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JUN 82 J MAKAREWICZ, R DILCHER, J HAYNES DACW49-81-0-0035

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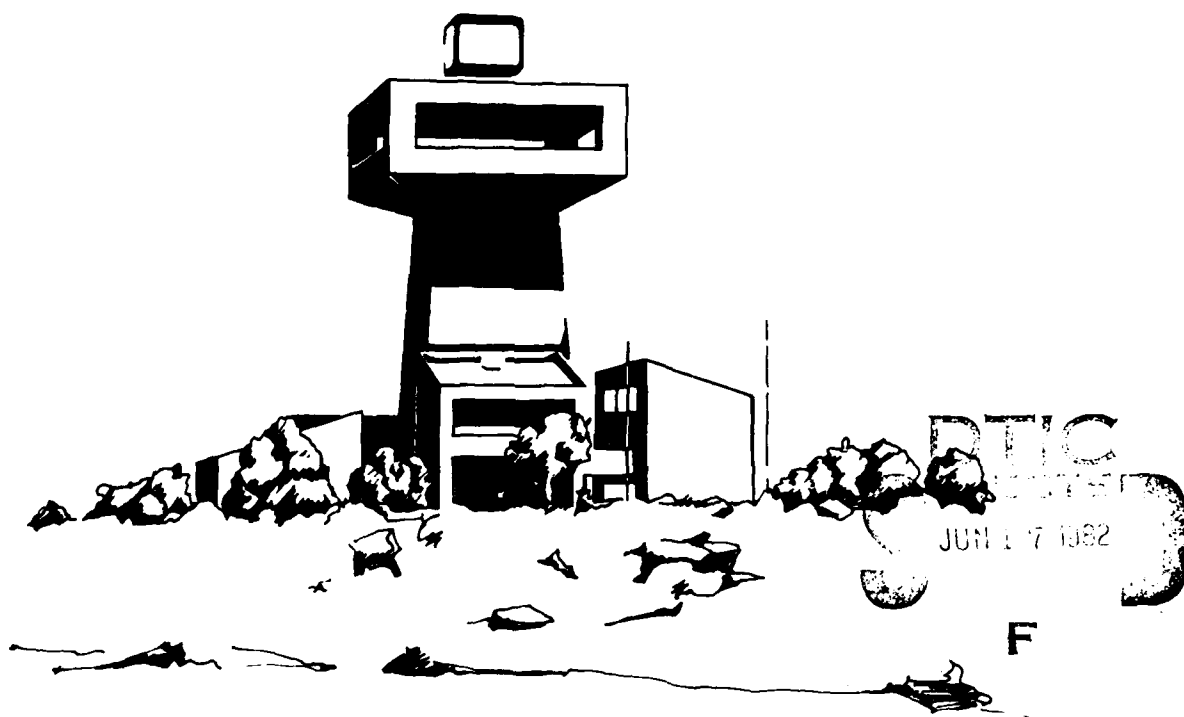
Biological Survey
Buffalo River and Outer Harbor of Buffalo, N.Y.

Data Report

U.S. Army Corps of Engineers

June 1982
Volume 2

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20. ABSTRACT (Continue on reverse side if necessary and identify by block number) The U.S. Army Corps of Engineers is considering the feasibility of dredging the Outer Harbor and Buffalo River channels deeper to accommodate deeper draft vessels and/or to construct alternative means of trans-shipment of raw materials. An intensive study of the Buffalo River, Ship Canal and Outer Harbor of Buffalo, New York, was undertaken between April 1981 and May 1982 with the following general objectives: 1. To evaluate existing conditions in the river and harbor and to evaluate		

the biological impact of dredging the existing channel deeper in the Buffalo River and Outer Harbor;

2. To evaluate the biological impact of alternative proposals to dredging such as transshipment of raw materials by conveyor;
3. To evaluate the biological impact of removal of debris, old pilings, etc. along the Buffalo shoreline;
4. To evaluate existing conditions in potential disposal areas (Fig.2) and to evaluate the biological impact of spoil disposal in these areas; and
5. To provide a functional assessment of the ecological components studied and evaluate their significance with and without project implementation to the area ecosystem.

In Volume 1, the Final Report, our analysis and interpretation of existing conditions and our assessment of impacts are presented. In Volume 2, the Data Report, the raw field data is presented in tabular form.

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Table A1. Results of electroshocking Buffalo River and Outer Harbor of Buffalo River.

Electroshocking
Sampling Date 4-22-81

NG = not gravid
MG = male, gravid
FG = female, gravid
S = spent

Station 14

<u>Species</u>	<u>Length(cm)</u>	<u>Sex Condition</u>
Golden shiner (<u>Notemigonus crysoleucas</u>)	~15.0	(observed, not captured)

Station 13

Emerald shiner (<u>Notropis atherinoides</u>)	12.1	NG
	9.3	NG
	9.2	NG
	9.0	NG
	9.6	NG

Goldfish (<u>Carassius auratus</u>)	26.2	NG
	21.5	NG

Station 12

Golden shiner (<u>N. crysoleucas</u>)	18.2	NG
	15.2	NG
	13.4	NG
	13.0	NG

Emerald shiner (<u>N. atherinoides</u>)	7.2	NG
	7.5	NG
	8.3	NG
	6.8	NG
	5.8	NG

Spottail shiner (<u>Notropis hudsonius</u>)	6.0	NG
--	-----	----

Goldcarp (carp/goldfish hybrid) (<u>Cyprinus carpio</u> x <u>C. auratus</u>)	31.2	NG
	17.4	NG

Table A1 (continued).

Sampling Date 4-22-81

Station 11

<u>Species</u>	<u>Length(cm)</u>	<u>Sex Condition</u>
Emerald shiner (<u>N. atherinoides</u>)	10.8	NG
Carp (<u>C. carpio</u>)	57.5	MG
Goldfish (<u>C. auratus</u>)	23.3	NG
	24.0	NG (sores)
Lake trout (<u>Salvelinus namaycush</u>)	35.2	NG
White sucker (<u>Catostomus commersoni</u>)	44.5	MG
	46.7	FS
	45.5	NG
	43.7	NG (sores)

Station 10

Golden shiner (<u>N. crysoleucas</u>)	7.4	NG
Emerald shiner (<u>N. atherinoides</u>)	6.0	NG
	8.9	NG
Bluntnose minnow (<u>Pimephales notatus</u>)	8.8	NG
Goldfish (<u>C. auratus</u>)	23.5	NG
	14.9	NG
	13.8	NG
	14.0	NG
	19.1	NG
Carp (<u>C. carpio</u>)	40.5	NG

Table A1 (continued).

Sampling Date 4-22-81

Station 9

<u>Species</u>	<u>Length(cm)</u>	<u>Sex Condition</u>
Emerald shiner (<u>N. atherinoides</u>)	12.6	NG
	12.8	NG
	12.5	NG
	12.8	NG
	12.2	NG
	13.0	NG
	12.7	NG
	6.6	NG
White sucker (<u>C. commersoni</u>)	39.0	NG
	46.1	NG
	40.5	NG
Steelhead (<u>Salmo gairdneri</u>)	39.5	NG
Largemouth bass (<u>Micropterus salmoides</u>)	22.0	NG
Trout-Perch (<u>Percopsis omiscomaycus</u>)	7.0	NG
	7.8	NG

Station 3

No fish captured

Table A2. Results of electroshocking Buffalo River and Outer Harbor of Buffalo River.

Electroshocking

Sampling Date: 5-8-81

NG = not gravid

MG = male, gravid

FG = female, gravid

S = spent

	<u>Species</u>	<u>Length(cm)</u>	<u>Sex Condition</u>
Station 14	Carp	68.2	MG
	(<u>Cyprinus carpio</u>)	49.4	NG
	Emerald shiner	9.3	NG
	(<u>Notropis atherinoides</u>)	7.1	NG
Station 13	Carp		
	(<u>C. carpio</u>)	58.4	MG
	Goldfish	20.1	NG
	(<u>Carassius auratus</u>)	19.0	NG
		14.4	NG
Station 12	Carp		
	(<u>C. carpio</u>)	52.2	NG
	Golden shiner		
	(<u>Notemigonus crysoleucas</u>)	16.0	MG
	Spottail shiner		
	(<u>Notropis hudsonius</u>)	6.0	NG
	Emerald shiner	7.8	NG
	(<u>N. atherinoides</u>)	10.1	NG
		6.9	NG
		7.8	NG
		7.4	NG
		7.0	NG
		7.6	NG
Station 11	Freshwater drum		
	(<u>Aplodinotus grunniens</u>)	36.1	S
	Carp	60.5	NG
	(<u>C. carpio</u>)	54.5	NG
	Spottail shiner	16.0	NG
	(<u>N. hudsonius</u>)	13.2	NG
		11.9	NG
		12.0	NG
		11.5	NG
		12.9	NG
		12.9	NG
		12.9	NG
		12.5	NG
		11.5	NG

Table A2 (continued).

Sampling Date: 5-8-81

	<u>Species</u>	<u>Length(cm)</u>	<u>Sex Condition</u>
Station 11	Spottail shiner (<u>N. hudsonius</u>)	10.6	NG
		12.7	NG
		12.5	NG
		12.9	NG
		11.9	NG
		11.2	NG
		11.9	NG
		11.5	NG
		12.0	NG
		11.9	NG
		12.2	NG
		11.5	NG
		13.0	NG
		11.3	NG
		13.5	NG
		12.4	NG
		9.5	NG
		12.5	NG
		11.2	NG
		11.8	NG
		9.5	NG
		6.2	NG
		12.2	NG
		11.9	NG
		11.7	NG
		11.9	NG
		10.4	NG
	Emerald shiner (<u>N. atherinoides</u>)	9.0	NG
		9.5	NG
		8.5	NG
		7.3	NG
	White sucker (<u>Catostomus commersoni</u>)	31.1	NG
		22.9	NG
		20.7	NG
		15.4	NG
	White perch (<u>Morone americana</u>)	15.4	NG
Station 10	Carp (<u>C. carpio</u>)	37.6	NG
	Goldfish (<u>C. auratus</u>)	23.6	NG
		18.8	NG
		21.2	NG
		16.1	NG
	Spottail shiner (<u>N. hudsonius</u>)	11.5	NG

Table A2 (continued).

Sampling Date: 5-8-81

	<u>Species</u>	<u>Length(cm)</u>	<u>Sex Condition</u>
Station 10	Emerald shiner (<u>N. atherinoides</u>)	5.9	NG
Station 9	Carp (<u>C. carpio</u>)	64.5	NG
		50.5	NG
		52.5	NG
	Golden shiner (<u>N. crysoleucas</u>)	15.6	MG
	Spottail shiner (<u>N. hudsonius</u>)	11.9	NG
		12.7	NG
		12.7	NG
		12.0	NG
		11.5	NG
		10.7	NG
		13.7	NG
		13.5	NG
		11.6	NG
		12.3	NG
		11.0	NG
		11.8	NG
		13.0	NG
		12.1	NG
		10.5	NG
		12.0	NG
		12.3	NG
		12.7	NG
		10.9	NG
	Emerald shiner (<u>N. atherinoides</u>)	9.0	NG
		9.4	NG
		7.9	NG
		8.9	NG
		6.6	NG
	Freshwater drum (<u>A. grunniens</u>)	35.1	NG
	Smallmouth bass (<u>Micropterus dolomieu</u>)	36.0	NG
	Rock bass (<u>Ambloplites rupestris</u>)	19.5	NG
	Pumpkinseed (<u>Lepomis gibbosus</u>)	16.2	NG
		14.0	NG
		13.3	NG
		12.6	NG
		13.5	NG
		15.9	NG
		14.2	NG
		11.8	NG

Table A2 (continued).

Sampling Date: 5-8-81

	<u>Species</u>	<u>Length(cm)</u>	<u>Sex Condition</u>
Station 9	Warmouth	15.3	NG
	(<u>Chaenobryttus gulosus</u>)	14.9	NG
Station 5	No fish were caught		
Station 3	Spottail shiner	12.9	NG
	(<u>N. hudsonius</u>)	12.3	NG
	Largemouth bass		
	(<u>Micropterus salmoides</u>)	10.8	NG
Station 2	Spottail shiner	13.4	NG
	(<u>N. hudsonius</u>)	12.9	NG
		12.1	NG
		12.1	NG
		12.4	NG
		4.4	NG
	White sucker	39.5	NG
	(<u>C. commersoni</u>)	32.6	NG
		20.1	NG
	Rock bass	13.6	NG
	(<u>A. rupestris</u>)	13.2	NG
	Pumpkinseed	15.0	NG
	(<u>L. gibbosus</u>)	13.5	NG
	Yellow perch	15.0	NG
	(<u>Perca flavescens</u>)	14.3	NG
		16.8	NG
		12.5	NG
		14.4	NG
		18.9	NG

Table A3. Results of electroshocking Buffalo River and Outer Harbor of Buffalo River.

Electroshocking

Sampling Date: 5-28-81

NG = not gravid

MG = male, gravid

FG = female, gravid

S = spent

	<u>Species</u>	<u>Length(cm)</u>	<u>Sex Condition</u>
Station 14	Carp	59.2	MG
	(<u>Cyprinus carpio</u>)	44.5	NG
	Goldfish		
	(<u>Carassius auratus</u>)	22.7	MG
	Spottail shiner		
	(<u>Notropis hudsonius</u>)	8.6	NG
Station 13	Pumpkinseed sunfish		
	(<u>Lepomis gibbosus</u>)	13.2	NG
	Goldfish		
	(<u>C. auratus</u>)	22.9	NG
	White sucker		
	(<u>Catostomus commersoni</u>)	26.8	NG
Station 12	Pumpkinseed sunfish	16.0	NG
	(<u>L. gibbosus</u>)	14.7	NG
		13.6	NG
		14.6	NG
	Largemouth bass		
	(<u>Micropterus salmoides</u>)	19.3	NG
Station 11	Goldfish		
	(<u>C. auratus</u>)	26.0	NG
	Spottail shiner	5.4	NG
	(<u>N. hudsonius</u>)	6.3	NG
		7.0	NG
Station 10		6.6	NG
	White sucker		
	(<u>C. commersoni</u>)	40.2	NG
	Carp	61.5	NG
	(<u>C. carpio</u>)	89.0	NG
Station 9		63.0	NG
		46.5	MG
		61.0	NG
	Spottail shiner	11.8	NG
	(<u>N. hudsonius</u>)	12.2	NG
Station 8		10.4	NG
		10.9	NG

Table A3 (continued).

Sampling Date: 5-28-81

	<u>Species</u>	<u>Length(cm)</u>	<u>Sex Condition</u>
Station 11	Spottail shiner	8.4	MG
	(<u>N. hudsonius</u>)	6.8	NG
		7.2	NG
	Bluntnose minnow		
	(<u>Pimephales notatus</u>)	9.6	NG (with ruptured tubercles)
	Emerald shiner		
	(<u>Notropis atherinoides</u>)	6.0	NG
	Freshwater drum		
	(<u>Aplodinotus grunniens</u>)	52.8	NG
	Goldfish		
	(<u>C. auratus</u>)	23.8	MG
	White sucker		
	(<u>C. commersoni</u>)	28.7	NG
Station 10	Yellow perch	19.3	NG
	(<u>Perca flavescens</u>)	14.4	NG
	Rock bass		
	(<u>Ambloplites rupestris</u>)	13.5	NG
	Pumpkinseed	15.0	NG
	(<u>L. gibbosus</u>)	14.2	NG
	Goldfish		
	(<u>C. auratus</u>)	20.9	NG
	Golden shiner	15.6	MG
	(<u>Notemigonus crysoleucas</u>)	15.8	MG
	Brown bullhead		
	(<u>Ictalurus nebulosus</u>)	26.5	NG
	Largemouth bass		
	(<u>M. salmoides</u>)	14.2	NG
	Pumpkinseed	14.2	NG
	(<u>L. gibbosus</u>)	14.2	NG
		15.3	NG
		13.2	NG
		13.7	NG
Station 9		13.0	NG
		13.1	NG
		14.0	NG
		13.0	NG
	Carp	49.5	NG
	(<u>C. carpio</u>)	61.0	NG
		71.5	NG
		44.9	NG
		62.0	NG

Table A3 (continued).

Sampling Date: 5-28-81

	<u>Species</u>	<u>Length(cm)</u>	<u>Sex Condition</u>
Station 9	Emerald shiner	8.5	NG
	(<u>N. atherinoides</u>)	6.5	NG
	Northern pike		
	(<u>Esox lucius</u>)	67.9	S
	Freshwater drum		
	(<u>A. grunniens</u>)	31.5	NG
	White bass		
	(<u>Morone chrysops</u>)	12.3	NG
	Pumpkinseed		
	(<u>L. gibbosus</u>)	13.6	NG
	Largemouth bass		
	(<u>M. salmoides</u>)	20.2	NG
	Smallmouth bass	26.4	NG
	(<u>Micropterus dolomieu</u>)	28.3	NG
		28.4	NG
	Rock bass	14.5	NG
	(<u>A. rupestris</u>)	27.3	NG
Station 8		17.6	NG
		16.3	NG
		13.7	NG
		18.5	NG
		11.9	NG
		16.0	NG
		13.2	NG
Station 7	Too deep to shock		
Station 6	Too deep to shock		
Station 5	Yellow perch		
	(<u>P. flavescens</u>)	17.0	NG
Station 4	Too deep to shock		
Station 3	Emerald shiner	7.6	NG
	(<u>N. atherinoides</u>)	9.0	NG
		6.7	NG
		7.3	NG
	Yellow perch	23.1	NG
	(<u>P. flavescens</u>)	18.5	NG
		18.1	NG
	Largemouth bass		
	(<u>M. salmoides</u>)	19.0	NG

Table A3 (continued).

Sampling Date: 5-28-81

	<u>Species</u>	<u>Length(cm)</u>	<u>Sex Condition</u>
Station 2	Yellow perch (<u>P. flavescens</u>)	16.2	NG
		16.8	NG
		18.1	NG
		15.6	NG
		18.5	NG
		16.1	NG
		15.2	NG
		13.5	MG
	Freshwater drum (<u>A. grunniens</u>)	37.0	NG
		32.5	NG
Station 1	Too deep to shock		

Table A4. Results of electroshocking Buffalo River and Outer Harbor of Buffalo River.

Electroshocking

Sampling Date: 6-15-81

NG = not gravid

MG = male, gravid

FG = female, gravid

S = spent

I = immature

	<u>Species</u>	<u>Length(cm)</u>	<u>Sex Condition</u>				
Station 14	Freshwater drum (<u>Aplodinotus grunniens</u>)	18.1	NG				
	Pumpkinseed (<u>Lepomis gibbosus</u>)	12.2	NG				
	Golden shiner (<u>Notemigonus crysoleucas</u>)	15.8	MG				
	Carp (<u>Cyprinus carpio</u>)	41.9	FG				
	White sucker (<u>Catostomus commersoni</u>)	23.6	NG				
Station 13	Pumpkinseed (<u>L. gibbosus</u>)	<u>L(cm)</u>	<u>SC</u>	<u>L(cm)</u>	<u>SC</u>	<u>L(cm)</u>	<u>SC</u>
		13.6	NG	13.8	NG	14.3	FG
		13.0	NG	13.9	NG	13.8	NG
		14.5	MG	14.7	NG	14.8	FG
		11.7	NG	14.5	FG	14.3	NG
		11.3	FG	13.7	NG	12.6	NG
		13.4	MG	11.7	NG	12.5	NG
		11.4	MG	13.4	NG	12.2	NG
		11.0	NG	9.2	MG	11.9	MG
		13.4	NG	11.7	NG	11.2	MG
		11.6	MG	11.3	NG	10.5	MG
		11.0	NG	11.1	NG	11.0	NG
		11.4	MG				
Station 12	Gizzard shad (<u>Dorosoma cepedianum</u>)	13.0	NG				
		12.2	NG				
		14.7	NG				
		15.5	NG				
	Pumpkinseed (<u>L. gibbosus</u>)	12.5	FG				
Station 12	Walleye (<u>Stizostedion vitreum</u>)	38.1	NG				
	Carp (<u>C. carpio</u>)	58.7	MG				
Station 11	Carp	70.5	NG				
	(<u>C. carpio</u>)	58.3	MG				

Table A4 (continued).

Sampling Date: 6-15-81

	<u>Species</u>	<u>Length(cm)</u>	<u>Sex Condition</u>
Station 11	Brown bullhead (<u>Ictalurus nebulosus</u>)	31.5	NG
		28.5	NG
		27.6	NG
		22.6	NG
		21.0	NG
		23.8	NG
		24.5	NG
		12.4	NG
		29.0	NG
		21.9	NG
	Goldfish (<u>Carassius auratus</u>)	22.9	NG
		18.4	MG
		11.1	NG
	Largemouth bass (<u>Micropterus salmoides</u>)	14.0	NG
	Pumpkinseed (<u>L. gibbosus</u>)	13.5	FG
Station 10	Carp (<u>C. carpio</u>)	43.5	NG
		36.0	MG
	Goldfish (<u>C. auratus</u>)	32.3	NG
		25.2	NG
		23.5	NG
	Golden shiner (<u>N. crysoleucas</u>)	16.8	NG
		17.8	NG
		16.6	NG
		16.7	NG
		16.8	NG
		17.2	NG
	White sucker (<u>C. commersoni</u>)	34.5	NG
		29.3	NG
		27.8	NG
	Yellow perch (<u>Perca flavescens</u>)	18.3	S
	Pumpkinseed (<u>L. gibbosus</u>)	12.0	FG
		14.0	FG
		13.8	FG
Station 9	Carp (<u>C. carpio</u>)	46.0	MG
		64.2	FG
		58.5	NG
	Shorthead redhorse sucker (<u>Moxostoma macrolepidotum</u>)	42.3	NG

Sampling Date: 6-15-81

Table A4 (continued).

	Species	Length(cm)	Sex Condition
Station 9	Pumpkinseed (<u>L. gibbosus</u>)	13.6	PG
		14.2	PG
		14.5	PG
		18.2	NG
		13.7	NG
		14.8	PG
		11.3	NG
		12.5	PG
		11.7	MG
		13.7	MG
		9.8	NG
		10.2	NG
		6.2	NG
	Rock bass (<u>Ambloplites rupestris</u>)	14.4	NG
		13.7	NG
		12.5	NG
		13.5	NG
		10.9	NG
Station 5	Smallmouth bass (<u>Micropterus dolomieu</u>)	8.8	I
		20.4	NG
	Yellow perch (<u>P. flavescens</u>)	16.9	NG
		15.1	NG
		15.1	NG
		15.6	NG
		15.6	NG
	Yellow perch (<u>P. flavescens</u>)	14.2	NG
		18.2	MG
	Yellow perch (<u>P. flavescens</u>)	17.6	NG
		16.4	NG
		18.2	NG
		17.1	NG
		18.7	PG
Station 3	Rock bass (<u>A. rupestris</u>)	14.2	NG
		18.3	PG
	Rock bass (<u>A. rupestris</u>)	21.5	NG
		19.3	NG
		18.5	NG
	Smallmouth bass (<u>M. dolomieu</u>)	15.8	NG
		27.6	NG
		25.5	NG
		28.0	PG
		26.0	NG
		19.2	NG
		13.9	NG

Table A4 (continued).

Sampling Date: 6-15-81

	<u>Species</u>	<u>Length(cm)</u>		<u>Sex Condition</u>			
Station 3	Largemouth bass (<u>M. salmoides</u>)	13.3		I			
	Pumpkinseed (<u>L. gibbosus</u>)	<u>L(cm)</u>	<u>SC</u>	<u>L(cm)</u>	<u>SC</u>	<u>L(cm)</u>	<u>SC</u>
		14.2	NG	15.3	NG	13.5	NG
		13.4	NG	11.0	NG	12.4	NG
		10.4	NG	10.0	NG	13.0	MG
		13.9	NG	14.6	FG	13.4	NG
		11.2	MG	10.6	NG	14.1	NG
		13.5	NG	12.3	MG	11.6	NG
		13.2	NG	14.2	NG	10.1	MG
		8.7	NG	9.4	NG	10.1	NG
	Shorthead redhorse sucker (<u>M. macrolepidotum</u>)	19.0		NG			
	Yellow perch (<u>P. flavescens</u>)	16.5		NG			
		12.9		NG			
		14.7		NG			
Station 2	Rock bass (<u>A. rupestris</u>)	10.8		NG			
		20.5		NG			
		12.3		NG			
	Warmouth (<u>Chaenobryttus gulosus</u>)	13.9		NG			
	Smallmouth bass (<u>M. dolomieu</u>)	9.6		I			
		13.8		NG			
		9.7		I			
	Largemouth bass (<u>M. salmoides</u>)	10.0		I			
	Pumpkinseed (<u>L. gibbosus</u>)	13.7		NG			
		14.6		FG			
		11.3		FG			
	Bullhead (<u>I. nebulosus</u>)	20.2		NG			
	Logperch (<u>Percina caprodes</u>)	10.5		MG			
	Yellow perch (<u>P. flavescens</u>)	16.5		MG			
		18.5		NG			
		14.7		NG			
		17.0		NG			
		15.5		NG			
		14.5		NG			
		14.1		NG			
		16.8		NG			
		16.5		NG			
		16.3		NG			
		14.0		NG			
		15.8		NG			
		16.7		NG			
		15.5		NG			

Table A5. Results of electroshocking Buffalo River and Outer Harbor of Buffalo River.

Electroshocking

Sampling Date: 7-15-81 to 7-17-81

NG = not gravid

MG = male, gravid

	<u>Species</u>	<u>Length(cm)</u>	<u>Sex Condition</u>							
Station 14	Gizzard shad (<u>Dorosoma cepedianum</u>)	19.8	NG							
	Smallmouth bass (<u>Micropterus dolomieu</u>)	21.3	NG							
	Pumpkinseed (<u>Lepomis gibbosus</u>)	11.8	MG							
		11.0	MG							
Station 13	Smallmouth bass (<u>M. dolomieu</u>)	12.2	NG							
	Gizzard shad (<u>D. cepedianum</u>)	16.3	NG							
	Goldfish (<u>Carassius auratus</u>)	23.6	NG							
	Golden shiner (<u>Notemigonus crysoleucas</u>)	9.4	NG							
	Pumpkinseed	<u>L(cm)</u>	<u>SC</u>	<u>L(cm)</u>	<u>SC</u>	<u>L(cm)</u>	<u>SC</u>			
	(<u>L. gibbosus</u>)	13.9	MG	10.7	NG	13.4	NG			
		8.2	NG	12.2	NG	14.4	NG			
		13.0	NG	13.3	MG	13.8	MG			
		10.9	NG	10.2	NG	9.1	MG			
		9.5	MG	14.0	NG	14.2	NG			
		12.5	NG	14.3	NG	12.6	NG			
		11.9	NG	11.9	NG	11.5	MG			
		10.4	MG	11.8	NG	11.0	NG			
		9.8	NG	8.9	NG	7.1	MG			
	Brown bullhead (<u>Ictalurus nebulosus</u>)	26.5	NG							
	Station 12	No fish caught								
	Station 11	Goldfish (<u>C. auratus</u>)	27.2	NG						
			20.0	MG						
		Carp (<u>Cyprinus carpio</u>)	47.1	NG						
Gizzard shad (<u>D. cepedianum</u>)		14.5	NG							
Brown bullhead		32.8	NG							
(<u>I. nebulosus</u>)		26.6	NG							

Table A5 (continued).

Sampling Date: 7-15-81 to 7-17-81

	<u>Species</u>	<u>Length(cm)</u>	<u>Sex Condition</u>
Station 10	Pumpkinseed	13.4	NG
	(<u>L. gibbosus</u>)	11.3	NG
Station 9	Carp	52.9	MG
	(<u>C. carpio</u>)	50.0	MG
	Yellow perch	16.4	NG
	(<u>Perca flavescens</u>)		
	Pumpkinseed	13.2	MG
	(<u>L. gibbosus</u>)		
	Black crappie	18.5	NG
	(<u>Pomoxis nigromaculatus</u>)	17.0	NG
Station 8	Too deep to shock		
Station 7	Too deep to shock		
Station 6	Too deep to shock		
Station 5	No fish caught		
Station 4	Too deep to shock		
Station 3	Rock bass	19.5	NG
	(<u>Ambloplites rupestris</u>)		
	Pumpkinseed	14.1	NG
	(<u>L. gibbosus</u>)	11.2	MG
		12.7	NG
		16.7	NG
		10.5	MG
		13.2	NG
		11.7	MG
		9.5	MG
		11.1	MG
		10.4	MG
		8.9	MG
	Smallmouth bass	27.3	NG
	(<u>M. dolomieu</u>)		
Station 2	Yellow perch	19.4	NG
	(<u>P. flavescens</u>)	13.9	NG
		17.7	NG
		13.2	NG
	Yellow perch	15.7	NG
	(<u>P. flavescens</u>)	17.6	NG
		19.1	NG
	Pumpkinseed	15.3	MG
	(<u>L. gibbosus</u>)		

Table A6. Results of electroshocking Buffalo River and Outer Harbor of Buffalo River.

Electroshocking

NG = not gravid

Sampling Date: 8-20-81

	<u>Species</u>	<u>Length(cm)</u>	<u>Sex Condition</u>
Station 14	Carp	44.3	NG
	(<u>Cyprinus carpio</u>)		
	Bluegill	17.0	NG
	(<u>Lepomis macrochirus</u>)	16.9	NG
	Pumpkinseed	12.2	NG
	(<u>Lepomis gibbosus</u>)	14.7	NG
		11.0	NG
	Common shiner	12.3	NG
	(<u>Notropis cornutus</u>)		
	Golden shiner	7.5	NG
Station 13	(<u>Notemigonus crysoleucas</u>)	5.4	NG
	Goldfish	19.5	NG
	(<u>Carassius auratus</u>)		
	Common shiner	9.3	NG
	(<u>N. cornutus</u>)		
	Gizzard shad	18.0	NG
	(<u>Dorosoma cepedianum</u>)	17.6	NG
		18.8	NG
	Pumpkinseed	10.0	NG
	(<u>L. gibbosus</u>)		
Station 12	Goldfish	34.2	NG
	(<u>C. auratus</u>)	24.2	NG
	Spottail shiner	6.9	NG
	(<u>Notropis hudsonius</u>)		
	Common shiner	10.6	NG
	(<u>N. cornutus</u>)		
	Golden shiner	11.4	NG
	(<u>N. crysoleucas</u>)	15.9	NG
		18.5	NG
	Gizzard shad	18.2	NG
Station 11	(<u>D. cepedianum</u>)	19.2	NG
		8.3	NG
		8.3	NG
		9.4	NG
	Carp	35.0	NG
	(<u>C. carpio</u>)	46.0	NG

Table A6 (continued).

Sampling Date: 8-20-81

	<u>Species</u>	<u>Length(cm)</u>	<u>Sex Condition</u>
Station 11	Goldfish (<u>C. auratus</u>)	25.3	NG
	Pumpkinseed (<u>L. gibbosus</u>)	14.4	NG
Station 10	Goldfish (<u>C. auratus</u>)	28.3	NG
		26.1	NG
	Gizzard shad (<u>D. cepedianum</u>)	18.3	NG
Station 9	Carp (<u>C. carpio</u>)	52.7	NG
		54.0	NG
		50.6	NG
		34.0	NG
	Golden shiner (<u>N. crysoleucas</u>)	15.3	NG
		18.3	NG
		19.3	NG
	Gizzard shad (<u>D. cepedianum</u>)	19.5	NG
		20.9	NG
		20.6	NG
		20.0	NG
		22.0	NG
		18.5	NG
	Smallmouth bass (<u>Micropterus dolomieu</u>)	25.7	NG
		17.5	NG
	Pumpkinseed (<u>L. gibbosus</u>)	12.9	NG
		9.1	NG
		10.6	NG
		14.7	NG
		13.2	NG
		10.4	NG
		14.6	NG
Station 5	Yellow perch (<u>Perca flavescens</u>)	15.4	NG
	Logperch (<u>Percina caprodes</u>)	13.6	NG
		11.2	NG
		11.0	NG
	Pumpkinseed (<u>L. gibbosus</u>)	14.0	NG
		12.8	NG
	Slimy sculpin (<u>Cottus cognatus</u>)	8.9	NG
		8.2	NG

Table A6 (continued).

Sampling Date: 8-20-81

	<u>Species</u>	<u>Length(cm)</u>	<u>Sex Condition</u>
Station 3	Yellow perch (<u>P. flavescens</u>)	14.3	NG
		14.8	NG
		14.7	NG
		11.4	NG
		10.4	NG
	Spottail shiner (<u>N. hudsonius</u>)	8.9	NG
Station 2	Yellow perch (<u>P. flavescens</u>)	17.6	NG
		16.9	NG
		11.7	NG
		12.5	NG
		11.7	NG
	Pumpkinseed (<u>L. gibbosus</u>)	14.4	NG
		13.4	NG
		11.2	NG
	Smallmouth bass (<u>M. dolomieu</u>)	19.8	NG

Table A7. Results of electroshocking Buffalo River and Outer Harbor of Buffalo River.

Electroshocking

NG = not gravid

Sampling Date: 9-10-81 and 9-11-81

	<u>Species</u>	<u>Length(cm)</u>	<u>Sex Condition</u>
Station 14	Gizzard shad	17.5	NG
	(<u>Dorosoma cepedianum</u>)	20.1	NG
	Pumpkinseed	11.8	NG
	(<u>Lepomis gibbosus</u>)		
	Smallmouth bass	15.2	NG
	(<u>Micropterus dolomieu</u>)	7.8	NG
Station 13	No fish captured		
Station 12	Gizzard shad	14.8	NG
	(<u>D. cepedianum</u>)		
Station 11	Goldcarp	45.7	NG
	(<u>Cyprinus carpio</u> x <u>C. auratus</u>)		
	Carp	52.7	NG
	(<u>C. carpio</u>)		
	Golden shiner	11.9	NG
	(<u>Notemigonus crysoleucas</u>)		
Station 10	No fish captured		
Station 9	Gizzard shad	18.1	NG
	(<u>D. cepedianum</u>)	21.6	NG
Station 5	Rock bass	10.9	NG
	(<u>Ambloplites rupestris</u>)	17.8	NG
	Pumpkinseed	14.3	NG
	(<u>L. gibbosus</u>)		
	Logperch	12.4	NG
	(<u>Percina caprodes</u>)		
Station 3	Freshwater drum	41.4	NG
	(<u>Aplodinotus grunniens</u>)		
	Gizzard shad	10.7	NG
	(<u>D. cepedianum</u>)	9.9	NG
	Yellow perch	12.1	NG
	(<u>Perca flavescens</u>)	10.9	NG
		12.3	NG
	Pumpkinseed	12.0	NG
	(<u>L. gibbosus</u>)		

Table A7 (continued).

Sampling Date: 9-10-81 and 9-11-81

	<u>Species</u>	<u>Length(cm)</u>	<u>Sex Condition</u>
Station 3	Rock bass	10.4	NG
	(<u>A. rupestris</u>)	10.0	NG
	Largemouth bass	6.0	NG
	(<u>Micropterus salmoides</u>)	7.5	NG
Station 2	Warmouth	13.8	NG
	(<u>Chaenobryttus gulosus</u>)		
	Pumpkinseed	15.2	NG
	(<u>L. gibbosus</u>)		
	Shorthead redhorse sucker	25.9	NG
	(<u>Moxostoma macrolepidotum</u>)		
	Yellow perch	15.9	NG
	(<u>P. flavescens</u>)	16.7	NG
		11.8	NG

Table A8. Results of electroshocking Buffalo River and Outer Harbor of Buffalo River.

Electroshocking

Sampling Date: 10-23-81

NG = not gravid

MG = male, gravid

	<u>Species</u>	<u>Length(cm)</u>	<u>Sex Condition</u>
Station 14	No fish observed or caught		
Station 13	No fish observed or caught		
Station 12	One fish (unidentified) observed		
Station 11	White sucker (<u>Catostomus commersoni</u>)	35.3	NG
Station 10	Gizzard shad (<u>Dorosoma cepedianum</u>)	8.9	NG
Station 9	Carp (<u>Cyprinus carpio</u>)	59.5	MG
	Gizzard shad (<u>D. cepedianum</u>)	19.5	NG
Station 5	No fish observed or caught		
Station 3	No fish observed or caught		
Station 2	Yellow perch (<u>Perca flavescens</u>)	18.4	NG

Table A9. Results of electroshocking Buffalo River and Outer Harbor of Buffalo River.

Electroshocking
Sampling Date: 11-7-81

NG = not gravid
I = immature

	<u>Species</u>	<u>Length(cm)</u>	<u>Sex Condition</u>
Station 14	No fish observed		
Station 13	No fish observed		
Station 12	One fish observed		
Station 11	No fish observed		
Station 10	Gizzard shad (<u>Dorosoma cepedianum</u>)	22.5	NG
Station 9	Gizzard shad (<u>D. cepedianum</u>)	7.0 6.0 7.4 6.6 7.2 7.0 6.5 7.2 6.8 7.4 7.1 7.6 8.6 7.6 7.5 7.0 8.0 7.2 7.5	I I I I I I I I I I I I I I I I I I I I
Station 5	1 small salmonid observed		
Station 3	3 yellow perch observed		
	Yellow perch (<u>Perca flavescens</u>)	23.4	NG
Station 2	1 yellow perch observed		
	Rainbow trout (<u>Salmo gairdneri</u>)	20.2	I

Table A10. Results of electroshocking Buffalo River and Outer Harbor of Buffalo River.

Electroshocking

Sampling Date: 12-5-81

NG = not gravid

F = female

I = immature

	<u>Species</u>	<u>Length(cm)</u>	<u>Sex Condition</u>
Station 14	No fish observed		
Station 13	Common shiner (<u>Notropis cornutus</u>)	12.0	NG
Station 12	No fish observed		
Station 11	No fish observed		
Station 10	Carp (<u>Cyprinus carpio</u>)	43.5	NG
Station 9	One minnow observed		
Station 5	Spottail shiner (<u>Notropis hudsonius</u>)	10.0 10.0	NG NG
Station 3	Rock bass (<u>Ambloplites rupestris</u>)	4.2	I
	Bridle shiner (<u>Notropis bifrenatus</u>)	4.2	NG
Station 2	Steelhead trout (<u>Salmo gairdneri</u>)	47.5	F
	Freshwater drum (<u>Aplodinotus grunniens</u>)	34.6	NG

Table A11. Results of electroshocking Buffalo River and Outer Harbor of Buffalo River.

Electroshocking
Sampling Date: 1-4-82

Due to shore ice, electroshocking was not possible.

Table B1. Electroshocking in disposal areas 1 and 4. 28 May 1981.

		NG = not gravid MG = male, gravid	
	<u>Species</u>	<u>Length(cm)</u>	<u>Sex Condition</u>
Disposal Area 1	Muskellunge (<u>Esox masquinongy</u>)	76.0	NG
	Freshwater drum (<u>Aplodinotus grunniens</u>)	43.5 44.5	NG NG
	Largemouth bass (<u>Micropterus salmoides</u>)	28.0 19.2 20.2	NG NG NG
	Rock bass (<u>Ambloplites rupestris</u>)	20.2	NG
	Pumpkinseed (<u>Lepomis gibbosus</u>)	13.7 15.0	NG NG
	Yellow perch (<u>Perca flavescens</u>)	18.2 15.4 13.1 14.7	NG NG NG MG
	Brown bullhead (<u>Ictalurus nebulosus</u>)	24.9	NG
	Slimy sculpin (<u>Cottus cognatus</u>)	5.5	NG
	Rock bass	16.5	NG
	(<u>A. rupestris</u>)	21.0	NG
		19.5	NG
		15.2	NG
		15.7	NG
		18.9	NG
	Smallmouth bass (<u>Micropterus dolomieu</u>)	22.7	NG
Disposal Area 4	Yellow perch (<u>P. flavescens</u>)	16.5 15.3 17.3 19.4 18.5 18.3	NG MG NG NG NG NG
	Logperch (<u>Percina caprodes</u>)	10.0	MG

Table B2. Electroshocking in disposal areas 1 and 4. 15-17 July 1981.

		NG = not gravid MG = male, gravid	
	<u>Species</u>	<u>Length(cm)</u>	<u>Sex Condition</u>
Disposal Area 1	Yellow perch (<u>Perca flavescens</u>)	13.5	NG
	Pumpkinseed (<u>Lepomis gibbosus</u>)	12.3	NG
Disposal Area 4	Smallmouth bass	24.9	NG
	(<u>Micropterus dolomieu</u>)	27.8	NG
		25.9	NG
	Pumpkinseed (<u>L. gibbosus</u>)	13.3	MG

Table B3. Electroshocking in disposal areas 1 and 4. 11 September 1981.

		NG = not gravid	
	<u>Species</u>	<u>Length(cm)</u>	<u>Sex Condition</u>
Disposal Area 1	Carp	44.8	NG
	(<u>Cyprinus carpio</u>)		
	Bluntnose minnow	7.1	NG
	(<u>Pimephales notatus</u>)	8.1	NG
	Gizzard shad	10.2	NG
	(<u>Dorosoma cepedianum</u>)		
	Yellow perch	19.7	NG
	(<u>Perca flavescens</u>)	16.7	NG
		17.2	NG
		16.0	NG
		17.8	NG
		18.0	NG
		19.6	NG
		12.9	NG
		10.9	NG
		13.3	NG
	Pumpkinseed	13.3	NG
	(<u>Lepomis gibbosus</u>)	14.2	NG
		14.1	NG
		13.4	NG
Disposal Area 4	Largemouth bass	14.4	NG
	(<u>Micropterus salmoides</u>)	6.1	NG
	Rock bass	9.0	NG
	(<u>Ambloplites rupestris</u>)	4.3	NG
	Smallmouth bass	6.6	NG
	(<u>Micropterus dolomieu</u>)		
	Storm and wave action of previous day scoured jetty. Fish probably moved out of the area.		

Table B4. Electroshocking in disposal areas 1 and 4. 5 December 1981.

	<u>Species</u>	<u>Length(cm)</u>	<u>Sex Condition</u>
Disposal Area 1	One gizzard shad observed		
Disposal Area 4	No fish observed		

Table C1. Ichthyoplankton from the Buffalo River and outer harbor.
28 May 1981. Only stations where ichthyoplankton were caught are presented.

<u>Station</u>	<u>Volume Filtered(m³)</u>	<u>Time/Place</u>	<u>#/Species*</u>	<u>#/10m³</u>
2	3.1	Day/Surface	1 yellow perch	3.3
			TOTAL	3.3
9	2.7	Night/Surface	2 emerald shiners	7.4
			TOTAL	7.4
Disposal Site 1				
. Tow B	3.7	Day/Surface	1 yellow perch	2.7
			TOTAL	2.7

* Scientific names are presented in gill netting data.

Table C2. Ichthyoplankton from the Buffalo River and outer harbor.
15 June 1981. Only stations where ichthyoplankton were caught are presented.

<u>Station</u>	<u>Volume Filtered(m³)</u>	<u>Time/Place</u>	<u>#/Species*</u>	<u>#/10m³</u>
2	4.0	Day/Surface	1 smelt	2.5
			TOTAL	2.5
	4.1	Night/Surface	4 yellow perch	9.8
			TOTAL	9.8
6	3.3	Night/Surface	3 yellow perch	9.1
			TOTAL	9.1
7	2.8	Night/Bottom	2 smelt	7.1
			TOTAL	7.1
8	2.7	Day/Bottom	1 smelt	3.7
			1 fish egg	3.7
			TOTAL	7.4
	2.7	Night/Bottom	1 yellow perch	3.7
			1 fish egg (pelagic)	3.7
			TOTAL	7.4
10	4.4	Night/Surface	2 yellow perch	4.5
			TOTAL	4.5
11	4.3	Day/Bottom	1 yellow perch	2.3
			TOTAL	2.3
12	2.9	Night/Surface	1 yellow perch	3.5
			TOTAL	3.5
	2.5	Night/Bottom	1 yellow perch	4.0
			TOTAL	4.0
13	2.4	Day/Surface	1 yellow perch	4.2
			TOTAL	4.2

*Scientific names are presented in gill netting data.

Table C3. Ichthyoplankton from the Buffalo River and outer harbor.
17 July 1981. Only stations where ichthyoplankton were caught are presented.

<u>Station</u>	<u>Volume Filtered(m³)</u>	<u>Time/Place</u>	<u>#/Species*</u>	<u>#/10m³</u>
1	3.6	Night/Surface	1 smelt	2.8
			TOTAL	2.8
2	2.7	Day/Bottom	1 yellow perch	3.7
			TOTAL	3.7
	0.11 (weeds)	Night/Bottom	1 rock bass	91.0
			TOTAL	91.0**
3	3.4	Night/Surface	2 yellow perch	5.9
			TOTAL	5.9
5	2.7	Day/Surface	1 emerald shiner	3.7
			TOTAL	3.7
6	2.8	Day/Surface	1 emerald shiner	3.6
			TOTAL	3.6
	3.4	Night/Surface	12 emerald shiners	35.3
			TOTAL	35.3
	2.9	Night/Bottom	1 emerald shiner	3.4
			TOTAL	3.4
8	2.8	Night/Surface	1 emerald shiner	3.6
			1 spottail shiner	3.6
			TOTAL	7.2
9	2.1	Day/Bottom	1 emerald shiner	4.8
			TOTAL	4.8
	3.9	Night/Bottom	3 emerald shiners	7.7
			3 gizzard shad	7.7
			TOTAL	15.4
10	3.7	Night/Bottom	1 emerald shiner	2.7
			TOTAL	2.7
13	3.2	Night/Surface	1 carp	3.1
			TOTAL	3.1

* Scientific names are presented in gill netting data.

** This value was not included in calculations due to weeds clogging the flow meter.

Table C3 (continued).

<u>Station</u>	<u>Volume Filtered(m³)</u>	<u>Time/Place</u>	<u>#/Species*</u>	<u>#/10m³</u>
Disposal Site 1				
Tow A	3.1	Night/Surface	1 golden shiner	3.2
			TOTAL	3.2
Tow B	1.7	Night/Surface	1 golden shiner	5.9
			1 emerald shiner	5.9
			1 yellow perch	5.9
			2 pumpkinseed(?)	11.8
			TOTAL	29.5
Disposal Site 4	5.3	Night/Surface	1 smelt	1.9
			TOTAL	1.9

*Scientific names are presented in gill netting data.

Table D1. Results of gill netting in Buffalo River and Outer Harbor of Buffalo.

Gill Netting
Sampling Date: 4-23-81 and 4-24-81

NG = not gravid
MG = male, gravid
FG = female, gravid
S = spent

	<u>Species</u>	<u>Length(cm)</u>	<u>Sex Condition</u>
Station 14	Net lost due to log jam moving down Buffalo River after rain storm		
Station 13	Golden shiner (<u>Notemigonus crysoleucas</u>)	18.4	NG
	Goldfish (<u>Carassius auratus</u>)	14.0	NG
	Carp (<u>Cyprinus carpio</u>)	58.1	FG
	White sucker (<u>Catostomus commersoni</u>)	46.1	NG
		35.7	MG
		32.2	NG
		38.2	MG
	Brown bullhead (<u>Ictalurus nebulosus</u>)	25.8	NG
Station 12	Shorthead redhorse sucker (<u>Moxostoma macrolepidotum</u>)	29.5	NG
	White sucker (<u>C. commersoni</u>)	40.4	NG
		46.5	NG
		41.3	NG
		41.8	NG
		32.2	FG
		42.4	MG
	Brown bullhead (<u>I. nebulosus</u>)	26.0	NG
Station 11	White sucker (<u>C. commersoni</u>)	41.8	FG
		43.0	NG
	Yellow perch (<u>Perca flavescens</u>)	18.0	MG
		19.5	MG
		17.5	NG
Station 10	Carp (<u>C. carpio</u>)	43.4	NG
		55.9	NG
		60.1	NG
	White sucker (<u>C. commersoni</u>)	41.9	MG
		43.7	NG

Table D1 (continued).

Sampling Date: 4-23-81 and 4-24-81

	<u>Species</u>	<u>Length(cm)</u>	<u>Sex Condition</u>
Station 10	White sucker (<u>C. commersoni</u>)	43.4	FG
		41.0	MG
		46.5	FG
		40.8	S
		22.9	NG
		21.8	NG
	Brown bullhead (<u>I. nebulosus</u>)	24.8	NG
		31.5	NG
		32.6	NG
		26.0	NG
		24.6	NG
		27.0	NG
		27.5	NG
		25.9	NG
		27.7	NG
		32.1	NG
		29.1	NG
	Yellow perch (<u>P. flavescens</u>)	17.7	MG
		18.3	FG
		16.9	FG
		21.7	FG
		18.4	MG
Station 9	Carp (<u>C. carpio</u>)	66.6	MG
	White sucker (<u>C. commersoni</u>)	42.4	NG
		49.5	NG
		43.8	NG
		31.8	NG
		47.0	NG
		44.4	NG
		42.9	NG
		41.0	NG
		46.2	NG
		42.7	MG
		47.5	MG
	Yellow perch (<u>P. flavescens</u>)	19.0	MG
		18.2	MG
Station 3	Carp (<u>C. carpio</u>)	57.8	MG
		55.4	FG
		42.0	FG
		66.7	FG
		52.8	MG
		53.0	MG

Table D1 (continued).

Sampling Date: 4-23-81 and 4-24-81

	<u>Species</u>	<u>Length(cm)</u>	<u>Sex Condition</u>
Station 3	Steelhead (<u>Salmo gairdneri</u>)	58.5	F cut *
	Yellow perch	19.1	MG
	(<u>P. flavescens</u>)	18.5	FG
		18.8	MG
	Northern pike	72.5	NG
	(<u>Esox lucius</u>)	85.5	F cut *
		70.9	MG
		88.3	F cut *
	Muskellunge	52.0	M cut *
	(<u>Esox masquinongy</u>)	53.9	M cut *

* cut refers to a dissected fish

Table D2. Results of gill netting in Buffalo River and Outer Harbor of Buffalo.

Gill Netting		NG = not gravid	
Sampling Date: 5-9-81 and 5-10-81		MG = male, gravid	
		FG = female, gravid	
		S = spent	
	<u>Species</u>	<u>Length(cm)</u>	<u>Sex Condition</u>
Station 14	Carp		
	(<u>Cyprinus carpio</u>)	52.0	NG
	White sucker	53.7	FG
	(<u>Catostomus commersoni</u>)	40.4	NG
Station 13	Carp		
	(<u>C. carpio</u>)	47.2	NG
	Goldfish		
	(<u>Carassius auratus</u>)	17.9	NG
	White sucker	35.9	NG
	(<u>C. commersoni</u>)	47.2	NG
		32.7	probably spent
		35.0	probably spent
		30.8	probably spent
		29.7	probably spent
		35.9	FG
		45.5	NG
		44.1	probably spent
		22.8	probably spent
		22.3	probably spent
	Brown bullhead		
	(<u>Ictalurus nebulosus</u>)	35.1	NG
Station 12	White sucker	30.7	NG
	(<u>C. commersoni</u>)	35.8	probably spent
		31.5	probably spent
		29.5	probably spent
		34.6	probably spent
		35.2	probably spent
		35.8	probably spent
		40.2	probably spent
		37.2	probably spent
		29.7	probably spent
		35.7	probably spent
		22.9	probably spent
		20.9	probably spent
	Freshwater drum	26.7	S
	(<u>Aplodinotus grunniens</u>)	32.4	S
		31.7	S

Table D2 (continued).

Sampling Date: 5-9-81
and 5-10-81

	Species	Length(cm)	Sex Condition
Station 12	Yellow perch	18.7	NG
	(<u>Perca flavescens</u>)	19.5	NG
	Brown bullhead		
	(<u>I. nebulosus</u>)	21.9	NG
Station 11	Carp	57.4	MG
	(<u>C. carpio</u>)	51.4	FG
		51.7	S
	Freshwater drum	40.5	S
	(<u>A. grunniens</u>)	36.7	FS
		33.4	FG
		23.6	NG
	White sucker		
	(<u>C. commersoni</u>)	31.1	NG
	Shorthead redhorse sucker	30.2	NG
	(<u>Moxostoma macrolepidotum</u>)	36.4	NG
Station 10	Yellow perch	17.8	FG
	(<u>P. flavescens</u>)	16.8	NG
	Muskellunge		
	(<u>Esox masquinongy</u>)	54.0	F immature cut *
	Carp	73.5	NG
	(<u>C. carpio</u>)	55.1	FG
	Freshwater drum		
	(<u>A. grunniens</u>)	24.6	NG
	White sucker	47.9	NG
	(<u>C. commersoni</u>)	45.6	NG
Station 9		31.8	NG
		33.8	MG
	Rock bass		
	(<u>Ambloplites rupestris</u>)	15.3	NG
	Yellow perch		
	(<u>P. flavescens</u>)	18.9	NG
	Carp	59.4	NG
	(<u>C. carpio</u>)	56.6	MG
		75.9	NG
		61.1	MG
Station 9		64.0	NG
	Freshwater drum		
	(<u>A. grunniens</u>)	30.4	NG

* cut refers to a dissected fish

Table D2 (continued).

Sampling Date: 5-9-81
and 5-10-81

	Species	Length(cm)	Sex Condition
Station 9	White sucker	36.5	NG
	(<u>C. commersoni</u>)	33.3	NG
		30.4	NG
	Hognose sucker		
	(<u>Hypentelium nigricans</u>)	34.3	NG
	Rock bass		
	(<u>A. rupestris</u>)	23.1	NG
	Yellow perch	18.5	MG
	(<u>P. flavescens</u>)	19.6	MG
	Coho salmon		
	(<u>Oncorhynchus kisutch</u>)	58.9	F immature cut*
Station 8	White sucker		
	(<u>C. commersoni</u>)	41.4	NG
	Shorthead redhorse sucker		
	(<u>M. macrolepidotum</u>)	38.0	NG
	Walleye		
	(<u>Stizostedion vitreum</u>)	46.5	NG
Station 7	White sucker	42.0	NG
	(<u>C. commersoni</u>)	42.7	NG
		42.5	NG
		41.6	NG
Station 6	Yellow perch	19.1	MG
	(<u>P. flavescens</u>)	19.4	MG
Station 5	Yellow perch		
	(<u>P. flavescens</u>)	18.5	NG
	Steelhead		
	(<u>Salmo gairdneri</u>)	69.0	NG
Station 4	White sucker	47.2	S
	(<u>C. commersoni</u>)	44.1	NG
		43.2	MG
		41.5	MG
		47.4	FG
		43.8	NG
		40.6	MG
		42.0	FG
		40.3	MG
		41.6	MG

* cut refers to a dissected fish

Table D2 (continued).

Sampling Date: 5-9-81
and 5-10-81

Species								
Station 4 :	Yellow perch							
	(<u>P. flavescens</u>)							
	<u>L(cm)</u>	<u>SC</u>	<u>L(cm)</u>	<u>SC</u>	<u>L(cm)</u>	<u>SC</u>	<u>L(cm)</u>	<u>SC</u>
	25.6	MG	26.3	MG	26.6	MG	26.6	MG
	28.7	MG	27.1	MG	26.2	MG	27.2	MG
	25.5	FG	28.9	MG	28.5	FS	28.7	MG
	25.1	MG	28.6	MG	22.9	MG	26.1	MG
	29.6	MG	25.9	MG	27.2	MG	28.8	MG
	28.0	MG	19.0	MG	27.5	MG	27.7	MG
	27.2	MG	28.5	MG	26.7	MG	19.5	MG
	20.5	MG	27.6	MG	27.4	MG	19.0	MG
	19.1	MG	19.1	MG	17.6	MG	20.8	MG
	26.9	MG	29.2	MG	28.1	MG	27.5	MG
	23.1	MG	26.5	MG	27.3	MG	26.6	MG
	27.5	MG	27.1	MG	30.1	MG	27.7	MG
	26.7	MG	18.6	MG	20.2	MG	20.0	MG
	19.3	MG	22.4	MG	19.2	MG	20.3	MG
	19.3	MG	19.0	MG	24.4	MG	20.9	MG
	22.7	MG	20.6	MG	19.5	MG	20.1	MG
	26.3	MG	22.2	MG	22.5	MG	20.3	MG
	21.6	MG	20.6	MG	19.9	MG	21.4	MG
	24.8	MG	19.9	MG	19.9	MG	19.0	MG
	24.2	MG	19.7	MG	23.6	MG	19.4	MG
	22.6	MG	19.3	MG	19.8	MG	19.8	MG
	20.6	MG	18.6	MG	19.2	MG	19.9	MG
	19.7	MG	18.6	MG	19.8	MG	18.6	MG
	21.0	MG	18.8	MG	21.2	MG	19.5	MG
	20.0	MG	23.4	MG	21.3	MG	21.8	MG
	20.7	MG	21.1	MG	19.7	MG	19.4	MG
	19.5	MG	19.2	MG	18.4	MG	19.5	MG
	19.7	MG	19.3	MG	21.9	MG	19.5	MG
	20.3	MG	18.9	MG	19.7	MG	20.8	MG
	19.9	MG	19.5	MG	19.3	MG	22.5	MG
	20.3	MG	19.0	MG	19.8	MG	19.1	MG
	20.2	MG	20.0	MG	19.7	MG	18.7	MG
	19.5	MG	23.0	MG	19.8	MG	19.0	MG
	18.5	MG	19.4	MG	19.7	MG	19.9	MG
	19.6	MG	22.3	MG	18.9	MG	18.5	MG
	20.5	MG	20.7	MG	20.8	MG	20.4	MG
	18.5	MG	21.9	MG	21.1	MG	19.6	MG
	19.9	MG	20.0	MG	19.6	MG	21.3	MG
	20.1	MG	20.8	MG	21.9	MG	20.2	MG
	20.0	MG	19.9	MG	20.4	MG	25.2	MG
	21.5	MG	19.3	MG	19.0	MG	21.9	MG
	19.6	MG	28.0	MG	21.3	MG	19.4	MG
	21.4	MG	21.2	MG	21.5	MG	20.4	MG
	20.4	MG	20.0	MG	18.5	MG	19.0	MG

Table D2 (continued).

Sampling Date: 5-9-81
and 5-10-81

Species							
Station 4	Yellow perch (<u>P. flavescens</u>)						
<u>L(cm)</u>	<u>SC</u>	<u>L(cm)</u>	<u>SC</u>	<u>L(cm)</u>	<u>SC</u>	<u>L(cm)</u>	<u>SC</u>
19.6	MG	19.4	MG	20.7	MG	20.7	MG
18.5	MG	20.2	MG	20.3	MG	20.0	MG
20.3	MG	19.8	MG	19.2	MG	23.0	MG
20.5	MG	18.9	MG	19.8	MG	20.4	MG
19.9	MG	19.9	MG	19.2	MG	19.2	MG
19.4	MG	20.5	MG	21.3	MG	20.6	MG
19.5	MG	22.2	MG	18.8	MG	19.7	MG
23.5	MG	27.6	MG	19.3	MG	19.1	MG
20.0	MG	18.2	MG	20.8	MG	23.0	MG
21.3	MG	17.6	MG	17.9	MG	19.3	MG
19.0	MG	20.1	MG	19.1	MG	18.6	MG
19.7	MG						

221 total

	<u>Species</u>	<u>Length(cm)</u>	<u>Sex Condition</u>	
Station 3	Brown bullhead			
	(<u>I. nebulosus</u>)	37.6	NG	
	Yellow perch	25.6	FG	
	(<u>P. flavescens</u>)	18.9	FG	
		18.4	FG	
		22.5	FS	
		22.3	FG	
		20.4	NG	
		18.4	FG	
		19.3	MG	
		24.8	FS	
		20.4	FS	
		20.1	NG	
		20.3	NG	
		17.8	FS	
		19.7	MG	
		17.6	FS	
		17.1	FG	
		19.9	FG	
		17.9	FG	
		16.8	FG	
		18.0	FG	
		16.8	FG	
		Northern pike	56.6	MG
		(<u>Esox lucius</u>)	53.0	MG
			83.0	F cut*
			59.1	MG
		64.2	MG	

* cut refers to a dissected fish

Table D2 (continued).

Sampling Date: 5-9-81
and 5-10-81

	<u>Species</u>	<u>Length(cm)</u>	<u>Sex Condition</u>
Station 3	Northern pike	55.9	MG
	(<u>E. lucius</u>)	53.7	MG
		68.8	MG
		56.3	MG
Station 2	No fish caught		
Station 1	White sucker	41.4	MG
	(<u>C. commersoni</u>)	46.7	FG
		48.1	FG
	Stonecat		
	(<u>Noturus flavus</u>)	20.7	NG
	Yellow perch		
	(<u>P. flavescens</u>)	19.7	MG
	Walleye		
	(<u>S. vitreum</u>)	45.7	MG

Table D3. Results of gill netting in Buffalo River and Outer Harbor of Buffalo.

Gill Netting		FR = female, ripe	
Sampling Date: 5-29-81 and 5-30-81		NG = not gravid	
		MG = male, gravid	
		FG = female, gravid	
		S = spent	
	Species	Length(cm)	Sex Condition
Station 14	Carp	59.8	MG
	(<u>Cyprinus carpio</u>)	70.6	FS
		60.6	NG
		44.3	MG
	White sucker	32.3	NG
	(<u>Catostomus commersoni</u>)	33.9	NG
		33.8	NG
		32.3	NG
		22.0	NG
	Gizzard shad		
	(<u>Dorosoma cepedianum</u>)	49.1	NG
Station 13	Carp	62.8	MG
	(<u>C. carpio</u>)	59.6	MG
	White sucker	23.8	NG
	(<u>C. commersoni</u>)	22.3	NG
		32.8	NG
		37.7	NG
		34.6	NG
		35.2	NG
		22.2	NG
	Freshwater drum	35.7	FG
	(<u>Aplodinotus grunniens</u>)	31.7	FG
Station 12	Brown bullhead		
	(<u>Ictalurus nebulosus</u>)	24.5	NG
	White sucker	31.7	NG
	(<u>C. commersoni</u>)	39.8	MG
		39.7	MG
		35.0	NG
		34.2	FG
		40.2	NG
		32.5	NG
		30.6	NG
		33.7	NG
		33.3	NG
		24.2	NG
	Freshwater drum		
	(<u>A. grunniens</u>)	37.8	FG

Table D3 (continued).

Sampling Date: 5-29-81 and 5-30-81

	<u>Species</u>	<u>Length(cm)</u>	<u>Sex Condition</u>
Station 12	Yellow perch	23.0	S
	(<u>Perca flavescens</u>)	20.5	S
Station 11	Carp	49.9	MG
	(<u>C. carpio</u>)	56.4	MG
		52.3	NG
		54.1	FG
	Golden shiner		
	(<u>Notemigonus crysoleucas</u>)	17.8	FG
	White sucker	22.3	NG
	(<u>C. commersoni</u>)	24.3	NG
	Northern hognose sucker		
	(<u>Hypentelium nigricans</u>)	30.2	MG
	Freshwater drum		
	(<u>A. grunniens</u>)	32.6	NG
	Rock bass	20.0	FG
	(<u>Ambloplites rupestris</u>)	22.1	S
	Brown bullhead		
	(<u>I. nebulosus</u>)	26.0	NG
	Muskellunge	55.4	S
	(<u>Esox masquinongy</u>)	54.1	S
	Walleye		
	(<u>Stizostedion vitreum</u>)	36.4	S
Station 10	Yellow perch	18.4	NG
	(<u>P. flavescens</u>)	17.8	NG
		18.6	NG
		18.3	MG
		19.1	NG
	Carp	64.0	MG
	(<u>C. carpio</u>)	64.8	MG
	White sucker	30.4	NG
Station 9	(<u>C. commersoni</u>)	35.3	NG
	Yellow perch		
	(<u>P. flavescens</u>)	20.9	NG
	Carp		
	(<u>C. carpio</u>)	59.0	FG
	White sucker	43.3	NG
	(<u>C. commersoni</u>)	43.6	NG
		33.2	NG
		22.4	NG

Table D3 (continued).

Sampling Date: 5-29-81 and 5-30-81

	<u>Species</u>	<u>Length(cm)</u>	<u>Sex Condition</u>
Station 9	Freshwater drum	43.8	NG
	(<u>A. grunniens</u>)	37.5	NG
	Smallmouth bass		
	(<u>Micropterus dolomieu</u>)	43.7	FR
	Muskellunge		
	(<u>E. masquinongy</u>)	51.1	FS
Station 8	Yellow perch		
	(<u>P. flavescens</u>)	20.3	NG
	White sucker		
	(<u>C. commersoni</u>)	37.1	NG
	Smallmouth bass		
	(<u>M. dolomieu</u>)	39.6	MS
	Largemouth bass		
	(<u>Micropterus salmoides</u>)	29.8	NG
	Rock bass		
	(<u>A. rupestris</u>)	19.6	S
Station 7	Yellow perch	22.8	NG
	(<u>P. flavescens</u>)	20.8	FS
		20.8	NG
	Smallmouth bass	43.7	FR
	(<u>M. dolomieu</u>)	38.5	FR
Station 6	Rock bass		
	(<u>A. rupestris</u>)	21.2	FG
	Walleye		
	(<u>S. vitreum</u>)	65.0	FS
	Rock bass		
Station 5	(<u>A. rupestris</u>)	20.6	NG
	Yellow perch		
	(<u>P. flavescens</u>)	19.2	NG
	Muskellunge		
	(<u>E. masquinongy</u>)	54.3	FS
Station 4	Rock bass	20.1	NG
	(<u>A. rupestris</u>)	19.2	NG
		12.1	NG
	Yellow perch		
	(<u>P. flavescens</u>)	19.5	MG
Station 4	White sucker		
	(<u>C. commersoni</u>)	34.1	NG

Table D3 (continued).

Sampling Date: 5-29-81 and 5-30-81

	<u>Species</u>	<u>Length(cm)</u>	<u>Sex Condition</u>
Station 4	Freshwater drum (<u>A. grunniens</u>)	34.0	FG
	Rock bass (<u>A. rupestris</u>)	25.7	NG
		20.5	NG
		19.8	FG
	Yellow perch (<u>P. flavescens</u>)	26.7	FS
		22.1	MG
		20.3	MG
		19.4	MG
		28.9	MG
		25.0	MG
		18.1	MG
		23.5	MG
		20.9	MG
	Stonecat (<u>Noturus flavus</u>)	23.5	NG
		21.3	NG
Station 3	Rock bass (<u>A. rupestris</u>)	19.5	NG
	Muskellunge (<u>E. masquinongy</u>)	73.0	NG
	Yellow perch (<u>P. flavescens</u>)	30.7	FS
		26.6	FS
		22.2	MG
		19.2	FG
Station 2		19.8	NG
	Muskellunge (<u>E. masquinongy</u>)	104.0	FG
	Smallmouth bass (<u>M. dolomieu</u>)	37.5	FG
Station 1	Rock bass (<u>A. rupestris</u>)	21.0	FG
		19.1	FG
	Yellow perch (<u>P. flavescens</u>)	19.7	MG
		18.0	MG
		21.9	S
	Stonecat (<u>N. flavus</u>)	20.4	NG
		26.5	NG

Table D4. Results of gill netting in Buffalo River and Outer Harbor of Buffalo.

Gill netting		NG = not gravid					
Sampling Date: 6-16-81 and 6-17-81		MG = male, gravid					
		FG = female, gravid					
		S = spent					
		I = immature					
	<u>Species</u>	<u>Length(cm)</u>	<u>Sex Condition</u>				
Station 14	Freshwater drum (<u>Aplodinotus grunniens</u>)	38.5	NG				
	White sucker (<u>Catostomus commersoni</u>)	<u>L(cm)</u> <u>SC</u>	<u>L(cm)</u> <u>SC</u>	<u>L(cm)</u> <u>SC</u>	<u>L(cm)</u> <u>SC</u>		
		37.4 NG	32.0 NG	34.7 NG			
		33.9 NG	31.3 NG	29.9 NG			
		31.5 NG	31.7 NG	35.2 NG			
		26.8 NG	33.3 NG	35.2 NG			
	Carp (<u>Cyprinus carpio</u>)	56.7	MG				
Station 13	Carp (<u>C. carpio</u>)	41.5	FG				
		38.5	MG				
		41.7	MG				
		39.9	MG				
		52.4	MG				
		49.0	FG				
		54.0	MG				
	Goldfish (<u>Carassius auratus</u>)	17.8	NG				
	White sucker (<u>C. commersoni</u>)	25.3	NG				
	Rock bass (<u>Ambloplites rupestris</u>)	13.9	NG				
	Brown bullhead (<u>Ictalurus nebulosus</u>)	27.3	NG				
Station 12	Yellow perch (<u>Perca flavescens</u>)	20.6	NG				
		19.0	NG				
	White sucker (<u>C. commersoni</u>)	32.0	NG				
		33.4	NG				
		31.2	NG				
		32.3	NG				
		38.1	NG				
Station 11	Carp (<u>C. carpio</u>)	72.4	MG				
	Rock bass (<u>A. rupestris</u>)	19.5	S				

Table D4 (continued).

Sampling Date: 6-16-81
and 6-17-81

	<u>Species</u>	<u>Length(cm)</u>	<u>Sex Condition</u>
Station 11	White sucker	38.1	NG
	(<u>C. commersoni</u>)	32.8	NG
		30.6	NG
		31.8	NG
		34.0	NG
		35.6	NG
		35.0	NG
		30.5	NG
		30.6	NG
		30.7	NG
		32.2	NG
		31.7	NG
		25.7	NG
	Yellow perch	19.4	NG
	(<u>P. flavescens</u>)	18.3	NG
		19.0	NG
		19.5	NG
		17.9	NG
		19.6	NG
		18.6	NG
Station 10	Carp	44.4	FG
	(<u>C. carpio</u>)	52.6	MG
	Goldcarp	51.3	MG
	(<u>C. carpio</u> x <u>C. auratus</u>)		
	Golden shiner	17.7	FG
	(<u>Notemigonus crysoleucas</u>)		
	White sucker	21.1	NG
Station 9	(<u>C. commersoni</u>)		
	Yellow perch	19.2	NG
	(<u>P. flavescens</u>)		
	Carp	63.2	MG
	(<u>C. carpio</u>)	61.0	MG
	White sucker	34.1	NG
	(<u>C. commersoni</u>)		
	Stonecat	22.5	FG
	(<u>Noturus flavus</u>)	23.6	NG
	Rock bass	18.7	S
	(<u>A. rupestris</u>)	19.4	S
		20.0	S
		18.8	FG
		17.6	FG
		20.0	FG

Table D4 (continued).

Sampling Date: 6-16-81
and 6-17-81

	<u>Species</u>	<u>Length(cm)</u>	<u>Sex Condition</u>
Station 9	Yellow perch (<u>P. flavescens</u>)	19.4	S
		20.3	NG
		18.5	NG
		17.7	NG
		16.1	NG
		17.6	NG
Station 8	Carp (<u>C. carpio</u>)	60.2	FG
		72.3	MG
		67.4	MG
		47.0	MG
	Shorthead redhorse sucker (<u>Moxostoma macrolepidotum</u>)	47.0	MG
	White sucker (<u>C. commersoni</u>)	21.3	NG
	Muskellunge (<u>Esox masquinongy</u>)	56.3	NG
	Walleye (<u>Stizostedion vitreum</u>)	48.5	NG
		48.0	NG
		44.0	NG
	Rock bass (<u>A. rupestris</u>)	18.6	FG
		19.5	FG
		20.9	FG
		18.3	S
		19.7	FG
		20.4	FG
		19.7	MG
		19.6	FG
		22.0	FG
		21.6	S
		20.6	MG
		20.0	S
		21.2	S
		18.2	MG
	Yellow perch (<u>P. flavescens</u>)	21.4	NG
		18.1	NG
		18.5	NG
		21.3	NG
		20.8	NG
		18.2	NG
Station 7	Smallmouth bass (<u>Micropterus dolomieu</u>)	17.7	NG
		19.9	NG
		36.7	FG
		34.4	FG

Table D4 (continued).

Sampling Date: 6-16-81
and 6-17-81

	<u>Species</u>	<u>Length(cm)</u>	<u>Sex Condition</u>
Station 7	Walleye	69.3	NG
	(<u>S. vitreum</u>)	54.2	NG
		45.7	NG
		36.7	NG
		41.7	NG
	Rock bass	25.5	FG
	(<u>A. rupestris</u>)	23.9	S
		19.0	FG
	Yellow perch	20.2	NG
	(<u>P. flavescens</u>)	19.7	MG
		20.1	NG
Station 6	Carp	70.6	MG
	(<u>C. carpio</u>)	66.0	MG
		71.6	S
	Rock bass	21.0	FG
	(<u>A. rupestris</u>)		
	Yellow perch	19.4	NG
	(<u>P. flavescens</u>)		
Station 5	Rock bass	19.8	S
	(<u>A. rupestris</u>)	19.1	S
		18.7	MG
		21.1	FG
		20.8	FG
		20.6	MG
		19.5	NG
		18.8	FG
		19.8	FG
	Brown bullhead	28.8	NG
	(<u>I. nebulosus</u>)		
	Yellow perch	19.5	NG
	(<u>P. flavescens</u>)	20.2	MG
	Golden shiner	17.8	FG
	(<u>Notemigonus crysoleucas</u>)		
Station 4	Freshwater drum	33.7	FG
	(<u>A. grunniens</u>)		
	Rock bass	24.9	FG
	(<u>A. rupestris</u>)	21.0	FG
		19.3	S
		19.5	S
		19.3	S
		19.8	S
		21.4	FG
		20.1	S

Table D4 (continued).

Sampling Date: 6-16-81
and 6-17-81

	<u>Species</u>	<u>Length(cm)</u>	<u>Sex Condition</u>
Station 4	Smallmouth bass	28.0	MG
	(<u>M. dolomieu</u>)	27.2	S
Station 3	Carp	42.7	NG
	(<u>C. carpio</u>)		
	Walleye	65.2	NG
	(<u>S. vitreum</u>)		
	Largemouth bass	26.0	FG
	(<u>Micropterus salmoides</u>)		
	Rock bass	20.4	FG
Station 2	(<u>A. rupestris</u>)	20.8	FG
	Pumpkinseed	11.4	I
	(<u>Lepomis gibbosus</u>)		
	Carp	70.9	MG
	(<u>C. carpio</u>)		
	Brown bullhead	25.8	NG
	(<u>I. nebulosus</u>)		
	Rock bass	21.0	S
	(<u>A. rupestris</u>)	20.2	S
		19.0	FG
		20.3	S
		20.2	S
		19.0	FG
		19.5	FG
	Pumpkinseed	13.1	I
	(<u>L. gibbosus</u>)		
	Yellow perch	20.4	NG
Station 1	(<u>P. flavescens</u>)	19.6	NG
		15.4	NG
	Carp	71.6	S
	(<u>C. carpio</u>)	69.9	MG
		65.8	MG
	Stonecat	21.2	FG
	(<u>N. flavus</u>)		
	Yellow perch	23.1	S
	(<u>P. flavescens</u>)		
	Rock bass	19.9	FG
	(<u>A. rupestris</u>)	19.9	FG
		19.5	FG
		20.5	S
		19.3	FG
		21.1	FG
		20.3	S
		20.7	S

Table D5. Results of gill netting in Buffalo River and Outer Harbor of Buffalo.

Gill Netting

Sampling Date: 7-15-81 to 7-17-81

NG = not gravid

MG = male, gravid

FG = female, gravid

S = spent

	<u>Species</u>	<u>Length(cm)</u>	<u>Sex Condition</u>		
Station 14	Carp (<u>Cyprinus carpio</u>)	45.6	S		
		54.7	NG		
		44.0	NG		
		40.0	NG		
		42.0	NG		
		38.9	NG		
		34.0	NG		
		35.7	NG		
		34.0	NG		
		36.0	NG		
		42.1	NG		
		26.9	NG		
		25.3	NG		
		29.7	NG		
		20.8	NG		
		40.1	MG		
		36.8	MG		
	Gizzard shad (<u>Dorosoma cepedianum</u>)	19.0	NG		
		16.3	NG		
		17.3	NG		
Station 13	Brown bullhead (<u>Ictalurus nebulosus</u>)	17.2	NG		
Station 13	Rock bass (<u>Ambloplites rupestris</u>)	13.8	S		
Station 13	Yellow perch (<u>Perca flavescens</u>)	15.0	NG		
Station 13	Carp (<u>C. carpio</u>)	53.0	NG	53.5	MG
		53.1	NG	43.1	NG
		40.5	NG	36.9	MG
		35.6	NG	42.0	MG
		39.9	NG	49.6	NG
		38.1	NG	39.9	NG
		39.5	NG	32.1	NG
		39.5	NG	39.2	MG
Station 13	Goldcarp (<u>C. carpio</u> x <u>C. auratus</u>)	44.5	NG		
Station 13	Goldfish (<u>Carassius auratus</u>)	44.2	NG		
		28.9	NG		

Table D5 (continued).

Sampling Date: 7-15-81 to 7-17-81

	<u>Species</u>	<u>Length(cm)</u>	<u>Sex Condition</u>		
Station 13	Yellow perch	17.0	NG		
	(<u>P. flavescens</u>)				
	Brown bullhead	18.5	NG		
	(<u>I. nebulosus</u>)				
	Rock bass	14.2	NG		
	(<u>A. rupestris</u>)				
	Gizzard shad	16.8	NG		
	(<u>D. cepedianum</u>)	16.8	NG		
		16.3	NG		
		18.0	NG		
		16.8	NG		
		17.3	NG		
Station 12	Brown bullhead	16.2	NG		
	(<u>I. nebulosus</u>)				
Station 11	Carp	52.7	S	54.4	NG
	(<u>C. carpio</u>)	47.5	NG	36.6	NG
		44.0	NG	46.0	NG
		40.9	NG	50.1	NG
		42.3	NG	42.2	NG
		40.2	NG	35.4	NG
		31.4	NG	22.2	NG
		26.2	NG	22.2	NG
		21.8	NG		
	Golden shiner	18.2	NG		
	(<u>Notemigonus crysoleucas</u>)				
	Brown bullhead	26.2	NG		
	(<u>I. nebulosus</u>)	24.2	NG		
		25.4	NG		
		25.4	NG		
		25.7	NG		
		25.2	NG		
	White sucker	30.2	NG		
	(<u>Catostomus commersoni</u>)	23.2	NG		
		21.5	NG		
		21.5	NG		
	Gizzard shad	42.5	NG		
	(<u>D. cepedianum</u>)	18.1	NG		
		17.0	NG		
		17.0	NG		

Table D5 (continued).

Sampling Date: 7-15-81 to 7-17-81

	<u>Species</u>	<u>Length(cm)</u>	<u>Sex Condition</u>
Station 11	Yellow perch (<u>P. flavescens</u>)	18.1	NG
		17.9	NG
		19.4	NG
		16.9	NG
		18.2	NG
	Pumpkinseed (<u>Lepomis gibbosus</u>)	12.0	MG
Station 10	Carp (<u>C. carpio</u>)	15.1	NG
		42.5	NG
		45.5	NG
	Goldcarp (<u>C. carpio</u> x <u>C. auratus</u>)	37.0	NG
	Yellow perch (<u>P. flavescens</u>)	17.8	NG
		18.0	NG
		17.5	NG
	Brown bullhead (<u>I. nebulosus</u>)	25.6	NG
Station 9	White sucker (<u>C. commersoni</u>)	22.2	NG
	Brown bullhead (<u>I. nebulosus</u>)	26.1	NG
		24.5	NG
		24.9	NG
		26.3	NG
		25.3	NG
		27.2	NG
	Gizzard shad (<u>D. cepedianum</u>)	15.7	NG
		17.7	NG
		17.3	NG
		15.2	NG
	Rock bass (<u>A. rupestris</u>)	19.9	NG
	Golden shiner (<u>N. crysoleucas</u>)	16.6	NG
	White sucker (<u>C. commersoni</u>)	33.0	NG
	Yellow perch (<u>P. flavescens</u>)	18.9	NG
		17.1	NG
		21.6	NG
		22.8	NG
		16.8	NG
		18.3	NG

Table D5 (continued).

Sampling Date: 7-15-81 to 7-17-81

	<u>Species</u>	<u>Length(cm)</u>	<u>Sex Condition</u>	
Station 9	Pumpkinseed (<u>L. gibbosus</u>)	11.0	NG	
	Goldfish (<u>C. auratus</u>)	24.3	NG	
	Carp (<u>C. carpio</u>)	56.0	NG	46.6
		55.1	NG	46.0
		51.1	NG	44.0
		47.2	MG	42.8
		57.0	NG	52.1
		35.2	MG	49.0
		59.4	NG	49.0
		44.0	MG	50.9
		42.0	NG	41.0
		26.1	NG	39.3
		39.9	NG	39.2
				NG
Station 8	Carp (<u>C. carpio</u>)	37.0	NG	
		52.0	NG	
		49.5	NG	
		57.8	NG	
		65.4	NG	
		68.1	MG	
	Goldcarp (<u>C. carpio</u> x <u>C. auratus</u>)	47.1	NG	
		58.2	NG	
		47.2	NG	
		55.3	NG	
		42.1	NG	
		46.1	NG	
	Shorthead redhorse sucker (<u>Moxostoma macrolepidotum</u>)	47.4	NG	
	White sucker (<u>C. commersoni</u>)	22.1	NG	
	Walleye (<u>Stizostedion vitreum</u>)	64.0	NG	
	Yellow perch (<u>P. flavescens</u>)	20.3	NG	
		17.2	NG	
		18.4	NG	
	Rock bass (<u>A. rupestris</u>)	13.1	NG	
Station 7	Carp (<u>C. carpio</u>)	49.0	NG	

Table D5 (continued).

Sampling Date: 7-15-81 to 7-17-81

	<u>Species</u>	<u>Length(cm)</u>	<u>Sex Condition</u>
Station 7	Shorthead redhorse sucker	49.3	NG
	(<u>M. macrolepidotum</u>)	49.0	NG
		44.9	NG
	White sucker	31.9	NG
	(<u>C. commersoni</u>)	34.3	NG
	Yellow perch	20.1	NG
	(<u>P. flavescens</u>)		
	Walleye	70.0	MG
	(<u>S. vitreum</u>)		
	Smallmouth bass	29.5	NG
Station 6	(<u>Micropterus dolomieu</u>)		
	Rock bass	14.2	NG
	(<u>A. rupestris</u>)	14.4	NG
	Quillback carpsucker	46.0	NG
	(<u>Carpionodes cyprinus</u>)		
	Carp	55.0	MG
	(<u>C. carpio</u>)	51.2	NG
		59.2	MG
		59.8	NG
	White sucker	34.8	NG
	(<u>C. commersoni</u>)		
	Gizzard shad	40.3	NG
	(<u>D. cepedianum</u>)		
	Yellow perch	19.6	NG
	(<u>P. flavescens</u>)	18.5	NG
		18.0	NG
	Smallmouth bass	26.0	NG
	(<u>M. dolomieu</u>)		
Station 5	Rock bass	18.5	NG
	(<u>A. rupestris</u>)	17.1	NG
	Carp	55.1	MG
Station 4	(<u>C. carpio</u>)		
	Pumpkinseed	12.6	NG
Station 4	(<u>L. gibbosus</u>)		
	Gizzard shad	41.1	NG
	(<u>D. cepedianum</u>)	40.4	NG
		46.0	NG
Station 4	Rock bass	19.5	NG
	(<u>A. rupestris</u>)		

Table D5 (continued).

Sampling Date: 7-15-81 to 7-17-81

	<u>Species</u>	<u>Length(cm)</u>	<u>Sex Condition</u>
Station 4	Smallmouth bass	26.9	NG
	(<u>M. dolomieu</u>)	26.5	NG
		27.0	NG
	White sucker	33.3	NG
	(<u>C. commersoni</u>)	33.0	NG
Station 3	Gizzard shad	40.1	NG
	(<u>D. cepedianum</u>)	40.1	NG
		40.3	NG
		40.3	NG
		40.2	NG
	Carp	40.7	NG
	(<u>C. carpio</u>)	50.5	NG
		36.0	NG
	Brown bullhead	25.0	NG
	(<u>I. nebulosus</u>)	26.0	NG
		18.0	NG
		25.5	NG
		19.5	NG
		29.0	NG
	White sucker	29.0	NG
	(<u>C. commersoni</u>)		
	Yellow perch	24.2	NG
	(<u>P. flavescens</u>)	19.6	NG
		23.2	NG
Station 2	Carp	70.7	MG
	(<u>C. carpio</u>)	59.2	NG
		56.7	NG
		50.5	MG
		50.0	MG
	Gizzard shad	42.0	NG
	(<u>D. cepedianum</u>)	42.1	NG
		42.9	NG
	Smallmouth bass	25.5	NG
	(<u>M. dolomieu</u>)	30.8	NG
	White sucker	20.9	NG
	(<u>C. commersoni</u>)		
	Yellow perch	19.8	NG
	(<u>P. flavescens</u>)	21.6	NG
Station 1	Carp	61.7	NG
	(<u>C. carpio</u>)		

Table D5 (continued).

Sampling Date: 7-15-81 to 7-17-81

	<u>Species</u>	<u>Length(cm)</u>	<u>Sex Condition</u>
Station 1	Smallmouth bass	47.7	S
	(<u>M. dolomieu</u>)	26.4	MG
		28.1	NG
	Rock bass	19.1	S
	(<u>A. rupestris</u>)	13.5	NG

Table D6. Results of gill netting in Buffalo River and Outer Harbor of Buffalo.

Gill Netting

Sampling Date: 8-19-81 and 8-20-81

NG = not gravid

MG = male, gravid

FG = female, gravid

	<u>Species</u>	<u>Length(cm)</u>	<u>Sex Condition</u>
Station 14	Carp	56.2	MG
	(<u>Cyprinus carpio</u>)	39.6	NG
	Goldfish	23.0	NG
	(<u>Carassius auratus</u>)		
	White sucker	35.0	NG
	(<u>Catostomus commersoni</u>)	32.4	NG
		30.2	NG
		32.1	NG
		31.6	NG
		33.7	NG
		31.0	NG
		43.4	NG
		31.9	NG
		32.6	NG
		32.2	NG
		34.4	NG
Station 13		30.4	NG
		32.0	NG
	Gizzard shad	18.2	NG
	(<u>Dorosoma cepedianum</u>)		
	Carp	56.0	NG
	(<u>C. carpio</u>)	44.2	FG
		41.4	FG
		41.1	NG
		53.5	NG
	Goldfish	29.5	NG
Station 12	(<u>C. auratus</u>)		
	White sucker	23.5	NG
	(<u>C. commersoni</u>)	22.6	NG
		21.5	NG
	Carp	41.1	NG
	(<u>C. carpio</u>)		
	White sucker	23.3	NG
	(<u>C. commersoni</u>)		
	Goldfish	20.2	NG
	(<u>C. auratus</u>)	19.2	NG
	Brown bullhead	16.3	NG
	(<u>Ictalurus nebulosus</u>)	17.4	NG

Table D6 (continued).

Sampling Date: 8-19-81 and 8-20-81

	<u>Species</u>	<u>Length(cm)</u>	<u>Sex Condition</u>
Station 12	Brown bullhead (<u>I. nebulosus</u>)	18.9	NG
		17.9	NG
		18.7	NG
		18.2	NG
Station 11	Brown bullhead (<u>I. nebulosus</u>)	26.0	NG
		26.3	NG
		25.8	NG
		27.6	FG
		25.7	NG
		26.8	FG
		25.4	FG
		24.5	NG
		33.0	NG
		25.2	FG
		20.4	MG
		22.3	MG
		25.7	NG
		31.1	FG
	Yellow perch (<u>Perca flavescens</u>)	20.2	FG
	Goldfish (<u>C. auratus</u>)	21.3	NG
	Black crappie (<u>Pomoxis nigromaculatus</u>)	18.0	NG
	White perch (<u>Morone americana</u>)	15.2	FG
		15.1	NG
	Golden shiner (<u>Notemigonus crysoleucas</u>)	16.9	FG
		17.0	NG
		19.4	NG
	Carp (<u>C. carpio</u>)	49.4	FG
		33.2	MG
		48.8	NG
		51.7	MG
		41.3	NG
		44.1	MG
		60.6	NG
		44.3	NG
		40.4	NG
		40.2	NG
		41.7	NG
		40.9	MG
		44.6	NG
		42.4	NG
		37.5	MG
		25.5	NG
		37.5	NG
		51.3	NG

Table D6 (continued).

Sampling Date: 8-19-81 and 8-20-81

	<u>Species</u>	<u>Length(cm)</u>	<u>Sex Condition</u>
Station 10	No fish caught		
Station 9	Carp	49.9	MG
	(<u>C. carpio</u>)	53.8	NG
		39.0	NG
		44.0	NG
		31.3	NG
		34.3	NG
		40.5	NG
		42.1	NG
		38.9	NG
		55.5	NG
		58.0	NG
		68.0	PG
		67.5	MG
		26.5	MG
		35.0	MG
	Goldcarp	31.0	NG
	(<u>C. carpio</u> x <u>C. auratus</u>)	32.4	NG
	Golden shiner	19.4	NG
	(<u>N. crysoleucas</u>)		
	White perch	18.4	NG
	(<u>M. americana</u>)	18.4	NG
	White bass	16.1	NG
	(<u>Morone chrysops</u>)		
	Gizzard shad	20.3	NG
	(<u>D. cepedianum</u>)	19.8	NG
	Yellow perch	19.0	NG
	(<u>P. flavescens</u>)	17.9	NG
		19.4	NG
		17.6	NG
		16.9	NG
		17.5	NG
		18.5	NG
	Black crappie	17.8	NG
	(<u>P. nigromaculatus</u>)		
	Rock bass	18.0	NG
	(<u>Ambloplites rupestris</u>)		
	Pumpkinseed	12.8	NG
	(<u>Lepomis gibbosus</u>)		
	Brown bullhead	20.3	NG
	(<u>I. nebulosus</u>)	19.2	NG
		17.8	NG
		28.4	NG
		19.5	NG

Table D6 (continued).

Sampling Date: 8-19-81 and 8-20-81

	<u>Species</u>	<u>Length(cm)</u>	<u>Sex Condition</u>
Station 8	Carp	70.0	MG
	(<u>C. carpio</u>)		
	Yellow perch	21.2	NG
	(<u>P. flavescens</u>)	22.2	NG
		19.1	NG
		24.2	NG
		19.4	NG
		19.6	NG
		17.5	NG
		19.0	NG
		20.8	NG
		19.7	NG
		18.8	NG
	Smallmouth bass	24.9	NG
	(<u>Micropterus dolomieu</u>)		
Station 7	Pumpkinseed	12.5	NG
	(<u>L. gibbosus</u>)		
	Shorthead redhorse sucker	27.5	NG
	(<u>Moxostoma macrolepidotum</u>)		
Station 6	Yellow perch	19.5	NG
	(<u>P. flavescens</u>)	20.1	NG
	Carp	58.2	MG
	(<u>C. carpio</u>)	78.3	NG
		62.6	MG
		51.0	NG
	White bass	20.7	NG
	(<u>M. chrysops</u>)		
	Gizzard shad	23.4	NG
	(<u>D. cepedianum</u>)		
Station 5	Yellow perch	20.4	NG
	(<u>P. flavescens</u>)		
	Yellow perch	20.8	NG
	(<u>P. flavescens</u>)		
	Carp	44.2	MG
	(<u>C. carpio</u>)	43.5	FG
		48.6	NG
		57.2	MG
		47.0	MG
		39.5	NG
		54.5	MG
		44.8	MG

Table D6 (continued).

Sampling Date: 8-19-81 and 8-20-81

	<u>Species</u>	<u>Length(cm)</u>	<u>Sex Condition</u>
Station 4	Carp	56.0	MG
	(<u>C. carpio</u>)		
	Rock bass	20.4	NG
	(<u>A. rupestris</u>)	15.4	NG
Station 3	Carp	60.0	MG
	(<u>C. carpio</u>)	46.5	MG
		46.5	NG
		17.9	NG
Station 2	Golden shiner		
	(<u>N. crysoleucas</u>)		
	Carp	51.8	MG
	(<u>C. carpio</u>)	43.4	MG
		41.5	MG
		45.5	NG
		27.6	NG
	Smallmouth bass		
	(<u>M. dolomieu</u>)		
	Rock bass	15.5	NG
	(<u>A. rupestris</u>)		
	Yellow perch	22.2	NG
	(<u>P. flavescens</u>)	20.2	NG
	Gizzard shad	20.1	NG
	(<u>D. cepedianum</u>)	21.7	NG
	Brown bullhead	27.2	NG
	(<u>I. nebulosus</u>)	27.5	NG
		27.8	NG
		26.0	NG
Station 1	Carp	64.0	MG
	(<u>C. carpio</u>)	55.8	NG
	Smallmouth bass	29.0	NG
	(<u>M. dolomieu</u>)	25.6	NG
	Rock bass	13.1	NG
	(<u>A. rupestris</u>)		
	Yellow perch	19.6	NG
	(<u>P. flavescens</u>)		
	Stonecat	24.5	NG
	(<u>Noturus flavus</u>)		

Table D7. Results of gill netting in Buffalo River and Outer Harbor of Buffalo.

Gill Netting

Sampling Date: 9-11-81

NG = not gravid
MG = male, gravid
FG = female, gravid

	<u>Species</u>	<u>Length(cm)</u>	<u>Sex Condition</u>
Station 14	Carp	50.2	NG
	(<u>Cyprinus carpio</u>)		
	White sucker	38.3	NG
	(<u>Catostomus commersoni</u>)	31.7	NG
		34.5	NG
		30.9	NG
		32.8	NG
Station 13		23.0	NG
	Carp	63.2	NG
	(<u>C. carpio</u>)	37.5	NG
		51.9	NG
		39.0	NG
		20.1	NG
	Goldfish		
	(<u>Carassius auratus</u>)		
	Brown bullhead	27.5	NG
	(<u>Ictalurus nebulosus</u>)	25.7	NG
	White sucker	33.6	NG
Station 12	(<u>C. commersoni</u>)	20.3	NG
		23.2	NG
	White sucker	23.0	NG
	(<u>C. commersoni</u>)	31.4	NG
		28.5	NG
		20.9	NG
		35.7	NG
		22.9	NG
		34.4	NG
		37.5	NG
		26.2	NG
		21.7	NG
		21.4	NG
		34.0	NG
		33.3	NG
		33.9	NG
		22.5	NG
		37.0	NG
		33.3	NG
Gizzard shad		34.0	NG
	(<u>Dorosoma cepedianum</u>)	33.5	NG
		32.8	NG
		21.5	NG
		21.2	NG
		19.5	NG
		18.0	NG
		19.0	NG
		19.5	NG
		19.6	NG
		16.6	NG
		18.5	NG
		18.5	NG
		19.1	NG

Sampling Date: 9-11-81

Table D7 (continued).

	<u>Species</u>	<u>Length(cm)</u>	<u>Sex Condition</u>
Station 12	Brown bullhead (<u>I. nebulosus</u>)	29.6	NG
		18.3	NG
	Yellow perch (<u>Perca flavescens</u>)	19.0	NG
		18.3	NG
		18.5	NG
Station 11	Carp (<u>C. carpio</u>)	28.0	NG
		40.2	NG
		68.0	NG
		64.5	MG
		24.2	NG
	Gizzard shad (<u>D. cepedianum</u>)	19.7	NG
	Brown bullhead (<u>I. nebulosus</u>)	7.4	NG
		28.5	NG
		27.0	NG
		28.6	NG
	Yellow perch (<u>P. flavescens</u>)	19.7	NG
	Pumpkinseed (<u>Lepomis gibbosus</u>)	11.2	NG
	Smallmouth bass (<u>Micropterus dolomieu</u>)	20.0	NG
	Golden shiner (<u>Notemigonus crysoleucas</u>)	8.7	NG
	White perch (<u>Morone americana</u>)	16.5	NG
Station 10	Carp (<u>C. carpio</u>)	40.3	NG
		32.3	NG
		31.2	NG
		56.0	NG
		50.6	NG
		25.4	NG
	White sucker (<u>C. commersoni</u>)	36.0	NG
		23.2	NG
		23.0	NG
		19.2	NG
	Yellow perch (<u>P. flavescens</u>)		
		20.0	NG
	Brown bullhead (<u>I. nebulosus</u>)		

Table D7 (continued).

Sampling Date: 9-11-81

	<u>Species</u>	<u>Length(cm)</u>	<u>Sex Condition</u>
Station 9	Carp	43.0	NG
	(<u>C. carpio</u>)	45.9	MG
		54.9	MG
		61.0	MG
		51.5	MG
	Gizzard shad	20.9	NG
	(<u>D. cepedianum</u>)		
	Walleye	62.6	NG
	(<u>Stizostedion vitreum</u>)		
	White perch	15.5	NG
	(<u>M. americana</u>)	15.4	NG
	Yellow perch	13.1	NG
	(<u>P. flavescens</u>)	18.5	NG
	Brown bullhead	21.4	NG
Station 8	(<u>I. nebulosus</u>)		
	Pumpkinseed	15.4	NG
	(<u>L. gibbosus</u>)		
	Rock bass	25.1	NG
	(<u>Ambloplites rupestris</u>)	20.0	NG
	Carp	43.5	FG
	(<u>C. carpio</u>)		
	Black crappie	20.5	NG
	(<u>Pomoxis nigromaculatus</u>)		
	Yellow perch	26.4	NG
Station 7	(<u>P. flavescens</u>)	18.5	NG
	White sucker	33.0	NG
	(<u>C. commersoni</u>)		
	Yellow perch	19.5	NG
	(<u>P. flavescens</u>)		
	Rock bass	19.8	NG
	(<u>A. rupestris</u>)	18.9	NG
	Smallmouth bass	18.6	MG
	(<u>M. dolomieu</u>)		
	Stonecat	21.9	NG
	(<u>Noturus flavus</u>)	22.2	NG

Table D7 (continued).

Sampling Date: 9-11-81

	<u>Species</u>	<u>Length(cm)</u>	<u>Sex Condition</u>
Station 6	Carp	66.0	NG
	(<u>C. carpio</u>)	56.5	NG
		56.0	NG
		56.2	MG
		50.9	MG
		43.0	NG
		21.8	NG
	Brown bullhead	30.0	NG
	(<u>I. nebulosus</u>)	27.2	NG
	White sucker	38.5	NG
	(<u>C. commersoni</u>)		
	Gizzard shad	25.2	NG
	(<u>D. cepedianum</u>)	25.0	NG
		38.5	NG
	Largemouth bass	27.5	NG
	(<u>Micropterus salmoides</u>)		
Station 5	Rock bass	22.7	NG
	(<u>A. rupestris</u>)		
	Yellow perch	20.5	NG
	(<u>P. flavescens</u>)	22.4	NG
	Carp	59.3	MG
	(<u>C. carpio</u>)	53.2	MG
Station 4		50.2	MG
	Yellow perch	18.3	NG
	(<u>P. flavescens</u>)	19.6	NG
		20.4	NG
	Quillback carpsucker	46.4	NG
	(<u>Carpiodes cyprinus</u>)		
	Shorthead redhorse sucker	43.7	NG
	(<u>Moxostoma macrolepidotum</u>)	47.3	NG
	White sucker	34.1	NG
	(<u>C. commersoni</u>)		
	Freshwater drum	40.0	NG
	(<u>Aplodinotus grunniens</u>)		
	Yellow perch	29.0	NG
	(<u>P. flavescens</u>)		
	Walleye	50.2	NG
	(<u>S. vitreum</u>)	43.5	NG

Table D7 (continued).

Sampling Date: 9-11-81

	<u>Species</u>	<u>Length(cm)</u>	<u>Sex Condition</u>
Station 4	Smallmouth bass	33.0	NG
	(<u>M. dolomieu</u>)	32.2	MG
	Rock bass	17.6	NG
	(<u>A. rupestris</u>)	16.0	NG
Station 3	Northern pike	82.8	NG
	(<u>Esox lucius</u>)		
	Muskellunge	47.1	NG
	(<u>Esox masquinongy</u>)		
	Brown bullhead	22.6	NG
	(<u>I. nebulosus</u>)		
	Pumpkinseed	12.0	NG
	(<u>L. gibbosus</u>)		
Station 2	Carp	55.8	NG
	(<u>C. carpio</u>)	54.5	NG
		45.1	NG
		49.0	NG
		57.3	MG
		50.7	NG
	Golden shiner	18.2	NG
	(<u>N. crysoleucas</u>)		
	White sucker	41.5	NG
	(<u>C. commersoni</u>)		
	Walleye	49.9	NG
	(<u>S. vitreum</u>)		
	Yellow perch	18.4	NG
	(<u>P. flavescens</u>)	20.0	NG
		18.4	NG
		18.9	NG
		21.3	NG
	Brown bullhead	25.6	NG
	(<u>I. nebulosus</u>)		
	Black crappie	18.0	NG
	(<u>P. nigromaculatus</u>)		
	Pumpkinseed	12.1	NG
	(<u>L. gibbosus</u>)	12.3	NG
Station 1	No fish captured		

Table D8. Results of gill netting in Buffalo River and Outer Harbor of Buffalo.

Gill Netting

Sampling Date: 10-10-81

NG = not gravid

MG = male, gravid

FG = female, gravid

S = spent

I = immature

	<u>Species</u>	<u>Length(cm)</u>	<u>Sex Condition</u>
Station 14	Carp	45.1	NG
	(<u>Cyprinus carpio</u>)	56.6	NG
		39.0	NG
	White sucker	31.3	NG
	(<u>Catostomus commersoni</u>)	30.5	NG
		32.1	MG
		32.7	NG
		31.5	NG
		30.0	NG
Station 13	White sucker	31.5	NG
	(<u>C. commersoni</u>)	30.0	NG
Station 12	Shorthead redhorse sucker	56.6	S
	(<u>Moxostoma macrolepidotum</u>)		
	White sucker	24.1	NG
	(<u>C. commersoni</u>)	34.0	NG
	Gizzard shad	24.0	NG
	(<u>Dorosoma cepedianum</u>)		
	Yellow perch	20.5	NG
	(<u>Perca flavescens</u>)	17.9	NG
Station 11	Rainbow trout	22.4	I
	(<u>Salmo gairdneri</u>)		
	White sucker	33.2	FG
	(<u>C. commersoni</u>)	32.4	NG
		38.3	NG
		22.8	NG
		20.6	NG
		31.4	NG
		32.7	NG
	Golden shiner	17.9	NG
	(<u>Notemigonus crysoleucas</u>)	20.6	NG
		19.2	NG
	Brown bullhead	19.5	NG
	(<u>Ictalurus nebulosus</u>)	17.4	NG

Table D8 (continued).

Sampling Date: 10-10-81

	<u>Species</u>	<u>Length(cm)</u>	<u>Sex Condition</u>
Station 11	Yellow perch	18.5	NG
	(<u>P. flavescens</u>)	26.7	FG
	Rainbow trout	24.2	I
	(<u>S. gairdneri</u>)		
Station 10	Yellow perch	18.1	FG
	(<u>P. flavescens</u>)	19.5	FG
		19.2	MG
		20.0	NG
		18.8	NG
		18.4	NG
	Goldfish	22.5	NG
	(<u>Carassius auratus</u>)		
Station 9	Carp	65.2	NG
	(<u>C. carpio</u>)		
	White sucker	31.1	NG
	(<u>C. commersoni</u>)		
	Yellow perch	18.9	NG
	(<u>P. flavescens</u>)	20.8	NG
	Stonecat	20.3	NG
	(<u>Noturus flavus</u>)	24.5	NG
	Chinook salmon	61.8	MG
	(<u>Oncorhynchus tshawytscha</u>)		
Station 8	Goldfish	29.7	NG
	(<u>C. auratus</u>)		
	Yellow perch	18.8	NG
	(<u>P. flavescens</u>)	18.6	NG
		18.9	NG
		18.8	FG
		20.5	NG
		19.7	FG
	Walleye	52.5	MG
	(<u>Stizostedion vitreum</u>)		
	Rock bass	20.6	NG
	(<u>Ambloplites rupestris</u>)	17.9	NG
		18.9	NG
Station 7	Shorthead redhorse sucker	50.9	NG
	(<u>M. macrolepidotum</u>)	48.5	NG
		46.2	NG

Table D8 (continued).

Sampling Date: 10-10-81

	<u>Species</u>	<u>Length(cm)</u>	<u>Sex Condition</u>
Station 7	White sucker	41.0	NG
	(<u>C. commersoni</u>)	30.8	NG
		23.0	NG
	Yellow perch	18.9	MG
	(<u>P. flavescens</u>)	18.2	NG
	Walleye	45.9	M
	(<u>S. vitreum</u>)		
Station 6	Muskellunge	74.9	NG
	(<u>Esox masquinongy</u>)		
	Yellow perch	17.8	NG
	(<u>P. flavescens</u>)	18.8	FG
Station 5	Walleye	50.6	MG
	(<u>S. vitreum</u>)		
	Carp	62.0	MG
Station 5	(<u>C. carpio</u>)		
	Yellow perch	20.1	NG
	(<u>P. flavescens</u>)	20.2	NG
		18.8	NG
	Stonecat	21.6	NG
	(<u>N. flavus</u>)		
	Rock bass	13.8	NG
Station 5	(<u>A. rupestris</u>)		
	Muskellunge	66.8	NG
	(<u>E. masquinongy</u>)		
Station 4	No fish caught		
Station 3	Yellow perch	26.4	NG
	(<u>P. flavescens</u>)	18.8	NG
		20.6	NG
		18.9	NG
		19.7	NG
		23.0	NG
		20.2	NG
	Largemouth bass	24.1	NG
	(<u>Micropterus salmoides</u>)		
	Gizzard shad	19.8	NG
	(<u>D. cepedianum</u>)	23.0	NG
	Muskellunge	65.5	NG
	(<u>E. masquinongy</u>)		

Table D8 (continued).

Sampling Date: 10-10-81

	<u>Species</u>	<u>Length(cm)</u>	<u>Sex Condition</u>
Station 2	White sucker (<u>C. commersoni</u>)	41.1	MG
	Brown bullhead (<u>I. nebulosus</u>)	28.6	NG
Station 1	Yellow perch (<u>P. flavescens</u>)	19.5	NG

Table D9. Results of gill netting in Buffalo River and Outer Harbor of Buffalo.

Gill Netting		NG = not gravid	
Sampling Date: 11-7-81		MG = male, gravid	
		FG = female, gravid	
	<u>Species</u>	<u>Length(cm)</u>	<u>Sex Condition</u>
Station 14	Yellow perch (<u>Perca flavescens</u>)	18.5	M
	White sucker (<u>Catostomus commersoni</u>)	22.9	NG
Station 13	Golden shiner (<u>Notemigonus crysoleucas</u>)	18.3	NG
Station 12	White sucker (<u>C. commersoni</u>)	32.5	NG
		22.1	NG
		18.3	NG
		41.8	NG
	Gizzard shad (<u>Dorosoma cepedianum</u>)	49.3	NG
Station 11	Carp (<u>Cyprinus carpio</u>)	64.3	NG
		66.0	MG
	Yellow perch (<u>P. flavescens</u>)	19.1	NG
		19.1	NG
		26.8	FG
	Shorthead redhorse sucker (<u>Moxostoma macrolepidotum</u>)	19.6	NG
	White sucker (<u>C. commersoni</u>)	32.5	NG
		34.3	NG
		35.3	NG
		22.6	NG
Station 10	Yellow perch (<u>P. flavescens</u>)	19.6	NG
	Muskellunge (<u>Esox masquinongy</u>)	67.1	M (cut)
Station 9	Yellow perch (<u>P. flavescens</u>)	19.2	FG
	Stonecat (<u>Noturus flavus</u>)	21.6	NG
		20.6	NG

Table D9 (continued).

Sampling Date: 11-7-81

	<u>Species</u>	<u>Length(cm)</u>	<u>Sex Condition</u>
Station 9	Carp (<u>C. carpio</u>)	59.8	MG
Station 8	Shorthead redhorse sucker (<u>M. macrolepidotum</u>)	42.7	NG
	White sucker (<u>C. commersoni</u>)	43.4	NG
	Stonecat (<u>N. flavus</u>)	21.6	NG
	Yellow perch (<u>P. flavescens</u>)	19.4	NG
		18.4	NG
	Rock bass (<u>Ambloplites rupestris</u>)	18.5	NG
Station 7	Net lost		
Station 6	Yellow perch (<u>P. flavescens</u>)	19.5	NG
	Smelt (<u>Osmerus mordax</u>)	17.0	NG
Station 5	No fish caught		
Station 4	Yellow perch (<u>P. flavescens</u>)	19.1	NG
	White perch (<u>C. commersoni</u>)	16.3	NG
	Alewife (<u>Alosa pseudoharengus</u>)	23.8	NG
	Rock bass (<u>A. rupestris</u>)	19.4	NG
Station 3	Yellow perch (<u>P. flavescens</u>)	19.5	NG
		19.4	NG
		18.6	NG
		25.5	NG
		21.0	MG
		19.0	NG
		27.5	NG
		20.0	NG
		17.4	NG
	Brown bullhead (<u>Ictalurus nebulosus</u>)	27.1	NG
		29.2	NG
		26.0	NG

Table D9 (continued).

Sampling Date: 11-7-81

	<u>Species</u>	<u>Length(cm)</u>	<u>Sex Condition</u>
Station 3	Carp	45.1	NG
	(<u>C. carpio</u>)	43.0	NG
	Pumpkinseed	11.7	NG
	(<u>Lepomis gibbosus</u>)	11.9	NG
Station 2	Muskellunge	77.0	NG
	(<u>E. masquinongy</u>)	52.5	NG
		68.0	NG
		70.2	NG
	Carp	49.4	NG
	(<u>C. carpio</u>)	48.0	NG
		32.1	NG
	Yellow perch	17.9	FG
	(<u>P. flavescens</u>)		
	Alewife	24.3	MG
	(<u>A. pseudoharengus</u>)		
Station 1	Shorthead redhorse sucker	40.9	NG
	(<u>M. macrolepidotum</u>)		
	White sucker	22.5	NG
	(<u>C. commersoni</u>)		
	Stonecat	20.5	NG
	(<u>N. flavus</u>)	22.9	NG

Table D10. Results of gill netting in Buffalo River and Outer Harbor of Buffalo.

Gill Netting		NG = not gravid	
Sampling Date: 12-5-81		FG = female, gravid	
	<u>Species</u>	<u>Length(cm)</u>	<u>Sex Condition</u>
Station 14	White sucker (<u>Catostomus commersoni</u>)	32.0	NG
		34.0	NG
		35.5	NG
		20.5	NG
Station 13	No fish caught		
Station 12	White sucker (<u>C. commersoni</u>)	41.5	NG
		22.0	NG
		22.0	NG
Station 11	White sucker (<u>C. commersoni</u>)	37.0	NG
		31.5	NG
Station 10	Yellow perch (<u>Perca flavescens</u>)	18.7	NG
		18.8	NG
		20.4	NG
		19.1	FG
		17.5	FG
		19.5	NG
		19.7	NG
		17.4	NG
	White sucker (<u>C. commersoni</u>)	22.8	NG
		21.4	NG
		21.8	NG
		20.6	NG
		43.7	NG
Station 9	No fish caught		
Station 8	No fish caught		
Station 7	White sucker (<u>C. commersoni</u>)	41.0	NG
Station 6	Brown trout (<u>Salmo trutta</u>)	57.5	NG
	Northern pike (<u>Esox lucius</u>)	61.4	NG
	Carp (<u>Cyprinus carpio</u>)	63.0	NG
		58.7	NG
Station 5	No fish caught		

Table D10 (continued).

Sampling Date: 12-5-81

	<u>Species</u>	<u>Length(cm)</u>	<u>Sex Condition</u>
Station 4	White sucker	37.2	NG
	(<u>C. commersoni</u>)	41.2	NG
		42.3	NG
		44.8	NG
		21.5	NG
		20.5	NG
	Shorthead redhorse sucker	35.7	NG
	(<u>Moxostoma macrolepidotum</u>)	35.8	NG
	Rock bass	16.9	NG
	(<u>Ambloplites rupestris</u>)		
Station 3	Yellow perch	20.1	NG
	(<u>P. flavescens</u>)		
	Stonecat	20.1	NG
	(<u>Noturus flavus</u>)		
	Carp	68.8	NG
	(<u>C. carpio</u>)		
	Northern pike	35.4	NG
	(<u>E. lucius</u>)		
	Muskellunge	66.6	NG
	(<u>Esox masquinongy</u>)	85.4	NG
Station 2		92.0	NG
		66.7	NG
	Gold/Carp	46.1	NG
	(<u>C. carpio</u> x <u>Carassius auratus</u>)		
	Carp	62.8	NG
	(<u>C. carpio</u>)	62.9	NG
		63.3	NG
		63.0	NG
		59.0	NG
		45.6	NG
Station 1		39.3	NG
	Alewife	23.5	NG
	(<u>Alosa pseudoharengus</u>)		
	Yellow perch	20.0	FG
	(<u>P. flavescens</u>)	18.2	NG
		18.8	NG
	White sucker	33.5	NG
	(<u>C. commersoni</u>)	47.0	NG
	Shorthead redhorse sucker	54.0	NG
	(<u>M. macrolepidotum</u>)		

Table D11. Results of gill netting in Buffalo River and Outer Harbor of Buffalo.

Gill Netting		NG = not gravid	
Sampling Dates: 1-4-82 and 1-5-82		MG = male, gravid	
		FG = female, gravid	
	<u>Species</u>	<u>Length(cm)</u>	<u>Sex Condition</u>
Station 14	No fish caught		
Station 13	White sucker (<u>Catostomus commersoni</u>)	40.8	NG
Station 12	No fish caught		
Station 11	Smelt (<u>Osmerus mordax</u>)	17.9	NG
	Gizzard shad (<u>Dorosoma cepedianum</u>)	30.2	NG
		30.6	NG
		25.5	NG
		24.0	NG
		19.2	NG
	Carp (<u>Cyprinus carpio</u>)	61.0	NG
Station 10	Rainbow trout (<u>Salmo gairdneri</u>)	29.5	NG
	Yellow perch (<u>Perca flavescens</u>)	23.4	NG
	Gizzard shad (<u>D. cepedianum</u>)	28.0	NG
		23.4	NG
	White sucker (<u>C. commersoni</u>)	31.6	NG
		22.7	NG
		22.1	NG
	Carp (<u>C. carpio</u>)	50.6	NG
Station 9	White sucker (<u>C. commersoni</u>)	39.0	NG
		33.2	NG
	Muskellunge (<u>Esox masquinongy</u>)	99.2	NG

Table D11 (continued.)

Sampling Date: 1-4-82 and 1-5-82

	<u>Species</u>	<u>Length(cm)</u>	<u>Sex Condition</u>
Station 8	White sucker	55.2	NG
	(<u>C. commersoni</u>)	50.4	NG
		43.5	NG
		41.0	NG
		40.3	NG
		45.5	NG
		43.0	NG
		43.1	NG
		44.3	NG
		43.7	NG
		37.5	NG
		36.7	NG
	Shorthead redhorse sucker (<u>Moxostoma macrolepidotum</u>)	46.0	NG
	Greater redhorse sucker (<u>Moxostoma valenciennesi</u>)	58.9	NG
Station 7	Rock bass (<u>Ambloplites rupestris</u>)	20.0	NG
	White sucker (<u>C. commersoni</u>)	43.1	NG
Station 6	Rainbow trout (<u>S. gairdneri</u>)	38.5	NG
	Northern pike (<u>Esox lucius</u>)	55.1	NG
	Shorthead redhorse sucker (<u>M. macrolepidotum</u>)	48.0	NG
Station 5	Muskellunge (<u>E. masquinongy</u>)	101.5	NG
		69.0	NG
		70.5	NG
	White sucker (<u>C. commersoni</u>)	34.0	NG
	Carp (<u>C. carpio</u>)	57.9	NG
Station 4	Smallmouth bass (<u>Micropterus dolomieu</u>)	33.8	NG
	Freshwater drum (<u>Aplodinotus grunniens</u>)	39.4	MG

Table D11 (continued).

Sampling Date: 1-4-82 and 1-5-82

	<u>Species</u>	<u>Length(cm)</u>	<u>Sex Condition</u>
Station 4	White sucker	53.5	NG
	(<u>C. commersoni</u>)	40.1	NG
		40.8	NG
	Shorthead redhorse sucker	48.5	NG
	(<u>M. macrolepidotum</u>)		
Station 3	Carp	49.0	NG
	(<u>C. carpio</u>)	72.0	NG
		52.8	NG
		50.6	NG
		55.1	NG
		68.4	NG
		41.6	NG
	Muskellunge	66.9	NG
	(<u>E. masquinongy</u>)	65.0	NG
		51.2	NG
	Brown bullhead	27.9	NG
	(<u>Ictalurus nebulosus</u>)		
	Rainbow trout	44.8	NG
	(<u>S. gairdneri</u>)		
	Black crappie	16.7	NG
	(<u>Pomoxis nigromaculatus</u>)	20.5	NG
		23.3	NG
		20.2	NG
	Yellow perch	16.9	NG
	(<u>P. flavescens</u>)	19.6	NG
		17.3	FG
	Pumpkinseed	12.1	NG
	(<u>Lepomis gibbosus</u>)		
	Golden shiner	17.5	NG
	(<u>Notemigonus crysoleucas</u>)	20.2	NG
		18.9	NG
Station 2	Muskellunge	30.1	NG
	(<u>E. masquinongy</u>)	69.7	NG
		65.5	NG
	Carp	66.5	NG
	(<u>C. carpio</u>)	64.0	NG
		68.3	NG
		63.3	NG
		56.5	NG
		57.1	NG
		65.0	NG
		54.1	NG
		46.9	NG
		45.5	NG

Table D11 (continued).

Sampling Date: 1-4-82 and 1-5-82

	<u>Species</u>	<u>Length(cm)</u>	<u>Sex Condition</u>
Station 2	Rock bass	20.6	NG
	(<u>A. rupestris</u>)	18.5	NG
	Yellow perch	17.7	FG
	(<u>P. flavescens</u>)		
Station 1	White sucker	48.2	NG
	(<u>C. commersoni</u>)	35.3	NG
		31.9	NG

Table E1. Gill netting in disposal areas 1 and 4. 28-29 May 1981.

		NG = not gravid MG = male, gravid FG = female, gravid S = spent	
	<u>Species</u>	<u>Length(cm)</u>	<u>Sex Condition</u>
Disposal Area 1	two trap nets vandalized and stolen		
Disposal Area 4, Net 1	White sucker	45.5	NG
	(<u>Catostomus commersoni</u>)	40.8	NG
		45.7	MG
		37.3	NG
	Hognose sucker		
	(<u>Hypentelium nigricans</u>)	33.8	NG
	Freshwater drum	34.6	FG
	(<u>Aplodinotus grunniens</u>)	31.7	FG
		35.5	NG
		34.1	NG
		26.0	NG
	Rock bass		
	(<u>Ambloplites rupestris</u>)	20.1	FG
	Yellow perch	19.1	MG
	(<u>Perca flavescens</u>)	20.7	MG
		21.2	MG
		19.4	NG
		21.3	MG
		20.5	MG
		20.9	MG
	Stonecat	24.9	NG
	(<u>Noturus flavus</u>)	22.7	NG
		22.8	NG
		20.9	NG
		19.1	NG
		19.3	NG
		21.8	NG
		19.3	NG
		22.4	NG
Disposal Area 4, Net 2	Rock bass	20.1	FG
	(<u>A. rupestris</u>)	20.6	NG
		13.6	NG
		13.1	NG
	Yellow perch	20.0	NG
	(<u>P. flavescens</u>)	23.4	NG
		20.2	MG
	Stonecat		
	(<u>N. flavus</u>)	19.9	NG

Table E2. Gill netting in disposal areas 1 and 4. 15-17 July 1981.

		NG = not gravid MG = male, gravid			
	<u>Species</u>	<u>Length(cm)</u>	<u>Sex Condition</u>		
Disposal Area 1,	Freshwater drum	56.0	NG		
	(<u>Aplodinotus grunniens</u>)	35.8	NG		
Net 1	Carp	41.2	NG		
	(<u>Cyprinus carpio</u>)	43.6	NG		
	Brown bullhead	24.8	NG		
	(<u>Ictalurus nebulosus</u>)	24.3	NG		
		25.2	NG		
		24.2	NG		
	Gizzard shad	42.4	NG		
	(<u>Dorosoma cepedianum</u>)				
	Rock bass	20.5	NG		
	(<u>Ambloplites rupestris</u>)				
	Pumpkinseed	12.0	NG	12.6	MG
	(<u>Lepomis gibbosus</u>)	11.5	MG	12.0	MG
		11.4	NG	12.4	MG
		11.7	NG	11.7	MG
		11.5	NG	11.8	NG
		11.5	MG	12.5	MG
Disposal Area 1,	Carp	69.0	MG		
	(<u>C. carpio</u>)				
Net 2	Yellow perch	17.3	NG		
	(<u>Perca flavescens</u>)				
	Pumpkinseed	11.4	MG		
	(<u>L. gibbosus</u>)				
	Brown bullhead	25.4	NG		
	(<u>I. nebulosus</u>)	27.7	NG		
		25.4	NG		
		25.7	NG		
		24.2	NG		
		21.9	NG		
Disposal Area 4,	Yellow perch	20.6	NG		
	(<u>P. flavescens</u>)				
Net 1	Rock bass	18.7	NG		
	(<u>A. rupestris</u>)	15.0	NG		
		14.8	NG		
		13.2	NG		

Table E2 (continued).

	<u>Species</u>	<u>Length(cm)</u>	<u>Sex Condition</u>
Disposal Area 4, Net 2	Walleye	58.4	NG
	(<u>Stizostedion vitreum</u>)	54.7	NG
		45.0	NG
	Yellow perch	19.1	NG
	(<u>P. flavescens</u>)		
	Shorthead redhorse sucker	45.9	NG
	(<u>Moxostoma macrolepidotum</u>)		
	White sucker	31.1	NG
	(<u>Catostomus commersoni</u>)		
	Freshwater drum	45.3	NG
	(<u>A. grunniens</u>)		
	Smallmouth bass	26.4	NG
	(<u>Micropterus dolomieu</u>)		
	Rock bass	18.1	NG
	(<u>A. rupestris</u>)	18.3	NG
		17.8	NG
		18.4	NG
		18.5	NG
		13.4	NG
		15.6	NG
		16.2	NG
		21.9	NG
		13.7	NG

Table E3. Gill netting in disposal areas 1 and 4. 11 September 1981.

		NG = not gravid MG = male, gravid	
	<u>Species</u>	<u>Length(cm)</u>	<u>Sex Condition</u>
Disposal Area 1	Yellow perch	20.5	NG
	(<u>Perca flavescens</u>)	20.5	NG
		19.4	NG
		18.8	NG
Net 1	Pumpkinseed (<u>Lepomis gibbosus</u>)	12.5	NG
Disposal Area 1	Carp	41.0	NG
	(<u>Cyprinus carpio</u>)	45.5	NG
	Pumpkinseed	12.5	NG
	(<u>L. gibbosus</u>)	12.0	NG
Net 2	Black crappie	21.0	NG
	(<u>Pomoxis nigromaculatus</u>)		
	Yellow perch	19.5	NG
	(<u>P. flavescens</u>)	21.5	MG
Disposal Area 4	Carp	71.0	NG
	(<u>C. carpio</u>)	59.9	NG
		52.5	NG
		48.0	NG
Net 1	Coho salmon	43.7	NG
	(<u>Oncorhynchus kisutch</u>)		
	Walleye	48.5	NG
	(<u>Stizostedion vitreum</u>)		
	White sucker	47.6	NG
	(<u>Catostomus commersoni</u>)		
	Shorthead redhorse sucker	54.2	NG
	(<u>Moxostoma macrolepidotum</u>)	41.6	NG
		49.5	NG
	Smallmouth bass	19.9	MG
	(<u>Micropterus dolomieu</u>)		
	Quillback carpsucker	28.5	NG
	(<u>Carpiodes cyprinus</u>)		
	Stonecat	21.2	NG
	(<u>Noturus flavus</u>)	21.8	NG
		20.5	NG
		22.9	NG
		22.2	NG

Table E3 (continued).

	<u>Species</u>	<u>Length(cm)</u>	<u>Sex Condition</u>
Disposal Area 4	Rock bass	19.3	NG
	(<u>Ambloplites rupestris</u>)	20.0	NG
		19.3	NG
		19.8	NG
Net 1		18.9	NG
		16.8	NG
		15.5	NG
		13.8	NG
Disposal Area 4	Carp	70.5	NG
	(<u>C. carpio</u>)	50.3	NG
Net 2	Shorthead redhorse sucker	36.5	NG
	(<u>M. macrolepidotum</u>)	43.5	NG
	White sucker	24.1	NG
	(<u>C. commersoni</u>)		
	Walleye	46.8	NG
	(<u>S. vitreum</u>)	52.0	NG
	Yellow perch	20.0	NG
	(<u>P. flavescens</u>)		
	Rock bass	15.1	NG
	(<u>A. rupestris</u>)	19.7	NG
	Freshwater drum	33.0	NG
	(<u>Aplodinotus grunniens</u>)		
	Stonecat	22.3	NG
	(<u>N. flavus</u>)		

Table E4. Gill netting in disposal areas 1 and 4. 5 December 1981.

		NG = not gravid MG = male, gravid FG = female, gravid I = immature	
	<u>Species</u>	<u>Length(cm)</u>	<u>Sex Condition</u>
Disposal			
Area 1	Yellow perch	16.0	NG
	(<u>Perca flavescens</u>)	17.2	NG
		11.4	NG
Net 1		25.0	NG
		17.6	NG
		15.0	NG
	Rainbow smelt	21.5	NG
	(<u>Osmerus mordax</u>)		
	Muskellunge	66.5	NG
	(<u>Esox masquinongy</u>)		
	Steelhead	44.2	NG
	(<u>Salmo gairdneri</u>)		
Disposal			
Area 2	Yellow perch	16.9	NG
	(<u>P. flavescens</u>)	20.3	FG
		17.4	NG
Net 2		20.7	NG
		13.5	NG
		14.3	NG
		15.5	NG
		10.5	MG
		19.0	NG
		14.5	MG
	Northern pike	64.9	MG
	(<u>Esox lucius</u>)		
	Brown bullhead	26.0	NG
	(<u>Ictalurus nebulosus</u>)		

Table E4 (continued).

	<u>Species</u>	<u>Length(cm)</u>	<u>Sex Condition</u>
Disposal Area 4	White sucker (<u>Catostomus commersoni</u>)	45.5 44.2	NG NG
Net 1	Shorthead redhorse sucker (<u>Moxostoma macrolepidotum</u>)	37.3 52.2	NG NG
	Rainbow smelt (<u>O. mordax</u>)	21.3 19.2	NG NG
	Smallmouth bass (<u>Micropterus dolomieu</u>)	9.0	I
Disposal Area 4	Rainbow smelt (<u>O. mordax</u>)	17.5 21.5	NG NG
Net 2	Rock bass (<u>Ambloplites rupestris</u>)	20.3	NG
	Shorthead redhorse sucker (<u>M. macrolepidotum</u>)	49.7	NG

Table F1. Species list and number of individuals observed in disposal site 1. 22 and 23 April 1981. m=male, f=female

<u>Genus and Species</u>	<u>Common Name</u>	<u>Study Area Proper</u>	<u>Adjacent Northerly Landfill</u>	<u>Harbor, Offshore</u>
<u>Aythya marila</u>	Greater scaup	3m, 1f		2m
<u>Anas platyrhynchos</u>	Mallard	1m	5m, 2f*	
<u>Larus delawarensis</u>	Ring-billed gull	23	1	10
<u>Larus argentatus</u>	Herring gull	2		1
<u>Mergus serrator</u>	Red-breasted merganser	13		70 ca.
<u>Charadrius vociferus</u>	Killdeer	2	2	
<u>Agelaius phoeniceus</u>	Red-winged blackbird	2m	78 ca.	
<u>Corvus brachyrhynchos</u>	Common crow	1		
<u>Quiscalus quiscula</u>	Common grackle	4		
<u>Sturnus vulgaris</u>	Starling	1		10
<u>Columba livia</u>	Rock dove	1		
<u>Melospiza melodia</u>	Song sparrow	1		2
<u>Aythya affinis</u>	Lesser scaup			8m, 3f
<u>Mergus merganser</u>	Common merganser			4
<u>Phasianus colchicus</u>	Ring-necked pheasant		1m	
<u>Anas americana</u>	American wigeon		4m, 4f	
<u>Anas discors</u>	Blue-winged teal		1m, 1f	
<u>Colaptes auratus</u>	Common flicker		2	
<u>Falco sparverius</u>	American kestrel		1	
<u>Turdus migratorius</u>	American robin		1	
** <u>Aythya</u> sp.	Scaup	6		
** <u>Actitis macularia</u>	Spotted sandpiper	1		
** <u>Larus atricilla</u>	Laughing gull	8		
** <u>Mergus serrator</u>	Red-breasted merganser	11		

* Nest with 6 eggs, west of "pond"

** Observed on April 23 on study area proper. Others observed on April 22.

Table F2. Species list and number of individuals observed in and near disposal site 2. 23 April 1981.
m=male, f=female

Genus and Species	Common Name	Transect #1	Transect #2	Transect #3	Transect #4	Transect #5	Transect #6	Total
<u>Agelaius phoeniceus</u>	Red-winged blackbird	25	7	10	6	5		53
<u>Larus delawarensis</u>	Ring-billed gull	1	2	3		2	4	12
<u>Phasianus colchicus</u>	Ring-necked pheasant	6m, 1f		1m, 1f		2m, 1f	1m	10m, 3f
<u>Melospiza melodia</u>	Song sparrow	6	4	5	6	3	5	29
<u>Quiscalus quisqualis</u>	Common grackle	22	8	2	8	2		42
<u>Turdus migratorius</u>	American robin	14		1	2	4	1	22
<u>Anas platyrhynchos</u>	Mallard	5m		2m				7m
<u>Corvus brachyrhynchos</u>	Common crow	1						1
<u>Sturnus vulgaris</u>	Starling	8				45	3	56
<u>Molothrus ater</u>	Brown-headed cowbird	6		5	1	4		16
<u>Dendrocopos pubescens</u>	Downy woodpecker	1						1
<u>Columba livia</u>	Rock dove	2	2			2	2	8
<u>Actitis macularia</u>	Spotted sandpiper	2						2
<u>Regulus satrapa</u>	Golden-crowned kinglet	1						1
<u>Philohela minor</u>	American woodcock				2*			2*
<u>Zenaidura macroura</u>	Mourning dove					2		2
<u>Colaptes auratus</u>	Common flicker					6	1	7
<u>Melospiza georgiana</u>	Swamp sparrow					1		1
<u>Passer domesticus</u>	House sparrow						5	5

* Nest with two eggs

Table F3. Species list and number of individuals observed in and near disposal sites 3 and 4. 22 and 23 April 1981. m=male, f=female

Disposal Site 3

<u>Genus and Species</u>	<u>Common Name</u>	<u>Study</u>	
		<u>Area Proper</u>	<u>Inner Harbor</u>
<u>Phasianus colchicus</u>	Ring-necked pheasant	3m, 2f	
<u>Columba livia</u>	Rock dove	50 ca.	
<u>Colaptes auratus</u>	Common flicker	1	
<u>Larus delawarensis</u>	Ring-billed gull	7	20 ca.
<u>Larus argentatus</u>	Herring gull	4	2
<u>Passerculus sandwichensis</u>	Savannah sparrow	1	
<u>Melospiza melodia</u>	Song sparrow	3	
<u>Anas platyrhynchos</u>	Mallard		1m, 1f
<u>Merqus merganser</u>	Common merganser		1
<u>Merqus serrator</u>	Red-breasted merganser		17
<u>Larus marinus</u>	Greater black-backed gull		1
<u>Larus atricilla</u>	Laughing gull		8
<u>Podilymbus podiceps</u>	Pied-billed grebe		2
<u>Agelaius phoeniceus</u>	Red-winged blackbird	2	

Disposal Site 4

Not visited because of ice

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Table F4. Species list and number of individuals observed in previous disposal area near disposal site 1. 8 May 1981. m=male, f=female

<u>Genus and Species</u>	<u>Common Name</u>	<u>Number Observed*</u>
<u>Anas platyrhynchos</u>	Mallard	1m 1f
<u>Anas discors</u>	Blue-winged teal	1m
<u>Mareca americana</u>	American wigeon	2m 1f
<u>Melospiza melodia</u>	Song sparrow	4
<u>Agelaius phoeniceus</u>	Red-winged blackbird	33

* Unless otherwise noted, sexes could not be differentiated.

Table F5. Species list and number of individuals observed in disposal sites 1-4. 8 and 9 May 1981. m=male, f=female

<u>Genus and Species</u>	<u>Common Name</u>	<u>Number Observed*</u>
Disposal Site 1		
<u>Charadrius vociferus</u>	Killdeer	2
<u>Larus delawarensis</u>	Ring-billed gull	1
<u>Actitis macularia</u>	Spotted sandpiper	1
Disposal Site 2		
<u>Anas platyrhynchos</u>	Mallard	1m 1f
<u>Phasianus colchicus</u>	Ring-necked pheasant	4m 7f (1 nest - 13 eggs)
<u>Agelaius phoeniceus</u>	Red-winged blackbird	37
<u>Sturnus vulgaris</u>	Starling	8
<u>Molothrus ater</u>	Brown-headed cowbird	5
<u>Melospiza georgiana</u>	Swamp sparrow	16
<u>Larus delawarensis</u>	Ring-billed gull	2
<u>Turdus migratorius</u>	American robin	3
<u>Zenaidura macroura</u>	Mourning dove	3
<u>Colaptes auratus</u>	Common flicker	2
<u>Columba livia</u>	Rock dove	2
<u>Spinus tristis</u>	American goldfinch	1
<u>Megaceryle alcyon</u>	Belted kingfisher	1
Disposal Site 3		
<u>Actitis macularia</u>	Spotted sandpiper	1
•• <u>Larus delawarensis</u>	Ring-billed gull	5
•• <u>Anas platyrhynchos</u>	Mallard	1
•• <u>Larus argentatus</u>	Herring gull	1
Disposal Site 4		
<u>Larus delawarensis</u>	Ring-billed gull	11
<u>Anas platyrhynchos</u>	Mallard	1
<u>Sterna hirundo</u>	Common tern	4

* Unless otherwise noted, sexes could not be differentiated.

•• On site, others near site 3 but in outer harbor.

Table F6. Species list and number of individuals observed in and near disposal site 1. 28 and 29 May 1981. m=male, f=female

<u>Genus and Species</u>	<u>Common Name</u>	<u>Study Area Proper</u>	<u>Adjacent Northerly Landfill</u>	<u>Harbor, Offshore</u>
<u>Charadrius vociferus</u>	Killdeer	6	3	
<u>Agelaius phoeniceus</u>	Red-winged blackbird	6m, 2f	16	
<u>Sturnus vulgaris</u>	Starling	13	11	
<u>Larus delawarensis</u>	Ring-billed gull	43	4	numerous
-	Unidentified duck	1		
<u>Actitis macularia</u>	Spotted sandpiper	11	6	Occasional
<u>Sterna hirundo</u>	Common tern	4		Occasional
<u>Columba livia</u>	Rock dove	8		
<u>Riparia riparia</u>	Bank swallow	3		
<u>Melospiza melodia</u>	Song sparrow	1	6	
-	Unidentified gull	6		Numerous
<u>Turdus migratorius</u>	American robin	4	3	
<u>Anas platyrhynchos</u>	Mallard	2m	5m, 2f*	Occasional
<u>Quiscalus quisqualis</u>	Common grackle	8		
<u>Larus argentatus</u>	Herring gull	1		Occasional
<u>Megasceryle alcyon</u>	Belted kingfisher	2		
<u>Butorides virescens</u>	Green heron		2	
<u>Dendroica petechia</u>	Yellow warbler		2	
<u>Anas rubripes</u>	Black duck		1f**	
<u>Phasianus colchicus</u>	Ring-necked pheasant		1m	
<u>Geothlypis trichas</u>	Common yellowthroat		1	

* Each female was accompanied by four hatchlings

** Accompanied by eight hatchlings

Table F7. Species list and number of individuals observed in and near disposal site 2. 28 May 1981 (all transects) and 29 May 1981 (transects #1 and #5). m=male, f=female

Genus and Species	Common Name	Transect #1	Transect #2	Transect #3	Transect #4	Transect #5	Transect #6	Total
<u>Empidonax traillii</u>	Willow flycatcher	3			1	2		6
<u>Agelaius phoeniceus</u>	Red-winged blackbird	15m,7f	3m,1f*	5m,2f	1m,1f	9m,7f	9m,6f	42m,24f
<u>Columba livia</u>	Rock dove	6					4	10
-	Unidentified sparrow	1						1
<u>Anas platyrhynchos</u>	Mallard	2m			1m,1f	1m		4m,1f
<u>Melospiza melodia</u>	Song sparrow	11	1	2	1	6	4	25
<u>Sturnus vulgaris</u>	Starling	17	4	24	3	1	8	57
<u>Dendroica petechia</u>	Yellow warbler	5	1			3	1	10
<u>Spinus tristis</u>	American goldfinch	2m				2	1	2m,3
<u>Passer domesticus</u>	House sparrow	3				16	9	28
<u>Larus delawarensis</u>	Ring-billed gull	3		1	2	1		7
<u>Phasianus colchicus</u>	Ring-necked pheasant	3	1m,1f**	1m,1f	1f***	4m		3,6m,3f
<u>Riparia riparia</u>	Bank sparrow	1	2			1		4
<u>Coccyzus americanus</u>	Yellow-billed cuckoo					1		1
<u>Dumetella carolinensis</u>	Gray catbird					4		4
<u>Turdus migratorius</u>	American robin	1				1	3	5
<u>Buteo jamaicensis</u>	Red-tailed hawk						1	1
<u>Quiscalus quisicalus</u>	Common grackle	1						1
<u>Zenaidura macroura</u>	Mourning dove	1						1
<u>Molothrus ater</u>	Brown-headed cowbird					1		1

* Nest with one egg

*** Female accompanied by unknown number of non-flying young

** Female accompanied by four flying young

Table F8. Species list and number of individuals observed in and near disposal sites 3 and 4. 29 May 1981. m=male, f=female

<u>Genus and Species</u>	<u>Common Name</u>	<u>Number of Birds Observed</u>
Disposal Site 3		
<u>Agelaius phoeniceus</u>	Red-winged blackbird	9
<u>Larus delawarensis</u>	Ring-billed gull	56
<u>Sturnus vulgaris</u>	Starling	8
<u>Actitis macularia</u>	Spotted sandpiper	14
<u>Larus argentatus</u>	Herring gull	11
-	Unidentified gull	34
<u>Phasianus colchicus</u>	Ring-necked pheasant	3m, 1f
<u>Charadrius vociferus</u>	Killdeer	10
<u>Melospiza melodia</u>	Song sparrow	6
<u>Anas platyrhynchos</u>	Mallard	2m, 1f
<u>Columba livia</u>	Rock dove	2
<u>Riparia riparia</u>	Bank swallow	5
<u>Sterna hirundo</u>	Common tern	9
<u>Anas americana</u>	American wigeon	2
<u>Megaceryle alcyon</u>	Belted kingfisher	1
Disposal Site 4		
-	Unidentified tern	9
-	Unidentified gull	29
<u>Larus delawarensis</u>	Ring-billed gull	12
-	Unidentified swallow	6
<u>Actitis macularia</u>	Spotted sandpiper	1

Table F9. Species list and number of individuals observed in and near disposal site 1. 16 June 1981. m=male, f=female

<u>Genus and Species</u>	<u>Common Name</u>	<u>Number of Birds</u>		
		<u>Site #1 Proper*</u>	<u>Adjacent Fill Area**</u>	<u>Harbor Area*</u>
<u>Anas rubripes</u>	American black duck	1	2 (one w/6 young)	
<u>Larus delawarensis</u>	Ring-billed gull	45(10perched)	4	12
<u>Agelaius phoeniceus</u>	Red-winged black-bird	24(3perched)	38	
<u>Charadrius vociferous</u>	Killdeer	4(2perched)	5	
<u>Sturnus vulgaris</u>	Starling	19	12	
<u>Columba livia</u>	Rock dove	29	5	
<u>Larus argentatus</u>	Herring gull	3	3	4
<u>Actitis macularia</u>	Spotted sandpiper	3(2perched)	12	
<u>Quiscalus quiscula</u>	Common grackle	9(3perched)	5	3
<u>Sturnus vulgaris</u>	Starling	5	12	
<u>Iridoprocne bicolor</u>	Tree swallow	3		
<u>Sterna sp.</u>	Unidentified tern	5	3	7
<u>Anas platyrhynchos</u>	Mallard	1f	3m, 2f(w/4 young)	1m
<u>Larus sp.</u>	Unidentified gull	4		14
<u>Butorides striatus</u>	Green heron	1	2	1
<u>Larus marinus</u>	Greater black-backed gull			1
<u>Turdus migratorius</u>	American robin	2(2perched)	1	
<u>Tyrannus tyrannus</u>	Eastern kingbird	2(2perched)		
<u>Melospiza melodia</u>	Song sparrow	1(1perched)	8	
<u>Stelgidopteryx ruficollis</u>	Rough-winged swallow	5(1perched)	2	
<u>Megaceryle alcyon</u>	Belted kingfisher		1	
<u>Anas discors</u>	Blue-winged teal		3m	
-	Unidentified shorebird		1	

* all birds flying only, except as indicated

** one-half hour observation walk, 6:45AM-7:15AM

Table F10. Species list and number of individuals observed in and near disposal site 2. 15 June 1981.
m=male, f=female, fl=fledglings

Genus and Species	Common Name	Transect #1	Transect #2	Transect #3	Transect #4	Transect #5	Transect #6	Total
<u>Agelaius phoeniceus</u>	Red-winged blackbird	m 10 f 2	5 7	8 2	8 5	12 8 (4fl)	7 3	43 27 (4fl)
<u>Melospiza melodia</u>	Song sparrow	4	4	5	5	7	6	31
<u>Larus delawarensis</u>	Ring-billed gull	1		1	5		1	8
<u>Larus argentatus</u>	Herring gull				2		1	3
<u>Larus sp.</u>	Unidentified gull	6	1	2			1	10
<u>Sturnus vulgaris</u>	Starling	17	5	7	11	ca. 78	8	ca. 126
<u>Molothrus ater</u>	Brown-headed cowbird	1				1	1	3
<u>Dendroica petechia</u>	Yellow warbler	3	2		1	1	2	9
<u>Iridoprocne bicolor</u>	Tree swallow	5	1	2		1		9
<u>Turdus migratorius</u>	American robin	3				1	1	5
-	Unidentified warbler	1						1
<u>Empidonax traillii</u>	Willow (Traill's) fly-catcher	1	1					2
<u>Dumetella carolinensis</u>	Gray catbird	1						1
<u>Bombycilla cedrorum</u>	Cedar waxwing	4						4
<u>•Philohela minor</u>	American woodcock					3		3
<u>Riparia riparia</u>	Bank swallow	2						2
-	Unidentified sparrow		1			1	3	5
<u>Quiscalus quiscula</u>	Common grackle		1	3				4

F10

• observed on 16 June 1981

Table F10 (continued).

Genus and Species	Common Name	Transect #1	Transect #2	Transect #3	Transect #4	Transect #5	Transect #6	Total
<u>Charadrius vociferous</u>	Killdeer		1		2			3
<u>Passer domesticus</u>	House sparrow		1			2	3	6
<u>Falco sparverius</u>	American kestrel		1			1		2
<u>Megasceryle alcyon</u>	Belted kingfisher		1					1
<u>Columba livia</u>	Rock dove		2		6	1	4	13
		m		1				3
<u>Phasianus colchicus</u>	Ring-necked pheasant	f		1 w/2fl 1 w/6fl	1f 1 w/7fl 5fl	1		4f 20fl
				1				1
<u>Sterna sp.</u>	Unidentified tern				1			1
<u>Passerina cyanea</u>	Indigo bunting				1f			1f
<u>Anas platyrhynchos</u>	Mallard					2		2
<u>Buteo jamaicensis</u>	Red-tailed hawk					1		1
<u>Setophaga ruticilla</u>	American redstart						1	1
<u>Actitis macularia</u>	Spotted sandpiper					1		1
	Unidentified swallow						1	1
<u>Geothlypis trichas</u>	Common yellowthroat							1

Table F11. Species list and number of individuals observed in and near disposal sites 3 and 4. 16 June 1981 (site 3) and 15 June 1981 (site 4). m=male, f=female

<u>Genus and Species</u>	<u>Common Name</u>	<u>Number Observed (one-hour count)</u>
Disposal Site 3		
<u>Larus marinus</u>	Greater black-backed gull	2
<u>Larus argentatus</u>	Herring gull	13
<u>Larus delawarensis</u>	Ring-billed gull	52
<u>Charadrius vociferous</u>	Killdeer	18
<u>Columba livia</u>	Rock dove	ca. 60
<u>Actitis macularia</u>	Spotted sandpiper	22
<u>Sturnus vulgaris</u>	Starling	ca. 41
<u>Anas platyrhynchos</u>	Mallard	2m
<u>Melospiza melodia</u>	Song sparrow	4
<u>Agelaius phoeniceus</u>	Red-winged blackbird	7m, 4f
<u>Sterna sp.</u>	Unidentified tern	3
<u>Phasianus colchicus</u>	Ring-necked pheasant	1m
<u>Quiscalus quiscula</u>	Common grackle	1
<u>Stelgidopteryx ruficollis</u>	Rough-winged swallow	2
<u>Sterna hirundo</u>	Common tern	6
<u>Zenaida macroura</u>	Mourning dove	4
<u>Iridoprocne bicolor</u>	Tree swallow	2
<u>Riparia riparia</u>	Bank swallow	3
Disposal Site 4		
<u>Anas platyrhynchos</u>	Mallard	1m, 1f (perched)
<u>Larus delawarensis</u>	Ring-billed gull	195 (14 perched)
<u>Larus argentatus</u>	Herring gull	14
<u>Larus sp.</u>	Unidentified gull	18
<u>Sterna hirundo</u>	Common tern	4
<u>Quiscalus quiscula</u>	Common grackle	4 (perched)
<u>Agelaius phoeniceus</u>	Red-winged blackbird	2 (perched)
<u>Sterna sp.</u>	Unidentified tern	9
-	Unidentified swallow	1
<u>Actitis macularia</u>	Spotted sandpiper	1 (perched)
<u>Stelgidopteryx ruficollis</u>	Rough-winged swallow	2
<u>Iridoprocne bicolor</u>	Tree swallow	3

Table F12. Species list and number of individuals observed in and near disposal site 1. 10 July 1981. m=male, f=female

<u>Genus and Species</u>	<u>Common Name</u>	<u>Number of Birds</u>		
		<u>Site #1 Proper</u>	<u>Adjacent Fill Area**</u>	<u>Harbor Area</u>
<u>Actitis macularia</u>	Spotted sandpiper	4	6	
<u>Charadrius vociferus</u>	Killdeer	8	4	
<u>Agelaius phoeniceus</u>	Red-winged blackbird	12m, 68f*	43	
<u>Sterna hirundo</u>	Common tern			4
<u>Sterna sp.</u>	Unidentified tern	44*		11*
<u>Larus sp.</u>	Unidentified gull	84*		109*
<u>Columba livia</u>	Rock dove	8		
<u>Sturnus vulgaris</u>	Starling	4		
<u>Zenaidura macroura</u>	Mourning dove	8	1	
<u>Tringa flavipes</u>	Lesser yellowlegs	9	8	
<u>Larus delawarensis</u>	Ring-billed gull	190*	7	4
-	Unidentified swallow			12
<u>Melospiza melodia</u>	Song sparrow		6	
<u>Butorides striatus</u>	Green heron		2	
<u>Anas discors</u>	Blue-winged teal		3	
<u>Geothlypis trichas</u>	Common yellowthroat		3	
<u>Anas platyrhynchos</u>	Mallard		f with nest (9 eggs) f with 7 young	
-	Unidentified sparrow		1	

* species alighted or fed on the site (as opposed to only flying over)

** one-half hour count

Table F13. Species list and number of individuals observed in and near disposal site 2. 10 July 1981.
 male, female, immature

Genus and Species	Common Name	Transect #1	Transect #2	Transect #3	Transect #4	Transect #5	Transect #6	Total
<u>Melospiza melodia</u>	Song sparrow	7	2	2	2	6	9	28
<u>Corvus brachyrhynchos</u>	Common crow	4						4
		m 11	7	1	3	7	3	31
		f 8	6		3	9	2	28
		i 4						4
<u>Agelaius phoeniceus</u>	Red-winged blackbird			5	1	1	2	11
<u>Turdus migratorius</u>	American robin	2			1	2		5
<u>Larus delawarensis</u>	Ring-billed gull	2			1			1
<u>Zenaidura macroura</u>	Mourning dove	1						12
<u>Sturnus vulgaris</u>	Starling	6	2	1		3		1
<u>Empidonax traillii</u>	Willow (Traill's) fly-catcher	1						1
<u>Dumetella carolinensis</u>	Gray catbird	1						1
	Unidentified sparrow	1	1			2		4
<u>Geothlypis trichas</u>	Common yellowthroat	1						1
<u>Charadrius vociferus</u>	Killdeer	2						2
<u>Carduelis tristis</u>	American goldfinch	1			2	1		6
<u>Stelgidopteryx ruficollis</u>	Rough-winged swallow		4	5	3			12
		m	1	1			1	3
<u>Phasianus colchicus</u>	Ring-necked pheasant	f	1 w/11 young	1	1	2		3
		i	1	1		1		15
<u>Columba livia</u>	Rock dove		2	2	1	1	4	5
<u>Larus sp.</u>	Unidentified gull			3	2			10
<u>Philohela minor</u>	American woodcock			1				1
<u>Larus argentatus</u>	Herring gull				1		1	2
<u>Buteo lineatus</u>	Red-tailed hawk					1		1

Table F13 (continued).

<u>Genus and Species</u>	<u>Common Name</u>	<u>Transect #1</u>	<u>Transect #2</u>	<u>Transect #3</u>	<u>Transect #4</u>	<u>Transect #5</u>	<u>Transect #6</u>	<u>Total</u>
-	Unidentified swallow					1	1	2
<u>Dendroica petechia</u>	Yellow warbler					1		1
<u>Passer domesticus</u>	House sparrow					2	2	4
<u>Molothrus ater</u>	Brown-headed cowbird						1	1
<u>Coccyzus erythrophthalmus</u>	Black-billed cuckoo					1		1

Table F14. Species list and number of individuals observed in and near disposal sites 3 and 4. 11 July 1981.

<u>Genus and Species</u>	<u>Common Name</u>	<u>Number Observed (one-hour count)</u>
Disposal Site 3		
<u>Columba livia</u>	Rock dove	ca. 100
<u>Melospiza melodia</u>	Song sparrow	4
<u>Zenaida macroura</u>	Mourning dove	18
<u>Charadrius vociferus</u>	Killdeer	2
<u>Actitis macularia</u>	Spotted sandpiper	8
<u>Agelaius phoeniceus</u>	Red-winged blackbird	26
<u>Passer domesticus</u>	House sparrow	1
<u>Sturnus vulgaris</u>	Starling	7
<u>Larus delawarensis</u>	Ring-billed gull	90
<u>Carduelis tristis</u>	American goldfinch	4
<u>Larus argentatus</u>	Herring gull	12
-	Unidentified swallow	1
<u>Stelgidopteryx ruficollis</u>	Rough-winged swallow	1
<u>Anas platyrhynchos</u>	Mallard	f (nest?)
<u>Phasianus colchicus</u>	Ring-necked pheasant	3 (immature)
Disposal Site 4		
<u>Larus delawarensis</u>	*Ring-billed gull	128
<u>Larus argentatus</u>	*Herring gull	3
<u>Larus sp.</u>	*Unidentified gull	2
<u>Sterna hirundo</u>	*Common tern	11
<u>Actitis macularia</u>	*Spotted sandpiper	6
<u>Sturnus vulgaris</u>	*Starling	16
-	Unidentified swallow	6
<u>Agelaius phoeniceus</u>	*Red-winged blackbird	7
<u>Stelgidopteryx ruficollis</u>	Rough-winged swallow	3

* These species alighted on or adjacent to site 4.

Table F15. Species list and number of individuals observed in and near disposal site 1. 10 October 1981. m=male, f=female

<u>Genus and Species</u>	<u>Common Name</u>	<u>Number Observed</u>		
		<u>Site #1 Proper</u>	<u>Adjacent Fill Area</u>	<u>Harbor Area</u>
<u>Phasianus colchicus</u>	Ring-necked pheasant*	1m,2f		
<u>Larus delawarensis</u>	Ring-billed gull	74	9	74
-	Unidentified sparrow	3	7	
<u>Sturnus vulgaris</u>	Starling	9	1	
<u>Aythya affinis</u>	Lesser scaup*	5m,19f		5m,19f
<u>Anas platyrhynchos</u>	Mallard*	2m,2f	5m,6f	1m,2f
<u>Columba livia</u>	Rock dove	11	1	
<u>Larus</u> sp.	Unidentified gull	7	10	
<u>Anas</u> sp.	Unidentified duck (either mallard or black duck)		6	
<u>Anas discors</u>	Blue-winged teal		10	
<u>Agelaius phoeniceus</u>	Red-winged blackbird		15	
<u>Melospiza melodia</u>	Song sparrow		4	
<u>Larus argentatus</u>	Herring gull		6	
<u>Carduelis tristis</u>	American goldfinch		6	
<u>Corvus brachyrhynchos</u>	Common crow		2	
<u>Junco hyemalis</u>	Northern junco**		1	
<u>Pipilo erythrophthalmus</u>	Rufous-sided towhee**		1	

* Alighted

** Reported 9 October 1981

Table F16. Species list and number of individuals observed in and near disposal site 2. 9 October 1981.
m=maie, f=female

<u>Genus and Species</u>	<u>Common Name</u>	<u>Transect #1</u>	<u>Transect #2</u>	<u>Transect #3</u>	<u>Transect #4</u>	<u>Transect #5</u>	<u>Transect #6</u>	<u>Total</u>
<u>Melospiza melodia</u>	Song sparrow	10	7	6	1	9	4	37
<u>Phasianus colchicus</u>	Ring-necked pheasant	8m,9f	5m,1f	1m	2m,6f	1m,5f	1m	18m,21f (unknown redundancy)
<u>Larus sp.</u>	Unidentified gull	1	3	3	6	1	9	23
<u>Sturnus vulgaris</u>	Starling	1						1
<u>Picoides pubescens</u>	Downy woodpecker	1						1
<u>Empidonax sp.</u>	Unidentified empidonax flycatcher	1						1
<u>Dendroica magnolia</u>	Magnolia warbler	5	2			1		8
<u>Colaptes auratus</u>	Common flicker	1				1		2
<u>Agelaius phoeniceus</u>	Red-winged blackbird	1	2		2			5
<u>Dumetella carolinensis</u>	Gray catbird	1						1
<u>Accipiter cooperii</u>	Cooper's Hawk	1						1
<u>Turdus migratorius</u>	American robin		1			1		2
<u>Carduelis tristis</u>	American goldfinch		2	3	17			22
<u>Ardea herodias</u>	Great blue heron		1					1
<u>Larus delawarensis</u>	Ring-billed gull		6		7			13
-	Unidentified sparrow			3				3
<u>Falco sparverius</u>	American kestrel					1		1
<u>Charadrius vociferus</u>	Killdeer					1		1
<u>Zenaidura macroura</u>	Mourning dove					1		1
<u>Columba livia</u>	Rock dove						5	5

Table F17. Species list and number of individuals observed in and near disposal sites 3 and 4. 9 and 10 October 1981. m=male, f=female

<u>Genus and Species</u>	<u>Common Name</u>	<u>Number Observed</u>	
		<u>9 October 81</u>	<u>10 October 81</u>
Disposal Site 3			
<u>Phasianus colchicus</u>	Ring-necked pheasant	6m,8f	12m,2f
<u>Columba livia</u>	Rock dove	38 ca.	60 ca.
<u>Larus delawarensis</u>	Ring-billed gull	11	2
-	Unidentified gull	6	
<u>Charadrius vociferus</u>	Killdeer	2	2
<u>Megasceryle alcyon</u>	Belted kingfisher	1	
<u>Melospiza melodia</u>	Song sparrow	5	3
<u>Sturnus vulgaris</u>	Starling	8	
-	Unidentified sparrow	7	1
<u>Zonotrichia leucophrys</u>	White-crowned sparrow	5	
<u>Regulus calendula</u>	Ruby-crowned kinglet	1	
<u>Zonotrichia albicollis</u>	White-throated sparrow	1	
-	Unidentified warbler	2	
<u>Carduelis tristis</u>	American goldfinch		1
<u>Zenaida macroura</u>	Mourning dove		2
<u>Genus and Species</u>	<u>Common Name</u>	<u>Number Observed*</u>	
		<u>(9 October 81)</u>	
Disposal Site 4			
<u>Anas platyrhynchos</u>	Mallard		15
<u>Larus delawarensis</u>	Ring-billed gull		15
<u>Larus argentatus</u>	Herring gull		143 ca.
<u>Larus marinus</u>	Greater black-backed gull		1

* All birds observed were either at rest on the jetty or in the water on the site.

Table F18. Species list and number of individuals observed in disposal site 1. 7 November 1981, 10:15AM - 2:15PM. m=male, f=female

<u>Genus and Species</u>	<u>Common Name</u>	<u>Number Observed</u>		
		<u>On-Site</u>	<u>Outer Harbor</u>	<u>Adjacent Landfill</u>
<u>Aythya affinis</u>	Lesser scaup	11m,44f		
<u>Melanitta nigra</u>	Black scoter	3m,3f		
<u>Somateria mollissima</u>	Common eider	1f		
<u>Columba livia</u>	Rock dove	2		
<u>Larus delawarensis</u>	Ring-bill gull	3		3
<u>Larus argentatus</u>	Herring gull	1		3
<u>Larus sp.</u>	Unidentified gull	23	69	1
<u>Aythya sp.</u>	Unidentified ducks		15	
<u>Phasianus colchicus</u>	Ring-necked pheasant			3m,4f
<u>Anas platyrhynchos</u>	Mallard	1m,1f		2m,4f
<u>Bucephala clangula</u>	Common goldeneye	3m		

Table F19. Species list and number of individuals observed in disposal site 4. 7 November 1981*, 2:40PM - 3:40PM.

<u>Genus and Species</u>	<u>Common Name</u>	<u>Number Observed</u>
<u>Larus delawarensis</u>	Ring-billed gull	61 (1**)
<u>Larus argentatus</u>	Herring gull	43 (1**)
<u>Larus</u> sp.	Unidentified gull	58

* Note: Observers on Site 4 on 11/8/81 reported only flying gulls were present.

** Alighted on Site 4. All others reported were flying only.

Table F20. Species list and number of individuals observed in disposal site 1. 8 November 1981, 8:15AM - 11:15AM.

<u>Genus and Species</u>	<u>Common Name</u>	Number Observed		
		<u>On-Site</u>	<u>Outer Harbor</u>	<u>Adjacent Landfill</u>
<u>Branta canadensis</u>	Canada goose	1		
<u>Aythya affinis</u>	Lesser scaup	21m,15f	9m,8f	
<u>Aythya marila</u>	Greater scaup	3m,6f		
<u>Anas platyrhynchos</u>	Mallard	1m,1f		
<u>Melanitta nigra</u>	Black scoter	7f	7f(same birds)	
<u>Melanitta deglandi</u>	White-winged scoter	1m,1f		
<u>Somateria mollissima</u>	Common eider	1f		
<u>Columba livia</u>	Rock dove	2		2
<u>Larus argentatus</u>	Herring gull	1		1
<u>Larus sp.</u>	Unidentified gull	7	32	1
<u>Aythya sp.</u>	Unidentified ducks	11		
<u>Phasianus colchicus</u>	Ring-necked pheasant			3m,2f
<u>Larus delawarensis</u>	Ring-billed gull			6

Note: The crew of R.V. Madtom reported observing a Peregrine Falcon (Falco peregrinus) stoop on a Hooded Merganser, on Buffalo River near Site 2 on 8 November 1981. The Peregrine was observed later in the day in the same area by R.C. Dilcher and the crew of R.V. Madtom. A Peregrine Falcon had also been observed at The Tiffit Farms/ Railroad Yard border and immediately downriver from Site 2 on 9 October 1981 by R.C. Dilcher. It has also been noted that the population of House Sparrows and Starlings apparently living about the grain elevator all summer on Site 2 has disappeared. Peregrine Falcon is an endangered species.

Table F21. Species list and number of individuals observed in disposal site 4. 3 December 1981, 3:15PM - 5:00PM*.

<u>Genus and Species</u>	<u>Common Name</u>	<u>Number Observed</u>
<u>Larus delawarensis</u>	Ring-billed gull	159 (3)**
<u>Larus argentatus</u>	Herring gull	63 (1)**
<u>Larus sp.</u>	Unidentified gull	72
<u>Aythya affinis</u>	Lesser scaup	8
-	Unidentified duck	75
<u>Xema sabini</u>	Sabine's gull	1
<u>Anas platyrhynchos</u>	Mallard	6
<u>Clangula hyemalis</u>	Old squaw	28
<u>Anas rubripes</u>	Black duck	3
<u>Bucephala albeola</u>	Bufflehead	2

* The numbers recorded represent a one-hour count. The remainder of the time on-site was spent watching for additional species.

** Alighted on-site. All other birds merely flew over the site.

Table F22. Species list and number of individuals observed in disposal site 1. 4 December 1981, 7:15AM - 12:15PM. m=male, f=female.

<u>Genus and Species</u>	<u>Common Name</u>	<u>Number Observed</u>		<u>Adjacent Landfill</u>
		<u>Study Area Proper</u>	<u>Outer Harbor</u>	
<u>Larus argentatus</u>	Herring gull	Abundant	Estimated 48/hr	1
<u>Larus delawarensis</u>	Ring-billed gull	Abundant	Estimated 100/hr	2
<u>Aythya valisineria</u>	Canvasback	92m, 193f		
<u>Aythya americana</u>	Redhead	3m, 2f		
<u>Aythya affinis</u>	Lesser scaup	45m, 69f		
<u>Aythya marila</u>	Greater scaup	2m, 4f		
<u>Melanitta nigra</u>	Black scoter	3f		
<u>Anas platyrhynchos</u>	Mallard	3m, 5f	1m, 1f	
<u>Clangula hyemalis</u>	Old squaw		1m, 1f	
<u>Bucephala clangula</u>	Common goldeneye		10m, 9f	
<u>Larus sp.</u>	Unidentified gull	Abundant	Estimated 100/hr	6
<u>Phasianus colchicus</u>	Ring-necked pheasant			3f
-	Unidentified sparrow			2

Note: All birds recorded alighted on the site indicated, except for most gulls, which merely flew over the area. Three herring gulls and four ring-billed gulls took food from site 1.

Table F23. Species list and number of individuals observed in and near disposal site 1. 5 January 1982, 7:30AM - 11:30AM. m=male, f=female.

<u>Genus and Species</u>	<u>Common Name</u>	<u>Number of Birds</u>		
		<u>Site #1 Proper</u>	<u>Adjacent Land-fill</u>	<u>Outer Harbor</u>
<u>Anas platyrhynchos</u>	Mallard	2m,1f		1m
-	Unidentified gulls	26	3	est. 100+*
<u>Aythya affinis</u>	Lesser scaup	3m,2f		1f
<u>Larus argentatus</u>	Herring gull	35		
<u>Larus delawarensis</u>	Ring-billed gull	26		36
<u>Bucephala clangula</u>	Common goldeneye	1m		
<u>Falco sparverius</u>	American kestrel	1		
<u>Aythya valisineria</u>	Canvasback	1m		
<u>Larus marinus</u>	Greater black-backed gull	2		
<u>Phasianus colchicus</u>	Ring-necked pheasant		4m,1f	
-	Unidentified sparrow		1	

* Estimated 1000+ gulls visible at one time, over fill area near steel mill

Table F24. Species list and number of individuals observed in and near disposal site 2. 4 January 1982.
m=males, f=females.

<u>Genus and Species</u>	<u>Common Name</u>	<u>Transect #1</u>	<u>Transect #2</u>	<u>Transect #3</u>	<u>Transect #4</u>	<u>Transect #5</u>	<u>Transect #6</u>	<u>Total</u>
<u>Phasianus colchicus</u>	Ring-necked pheasant	1m,2f	1m				3m	5m,2f
<u>Larus sp.</u>	Unidentified gull		3		1		10	14
<u>Anas platyrhynchos</u>	Mallard			2m,1f	3m,1f	4m		9m,2f
<u>Larus delawarensis</u>	Ring-billed gull				3			3
<u>Larus argentatus</u>	Herring gull						3	3
-	Unidentified duck						15	15

Table F25. Species list and number of individuals observed in and near disposal site 3. 5 January 1982.

<u>Genus and Species</u>	<u>Common Name</u>	<u>Number Observed*</u>
<u>Larus marinus</u>	Greater black-backed gull	11
<u>Larus delawarensis</u>	Ring-billed gull	127
<u>Larus argentatus</u>	Herring gull	99
<u>Larus sp.</u>	Unidentified gull	63
<u>Columba livia</u>	Rock dove	6

* The numbers reported represent a 30-minute count (11:40AM - 12:10PM).

Table F26. Species list and number of individuals observed in and near disposal site 4. 4 and 5 January 1982.

<u>Genus and Species</u>	<u>Common Name</u>	<u>Number Observed*</u>
<u>Larus delawarensis</u>	Ring-billed gull	29
<u>Larus argentatus</u>	Herring gull	9
<u>Larus marinus</u>	Greater black-backed gull	1
-	Unidentified gull	55

* The numbers reported represent a 30-minute count (2:20PM - 2:50PM on 5 January 1982).

Table F27. Species list and number of individuals observed in and near disposal site 1. 12 March 1982. m=male, f=female.

<u>Genus and Species</u>	<u>Common Name</u>	<u>Number of Birds</u>		
		<u>Site #1</u> <u>Proper</u>	<u>Adjacent</u> <u>Landfill</u>	<u>Outer</u> <u>Area</u>
<u>Anas platyrhynchos</u>	Mallard		1f	3m, 3f
<u>Agelaius phoeniceus</u>	Red-winged blackbird			2
<u>Larus</u> sp.	Unidentified gull		ca. 200	1
<u>Larus marinus</u>	Greater black-backed gull		5	
<u>Larus argentatus</u>	Herring gull		3	
<u>Larus delawarensis</u>	Ring-billed gull		6	
<u>Merqus merganser</u>	Common merganser		15	
-	Unidentified duck		1	

Table F28. Species list and number of individuals observed in and near disposal site 2. 12 March 1982.
m=male, f=female.

<u>Genus and Species</u>	<u>Common Name</u>	<u>Transect #1</u>	<u>Transect #2</u>	<u>Transect #3</u>	<u>Transect #4</u>	<u>Transect #5</u>	<u>Transect #6</u>	<u>Total</u>
<u>Phasianus colchicus</u>	Ring-necked pheasant	1m		1f				1m,1f
<u>Columba livia</u>	Rock dove	1						1
<u>Sturnus vulgaris</u>	Starling	2						2
<u>Larus sp.</u>	Unidentified gull	3		3		1		6
<u>Turdus migratorius</u>	American robin	2				6		8
<u>Agelaius phoeniceus</u>	Red-winged blackbird	1				3		4
<u>Anas platyrhynchos</u>	Mallard			1m,1f	12			14
<u>Falco sparverius</u>	American kestrel					1		1
	Unidentified duck					4		4

•45 pheasants were observed on the railroad adjacent to Site #1, immediately south.

••32 mallards, 7 herring gulls, 1 ring-billed gull and 3 unidentified gulls were observed on the river immediately downstream of site #2, on turning basin.

Table F29. Species list and number of individuals observed in and near disposal sites 3 and 4. 12 March 1982. m=male, f=female.

<u>Genus and Species</u>	<u>Common Name</u>	<u>Number Observed</u>
Disposal Site 3		
<u>Phasianus colchicus</u>	Ring-necked pheasant	1m,1f
<u>Plectrophenax nivalis</u>	Snow bunting	ca. 50
<u>Larus argentatus</u>	Herring gull	2
<u>Larus delawarensis</u>	Ring-billed gull	3
<u>Larus</u> sp.	Unidentified gull	5
<u>Mergus merganser</u>	Common merganser	2

Disposal Site 4

Site 4 was not visible and unreachable on 12 March 1982.

There was no bird activity on or above the harbor jetty.

Table G1. Species list and relative abundance of mammals, amphibians and reptiles in disposal areas 1-3. 14 and 15 April 1981. f=female

<u>Genus and Species</u>	<u>Common Name</u>	<u>Number Observed*</u>	<u>Sign**</u>
Disposal Area 1			
<u>Microtus pennsylvanicus</u>	Meadow vole		1 nest (1)
<u>Sylvilagus floridanus</u>	Eastern cottontail		tracks (1)
<u>Procyon lotor</u>	Raccoon		feces (1)
<u>Canis familiaris</u>	Dog		tracks (1)
Disposal Area 2			
<u>Microtus pennsylvanicus</u>	Meadow vole	4 (2f)	runways, burrows, feces, grass clippings (many)
<u>Rattus norvegicus</u>	Norway rat		3 burrows (3)
<u>Ondatra zibethicus</u>	Muskrat		carcass (1)
<u>Marmota monax</u>	Woodchuck		3 paths (3)
<u>Sylvilagus floridanus</u>	Eastern cottontail	7	
<u>Blarina brevicauda</u>	Short-tail shrew	1	
<u>Sorex cinereus</u>	Masked shrew	1f	
<u>Procyon lotor</u>	Raccoon		carcass (1)
<u>Mephitis mephitis</u>	Striped skunk		odor (1)
<u>Rana pipiens</u>	Leopard frog		calls (3)
Disposal Area 3			
<u>Microtus pennsylvanicus</u>	Meadow vole		6 nests, 12 burrows (6)
<u>Canis familiaris</u>	Dog		tracks (2)

* Unless otherwise noted, sexes could not be differentiated.

** Approximate numbers in parenthesis

Table G2. Species list and relative abundance of mammals, amphibians and reptiles in previous disposal area near disposal area 1. 15 April 1981.

<u>Genus and Species</u>	<u>Common Name</u>	<u>Sign*</u>
<u>Rattus norvegicus</u>	Norway rat	5 burrows (5)
<u>Peromyscus leucopus</u>	White-footed mouse	feces (2)
<u>Sylvilagus floridanus</u>	Rabbit	tracks (2)
<u>Microtus pennsylvanicus</u>	Meadow vole	runways, grass clippings (10+)

* Approximate numbers in parenthesis

Table G3. Species list and relative abundance of mammals, amphibians and reptiles in disposal areas 1-3. 28 and 29 May 1981. m-male, f-female

<u>Genus and Species</u>	<u>Common Name</u>	<u>Number Observed*</u>	<u>Sign**</u>
Disposal Area 1			
<u>Microtus pennsylvanicus</u>	Meadow vole	1	
<u>Canis familiaris</u>	Dog		tracks (1)
Disposal Area 2			
<u>Microtus pennsylvanicus</u>	Meadow vole	11 (5m,6f)	burrows, feces, runways, clippings (many)
<u>Marmota monax</u>	Woodchuck		paths (7)
<u>Ondatra zibethicus</u>	Muskrat		burrows, paths (5)
<u>Sylvilagus floridanus</u>	Rabbit	1	
<u>Blarina brevicauda</u>	Short-tail shrew	1	
<u>Rana pipiens</u>	Leopard frog tadpoles	~2050	
<u>Thamnophis sirtalis</u>	Garter snake	1	
<u>Chelydra serpentina</u>	Snapping turtle	1	
Disposal Area 3			
<u>Sylvilagus floridanus</u>	Rabbit		tracks (1)
<u>Mephitis mephitis</u>	Skunk		tracks (1)
<u>Canis familiaris</u>	Dog		tracks (1)

* Unless otherwise noted, sexes could not be differentiated.

** Approximate numbers in parenthesis

Table G4. Species list and relative abundance of mammals, amphibians and reptiles in previous disposal area near disposal area 1. 29 May 1981.

<u>Genus and Species</u>	<u>Common Name</u>	<u>Number Observed*</u>	<u>Sign**</u>
<u>Microtus pennsylvanicus</u>	Meadow vole		clippings, run- ways, burrows (30)
<u>Chrysemys picta</u>	Painted turtle	1	

* Unless otherwise noted, sexes could not be differentiated.

** Approximate numbers in parenthesis

Table G5. Species list and relative abundance of mammals, amphibians and reptiles in disposal areas 1-3. 15 and 16 June 1981. m=male, f=female

<u>Genus and Species</u>	<u>Common Name</u>	<u>Number Observed*</u>	<u>Sign**</u>
Disposal Area 1			
<u>Microtus pennsylvanicus</u>	Meadow vole		carcass (1)
Disposal Area 2			
<u>Microtus pennsylvanicus</u>	Meadow vole	11 (5m,6f)	80+ burrows, runs, feces (many)
<u>Marmota monax</u>	Woodchuck		3 paths (3)
<u>Ondatra zibethicus</u>	Muskrat	1	2 burrows (2)
<u>Sylvilagus floridanus</u>	Rabbit	4	
<u>Rana pipiens</u>	Leopard frog tadpoles	1000+	
<u>Thamnophis sirtalis</u>	Garter snake	1	
<u>Chrysemys picta</u>	Painted turtle	1	
Disposal Area 3			
<u>Sylvilagus floridanus</u>	Rabbit	1	tracks, pellets (1)
<u>Microtus pennsylvanicus</u>	Meadow vole		2 burrows 1 pile of feces (2) 2 runs
<u>Mephitis mephitis</u>	Skunk		tracks (1)

* Unless otherwise noted, sexes could not be differentiated.

** Approximate numbers in parenthesis

Table G6. Species list and relative abundance of mammals, amphibians and reptiles in previous disposal area near disposal area 1. 15 and 16 June 1981.

<u>Genus and Species</u>	<u>Common Name</u>	<u>Number Observed*</u>	<u>Sign**</u>
<u>Microtus pennsylvanicus</u>	Meadow vole		22 burrows 2 piles of feces (22) grass clippings
<u>Ondatra zibethicus</u>	Muskrat		2 burrows (2)
<u>Rattus norvegicus</u>	Norway rat		1 burrow (1)
<u>Sylvilagus floridanus</u>	Rabbit	1	

* Unless otherwise noted, sexes could not be differentiated.

** Approximate numbers in parenthesis

Table G7. Species list and relative abundance of mammals, amphibians and reptiles in disposal areas 1-3. 10 and 11 September 1981. m=male, f=female.

<u>Genus and Species</u>	<u>Common Name</u>	<u>Number Observed*</u>	<u>Sign**</u>
Disposal Area 1			
<u>Canis familiaris</u>	Dog		tracks (1)
Disposal Area 2			
<u>Microtus pennsylvanicus</u>	Meadow vole	10 (4m,6f)	45+ burrows runs (many) feces, clippings
<u>Ondatra zibethicus</u>	Muskrat		2 fresh burrows (2)
<u>Sylvilagus floridanus</u>	Rabbit	3	
<u>Marmota monax</u>	Woodchuck		2 paths (2)
<u>Thamnophis sirtalis</u>	Garter snake	2	
Disposal Area 3			
<u>Sylvilagus floridanus</u>	Rabbit	1	
<u>Microtus pennsylvanicus</u>	Meadow vole		4 burrows (4) 3 runs

* Unless otherwise noted, sexes could not be differentiated.

** Approximate numbers in parenthesis

Table G8. Species list and relative abundance of mammals, amphibians and reptiles in previous disposal area near disposal area 1. 11 September 1981.

<u>Genus and Species</u>	<u>Common Name</u>	<u>Number Observed*</u>	<u>Sign**</u>
<u>Microtus pennsylvanicus</u>	Meadow vole		33 burrows runs clippings (33)
<u>Rattus norvegicus</u>	Norway rat		1 fresh burrow (1)
<u>Mus musculus</u>	House mouse	1	

* Unless otherwise noted, sexes could not be differentiated.

** Approximate numbers in parenthesis

Table G9. Species list and relative abundance of mammals, amphibians and reptiles in disposal areas 1-3. 9 and 10 October 1981. m=male, f=female.

<u>Genus and Species</u>	<u>Common Name</u>	<u>Number Observed*</u>	<u>Sign**</u>
Disposal Area 1			
<u>Canis familiaris</u>	Dog	1	
<u>Sylvilagus floridanus</u>	Rabbit	1	
Disposal Area 2			
<u>Microtus pennsylvanicus</u>	Meadow vole	9 (6m,3f)	33+ burrows runs (many) clippings
<u>Marmota monax</u>	Woodchuck		4 paths (4)
<u>Procyon lotor</u>	Raccoon		feces (1)
<u>Sylvilagus floridanus</u>	Rabbit	5	1 carcas
<u>Ondatra zibethicus</u>	Muskrat		3 burrows (3)
Disposal Area 3			
<u>Sylvilagus floridanus</u>	Rabbit	1	
<u>Microtus pennsylvanicus</u>	Meadow vole	1	3 burrows (5+)
<u>Rattus norvegicus</u>	Norway rat		6 burrows (6+) tracks

* Unless otherwise noted, sexes could not be differentiated.

** Approximate numbers in parenthesis

Table G10. Species list and relative abundance of mammals, amphibians and reptiles in previous disposal area near disposal area 1. 10 October 1981.

<u>Genus and Species</u>	<u>Common Name</u>	<u>Number Observed*</u>	<u>Sign**</u>
<u>Microtus pennsylvanicus</u>	Meadow vole		16 burrows (17+) clippings
<u>Rattus norvegicus</u>	Norway rat		runs 2 burrows (2+)
<u>Sylvilagus floridanus</u>	Rabbit	3	

* Unless otherwise noted, sexes could not be differentiated.

** Approximate numbers in parenthesis

Table G11. Species list and relative abundance of mammals, amphibians and reptiles in disposal areas 1-3. 6 and 7 January 1982. m=male, f=female.

<u>Genus and Species</u>	<u>Common Name</u>	<u>Number Observed*</u>	<u>Sign**</u>
Disposal Area 1			
No mammals, amphibians or reptiles observed			
Disposal Area 2			
<u>Sylvilagus floridanus</u>	Eastern cottontail	18	
<u>Microtus pennsylvanicus</u>	Meadow vole	4m, 2f	runs burrows (many)
<u>Blarina brevicauda</u>	Short-tailed shrew	2 live 1 carcass	= 3
Disposal Area 3			
<u>Sylvilagus floridanus</u>	Eastern cottontail	1	
<u>Microtus pennsylvanicus</u>	Meadow vole		1 burrow (1 ⁺)

* Unless otherwise noted, sexes could not be differentiated.

** Approximate numbers in parenthesis

Table H1. Density of benthic invertebrates, Buffalo Harbor, New York. 15 June 1981. Numbers expressed as individuals/m². Dash (-) indicates that no organism was observed.

SPECIES	STATIONS						
	1A	1B	1C	4A	4B	4C	4D
<u>Gammarus pseudolimnaeus</u>	-	37.8	37.8	-	-	-	-
<u>Nectopsycbe</u> sp.	-	18.9	-	-	-	-	-
<u>Cryptochironomus</u> spp.	-	18.9	56.7	18.9	-	-	-
<u>Procladius</u> spp.	-	132.3	56.7	-	-	-	-
<u>Tribelos</u> spp.	-	56.7	623.8	-	-	-	-
<u>Chironomidae</u> pupae	-	-	56.7	-	-	-	-
unidentifiable Chironomidae larvae	-	-	37.8	18.9	-	-	-
<u>Lymnaea emarginata</u>	756.1	-	-	-	-	-	-
<u>Helisoma anceps</u>	113.4	321.4	-	-	-	-	-
<u>Helisoma trivolis</u>	56.7	-	-	-	-	-	-
<u>Gyraulus parvus</u>	113.4	321.4	-	-	-	-	-
<u>Amnicola integra</u>	6049.1	1096.4	-	18.9	-	-	-
<u>Amnicola limosa</u>	5671.1	4007.5	378.1	-	18.9	-	-
<u>Bithynia tentaculata</u>	4536.9	359.2	-	-	-	-	-
<u>Goniobasis livescens</u>	-	-	378.1	-	-	-	-
<u>Valvata sincera</u>	3780.7	3213.6	-	-	-	-	-
<u>V. tricarinata perconfusa</u>	-	378.1	-	-	-	-	-
<u>V. piscinalis</u>	-	378.1	-	-	-	-	-
<u>V. tricarinata tricarinata</u>	13,610.5	4933.8	1890.4	-	18.9	-	-
<u>Viviparus georgianus</u>	-	359.2	-	-	-	-	-

Table H1 (continued).

SPECIES	STATIONS						
	1A	1B	1C	4A	4B	4C	4D
<u>Physa</u> spp.	1001.9	888.5	756.1	-	-	-	-
<u>Pisidium</u> spp.	3591.7	1361.1	189.0	-	37.8	-	-
<u>Sphaerium rhomboideum</u>	359.2	-	-	-	37.8	-	-
<u>Stylaria lacustris</u>	-	-	18.9	-	-	-	-
<u>Tubificidae</u>	75.6	189.0	94.5	-	18.9	-	-
<u>Dugesia tigrina</u>	37.8	-	-	-	-	-	-

Table H2. Density of benthic invertebrates at Buffalo Harbor, New York. 11 September 1981. Numbers expressed as individuals/m². Dash (-) indicates that no organism was observed.

SPECIES	STATIONS							
	1A	1B	1C	4A	4B	4C	4D	
<u>Asellus</u> sp.	37.8	396.9	94.5	-	-	-	-	
<u>Gammarus pseudolimnaeus</u>	-	415.8	-	-	-	-	-	
<u>Neureclipsis</u> sp.	-	-	18.9	-	-	-	-	
<u>Agraylea</u> sp.	-	-	18.9	-	-	-	-	
<u>Leucotrichia</u> sp.	-	-	18.9	-	-	-	-	
<u>Ceraclea</u> sp.	-	-	-	18.9	-	-	-	
<u>Nectopsyche</u> sp.	-	94.5	-	-	-	-	-	
<u>Procladius</u> spp.	-	-	-	18.9	-	-	-	
<u>Pseudolimnaeus</u> spp.	-	-	-	18.9	-	-	-	
<u>Cryptochironomus</u> spp.	-	-	-	-	-	18.9	-	
unidentifiable chironomidae larvae	18.9	-	-	56.7	-	-	-	
<u>Lymnaea emarginata</u>	-	359.1	-	-	-	-	-	
<u>Helisoma anceps</u>	359.1	-	-	-	-	-	-	
<u>Helisoma trivolvis</u>	-	37.8	-	-	-	-	-	
<u>Physa</u> spp.	907.2	1852.2	1493.2	-	-	-	-	
<u>Amnicola binneyana</u>	-	-	-	207.9	-	-	-	
<u>Amnicola integra</u>	718.2	718.2	2608.2	-	-	-	-	
<u>Amnicola limosa</u>	396.9	-	1871.1	-	-	-	-	
<u>Goniobasis livescens</u>	18.9	-	-	-	-	-	18.9	

Table 22 (continued).

SPECIES	STATIONS						
	1A	1B	1C	4A	4B	4C	4D
<u>Pleumcera acuta</u>	-	75.6	-	-	-	-	-
<u>Valvata sincera</u>	1474.2	-	-	-	-	-	-
<u>V. tricarinata perconfusa</u>	2173.0	359.1	737.1	18.9	-	-	-
<u>V. tricarinata tricarinata</u>	3496.5	1871.1	3364.2	18.9	-	-	-
<u>Pisidium</u> spp.	434.7	302.4	585.9	189.0	-	170.1	189.0
Aeolosomatidae	37.8	-	75.6	-	-	-	-
Lumbriculidae	-	-	18.9	-	-	-	-
Naididae	151.2	75.6	378.0	-	-	-	-
Tubificidae	170.1	18.9	321.3	-	-	-	-
Oligochaeta fragments	151.2	-	113.4	-	-	-	-
Hirudinea cocoons (?)	-	-	-	-	-	75.6	-
<u>Dugesia tigrina</u>	-	-	56.7	-	-	-	-

Table II. Aquatic macrophytes and bottom depths at disposal area 1. 11 September 1981.

Distance from shore(m)	Transect																										
	A (most southerly)									B									C								
	5	50	100	150	200	250	5	50	100	150	200	250	5	50	100	150	200	250									
Depth(ft)	-	5	5	7	7	7	2	5	6	9	7	7	3	3	7	6	7	7									
<u>Myriophyllum</u> sp.				x	x					x	x	x		x		x	x	x									
<u>Vallisneria americana</u> Michx.		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x									
<u>Potamogeton Richardsonii</u> (Benn.) Rybd.				x		x	x	x	x	x		x		x	x	x											
<u>Potamogeton</u> sp. 1					x				x								x	x									
<u>Potamogeton</u> sp. 2			x																								
<u>Chara</u> sp.																											
<u>Najas flexilis</u> (Willd.) Rostk. & Schmidt.	x																										

Table I2 (continued.)

Distance from shore (m)	Transect							
	D (most northerly)							
	5	50	100	150	200	250		
Depth (ft)	3	5	8	7	9	8		
<u>Myriophyllum</u> sp.					x	x		
<u>Vallisneria americana</u> Michx.	x	x	x	x	x	x		
<u>Potamogeton Richardsonii</u> (Benn.) Rybd.			x		x			
<u>Potamogeton</u> sp. 1								
<u>Potamogeton</u> sp. 2								
<u>Chara</u> sp.								
<u>Najas flexilis</u> (Willd.) Rostk. & Schmidt.								

Transect

G (most northerly)

	E				F				G (most northerly)			
Distance from jetty(m)	10	100	200	300	10	100	200	300	10	100	200	300
Depth (ft)	15	20	32	34	13	21	32	33	13	24	31	33
Macrophyte Species	-	-	-	-	-	-	-	-	-	-	-	-

Table I3. Spring vegetation observed on proposed disposal areas in May 1981. Vegetation in flower is indicated.

	(Distribution) Frequency			
	1 = rare		4 = common	
	2 = infrequent		5 = dominant	
	3 = frequent			
Species	Disposal Area 1	Disposal Area 2	Disposal Area 3	Spring Flora (Flowering)
I. TREES AND SHRUBS				
<u>Rhus typhina</u> L. (staghorn sumac)	2	5	2	
<u>Cornus stolonifera</u> Michx. (red osier dogwood)	2	2		x
<u>Cornus racemosa</u> Lam. (red panicle dogwood)		2		
<u>Acer Negundo</u> L. (boxelder)	1	2		x
<u>Populus tremuloides</u> Michx. (quaking aspen)	2	2	2	x
<u>Populus deltoides</u> Marsh. (cottonwood)	3	2	1	
<u>Prunus (virginiana</u> L.?) (choke cherry)		2	1	x
<u>Fraxinus pennsylvanica</u> Marsh. (green ash)	1	2		
<u>Rosa</u> sp. (rose)			1	
<u>(Salix interior</u> Rowlee?) (willow)			1	x
<u>Salix</u> (pussywillow?) (willow)			1	x
<u>Salix</u> (tree) (willow)	3	4		x
<u>Lonicera tatarica</u> L. (honeysuckle)		3	1	
<u>Vitis</u> sp. (grape)	1	2		
<u>Sambucus canadensis</u> L. (elderberry)		4		
<u>Populus nigra</u> var. <u>italica</u> (lombardy poplar)			2	

Table I3 (continued).

<u>Species</u>	<u>Disposal</u> <u>Area 1</u>	<u>Disposal</u> <u>Area 2</u>	<u>Disposal</u> <u>Area 3</u>	<u>Spring Flora</u> <u>(Flowering)</u>
I. TREES AND SHRUBS (continued)				
<u>Viburnum dentatum</u> L. (arrow-wood)		1		
<u>Crataegus</u> sp. (hawthorn)		1		
<u>Cornus Anomum</u> (silky dogwood)		1		

Table I3 (continued).

<u>Species</u>	<u>Disposal Area 1</u>	<u>Disposal Area 2</u>	<u>Disposal Area 3</u>	<u>Spring Flora (Flowering)</u>
II. HERBACEOUS PLANTS				
<u>Taraxacum officinale</u> Weber. (dandelion)	5	5	5	x
<u>Polygonum cuspidatum</u> Sieb & (Mexican bamboo) Zucc.	1	2	2	
<u>Trifolium pratense</u> L. (red clover)	5	5	5	
<u>Barbarea vulgaris</u> R. Br. (winter cress)	4	4	4	x
<u>Angelica atropurpurea</u> L. (Angelica)		4		
<u>Arctium minus</u> Schk. (burdock)		3	3	
<u>Leonurus cardiaca</u> L. (motherwort)		3		
<u>Oenothera biennis</u> L. (evening primrose)		3	3	
<u>Galium Aparine</u> L. (bedstraw)		2		
<u>Asclepias syriaca</u> L. (milkweed)		3	2	
<u>Thlaspi arvense</u> L. (penny-cress)		2		
<u>Potentilla recta</u> L. (cinquefoil)	4	5	4	
<u>Solidago graminifolia</u> (L.) (goldenrod) Salisb.		2		
<u>Typha latifolia</u> L. (cattail)		2	2	
<u>Iris</u> sp. (iris)		2		
<u>Carex</u> sp. (sedge)		2	2	
<u>Equisetum arvense</u> L. (horsetail)			2	
<u>Equisetum</u> sp. (horsetail)		1		

Table I3 (continued).

<u>Species</u>	<u>Disposal Area 1</u>	<u>Disposal Area 2</u>	<u>Disposal Area 3</u>	<u>Spring Flora (Flowering)</u>
II. HERBACEOUS PLANTS (continued)				
<u>Helianthus tuberosus</u> L. (Jerusalem artichoke)		3	2	
<u>Smilacina stellata</u> (L.) Desf. (starry false solomon's seal)		2		
<u>Solidago canadensis</u> L. (goldenrod)		3	3	
<u>Daucus Carota</u> L. (Queen Anne's lace)	4	5	4	
<u>Nepeta Cataria</u> L. (catnip)		2		
<u>Phragmites communis</u> Trin. (reed grass)		1	1	
<u>Tanacetum vulgare</u> L. (tansy)		5	3	
<u>Alliaria officinalis</u> Andr. (garlic mustard)		1		x
<u>Glechoma hederacea</u> L. (ground ivy)		2		x
<u>Euphorbia Cyparissias</u> L. (spurge)	4	5		
<u>Cichorium Intybus</u> L. (chickory)		5	2	
<u>Pastinaca sativa</u> L. (wild parsnip)		3	2	
<u>Medicago alba</u> Desr. (white clover)			2	
<u>Senecio vulgaris</u> L. (ragwort)			3	x
<u>Sisymbrium altissimum</u> L. (tumbling mustard)			1	x
<u>Plantago major</u> L. (plantain)			3	
<u>Verbascum Thapsus</u> L. (great mullein)	3	4	4	
<u>Ambrosia</u> sp. (ragweed)	5	4	4	

Table I3 (continued).

<u>Species</u>	<u>Disposal Area 1</u>	<u>Disposal Area 2</u>	<u>Disposal Area 3</u>	<u>Spring Flora (Flowering)</u>
II. HERBACEOUS PLANTS (continued)				
<u>Juncus</u> sp. (rush)			3	
<u>Sium suave</u> Walt. (water parsnip)		1		
<u>Apocynum androsaemifolium</u> L. (dogbane)		2		
Gramineae (grass family)	5	5	5	

Table I4. Summer vegetation observed on proposed Disposal Area 1 during July. Asterisk (*) denotes what appeared to be the most frequently observed plants. This is a subjective impression and is not the result of statistical analysis or quantification of dominance.

<u>Genus and Species</u>	<u>Common Name</u>
* <u>Saponaria officinalis</u> L.	Bouncing Bet
* <u>Convolvulus sepium</u> L.	Bindweed
<u>Solidago canadensis</u> L.	Canada goldenrod
<u>Melilotus alba</u> Desr.	White clover
<u>Aster ericoides</u> L.	Aster
<u>Verbascum Thapsus</u> L.	Mullein
<u>Vitis</u> sp.	Grape
<u>Chenopodium album</u> L.	Lamb's quarters
<u>Asclepias syriaca</u> L.	Milkweed
<u>Achillea Millefolium</u> L.	Yarrow
<u>Euphorbia</u> L. sp.	Spurge
<u>Daucus Carota</u> L.	Wild carrot
<u>Bromus japonicus</u> Thumb.	Japanese brome
<u>Oenothera biennis</u> L.	Evening primrose
<u>Clematis virginiana</u>	Virgin's bower
<u>Bidens tripartita</u>	Beggar-ticks
<u>Silene</u> L. sp.	Campion
<u>Linaria vulgaris</u> Hill	Butter and eggs
<u>Strophostyles helvola</u> (L.) Ell.	Trailing wild bean
<u>Helianthus annus</u> L.	Common sunflower
<u>Polygonum cuspidatum</u> Sieb. & Zucc.	Mexican bamboo
<u>Populus tremuloides</u> Michx.	Quaking aspen
<u>Populus deltoides</u> Marsh.	Cottonwood
<u>Salix interior</u> Rowlee	Sand-bar willow
<u>Salix</u> sp.	Willow
<u>Fraxinus pennsylvanica</u> Marsh.	Green ash
<u>Ulmus americana</u> L.	American elm
<u>Rhus typhina</u> L.	Staghorn sumac
<u>Taraxacum officinale</u> Weber.	Dandelion
<u>Trifolium pratense</u> L.	Red clover
<u>Barbarea vulgaris</u> R. Br.	Winter cress

Table I4 (continued).

<u>Genus and Species</u>	<u>Common Name</u>
<u>Potentilla recta</u> L.	Cinquefoil
* <u>Ambrosia</u> sp.	Ragweed
*Gramineae	Grass family

Table I5. Summer vegetation observed on the east side of the north/south railroad of Disposal Area 2 during July. Asterisk (*) denotes what appeared to be the most frequently observed plants. This is a subjective impression and is not the result of statistical analysis or quantification of dominance.

<u>Genus and Species</u>	<u>Common Name</u>
* <u>Festuca rubra</u> L.	Red fescus
* <u>Poa compressa</u> L.	Canada bluegrass
<u>Poa palustris</u> L.	Fowl meadow grass
<u>Agrostis stolonifera</u> L.	Grass
<u>Sonchus arvensis</u> L.	Sow-thistle
<u>Monarda fistulosa</u> L.	Wild bergamot
* <u>Pastinaca sativa</u> L.	Wild parsnip
<u>Eupatorium maculatum</u> L.	Joe-Pye weed
<u>Asclepias syriaca</u> L.	Common milkweed
<u>Cirsium arvense</u> (L.) Scop.	Canada thistle
<u>Carex Bebbii</u> Olney.	Sedge
<u>Carex Crawfordii</u> Fern.	Sedge
<u>Convolvulus sepium</u> L.	Hedge bindweed
<u>Silene dichotoma</u> Ehrh.	Catchfly
<u>Stachys hispida</u> Push.	Hedge nettle
* <u>Helianthus tuberosus</u> L.	Jerusalem artichoke
<u>Oxybaphus nyctagineus</u> (Michx.) Sweet.	Umbrella wort
<u>Aster</u> sp.	Aster
<u>Polygonatum biflorum</u> (Walt.) Ell	¹ Solomon's seal [<u>P. canalicuatum</u> (Muhl.) Persh] Britton and Brown
<u>Solidago canadensis</u> L.	Canada goldenrod
<u>Solidago graminifolia</u> (L.) Salisb.	Lance-leaf goldenrod
<u>Typha latifolia</u> L.	Common cattail
<u>Iris</u> sp.	Iris
<u>Impatiens biflora</u> Walt.	Jewelweed
<u>Sium suave</u> Walt.	Water parsnip
<u>Apocynum androsaemifolium</u> L.	Spreading dogbane
<u>Asparagus officinalis</u> L.	Asparagus
<u>Parthenocissus</u> sp.	Virginia creeper
<u>Vitis</u> sp.	Grape
<u>Linaria vulgaris</u> Hill	Butter and eggs
<u>Vicia cracca</u> L.	Vetch

¹The plant observed at Buffalo is a tetraploid of P. biflorum that is considered a good species (P. canalicuatum) by Gleason (1968).

Table I5 (continued).

<u>Genus and Species</u>	<u>Common Name</u>
* <u>Salix</u> sp.	Willow
<u>Fraxinus pennsylvanica</u> Marsh.	Ash
<u>Acer Negundo</u> L.	Boxelder
<u>Populus deltoides</u> Marsh.	Cottonwood
<u>Populus tremuloides</u> Michx.	Quaking aspen
<u>Crataegus</u> sp.	Hawthorn
<u>Sambucus canadensis</u> L.	Common elderberry
* <u>Rhus typhina</u> L.	Staghorn sumac
* <u>Cornus racemosa</u> Lam.	Red panicle dogwood
<u>Cornus Amomum</u> Mill.	Silky dogwood
<u>Viburnum dentatum</u> L.	Arrow-wood
<u>Cornus stolonifera</u> Michx.	Red osier dogwood
<u>Lonicera tatarica</u> L.	Tartarian honeysuckle
<u>Prunus virginiana</u> L.	Choke-cherry

Table 16. Summer vegetation observed on the west side of the north/south railroad of Disposal Area 2 during July. Asterisk (*) denotes what appeared to be the most frequently observed plants. This is a subjective impression and is not the result of statistical analysis or quantification of dominance.

<u>Genus and Species</u>	<u>Common Name</u>
* <u>Bromus inermis</u> Leyss.	Brome grass
* <u>Poa pratensis</u> L.	Kentucky bluegrass
<u>Melilotus alba</u> Desr.	White sweet clover
<u>Rumex crispus</u> L.	Sour dock
<u>Artemisia Absinthium</u>	Wormwood
<u>Heliopsis helianthoides</u>	Oxe eye
* <u>Artemisia vulgaris</u> L.	Mugwort
<u>Artemisia ludoviciana</u> Nutt.	Wormwood
<u>Saponaria officinales</u> L.	Bouncing Bet
<u>Potentilla recta</u> L.	Cinquefoil
<u>Epilobium</u> sp.	Willow herb
<u>Centaurea maculosa</u> Lam.	Spotted knapweed
<u>Brassica juncea</u> L.	Brown mustard
<u>Stachys hispida</u> Push.	Hedge nettle
<u>Polygonum cuspidatum</u> Sieb and Zucc.	Mexican bamboo
<u>Convolvulus sepium</u> L.	Hedge bindweed
<u>Helianthus annuus</u> L.	Common sunflower
* <u>Helianthus tuberosus</u> L.	Jerusalem artichoke
<u>Gum laciniatum</u> Murr.	Avens
<u>Daucus Carota</u> L.	Queen Ann's lace
<u>Cichorium Intybus</u> L.	Chicory
<u>Asclepias syriaca</u> L.	Common milkweed
<u>Arctium minus</u> Schk.	Common burdock
<u>Nepeta Cataria</u> L.	Catnip
<u>Verbascum Thapsus</u> L.	Mullein
<u>Solanum Dulcamara</u> L.	Nightshade
<u>Cirsium arvense</u> (L.) Scop.	Canada thistle
<u>Heracleum lanatum</u> Michx.	Cow parsnip
* <u>Angelica atropurpurea</u> L.	Angelica
<u>Berteroa incana</u> (L.) D.C.	Hoary alyssum
<u>Hypericum perforatum</u> L.	Saint John's wort

Table I6 (continued).

<u>Genus and Species</u>	<u>Common Name</u>
<u>Sambucus canadensis</u> L.	Common elderberry
* <u>Salix</u> sp.	Willow
<u>Fraxinus pennsylvanica</u> Marsh.	Ash
* <u>Rhus typhina</u> L.	Staghorn sumac
<u>Populus deltoides</u> Marsh.	Cottonwood
<u>Populus tremuloides</u> Michx.	Quaking aspen
<u>Acer Negundo</u> L.	Boxelder
<u>Lonicera tatarica</u> L.	Tartarian honeysuckle
<u>Crataegus</u> sp.	Hawthorn

Table I7. Summer vegetation observed during July in subdivisions A, B, C and D of Disposal Area 3. Subdivisions A, B, C and D correspond to areas of the vegetation map (Fig. 7). Asterisk (*) denotes what appeared to be the most frequently observed plants. This is a subjective impression and is not the result of statistical analysis or quantification of dominance.

<u>Genus and Species</u>	<u>Common Name</u>
Area A	
* <u>Salix interior</u> Rowlee	Sandbar willow
* <u>Melilotus alba</u> Desr.	Sweet white clover
<u>Asclepias syriaca</u> L.	Milkweed
<u>Helianthus annuus</u> L.	Common sunflower
<u>Hordeum jubatum</u> L.	Squirreltail grass
<u>Populus deltoides</u> Marsh.	Cottonwood
<u>Daucus Carota</u> L.	Queen Ann's lace
<u>Parthenocissus</u> sp.	Virginia creeper
<u>Solidago canadensis</u> L.	Canada goldenrod
<u>Ambrosia</u> sp.	Ragweed
<u>Polygonum cuspidatum</u> Sieb and Zucc.	Mexican bamboo
<u>Brassica juncea</u> (L.) Cosson	Mustard
Area B	
* <u>Hordeum jubatum</u> L.	Squirreltail grass
<u>Melilotus alba</u> Desr.	Sweet white clover
<u>Melilotus officinalis</u> (L.) Desr.	Sweet yellow clover
<u>Phleum pratense</u> L.	Timothy
<u>Salix interior</u> Rowlee	Sandbar willow
<u>Phragmites communis</u> Trin.	Reed grass
Area C	
* <u>Bromus japonicus</u> Thunb.	Japanese brome
<u>Melilotus alba</u> Desr.	Sweet white clover
<u>Melilotus officinalis</u> (L.) Desr.	Sweet yellow clover
<u>Helianthus annuus</u> L.	Common sunflower
<u>Cakile edentula</u> (Bigel) Hook.	Sea rocket
<u>Solidago canadensis</u> L.	Canada goldenrod
<u>Populus deltoides</u> Marsh.	Cottonwood
<u>Phragmites communis</u> Trin.	Reed grass

Table I7 (continued).

<u>Genus and Species</u>	<u>Common Name</u>
Area D	
<u>Hordeum jubatum</u> L.	Squirelltail grass
<u>Poa compressa</u> L.	Canada bluegrass
<u>Asclepias syriaca</u> L.	Common milkweed
<u>Convolvulus sepium</u> L.	Bindweed
<u>Ambrosia trifida</u> L.	Ragweed
<u>Cichorium intybus</u> L.	Chickory
<u>Daucus carota</u> L.	Queen Ann's lace
<u>Carduus nutans</u> L.	Nodding thistle
<u>Hypericum perforatum</u> L.	Saint John's wort
<u>Achillea millefolium</u> L.	Yarrow
<u>Saponaria officinalis</u> L.	Bouncing Bet
<u>Solidago canadensis</u> L.	Canada goldenrod
<u>Potentilla recta</u> L.	Cinquefoil
<u>Pastinaca sativa</u> L.	Wild parsnip
<u>Dipsacus sylvestris</u> Huds.	Common teasel
<u>Arctium minus</u> Schk.	Burdock
<u>Fragaria virginiana</u> Duchesne.	Strawberry
<u>Melilotus officinalis</u> (L.) Desr.	Sweet yellow clover
<u>Erigeron annuus</u> (L.) Pers.	Fleabane
<u>Rosa</u> sp.	Rose
<u>Rhamnus</u> sp.	Buckthorn
<u>Salix</u> sp.	Pussywillow
<u>Typha latifolia</u> L.	Common cattail
<u>Lythrum salicaria</u> L.	Purple loosestrife
<u>Rumex crispus</u> L.	Dock
<u>Sparganium eurycarpum</u> Engelm.	Bur-reed
<u>Juncus compressus</u> Jacq.	Rush
<u>Berteroa incana</u> (L.) D.C.	Hoary alyssum
<u>Dactylis glomerata</u> L.	Orchard grass
<u>Carex vulpinoidea</u> Michx.	Sedge
<u>Chrysanthemum leucanthemum</u> L.	Oxe eye daisy

Table I7 (continued).

<u>Genus and Species</u>	<u>Common Name</u>
Area D (cont.)	
<u>Cirsium arvense</u> (L.) Scop.	Canada thistle
<u>Convolvulus arvensis</u> L.	Bindweed
<u>Sisymbrium Loeselii</u> L.	Tumbling mustard
<u>Agropyron repens</u> (L.) Beauv.	Quack grass
<u>Trifolium pratense</u> L.	Red clover
<u>Medicago</u> sp.	Medick

Table J1. References used for taxonomic identification of organisms.

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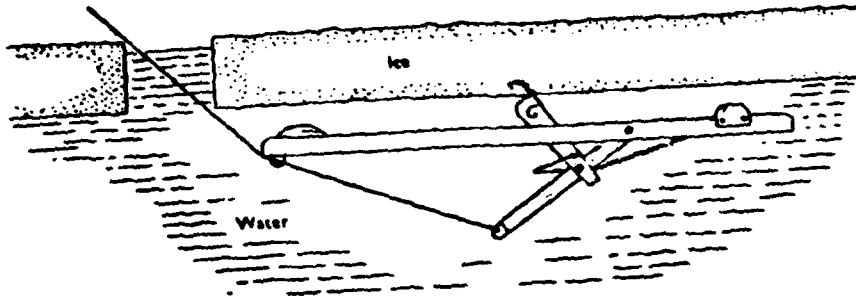
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Table K1. The Prairie Ice Jigger. By snapping the line attached to the jigger, the board will move along the bottom of the ice. After a hole is cut where the jigger lies, a gill net can be set by pulling the net through the hole under the ice.



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