.2	124.8 ppm	1.1
	8/8	3.0	"	"	"	29.4	8.5	8.2	354.62 ppm	1.05

Table 2 continued.

Section H	Sampling date 1983	Depth (m)	Vegetation	Substrate	Current	Temperature (°C)	pH	Dissolved Oxygen (mg/l)	Conductivity or Total Hardness	Secchi Disc Transparency (m)
Natural Channel Buoy 103	5/25	0.6-3.7	some vegetation overhang; some debris	sandy silt	variable depending on power plant	10.4	7.5	11.4	938.1 umhos/cm	0.19
	6/22	5.7	"	"	"	24.4	8.5	8.8	148.9 ppm	1.0
	8/3	4.8	"	"	"	26.1	8.5	no reading	562.0 ppm	1.8
Shallows (wetland) Buoy 109	6/21	1.25	abundant submerged vegetation; some emergents	silt	quiet	24.4	8.5	11.8	162.0 ppm	1.0
	8/3	1.4	"	"	"	24.4	8.5	7.8	520.0 umhos/cm	1.45
Shallows (non- wetland) Lock 4-Power Plant	5/25	0.2-1.2	submerged vegetation & filamentous algae	silt	slow	10.75	7.9	11.2	878.8 umhos/cm	0.98
	6/20	2.25	"	"	"	23.3	8.5	9.2	160 ppm	1.75
	8/2	1.5	"	"	"	25.6	8.5	no reading	574.8 umhos/cm	1.45
Stream Mouth Kendig Creek	5/25	0.6	overhang, emergents, marsh grasses, and submerged vegetation	gyttja	quiet	16.2	7.4	8.5	666.1 umhos/cm	0.42
	6/21	2.0	"	"	"	24.4	8.5	7.6	188 ppm	0.5
	8/2	1.9	"	"	"	24.4	7.5	3.8	no reading	0.75
Oxbow Buoy 114	5/25	1.8-2.1	abundant overhang, debris, submerged vegetation	gyttja	slow	11.3	8.4	13.4	916.3 umhos/cm	to bottom (2.2m)
	6/21	1.25	"	"	"	25.0	9.5	10.2	164 ppm	1.4
Seneca Falls Buoy 79-80	6/22	1.5	abundant overhang debris and submerged vegetation	gyttja	quiet	23.9	8.5	9.1	152 ppm	1.3
	8/3	1.4	"	"	"	25.6	8.5	7.5	516.2 umhos/cm	1.1
Riffles Below power plant	5/25	3.7-4.6	cement walls some overhang	sand	rapid	10.3	10.3	11.4	282.2 umhos/cm	1.6
	6/22	3.8	"	"	"	24.4	8.5	9.1	152 ppm	1.3
	8/3	4.0	"	"	"	25.6	8.5	7.0	559.3 umhos/cm	1.6

Table 3. List of species captured at all stations, Knowlesville to Oneida Lake.

Amiidae

Bowfin Amia calva

Atherinidae

Brook Silverside Labidesthes sicculus

Catostomidae

Redhorses Moxostoma spp.
 White Sucker Catostomus commersoni
 Quillback Carpilodes cyprinus
 Hogsucker Hypentelium nigricans

Centrarchidae

Smallmouth Bass Micropterus dolomieu
 Largemouth Bass M. salmoides
 Rock Bass Ambloplites rupestris
 Black Crappie Pomoxis nigromaculatus
 White Crappie P. annularis
 Pumpkinseed Lepomis gibbosus
 Bluegill L. macrochirus

Clupeidae

Gizzard Shad Dorosoma cepedianum
 Alewife Alosa pseudoharengus

Cyprinodontidae

Banded Killfish Fundulus diaphanus

Cyprinidae

Carp Cyprinus carpio
 Goldfish Carassius auratus
 Golden Shiner Notemigonus crysoleucas
 Bluntnose Minnow Pimephales notatus
 Fathead Minnow P. promelas
 Common Shiner Notropis cornutus
 Spotfin Shiner N. spilopterus
 Spottail Shiner N. hudsonis
 Emerald Shiner N. atherinoides
 Bigmouth Shiner N. dorsalis
 Comely Shiner N. amoenus
 Satinfish Shiner N. analostanus
 Stoneroller Campostoma anomalum

Esocidae

Northern Pike Esox lucius

Ictaluridae

Brown Bullhead Ictalurus nebulosus
 Yellow Bullhead I. natalis
 Channel Catfish I. punctatus

Percichthyidae

White Bass Morone chrysops
 White Perch M. americana

Table 3 continued.

Percidae

Walleye	<u>Stizostedion vitreum</u>
Yellow Perch	<u>Perca flavescens</u>
Logperch	<u>Percina caprodes</u>
Johnny Darter	<u>Etheostoma nigrum</u>

Salmonidae

Rainbow Trout	<u>Salmo gairdneri</u>
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Sciaenidae

Freshwater Drum	<u>Aplodinotus grunniens</u>
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Others

Painted Turtle	<u>Chrysemys picta</u>
Snapping Turtle	<u>Chelydra serpentina</u>

Table 4. Section A. Artificial Cut. Limerick Road Bridge. Summary of samples taken in May-June and August, 1983. Catch is separated by gear types: EF = electrofishing, GN = gill nets, TN = trap nets, S = seines. The number in parentheses is the number of shocking minutes, net sets, or seine hauls. Sample dates are noted. Each entry represents: $\frac{\text{number sampled}}{\text{wt (gms)}}$.

Diversity indices (Shannon Weaver) are given.

SPECIES	EF (20) 5/23/83	GN (1) 6/6/83	Total	GN (1) 8/11/83
Walleye				$\frac{1}{1276}$
Smallmouth Bass	$\frac{3}{96}$		$\frac{3}{96}$	
Bluegill	$\frac{2}{172}$		$\frac{2}{172}$	
White Perch	$\frac{5}{380}$	$\frac{17}{1906}$	$\frac{22}{2286}$	$\frac{4}{362}$
Rock Bass	$\frac{2}{177}$		$\frac{2}{177}$	
Pumpkinseed	$\frac{2}{110}$		$\frac{2}{110}$	
Yellow Perch	$\frac{2}{66}$		$\frac{2}{66}$	
Carp	$\frac{2}{4200}$	$\frac{5}{5897}$	$\frac{8}{12,697}$	
Redhorses				$\frac{1}{1134}$
White Sucker	$\frac{2}{750}$		$\frac{2}{750}$	
Gizzard Shad	$\frac{4}{836}$	$\frac{5}{468}$	$\frac{11}{1724}$	$\frac{7}{1473}$
Alewife		$\frac{1}{85}$	$\frac{1}{85}$	
Channel Catfish				$\frac{1}{2665}$
Golden Shiner		$\frac{5}{517}$	$\frac{5}{517}$	
Spotfin Shiner	$\frac{1}{5}$		$\frac{1}{5}$	
Bluntnose Minnow	$\frac{1}{6}$		$\frac{1}{6}$	
Fathead Minnow	$\frac{1}{3}$		$\frac{1}{3}$	
TOTAL	$\frac{27}{6801}$	$\frac{33}{8873}$	$\frac{60}{15,674}$	$\frac{14}{6910}$
Diversity	2.36	1.31	2.14	1.27

Table 5. Section A. Shallows (non-wetland). Port Gibson Widewater. Summary of samples taken in May-June and August, 1983. See heading Table 4 for explanation of abbreviations.

SPECIES	EF (20) 5/23/83	GN shallows (1) 6/2/83	GN channel (1) 6/2/83	TN (1) 6/17/83	S (3) 8/16/83	Total	GN shallows (1) 8/11/83	GN channel (1) 8/11/83	TN (1) 8/16/83	Total
Pike		$\frac{1}{1928}$				$\frac{1}{1928}$				
Walleye		$\frac{4}{4309}$	$\frac{1}{1021}$			$\frac{5}{5330}$	$\frac{2}{1340}$	$\frac{3}{2438}$		$\frac{5}{3778}$
Largemouth Bass	$\frac{1}{73}$					$\frac{1}{73}$	$\frac{1}{78}$	$\frac{2}{446}$	$\frac{2}{240}$	$\frac{5}{814}$
Black Crappie	$\frac{8}{583}$	$\frac{1}{121}$		$\frac{1}{99}$		$\frac{10}{803}$	$\frac{3}{532}$	$\frac{2}{121}$	$\frac{107}{10,055}$	$\frac{112}{10,708}$
White Crappie	$\frac{3}{570}$			$\frac{4}{1118}$		$\frac{7}{1688}$		$\frac{11}{1509}$	$\frac{60}{9058}$	$\frac{71}{10,567}$
Bluegill	$\frac{15}{616}$		$\frac{1}{35}$	$\frac{288}{29,127}$		$\frac{304}{29,778}$			$\frac{112}{10,018}$	$\frac{112}{10,018}$
White Perch	$\frac{3}{140}$	$\frac{14}{1920}$	$\frac{73}{7499}$	$\frac{428}{57,444}$		$\frac{518}{67,003}$	$\frac{7}{696}$		$\frac{4}{475}$	$\frac{11}{1171}$
Rock Bass			$\frac{2}{411}$			$\frac{2}{411}$				
Pumpkinseed	$\frac{5}{386}$	$\frac{2}{269}$		$\frac{19}{1598}$		$\frac{26}{2253}$			$\frac{1}{57}$	$\frac{1}{57}$
Yellow Perch	$\frac{1}{27}$					$\frac{1}{27}$				
Carp	$\frac{6}{14,400}$	$\frac{11}{20,866}$	$\frac{6}{10,022}$	$\frac{5}{5698}$		$\frac{28}{50,986}$	$\frac{5}{7200}$	$\frac{7}{6769}$	$\frac{1}{1247}$	$\frac{13}{15,216}$
Goldfish									$\frac{2}{1296}$	$\frac{2}{1296}$

Table 5 continued.

Redhorses	$\frac{1}{850}$	$\frac{4}{2013}$	$\frac{2}{1276}$	$\frac{1}{992}$		$\frac{8}{5131}$	$\frac{2}{1702}$	$\frac{6}{4793}$	$\frac{13}{11,031}$	$\frac{21}{17,526}$
White Sucker	$\frac{5}{2050}$			$\frac{1}{652}$		$\frac{6}{2702}$	$\frac{3}{1503}$			$\frac{3}{1503}$
Gizzard Shad	$\frac{29}{5168}$	$\frac{14}{3225}$	$\frac{9}{2027}$	$\frac{10}{1787}$		$\frac{62}{12,207}$	$\frac{13}{1553}$	$\frac{25}{4164}$	$\frac{1}{205}$	$\frac{39}{5922}$
Alewife							$\frac{1}{71}$			$\frac{1}{71}$
Brown Bullhead	$\frac{1}{162}$					$\frac{1}{162}$			$\frac{3}{737}$	$\frac{3}{737}$
Channel Catfish			$\frac{1}{638}$	$\frac{12}{3793}$		$\frac{13}{4431}$		$\frac{2}{3743}$	$\frac{5}{4976}$	$\frac{7}{8719}$
Freshwater Drum							$\frac{1}{262}$			$\frac{1}{262}$
Golden Shiner		$\frac{11}{1154}$	$\frac{1}{142}$	$\frac{1}{85}$		$\frac{13}{1381}$		$\frac{3}{288}$		$\frac{3}{288}$
Spotfin Shiner					$\frac{19}{66.4}$	$\frac{19}{66.4}$				
TOTAL	$\frac{78}{25,025}$	$\frac{62}{35,805}$	$\frac{96}{23,071}$	$\frac{770}{102,393}$	$\frac{19}{66.4}$	$\frac{1025}{186,360.4}$	$\frac{36}{13,597}$	$\frac{60}{23,173}$	$\frac{314}{51,883}$	$\frac{410}{88,653}$
Diversity	1.94	1.88	0.95	1.00	0	1.46	1.83	1.76	1.51	1.95

Table 6. Section A. Stream Mouth. Ganargua Creek. Summary of samples taken in May-June and August, 1983. See heading Table 4 for explanation of abbreviations.

SPECIES	EF (20) 5/23/83	GN (1) 6/6/83	S (1) 7/19	Total	GN (1) 8/11/83
Walleye	$\frac{1}{366}$	$\frac{1}{879}$		$\frac{2}{1245}$	
Largemouth Bass	$\frac{1}{16}$	$\frac{1}{354}$		$\frac{2}{370}$	
Smallmouth Bass	$\frac{3}{87}$		$\frac{3}{17.6}$	$\frac{6}{104.6}$	
Black Crappie	$\frac{2}{73}$	$\frac{1}{42}$		$\frac{3}{115}$	
Bluegill	$\frac{4}{131}$	$\frac{1}{113}$	$\frac{1}{6.4}$	$\frac{6}{250.4}$	$\frac{7}{363.4}$
White Perch	$\frac{6}{294}$	$\frac{9}{878}$		$\frac{15}{1172}$	$\frac{2}{184}$
Rock Bass	$\frac{4}{349}$			$\frac{4}{349}$	
Pumpkinseed	$\frac{5}{144}$	$\frac{1}{28}$		$\frac{6}{172}$	
Yellow Perch	$\frac{5}{157}$			$\frac{5}{157}$	
Carp		$\frac{2}{1843}$		$\frac{2}{1843}$	$\frac{2}{1750}$
Redhorses	$\frac{6}{1732}$	$\frac{1}{602}$		$\frac{7}{2334}$	$\frac{4}{3557}$
White Sucker	$\frac{2}{447}$			$\frac{2}{447}$	
Gizzard Shad	$\frac{7}{1433}$			$\frac{7}{1433}$	
Brown Bullhead	$\frac{1}{29}$			$\frac{1}{29}$	
Channel Catfish					$\frac{3}{1708}$
Freshwater Drum	$\frac{3}{1532}$			$\frac{3}{1532}$	
Log Perch			$\frac{1}{11.2}$	$\frac{1}{11.2}$	
Golden Shiner		$\frac{1}{85}$		$\frac{1}{85}$	
Spotfin Shiner			$\frac{2}{8.0}$	$\frac{2}{8.0}$	
Emerald Shiner	$\frac{1}{7}$			$\frac{1}{7}$	
Bluntnose Minnow	$\frac{6}{9}$		$\frac{18}{40.0}$	$\frac{24}{49.0}$	
Fathead Minnow	$\frac{4}{6}$			$\frac{4}{6}$	
TOTAL	$\frac{61}{6812}$	$\frac{18}{4824}$	$\frac{25}{83.2}$	$\frac{104}{11,719}$	$\frac{12}{7312}$
Diversity	2.67	1.71	0.95	2.63	1.52

Table 7. Section B. Natural Channel. Buoy 631. See heading Table 4 for explanation of abbreviations.

SPECIES	EF (20) 5/24/83	GN (1) 7/20/83	Total
Pike		$\frac{1}{1814}$	$\frac{1}{1814}$
Largemouth Bass		$\frac{1}{418}$	$\frac{1}{418}$
Black Crappie		$\frac{1}{156}$	$\frac{1}{156}$
Bluegill		$\frac{3}{327}$	$\frac{3}{327}$
Pumpkinseed	$\frac{2}{95}$	$\frac{1}{42}$	$\frac{3}{137}$
Yellow Perch	$\frac{1}{14}$		$\frac{1}{14}$
Carp		$\frac{5}{6407}$	$\frac{5}{6407}$
Redhorses		$\frac{2}{2041}$	$\frac{2}{2041}$
White Sucker	$\frac{5}{2230}$		$\frac{5}{2230}$
Gizzard Shad	$\frac{1}{39}$	$\frac{4}{1622}$	$\frac{5}{1661}$
Alewife		$\frac{1}{57}$	$\frac{1}{57}$
Channel Catfish	$\frac{1}{97}$	$\frac{1}{475}$	$\frac{2}{572}$
Emerald Shiner	$\frac{1}{9}$		$\frac{1}{9}$
Bigmouth Shiner	$\frac{1}{7}$		$\frac{1}{7}$
Bluntnose Minnow	$\frac{1}{8}$		$\frac{1}{8}$
TOTAL	$\frac{13}{2499}$	$\frac{20}{13.359}$	$\frac{33}{15,858}$
Diversity	1.84	2.08	2.48

Table 8. Section B. Artificial Cut. Buoy 673. See heading Table 4 for explanation of abbreviations.

SPECIES	EF (20) 5/24/83	GN (1) 7/20/83	Total
Largemouth Bass		$\frac{3}{907}$	$\frac{3}{907}$
Bluegill		$\frac{4}{525}$	$\frac{4}{525}$
White Perch	$\frac{3}{282}$	$\frac{5}{864}$	$\frac{8}{1146}$
Rock Bass		$\frac{1}{106}$	$\frac{1}{106}$
Pumpkinseed	$\frac{3}{256}$		$\frac{3}{256}$
Carp	$\frac{1}{1000}$	$\frac{14}{19,816}$	$\frac{15}{20,816}$
Redhorses		$\frac{3}{4337}$	$\frac{3}{4337}$
Gizzard Shad		$\frac{3}{567}$	$\frac{3}{567}$
Channel Catfish		$\frac{2}{737}$	$\frac{2}{737}$
TOTAL	$\frac{7}{1538}$	$\frac{35}{27,859}$	$\frac{42}{29,397}$
Diversity	1.00	1.79	1.90

Table 9. Section B. Shallows (wetland). Buoy 629. See heading Table 4 for explanation of abbreviations.

SPECIES	EF (20) 5/24/83	S (3) 7/21/83	Total
Black Crappie	$\frac{2}{80}$	$\frac{6}{2.9}$	$\frac{8}{82.9}$
Bluegill	$\frac{2}{62}$	$\frac{5}{12.5}$	$\frac{7}{74.5}$
Pumpkinseed	$\frac{5}{422}$		$\frac{5}{422}$
Yellow Perch	$\frac{3}{94}$		$\frac{3}{94}$
Carp	$\frac{1}{1100}$		$\frac{1}{1100}$
Gizzard Shad		$\frac{39}{72.2}$	$\frac{39}{77.2}$
Brown Bullhead	$\frac{4}{1285}$		$\frac{4}{1285}$
Channel Catfish	$\frac{2}{151}$		$\frac{2}{151}$
Comely Shiner	$\frac{1}{6}$		$\frac{1}{6}$
Bluntnose Minnow	$\frac{1}{3}$	$\frac{7}{13.7}$	$\frac{8}{16.7}$
TOTAL	$\frac{21}{3203}$	$\frac{57}{106.3}$	$\frac{78}{3309.3}$
Diversity	2.04	0.97	1.69

Table 10. Shallows (non-wetland). Embayment at Bridge E 100. Supplemental Station. See heading Table 4 for explanation of abbreviations.

SPECIES	$\frac{S}{(2)}$ 7/21/83
Pike	$\frac{4}{16.9}$
Largemouth Bass	$\frac{2}{4.4}$
Black Crappie	$\frac{3}{9.8}$
Bluegill	$\frac{1}{5.8}$
TOTAL	$\frac{10}{36.9}$
Diversity	1.28

Table 11. Section B. Stream Mouth/Oxbow. Buoy 629. See heading Table 4 for explanation of abbreviations.

SPECIES	EF (20) 5/24/83	TN (1) 7/22/83	Total
Largemouth Bass		$\frac{1}{1871}$	$\frac{1}{1871}$
Smallmouth Bass		$\frac{1}{156}$	$\frac{1}{156}$
Black Crappie	$\frac{3}{221}$	$\frac{156}{15,947}$	$\frac{159}{16,168}$
White Crappie		$\frac{12}{1611}$	$\frac{12}{1611}$
Bluegill	$\frac{2}{14}$	$\frac{52}{4970}$	$\frac{54}{4984}$
White Perch		$\frac{8}{1064}$	$\frac{8}{1064}$
Rock Bass	$\frac{1}{256}$		$\frac{1}{256}$
Pumpkinseed	$\frac{3}{98}$	$\frac{4}{340}$	$\frac{7}{438}$
Yellow Perch	$\frac{3}{68}$		$\frac{3}{68}$
Redhorses		$\frac{12}{10,227}$	$\frac{12}{10,227}$
White Sucker	$\frac{1}{175}$	$\frac{8}{843}$	$\frac{3}{1018}$
Gizzard Shad		$\frac{8}{666}$	$\frac{8}{666}$
Alewife		$\frac{2}{149}$	$\frac{2}{149}$
Brown Bullhead		$\frac{23}{3428}$	$\frac{23}{3428}$
Channel Catfish	$\frac{1}{300}$	$\frac{1}{524}$	$\frac{2}{824}$
Freshwater Drum	$\frac{2}{1045}$	$\frac{2}{1035}$	$\frac{4}{2080}$
Spotfin Shiner	$\frac{1}{7}$		$\frac{1}{7}$
Comely Shiner	$\frac{1}{6}$		$\frac{1}{6}$
TOTAL	$\frac{18}{2190}$	$\frac{284}{42,831}$	$\frac{302}{45,021}$
Diversity	2.19	1.54	1.69

Table 12. Section B. Stream Mouth. Buoy 665, Clinton's Ditch. Supplemental station. See heading Table 4 for explanation of abbreviations.

S	
SPECIES	7/21/83
Largemouth Bass	$\frac{1}{28.6}$
Brook Silverside	$\frac{2}{6.3}$
Spotfin Shiner	$\frac{6}{12.4}$
Emerald Shiner	$\frac{2}{4.9}$
Bluntnose Minnow	$\frac{1}{1.9}$
<hr/>	
TOTAL	$\frac{12}{54.1}$
Diversity	1.36

Table 13. Station C. Natural Channel. Buoy 529. See heading Table 4 for explanation of abbreviations.

SPECIES	EF (20) 5/28/83	GN (1) 6/30/83	Total
Pike		$\frac{2}{2296}$	$\frac{2}{2296}$
Largemouth Bass		$\frac{1}{616}$	$\frac{1}{616}$
Black Crappie		$\frac{1}{35}$	$\frac{1}{35}$
Bluegill		$\frac{2}{248}$	$\frac{2}{248}$
Carp		$\frac{13}{13,957}$	$\frac{13}{13,957}$
Redhorses		$\frac{3}{2813}$	$\frac{3}{2813}$
Gizzard Shad		$\frac{1}{595}$	$\frac{1}{595}$
Channel Catfish		$\frac{2}{4259}$	$\frac{2}{4259}$
Freshwater Drum		$\frac{1}{687}$	$\frac{1}{687}$
<hr/>			
TOTAL	0*	$\frac{26}{25,506}$	$\frac{26}{25,506}$
Diversity		1.69	1.69

* no fish caught

Table 14. Section C. Natural Channel. Buoy 14, Cayuga-Seneca Canal. Supplemental station. See heading Table 4 for explanation of abbreviations.

SPECIES	<u>GN</u> <u>(1)</u> 7/6/83
Largemouth Bass	$\frac{3}{978}$
Rainbow Trout	$\frac{1}{340}$
Bluegill	$\frac{1}{156}$
White Perch	$\frac{17}{3837}$
Rock Bass	$\frac{1}{71}$
Pumpkinseed	$\frac{1}{35}$
Carp	$\frac{43}{56,526}$
Redhorses	$\frac{5}{4224}$
Gizzard Shad	$\frac{9}{619}$
Alewife	$\frac{1}{28}$
Channel Catfish	$\frac{1}{758}$
TOTAL	$\frac{83}{67,572}$
Diversity	1.52

Table 15. Section C. Shallows (wetland). Buoy 524. See heading Table 4 for explanation of abbreviations.

SPECIES	EF (20) 5/28/83	TN (1) 6/30/83	Total
Pike		$\frac{3}{8760}$	$\frac{3}{8760}$
Black Crappie		$\frac{94}{5214}$	$\frac{94}{5214}$
White Crappie		$\frac{10}{1423}$	$\frac{10}{1423}$
Bluegill	$\frac{4}{106}$	$\frac{71}{7045}$	$\frac{75}{7151}$
White Perch	$\frac{7}{639}$	$\frac{5}{651}$	$\frac{12}{1290}$
Pumpkinseed	$\frac{8}{175}$	$\frac{4}{255}$	$\frac{12}{430}$
Yellow Perch	$\frac{7}{81}$		$\frac{7}{81}$
Carp	$\frac{1}{525}$	$\frac{2}{2891}$	$\frac{3}{3416}$
White Sucker	$\frac{1}{275}$		$\frac{1}{275}$
Bowfin		$\frac{1}{1077}$	$\frac{1}{1077}$
Gizzard Shad	$\frac{2}{25}$	$\frac{5}{538}$	$\frac{7}{563}$
Alewife	$\frac{44}{715}$		$\frac{44}{715}$
Brown Bullhead	$\frac{1}{500}$		$\frac{1}{500}$
Freshwater Drum		$\frac{1}{2495}$	$\frac{1}{2495}$
Brook Silverside	$\frac{4}{8}$		$\frac{4}{8}$
Bigmouth Shiner	$\frac{3}{6}$		$\frac{3}{6}$
TOTAL	$\frac{82}{3055}$	$\frac{196}{30,349}$	$\frac{278}{33,404}$
Diversity	1.65	1.30	1.88

Table 16. Section C. Stream Mouth. Crane Creek. See heading Table 4 for explanation of abbreviation.

SPECIES	EF (20) 6/3/83	GN (1) 6/30/83	Total
Pike	$\frac{1}{1500}$	$\frac{8}{17,010}$	$\frac{9}{18,510}$
Smallmouth Bass	$\frac{1}{102}$		$\frac{1}{102}$
White Crappie		$\frac{5}{1118}$	$\frac{5}{1118}$
Bluegill		$\frac{4}{468}$	$\frac{4}{468}$
White Perch	$\frac{1}{38}$	$\frac{3}{510}$	$\frac{4}{548}$
Pumpkinseed	$\frac{2}{95}$		$\frac{2}{95}$
Carp	$\frac{6}{8200}$	$\frac{6}{9525}$	$\frac{12}{17,725}$
Goldfish		$\frac{1}{680}$	$\frac{1}{680}$
Gizzard Shad		$\frac{4}{475}$	$\frac{4}{475}$
Brown Bullhead	$\frac{3}{223}$		$\frac{3}{223}$
Golden Shiner		$\frac{1}{99}$	$\frac{1}{99}$
TOTAL	$\frac{14}{10,158}$	$\frac{32}{29,885}$	$\frac{46}{40,043}$
Diversity	1.35	1.91	2.11

Table 17. Section C. Stream Mouth. Seneca River. Buoy 508. (Howland Island Refuge). Supplemental station. See heading Table 4 for explanation of abbreviation.

SPECIES	GN (1) 6/30/83	S (2) 6/30/83	Total
Pike		$\frac{2}{20.8}$	$\frac{2}{20.8}$
Black Crappie	$\frac{1}{142}$		$\frac{1}{142}$
Bluegill	$\frac{1}{42}$	$\frac{4}{18.3}$	$\frac{5}{60.3}$
White Perch	$\frac{7}{596}$		$\frac{7}{596}$
Pumpkinseed	$\frac{1}{35}$		$\frac{1}{35}$
Yellow Perch		$\frac{2}{12.8}$	$\frac{2}{12.8}$
Carp	$\frac{16}{18,556}$		$\frac{16}{18,556}$
Gizzard Shad	$\frac{14}{1852}$		$\frac{14}{1852}$
Alewife	$\frac{1}{57}$		$\frac{1}{57}$
Yellow Bullhead	$\frac{2}{298}$		$\frac{2}{298}$
Channel Catfish	$\frac{1}{128}$		$\frac{1}{128}$
Freshwater Drum	$\frac{1}{361}$		$\frac{1}{361}$
Johnny Darter		$\frac{2}{4.0}$	$\frac{2}{4.0}$
Golden Shiner	$\frac{1}{121}$		$\frac{1}{121}$
Spotfin Shiner		$\frac{1}{3.4}$	$\frac{1}{3.4}$
Bluntnose Minnow		$\frac{2}{4.8}$	$\frac{2}{4.8}$
TOTAL	$\frac{46}{22,188}$	$\frac{13}{64.1}$	$\frac{59}{22,252.1}$
Diversity	1.73	1.71	2.21

Table 18. Section G. Stream Mouth. Seneca River. Buoy 500. Supplemental station. See heading Table 4 for explanation of abbreviations.

SPECIES	EF (20) 5/28/83
White Perch	$\frac{5}{188}$
Gizzard Shad	$\frac{4}{58}$
Alewife	$\frac{15}{155}$
TOTAL	$\frac{24}{401}$
Diversity	0.92

Table 19. Section C. Oxbow. Buoy 565. See heading Table 4 for explanation of abbreviations.

SPECIES	EF (20) 5/28/83	GN (1) 7/6/83	Total
Black Crappie	$\frac{2}{108}$		$\frac{2}{108}$
Bluegill	$\frac{1}{82}$		$\frac{1}{82}$
White Perch	$\frac{4}{149}$	$\frac{13}{2908}$	$\frac{17}{3057}$
Rock Bass	$\frac{1}{96}$	$\frac{1}{71}$	$\frac{2}{167}$
Pumpkinseed	$\frac{10}{377}$	$\frac{1}{35}$	$\frac{11}{412}$
Yellow Perch	$\frac{6}{213}$		$\frac{6}{213}$
Carp	$\frac{3}{4600}$	$\frac{27}{45,904}$	$\frac{30}{50,504}$
Redhorses		$\frac{2}{1389}$	$\frac{2}{1389}$
Gizzard Shad	$\frac{4}{563}$	$\frac{9}{619}$	$\frac{5}{1182}$
Alewife	$\frac{3}{20}$	$\frac{1}{28}$	$\frac{4}{48}$
Brown Bullhead	$\frac{1}{104}$		$\frac{1}{104}$
Spotfin Shiner	$\frac{1}{12}$		$\frac{1}{12}$
TOTAL	$\frac{36}{6324}$	$\frac{54}{50,954}$	$\frac{90}{57,278}$
Diversity	2.12	1.33	1.82

Table 20. Section C. Oxbow. Buoy 579. Supplemental station. See heading Table 4 for explanation of abbreviations.

SPECIES	TN (1) 7/7/83
Pike	$\frac{2}{3288}$
Smallmouth Bass	$\frac{1}{149}$
Rainbow Trout	$\frac{1}{439}$
Black Crappie	$\frac{26}{1399}$
White Crappie	$\frac{4}{574}$
Bluegill	$\frac{16}{1473}$
White Perch	$\frac{3}{213}$
Pumpkinseed	$\frac{4}{228}$
Redhorses	$\frac{2}{1927}$
White Sucker	$\frac{1}{425}$
Gizzard Shad	$\frac{14}{1476}$
Brown Bullhead	$\frac{2}{445}$
Yellow Bullhead	$\frac{1}{234}$
TOTAL	$\frac{77}{12,270}$
Diversity	1.95

Table 21. Section D. Natural Channel. Buoy 454. See heading Table 4 for explanation of abbreviations.

SPECIES	EF (20) 5/27/83	GN (1) 7/26/83	Total
Largemouth Bass		$\frac{1}{99}$	$\frac{1}{99}$
Carp		$\frac{9}{7186}$	$\frac{9}{7186}$
Gizzard Shad	$\frac{1}{70}$		$\frac{1}{70}$
Alewife	$\frac{6}{83}$	$\frac{1}{21}$	$\frac{7}{104}$
TOTAL	$\frac{7}{153}$	$\frac{11}{7306}$	$\frac{18}{7459}$
Diversity	0.41	0.60	1.04

Table 22. Section D. Natural Channel. Buoy 483. Supplemental station.
See heading Table 4 for explanation of abbreviations.

SPECIES	GN (1) 7/27/83
White Perch	$\frac{9}{583}$
Carp	$\frac{17}{19,083}$
Redhorses	$\frac{2}{1729}$
Golden Shiner	$\frac{1}{99}$
TOTAL	$\frac{29}{21,494}$
Diversity	0.98

Table 23. Section D. Shallows (wetland). Buoy 445. See heading Table 4 for explanation of abbreviations.

SPECIES	EF (20) 5/27/83	TN (1) 7/28/83	S (3) 7/26/83	Total
Pike		$\frac{1}{1247}$		$\frac{1}{1247}$
Largemouth Bass	$\frac{4}{4729}$			$\frac{4}{4729}$
Black Crappie		$\frac{34}{3758}$		$\frac{34}{3758}$
White Crappie	$\frac{2}{560}$	$\frac{3}{687}$		$\frac{5}{1247}$
Bluegill	$\frac{18}{161}$	$\frac{70}{5470}$	$\frac{10}{44.7}$	$\frac{98}{5675.7}$
White Perch		$\frac{46}{4577}$		$\frac{46}{4577}$
Pumpkinseed	$\frac{77}{2483}$	$\frac{11}{786}$		$\frac{88}{3269}$
Yellow Perch	$\frac{1}{25}$			$\frac{1}{25}$
Carp	$\frac{1}{1350}$	$\frac{6}{6037}$		$\frac{7}{7387}$
Gizzard Shad	$\frac{1}{66}$			$\frac{1}{66}$
Alewife	$\frac{2}{31}$			$\frac{2}{31}$
Brown Bullhead		$\frac{2}{581}$		$\frac{2}{581}$
Channel Catfish		$\frac{2}{369}$		$\frac{2}{369}$
Johnny Darter			$\frac{1}{2.6}$	$\frac{1}{2.6}$
Golden Shiner	$\frac{1}{15}$			$\frac{1}{15}$
TOTAL	$\frac{107}{9420}$	$\frac{175}{23,512}$	$\frac{11}{47.3}$	$\frac{293}{32,979.3}$
Diversity	0.98	1.53	0.30	1.68

Table 24. Section D. Shallows (non-wetland). Buoy 437. Supplemental station. See heading Table 4 for explanation of abbreviations.

SPECIES	$\frac{S}{(2)}$ 7/26/83
Bluegill	$\frac{3}{1.9}$
Brown Bullhead	$\frac{2}{4.5}$
TOTAL	$\frac{5}{6.4}$
Diversity	0.67

Table 25. Section D. Shallows (non-wetland). Bridge E-81. Buoy 443. Supplemental station. See heading Table 4 for explanation of abbreviations.

SPECIES	$\frac{S}{(2)}$ 7/26/83
Bluegill	$\frac{4}{22.4}$
TOTAL	$\frac{4}{22.4}$
Diversity	0

Table 26. Section D. Stream Mouth. Cold Spring Brook. See heading Table 4 for explanation of abbreviations.

SPECIES	$\frac{EF}{(20)}$ 5/27/83
Bluegill	$\frac{1}{84}$
White Perch	$\frac{6}{423}$
Pumpkinseed	$\frac{6}{223}$
Yellow Perch	$\frac{1}{104}$
Carp	$\frac{2}{2600}$
White Sucker	$\frac{3}{999}$
Alewife	$\frac{1}{20}$
Bluntnose Minnow	$\frac{1}{5}$
Stoneroller	$\frac{1}{4}$
TOTAL	$\frac{22}{4462}$
Diversity	1.90

Table 27. Section D. Oxbow. Hickory Island. See heading Table 4 for explanation of abbreviations.

SPECIES	EF (20) 5/27/83	TN (1) 7/27/83	S (2) 7/26/83	Total
Pike		$\frac{1}{1361}$		$\frac{1}{1361}$
Largemouth Bass	$\frac{3}{350}$	$\frac{1}{461}$		$\frac{4}{811}$
Smallmouth Bass		$\frac{1}{290}$		$\frac{1}{290}$
Black Crappie	$\frac{1}{43}$	$\frac{34}{2753}$		$\frac{35}{2796}$
White Crappie	$\frac{1}{57}$	$\frac{10}{2056}$		$\frac{11}{2113}$
Bluegill	$\frac{11}{861}$	$\frac{79}{6642}$	$\frac{15}{32.7}$	$\frac{105}{7535.7}$
White Perch	$\frac{13}{1198}$	$\frac{10}{6376}$		$\frac{23}{7574}$
Pumpkinseed	$\frac{28}{1101}$	$\frac{16}{1221}$		$\frac{42}{2322}$
Yellow Perch	$\frac{3}{259}$	$\frac{2}{340}$		$\frac{5}{599}$
Carp	$\frac{15}{18,772}$	$\frac{1}{319}$		$\frac{16}{19,091}$
Redhorses		$\frac{1}{1021}$		$\frac{1}{1021}$
White Sucker	$\frac{2}{1370}$			$\frac{2}{1370}$
Gizzard Shad		$\frac{1}{92}$		$\frac{1}{92}$
Alewife	$\frac{28}{354}$			$\frac{28}{354}$
Brown Bullhead	$\frac{2}{579}$	$\frac{14}{2585}$		$\frac{16}{3164}$
Channel Catfish		$\frac{1}{1247}$		$\frac{1}{1247}$
Freshwater Drum		$\frac{1}{99}$		$\frac{1}{99}$
Golden Shiner	$\frac{2}{39}$			$\frac{2}{39}$
Spotfin Shiner			$\frac{3}{5.2}$	$\frac{3}{5.2}$
Bigmouth Shiner	$\frac{2}{10}$			$\frac{2}{10}$
Bluntnose Minnow			$\frac{4}{6.9}$	$\frac{4}{6.9}$
TOTAL	$\frac{111}{24,993}$	$\frac{173}{26,863}$	$\frac{22}{44.8}$	$\frac{306}{51,900.8}$
Diversity	2.02	1.72	0.84	2.17

Table 28. Section E. Natural Channel. Buoy 397. See heading Table 4 for explanation of abbreviations.

SPECIES	EF (20) 6/3/83	GN (1) 7/13/83	Total
Pike		$\frac{2}{5302}$	$\frac{2}{5302}$
White Perch	$\frac{1}{62}$	$\frac{6}{524}$	$\frac{7}{586}$
Pumpkinseed	$\frac{9}{700}$	$\frac{1}{106}$	$\frac{10}{806}$
Yellow Perch	$\frac{1}{57}$	$\frac{4}{354}$	$\frac{5}{411}$
Carp	$\frac{3}{5400}$	$\frac{9}{9127}$	$\frac{12}{14,527}$
Freshwater Drum	$\frac{1}{87}$		$\frac{1}{87}$
TOTAL	$\frac{15}{6306}$	$\frac{22}{15,413}$	$\frac{37}{21,719}$
Diversity	1.17	1.39	1.56

Table 29. Section E. Artificial Cut. State Ditch. Buoy 401. See heading Table 4 for explanation of abbreviations.

SPECIES	EF (20) 6/3/83	GN (1) 7/13/83	Total
Walleye		$\frac{2}{5132}$	$\frac{2}{5132}$
Smallmouth Bass	$\frac{2}{387}$		$\frac{2}{387}$
White Crappie		$\frac{1}{461}$	$\frac{1}{461}$
Bluegill	$\frac{1}{103}$	$\frac{1}{113}$	$\frac{2}{216}$
White Perch	$\frac{10}{876}$	$\frac{38}{3794}$	$\frac{48}{4670}$
Pumpkinseed		$\frac{1}{226}$	$\frac{1}{226}$
Carp	$\frac{1}{2600}$	$\frac{6}{12,247}$	$\frac{7}{14,847}$
Redhorses	$\frac{1}{2500}$		$\frac{1}{2500}$
Gizzard Shad		$\frac{2}{368}$	$\frac{2}{368}$
Alewife	$\frac{1}{10}$	$\frac{11}{738}$	$\frac{12}{748}$
Channel Catfish		$\frac{1}{361}$	$\frac{1}{361}$
Freshwater Drum		$\frac{1}{227}$	$\frac{1}{227}$
TOTAL	$\frac{16}{6476}$	$\frac{64}{23,667}$	$\frac{80}{30,143}$
Diversity	1.25	1.38	1.45

Table 30. Section E. Shallows (wetland). Fobes Island. See heading Table 4 for explanation of abbreviations.

SPECIES	EF (20) 6/2/83	GN (1) 7/14/83	Total
Pike		$\frac{1}{1361}$	$\frac{1}{1361}$
Largemouth Bass	$\frac{9}{504}$	$\frac{1}{50}$	$\frac{10}{554}$
Black Crappie	$\frac{1}{56}$		$\frac{1}{56}$
Bluegill	$\frac{23}{687}$		$\frac{23}{687}$
White Perch	$\frac{2}{139}$	$\frac{4}{461}$	$\frac{6}{600}$
Pumpkinseed	$\frac{35}{994}$		$\frac{35}{994}$
Yellow Perch	$\frac{36}{500}$		$\frac{36}{500}$
Carp	$\frac{8}{18,300}$	$\frac{7}{23,784}$	$\frac{15}{42,084}$
Redhorses		$\frac{5}{6350}$	$\frac{5}{6350}$
White Sucker	$\frac{1}{790}$		$\frac{1}{790}$
Gizzard Shad		$\frac{7}{1565}$	$\frac{7}{1565}$
Alewife	$\frac{9}{201}$		$\frac{9}{201}$
Brown Bullhead	$\frac{2}{256}$		$\frac{2}{256}$
Channel Catfish		$\frac{1}{794}$	$\frac{1}{794}$
Freshwater Drum	$\frac{2}{1340}$		$\frac{2}{1340}$
Brook Silverside	$\frac{3}{6}$		$\frac{3}{6}$
Golden Shiner	$\frac{5}{72}$		$\frac{5}{72}$
Bluntnose Minnow	$\frac{19}{57}$		$\frac{19}{57}$
TOTAL	$\frac{155}{23,902}$	$\frac{26}{34,365}$	$\frac{181}{58,267}$
Diversity	2.12	1.69	2.37

Table 31. Section E. Shallows (non-wetland).. Buoy 340-343. See heading Table 4 for explanation of abbreviations.

SPECIES	EF (20) 6/2/83	GN (1) 7/12/83	Total
Largemouth Bass	$\frac{9}{4165}$		$\frac{9}{4165}$
Smallmouth Bass	$\frac{20}{1929}$		$\frac{20}{1929}$
White Crappie	$\frac{3}{981}$		$\frac{3}{981}$
Bluegill	$\frac{15}{656}$		$\frac{15}{656}$
White Perch		$\frac{9}{913}$	$\frac{9}{913}$
Pumpkinseed	$\frac{13}{1024}$		$\frac{13}{1024}$
Yellow Perch		$\frac{1}{106}$	$\frac{1}{106}$
Carp	$\frac{2}{3600}$	$\frac{16}{16,944}$	$\frac{18}{20,544}$
White Sucker	$\frac{3}{2650}$	$\frac{2}{871}$	$\frac{5}{3521}$
Gizzard Shad		$\frac{7}{1239}$	$\frac{7}{1239}$
Alewife		$\frac{1}{92}$	$\frac{1}{92}$
Channel Catfish		$\frac{2}{503}$	$\frac{2}{503}$
Brook Silverside	$\frac{1}{4}$		$\frac{1}{4}$
Golden Shiner		$\frac{1}{71}$	$\frac{1}{71}$
TOTAL	$\frac{66}{15,009}$	$\frac{39}{20,739}$	$\frac{105}{35,748}$
Diversity	1.74	1.60	2.26

Table 32. Section E. Stream Mouth. Crooked Brook. See heading Table 4 for explanation of abbreviations.

SPECIES	EF (20) 6/2/83	S (2) 7/13/83	Total
Largemouth Bass	$\frac{3}{149}$		$\frac{3}{149}$
Smallmouth Bass	$\frac{4}{151}$		$\frac{4}{151}$
Bluegill	$\frac{10}{257}$	$\frac{4}{16.4}$	$\frac{14}{273.4}$
Pumpkinseed	$\frac{10}{193}$		$\frac{10}{193}$
Yellow Perch	$\frac{10}{138}$		$\frac{10}{138}$
Golden Shiner	$\frac{4}{199}$		$\frac{4}{199}$
Bluntnose Minnow	$\frac{1}{3}$		$\frac{1}{3}$
TOTAL	$\frac{42}{1090}$	$\frac{4}{16.4}$	$\frac{46}{1106.4}$
Diversity	1.75	0	1.71

Table 33. Section E. Oxbow. Seneca River. See heading Table 4 for explanation of abbreviations.

SPECIES	EF (20) 6/3/83	GN (1) 7/13/83	Total
Pike	$\frac{2}{2200}$		$\frac{2}{2200}$
Largemouth Bass	$\frac{5}{6233}$		$\frac{5}{6233}$
Smallmouth Bass	$\frac{1}{102}$		$\frac{1}{102}$
Black Crappie	$\frac{1}{46}$		$\frac{1}{46}$
White Crappie	$\frac{4}{2090}$		$\frac{4}{2090}$
Bluegill	$\frac{15}{889}$		$\frac{15}{889}$
White Perch	$\frac{10}{1007}$		$\frac{10}{1007}$
Pumpkinseed	$\frac{33}{986}$		$\frac{33}{986}$
Yellow Perch	$\frac{3}{108}$		$\frac{3}{108}$
Carp	$\frac{7}{23,400}$	$\frac{13}{13,459}$	$\frac{20}{36,859}$
Redhorses		$\frac{1}{1077}$	$\frac{1}{1077}$
Brown Bullhead	$\frac{2}{434}$		$\frac{2}{434}$
Channel Catfish		$\frac{2}{1871}$	$\frac{2}{1871}$
Freshwater Drum	$\frac{1}{172}$		$\frac{1}{172}$
Golden Shiner	$\frac{2}{59}$		$\frac{2}{59}$
Bluntnose Minnow	$\frac{3}{13}$		$\frac{3}{13}$
TOTAL	$\frac{89}{37,739}$	$\frac{16}{16,407}$	$\frac{105}{54,146}$
Diversity	2.05	0.60	2.13

Table 34. Section E. Oxbow. Maloney Island. Supplemental station. See heading Table 4 for explanation of abbreviations.

SPECIES	GN (1) 7/11/83
Pike	$\frac{1}{1332}$
White Crappie	$\frac{1}{397}$
White Perch	$\frac{11}{899}$
Yellow Perch	$\frac{2}{135}$
Carp	$\frac{17}{17,107}$
Redhorses	$\frac{2}{2041}$
Gizzard Shad	$\frac{5}{786}$
Channel Catfish	$\frac{2}{475}$
TOTAL	$\frac{41}{23,172}$
Diversity	1.60

Table 35. Section F. Natural Channel. Buoy 234. See heading Table 4 for explanation of abbreviations.

SPECIES	EF (20) 6/1/83	GN (1) 6/14/83	Total
Walleye		$\frac{1}{553}$	$\frac{1}{553}$
White Perch		$\frac{21}{2785}$	$\frac{21}{2785}$
Carp		$\frac{4}{13,098}$	$\frac{4}{13,098}$
Redhorses		$\frac{1}{1503}$	$\frac{1}{1503}$
Gizzard Shad	$\frac{2}{124}$	$\frac{1}{64}$	$\frac{3}{188}$
Brown Bullhead		$\frac{2}{475}$	$\frac{2}{475}$
Golden Shiner		$\frac{14}{1701}$	$\frac{14}{1701}$
TOTAL	$\frac{2}{124}$	$\frac{44}{20,179}$	$\frac{46}{20,303}$
Diversity	0	1.25	1.41

Table 36. Section F. Shallows (non-wetland). Buoy 232. See heading Table 4 for explanation of abbreviations.

SPECIES	EF (20) 6/1/83	TN (1) 6/14/83	Total
Largemouth Bass	$\frac{1}{17}$	$\frac{3}{1041}$	$\frac{4}{1058}$
Smallmouth Bass	$\frac{2}{1043}$		$\frac{2}{1043}$
Rainbow Trout		$\frac{1}{319}$	$\frac{1}{319}$
Black Crappie	$\frac{2}{154}$	$\frac{10}{1864}$	$\frac{12}{2018}$
White Crappie	$\frac{2}{363}$	$\frac{5}{1815}$	$\frac{7}{2178}$
Bluegill	$\frac{5}{469}$	$\frac{64}{8358}$	$\frac{69}{8827}$
White Perch		$\frac{12}{1533}$	$\frac{12}{1533}$
Pumpkinseed	$\frac{5}{853}$	$\frac{27}{4075}$	$\frac{32}{4928}$
Yellow Perch	$\frac{1}{41}$		$\frac{1}{41}$
Carp	$\frac{5}{12,800}$	$\frac{1}{118}$	$\frac{6}{12,918}$
Redhorses		$\frac{1}{708}$	$\frac{1}{708}$
White Sucker	$\frac{8}{4419}$		$\frac{8}{4419}$
Brown Bullhead	$\frac{7}{1991}$	$\frac{2}{992}$	$\frac{9}{2983}$
Golden Shiner		$\frac{4}{482}$	$\frac{4}{482}$
TOTAL	$\frac{38}{22,150}$	$\frac{130}{21,305}$	$\frac{168}{43,455}$
Diversity	2.10	1.59	1.93

Table 37. Section F. Stream Mouth. Unnamed stream. See heading Table 4 for explanation of abbreviations.

SPECIES	EF (20) 6/1/83	S (2)
Black Crappie	$\frac{1}{3}$	
White Crappie	$\frac{2}{4}$	
Bluegill	$\frac{2}{3}$	
Yellow Perch	$\frac{4}{16}$	
Brown Bullhead	$\frac{1}{286}$	
TOTAL	$\frac{10}{312}$	0*
Diversity	1.47	* no fish caught

Table 38. Section G. Natural Channel. Buoy 185A-189. See heading Table 4 for explanation of abbreviations.

SPECIES	EF (20) 6/1/83	GN (1) 6/9/83	GN-2 (1) 8/9/83
Walleye		$\frac{1}{992}$	$\frac{4}{4719}$
Smallmouth Bass			$\frac{1}{340}$
Black Crappie			$\frac{1}{57}$
White Perch		$\frac{16}{3567}$	$\frac{18}{3250}$
Rock Bass		$\frac{2}{255}$	$\frac{2}{397}$
Yellow Perch		$\frac{2}{212}$	
Carp		$\frac{3}{7237}$	$\frac{5}{7301}$
Redhorses			$\frac{1}{1021}$
Yellow Bullhead			$\frac{1}{113}$
Channel Catfish		$\frac{8}{26,537}$	
Freshwater Drum			$\frac{1}{99}$
Golden Shiner		$\frac{1}{106}$	$\frac{6}{774}$
TOTAL	0*	$\frac{33}{38,906}$	$\frac{40}{18,071}$
Diversity		1.46	1.74

* no fish caught

Table 39. Section G. Artificial Cut. Big Bend Cut. Buoy 202-203. See heading Table 4 for explanation of abbreviations.

SPECIES	EF (20) 6/1/83	GN (1) 6/9/83	Total	GN-2 (1) 8/9/83
Walleye	$\frac{2}{1500}$	$\frac{1}{1786}$	$\frac{3}{3286}$	$\frac{2}{1155}$
Smallmouth Bass	$\frac{9}{1713}$	$\frac{1}{1474}$	$\frac{10}{3187}$	$\frac{1}{354}$
Black Crappie				$\frac{1}{42}$
Bluegill	$\frac{1}{61}$		$\frac{1}{61}$	
White Perch		$\frac{14}{3615}$	$\frac{14}{3615}$	$\frac{25}{3446}$
Rock Bass	$\frac{5}{535}$	$\frac{3}{503}$	$\frac{8}{1038}$	
Pumpkinseed	$\frac{2}{137}$		$\frac{2}{137}$	$\frac{1}{128}$
Yellow Perch	$\frac{1}{39}$		$\frac{1}{39}$	
Carp		$\frac{8}{23,275}$	$\frac{8}{23,275}$	$\frac{8}{11,125}$
Redhorses		$\frac{3}{4281}$	$\frac{3}{4281}$	$\frac{1}{1106}$
Gizzard Shad				$\frac{2}{361}$
Brown Bullhead		$\frac{1}{296}$	$\frac{1}{296}$	
Yellow Bullhead				$\frac{1}{191}$
Channel Catfish		$\frac{2}{1410}$	$\frac{2}{1410}$	$\frac{3}{2286}$
Freshwater Drum	$\frac{1}{445}$		$\frac{1}{445}$	$\frac{1}{496}$
TOTAL	$\frac{21}{4430}$	$\frac{33}{36,640}$	$\frac{54}{41,070}$	$\frac{46}{20,690}$
Diversity	1.59	1.63	2.09	1.59

Table 40. Section G. Shallows (wetland). Schroepfel Island. See heading Table 4 for explanation of abbreviations.

SPECIES	EF (20) 6/1/83	GN (1) 6/9/83	Total	GN-2 (1) 8/9/83
Pike	$\frac{1}{5200}$	$\frac{2}{4054}$	$\frac{3}{9254}$	$\frac{2}{3714}$
Walleye				$\frac{2}{1786}$
Largemouth Bass	$\frac{3}{393}$	$\frac{1}{276}$	$\frac{4}{669}$	
Black Crappie	$\frac{3}{15}$		$\frac{3}{15}$	$\frac{4}{369}$
Bluegill	$\frac{18}{6321}$	$\frac{5}{1331}$	$\frac{23}{7652}$	$\frac{1}{106}$
White Perch		$\frac{1}{184}$	$\frac{1}{184}$	$\frac{1}{283}$
Rock Bass	$\frac{2}{332}$	$\frac{1}{149}$	$\frac{3}{481}$	
Pumpkinseed	$\frac{7}{202}$	$\frac{1}{149}$	$\frac{8}{351}$	
Yellow Perch	$\frac{32}{144}$	$\frac{1}{78}$	$\frac{33}{222}$	$\frac{1}{276}$
Carp	$\frac{1}{3400}$	$\frac{9}{23,957}$	$\frac{10}{27,357}$	$\frac{5}{10,575}$
Redhorses		$\frac{1}{936}$	$\frac{1}{936}$	
White Sucker	$\frac{1}{1250}$		$\frac{1}{1250}$	
Bowfin				$\frac{2}{1673}$
Gizzard Shad				$\frac{3}{685}$
Brown Bullhead	$\frac{4}{1204}$		$\frac{4}{1204}$	
Channel Catfish				$\frac{2}{2694}$
Freshwater Drum				$\frac{1}{673}$
Golden Shiner	$\frac{4}{13}$	$\frac{11}{1333}$	$\frac{15}{1346}$	$\frac{1}{71}$
Bluntnose Minnow	$\frac{5}{4.5}$		$\frac{5}{4.5}$	
TOTAL	$\frac{81}{18,478.5}$	$\frac{33}{32,447}$	$\frac{114}{50,925.5}$	$\frac{25}{22,905}$
Diversity	1.88	1.81	2.13	2.32

Table 41. Section G. Shallows (non-wetland). Buoy 193. See heading Table 4 for explanation of abbreviations.

SPECIES	EF (20) 6/1/83	GN (1) 6/10/83	S (2) 8/9/83	Total	GN-2 (1) 8/9/83
Pike		$\frac{1}{2325}$		$\frac{1}{2325}$	$\frac{1}{2807}$
Walleye		$\frac{2}{822}$		$\frac{2}{822}$	$\frac{4}{3658}$
Largemouth Bass	$\frac{3}{132.75}$			$\frac{3}{132.75}$	$\frac{3}{318}$
Smallmouth Bass	$\frac{5}{779}$			$\frac{5}{779}$	$\frac{1}{113}$
Black Crappie			$\frac{2}{2.5}$	$\frac{2}{2.5}$	$\frac{3}{312}$
White Crappie		$\frac{3}{432}$		$\frac{3}{432}$	
Bluegill		$\frac{2}{418}$	$\frac{7}{9.3}$	$\frac{2}{418}$	
White Perch	$\frac{7}{773}$	$\frac{5}{808}$		$\frac{12}{1581}$	$\frac{2}{319}$
Rock Bass		$\frac{1}{177}$		$\frac{1}{177}$	
Pumpkinseed	$\frac{3}{279}$			$\frac{3}{279}$	
Yellow Perch	$\frac{1}{40}$	$\frac{4}{375}$		$\frac{5}{415}$	$\frac{1}{198}$
Carp	$\frac{15}{47,100}$	$\frac{7}{19,533}$		$\frac{22}{66,633}$	$\frac{5}{8895}$
Redhorses					$\frac{1}{2268}$
White Sucker	$\frac{2}{1500}$			$\frac{2}{1500}$	
Gizzard Shad		$\frac{4}{737}$		$\frac{4}{737}$	$\frac{3}{1190}$
Alewife					$\frac{2}{142}$
Brown Bullhead	$\frac{2}{948}$	$\frac{1}{262}$		$\frac{3}{1210}$	
Channel Catfish					$\frac{2}{6039}$
Brook Silverside	$\frac{5}{12}$		$\frac{6}{15.6}$	$\frac{5}{12}$	
Golden Shiner	$\frac{1}{4}$	$\frac{13}{1821}$		$\frac{14}{1825}$	$\frac{4}{553}$
Spotfin Shiner	$\frac{3}{5.05}$			$\frac{3}{5.05}$	
Bluntnose Minnow	$\frac{2}{3}$			$\frac{2}{3}$	
TOTAL	$\frac{49}{51,575.8}$	$\frac{43}{27,710}$	$\frac{15}{27.4}$	$\frac{94}{79,288.3}$	$\frac{32}{26,812}$
Diversity	2.17	2.08	0.99	2.54	2.43

Table 42. Section G. Oxbow. Oneida River, near Bridge E 69A. See heading Table 4 for explanation of abbreviations.

SPECIES	EF (20) 6/1/83	GN (1) 6/14/83	GN-2 (1) 8/8/83
Pike		$\frac{1}{2608}$	
Walleye		$\frac{1}{2098}$	
Largemouth Bass	$\frac{10}{2369}$	$\frac{1}{446}$	
Smallmouth Bass	$\frac{5}{616}$	$\frac{1}{347}$	
White Crappie	$\frac{1}{68}$		
Bluegill	$\frac{3}{196}$	$\frac{4}{666}$	
White Perch		$\frac{1}{303}$	
Rock Bass	$\frac{3}{253}$		
Pumpkinseed	$\frac{19}{171}$	$\frac{5}{609}$	
Carp	$\frac{4}{9700}$	$\frac{11}{24,012}$	
Bowfin		$\frac{1}{808}$	
Gizzard Shad		$\frac{1}{879}$	
Brown Bullhead	$\frac{18}{5767}$	$\frac{3}{886}$	
Yellow Bullhead		$\frac{2}{659}$	
Channel Catfish		$\frac{1}{737}$	
Brook Silverside	$\frac{6}{12}$		
Golden Shiner	$\frac{120}{905}$		
Spotfin Shiner	$\frac{1}{1}$		
Spottail Shiner	$\frac{1}{4}$		
Bluntnose Minnow	$\frac{18}{36.05}$		
TOTAL	$\frac{209}{20,098.05}$	$\frac{33}{35,058}$	0*
Diversity	1.57	2.14	

* net vandalized - no sample

Table 43. Section H. Natural Channel. Buoy 103. See heading Table 4 for explanation of abbreviations.

SPECIES	EF (20) 5/25/83	GN (1) 6/23/83	Total	GN-2 (1) 8/3/83
Largemouth Bass		$\frac{1}{276}$	$\frac{1}{276}$	
Bluegill	$\frac{1}{63}$	$\frac{7}{717}$	$\frac{8}{780}$	
Rock Bass	$\frac{8}{797}$		$\frac{8}{797}$	
Pumpkinseed	$\frac{2}{190}$	$\frac{1}{128}$	$\frac{3}{318}$	
Carp	$\frac{1}{5200}$	$\frac{1}{3969}$	$\frac{2}{9169}$	
White Sucker		$\frac{1}{475}$	$\frac{1}{475}$	
Brown Bullhead	$\frac{4}{592}$		$\frac{4}{592}$	
Golden Shiner		$\frac{1}{78}$	$\frac{1}{78}$	
TOTAL	$\frac{16}{6842}$	$\frac{12}{5643}$	$\frac{28}{12,485}$	0*
Diversity	1.30	1.35	1.78	

* no fish caught

Table 44. Section H. Shallows (wetland). Buoy 109. Supplemental station. See heading Table 4 for explanation of abbreviations.

SPECIES	TN (1) 6/22/83	TN-2 (1) 8/4/83
Largemouth Bass	$\frac{2}{495}$	$\frac{4}{779}$
Bluegill	$\frac{178}{18,013}$	$\frac{153}{10,368}$
Rock Bass	$\frac{2}{220}$	$\frac{4}{191}$
Pumpkinseed	$\frac{14}{936}$	$\frac{23}{1103}$
Carp	$\frac{1}{2070}$	$\frac{1}{4082}$
Brown Bullhead	$\frac{1}{71}$	$\frac{1}{71}$
Golden Shiner	$\frac{1}{71}$	$\frac{1}{71}$
TOTAL	$\frac{199}{21,876}$	$\frac{185}{16,523}$
Diversity	0.46	0.61

Table 45. Section H. Shallows (non-wetland). Lock 4 - Power Plant. See heading Table 4 for explanation of abbreviations.

SPECIES	EF (20) 5/25/83	GN (1) 6/21/83	S (2) 7/23/83	Total	GN-2 8/3/83
Pike	$\frac{2}{1605}$			$\frac{2}{1605}$	
Largemouth Bass	$\frac{17}{742}$	$\frac{3}{1060}$	$\frac{1}{5.9}$	$\frac{21}{1807.9}$	
Bluegill	$\frac{307}{916}$	$\frac{7}{473}$	$\frac{12}{10.8}$	$\frac{326}{1399.8}$	$\frac{2}{175}$
Rock Bass	$\frac{1}{163}$	$\frac{1}{99}$		$\frac{2}{262}$	
Pumpkinseed	$\frac{90}{2148}$	$\frac{2}{77}$		$\frac{92}{2225}$	$\frac{1}{35}$
Carp	$\frac{1}{1000}$	$\frac{3}{11,425}$		$\frac{4}{12,425}$	$\frac{4}{12,673}$
Redhorses			$\frac{1}{1.9}$	$\frac{1}{1.9}$	
White Sucker	$\frac{1}{720}$			$\frac{1}{720}$	
Brown Bullhead	$\frac{4}{890}$			$\frac{4}{890}$	
Johnny Darter	$\frac{1}{2}$			$\frac{1}{2}$	
Brook Silverside			$\frac{5}{5.2}$	$\frac{5}{5.2}$	
Spotfin Shiner			$\frac{83}{124.4}$	$\frac{83}{124.4}$	
Bluntnose Minnow	$\frac{4}{15}$		$\frac{5}{5}$	$\frac{9}{20}$	
Fathead Minnow	$\frac{2}{2}$			$\frac{2}{2}$	
TOTAL	$\frac{430}{8203}$	$\frac{16}{13,134}$	$\frac{107}{153.2}$	$\frac{553}{21,490.2}$	$\frac{7}{12,883}$
Diversity	0.89	1.42	0.82	1.29	0.96

Table 46. Section H. Stream Mouth. Kéndig Creek. See heading Table 4 for explanation of abbreviations.

SPECIES	EF (20) 5/25/83	GN (1) 6/22/83	Total	GN-2 (1) 8/2/83
Largemouth Bass	$\frac{11}{3651}$	$\frac{1}{99}$	$\frac{12}{3750}$	
Smallmouth Bass	$\frac{1}{525}$		$\frac{1}{525}$	
Bluegill	$\frac{22}{7759}$	$\frac{4}{432}$	$\frac{26}{8191}$	
Rock Bass	$\frac{1}{145}$		$\frac{1}{145}$	
Pumpkinseed	$\frac{56}{4346}$	$\frac{3}{112}$	$\frac{59}{4458}$	
Carp	$\frac{1}{10,300}$	$\frac{6}{22,369}$	$\frac{7}{32,669}$	
Alewife	$\frac{13}{180}$		$\frac{13}{180}$	
Brown Bullhead	$\frac{1}{450}$	$\frac{3}{1394}$	$\frac{4}{1844}$	
Chanhel Catfish		$\frac{2}{2297}$	$\frac{2}{2297}$	
Brook Silverside	$\frac{1}{0.5}$		$\frac{1}{0.5}$	
Golden Shiner	$\frac{5}{47}$		$\frac{5}{47}$	
Spottail Shiner	$\frac{2}{18}$		$\frac{2}{18}$	
Satinfin Shiner	$\frac{6}{27}$		$\frac{6}{27}$	
Bluntnose Minnow	$\frac{13}{51.5}$		$\frac{13}{51.5}$	
Fathead Minnow	$\frac{1}{0.5}$		$\frac{1}{0.5}$	
TOTAL	$\frac{134}{27,500.5}$	$\frac{19}{26,703}$	$\frac{153}{54,203.5}$	0*
Diversity	1.86	1.67	2.01	

* net stolen-no sample

Table 47. Section H. Oxbow. Buoy 114. See heading Table 4 for explanation of abbreviations.

SPECIES	EF (20) 5/25/83	GN (1) 6/22/83	Total	GN-2 (1) 8/2/83
Largemouth Bass	$\frac{9}{298}$	$\frac{1}{851}$	$\frac{10}{1149}$	
Smallmouth Bass		$\frac{5}{2019}$	$\frac{5}{2019}$	
Bluegill	$\frac{58}{11,428}$	$\frac{29}{2226}$	$\frac{87}{13,654}$	
Pumpkinseed	$\frac{97}{2423}$	$\frac{14}{557}$	$\frac{111}{2980}$	
Carp		$\frac{10}{42,014}$	$\frac{10}{42,014}$	
White Sucker	$\frac{2}{2300}$		$\frac{2}{2300}$	
Alewife	$\frac{1}{20}$		$\frac{1}{20}$	
Brown Bullhead	$\frac{24}{6186}$	$\frac{5}{1621}$	$\frac{29}{7807}$	
Bluntnose Minnow	$\frac{1}{11}$		$\frac{1}{11}$	
TOTAL	$\frac{192}{22,666}$	$\frac{64}{49,288}$	$\frac{256}{71,954}$	0*
Diversity	1.21	1.44	1.39	

* weed choked-no sample

Table 48. Section H. Oxbow. Buoy 79-80. Supplemental station. See heading Table 4 for explanation of abbreviations.

SPECIES	GN (1) 6/23/83	GN-2 (1) 8/4/83
Pike	$\frac{2}{4536}$	
Black Crappie		$\frac{1}{170}$
Bluegill	$\frac{3}{247}$	
Pumpkinseed	$\frac{3}{162}$	
Carp	$\frac{3}{10,574}$	$\frac{1}{1531}$
Gizzard Shad	$\frac{1}{567}$	$\frac{3}{681}$
Brown Bullhead	$\frac{1}{319}$	
Golden Shiner	$\frac{19}{1552}$	$\frac{1}{85}$
TOTAL	$\frac{32}{17,957}$	$\frac{6}{2467}$
Diversity	1.37	1.24

Table 49. Section H. Riffles, below Power Plant. See heading Table 4 for explanation of abbreviations.

SPECIES	EF (20) 5/25/83	GN (1) 6/23/83	S (2) 6/22/83	Total	GN-2 (1) 8/4/83
Largemouth Bass		$\frac{1}{92}$		$\frac{1}{92}$	
Smallmouth Bass					$\frac{1}{1021}$
Bluegill					$\frac{2}{106}$
Pumpkinseed		$\frac{1}{35}$		$\frac{1}{35}$	$\frac{2}{77}$
Carp		$\frac{1}{3487}$		$\frac{1}{3487}$	$\frac{1}{4281}$
White Sucker					$\frac{1}{680}$
Gizzard Shad					$\frac{4}{900}$
Alewife	$\frac{1}{24}$			$\frac{1}{24}$	
Johnny Darter			$\frac{1}{1.3}$	$\frac{1}{1.3}$	
Banded Killifish			$\frac{41}{98.4}$	$\frac{41}{98.4}$	
Bluntnose Minnow			$\frac{1}{2.0}$	$\frac{1}{2.0}$	
TOTAL	$\frac{1}{24}$ *	$\frac{3}{3614}$	$\frac{43}{101.7}$	$\frac{47}{3739.7}$	$\frac{11}{7065}$
Diversity	0	1.10	0.22	.61	1.64

* more fish were shocked but carried away by strong currents

Table 50. Total catch in each section, Canal Sections 5 and 6. See heading Table 4 for explanation of abbreviations. In sections where net samples were taken twice, only the first sample is summarized.

SPECIES	SECTION A				Total
	EF (60)	GN (4)	TN (1)	S (5)	
Pike		$\frac{1}{1928}$			$\frac{1}{1928}$
Walleye	$\frac{1}{366}$	$\frac{6}{6209}$			$\frac{7}{6575}$
Largemouth Bass	$\frac{2}{89}$	$\frac{1}{354}$			$\frac{3}{443}$
Smallmouth Bass	$\frac{6}{183}$			$\frac{3}{17.6}$	$\frac{9}{200.6}$
Black Crappie	$\frac{10}{656}$	$\frac{2}{163}$	$\frac{1}{99}$		$\frac{13}{918}$
White Crappie	$\frac{3}{570}$		$\frac{4}{1118}$		$\frac{7}{1688}$
Bluegill	$\frac{21}{919}$	$\frac{2}{148}$	$\frac{288}{29,127}$	$\frac{1}{6.4}$	$\frac{312}{30,200.4}$
White Perch	$\frac{14}{814}$	$\frac{113}{12,203}$	$\frac{428}{57,444}$		$\frac{555}{70,461}$
Rock Bass	$\frac{6}{526}$	$\frac{2}{411}$			$\frac{8}{937}$
Pumpkinseed	$\frac{12}{640}$	$\frac{3}{297}$	$\frac{19}{1598}$		$\frac{34}{2535}$
Yellow Perch	$\frac{8}{250}$				$\frac{8}{250}$
Carp	$\frac{8}{18,600}$	$\frac{24}{38,628}$	$\frac{5}{5698}$		$\frac{37}{62,926}$
Redhorses	$\frac{7}{2582}$	$\frac{7}{3891}$	$\frac{1}{992}$		$\frac{15}{7465}$
White Sucker	$\frac{9}{3247}$		$\frac{1}{652}$		$\frac{10}{3899}$
Gizzard Shad	$\frac{40}{7437}$	$\frac{28}{5720}$	$\frac{10}{1787}$		$\frac{78}{14,944}$
Alewife		$\frac{1}{85}$			$\frac{1}{85}$
Brown Bullhead	$\frac{2}{191}$				$\frac{2}{191}$
Channel Catfish		$\frac{1}{638}$	$\frac{12}{3793}$		$\frac{13}{4431}$
Freshwater Drum	$\frac{3}{1532}$				$\frac{3}{1532}$
Log Perch				$\frac{1}{11.2}$	$\frac{1}{11.2}$
Golden Shiner		$\frac{18}{1898}$	$\frac{1}{85}$		$\frac{19}{1983}$
Spotfin Shiner	$\frac{1}{5}$			$\frac{21}{74.4}$	$\frac{22}{79.4}$
Emerald Shiner	$\frac{1}{7}$				$\frac{1}{7}$
Bluntnose Minnow	$\frac{7}{15}$			$\frac{18}{40}$	$\frac{25}{55}$
Fathead Minnow	$\frac{5}{9}$				$\frac{5}{9}$
TOTAL	$\frac{166}{38,638}$	$\frac{209}{72,573}$	$\frac{770}{102,393}$	$\frac{44}{149.6}$	$\frac{1189}{213,753.6}$
Diversity	2.58	1.57	1.00	1.07	1.76
Effort Index	2.77	52.25	770	8.8	

Table 50 continued.

	SECTION B				Total
	EF (80)	GN (2)	TN (1)	S (7)	
Pike		$\frac{1}{1814}$		$\frac{4}{16.9}$	$\frac{5}{1830.9}$
Largemouth Bass		$\frac{4}{1325}$	$\frac{1}{1871}$	$\frac{3}{33.0}$	$\frac{8}{3229}$
Smallmouth Bass			$\frac{1}{156}$		$\frac{1}{156}$
Black Crappie	$\frac{5}{301}$	$\frac{1}{156}$	$\frac{156}{15,947}$	$\frac{9}{12.7}$	$\frac{171}{16,416.7}$
White Crappie			$\frac{12}{1611}$		$\frac{12}{1611}$
Bluegill	$\frac{4}{76}$	$\frac{7}{852}$	$\frac{52}{4970}$	$\frac{6}{18.3}$	$\frac{69}{5916.3}$
White Perch	$\frac{3}{282}$	$\frac{5}{864}$	$\frac{8}{1064}$		$\frac{16}{2210}$
Rock Bass	$\frac{1}{256}$	$\frac{1}{106}$			$\frac{2}{362}$
Pumpkinseed	$\frac{13}{871}$	$\frac{1}{42}$	$\frac{4}{340}$		$\frac{18}{1253}$
Yellow Perch	$\frac{7}{176}$				$\frac{7}{176}$
Carp	$\frac{2}{2100}$	$\frac{19}{26,223}$			$\frac{21}{28,323}$
Redhorses		$\frac{5}{6378}$	$\frac{12}{10,227}$		$\frac{17}{16,605}$
White Sucker	$\frac{6}{2405}$		$\frac{2}{843}$		$\frac{8}{3248}$
Gizzard Shad	$\frac{1}{39}$	$\frac{7}{2189}$	$\frac{8}{666}$	$\frac{39}{77.2}$	$\frac{55}{2971.2}$
Alewife		$\frac{1}{57}$	$\frac{2}{149}$		$\frac{3}{206}$
Brown Bullhead	$\frac{4}{1285}$		$\frac{23}{3428}$		$\frac{27}{4713}$
Channel Catfish	$\frac{4}{548}$	$\frac{3}{1212}$	$\frac{1}{524}$		$\frac{8}{2284}$
Freshwater Drum	$\frac{2}{1045}$		$\frac{2}{1035}$		$\frac{4}{2080}$
Brook Silverside				$\frac{2}{6.3}$	$\frac{2}{6.3}$
Spotfin Shiner	$\frac{1}{7}$			$\frac{6}{12.4}$	$\frac{7}{19.4}$
Emerald Shiner	$\frac{1}{9}$			$\frac{2}{4.9}$	$\frac{3}{13.9}$
Bigmouth Shiner	$\frac{1}{7}$				$\frac{1}{7}$
Comely Shiner	$\frac{2}{12}$				$\frac{2}{12}$
Bluntnose Minnow	$\frac{2}{11}$			$\frac{8}{15.6}$	$\frac{10}{26.6}$
TOTAL	$\frac{59}{9430}$	$\frac{55}{41,218}$	$\frac{284}{42,831}$	$\frac{79}{197.3}$	$\frac{477}{93,676.3}$
Diversity	2.53	2.04	1.54	1.68	2.30
Effort Index	.74	27.5	284	11.3	

Table 50 continued.

	SECTION C				Total
	EF (100)	GN (5)	TN (2)	S (1)	
Pike	$\frac{1}{1500}$	$\frac{10}{19,306}$	$\frac{5}{12,048}$	$\frac{2}{20.8}$	$\frac{18}{32,874.8}$
Largemouth Bass		$\frac{4}{1594}$			$\frac{4}{1594}$
Smallmouth Bass	$\frac{1}{102}$		$\frac{1}{149}$		$\frac{2}{251}$
Rainbow Trout		$\frac{1}{340}$	$\frac{1}{439}$		$\frac{2}{779}$
Black Crappie	$\frac{2}{108}$	$\frac{2}{177}$	$\frac{120}{6613}$		$\frac{124}{6898}$
White Crappie		$\frac{5}{1118}$	$\frac{14}{1997}$		$\frac{19}{3115}$
Bluegill	$\frac{5}{188}$	$\frac{8}{914}$	$\frac{87}{8518}$	$\frac{4}{18.3}$	$\frac{104}{9638.3}$
White Perch	$\frac{17}{1014}$	$\frac{40}{7851}$	$\frac{8}{864}$		$\frac{65}{9729}$
Rock Bass	$\frac{1}{96}$	$\frac{2}{142}$			$\frac{3}{238}$
Pumpkinseed	$\frac{20}{647}$	$\frac{3}{105}$	$\frac{8}{483}$		$\frac{31}{1235}$
Yellow Perch	$\frac{13}{294}$			$\frac{2}{12.8}$	$\frac{15}{306.8}$
Carp	$\frac{10}{13,325}$	$\frac{105}{144,468}$	$\frac{2}{2891}$		$\frac{117}{160,684}$
Goldfish		$\frac{1}{680}$			$\frac{1}{680}$
Redhorses		$\frac{10}{8426}$	$\frac{2}{1927}$		$\frac{12}{10,353}$
White Sucker	$\frac{1}{275}$		$\frac{1}{425}$		$\frac{2}{700}$
Bowfin			$\frac{1}{1077}$		$\frac{1}{1077}$
Gizzard Shad	$\frac{10}{646}$	$\frac{37}{4160}$	$\frac{19}{2014}$		$\frac{66}{6820}$
Alewife	$\frac{62}{890}$	$\frac{3}{113}$			$\frac{65}{1003}$
Brown Bullhead	$\frac{5}{827}$		$\frac{2}{445}$		$\frac{7}{1272}$
Yellow Bullhead		$\frac{2}{298}$	$\frac{1}{234}$		$\frac{3}{532}$
Channel Catfish		$\frac{4}{5145}$			$\frac{4}{5145}$
Freshwater Drum		$\frac{2}{1048}$	$\frac{1}{2495}$		$\frac{3}{3543}$
Johnny Darter				$\frac{2}{4}$	$\frac{2}{4}$
Brook Silverside	$\frac{4}{8}$				$\frac{4}{8}$
Golden Shiner		$\frac{2}{220}$			$\frac{2}{220}$
Spotfin Shiner	$\frac{1}{12}$			$\frac{1}{3.4}$	$\frac{2}{15.4}$
Bigmouth Shiner	$\frac{3}{6}$				$\frac{3}{6}$
Bluntnose Minnow				$\frac{2}{4.8}$	$\frac{2}{4.8}$
TOTAL	$\frac{156}{19,938}$	$\frac{241}{196,105}$	$\frac{273}{42,619}$	$\frac{13}{64.1}$	$\frac{683}{258,726.1}$
Diversity	2.04	1.89	1.58	1.71	2.34
Effort Index	1.56	48.2	136.5	13	

Table 50 continued.

	SECTION D				Total
	EF (80)	GN (2)	TN (2)	S (8)	
Pike			$\frac{2}{2608}$		$\frac{2}{2608}$
Largemouth Bass	$\frac{7}{5079}$	$\frac{1}{99}$	$\frac{1}{461}$		$\frac{9}{5639}$
Smallmouth Bass			$\frac{1}{290}$		$\frac{1}{290}$
Black Crappie	$\frac{1}{43}$		$\frac{68}{6511}$		$\frac{69}{6554}$
White Crappie	$\frac{3}{617}$		$\frac{13}{2743}$		$\frac{16}{3360}$
Bluegill	$\frac{30}{1106}$		$\frac{149}{12,112}$	$\frac{32}{101.7}$	$\frac{211}{13,319.7}$
White Perch	$\frac{19}{1621}$	$\frac{9}{583}$	$\frac{56}{10,953}$		$\frac{84}{13,157}$
Pumpkinseed	$\frac{111}{3807}$		$\frac{27}{2007}$		$\frac{138}{5814}$
Yellow Perch	$\frac{5}{388}$		$\frac{2}{340}$		$\frac{7}{728}$
Carp	$\frac{18}{22,722}$	$\frac{26}{26,269}$	$\frac{7}{6356}$		$\frac{51}{55,347}$
Redhorses		$\frac{2}{1729}$	$\frac{1}{1021}$		$\frac{3}{2750}$
White Sucker	$\frac{5}{2369}$				$\frac{5}{2369}$
Gizzard Shad	$\frac{2}{136}$		$\frac{1}{92}$		$\frac{3}{228}$
Alewife	$\frac{37}{488}$	$\frac{1}{21}$			$\frac{38}{509}$
Brown Bullhead	$\frac{2}{579}$		$\frac{16}{3166}$	$\frac{2}{4.5}$	$\frac{20}{3749.5}$
Channel Catfish			$\frac{3}{1616}$		$\frac{3}{1616}$
Freshwater Drum			$\frac{1}{99}$		$\frac{1}{99}$
Johnny Darter				$\frac{1}{2.6}$	$\frac{1}{2.6}$
Golden Shiner	$\frac{3}{54}$	$\frac{1}{99}$			$\frac{4}{153}$
Spotfin Shiner				$\frac{3}{5.2}$	$\frac{3}{5.2}$
Bigmouth Shiner	$\frac{2}{10}$				$\frac{2}{10}$
Bluntnose Minnow	$\frac{1}{5}$			$\frac{4}{6.9}$	$\frac{5}{11.9}$
Stoneroller	$\frac{1}{4}$				$\frac{1}{4}$
TOTAL	$\frac{247}{39,028}$	$\frac{40}{28,800}$	$\frac{348}{50,375}$	$\frac{42}{120.9}$	$\frac{677}{118,323.9}$
Diversity	1.84	1.04	1.70	0.85	2.10
Effort Index	3.09	20	174	5.25	

Section 50 continued.

	SECTION E				Total
	EF (120)	GN (6)	TN (0)	S (2)	
Pike	$\frac{2}{2200}$	$\frac{4}{7995}$			$\frac{6}{10,195}$
Walleye		$\frac{2}{5132}$			$\frac{2}{5132}$
Largemouth Bass	$\frac{26}{11,051}$	$\frac{1}{50}$			$\frac{27}{11,101}$
Smallmouth Bass	$\frac{27}{2569}$				$\frac{27}{2569}$
Black Crappie	$\frac{2}{102}$				$\frac{2}{102}$
White Crappie	$\frac{7}{3071}$	$\frac{2}{858}$			$\frac{9}{3929}$
Bluegill	$\frac{64}{2592}$	$\frac{1}{113}$		$\frac{4}{16.4}$	$\frac{69}{2721.4}$
White Perch	$\frac{23}{2084}$	$\frac{68}{6591}$			$\frac{91}{8675}$
Pumpkinseed	$\frac{100}{3897}$	$\frac{2}{332}$			$\frac{102}{4229}$
Yellow Perch	$\frac{50}{803}$	$\frac{7}{595}$			$\frac{57}{1398}$
Carp	$\frac{21}{53,300}$	$\frac{68}{92,668}$			$\frac{89}{145,968}$
Redhorses	$\frac{1}{2500}$	$\frac{8}{9468}$			$\frac{9}{11,968}$
White Sucker	$\frac{4}{3440}$	$\frac{2}{871}$			$\frac{6}{4311}$
Gizzard Shad		$\frac{21}{3958}$			$\frac{21}{3958}$
Alewife	$\frac{10}{211}$	$\frac{12}{830}$			$\frac{22}{1041}$
Brown Bullhead	$\frac{4}{690}$				$\frac{4}{690}$
Channel Catfish		$\frac{8}{4004}$			$\frac{8}{4004}$
Freshwater Drum	$\frac{4}{1599}$	$\frac{1}{227}$			$\frac{5}{1826}$
Brook Silverside	$\frac{4}{10}$				$\frac{4}{10}$
Golden Shiner	$\frac{11}{330}$	$\frac{1}{71}$			$\frac{12}{401}$
Bluntnose Minnow	$\frac{23}{73}$				$\frac{23}{73}$
TOTAL	$\frac{383}{90,522}$	$\frac{208}{133,763}$		$\frac{4}{16.4}$	$\frac{595}{224,301.4}$
Diversity	2.31	1.85		0	2.50
Effort Index	3.19	34.6		2	

Table 50 continued.

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	SECTION F				Total
	EF (60)	GN (1)	TN (1)	S (2) *	
Walleye		$\frac{1}{553}$			$\frac{1}{553}$
Largemouth Bass	$\frac{1}{17}$		$\frac{3}{1041}$		$\frac{4}{1058}$
Smallmouth Bass	$\frac{2}{1043}$				$\frac{2}{1043}$
Rainbow Trout			$\frac{1}{319}$		$\frac{1}{319}$
Black Crappie	$\frac{3}{157}$		$\frac{10}{1864}$		$\frac{13}{2021}$
White Crappie	$\frac{4}{367}$		$\frac{5}{1815}$		$\frac{9}{2182}$
Bluegill	$\frac{7}{472}$		$\frac{64}{8358}$		$\frac{71}{8830}$
White Perch		$\frac{21}{2785}$	$\frac{12}{1533}$		$\frac{33}{4318}$
Pumpkinseed	$\frac{5}{853}$		$\frac{27}{4075}$		$\frac{22}{4928}$
Yellow Perch	$\frac{5}{57}$				$\frac{5}{57}$
Carp	$\frac{5}{12,800}$	$\frac{4}{13,098}$	$\frac{1}{118}$		$\frac{10}{26,016}$
Redhorses		$\frac{1}{1503}$	$\frac{1}{708}$		$\frac{2}{2211}$
White Sucker	$\frac{8}{4419}$				$\frac{8}{4419}$
Gizzard Shad	$\frac{2}{124}$	$\frac{1}{64}$			$\frac{3}{188}$
Brown Bullhead	$\frac{8}{2277}$	$\frac{2}{475}$	$\frac{2}{992}$		$\frac{12}{3744}$
Golden Shiner		$\frac{14}{1701}$	$\frac{4}{482}$		$\frac{18}{2183}$
TOTAL	$\frac{50}{22,586}$	$\frac{44}{20,179}$	$\frac{130}{21,305}$	0	$\frac{224}{64,070}$
Diversity	2.26	1.33	1.59		2.18
Effort Index	.83	44	130		

* no fish caught

Table 50 continued.

	SECTION G				Total
	EF (100)	GN (5)	TN (0)	S (3)	
Pike	$\frac{1}{5200}$	$\frac{4}{8987}$			$\frac{5}{14,187}$
Walleye	$\frac{2}{1500}$	$\frac{5}{5698}$			$\frac{7}{7198}$
Largemouth Bass	$\frac{16}{2894.75}$	$\frac{2}{722}$			$\frac{18}{3616.75}$
Smallmouth Bass	$\frac{19}{3108}$	$\frac{2}{1821}$			$\frac{21}{4929}$
Black Crappie	$\frac{3}{15}$			$\frac{2}{2.5}$	$\frac{5}{17.5}$
White Crappie	$\frac{1}{68}$	$\frac{3}{432}$			$\frac{4}{500}$
Bluegill	$\frac{22}{6578}$	$\frac{11}{2415}$		$\frac{7}{9.3}$	$\frac{40}{9002.3}$
White Perch	$\frac{7}{773}$	$\frac{37}{8477}$			$\frac{44}{9250}$
Rock Bass	$\frac{10}{1120}$	$\frac{7}{1084}$			$\frac{17}{2204}$
Pumpkinseed	$\frac{31}{789}$	$\frac{6}{758}$			$\frac{37}{1547}$
Yellow Perch	$\frac{34}{223}$	$\frac{7}{665}$			$\frac{41}{888}$
Carp	$\frac{20}{60,200}$	$\frac{38}{98,014}$			$\frac{58}{158,214}$
Redhorses		$\frac{4}{5217}$			$\frac{4}{5217}$
White Sucker	$\frac{3}{2750}$				$\frac{3}{2750}$
Bowfin		$\frac{1}{808}$			$\frac{1}{808}$
Gizzard Shad		$\frac{5}{1616}$			$\frac{5}{1616}$
Brown Bullhead	$\frac{24}{7919}$	$\frac{5}{1444}$			$\frac{29}{9363}$
Yellow Bullhead		$\frac{2}{659}$			$\frac{2}{659}$
Channel Catfish		$\frac{11}{28,684}$			$\frac{11}{28,684}$
Freshwater Drum	$\frac{1}{445}$				$\frac{1}{445}$
Brook Silverside	$\frac{11}{24}$			$\frac{6}{15.6}$	$\frac{17}{39.6}$
Golden Shiner	$\frac{125}{922}$	$\frac{25}{3260}$			$\frac{150}{4182}$
Spot fin Shiner	$\frac{4}{6.05}$				$\frac{4}{6.05}$
Spottail Shiner	$\frac{1}{4}$				$\frac{1}{4}$
Bluntnose Minnow	$\frac{25}{43.55}$				$\frac{25}{43.55}$
TOTAL	$\frac{360}{94,582.35}$	$\frac{175}{170,761}$		$\frac{15}{27.4}$	$\frac{550}{265,370.75}$
Diversity	2.30	2.39		0.99	2.56
Effort Index	3.6	35		5	

Table 50 continued.

	SECTION H				Total
	EF (100)	GN (6)	TN (1)	S (3)	
Pike	$\frac{2}{1605}$	$\frac{2}{4536}$			$\frac{4}{6141}$
Largemouth Bass	$\frac{37}{4691}$	$\frac{7}{2378}$	$\frac{2}{495}$	$\frac{1}{5.9}$	$\frac{47}{7569.9}$
Smallmouth Bass	$\frac{1}{525}$	$\frac{5}{2019}$			$\frac{6}{2544}$
Bluegill	$\frac{388}{20,166}$	$\frac{50}{4095}$	$\frac{178}{18,013}$	$\frac{12}{10.8}$	$\frac{628}{42,284.8}$
Rock Bass	$\frac{10}{1105}$	$\frac{1}{99}$	$\frac{2}{220}$		$\frac{13}{1424}$
Pumpkinseed	$\frac{245}{9107}$	$\frac{24}{1071}$	$\frac{14}{936}$		$\frac{283}{11,114}$
Carp	$\frac{3}{16,500}$	$\frac{24}{93,838}$	$\frac{1}{2070}$		$\frac{28}{112,408}$
Redhorses				$\frac{1}{1.9}$	$\frac{1}{1.9}$
White Sucker	$\frac{3}{3020}$	$\frac{1}{475}$			$\frac{4}{3495}$
Gizzard Shad		$\frac{1}{567}$			$\frac{1}{567}$
Alewife	$\frac{15}{224}$				$\frac{15}{224}$
Brown Bullhead	$\frac{33}{8118}$	$\frac{9}{3334}$	$\frac{1}{71}$		$\frac{43}{11,523}$
Channel Catfish		$\frac{2}{2297}$			$\frac{2}{2297}$
Banded Killifish				$\frac{41}{98.4}$	$\frac{41}{98.4}$
Johnny Darter	$\frac{1}{2}$			$\frac{1}{1.3}$	$\frac{2}{3.3}$
Brook Silverside	$\frac{1}{0.5}$			$\frac{5}{5.2}$	$\frac{6}{5.7}$
Golden Shiner	$\frac{5}{47}$	$\frac{20}{1630}$	$\frac{1}{71}$		$\frac{26}{1748}$
Spotfin Shiner				$\frac{83}{124.4}$	$\frac{83}{124.4}$
Spottail Shiner	$\frac{2}{18}$				$\frac{2}{18}$
Satinfin Shiner	$\frac{6}{27}$				$\frac{6}{27}$
Bluntnose Minnow	$\frac{18}{77.5}$			$\frac{6}{7}$	$\frac{24}{84.5}$
Fathead Minnow	$\frac{3}{2.5}$				$\frac{3}{2.5}$
TOTAL	$\frac{773}{65,235.5}$	$\frac{146}{16,339}$	$\frac{199}{21,876}$	$\frac{150}{254.9}$	$\frac{1268}{203,705.4}$
Diversity	1.40	1.89	0.46	1.27	1.72
Effort Index	7.73	24.3	199	50	

Table 50 continued.

	Total All Sections				Total
	EF (700)	GN (31)	TN (8)	S (31)	
Pike	$\frac{6}{10,505}$	$\frac{22}{44,566}$	$\frac{7}{14,656}$	$\frac{6}{37.7}$	$\frac{41}{69,764.7}$
Walleye	$\frac{3}{1866}$	$\frac{14}{17,592}$	0	0	$\frac{17}{19,458}$
Largemouth Bass	$\frac{89}{23,821.75}$	$\frac{20}{6522}$	$\frac{7}{3868}$	$\frac{4}{38.9}$	$\frac{120}{34,250.65}$
Smallmouth Bass	$\frac{56}{7530}$	$\frac{7}{3840}$	$\frac{3}{595}$	$\frac{3}{17.6}$	$\frac{69}{11,982.6}$
Rainbow Trout	0	$\frac{1}{340}$	$\frac{2}{758}$	0	$\frac{3}{1098}$
Black Crappie	$\frac{26}{1382}$	$\frac{5}{496}$	$\frac{355}{31,034}$	$\frac{11}{15.2}$	$\frac{397}{32,927.2}$
White Crappie	$\frac{18}{4693}$	$\frac{10}{2408}$	$\frac{48}{9284}$	0	$\frac{76}{16,385}$
Bluegill	$\frac{541}{32,097}$	$\frac{79}{8537}$	$\frac{818}{81,098}$	$\frac{66}{181.2}$	$\frac{1504}{121,913.2}$
White Perch	$\frac{83}{6588}$	$\frac{293}{39,354}$	$\frac{512}{71,858}$	0	$\frac{888}{117,800}$
Rock Bass	$\frac{28}{3103}$	$\frac{13}{1842}$	$\frac{2}{220}$	0	$\frac{43}{5165}$
Pumpkinseed	$\frac{537}{20,611}$	$\frac{39}{2605}$	$\frac{99}{9439}$	0	$\frac{675}{32,655}$
Yellow Perch	$\frac{122}{2191}$	$\frac{14}{1260}$	$\frac{2}{340}$	$\frac{2}{12.8}$	$\frac{140}{3803.8}$
Carp	$\frac{87}{199,547}$	$\frac{308}{533,206}$	$\frac{16}{17,133}$	0	$\frac{411}{749,886}$
Goldfish	0	$\frac{1}{680}$	0	0	$\frac{1}{680}$
Redhorses	$\frac{8}{5082}$	$\frac{37}{36,612}$	$\frac{17}{14,875}$	$\frac{1}{1.9}$	$\frac{63}{56,570.9}$
White Sucker	$\frac{39}{21,925}$	$\frac{3}{1346}$	$\frac{4}{1920}$	0	$\frac{96}{25,191}$
Bowfin	0	$\frac{1}{808}$	$\frac{1}{1077}$	0	$\frac{2}{1885}$
Gizzard Shad	$\frac{55}{8382}$	$\frac{100}{18,274}$	$\frac{38}{4599}$	$\frac{39}{77.2}$	$\frac{232}{31,292.2}$
Alewife	$\frac{124}{1813}$	$\frac{18}{1106}$	$\frac{2}{149}$	0	$\frac{144}{3068}$
Brown Bullhead	$\frac{82}{21,886}$	$\frac{16}{5253}$	$\frac{44}{8102}$	$\frac{2}{4.5}$	$\frac{144}{35,245.5}$
Yellow Bullhead	0	$\frac{4}{957}$	$\frac{1}{234}$	0	$\frac{5}{1191}$
Channel Catfish	$\frac{4}{548}$	$\frac{29}{41,980}$	$\frac{16}{5933}$	0	$\frac{49}{48,461}$
Freshwater Drum	$\frac{10}{4621}$	$\frac{3}{1275}$	$\frac{4}{3629}$	0	$\frac{17}{9525}$
Log Perch	0	0	0	$\frac{1}{11.2}$	$\frac{1}{11.2}$
Banded Killifish	0	0	0	$\frac{41}{98.4}$	$\frac{41}{98.4}$
Johnny Darter	$\frac{1}{2}$	0	0	$\frac{7}{7.9}$	$\frac{5}{9.9}$
Brook Silverside	$\frac{20}{42.5}$	0	0	$\frac{13}{27.1}$	$\frac{33}{69.6}$
Golden Shiner	$\frac{144}{1353}$	$\frac{81}{8879}$	$\frac{6}{638}$	0	$\frac{231}{10,870}$
Spotfin Shiner	$\frac{7}{30.05}$	0	0	$\frac{114}{219.8}$	$\frac{121}{249.85}$
Spottail Shiner	$\frac{3}{22}$	0	0	0	$\frac{3}{22}$
Satinfish Shiner	$\frac{6}{27}$	0	0	0	$\frac{6}{27}$
Emerald Shiner	$\frac{2}{16}$	0	0	$\frac{2}{4.9}$	$\frac{4}{20.9}$
Bigmouth Shiner	$\frac{6}{23}$	0	0	0	$\frac{6}{23}$
Comely Shiner	$\frac{2}{12}$	0	0	0	$\frac{2}{12}$
Bluntnose Minnow	$\frac{76}{225.05}$	0	0	$\frac{38}{74.3}$	$\frac{114}{299.35}$
Fathead Minnow	$\frac{8}{11.5}$	0	0	0	$\frac{8}{11.5}$
Stoneroller	$\frac{1}{4}$	0	0	0	$\frac{1}{4}$
TOTAL	$\frac{2194}{379,959.85}$	$\frac{1118}{779,738}$	$\frac{2004}{281,399}$	$\frac{347}{830.6}$	$\frac{5663}{1,441,927.45}$
Diversity	2.44	2.23	1.66	1.99	2.53
Effort Index	3.13	36.06	250.5	11.19	

Table 51. Total catch for habitat type, Canal Sections 5 and 6. See heading Table 4 for explanation of abbreviations. In sections where net samples were taken twice, only the first sample is summarized.

SPECIES	Natural Channel				Total
	EF (140)	GN (9)	TN (0)	S (0)	
Pike		$\frac{5}{9412}$			$\frac{5}{9412}$
Walleye		$\frac{2}{1545}$			$\frac{2}{1545}$
Largemouth Bass		$\frac{7}{2387}$			$\frac{7}{2387}$
Rainbow Trout		$\frac{1}{340}$			$\frac{1}{340}$
Black Crappie		$\frac{2}{191}$			$\frac{2}{191}$
Bluegill	$\frac{1}{63}$	$\frac{13}{1448}$			$\frac{14}{1511}$
White Perch	$\frac{1}{62}$	$\frac{69}{11,296}$			$\frac{70}{11,358}$
Rock Bass	$\frac{8}{797}$	$\frac{3}{326}$			$\frac{11}{1123}$
Pumpkinseed	$\frac{13}{985}$	$\frac{4}{311}$			$\frac{17}{1296}$
Yellow Perch	$\frac{2}{11}$	$\frac{6}{566}$			$\frac{8}{637}$
Carp	$\frac{4}{10,600}$	$\frac{104}{136,590}$			$\frac{108}{147,190}$
Redhorses		$\frac{13}{12,310}$			$\frac{13}{12,310}$
White Sucker	$\frac{5}{2230}$	$\frac{1}{475}$			$\frac{6}{2705}$
Gizzard Shad	$\frac{4}{233}$	$\frac{15}{2900}$			$\frac{19}{3133}$
Alewife	$\frac{6}{83}$	$\frac{3}{106}$			$\frac{9}{189}$
Brown Bullhead	$\frac{4}{592}$	$\frac{2}{475}$			$\frac{6}{1067}$
Channel Catfish	$\frac{1}{97}$	$\frac{12}{32,029}$			$\frac{13}{32,126}$
Freshwater Drum	$\frac{1}{87}$	$\frac{1}{687}$			$\frac{2}{774}$
Golden Shiner		$\frac{17}{1984}$			$\frac{17}{1984}$
Emerald Shiner	$\frac{1}{9}$				$\frac{1}{9}$
Bigmouth Shiner	$\frac{1}{7}$				$\frac{1}{7}$
Bluntnose Minnow	$\frac{1}{8}$				$\frac{1}{8}$
TOTAL	$\frac{53}{15,924}$	$\frac{280}{215,378}$	0	0	$\frac{333}{231,302}$
Diversity	2.33	2.03			2.30
Effort Index	0.38	31.11			

Table 51 continued.

	Artificial Cut				Total
	EF (80)	GN (4)	TN (0)	S (0)	
Walleye	$\frac{2}{1500}$	$\frac{3}{6918}$			$\frac{5}{8418}$
Largemouth Bass		$\frac{3}{907}$			$\frac{3}{907}$
Smallmouth Bass	$\frac{14}{2196}$	$\frac{1}{1474}$			$\frac{15}{3670}$
White Crappie		$\frac{1}{461}$			$\frac{1}{461}$
Bluegill	$\frac{4}{336}$	$\frac{5}{638}$			$\frac{9}{974}$
White Perch	$\frac{18}{1538}$	$\frac{74}{10,179}$			$\frac{92}{11,717}$
Rock Bass	$\frac{7}{712}$	$\frac{4}{609}$			$\frac{11}{1321}$
Pumpkinseed	$\frac{7}{503}$	$\frac{1}{226}$			$\frac{8}{729}$
Yellow Perch	$\frac{3}{105}$				$\frac{3}{105}$
Carp	$\frac{4}{7800}$	$\frac{33}{61,235}$			$\frac{37}{69,035}$
Redhorses	$\frac{1}{2500}$	$\frac{7}{28,618}$			$\frac{7}{11,118}$
White Sucker	$\frac{2}{750}$				$\frac{2}{750}$
Gizzard Shad	$\frac{4}{836}$	$\frac{10}{1403}$			$\frac{14}{2239}$
Alewife	$\frac{1}{10}$	$\frac{12}{823}$			$\frac{13}{833}$
Brown Bullhead		$\frac{1}{296}$			$\frac{1}{296}$
Channel Catfish		$\frac{5}{2508}$			$\frac{5}{2508}$
Freshwater Drum	$\frac{1}{445}$	$\frac{1}{227}$			$\frac{2}{672}$
Golden Shiner		$\frac{5}{517}$			$\frac{5}{517}$
Spotfin Shiner	$\frac{1}{5}$				$\frac{1}{5}$
Bluntnose Minnow	$\frac{1}{6}$				$\frac{1}{6}$
Fathead Minnow	$\frac{1}{3}$				$\frac{1}{3}$
TOTAL	$\frac{71}{19,245}$	$\frac{165}{97,039}$			$\frac{236}{116,284}$
Diversity	2.31	1.87			2.20
Effort Index	0.89	41.25			

Table 51 continued.

	Shallows (wetland)				Total
	EF (100)	GN (2)	TN (3)	S (6)	
Pike	$\frac{1}{5200}$	$\frac{3}{5415}$	$\frac{4}{10,007}$		$\frac{8}{20,622}$
Largemouth Bass	$\frac{16}{5626}$	$\frac{2}{326}$	$\frac{2}{495}$		$\frac{20}{6477}$
Black Crappie	$\frac{6}{151}$		$\frac{128}{8972}$	$\frac{6}{2.9}$	$\frac{140}{9125.9}$
White Crappie	$\frac{2}{560}$		$\frac{13}{2110}$		$\frac{15}{2670}$
Bluegill	$\frac{65}{7337}$	$\frac{5}{1331}$	$\frac{319}{30,528}$	$\frac{15}{57.2}$	$\frac{404}{29,253.2}$
White Perch	$\frac{9}{778}$	$\frac{5}{645}$	$\frac{51}{5228}$		$\frac{65}{6651}$
Rock Bass	$\frac{2}{332}$	$\frac{1}{149}$	$\frac{2}{220}$		$\frac{5}{701}$
Pumpkinseed	$\frac{132}{4276}$	$\frac{1}{149}$	$\frac{29}{1977}$		$\frac{162}{6402}$
Yellow Perch	$\frac{79}{844}$	$\frac{1}{78}$			$\frac{80}{922}$
Carp	$\frac{12}{24,675}$	$\frac{16}{47,741}$	$\frac{9}{10,998}$		$\frac{37}{83,414}$
Redhorses		$\frac{6}{7286}$			$\frac{6}{7286}$
White Sucker	$\frac{3}{2315}$				$\frac{3}{2315}$
Bowfin			$\frac{1}{1077}$		$\frac{1}{1077}$
Gizzard Shad	$\frac{3}{91}$	$\frac{7}{1565}$	$\frac{5}{538}$	$\frac{39}{77.2}$	$\frac{54}{2271.2}$
Alewife	$\frac{55}{947}$				$\frac{55}{947}$
Brown Bullhead	$\frac{11}{3245}$		$\frac{3}{652}$		$\frac{14}{3897}$
Channel Catfish	$\frac{2}{151}$	$\frac{1}{794}$	$\frac{2}{369}$		$\frac{5}{1314}$
Freshwater Drum	$\frac{2}{1340}$		$\frac{1}{2495}$		$\frac{3}{3835}$
Johnny Darter				$\frac{1}{2.6}$	$\frac{1}{2.6}$
Brook Silverside	$\frac{7}{14}$				$\frac{7}{14}$
Golden Shiner	$\frac{10}{100}$	$\frac{11}{1333}$	$\frac{1}{71}$		$\frac{22}{1504}$
Bignouth Shiner	$\frac{3}{6}$				$\frac{3}{6}$
Canely Shiner	$\frac{1}{6}$				$\frac{1}{6}$
Bluntnose Minnow	$\frac{25}{64.5}$			$\frac{7}{13.7}$	$\frac{32}{78.2}$
TOTAL	$\frac{446}{58,058.5}$	$\frac{59}{66,812}$	$\frac{570}{75,737}$	$\frac{68}{153.6}$	$\frac{1143}{200,761.1}$
Diversity	2.19	2.11	1.38	1.16	2.22
Effort Index	4.46	29.5	190	11.3	

Table 51. continued.

	Shallows (non-wetland)				Total
	EF (100)	GN (5)	TN (2)	S (11)	
Pike	$\frac{2}{1605}$	$\frac{2}{4253}$		$\frac{4}{16.9}$	$\frac{8}{5874.9}$
Walleye		$\frac{7}{6152}$			$\frac{7}{6152}$
Largemouth Bass	$\frac{31}{5129.75}$	$\frac{3}{1060}$	$\frac{3}{1041}$	$\frac{3}{10.3}$	$\frac{40}{7241.05}$
Smallmouth Bass	$\frac{27}{3751}$				$\frac{27}{3751}$
Rainbow Trout			$\frac{1}{319}$		$\frac{1}{319}$
Black Crappie	$\frac{10}{737}$	$\frac{1}{121}$	$\frac{11}{1963}$	$\frac{5}{12.3}$	$\frac{27}{2833.3}$
White Crappie	$\frac{8}{1914}$	$\frac{3}{432}$	$\frac{9}{2933}$		$\frac{20}{5279}$
Bluegill	$\frac{342}{2657}$	$\frac{10}{926}$	$\frac{352}{37,485}$	$\frac{27}{50.2}$	$\frac{731}{41,118.2}$
White Perch	$\frac{10}{913}$	$\frac{101}{11,140}$	$\frac{440}{58,977}$		$\frac{551}{71,030}$
Rock Bass	$\frac{1}{163}$	$\frac{4}{687}$			$\frac{5}{850}$
Pumpkinseed	$\frac{116}{4690}$	$\frac{4}{346}$	$\frac{46}{5673}$		$\frac{166}{10,709}$
Yellow Perch	$\frac{3}{108}$	$\frac{5}{481}$			$\frac{8}{589}$
Carp	$\frac{29}{78,900}$	$\frac{43}{78,790}$	$\frac{6}{5816}$		$\frac{78}{163,506}$
Redhorses	$\frac{1}{850}$	$\frac{6}{3289}$	$\frac{2}{1700}$	$\frac{1}{1.9}$	$\frac{10}{5840.9}$
White Sucker	$\frac{19}{11,339}$	$\frac{2}{871}$	$\frac{1}{652}$		$\frac{22}{12,862}$
Gizzard Shad	$\frac{29}{5168}$	$\frac{34}{7228}$	$\frac{10}{1787}$		$\frac{73}{14,183}$
Alewife		$\frac{1}{92}$			$\frac{1}{92}$
Brown Bullhead	$\frac{14}{3991}$	$\frac{1}{262}$	$\frac{2}{992}$	$\frac{2}{4.5}$	$\frac{19}{5249.5}$
Channel Catfish		$\frac{3}{1141}$	$\frac{12}{3793}$		$\frac{15}{4934}$
Johnny Darter	$\frac{1}{2}$				$\frac{1}{2}$
Brook Silverside	$\frac{6}{16}$			$\frac{11}{20.8}$	$\frac{17}{36.8}$
Golden Shiner	$\frac{1}{4}$	$\frac{26}{3188}$	$\frac{5}{567}$		$\frac{32}{3759}$
Spotfin Shiner	$\frac{3}{5.05}$			$\frac{102}{190.8}$	$\frac{105}{195.85}$
Bluntnose Minnow	$\frac{6}{18}$			$\frac{5}{5}$	$\frac{11}{23}$
Fathead Minnow	$\frac{2}{2}$				$\frac{2}{2}$
TOTAL	$\frac{661}{121,962.8}$	$\frac{256}{120,459}$	$\frac{900}{123,698}$	$\frac{160}{312.7}$	$\frac{1977}{366,432.5}$
Diversity	1.77	1.98	1.20	1.24	1.97
Effort Index	6.61	51.2	450	14.55	

Table 51 continued.

	Stream Mouth				Total
	EF (160)	GN (4)	TN (1)	S (8)	
Pike	$\frac{1}{1500}$	$\frac{8}{17,010}$		$\frac{2}{20.8}$	$\frac{11}{18,530.8}$
Walleye	$\frac{1}{366}$	$\frac{1}{879}$			$\frac{2}{1265}$
Largemouth Bass	$\frac{15}{3816}$	$\frac{2}{453}$	$\frac{1}{1871}$	$\frac{1}{28.6}$	$\frac{19}{6168.6}$
Smallmouth Bass	$\frac{9}{865}$		$\frac{1}{150}$	$\frac{3}{17.6}$	$\frac{13}{1038.6}$
Black Crappie	$\frac{6}{297}$	$\frac{2}{184}$	$\frac{156}{15,947}$		$\frac{164}{16,428}$
White Crappie	$\frac{2}{4}$	$\frac{5}{1118}$	$\frac{12}{1611}$		$\frac{19}{2733}$
Bluegill	$\frac{41}{8248}$	$\frac{10}{1055}$	$\frac{52}{4970}$	$\frac{9}{41.1}$	$\frac{112}{14,314.1}$
White Perch	$\frac{18}{943}$	$\frac{19}{1984}$	$\frac{8}{1064}$		$\frac{45}{3991}$
Rock Bass	$\frac{6}{750}$				$\frac{6}{750}$
Pumpkinseed	$\frac{82}{5099}$	$\frac{5}{175}$	$\frac{4}{340}$		$\frac{91}{5614}$
Yellow Perch	$\frac{28}{483}$			$\frac{2}{12.8}$	$\frac{25}{495.8}$
Carp	$\frac{9}{21,100}$	$\frac{30}{52,293}$			$\frac{39}{73,393}$
Goldfish		$\frac{1}{680}$			$\frac{1}{680}$
Redhorses	$\frac{6}{1732}$	$\frac{1}{602}$	$\frac{12}{10,227}$		$\frac{19}{12,561}$
White Sucker	$\frac{6}{1621}$		$\frac{2}{843}$		$\frac{8}{2464}$
Gizzard Shad	$\frac{11}{1491}$	$\frac{18}{2327}$	$\frac{8}{666}$		$\frac{37}{4484}$
Alewife	$\frac{29}{355}$	$\frac{1}{57}$	$\frac{2}{149}$		$\frac{32}{561}$
Brown Bullhead	$\frac{6}{988}$	$\frac{3}{1394}$	$\frac{21}{3428}$		$\frac{32}{5810}$
Yellow Bullhead		$\frac{2}{298}$			$\frac{2}{298}$
Channel Catfish	$\frac{1}{300}$	$\frac{3}{2425}$	$\frac{1}{524}$		$\frac{5}{3249}$
Freshwater Drum	$\frac{5}{2577}$	$\frac{1}{361}$	$\frac{2}{1035}$		$\frac{8}{3973}$
Log Perch				$\frac{1}{11.2}$	$\frac{1}{11.2}$
Johnny Darter				$\frac{2}{4}$	$\frac{2}{4}$
Brook Silverside	$\frac{1}{0.5}$			$\frac{2}{6.3}$	$\frac{3}{6.8}$
Golden Shiner	$\frac{9}{246}$	$\frac{3}{305}$			$\frac{12}{551}$
Spotfin Shiner	$\frac{1}{7}$			$\frac{9}{23.8}$	$\frac{10}{30.8}$
Spottail Shiner	$\frac{2}{18}$				$\frac{2}{18}$
Sacfin Shiner	$\frac{6}{27}$				$\frac{6}{27}$
Emerald Shiner	$\frac{1}{7}$			$\frac{2}{4.9}$	$\frac{3}{11.9}$
Comely Shiner	$\frac{1}{6}$				$\frac{1}{6}$
Bluntnose Minnow	$\frac{21}{68.5}$			$\frac{21}{46.7}$	$\frac{42}{115.2}$
Fathead Minnow	$\frac{5}{6.5}$				$\frac{5}{6.5}$
Stoneroller	$\frac{1}{4}$				$\frac{1}{4}$
TOTAL	$\frac{325}{52,925.5}$	$\frac{115}{83,600}$	$\frac{284}{42,831}$	$\frac{54}{217.8}$	$\frac{778}{179,574.3}$
Diversity	2.68	2.31	1.54	1.88	2.74
Effort Index	2.03	28.75	284	6.75	

Table 51 continued.

	Oxbow			S (2)	Total
	EF (100)	GN (6)	TN (2)		
Pike	$\frac{2}{2200}$	$\frac{4}{8476}$	$\frac{3}{4649}$		$\frac{9}{15,325}$
Walleye		$\frac{1}{2098}$			$\frac{2}{2098}$
Largemouth Bass	$\frac{27}{9250}$	$\frac{2}{1297}$	$\frac{1}{461}$		$\frac{30}{11,008}$
Smallmouth Bass	$\frac{6}{718}$	$\frac{6}{2366}$	$\frac{2}{439}$		$\frac{14}{3523}$
Rainbow Trout			$\frac{1}{439}$		$\frac{1}{439}$
Black Crappie	$\frac{4}{197}$		$\frac{60}{4152}$		$\frac{64}{4349}$
White Crappie	$\frac{6}{2215}$	$\frac{1}{397}$	$\frac{14}{2630}$		$\frac{21}{5242}$
Bluegill	$\frac{88}{13,456}$	$\frac{36}{3139}$	$\frac{95}{8115}$	$\frac{15}{32.7}$	$\frac{234}{24,742.7}$
White Perch	$\frac{27}{2354}$	$\frac{25}{4110}$	$\frac{13}{6589}$		$\frac{65}{13,053}$
Rock Bass	$\frac{4}{349}$	$\frac{1}{71}$			$\frac{5}{420}$
Pumpkinseed	$\frac{187}{5058}$	$\frac{23}{1363}$	$\frac{20}{1449}$		$\frac{230}{7870}$
Yellow Perch	$\frac{12}{580}$	$\frac{2}{135}$	$\frac{2}{340}$		$\frac{16}{1055}$
Carp	$\frac{29}{56,472}$	$\frac{81}{153,070}$	$\frac{1}{319}$		$\frac{111}{209,861}$
Redhorses		$\frac{5}{4507}$	$\frac{3}{2948}$		$\frac{8}{7455}$
White Sucker	$\frac{4}{3670}$		$\frac{1}{425}$		$\frac{5}{4095}$
Bowfin		$\frac{1}{808}$			$\frac{1}{808}$
Gizzard Shad	$\frac{4}{563}$	$\frac{16}{2851}$	$\frac{15}{1568}$		$\frac{35}{4982}$
Alewife	$\frac{32}{394}$	$\frac{1}{28}$			$\frac{33}{422}$
Brown Bullhead	$\frac{47}{13,070}$	$\frac{9}{2826}$	$\frac{16}{3030}$		$\frac{72}{18,926}$
Yellow Bullhead		$\frac{2}{659}$	$\frac{1}{234}$		$\frac{3}{893}$
Channel Catfish		$\frac{5}{3083}$	$\frac{1}{1247}$		$\frac{6}{4330}$
Freshwater Drum	$\frac{1}{172}$		$\frac{1}{99}$		$\frac{2}{271}$
Brook Silverside	$\frac{6}{12}$				$\frac{6}{12}$
Golden Shiner	$\frac{124}{1003}$	$\frac{19}{1552}$			$\frac{143}{2555}$
Spotfin Shiner	$\frac{2}{13}$			$\frac{3}{5.2}$	$\frac{5}{18.2}$
Spottail Shiner	$\frac{1}{4}$				$\frac{1}{4}$
Bigmouth Shiner	$\frac{2}{10}$				$\frac{2}{10}$
Bluntnose Minnow	$\frac{22}{60.05}$			$\frac{4}{6.9}$	$\frac{26}{66.95}$
TOTAL	$\frac{637}{111,820.05}$	$\frac{240}{192,836}$	$\frac{250}{39,133}$	$\frac{22}{44.8}$	$\frac{1149}{343,833.85}$
Diversity	2.23	2.17	1.91	0.84	2.46
Effort Index	6.37	40.0	125	11	

Table 51 continued.

	<u>Riffles</u>				Total
	EF (20)	GN (1)	TN (0)	S (2)	
Largemouth Bass		$\frac{1}{92}$			$\frac{1}{92}$
Pumpkinseed		$\frac{1}{35}$			$\frac{1}{35}$
Carp		$\frac{1}{3487}$			$\frac{1}{3487}$
Alewife	$\frac{1}{24}$				$\frac{1}{24}$
Branded Killifish				$\frac{41}{98.4}$	$\frac{41}{98.4}$
Johnny Darter				$\frac{1}{1.3}$	$\frac{1}{1.3}$
Bluntnose Minnow				$\frac{1}{2}$	$\frac{1}{2}$
TOTAL	$\frac{1}{24}$	$\frac{3}{3614}$	0	$\frac{43}{101.7}$	$\frac{47}{3739.7}$
Diversity	0	1.10		0.22	0.61
Effort Index	*	3		21.5	

* more fish were shocked but were carried away by strong currents near base of dam

Table 51 continued.

	Total All Habitat Types				Total
	FF (200)	GN (31)	TN (8)	S (31)	
Pike	$\frac{6}{10,505}$	$\frac{22}{44,566}$	$\frac{7}{14,656}$	$\frac{6}{37.7}$	$\frac{41}{69,764.7}$
Walleye	$\frac{3}{1866}$	$\frac{14}{17,592}$	0	0	$\frac{17}{19,458}$
Largemouth Bass	$\frac{89}{23,821.75}$	$\frac{20}{6522}$	$\frac{7}{3866}$	$\frac{4}{38.9}$	$\frac{120}{34,250.65}$
Smallmouth Bass	$\frac{56}{7530}$	$\frac{7}{3840}$	$\frac{3}{595}$	$\frac{3}{17.6}$	$\frac{69}{11,982.6}$
Rainbow Trout	0	$\frac{1}{340}$	$\frac{2}{758}$	0	$\frac{3}{1098}$
Black Crappie	$\frac{26}{1382}$	$\frac{5}{496}$	$\frac{355}{31,034}$	$\frac{11}{15.2}$	$\frac{397}{32,927.2}$
White Crappie	$\frac{18}{4693}$	$\frac{10}{2408}$	$\frac{48}{9284}$	0	$\frac{76}{16,385}$
Bluegill	$\frac{541}{32,097}$	$\frac{79}{8537}$	$\frac{818}{81,098}$	$\frac{66}{181.2}$	$\frac{1504}{121,913.2}$
White Perch	$\frac{83}{6588}$	$\frac{293}{39,354}$	$\frac{512}{71,858}$	0	$\frac{888}{117,800}$
Rock Bass	$\frac{28}{3103}$	$\frac{13}{1842}$	$\frac{2}{220}$	0	$\frac{43}{5165}$
Pumpkinseed	$\frac{537}{20,611}$	$\frac{39}{2605}$	$\frac{99}{9439}$	0	$\frac{675}{32,655}$
Yellow Perch	$\frac{122}{2191}$	$\frac{14}{1260}$	$\frac{2}{340}$	$\frac{2}{12.8}$	$\frac{140}{3803.8}$
Carp	$\frac{87}{199,547}$	$\frac{308}{533,206}$	$\frac{16}{17,133}$	0	$\frac{411}{749,886}$
Goldfish	0	$\frac{1}{680}$	0	0	$\frac{1}{680}$
Redhorses	$\frac{8}{5082}$	$\frac{37}{36,612}$	$\frac{17}{14,875}$	$\frac{1}{1.9}$	$\frac{63}{56,570.9}$
White Sucker	$\frac{39}{21,925}$	$\frac{3}{1346}$	$\frac{4}{1920}$	0	$\frac{46}{25,191}$
Bowfin	0	$\frac{1}{808}$	$\frac{1}{1077}$	0	$\frac{2}{1885}$
Gizzard Shad	$\frac{55}{8382}$	$\frac{100}{18,274}$	$\frac{38}{4599}$	$\frac{39}{77.2}$	$\frac{232}{31,292.2}$
Alewife	$\frac{124}{1813}$	$\frac{18}{1106}$	$\frac{2}{149}$	0	$\frac{144}{3068}$
Brown Bullhead	$\frac{82}{21,886}$	$\frac{16}{5253}$	$\frac{44}{8102}$	$\frac{2}{4.5}$	$\frac{144}{35,245.5}$
Yellow Bullhead	0	$\frac{4}{957}$	$\frac{1}{234}$	0	$\frac{5}{1191}$
Channel Catfish	$\frac{4}{548}$	$\frac{29}{41,980}$	$\frac{16}{5933}$	0	$\frac{49}{48,461}$
Freshwater Drum	$\frac{10}{4621}$	$\frac{3}{1275}$	$\frac{4}{3629}$	0	$\frac{17}{9525}$
Log Perch	0	0	0	$\frac{1}{4.2}$	$\frac{1}{11.2}$
Banded Killifish				$\frac{41}{98.4}$	$\frac{41}{98.4}$
Johnny Darter	$\frac{1}{2}$	0	0	$\frac{4}{7.9}$	$\frac{5}{9.9}$
Brook Silverside	$\frac{20}{42.5}$	0	0	$\frac{13}{27.1}$	$\frac{33}{69.6}$
Golden Shiner	$\frac{144}{1353}$	$\frac{81}{8879}$	$\frac{6}{638}$	0	$\frac{231}{10,870}$
Spotfin Shiner	$\frac{7}{30.05}$	0	0	$\frac{114}{219.8}$	$\frac{121}{249.85}$
Spottail Shiner	$\frac{3}{22}$	0	0	0	$\frac{3}{22}$
Satinfin Shiner	$\frac{6}{27}$	0	0	0	$\frac{6}{27}$
Emerald Shiner	$\frac{2}{16}$	0	0	$\frac{2}{4.9}$	$\frac{4}{20.9}$
Bigmouth Shiner	$\frac{6}{23}$	0	0	0	$\frac{6}{23}$
Comely Shiner	$\frac{2}{12}$	0	0	0	$\frac{2}{12}$
Bluntnose Minnow	$\frac{76}{225.05}$	0	0	$\frac{38}{74.3}$	$\frac{114}{299.35}$
Fathead Minnow	$\frac{8}{11.5}$				$\frac{8}{11.5}$
Scoreroller	$\frac{1}{4}$				$\frac{1}{4}$
TOTAL	$\frac{2194}{379,959.85}$	$\frac{1118}{779,738}$	$\frac{2004}{281,399}$	$\frac{347}{830.6}$	$\frac{5663}{1,441,927.45}$
Diversity	2.44	2.23	1.66	1.99	2.53
Effort Index	3.13	3.06	250.5	11.19	

Table 51a. List of habitat types and sampling stations in four areas of Canal Section 7. Each station was electrofished and sampled with at least one other net type (gill net, trap net, beach seine). Samples were taken in July.

	Knowlesville	Holley	Spencerport	Fairport
Habitat Type				
Artificial Cut	Albion Guard Gate	Telegraph Road Bridge		Mitchell Road
	Knowlesville Road Bridge	North Main St. Bridge		Ayrault Road Bridge
	Presbyterian Rd. Bridge			Church Street Bridge
Shallows (wetland)	Widewater	Widewater	Widewater at Trimmer Road	
Oxbow				Fairport

Table 52. Total catch in each section, Canal Section 7. See heading Table 4 for explanation of abbreviations. To compare with Canal Sections 5 and 6, only the July samples were summarized.

	<u>Knowlesville</u>				Total
	EF (115)	GN (7)	TN (3)	S (0)	
Walleye		$\frac{8}{4323}$	$\frac{4}{3672}$		$\frac{12}{7995}$
Largemouth Bass	$\frac{20}{7232}$	$\frac{2}{426}$	$\frac{7}{2217}$		$\frac{29}{9875}$
Smallmouth Bass	$\frac{4}{1304}$	$\frac{3}{1091}$	$\frac{8}{1633}$		$\frac{15}{4048}$
White Bass			$\frac{3}{631}$		$\frac{3}{631}$
Black Crappie			$\frac{62}{7032}$		$\frac{62}{7032}$
Bluegill			$\frac{3}{1510}$		$\frac{3}{1510}$
White Perch	$\frac{3}{486}$	$\frac{2}{248}$	$\frac{4}{432}$		$\frac{9}{1166}$
Rock Bass	$\frac{5}{729}$				$\frac{5}{729}$
Pumpkinseed	$\frac{9}{1005}$	$\frac{3}{155}$	$\frac{4}{226}$		$\frac{16}{1386}$
Yellow Perch	$\frac{4}{160}$	$\frac{1}{71}$			$\frac{5}{231}$
Carp	$\frac{6}{6310}$	$\frac{36}{50,873}$	$\frac{94}{89,743}$		$\frac{136}{146,926}$
Goldfish	$\frac{2}{797}$	$\frac{7}{5388}$	$\frac{9}{5371}$		$\frac{18}{11,556}$
Redhorses		$\frac{56}{32,022}$	$\frac{69}{52,102}$		$\frac{125}{84,124}$
White Sucker		$\frac{3}{2130}$	$\frac{1}{737}$		$\frac{4}{2887}$
White Sucker * Sucker/Redhorse	$\frac{25}{11,129}$				$\frac{25}{11,129}$
Gizzard Shad		$\frac{9}{1637}$	$\frac{2}{128}$		$\frac{11}{1765}$
Brown Bullhead	$\frac{4}{1130}$	$\frac{1}{312}$	$\frac{29}{7753}$		$\frac{34}{9195}$
Channel Catfish			$\frac{8}{5706}$		$\frac{8}{5706}$
Freshwater Drum	$\frac{2}{200}$		$\frac{1}{907}$		$\frac{3}{1107}$
Quillback		$\frac{2}{1687}$	$\frac{64}{78,225}$		$\frac{66}{79,912}$
Golden Shiner	$\frac{3}{19}$	$\frac{7}{504}$			$\frac{10}{523}$
Spotfin Shiner	$\frac{1}{19}$				$\frac{1}{19}$
Spottail Shiner	$\frac{11}{56.5}$				$\frac{11}{56.5}$
Common Shiner	$\frac{8}{23}$				$\frac{8}{23}$
Lake Chub	$\frac{4}{4}$				$\frac{4}{4}$
TOTAL	$\frac{111}{30,603.5}$	$\frac{140}{100,887}$	$\frac{372}{258,045}$	0	$\frac{623}{389,535.5}$
Diversity	2.42	1.86	2.07		2.53
Effort Index	0.96	20.0	124.0		

*combined because of some identification errors

Table 52 continued.

	Holley			S (0)	Total
	EF (80)	GN (4)	TN (2)		
Pike			$\frac{1}{964}$		$\frac{1}{964}$
Walleye		$\frac{7}{4813}$	$\frac{8}{6323}$		$\frac{15}{11,136}$
Largemouth Bass	$\frac{6}{2190}$	$\frac{2}{581}$	$\frac{6}{2113}$		$\frac{14}{4884}$
Smallmouth Bass	$\frac{5}{266}$		$\frac{2}{291}$		$\frac{7}{557}$
Black Crappie	$\frac{5}{678}$	$\frac{3}{326}$	$\frac{65}{6957}$		$\frac{73}{7961}$
Bluegill			$\frac{16}{1163}$		$\frac{16}{1163}$
Rock Bass	$\frac{2}{254}$	$\frac{5}{800}$	$\frac{1}{184}$		$\frac{8}{1238}$
Pumpkinseed	$\frac{6}{294}$		$\frac{12}{915}$		$\frac{18}{1209}$
Yellow Perch			$\frac{1}{184}$		$\frac{1}{184}$
Carp	$\frac{8}{9330}$	$\frac{16}{14,848}$	$\frac{8}{8307}$		$\frac{32}{32,485}$
Goldfish	$\frac{4}{1810}$		$\frac{16}{8055}$		$\frac{20}{9865}$
Redhorses		$\frac{13}{6883}$	$\frac{25}{15,153}$		$\frac{38}{22,036}$
White Sucker		$\frac{9}{4061}$	$\frac{12}{6548}$		$\frac{21}{10,609}$
White Sucker/ Redhorse *	$\frac{30}{11,947}$				$\frac{30}{11,947}$
Gizzard Shad		$\frac{1}{198}$	$\frac{1}{85}$		$\frac{2}{283}$
Alewife	$\frac{3}{448}$				$\frac{3}{448}$
Brown Bullhead	$\frac{5}{1138}$		$\frac{10}{2530}$		$\frac{15}{3668}$
Channel Catfish		$\frac{2}{1332}$	$\frac{3}{1815}$		$\frac{5}{3147}$
Quillback			$\frac{2}{2006}$		$\frac{2}{2006}$
Golden Shiner		$\frac{1}{71}$	$\frac{2}{135}$		$\frac{3}{206}$
Common Shiner	$\frac{1}{1}$				$\frac{1}{1}$
TOTAL	$\frac{75}{28,356}$	$\frac{59}{33,913}$	$\frac{191}{63,728}$	0	$\frac{325}{125,997}$
Diversity	1.99	1.96	2.24		2.55
Effort Index	0.94	14.75	95.5		

*combined because of some identification errors

Table 52 continued.

	<u>Spencerport</u>				Total
	EF (63)	GN (0)	TN (2)	S (0)	
Pike			$\frac{3}{4103}$		$\frac{3}{4103}$
Walleye			$\frac{10}{7861}$		$\frac{10}{7861}$
Largemouth Bass	$\frac{6}{1303}$		$\frac{3}{715}$		$\frac{9}{2018}$
Smallmouth Bass	$\frac{14}{1624}$		$\frac{2}{468}$		$\frac{16}{2092}$
White Bass			$\frac{1}{241}$		$\frac{1}{241}$
Black Crappie			$\frac{21}{2989}$		$\frac{21}{2989}$
Bluegill	$\frac{4}{317}$		$\frac{4}{234}$		$\frac{8}{551}$
Rock Bass			$\frac{1}{99}$		$\frac{1}{99}$
Pumpkinseed	$\frac{1}{40}$		$\frac{9}{554}$		$\frac{10}{594}$
Carp	$\frac{5}{7390}$		$\frac{25}{25,890}$		$\frac{30}{33,280}$
Goldfish			$\frac{21}{14,819}$		$\frac{21}{14,819}$
Redhorses			$\frac{72}{51,469}$		$\frac{72}{51,469}$
White Sucker			$\frac{24}{12,266}$		$\frac{24}{12,266}$
White Sucker/ Redhorse *	$\frac{34}{16,210}$				$\frac{34}{16,210}$
Gizzard Shad			$\frac{1}{156}$		$\frac{1}{156}$
Alewife	$\frac{1}{99}$				$\frac{1}{99}$
Brown Bullhead			$\frac{11}{2941}$		$\frac{11}{2941}$
Channel Catfish			$\frac{3}{4338}$		$\frac{3}{4338}$
Freshwater Drum			$\frac{1}{439}$		$\frac{1}{439}$
Quillback			$\frac{14}{9561}$		$\frac{14}{9561}$
Golden Shiner	$\frac{1}{8}$		$\frac{3}{305}$		$\frac{4}{313}$
Common Shiner	$\frac{5}{16}$				$\frac{5}{16}$
TOTAL	$\frac{71}{27,007}$	0	$\frac{229}{139,448}$	0	$\frac{300}{166,455}$
Diversity	1.60		2.29		2.56
Effort Index	1.13		114.5		

* combined because of some identification errors

Table 52. continued.

	<u>Fairport</u>			S (0)	Total
	EF (85)	GN (5)	TN (0)		
Walleye	$\frac{8}{4770}$	$\frac{3}{1403}$			$\frac{11}{6173}$
Smallmouth Bass	$\frac{20}{2006}$				$\frac{20}{2006}$
Rock Bass	$\frac{6}{533}$	$\frac{3}{344}$			$\frac{9}{877}$
Pumpkinseed	$\frac{13}{477}$				$\frac{13}{477}$
Yellow Perch	$\frac{2}{95}$	$\frac{2}{156}$			$\frac{4}{251}$
Carp	$\frac{13}{8830}$	$\frac{28}{16,250}$			$\frac{41}{25,080}$
Goldfish		$\frac{7}{3202}$			$\frac{7}{3202}$
Redhorses	$\frac{1}{630}$	$\frac{2}{1226}$			$\frac{3}{1856}$
White Sucker/ Redhorse*	$\frac{3}{850}$				$\frac{3}{850}$
Gizzard Shad		$\frac{5}{900}$			$\frac{5}{900}$
Alewife	$\frac{3}{576}$				$\frac{3}{576}$
Brown Bullhead	$\frac{1}{122}$				$\frac{1}{122}$
Common Shiner	$\frac{1}{5}$				$\frac{1}{5}$
TOTAL	$\frac{71}{18,894}$	$\frac{50}{23,481}$	0	0	$\frac{121}{42,375}$
Diversity	1.98	1.42			2.08
Effort Index	0.84	10.0			

* combined because of some identification errors

Table 52 continued.

	Total All Sections				Total
	EF (343)	GN (16)	TN (7)	S (0)	
Pike	0	0	$\frac{4}{5067}$	0	$\frac{4}{5067}$
Walleye	$\frac{8}{4770}$	$\frac{18}{10,539}$	$\frac{22}{17,856}$		$\frac{48}{33,165}$
Largemouth Bass	$\frac{32}{10,725}$	$\frac{4}{1007}$	$\frac{16}{5045}$		$\frac{52}{16,777}$
Smallmouth Bass	$\frac{43}{5200}$	$\frac{3}{1091}$	$\frac{12}{2412}$		$\frac{58}{8703}$
White Bass	0	0	$\frac{4}{872}$		$\frac{4}{872}$
Black Crappie	$\frac{5}{678}$	$\frac{3}{326}$	$\frac{148}{16,978}$		$\frac{156}{17,982}$
Bluegill	$\frac{4}{317}$	0	$\frac{23}{2907}$		$\frac{27}{3224}$
White Perch	$\frac{3}{486}$	$\frac{2}{248}$	$\frac{4}{432}$		$\frac{9}{1166}$
Rock Bass	$\frac{13}{1516}$	$\frac{8}{1144}$	$\frac{2}{283}$		$\frac{23}{2943}$
Pumpkinseed	$\frac{29}{1816}$	$\frac{3}{155}$	$\frac{25}{1695}$		$\frac{57}{3666}$
Yellow Perch	$\frac{6}{255}$	$\frac{3}{227}$	$\frac{1}{184}$		$\frac{10}{666}$
Carp	$\frac{32}{31,860}$	$\frac{80}{81,971}$	$\frac{127}{123,940}$		$\frac{239}{237,771}$
Goldfish	$\frac{6}{2607}$	$\frac{14}{8590}$	$\frac{46}{28,245}$		$\frac{66}{39,442}$
Redhorses	$\frac{1}{630}$	$\frac{71}{40,131}$	$\frac{166}{118,724}$		$\frac{238}{159,485}$
White Sucker	0	$\frac{12}{6211}$	$\frac{37}{19,551}$		$\frac{49}{25,762}$
White Sucker/ Redhorse *	$\frac{92}{40,136}$	0	0		$\frac{92}{40,136}$
Gizzard Shad	0	$\frac{15}{2735}$	$\frac{4}{369}$		$\frac{19}{3104}$
Alewife	$\frac{7}{1123}$	0	0		$\frac{7}{1123}$
Brown Bullhead	$\frac{10}{2390}$	$\frac{1}{312}$	$\frac{50}{13,224}$		$\frac{61}{15,926}$
Channel Catfish	0	$\frac{2}{1332}$	$\frac{14}{11,859}$		$\frac{16}{13,191}$
Freshwater Drum	$\frac{2}{200}$	0	$\frac{2}{1346}$		$\frac{4}{1546}$
Quillback	0	$\frac{2}{1687}$	$\frac{80}{89,792}$		$\frac{85}{91,479}$
Golden Shiner	$\frac{4}{27}$	$\frac{8}{575}$	$\frac{5}{440}$		$\frac{17}{1042}$
Spotfin Shiner	$\frac{1}{19}$				$\frac{1}{19}$
Spottail Shiner	$\frac{11}{56.5}$				$\frac{11}{56.5}$
Common Shiner	$\frac{15}{45}$				$\frac{15}{45}$
Lake Chub	$\frac{4}{4}$				$\frac{4}{4}$
TOTAL	$\frac{328}{104,860.5}$	$\frac{249}{158,281}$	$\frac{792}{461,221}$	0	$\frac{1369}{724,362.5}$
Diversity	2.43	2.03	2.35		2.69
Effort Index	0.96	15.56	113.14		

* combined because of some identification errors

Table 53. Total catch in each habitat type, Canal Section 7. See heading Table 4 for explanation of abbreviations. To compare with Canal Sections 5 and 6, only the July samples were summarized.

	<u>Artificial Cut</u>		Total
	EF (160)	GN (8)	
Walleye	$\frac{8}{4770}$	$\frac{3}{1701}$	$\frac{11}{6471}$
Largemouth Bass	$\frac{7}{2537}$	$\frac{2}{426}$	$\frac{9}{2963}$
Smallmouth Bass	$\frac{28}{3484}$	$\frac{1}{595}$	$\frac{29}{4079}$
Rock Bass	$\frac{13}{1516}$	$\frac{7}{1038}$	$\frac{20}{2554}$
Pumpkinseed	$\frac{18}{752}$	$\frac{2}{56}$	$\frac{20}{808}$
Yellow Perch	$\frac{2}{138}$		$\frac{2}{138}$
Carp	$\frac{14}{11,030}$	$\frac{20}{20,929}$	$\frac{34}{31,959}$
Goldfish		$\frac{2}{1560}$	$\frac{2}{1560}$
Redhorses	$\frac{1}{630}$	$\frac{29}{15,144}$	$\frac{30}{15,774}$
White Sucker		$\frac{2}{1176}$	$\frac{2}{1176}$
White Sucker/ Redhorse *	$\frac{22}{9107}$		$\frac{22}{9107}$
Gizzard Shad		$\frac{8}{1609}$	$\frac{8}{1609}$
Alewife	$\frac{2}{478}$		$\frac{2}{478}$
Golden Shiner		$\frac{3}{185}$	$\frac{3}{385}$
Spotfin Shiner	$\frac{1}{19}$		$\frac{1}{19}$
Spottail Shiner	$\frac{1}{1.5}$		$\frac{1}{1.5}$
Common Shiner	$\frac{5}{18}$		$\frac{5}{18}$
TOTAL	$\frac{122}{34,480.5}$	$\frac{79}{44,419}$	$\frac{201}{78,899.5}$
Diversity	2.14	1.83	2.38
Effort Index	0.76	9.8	

* combined because of some identification errors

Table 53 continued.

	Shallows (wetland)			Total
	EF (158)	GN (6)	TN (7)	
Pike			$\frac{4}{5067}$	$\frac{4}{5067}$
Walleye		$\frac{14}{8441}$	$\frac{22}{17,856}$	$\frac{36}{26,297}$
Largemouth Bass	$\frac{25}{8188}$	$\frac{2}{581}$	$\frac{16}{5045}$	$\frac{43}{13,814}$
Smallmouth Bass	$\frac{14}{1624}$	$\frac{2}{496}$	$\frac{12}{2412}$	$\frac{28}{4532}$
White Bass			$\frac{4}{872}$	$\frac{4}{872}$
Black Crappie	$\frac{5}{678}$	$\frac{3}{326}$	$\frac{148}{16,978}$	$\frac{156}{17,982}$
Bluegill	$\frac{4}{317}$		$\frac{23}{2907}$	$\frac{27}{3224}$
White Perch	$\frac{3}{486}$	$\frac{2}{248}$	$\frac{4}{432}$	$\frac{9}{1166}$
Rock Bass		$\frac{1}{106}$	$\frac{2}{283}$	$\frac{8}{389}$
Pumpkinseed	$\frac{11}{1064}$	$\frac{1}{99}$	$\frac{25}{1695}$	$\frac{37}{2858}$
Yellow Perch	$\frac{3}{72}$	$\frac{1}{71}$	$\frac{1}{184}$	$\frac{5}{327}$
Carp	$\frac{18}{20,830}$	$\frac{43}{53,488}$	$\frac{127}{123,940}$	$\frac{188}{198,258}$
Goldfish	$\frac{6}{2607}$	$\frac{5}{3828}$	$\frac{46}{28,245}$	$\frac{57}{34,680}$
Redhorses		$\frac{42}{24,987}$	$\frac{166}{118,724}$	$\frac{208}{143,711}$
White Sucker		$\frac{10}{5035}$	$\frac{37}{19,551}$	$\frac{47}{24,586}$
White Sucker/ Redhorse *	$\frac{70}{31,029}$			$\frac{70}{31,029}$
Gizzard Shad		$\frac{4}{524}$	$\frac{4}{369}$	$\frac{8}{893}$
Alewife	$\frac{3}{339}$			$\frac{3}{339}$
Brown Bullhead	$\frac{9}{2268}$	$\frac{1}{312}$	$\frac{50}{13,224}$	$\frac{60}{15,804}$
Channel Catfish		$\frac{2}{1332}$	$\frac{14}{11,859}$	$\frac{16}{13,191}$
Freshwater Drum	$\frac{2}{200}$		$\frac{2}{1346}$	$\frac{4}{1546}$
Quillback		$\frac{2}{1687}$	$\frac{80}{89,792}$	$\frac{82}{91,479}$
Golden Shiner	$\frac{4}{27}$	$\frac{5}{390}$	$\frac{5}{440}$	$\frac{14}{857}$
Spottail Shiner	$\frac{10}{55}$			$\frac{10}{55}$
Common Shiner	$\frac{10}{27}$			$\frac{10}{27}$
Lake Chub	$\frac{4}{4}$			$\frac{4}{4}$
TOTAL	$\frac{201}{69,815}$	$\frac{140}{101,951}$	$\frac{792}{461,221}$	$\frac{1133}{632,987}$
Diversity	2.29	2.01	2.35	2.61
Effort Index	1.27	2.33	113.14	

* combined because of some identification errors

Table 53 continued.

	EF (25)	Oxbow GN (2)	Total
Walleye		$\frac{1}{397}$	$\frac{1}{397}$
Smallmouth Bass	$\frac{1}{92}$		$\frac{1}{92}$
Yellow Perch	$\frac{1}{45}$	$\frac{2}{156}$	$\frac{3}{201}$
Carp		$\frac{17}{7554}$	$\frac{17}{7554}$
Goldfish		$\frac{7}{3202}$	$\frac{7}{3202}$
Gizzard Shad		$\frac{3}{602}$	$\frac{3}{602}$
Alewife	$\frac{2}{306}$		$\frac{2}{306}$
Brown Bullhead	$\frac{1}{122}$		$\frac{1}{122}$
TOTAL	$\frac{5}{565}$	$\frac{30}{11,911}$	$\frac{35}{12,476}$
Diversity	1.33	1.19	1.56
Effort Index	0.20	15.0	

* combined because of some identification errors

Table 53 continued.

	<u>Total All Habitat Types</u>			Total
	EF (343)	GN (16)	TN (7)	
Pike			$\frac{4}{5067}$	$\frac{4}{5067}$
Walleye	$\frac{8}{4770}$	$\frac{18}{10,539}$	$\frac{22}{17,856}$	$\frac{48}{33,165}$
Largemouth Bass	$\frac{32}{10,725}$	$\frac{4}{1007}$	$\frac{16}{5045}$	$\frac{52}{16,777}$
Smallmouth Bass	$\frac{43}{5200}$	$\frac{3}{1091}$	$\frac{12}{2412}$	$\frac{58}{8703}$
White Bass			$\frac{4}{872}$	$\frac{4}{872}$
Black Crappie	$\frac{5}{678}$	$\frac{3}{326}$	$\frac{148}{16,978}$	$\frac{156}{17,982}$
Bluegill	$\frac{4}{317}$		$\frac{23}{2907}$	$\frac{27}{3224}$
White Perch	$\frac{3}{486}$	$\frac{2}{248}$	$\frac{4}{432}$	$\frac{9}{1166}$
Rock Bass	$\frac{13}{1516}$	$\frac{8}{1144}$	$\frac{2}{283}$	$\frac{23}{2943}$
Pumpkinseed	$\frac{29}{1816}$	$\frac{3}{155}$	$\frac{25}{1695}$	$\frac{57}{3666}$
Yellow Perch	$\frac{6}{255}$	$\frac{3}{227}$	$\frac{1}{184}$	$\frac{10}{666}$
Carp	$\frac{32}{31,860}$	$\frac{80}{81,971}$	$\frac{127}{123,940}$	$\frac{239}{237,771}$
Goldfish	$\frac{6}{2607}$	$\frac{14}{8590}$	$\frac{46}{28,245}$	$\frac{66}{39,442}$
Redhorses	$\frac{1}{680}$	$\frac{71}{40,131}$	$\frac{116}{118,724}$	$\frac{238}{159,485}$
White Sucker		$\frac{12}{6211}$	$\frac{37}{19,551}$	$\frac{49}{25,762}$
White Sucker/ Redhorse *	$\frac{92}{40,136}$			$\frac{92}{40,136}$
Gizzard Shad		$\frac{15}{2735}$	$\frac{4}{369}$	$\frac{19}{3104}$
Alewife	$\frac{7}{1123}$			$\frac{7}{1123}$
Brown Bullhead	$\frac{10}{2390}$	$\frac{1}{312}$	$\frac{50}{13,224}$	$\frac{61}{15,926}$
Channel Catfish		$\frac{2}{1332}$	$\frac{14}{11,859}$	$\frac{16}{13,191}$
Freshwater Drum	$\frac{2}{200}$		$\frac{2}{1346}$	$\frac{4}{1546}$
Quillback		$\frac{2}{1687}$	$\frac{80}{89,792}$	$\frac{82}{91,479}$
Golden Shiner	$\frac{4}{27}$	$\frac{8}{575}$	$\frac{5}{440}$	$\frac{17}{1042}$
Spotfin Shiner	$\frac{1}{19}$			$\frac{1}{19}$
Spottail Shiner	$\frac{11}{56.5}$			$\frac{11}{56.5}$
Common Shiner	$\frac{15}{45}$			$\frac{15}{45}$
Lake Chub	$\frac{4}{4}$			$\frac{4}{4}$
TOTAL	$\frac{328}{104,860.5}$	$\frac{249}{158,281}$	$\frac{792}{461,221}$	$\frac{1369}{724,362.5}$
Diversity	2.43	2.03	2.35	2.61
Effort Index	0.96	15.56	113.14	

* combined because of some identification errors

Table 54. Summary of seine samples taken on April 27, 1983 in two pools and one canal station (station 3) in the Knowlesville widewater. Samples were taken prior to filling the canal.

	Station 1	Station 2	Station 3	Total
Largemouth Bass	$\frac{40}{1729}$			$\frac{40}{1729}$
Black Crappie	$\frac{124}{794}$	$\frac{22}{51}$		$\frac{146}{845}$
Bluegill	$\frac{2}{7}$			$\frac{2}{7}$
Rock Bass		$\frac{1}{1}$	$\frac{1}{1}$	$\frac{2}{2}$
Pumpkinseed	$\frac{50}{829}$	$\frac{26}{193}$		$\frac{76}{1022}$
Yellow Perch	$\frac{13}{500}$	$\frac{1}{1}$		$\frac{14}{501}$
Goldfish	$\frac{19}{5422}$	$\frac{3}{20}$		$\frac{22}{5442}$
Redhorses	$\frac{44}{1673}$	$\frac{2}{9}$		$\frac{46}{1682}$
Brown Bullhead	$\frac{22}{3282}$	$\frac{1}{1}$		$\frac{23}{3283}$
Johnny Darter	$\frac{15}{21}$	$\frac{76}{102}$	$\frac{1}{2}$	$\frac{92}{125}$
Brook Silverside	$\frac{3}{2}$	$\frac{4}{3}$		$\frac{7}{5}$
Golden Shiner	$\frac{52}{836}$	$\frac{22}{41}$	$\frac{21}{41}$	$\frac{95}{918}$
Spotfin Shiner		$\frac{1}{7}$	$\frac{1}{7}$	$\frac{2}{14}$
Bluntnose Minnow	$\frac{57}{106}$	$\frac{173}{281}$	$\frac{173}{301}$	$\frac{403}{688}$
TOTAL	$\frac{441}{15,201}$ *	$\frac{332}{710}$ *	$\frac{197}{352}$	$\frac{970}{16,263}$

* approximately half the catch processed

Table 55. Summary of seine samples taken on April 27, 1983 in two pools in the Holley widewater. Samples were taken prior to filling the canal.

	Station 1	Station 2	Total
Largemouth Bass		$\frac{17}{163}$	$\frac{17}{163}$
Black Crappie		$\frac{203}{170}$	$\frac{203}{170}$
Bluegill		$\frac{5}{8}$	$\frac{5}{8}$
Rock Bass	$\frac{3}{4}$	$\frac{1}{1}$	$\frac{4}{5}$
Pumpkinseed		$\frac{255}{369}$	$\frac{255}{369}$
Yellow Perch		$\frac{1}{1}$	$\frac{1}{1}$
Goldfish		$\frac{1}{6}$	$\frac{1}{6}$
Redhorses		$\frac{1}{14}$	$\frac{1}{14}$
White Sucker		$\frac{1}{14}$	$\frac{1}{14}$
Brown Bullhead	$\frac{10}{18}$	$\frac{1}{85}$	$\frac{11}{103}$
Log Perch	$\frac{1}{4}$		$\frac{1}{4}$
Johnny Darter	$\frac{4}{7}$	$\frac{55}{64}$	$\frac{59}{71}$
Brook Silverside		$\frac{25}{27}$	$\frac{25}{27}$
Golden Shiner	$\frac{11}{28}$	$\frac{299}{855}$	$\frac{310}{883}$
Spotfin Shiner		$\frac{78}{422}$	$\frac{78}{422}$
Bluntnose Minnow	$\frac{9}{10}$	$\frac{302}{638}$	$\frac{311}{648}$
TOTAL	$\frac{38}{71}$	$\frac{1245}{2837}$	$\frac{1283}{2908}$

Table 56. Summary of electroshocking samples taken at the Knowlesville widewater and at bridges up and downstream of the widewater. Samples were taken on May 12, 1983, approximately two weeks after the canal was filled. See heading Table 4 for explanation of abbreviations.

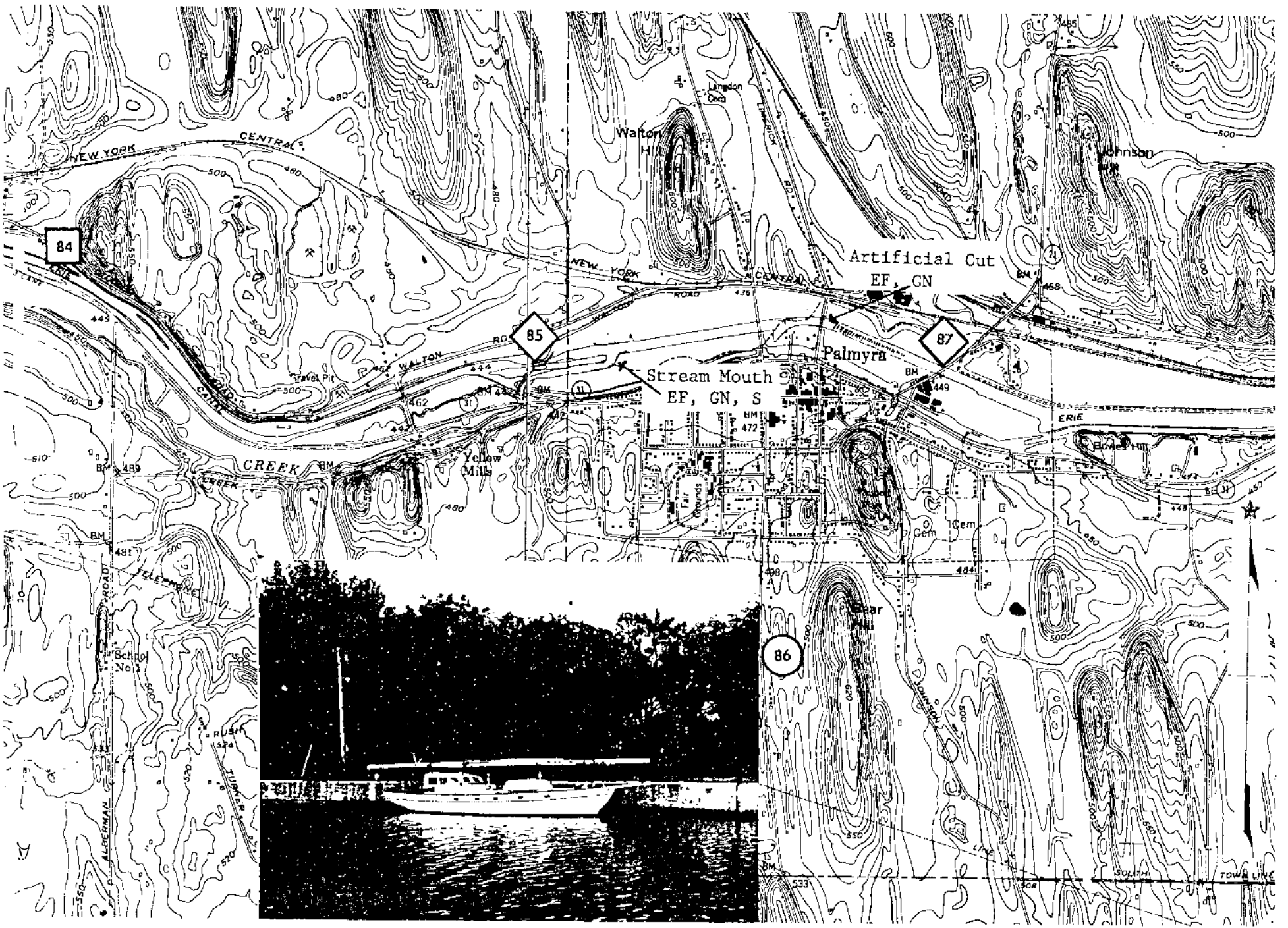
	Knowlesville Road EF (20)	Presbyterian Road EF (20)	Knowlesville Widewater EF (47)
Pike			$\frac{1}{500}$
Walleye		$\frac{1}{1300}$	
Largemouth Bass	$\frac{4}{448}$	$\frac{1}{370}$	$\frac{15}{5173}$
Smallmouth Bass	$\frac{6}{460}$	$\frac{4}{59}$	$\frac{1}{375}$
Black Crappie			$\frac{2}{460}$
Rock Bass	$\frac{2}{205}$	$\frac{4}{538}$	
Pumpkinseed	$\frac{2}{195}$	$\frac{11}{739}$	
Yellow Perch	$\frac{1}{69}$		
Carp	$\frac{1}{3200}$		$\frac{5}{7900}$
Goldfish		$\frac{1}{330}$	$\frac{1}{90}$
Redhorses	$\frac{1}{264}$	$\frac{2}{950}$	
White Sucker		$\frac{1}{310}$	
Gizzard Shad			$\frac{8}{221}$
Brown Bullhead			$\frac{1}{320}$
Golden Shiner		$\frac{1}{54}$	$\frac{4}{166}$
Bluntnose Minnow	$\frac{10}{51}$		
TOTAL	$\frac{27}{4892}$	$\frac{26}{4650}$	$\frac{38}{15,205}$

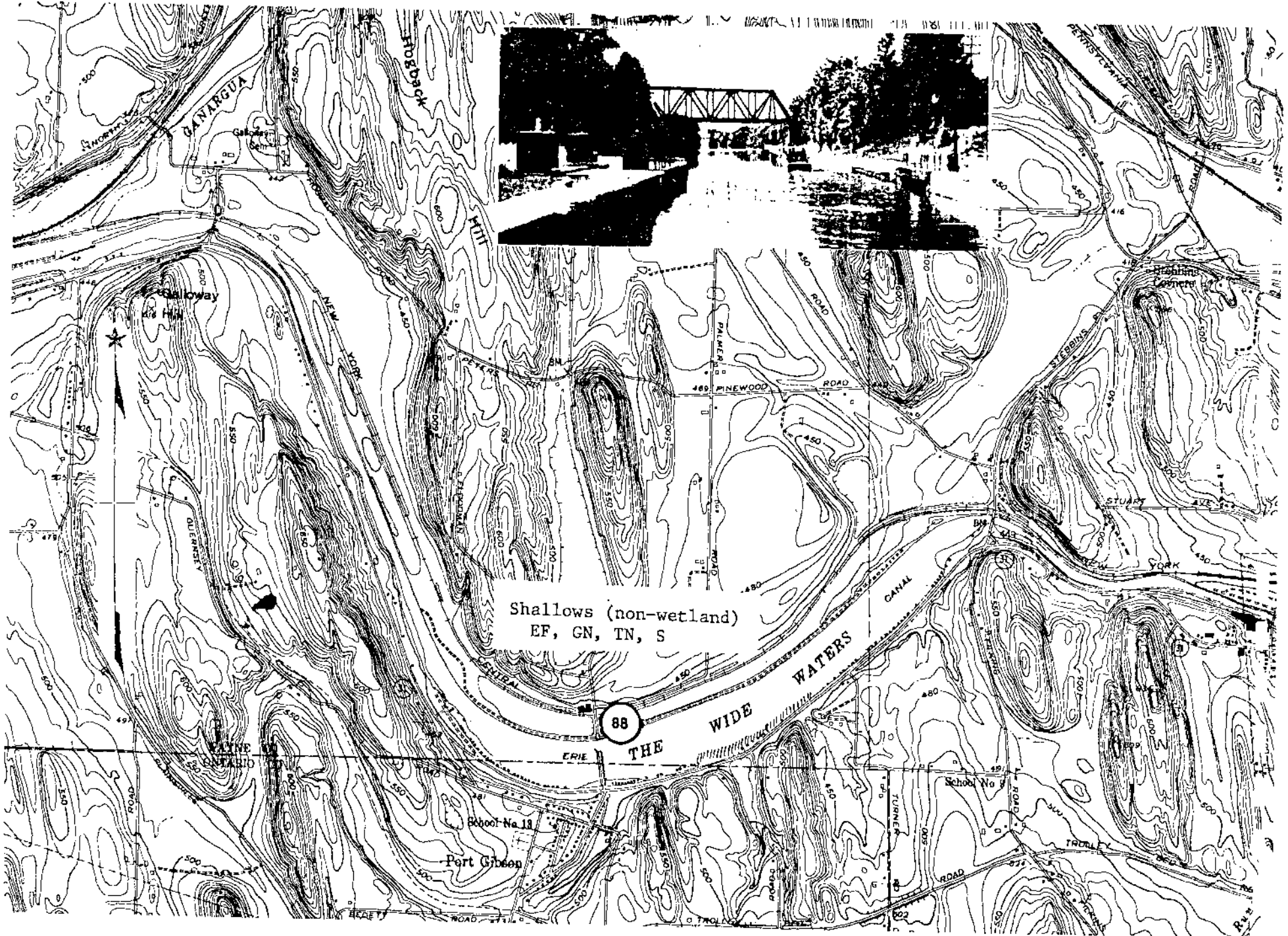
Table 57. Summary of electroshocking samples taken at the Fairport Oxbow and at bridges up and downstream of the Oxbow. Samples were taken on May 13, 1983, approximately two weeks after the canal was filled. See heading Table 4 for explanation of abbreviations.

	Church Street EF (20)	Ayrault Road EF (20)	Oxbow EF (30)
Walleye	$\frac{2}{1120}$	$\frac{3}{1185}$	
Smallmouth Bass	$\frac{4}{415}$	$\frac{3}{335}$	
Rock Bass	$\frac{14}{1273}$	$\frac{8}{720}$	$\frac{2}{175}$
Pumpkinseed	$\frac{2}{68}$	$\frac{2}{110}$	$\frac{3}{145}$
Yellow Perch	$\frac{1}{125}$		$\frac{1}{54}$
Carp		$\frac{1}{1800}$	$\frac{25}{14,700}$
Goldfish		$\frac{1}{400}$	
Gizzard Shad			$\frac{3}{56}$
Alewife			$\frac{1}{15}$
Brown Bullhead			$\frac{3}{500}$
Golden Shiner	$\frac{1}{20}$		$\frac{2}{28}$
Spottail Shiner	$\frac{1}{3}$		$\frac{1}{2}$
TOTAL	$\frac{25}{3024}$	$\frac{18}{4550}$	$\frac{41}{15,675}$



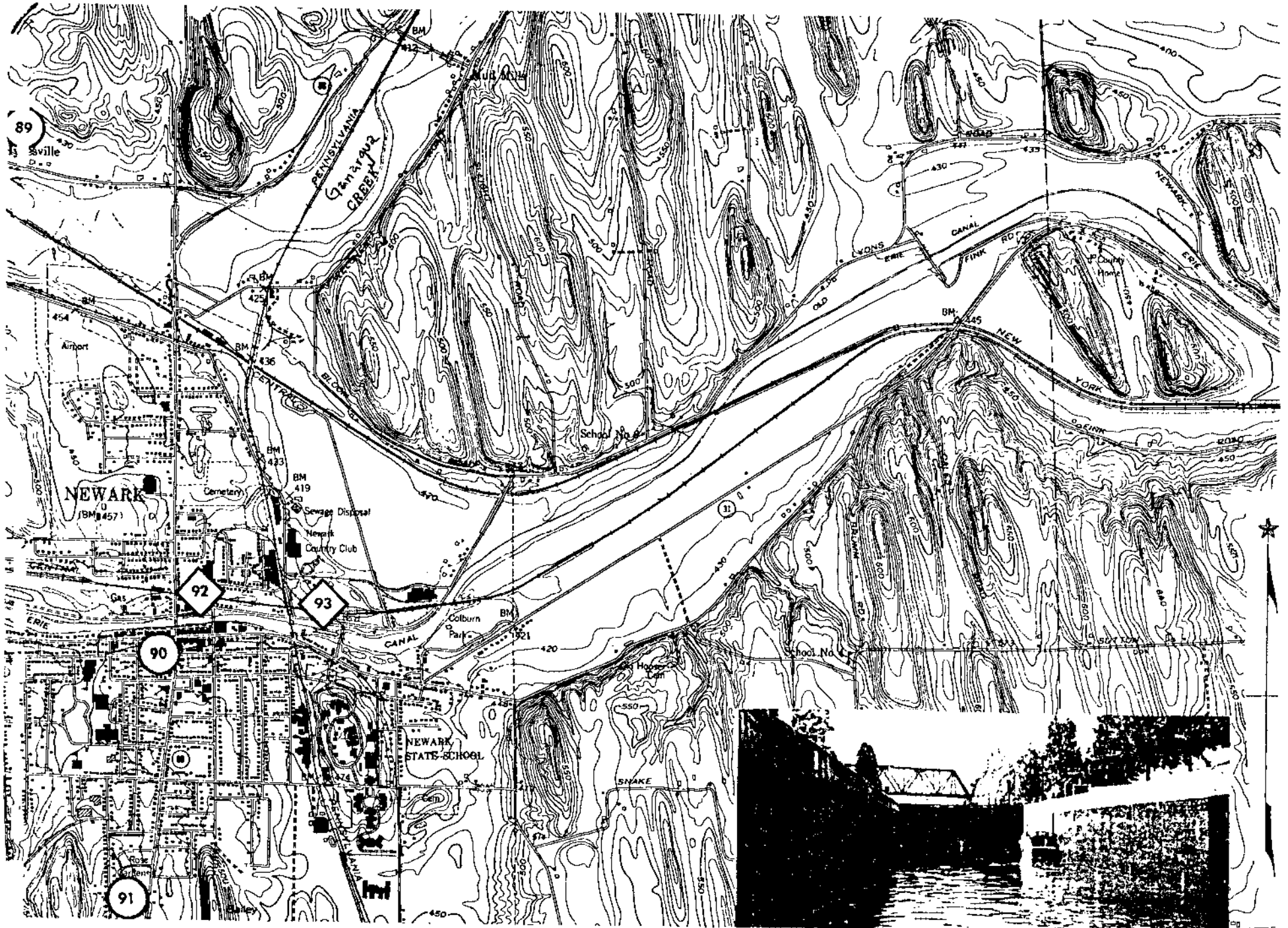
Figure 2. Location maps showing sections, habitat types, and sampling sites. EF = electrofishing, GN = gill nets, TN = trap nets, S = beach seines. Hatch marks indicate the extent of electrofishing.

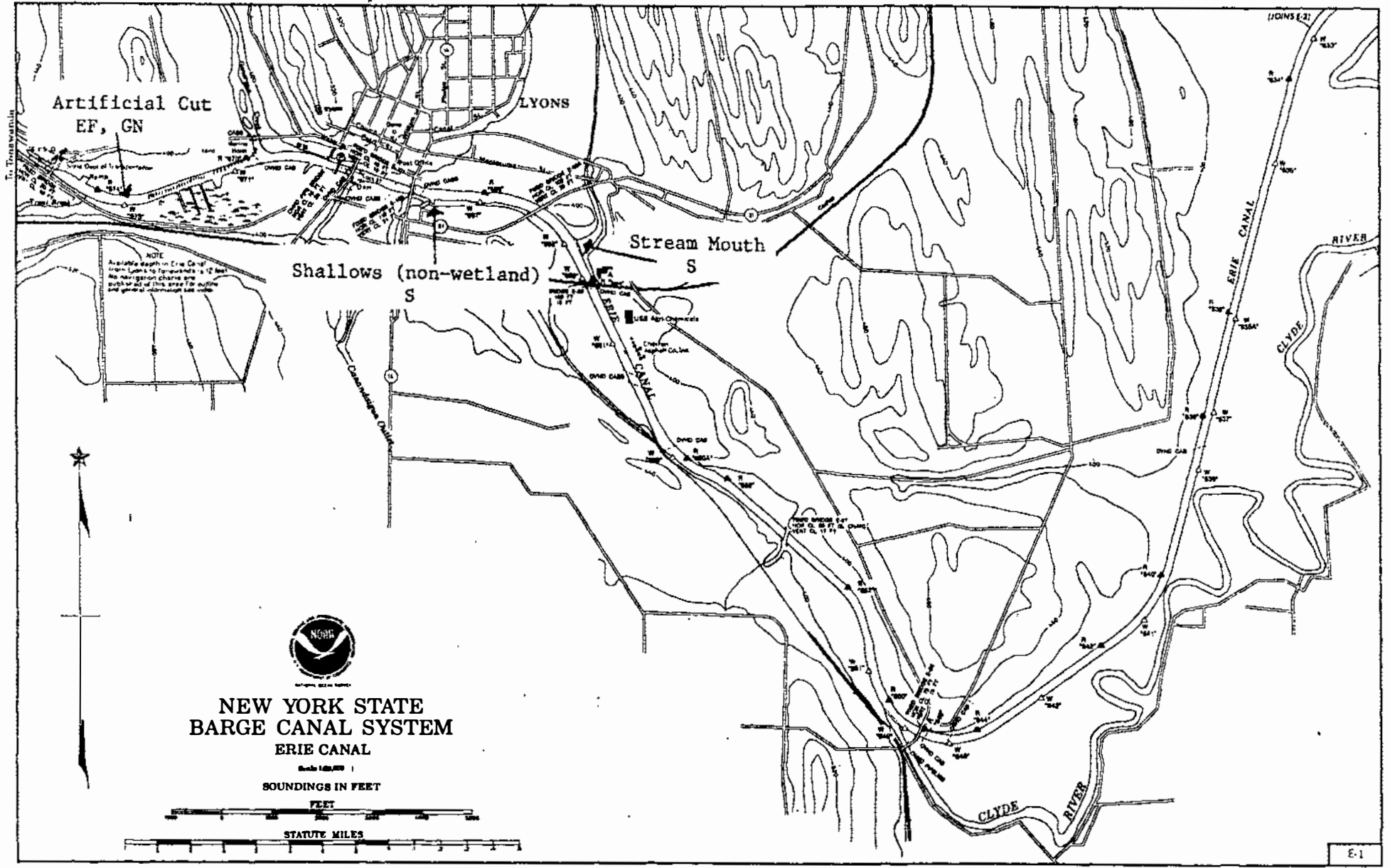


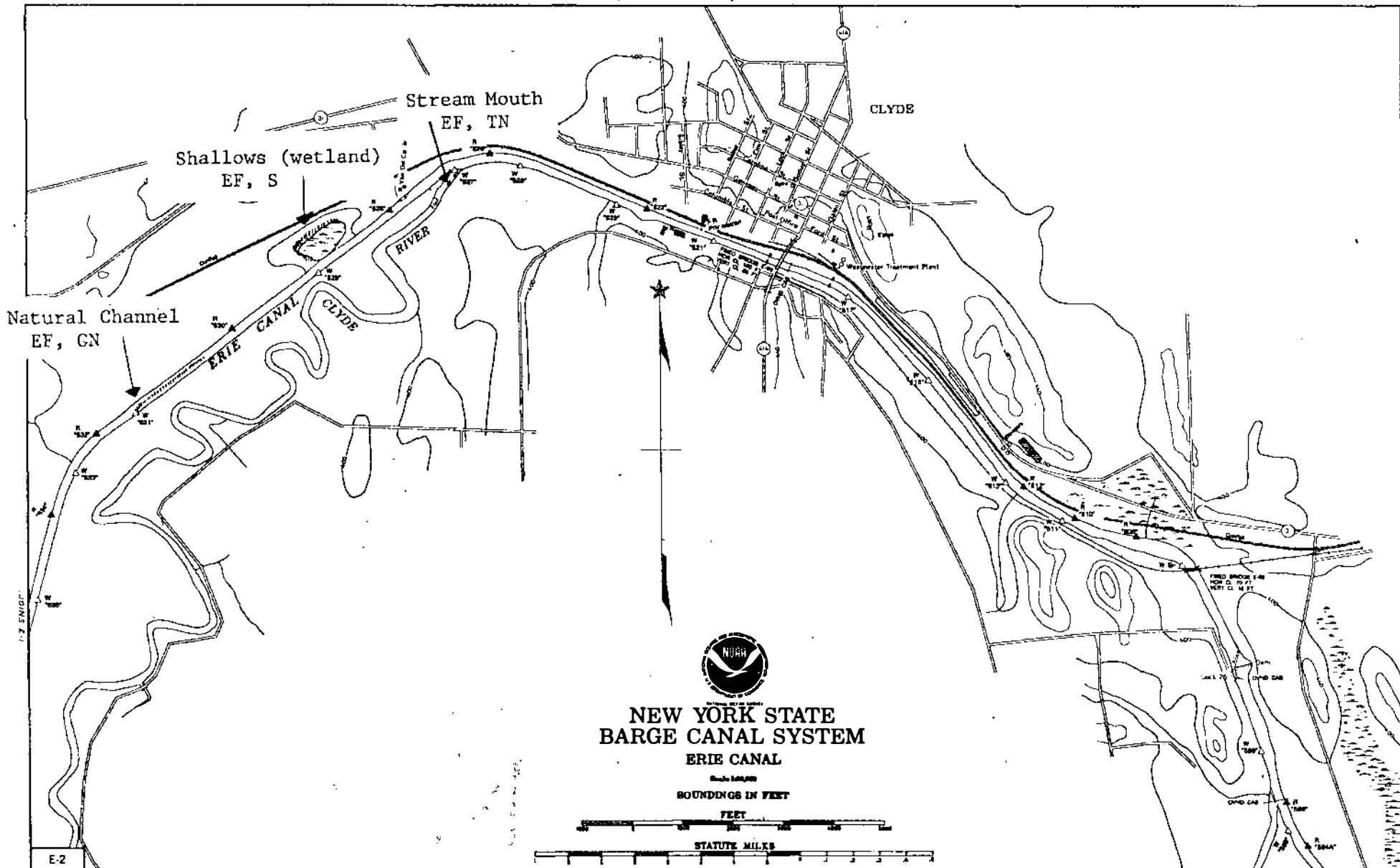


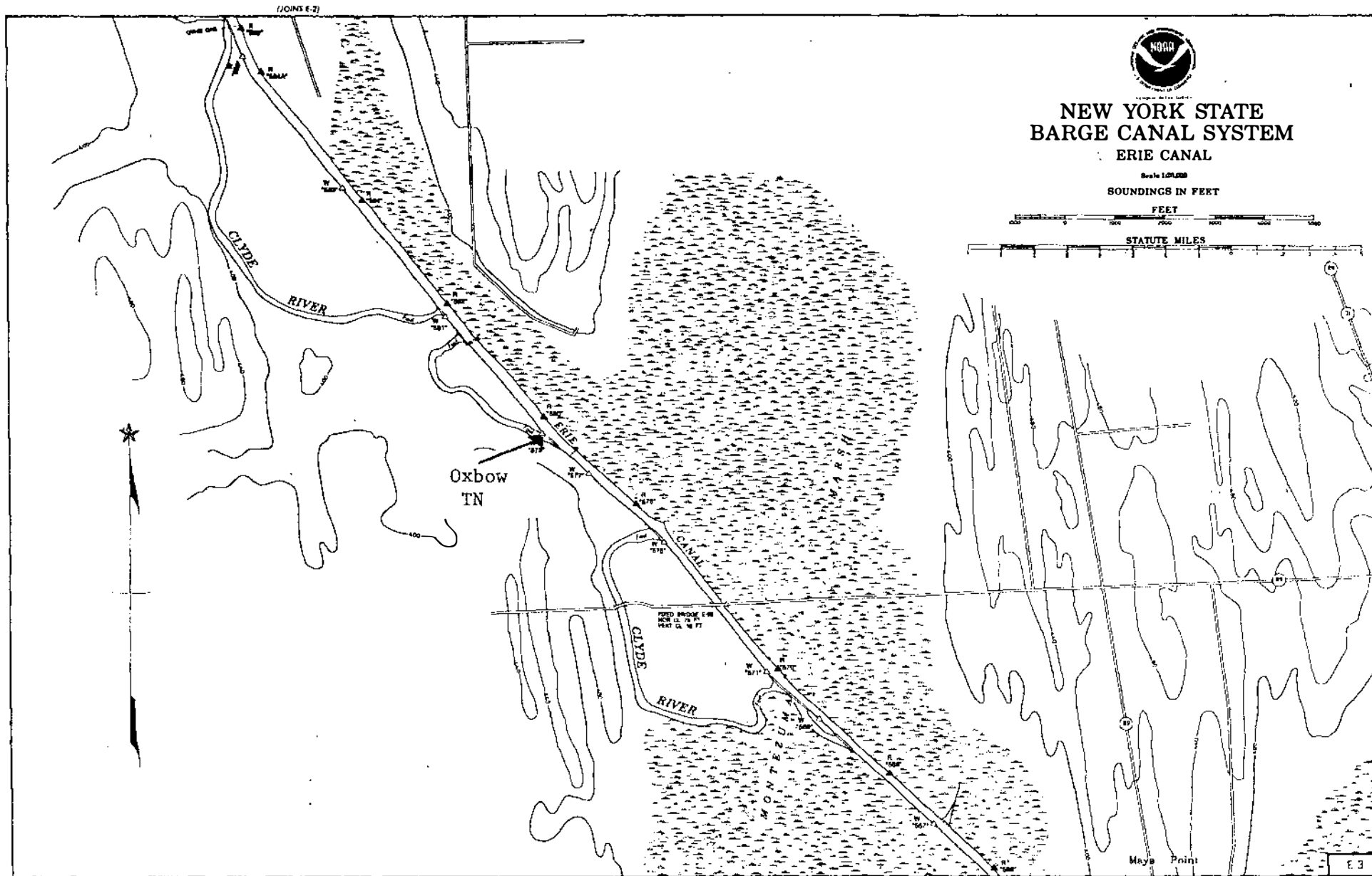
Shallows (non-wetland)
EF, GN, TN, S

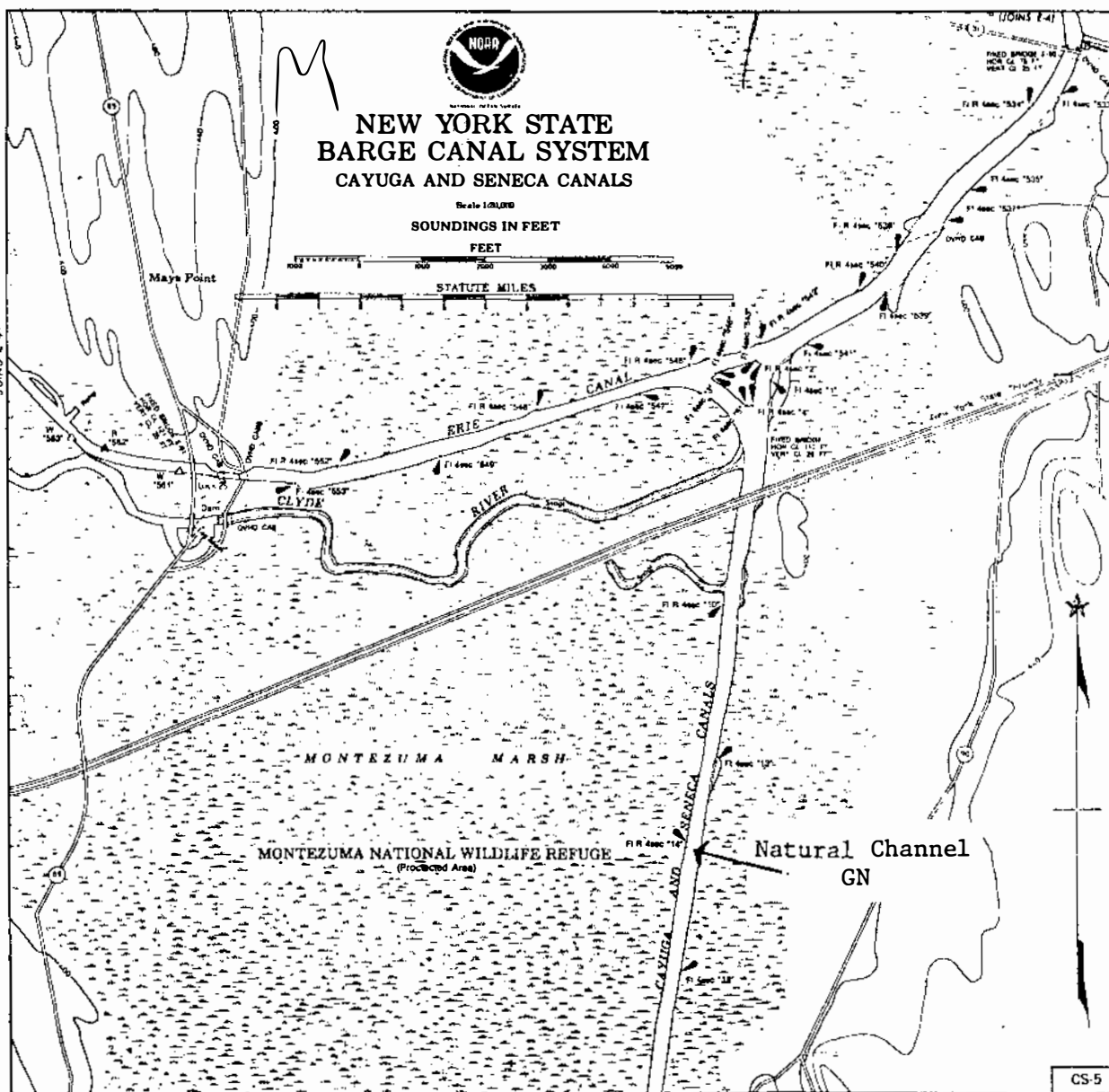
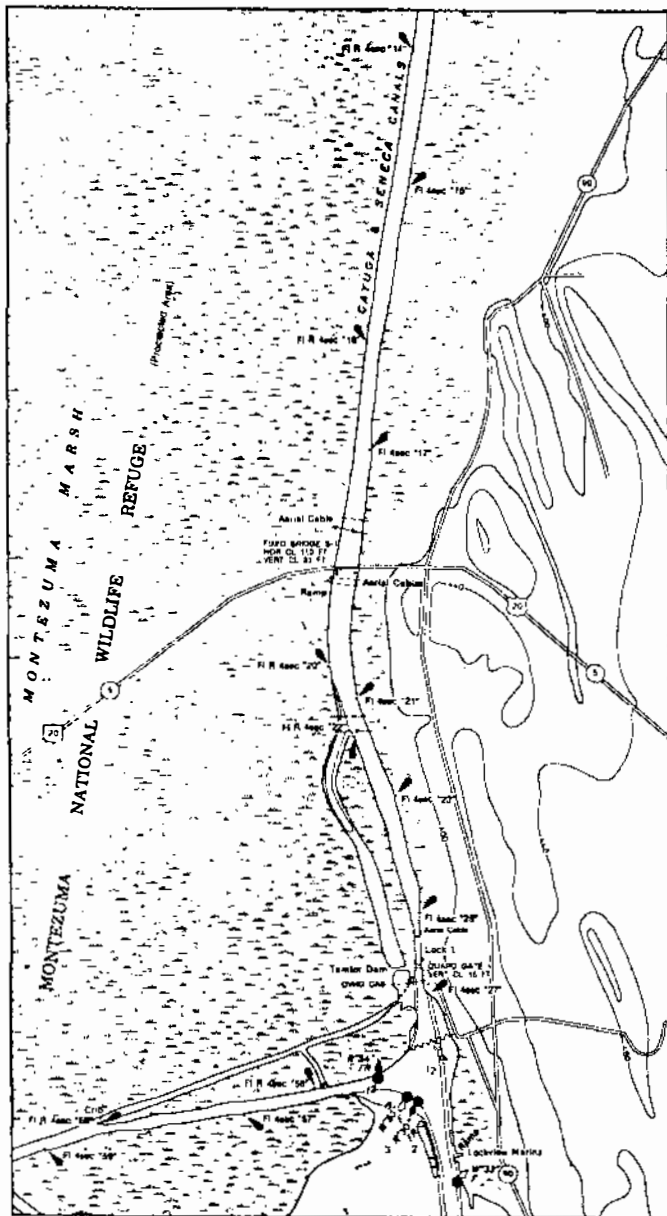
88

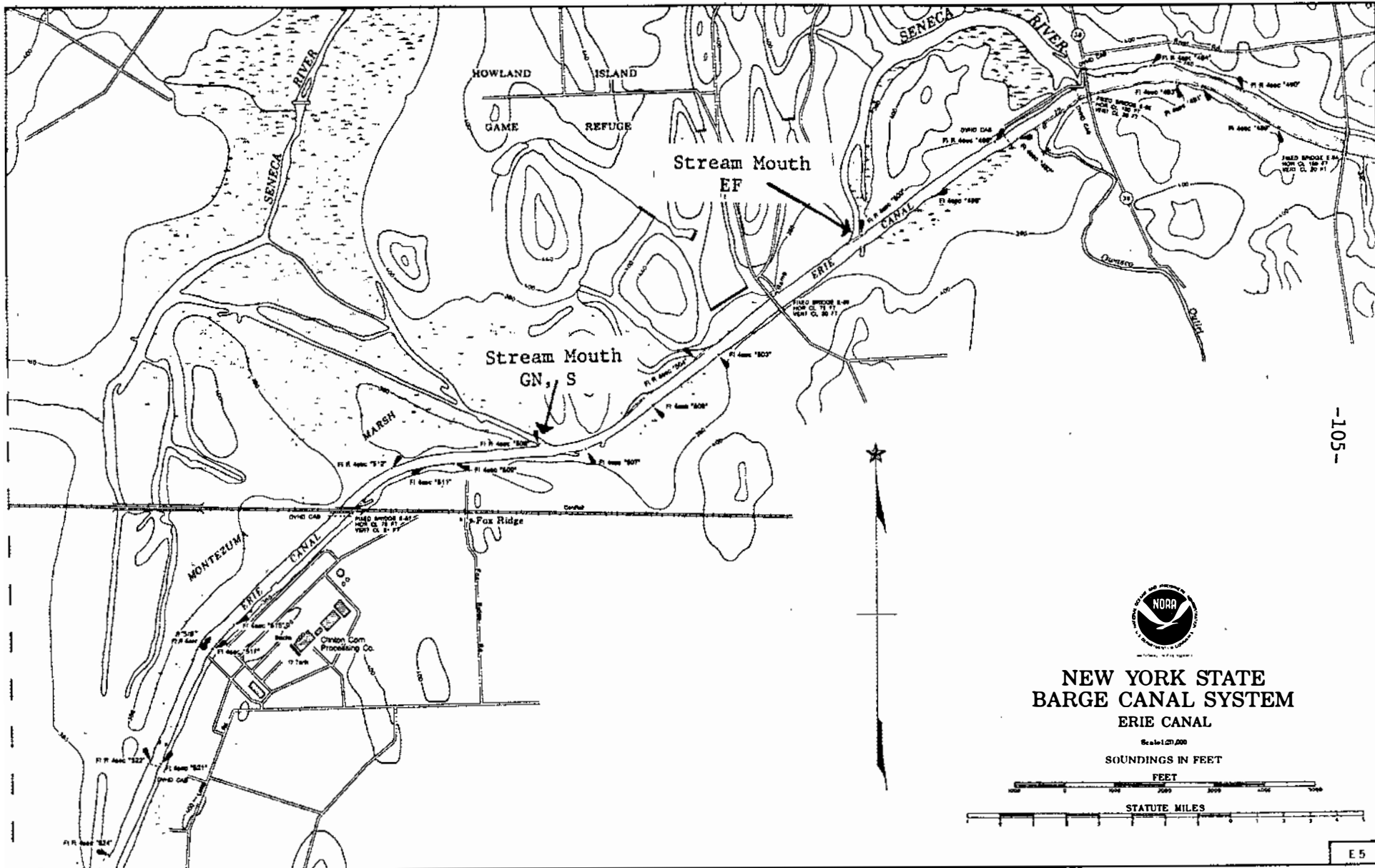












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**NEW YORK STATE
BARGE CANAL SYSTEM
ERIE CANAL**

Scale 1:20,000

SOUNDINGS IN FEET

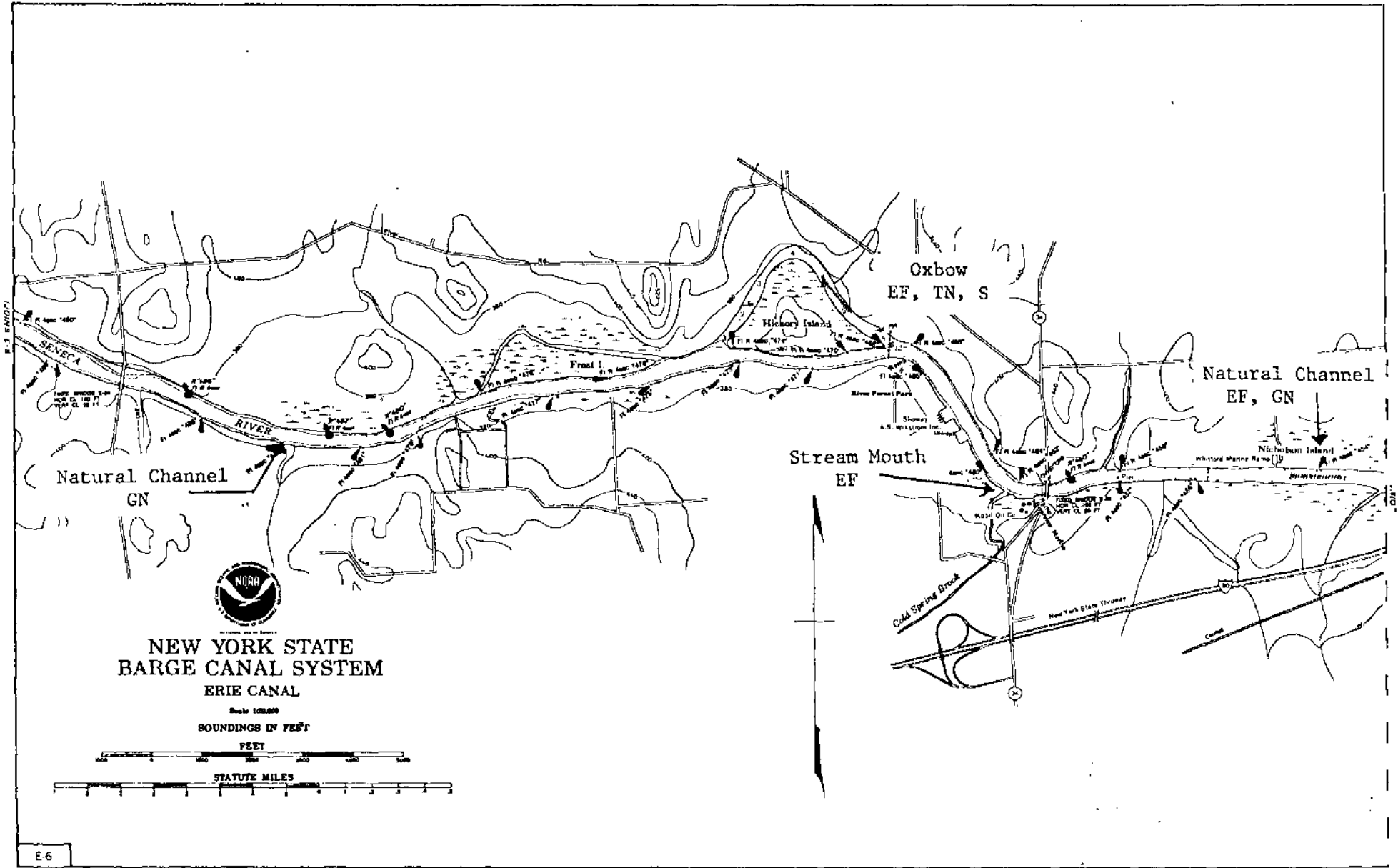
FEET



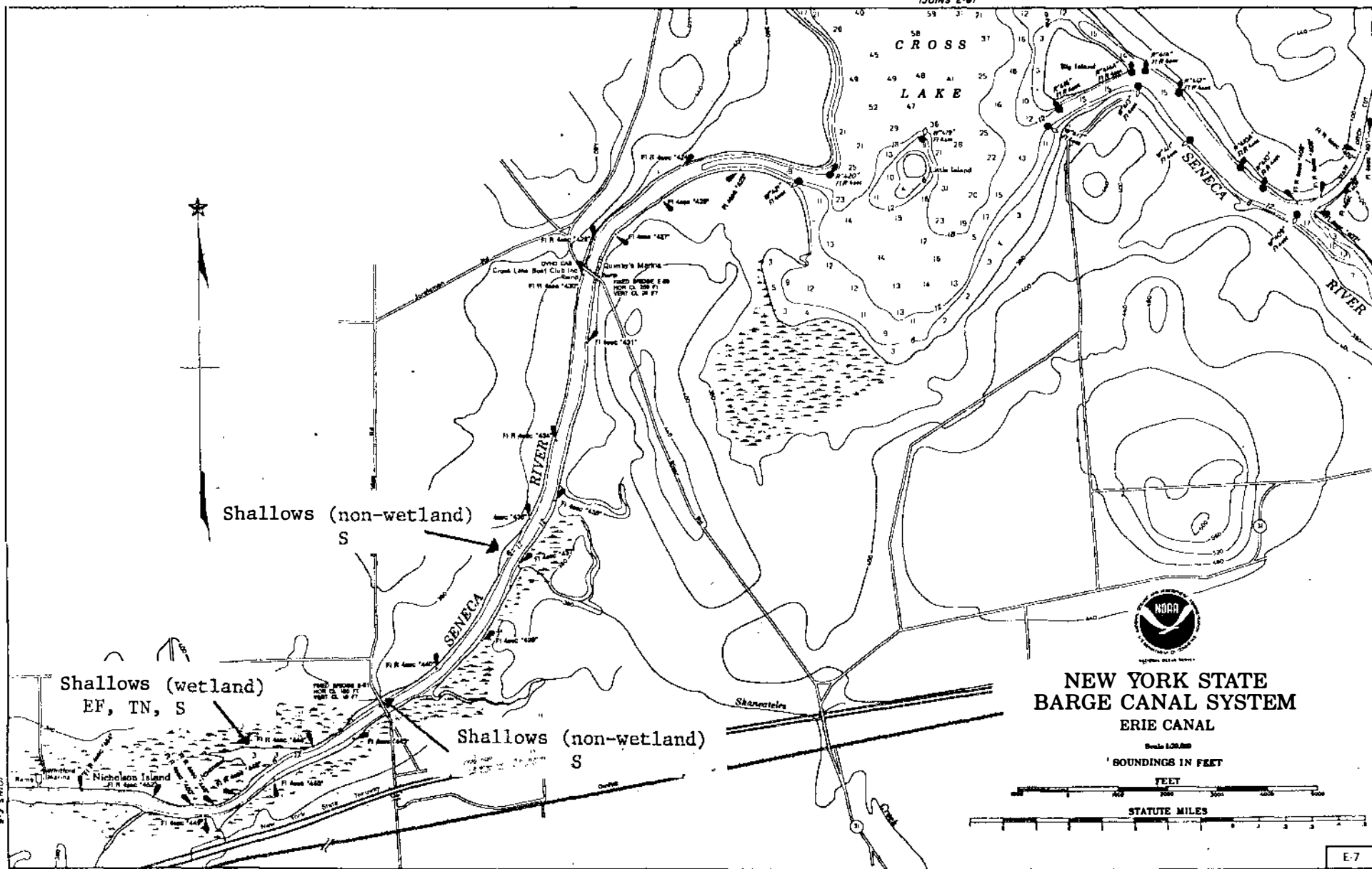
STATUTE MILES



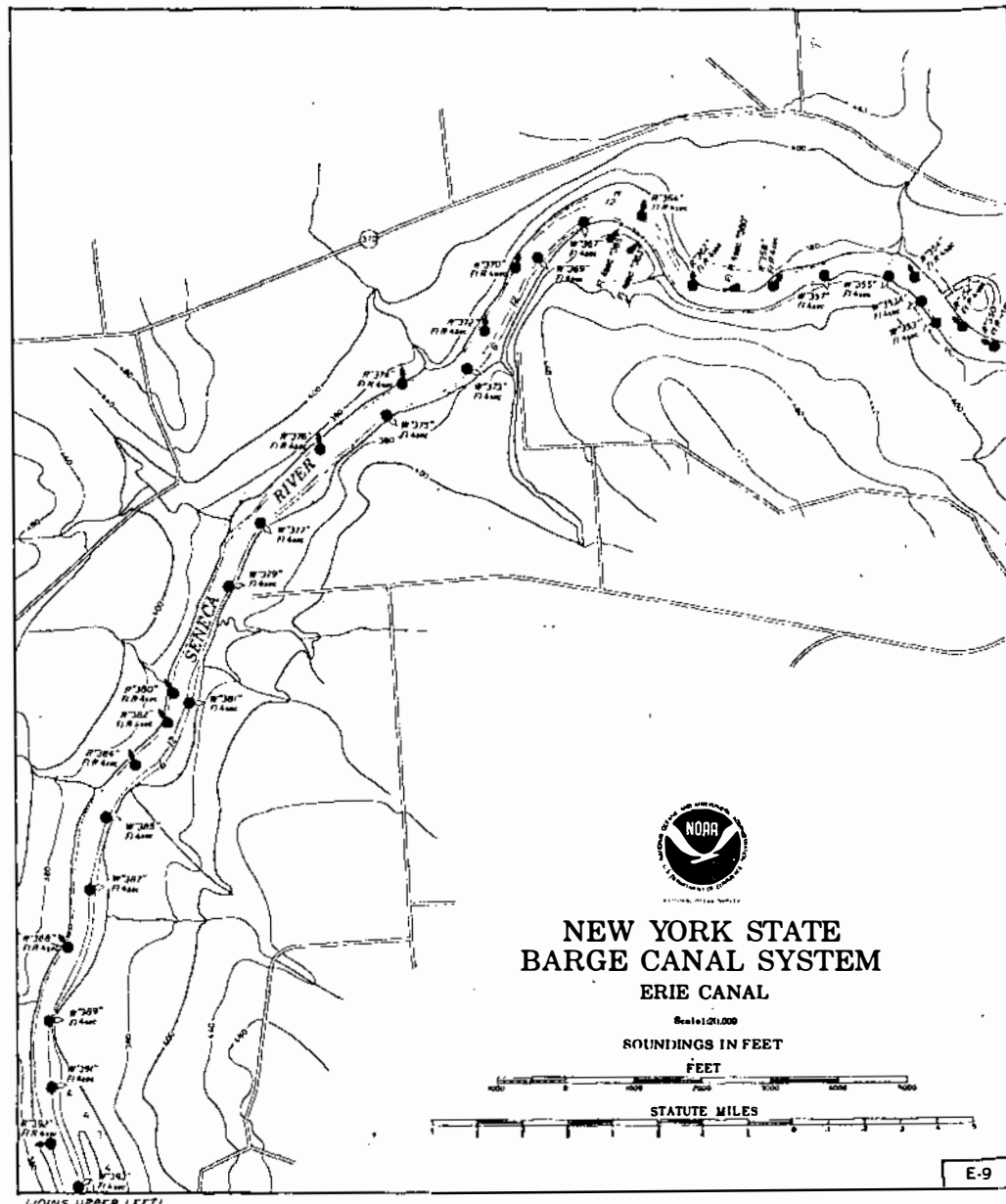
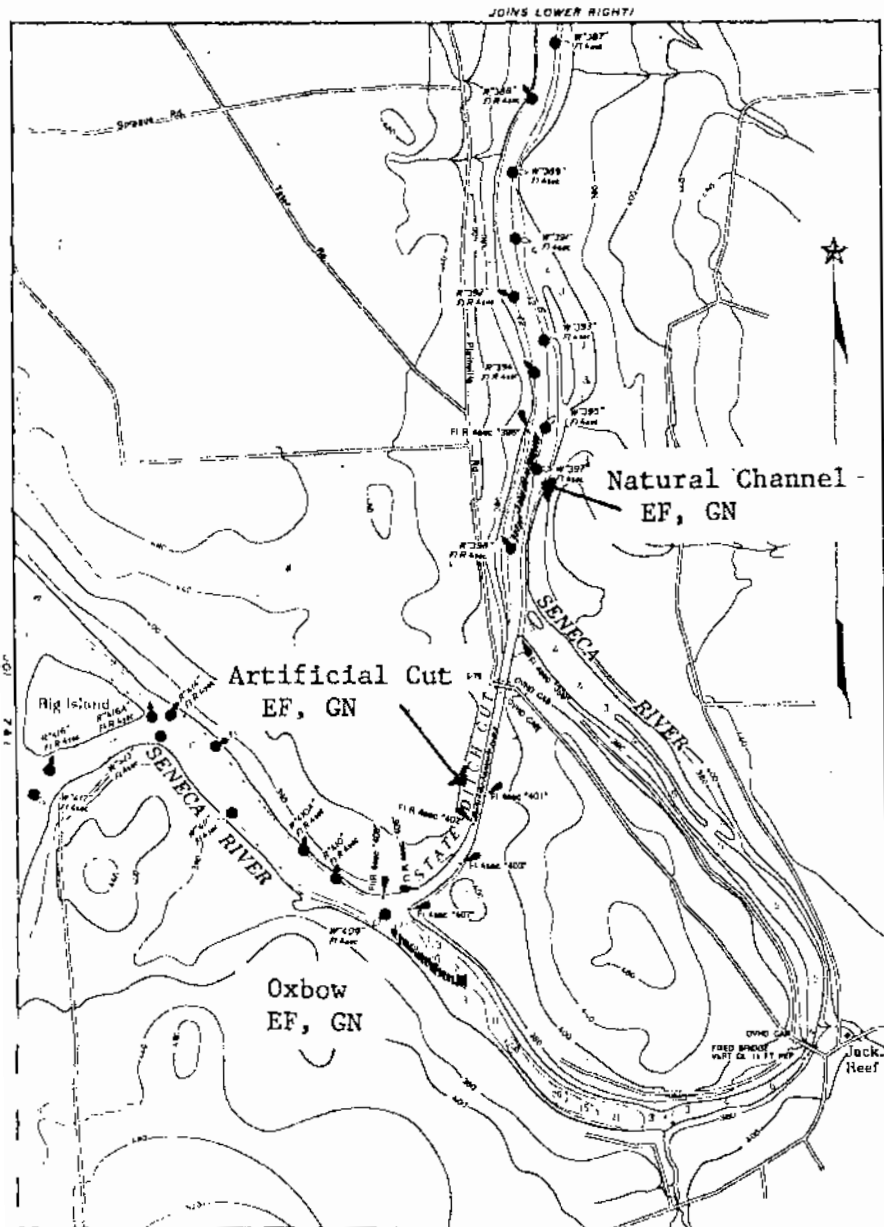
E 5

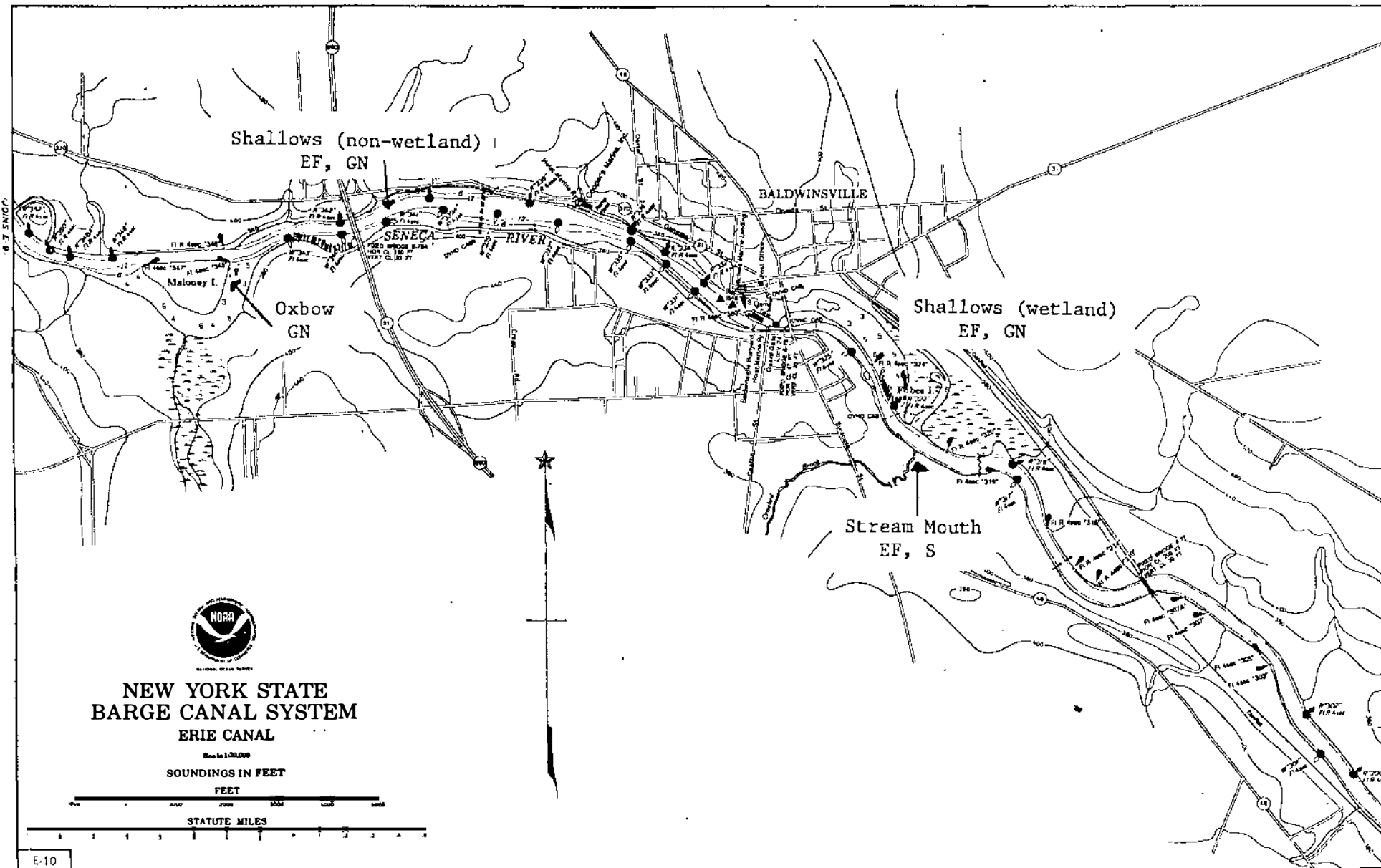


E.6



14786 (formerly LS 180) 9th Ed., Nov. 5/77





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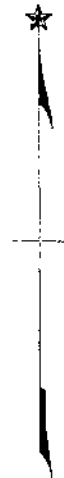
JOINS E-14



NEW YORK STATE BARGE CANAL SYSTEM ERIE CANAL

Scale 1:25,000

SOUNDINGS IN FEET



Shallows (non-wetland)
EF, TN

Natural Channel
EF, GN

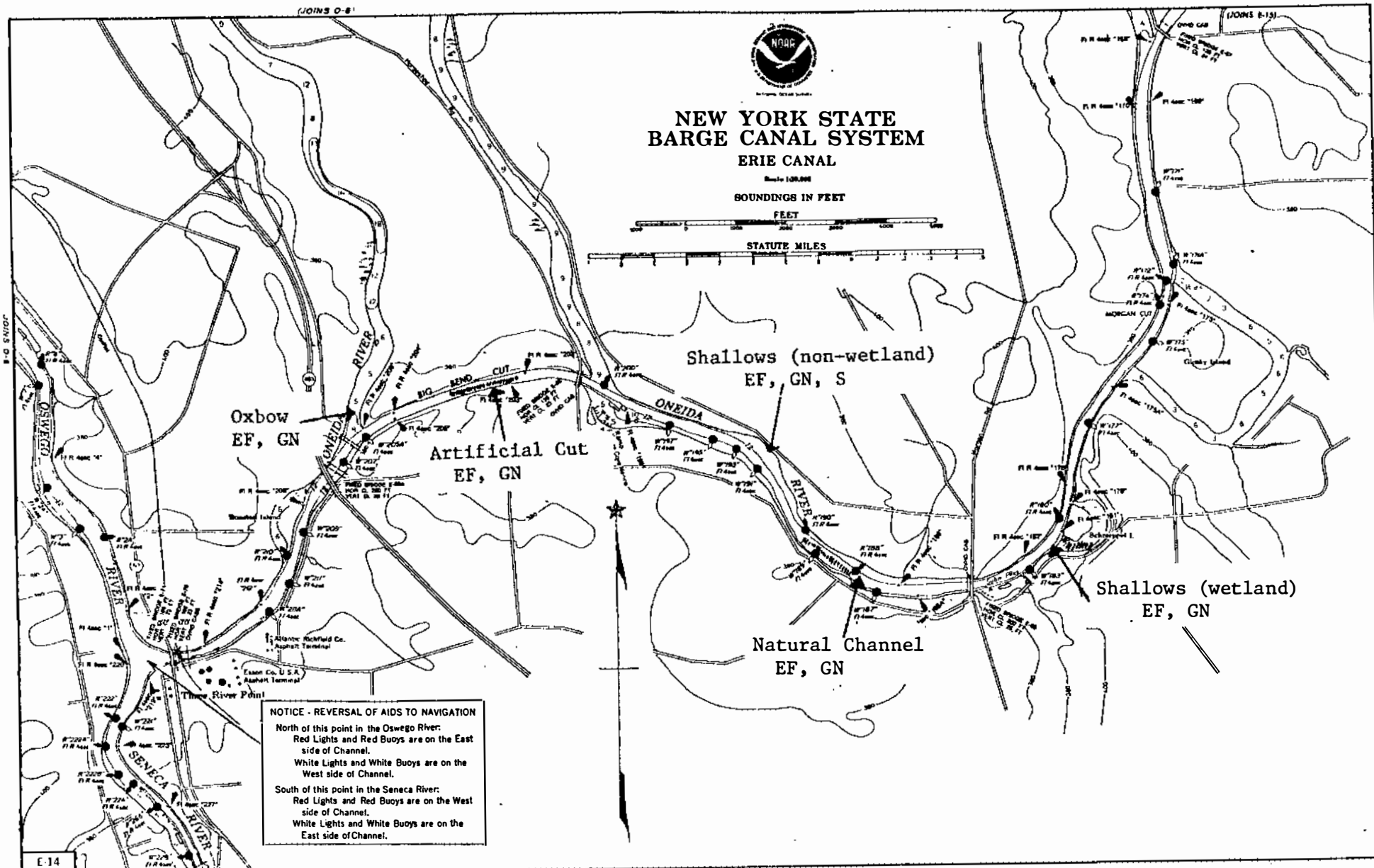
Stream Mouth
EF, S

SENECA RIVER

Belgium

Sears Oil Co. Inc

E-13



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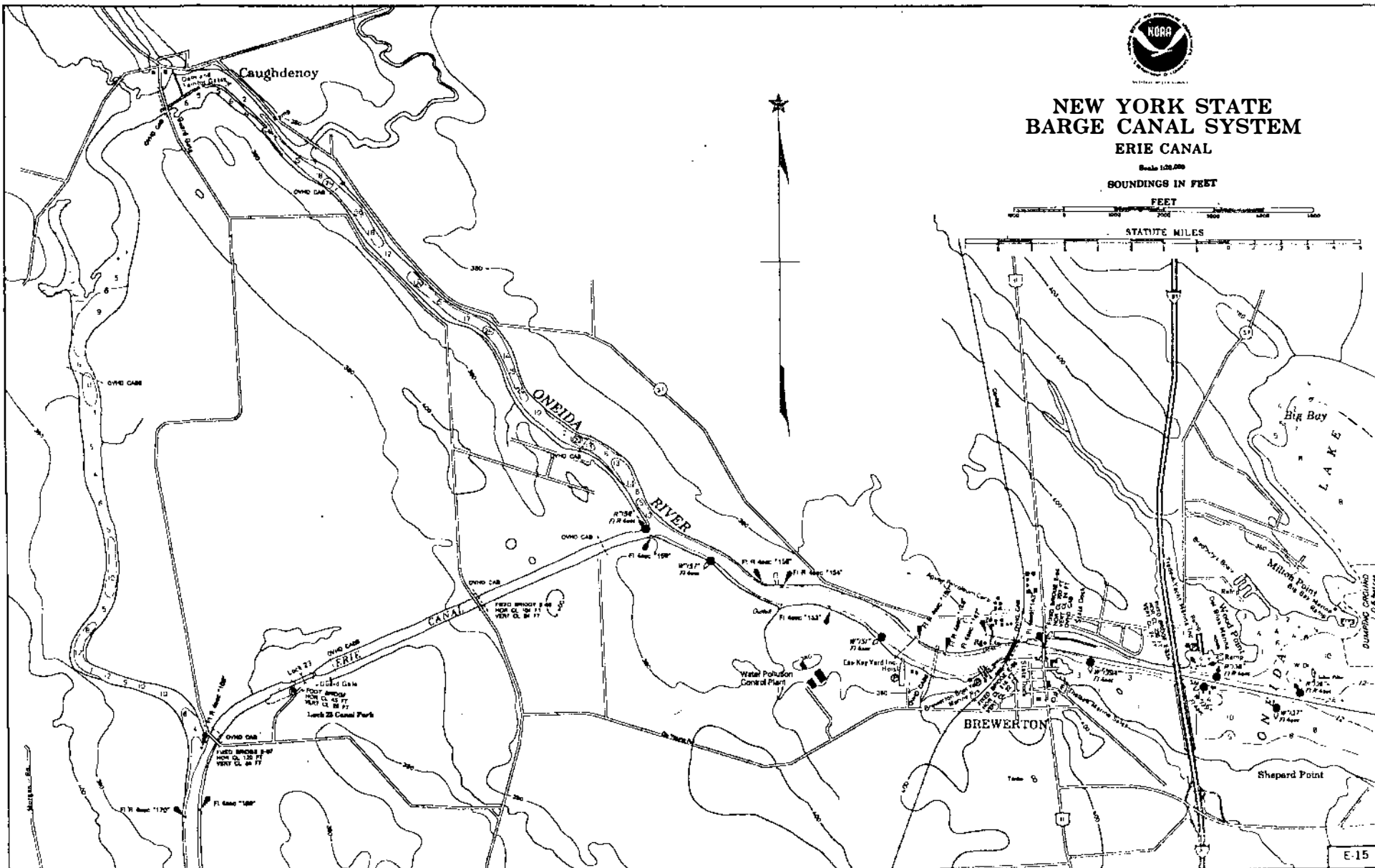
NEW YORK STATE BARGE CANAL SYSTEM ERIE CANAL

Scale 1:25,000

SOUNDINGS IN FEET



STATUTE MILES



CONTINUED ON E-15

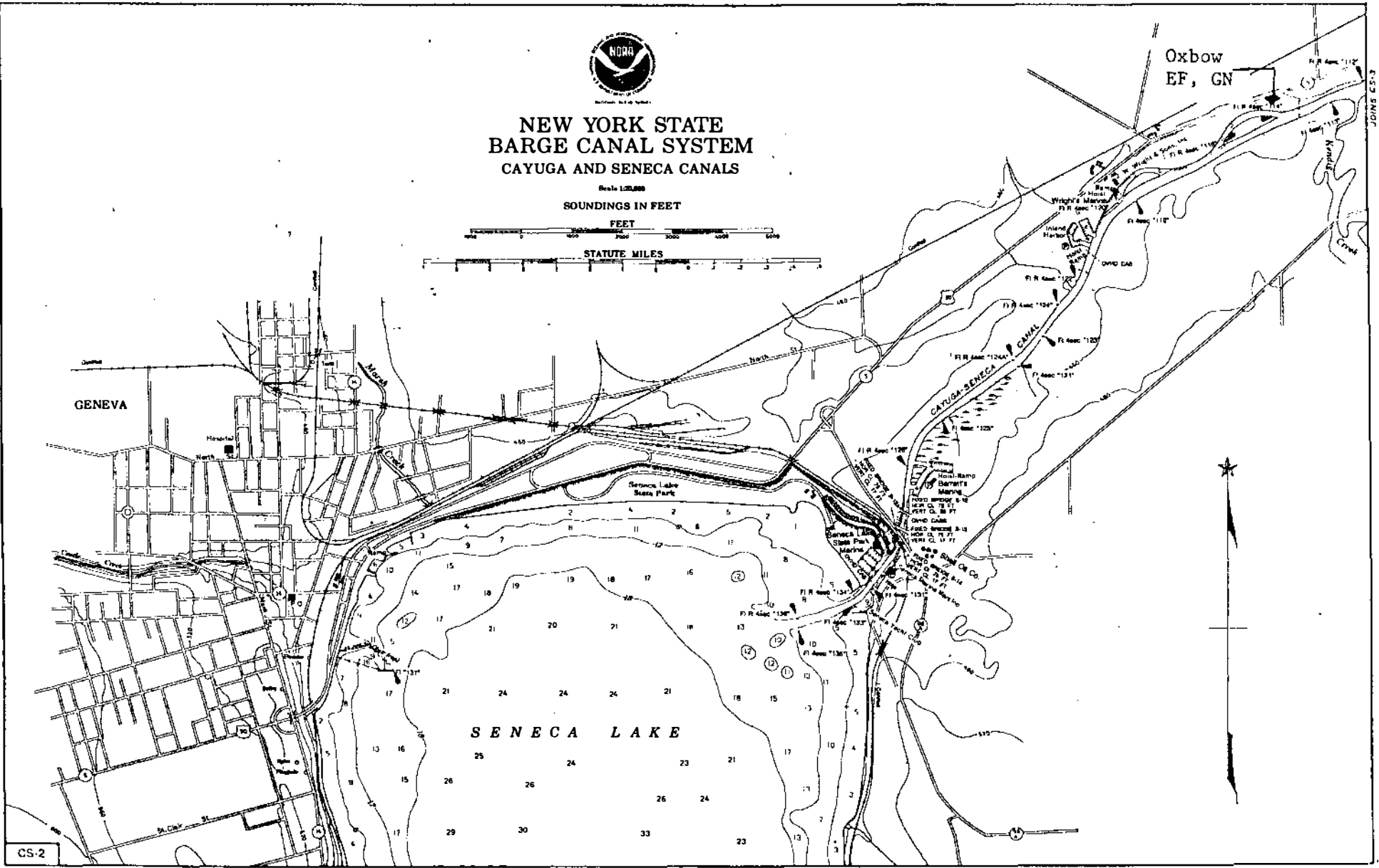
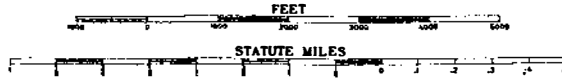
-113-



NEW YORK STATE BARGE CANAL SYSTEM CAYUGA AND SENECA CANALS

Scale 1:25,000

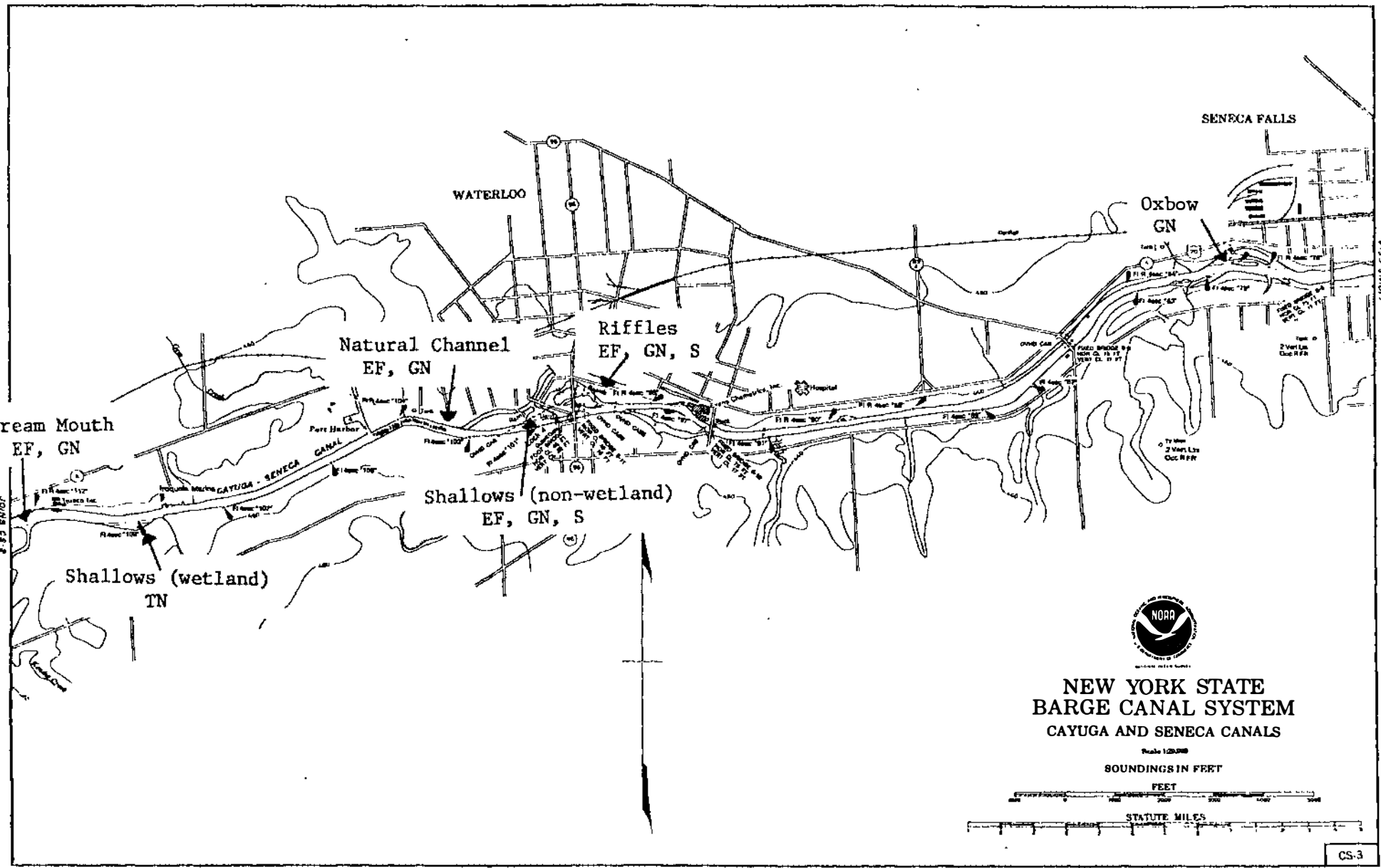
SOUNDINGS IN FEET



JOINS CS-1

-114-

CS-2



**NEW YORK STATE
BARGE CANAL SYSTEM
CAYUGA AND SENECA CANALS**

Scale 1:25,000
SOUNDINGS IN FEET





NEW YORK STATE BARGE CANAL SYSTEM CAYUGA AND SENECA CANALS

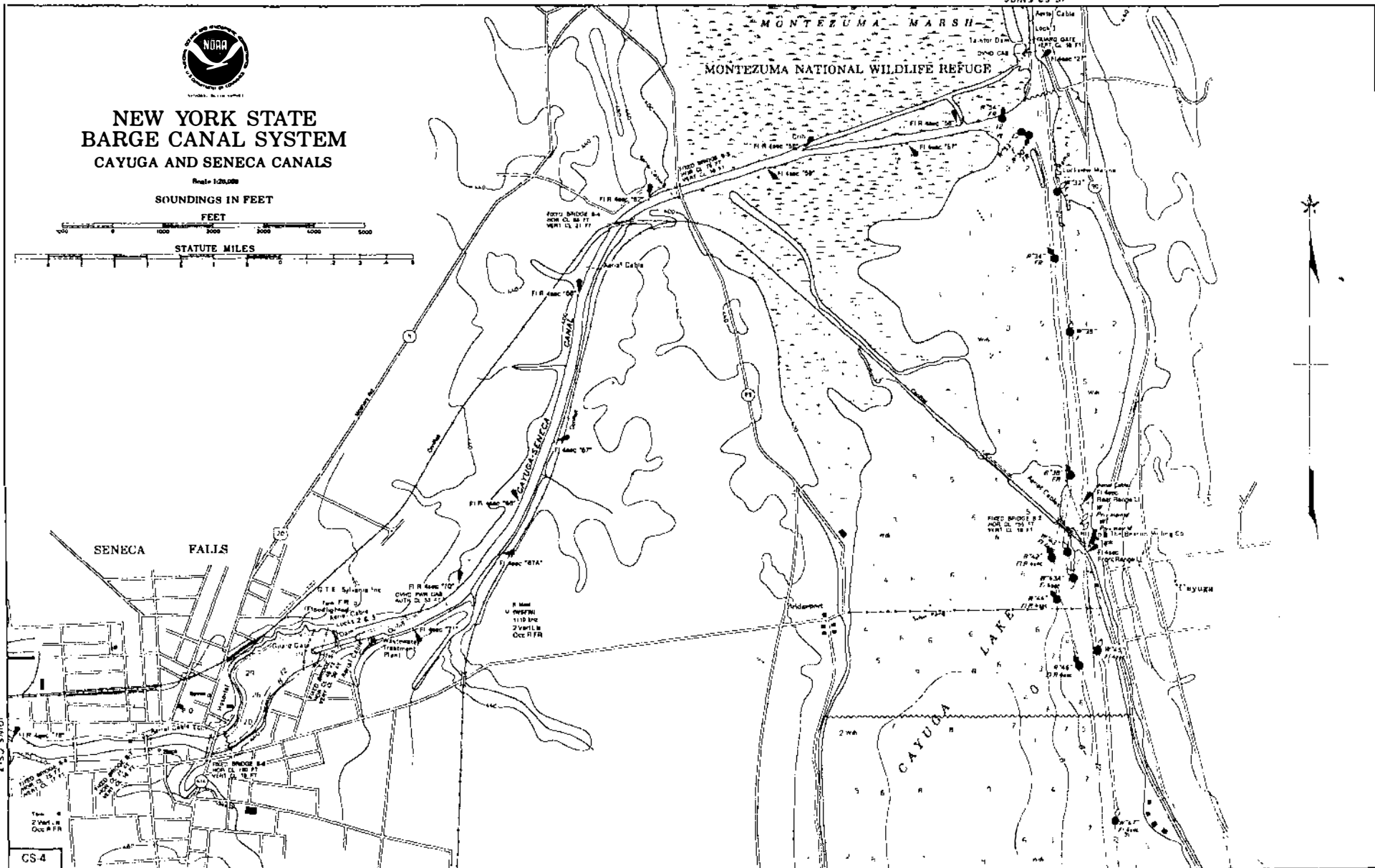
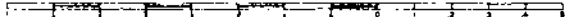
Scale 1:25,000

SOUNDINGS IN FEET

FEET



STATUTE MILES



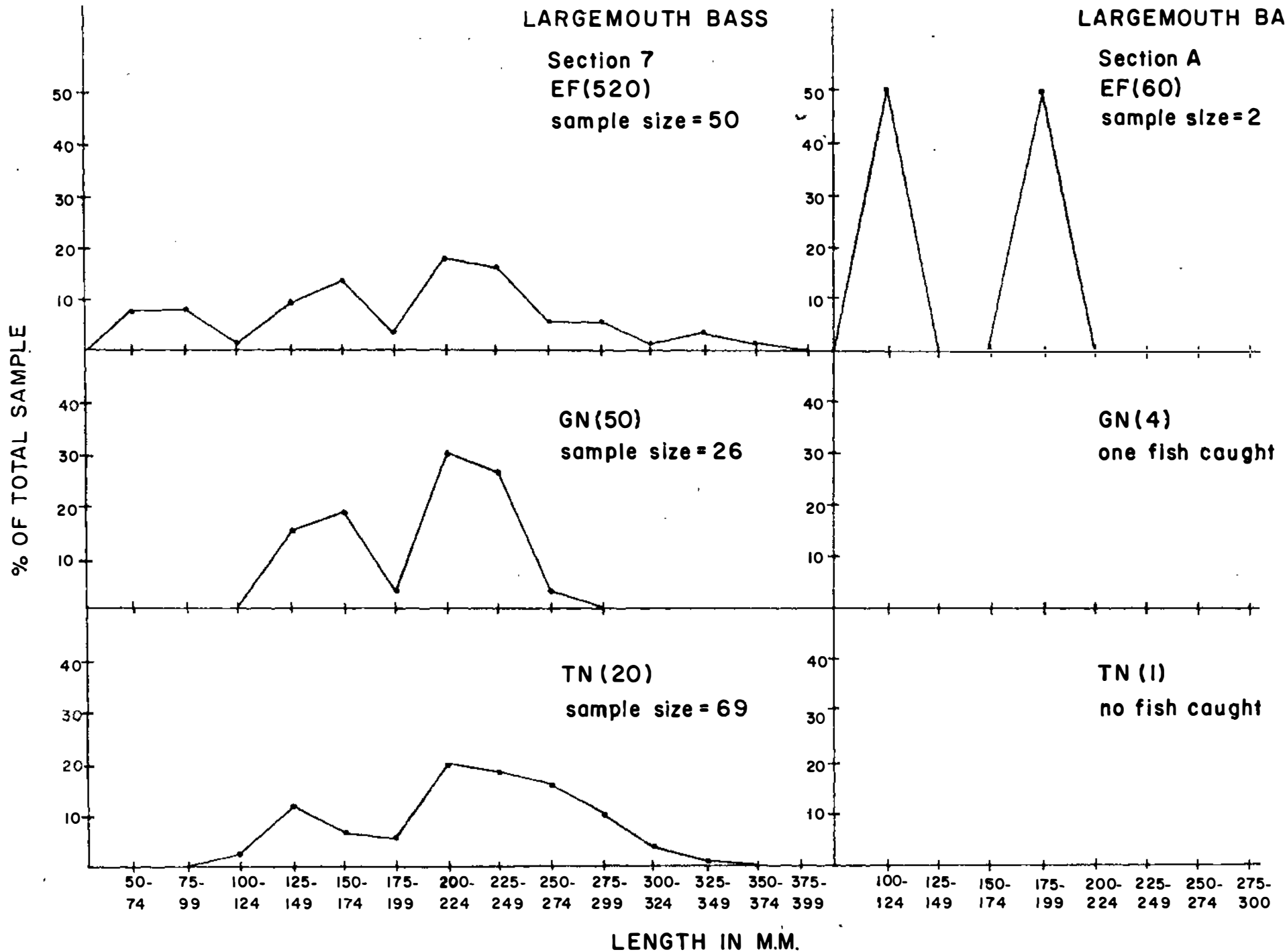


Figure 3. Length frequencies for largemouth bass in Canal Stations 5 and 6 (Sections A, G, and H) and in Canal Section 7. Gear types are separated.

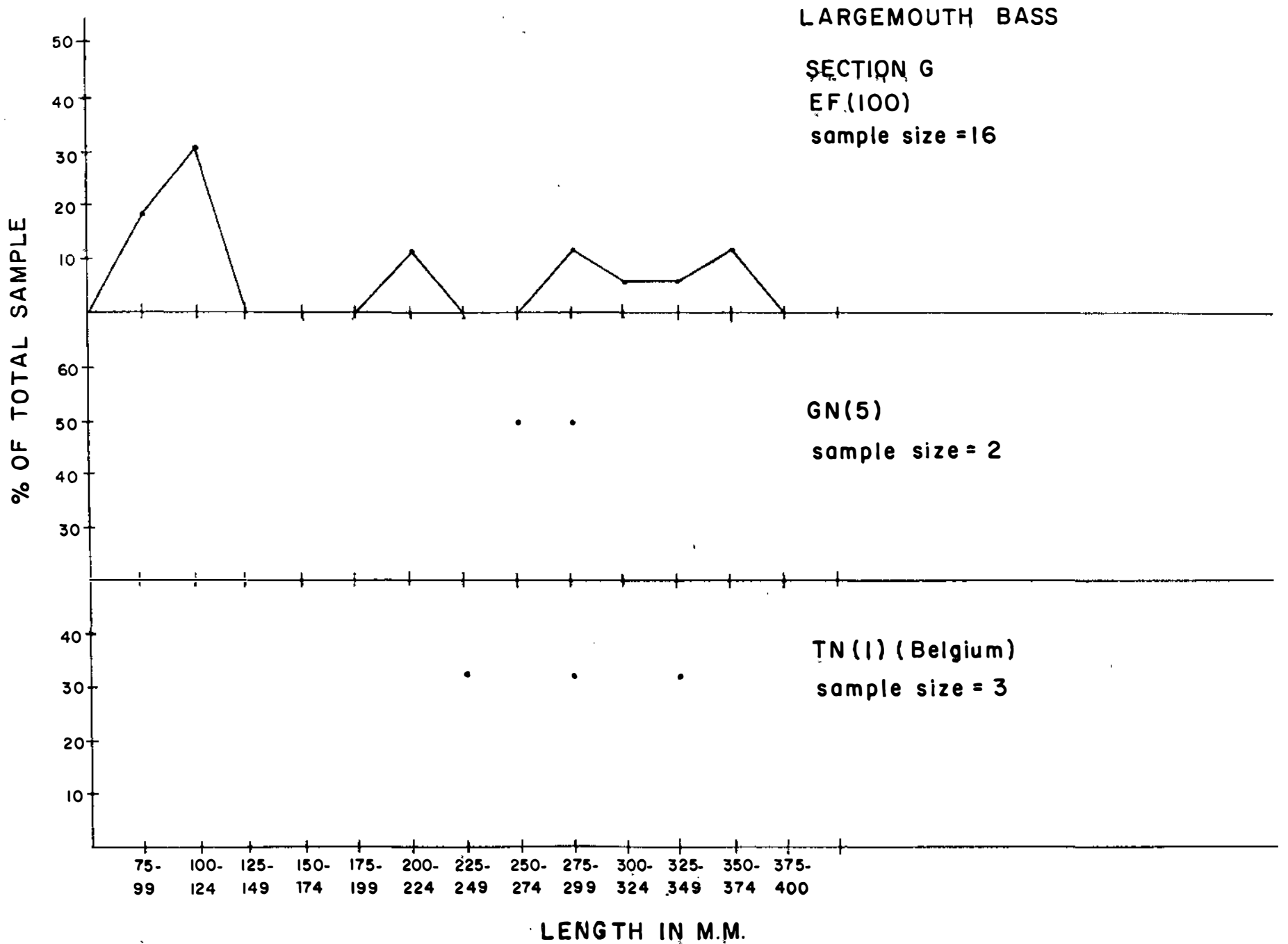


Figure 3 continued.

LARGEMOUTH BASS

Section H

EF(100)

sample size = 36

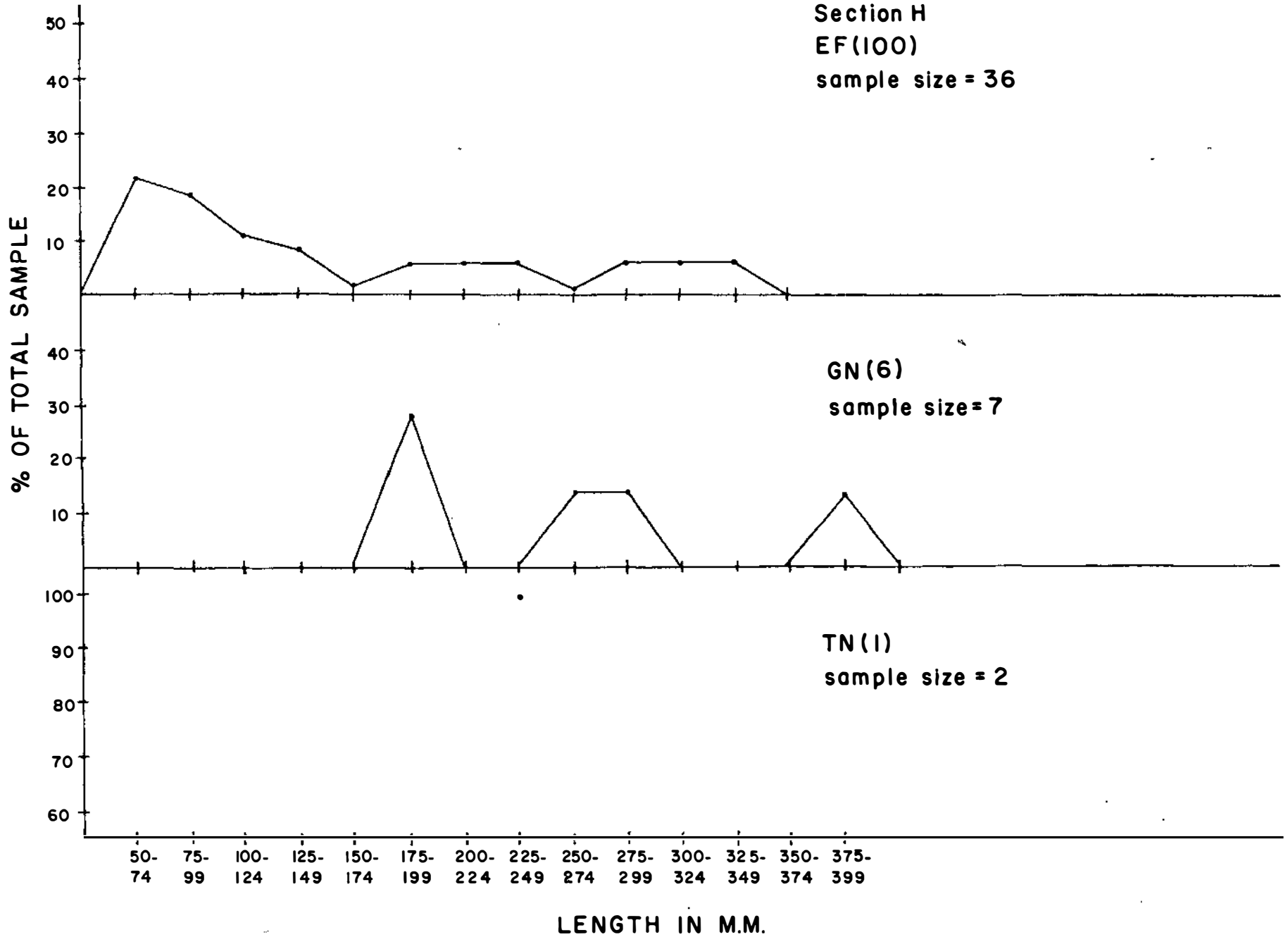


Figure 3 continued.

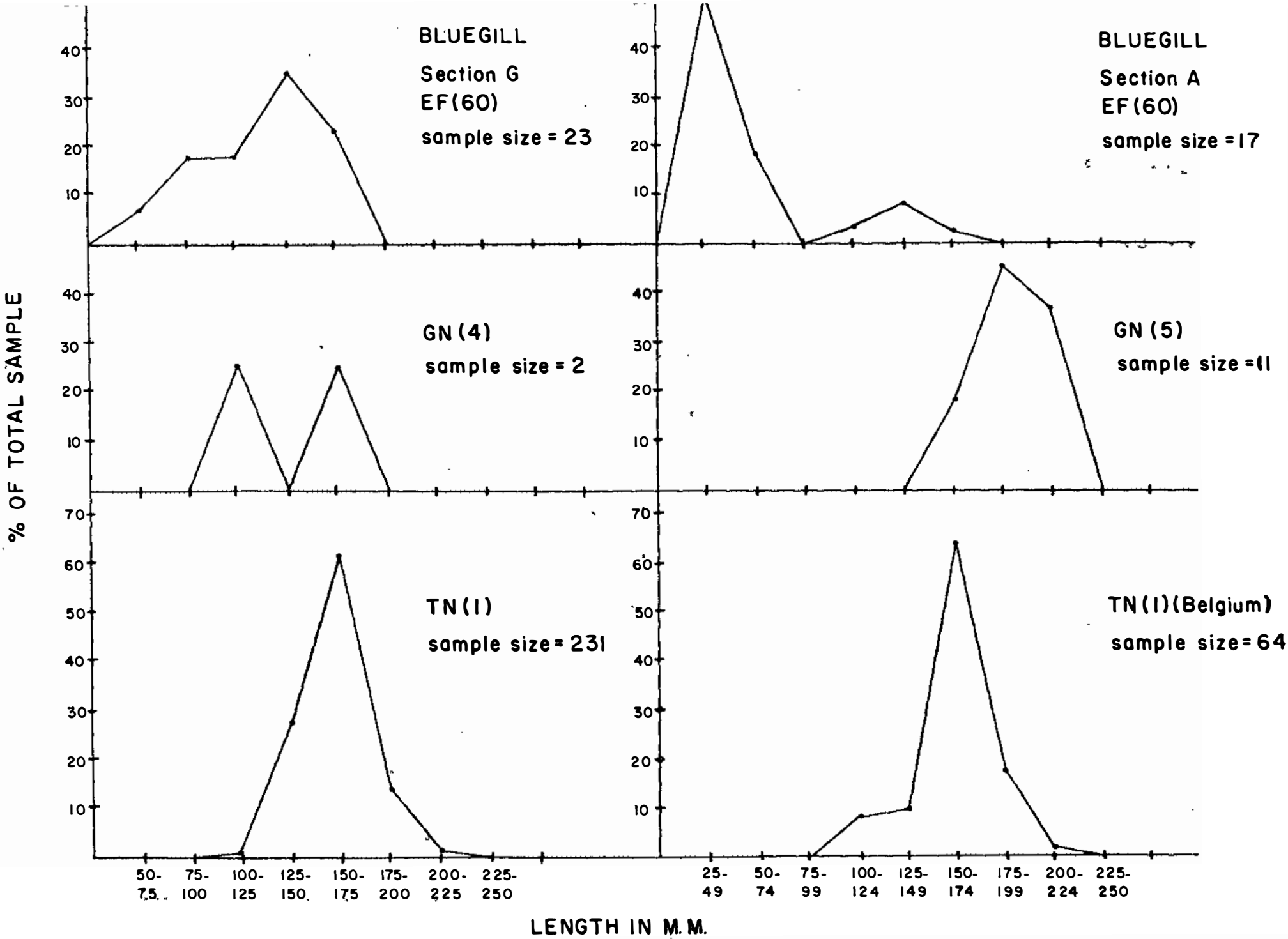


Figure 4. Length frequencies for bluegills in Canal Sections 5 and 6 (Sections A, G, and H) and in Canal Section 7. Gear types are separated.

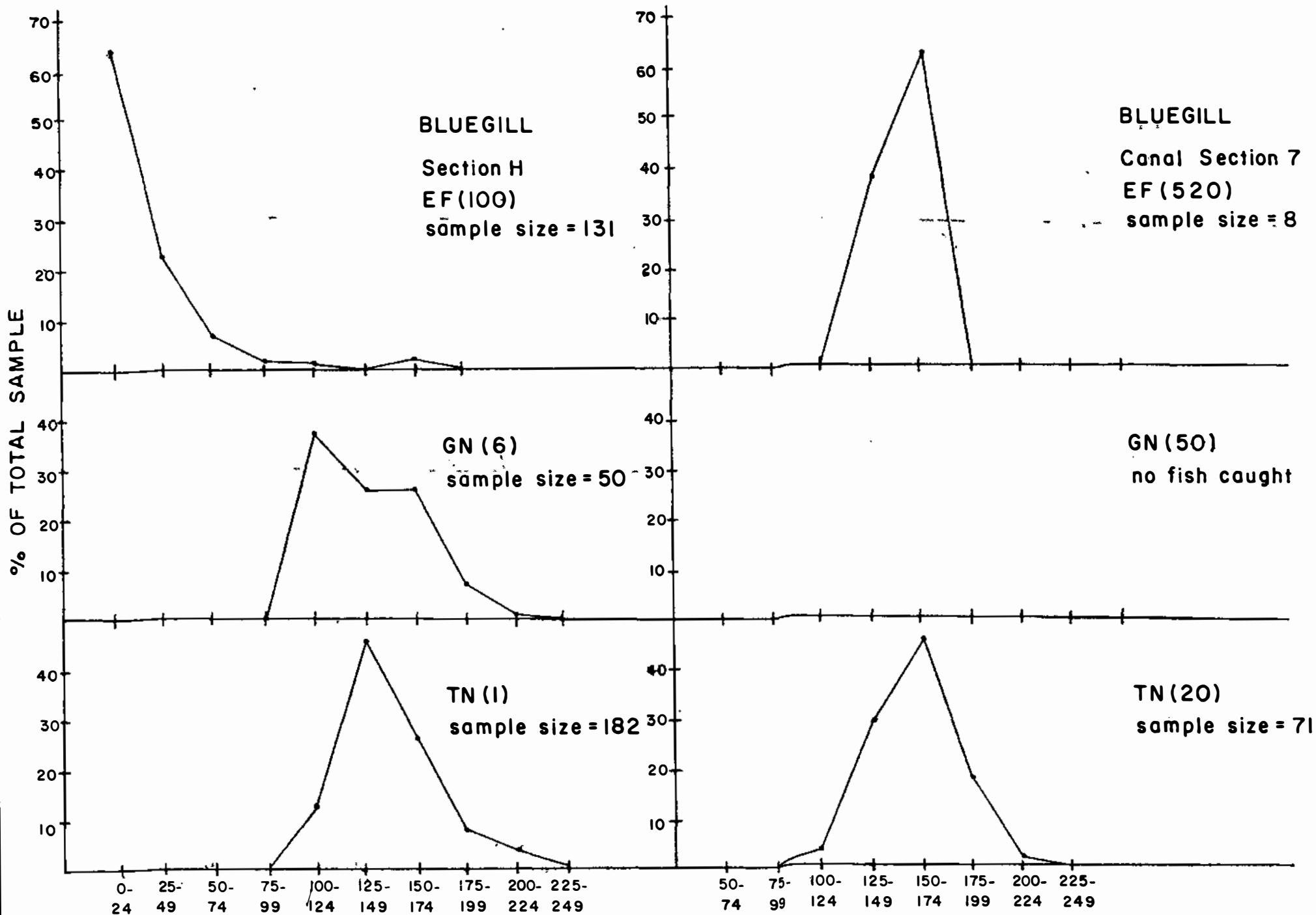


Figure 4 continued.

LENGTH IN M.M.

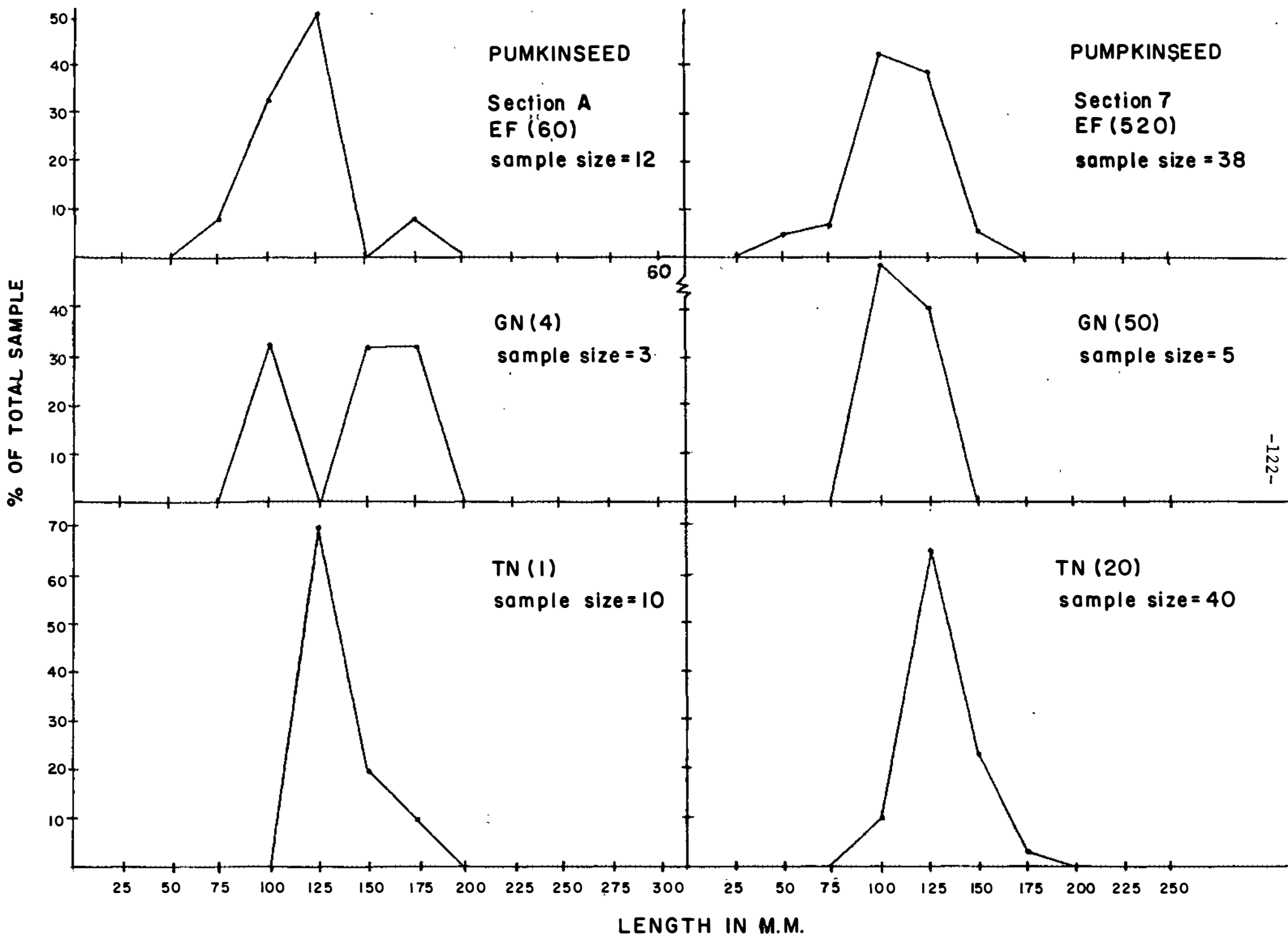


Figure 5. Length frequencies for pumpkinseeds in Canal Sections 5 and 6 (Sections A, G, and H) and in Canal Section 7. Gear types are separated.

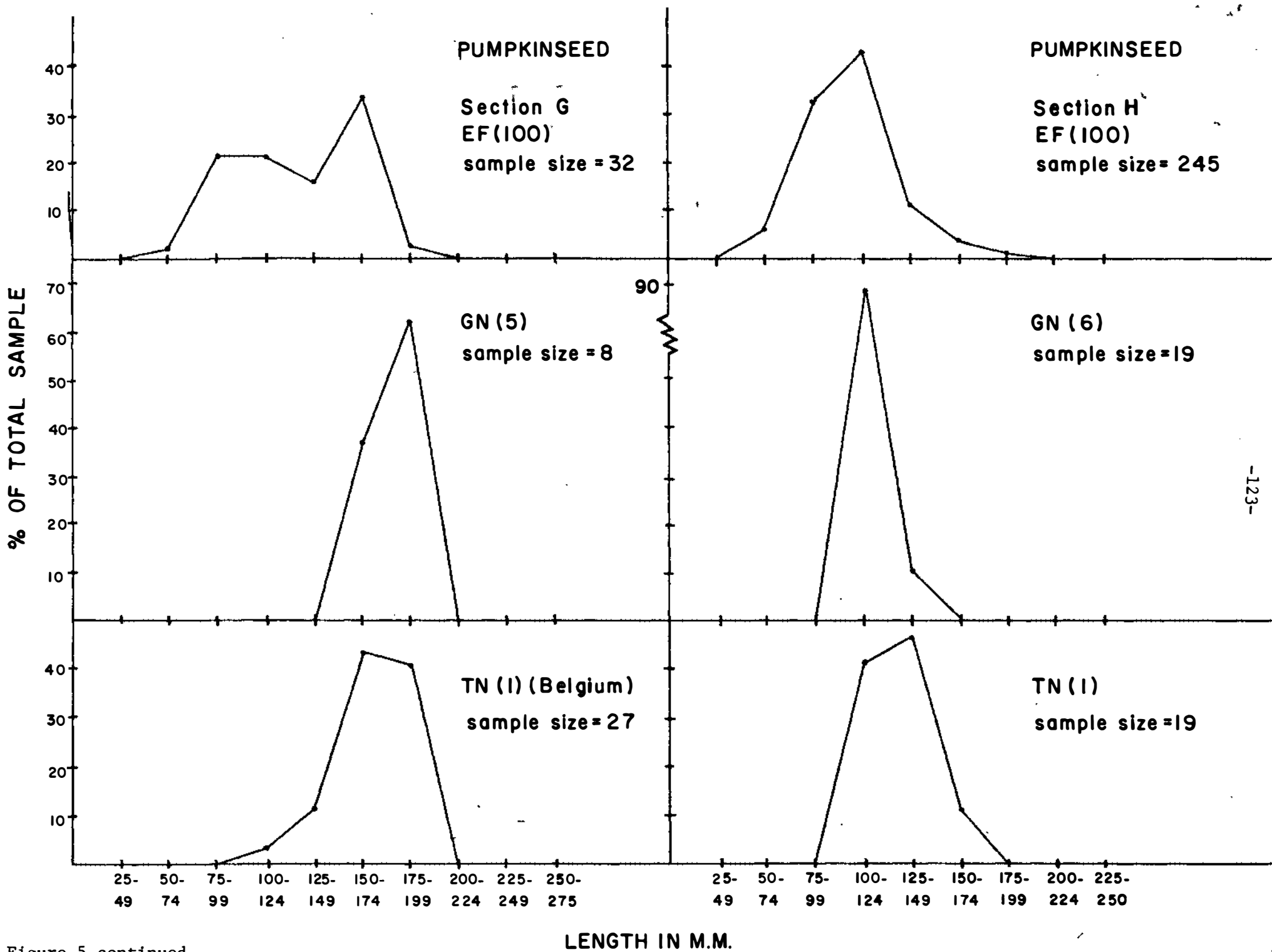


Figure 5 continued.

LENGTH IN M.M.

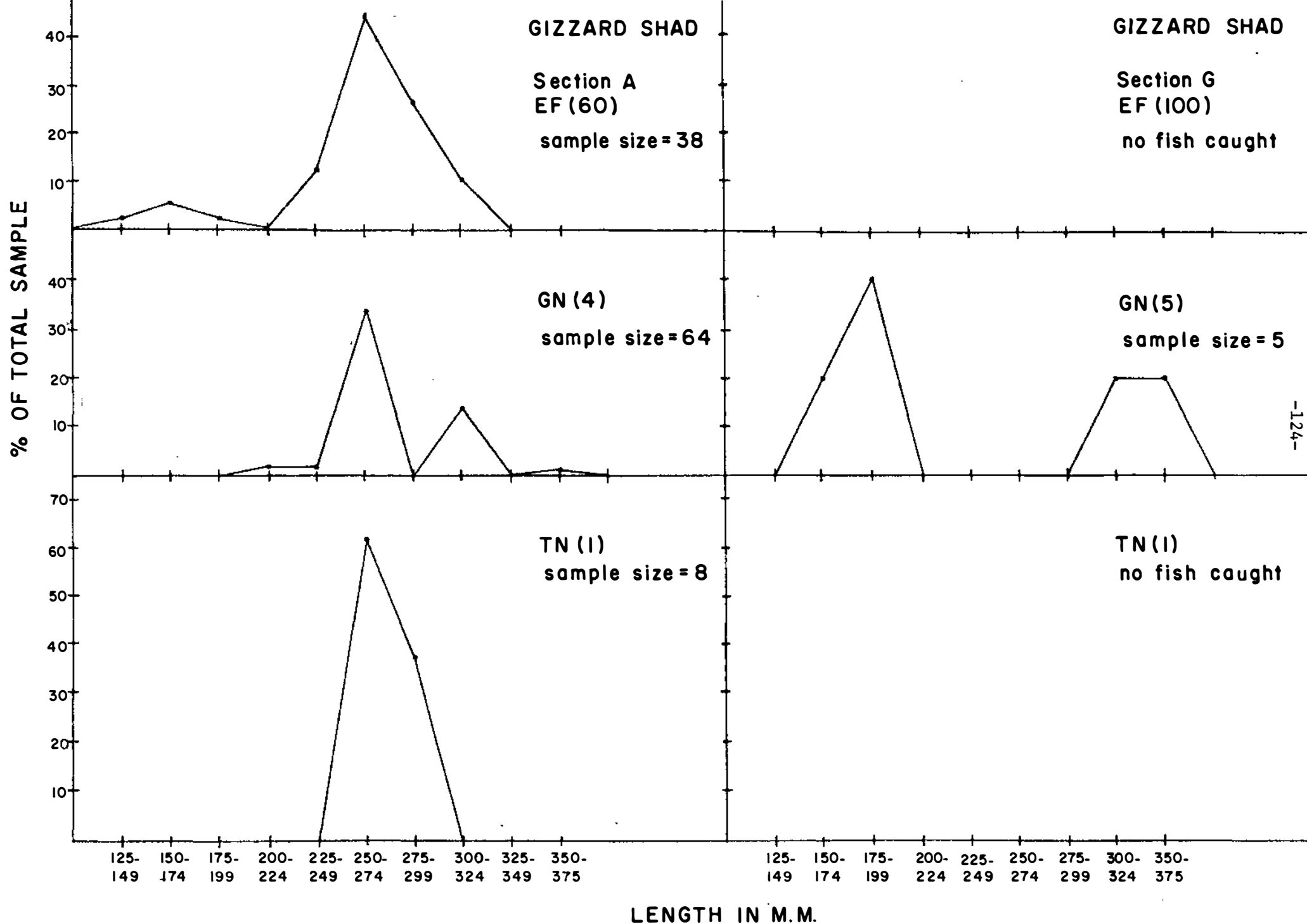


Figure 6. Length frequencies for gizzard shad in Canal Sections 5 and 6 (Sections A, G, and H) and in Canal Section 7. Gear types are separated.

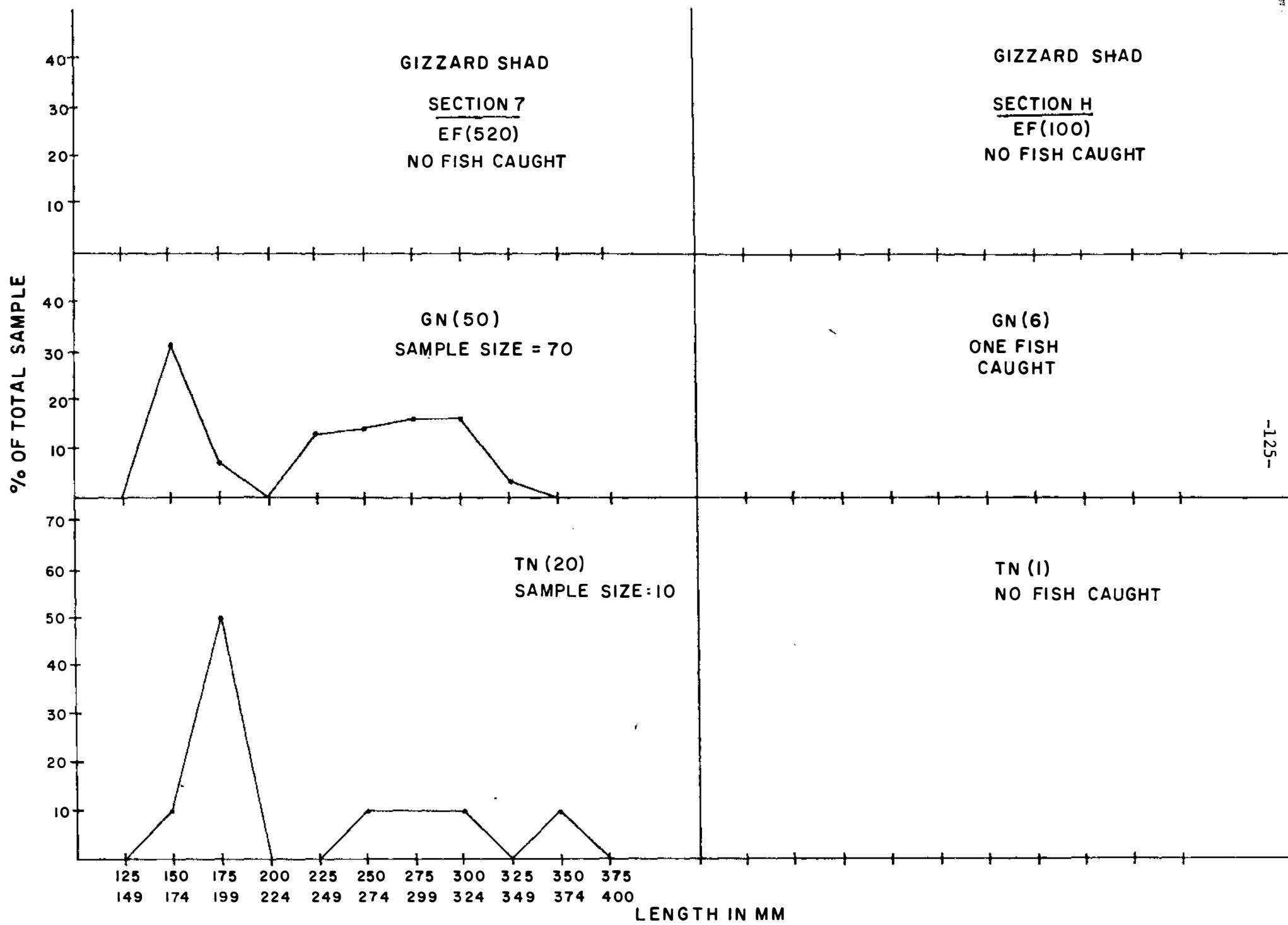


Figure 6 continued.

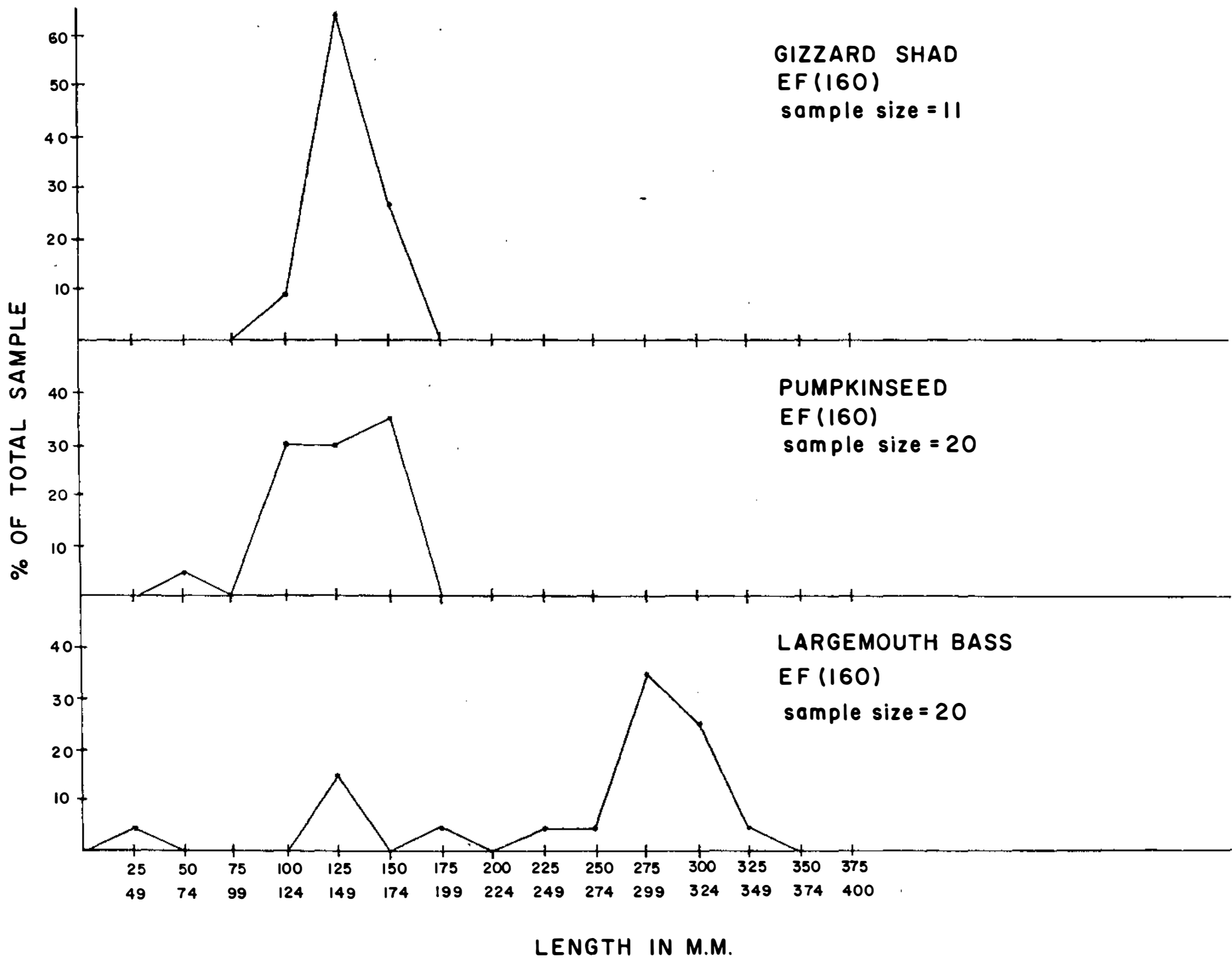


Figure 7. Length frequencies for largemouth bass, pumpkinseed, and gizzard shad captured at Knowlesville and Fairport during the spring electrofishing sample on May 12-13, 1983.

APPENDIX

Table A1. Summary of samples taken from Wayneport to Clyde and the Cayuga-Seneca Canal (Waterloo). Data from Haines and Ellis (1977). One gill net was used for each sample. Format follows Table 4.

SAMPLE DATA SPECIES	Wayneport			Port Gibson		
	9/29/75	11/10/75	6/13/76	9/17/75	10/10/75	6/12/76
Pike			$\frac{5}{7800}$			$\frac{1}{1177}$
Walleye	$\frac{1}{1400}$	$\frac{3}{1800}$		$\frac{1}{2100}$		
Largemouth Bass						$\frac{1}{331}$
Black Crappie		$\frac{1}{200}$		$\frac{5}{400}$		$\frac{12}{500}$
Bluegill			$\frac{1}{45}$			$\frac{1}{121}$
White Perch	$\frac{15}{2600}$	$\frac{20}{3600}$		$\frac{183}{11,400}$	$\frac{230}{14,100}$	$\frac{23}{1900}$
Rock Bass	$\frac{6}{1100}$	$\frac{2}{200}$	$\frac{5}{400}$	$\frac{3}{600}$		$\frac{2}{300}$
Pumpkinseed	$\frac{1}{100}$				$\frac{1}{36}$	$\frac{2}{61}$
Yellow Perch	$\frac{13}{1300}$		$\frac{1}{200}$	$\frac{3}{200}$	$\frac{1}{67}$	$\frac{9}{800}$
Carp	$\frac{3}{2200}$	$\frac{15}{9300}$	$\frac{27}{20,100}$	$\frac{12}{14,100}$	$\frac{14}{21,300}$	$\frac{8}{12,700}$
Goldfish	$\frac{5}{800}$	$\frac{1}{200}$	$\frac{20}{3900}$			$\frac{1}{874}$
Redhorses	$\frac{7}{2900}$	$\frac{1}{700}$	$\frac{2}{1100}$	$\frac{17}{9800}$	$\frac{16}{9600}$	$\frac{5}{2700}$
White Sucker	$\frac{3}{1000}$	$\frac{1}{400}$	$\frac{1}{100}$	$\frac{5}{2100}$	$\frac{5}{1900}$	$\frac{1}{413}$
Hogsucker					$\frac{1}{127}$	
Gizzard Shad	$\frac{1}{600}$	$\frac{2}{600}$	$\frac{8}{1500}$	$\frac{28}{4900}$	$\frac{58}{9800}$	$\frac{114}{19,900}$
Brown Bullhead				$\frac{2}{300}$	$\frac{1}{104}$	
Channel Catfish	$\frac{5}{3000}$	$\frac{2}{900}$	$\frac{1}{500}$	$\frac{300}{29,700}$	$\frac{16}{9400}$	$\frac{11}{4600}$
Freshwater Drum				$\frac{5}{600}$	$\frac{2}{207}$	
TOTAL	$\frac{60}{16,900}$	$\frac{48}{17,900}$	$\frac{71}{35,600}$	$\frac{301}{76,200}$	$\frac{345}{66,600}$	$\frac{191}{46,300}$

Table A1 continued.

SAMPLE DATA SPECIES	Port Gibson Widewaters			Lyons		
	9/28/75	10/9/75	6/11/76	9/27/75	10/8/75	6/10/76
Pike			$\frac{2}{4889}$			$\frac{1}{3090}$
Walleye	$\frac{1}{2334}$	$\frac{6}{1200}$	$\frac{2}{3976}$	$\frac{1}{135}$		
Black Crappie	$\frac{20}{1800}$	$\frac{6}{600}$	$\frac{2}{178}$	$\frac{1}{172}$		$\frac{4}{200}$
Bluegill	$\frac{2}{107}$	$\frac{3}{100}$	$\frac{1}{122}$		$\frac{1}{54}$	
White Perch	$\frac{28}{1900}$		$\frac{53}{5500}$		$\frac{4}{400}$	$\frac{64}{4700}$
Rock Bass	$\frac{2}{267}$				$\frac{1}{84}$	$\frac{3}{200}$
Pumpkinseed		$\frac{1}{120}$				
Yellow Perch		$\frac{65}{4000}$				$\frac{1}{173}$
Carp	$\frac{15}{21,900}$	$\frac{10}{14,900}$	$\frac{17}{22,000}$		$\frac{86}{90,600}$	$\frac{44}{146,900}$
Redhorses	$\frac{4}{2100}$	$\frac{5}{2700}$	$\frac{11}{6000}$		$\frac{13}{10,000}$	$\frac{7}{5700}$
White Sucker	$\frac{2}{837}$	$\frac{2}{495}$	$\frac{1}{404}$			$\frac{1}{503}$
Hogsucker	$\frac{1}{101}$				$\frac{1}{300}$	
Gizzard Shad	$\frac{26}{4600}$	$\frac{102}{17,900}$	$\frac{119}{20,100}$		$\frac{6}{1700}$	
Brown Bullhead	$\frac{2}{245}$					$\frac{1}{235}$
Channel Catfish	$\frac{17}{16,300}$	$\frac{3}{1800}$	$\frac{14}{6500}$	$\frac{1}{138}$	$\frac{3}{3200}$	$\frac{3}{1200}$
Freshwater Drum			$\frac{2}{748}$			$\frac{4}{2900}$
TOTAL	$\frac{120}{52,300}$	$\frac{203}{43,800}$	$\frac{224}{71,400}$	$\frac{2}{310}$	$\frac{116}{106,500}$	$\frac{133}{164,900}$

Table A1 continued.

SAMPLE DATA SPECIES	Clyde			Waterloo		
	9/13/75	11/6/75	6/9/76	11/3/74	8/9/74	5/30/75
Pike		$\frac{1}{900}$		$\frac{4}{7870}$	$\frac{2}{1520}$	$\frac{1}{1477}$
Largemouth Bass				$\frac{1}{84}$	$\frac{1}{290}$	
Smallmouth Bass				$\frac{3}{2310}$		
Chain Pickerel					$\frac{1}{650}$	
Balck Crappie	$\frac{3}{200}$		$\frac{1}{251}$			
Bluegill				$\frac{3}{490}$	$\frac{5}{1110}$	$\frac{1}{95}$
White Perch	$\frac{51}{5100}$	$\frac{4}{500}$	$\frac{3}{200}$	$\frac{4}{960}$	$\frac{4}{680}$	$\frac{11}{3200}$
Rock Bass					$\frac{2}{120}$	
Pumpkinseed	$\frac{2}{102}$			$\frac{16}{980}$	$\frac{6}{3350}$	$\frac{1}{75}$
Yellow Perch				$\frac{2}{580}$	$\frac{1}{390}$	$\frac{4}{1200}$
Carp	$\frac{10}{7700}$	$\frac{18}{21,200}$	$\frac{27}{35,400}$	$\frac{2}{3330}$	$\frac{3}{11,880}$	$\frac{1}{1988}$
Redhorses	$\frac{7}{3400}$	$\frac{15}{12,100}$	$\frac{8}{5800}$			
White Sucker		$\frac{3}{1400}$		$\frac{1}{1385}$		$\frac{1}{2322}$
Gizzard Shad	$\frac{46}{13,200}$					
Brown Bullhead	$\frac{1}{90}$					$\frac{1}{116}$
Channel Catfish	$\frac{11}{7200}$	$\frac{2}{397}$	$\frac{3}{1300}$			
Freshwater Drum	$\frac{5}{1300}$					
TOTAL	$\frac{136}{38,300}$	$\frac{43}{36,900}$	$\frac{42}{43,000}$	$\frac{36}{17,900}$	$\frac{25}{20,000}$	$\frac{21}{10,500}$

Table A2. Summary of electrofishing samples taken by Rochester Gas and Electric in 1979 from Belgium, Brewerton, Phoenix (Oswego Canal), and the Cayuga-Seneca Canal (Highway 5&20). Numbers of fish captured are noted. Number of electroshocking minutes are recorded.

SAMPLE DATE SPECIES	Belgium		Brewerton			
	10/31/79	11/8/79	10/31/79	11/8/79	11/14/79	11/28/79
Walleye						2
Smallmouth Bass	12	9	2			
Unidentified Bass					20	
Black Crappie					6	4
Bluegill			2		4	
White Perch					79	15
Rock Bass			2	2	7	5
Pumpkinseed	1	3	1	4	16	
Yellow Perch		2		7	5	18
Carp		2			2	3
White Sucker					1	
Burbot						1
Gizzard Shad			1		3	212
Alewife						1
Brown Bullhead					1	
Madtom					1	
Log Perch	1					
Brook Silverside		5				1
Emerald Shiner		13				22
Fathead Minnow						7
Unidentified Cyprinidae					3	
Unidentified Clupeidae					2	
TOTAL	14	34	8	13	150	322
Minutes Shocked	21	15	15	10	18	25

Table A2 continued.

SAMPLE DATE SPECIES	Phoenix				
	10/31/79	11/8/79	11/14/79	11/28/79	12/5/79
Pike	1	2			
Largemouth Bass				2	
Smallmouth Bass			1		
Black Crappie	1	4	1		1
Bluegill	2	2		3	22
White Perch				5	
White Bass				1	
Rock Bass	1			1	
Pumpkinseed		3		3	
Yellow Perch	4	2	1	2	
Carp	2	1			1
White Sucker				1	
Log Perch			1		
Brook Silverside		1		28	17
Golden Shiner	1	33		5	3
Emerald Shiner		8		11	7
Unidentified Cyprinidae	1				
TOTAL	13	56	8	60	53
Minutes Shocked	21	15	17	13	*

* not recorded

Table A2 continued.

Cayuga-Seneca Canal				
SAMPLE DATE				
SPECIES	10/30/79	11/6/79	11/13/79	11/27/79
Pike				1
Largemouth Bass				1
Smallmouth Bass		1		
Black Crappie	1		28	2
Bluegill				2
Rock Bass	1			
Pumpkinseed	10		1	1
Yellow Perch	2			3
Carp		4		
White Sucker				21
Gizzard Shad				11
Alewife				2
Brown Bullhead	2	2		12
Brook Silverside		3	3	4
Golden Shiner		14		1
Spotfin Shiner		9		
Mimic Shiner			13	
Stoneroller		1		
Unidentified Cyprinidae			4	
TOTAL	16	34	49	61
Minutes Shocked	19	25	13	*

* not recorded

Table A3. Summary of electrofishing samples taken by Rochester Gas and Electric in 1980 from Brewerton, Phoenix (Oswego Canal), and the Cayuga-Seneca Canal (Highway 5&20). Numbers of fish captured are noted. Number of electroshocking minutes are recorded.

SAMPLE DATE SPECIES	Brewerton						Phoenix
	6/25/80	9/25/80	10/8/80	10/22/80	10/29/80	11/13/80	6/25/80
Walleye	7	4		1			
Largemouth Bass	2	1					
Smallmouth Bass	9	7	1	1			12
Black Crappie	4	3		5		5	1
Bluegill	4						1
White Perch	4						
White Bass		1		8			
Rock Bass	6			1			1
Pumpkinseed	21			3		3	15
Yellow Perch	10			7	1	1	4
Carp		8	12	3		2	1
Redhorses							1
Gizzard Shad	5	97	12	28			
Alewife		26					
Brown Bullhead	5	5					1
Yellow Bullhead	1						
Freshwater Drum	2						2
Log Perch		1					
Brook Silverside		10*	100*	100*		50*	
Golden Shiner		100*		30*			
Emerald Shiner	37	100*					
Unidentified Cyprinidae				3			
TOTAL	118	363*	125*	197*	1	61*	39
Minutes Shocked	28	38	24	39	28	15	31

* estimated

Table A3 continued.

Cayuga-Seneca Canal

SAMPLE DATE SPECIES	6/26/80	9/24/80	10/8/80	10/22/80	10/29/80	11/12/80
Largemouth Bass	7	7	4			3
Smallmouth Bass	1					
Chain Pickerel		1				
Black Crappie	4	1	3	7	1	
Bluegill	4	1	3	2		
White Perch	80					
Pumpkinseed	8	15	3	2	2	
Yellow Perch	6	1	1	5		
Carp		4	3			
Gizzard Shad		101	17			
Alewife		1	69			
Brown Bullhead	4					
Brook Silverside					6	20*
Golden Shiner		1	100*		1	
Common Shiner			1			
Emerald Shiner		1			6	
TOTAL	114	150	200*	16	16	23
Minutes Shocked	19	16	18	19	2	65

* estimated