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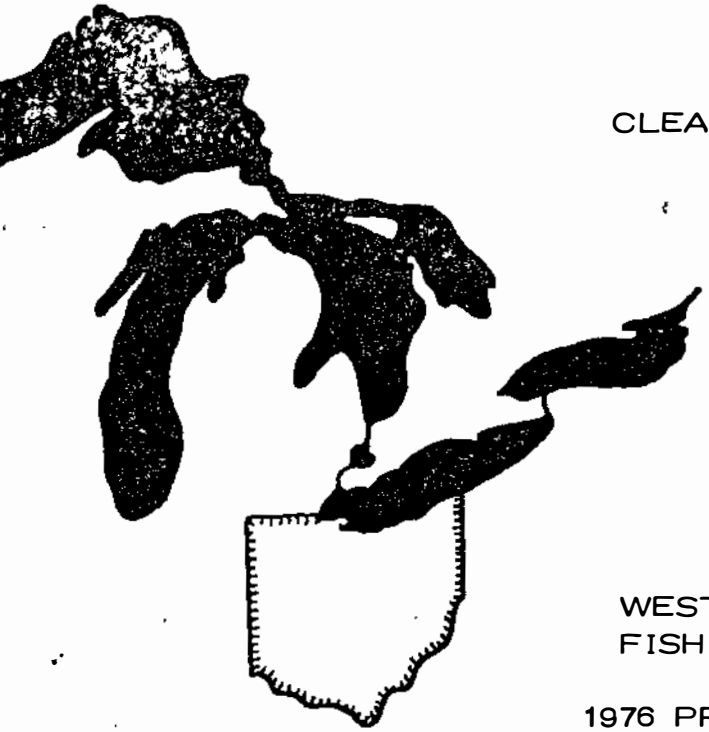

CLEAR TECHNICAL REPORT NO. 63

WESTERN LAKE ERIE FISH LARVAE STUDY

1976 PRELIMINARY DATA REPORT

Prepared by

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Prepared for

U.S. Environmental Protection Agency
Large Lakes Research Station
Grosse Ile, Michigan

THE OHIO STATE UNIVERSITY
CENTER FOR LAKE ERIE AREA RESEARCH
COLUMBUS, OHIO

March 1977

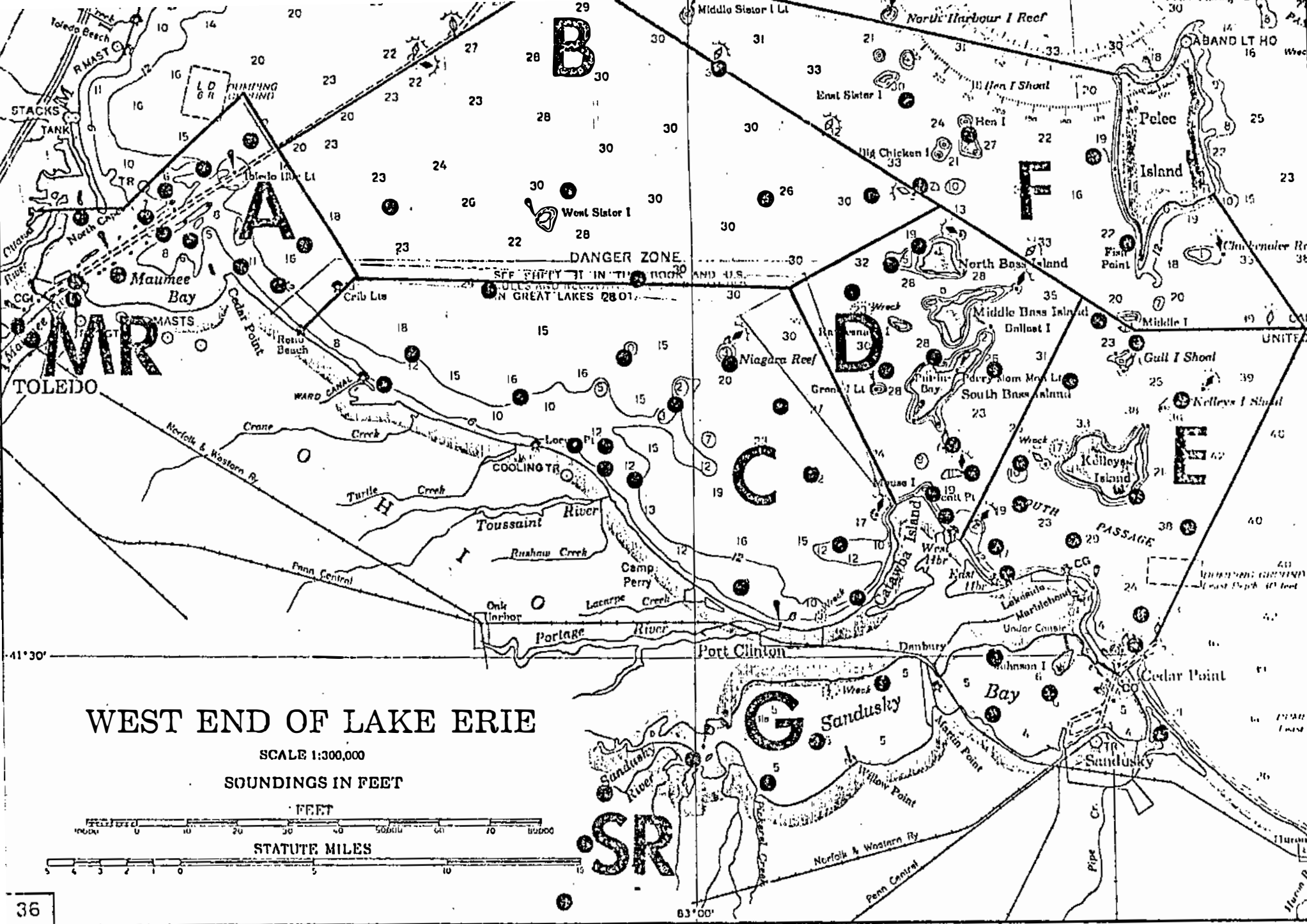
WEST END OF LAKE ERIE
SCALE 1:300,000
SOUNDINGS IN FEET
FEET
STATUTE MILES
A
B
C
D
E
F
G
MR
SR
TOLEDO
Maumee Bay
Cedar Point
DANGER ZONE
Crib Lts
Niagara Reef
North Harbour I Reef
West Sistor I
East Sistor I
Hen I
Big Chicken I
Pelee Island
North Bass Island
Middle Bass Island
South Bass Island
Gull I Shoal
Kelleys I Shoal
Kelleys Island
Middle I
Fish Point
Ballast I
Crane Creek
Turtle Creek
Toussaint River
Rushaw Creek
Lacarpe Creek
Portage River
Port Clinton
Danbury
Sandusky Bay
Sandusky
Sandusky River
Martin Point
Willow Point
Calaiba Island
West Hbr
East Hbr
Lakeside
Marblehead
Under Course
Camp Perry
COOLING TR
WARD CANAL
Norfolk & Western Ry
Penn Central
Toledo Beach
STACKS
TANK
R MAST
North Cap
Rocky Beach
Oak Harbor
ABAND LT HO
41°30'
83°00'

TABLE 2

COLLECTION DATES FOR WESTERN LAKE ERIE
FISH LARVAE SURVEY – 1976

Station No.	Field No.	Cruise No. 1	2	3	4	5	6	7	8	9	10	11	12	13	14
5	A 1/1	4-13	4-21	4-30	5-10	5-22		6-7	6-22	7-6	7-12	7-28	8-4		9-3
6	A 1/3	4-13		4-30	5-10	5-22		6-7	6-22						
7	A 3/1	4-13		4-30	5-10	5-22		6-7	6-22	7-6	7-12	7-28	8-4		9-3
8	A 1/2		4-21	4-30	5-10	5-22		6-7	6-22	7-6	7-12	7-28	8-4		9-3
10	A. 2/1	4-13	4-21	4-30	5-10	5-22		6-7	6-22	7-6	7-12	7-28	8-4		9-3
11	A 1/4	4-13		4-30	5-10	5-22		6-7	6-22	7-6	7-12	7-28	8-4		9-1
12	A 2/2	4-13		4-30	5-10	5-22		6-7	6-22	7-6	7-12	7-28	8-4		9-1
13	A 3/2	4-13		4-30	5-10	5-22		6-7	6-22	7-6	7-12	7-28	8-4		9-1
14	B 4/2			4-30	5-10	5-22		6-7	6-22	7-6	7-12	7-28	8-4		
15	B 5/1	4-13		4-30	5-10	5-22		6-7	6-22	7-6	7-12	7-28	8-4		9-1
17	B 6/2	4-14		4-29	5-9	5-21	5-30	6-8	6-21	7-4	7-15	7-22	8-3		8-25
56	B 5/2	4-13		4-30	5-10	5-22		6-7	6-22	7-6	7-12	7-28	8-4		9-1
18	C 1/1	4-13		4-30	5-10	5-22		6-7	6-22		7-12	7-28	8-4		9-1
19	C 3/1	4-13		4-30	5-10	5-22		6-7	6-22	7-6	7-12	7-28	8-4		9-1
20	C 4/1	4-13		4-30	5-10	5-22		6-7	6-22	7-6	7-12	7-28	8-4		9-1
21	C 2/1			4-30	5-10	5-22		6-7	6-22	7-6	7-12	7-28	8-4		9-1
24	C 3/2		4-23	4-29	5-10	5-21		6-9	6-23	7-5	7-12	7-28	8-4		8-28
25	C 5/1		4-23	4-30	5-10	5-21		6-7	6-23	7-5	7-12	7-28	8-4		8-28
26	C 1/3	4-16	4-23	4-29	5-10	5-22		6-9	6-23	7-5	7-12	7-28	8-4		8-28
27	C 1/4	4-16	4-23	4-29	5-10	5-21		6-9	6-23	7-5	7-12	7-28	8-4		8-28
28	C 5/2	4-12	4-23	4-29	5-10	5-21		6-9	6-23	7-5	7-12	7-28	8-4		8-28
29	C 4/2	4-12	4-23	4-29	5-10	5-21		6-9	6-24	7-7		7-23	8-5		8-27
30	C 2/3	4-12	4-23	4-29	5-10	5-21		6-9	6-25	7-7		7-23	8-5		8-27
31	C 1/5	4-12	4-23	4-29	5-10	5-21		6-9	6-25	7-7		7-23	8-5		8-27
32	C 3/3	4-12	4-23	4-29	5-10	5-21		6-9	6-25	7-7		7-23	8-5		8-27
33	D 6/1	4-14	4-24	4-29	5-8	5-21		6-8	6-19	7-4	7-15	7-22	8-3	8-16	8-25

TABLE 2 CON'T.

COLLECTION DATES FOR WESTERN LAKE ERIE
FISH LARVAE SURVEY - 1976
(Continued)

Station No	Field No.	Cruise No.													
		1	2	3	4	5	6	7	8	9	10	11	12	13	14
34	D 2/1	4-14		4-29	5-8	5-21	5-30	6-8	6-19	7-4	7-15	7-22	8-3	8-16	8-25
35	D 4/1	4-14		4-29	5-8	5-21	5-30	6-8	6-19	7-4	7-15	7-22	8-3	8-16	8-25
36	D 5/1	4-12	4-23	4-30	5-8	5-21		6-8	6-19	7-4	7-15	7-21	8-3	8-16	8-25
37	D 1/2	4-15		4-28	5-8	5-20	5-30	6-9	6-23	7-2	7-15	7-23	8-2	8-16	8-26
38	D 2/2	4-15		4-28	5-8	5-20	5-30	6-9	6-23	7-2	7-15	7-23	8-2	8-16	8-26
39	D 3/2	4-15	4-23	4-28	5-8	5-20	5-30	6-9	6-23	7-2	7-15	7-21	8-2	8-16	8-26
40	D 1/1	4-14	4-23	4-30	5-8	5-21	5-30	6-8	6-19	7-4	7-14	7-21	8-3	8-16	8-25
41	D 3/1	4-14	4-23	4-28	5-8	5-21	5-30	6-8	6-19	6-30	7-15	7-21	8-2	8-16	8-26
42	D 5/2	4-14	4-23	4-28	5-8	5-20	5-30	6-9	6-19	7-2	7-11	7-21	8-2	8-16	8-26
43	D 6/2	4-14		4-28	5-8	5-21	5-30	6-8	6-21	7-5	7-11	7-21	8-2	8-16	8-27
62	D 4/2	4-15		4-28	5-8	5-20	5-30	6-9	6-23	7-2	7-14	7-21	8-2	8-16	8-26
44	E 1/1	4-15		4-28	5-8	5-20	5-30	6-9	6-23	7-2	7-11	7-23	8-2		8-26
45	E 3/1	4-15		4-28	5-8	5-20	5-30	6-9	6-23	7-2	7-11	7-23	8-2		8-26
46	E 3/2	4-15			5-8	5-23	5-30	6-9	6-23	7-2	7-14	7-23	8-2		8-28
47	E 6/1	4-14		4-28	5-8	5-21	5-30	6-9	6-23	7-5	7-11	7-24	8-2		8-27
48	E 5/1	4-14		4-28	5-8	5-21	5-30	6-8	6-25	7-5	7-11	7-24	8-2		8-27
49	E 2/1	4-14		4-28	5-8	5-21	5-30	6-9	6-23	7-2	7-11	7-24	8-2		8-27
50	E 5/2	4-15		4-28	5-8	5-20	5-30	6-9	6-23	7-2	7-14	7-23	8-2		8-26
51	E 2/2	4-15		4-28	5-8	5-20	5-30	6-9	6-23	7-2	7-11	7-24	8-2		8-26
52	E 1/2	4-14		4-28	5-8	5-21	5-30	6-9	6-23	7-2	7-11	7-24	8-2		8-26
54	E 4/2	4-15		5-1	5-11	5-23		6-8	6-23	7-2	7-14	7-24	8-3		8-28
55	E 6/2	4-15		4-28	5-8	5-20	5-30	6-9	6-23	7-2	7-11	7-24	8-2		8-26
63	E 4/1	4-15			5-8	5-20	5-30	6-9	6-23	7-2	7-14	7-23	8-2		8-26
57	F 6/1	4-14		4-29	5-9	5-21	5-30	6-8	6-21	7-4	7-15	7-22	8-3		8-25
58	F 2/1				5-9	5-21	5-30	6-8	6-21	7-4	7-15	7-22	8-3		8-25
59	F 1/1	4-14		4-29	5-9	5-21	5-30	6-8	6-21	7-4	7-15	7-22	8-3		8-25

TABLE 2 CON'T.

COLLECTION DATES FOR WESTERN LAKE ERIE
FISH LARVAE SURVEY - 1976
(Continued)

Station No.	Field No.	Cruise No.													
		1	2	3	4	5	6	7	8	9	10	11	12	13	14
60	F 3/1	4-14			5-9	5-20	5-30	6-8	6-25	7-5	7-11	7-24	8-2		8-27
61	F 4/1	4-14			5-9	5-20	5-30	6-8	6-25	7-5	7-11	7-24	8-2		8-27
66	G 1/1			5-1		5-23		6-8	6-23	7-2	7-14	7-24	8-3		8-28
67	G 1/2	4-16		5-1		5-23		6-8	6-23	7-2	7-14	7-24			8-28
69	G 1/3	4-16		5-1	5-11	5-23		6-8	6-23	7-2	7-14	7-24	8-3		8-28
70	G 1/4	4-16		5-1	5-11	5-23		6-8	6-23	7-2	7-14	7-24	8-3		8-28
71	G 1/5	4-16		5-1	5-11	5-23		6-8	6-23	7-2	7-14	7-24	8-3		8-28
68	G 1/6			5-1		5-23		6-8	6-23	7-2		7-24	8-3		8-28

TABLE 3

WESTERN LAKE ERIE FISH LARVAE SURVEY
COLLECTION STATIONS

Sector	Station No.	Field Notation	Latitude	Longitude	Depth Zone
A	1	R-1	N41°37.3'	W83°33.4'	R
	2	R-2	N41°39.2'	W83°31.3'	R
	3	R-3	N41°41.6'	W83°26.4'	R
	4	R-4	N41°42.3'	W83°26.7'	R
	5	A 1/1	N41°43.7'	W83°25.7'	1
	6	A 1/3	N41°45.0'	W83°22.8'	1
	7	A 3/1	N41°46.3'	W83°20.2'	3
	8	A 1/2	N41°42.2'	W83°24.6'	1
	10	A 2/1	N41°43.5'	W83°21.8'	2
	11	A 1/4	N41°43.1'	W83°20.8'	1
	12	A 2/2	N41°42.4'	W83°18.5'	2
	13	A 3/2	N41°43.4'	W83°17.4'	3
B	9	B 4/1	N41°47.5'	W83°18.1'	4
	14	B 4/2	N41°44.4'	W83°12.7'	4
	15	B 5/1	N41°44.7'	W83°05.9'	5
	16	B 6/1	N41°45.5'	W82°57.2'	6
	17	B 6/2	N41°45.0'	W82°51.8'	6
	56	B 5/2	N41°49.2'	W82°59.0'	5
C	18	C 1/1	N41°39.1'	W83°14.0'	1
	19	C 3/1	N41°40.0'	W83°11.7'	3
	20	C 4/1	N41°41.5'	W83°08.7'	4
	21	C 2/1	N41°37.8'	W83°07.4'	2
	22	C 1/2	N41°36.0'	W83°04.0'	2
	23	C 2/2	N41°36.4'	W83°03.8'	2
	24	C 3/2	N41°36.4'	W83°02.2'	3
	25	C 5/1	N41°41.5'	W83°02.1'	5
	26	C 1/3	N41°37.9'	W83°00.9'	1
	27	C 1/4	N41°39.8'	W82°58.4'	1
	28	C 5/2	N41°38.8'	W82°56.5'	5
	29	C 4/2	N41°35.7'	W82°54.4'	4
	30	C 2/3	N41°32.2'	W82°57.7'	2
	31	C 1/5	N41°31.6'	W82°53.0'	1
	32	C 3/3	N41°33.2'	W82°53.2'	3
	64	C 2/4	N41°36.4'	W83°04.5'	2
	65	C 2/5	N41°36.0'	W83°03.5'	2

TABLE 3 CON'T.

WESTERN LAKE ERIE FISH LARVAE SURVEY
COLLECTION STATIONS CONTINUED

Sector	Station No.	Field Notation	Latitude	Longitude	Depth Zone
D	33	D 6/1	N41°42.0'	W82°52.9'	6
	34	D 2/1	N41°42.8'	W82°51.3'	2
	35	D 4/1	N41°43.5'	W82°50.2'	4
	36	D 5/1	N41°39.7'	W82°51.4'	5
	37	D 1/2	N41°34.5'	W82°49.2'	1
	38	D 2/2	N41°35.1'	W82°49.5'	2
	39	D 3/2	N41°37.6'	W82°49.1'	3
	40	D 1/1	N41°39.6'	W82°49.4'	1
	41	D 3/1	N41°41.3'	W82°47.8'	3
	42	D 5/2	N41°39.3'	W82°47.2'	5
	43	D 6/2	N41°41.2'	W82°44.6'	6
	62	D 4/2	N41°36.6'	W82°48.0'	4
E	44	E 1/1	N41°32.5'	W82°46.7'	1
	45	E 3/1	N41°33.4'	W82°47.3'	3
	46	E 3/2	N41°36.0'	W82°45.6'	3
	47	E 6/1	N41°38.7'	W82°42.9'	6
	48	E 5/1	N41°40.7'	W82°41.6'	5
	49	E 2/1	N41°39.8'	W82°40.9'	2
	50	E 5/2	N41°33.6'	W82°43.7'	5
	51	E 2/2	N41°35.2'	W82°40.9'	2
	52	E 1/2	N41°38.3'	W82°38.8'	1
	53	E 2/3	N41°30.4'	W82°42.6'	2
	54	E 4/2	N41°31.1'	W82°41.5'	4
	55	E 6/2	N41°34.8'	W82°39.6'	6
	63	E 4/1	N41°35.0'	W82°45.6'	4
F	57	F 6/1	N41°47.2'	W82°50.0'	6
	58	F 2/1	N41°45.3'	W82°49.5'	4
	59	F 1/1	N41°46.2'	W82°49.1'	1
	60	F 3/1	N41°45.4'	W82°41.7'	3
	61	F 4/1	N41°42.6'	W82°41.2'	4
G	66	G 1/1	N41°26.1'	W82°56.6'	1
	67	G 1/2	N41°27.8'	W82°54.0'	1
	68	G 1/6	N41°29.1'	W82°52.4'	1
	69	G 1/3	N41°27.4'	W82°46.1'	1
	70	G 1/4	N41°30.0'	W82°46.5'	1
	71	G 1/5	N41°29.6'	W82°44.8'	1

TABLE 3 CON'T.

WESTERN LAKE ERIE FISH LARVAE SURVEY
COLLECTION STATIONS CONTINUED

Sector	Station No.	Field Notation	Latitude	Longitude	Depth Zone
Maumee River	79	MR475	N41°32.5'	W83°41.9'	R
	78	Perrysburg bridge	N41°33.5'	W83°38.9'	R
	1	R-1	N41°37.2'	W83°33.8'	R
	1A	R-1A	N41°37.4'	W83°33.6'	R
	1B	R-1B	N41°37.4'	W83°33.9'	R
	2	R-2	N41°39.2'	W83°31.3'	R
	2A	R-2A	N41°39.2'	W83°31.1'	R
	3	R-3	N41°41.7'	W83°26.4'	R
	4	R-4	N41°42.3'	W83°26.7'	R
Sandusky River	74	R-74	N41°20.5'	W83°06.7'	R
	75	R-75	N41°23.7'	W83°06.4'	R
	76	R-76	N41°25.4'	W83°04.0'	R
	77	R-77	N41°26.8'	W83°00.2'	R

TABLE 4

WESTERN LAKE ERIE FISH LARVAE SURVEY
AREA AND VOLUME CALCULATIONS

Sector	Depth Zone	Depth Range (m)	Area (Km^2)	Volume (m^3)
G	1	0 - 2	131.6	1.61×10^8
MR	R	0 - 10 Total	7.84	4.21×10^7
SR	R	0 - 7 Total	2.06	6.52×10^6

MR - Maumee River Estuary from Corbutt Island downstream to mouth at bay side of Toledo Island (dredge disposal site).

TABLE 5
DENSITY OF FISH LARVAE
IN MAUMEE RIVER AND BAY IN 1976[1]
STATION 1

Species		4-7	4-8	4-13	4-15 day	4-15 night	4-21	4-23 day	4-23 night
	S[2]								
	B								
w perch	S								
	B								
bass	S								
	B								
sucker	S							0	6
	B							0	1
rd shad	S							0	0
	B							5	0
water drum	S								
	B								
ye	S								
	B								
ld shiner	S								
	B								
erch	S								
	B								
fe	S								
	B								
ye	S				0	0	0	1	4
	B				4	0	1	4	0
	S								
	B								
ail shiner	S								
	B								
sh	S								
	B								
	S								
	B								
el catfish	S								
	B								
le madtom	S								
	B								

mber of larvae/100 m^3

S - Surface sample
B - Bottom sample

TABLE 5 (CON'T.)
DENSITY OF FISH LARVAE
IN MAUMEE RIVER AND BAY IN 1976[1]
STATION 1 (CONT'D.)

Species		4-27	4-29 night	5-4	5-7	5-10	5-12
	S	1	0	0	0		
	B	3	1	1	1		
w perch	S						
	B						
bass	S						
	B						
sucker	S		1	0			
	B		3	1			
rd shad	S						
	B						
water drum	S						
	B						
ye	S						
	B						
ld shiner	S						
	B						
erch	S						
	B						
fe	S						
	B						
ye	S				0		
	B				1		
	S						
	B						
ail shiner	S						
	B						
	S						
	B						
ie	S						
	B						
el catfish	S						
	B						
le madtom	S						
	B						

mber of larvae/100 m^3

TABLE 5 (CON'T.)
DENSITY OF FISH LARVAE
IN MAUMEE RIVER AND BAY IN 1976[1]
STATION 1 (CONT'D.)

Species		5-14	5-18	5-20	5-25	5-27 day	5-27 night	6-1
p	S	0	1	2		0	2	0
	B	1	6	1		2	0	1
low perch	S							
	B							
te bass	S		14	10	0	0	5	17
	B		15	7	2	5	7	6
te sucker	S					0	1	
	B					0	0	
zard shad	S		141	123	2	47	10	187
	B		120	30	10	38	33	54
shwater drum	S				0			
	B				5			
heye	S							
	B							
rald shiner	S							
	B							
perch	S	1		1				
	B	0		0				
wife	S							
	B							
leye	S	0						
	B	1						
lt	S							
	B							
ttail shiner	S							
	B							
s	S	2	4	0	0	26	340	70
	B	4	4	1	29	78	14	53
ppie	S					0		
	B					2		
ner	S					0		
	B					1		
ker	S			1				
	B			0				

Number of larvae/100 m^3

TABLE 5 (CON'T.)
DENSITY OF FISH LARVAE
IN MAUMEE RIVER AND BAY IN 1976[1]
STATION 1 (CONT'D.)

Species		6-3	6-8				
	S		0				
	B		1				
ow perch	S						
	B						
e bass	S	64	0				
	B	43	4				
e sucker	S						
	B						
ard shad	S	1213	702				
	B	117	83				
hwater drum	S		0				
	B		2				
eye	S						
	B						
ald shiner	S						
	B						
perch	S						
	B						
ife	S						
	B						
eye	S						
	B						
t	S						
	B						
tail shiner	S						
	B						
	S	170	11				
	B	138	1				
pie	S						
	B						
nel catfish	S						
	B						
ole madtom	S						
	B						

umber of larvae/100 m^3

TABLE 5 (CON'T.)
DENSITY OF FISH LARVAE
IN MAUMEE RIVER AND BAY IN 1976[1]
STATION 1A

Species		4-27	5-20	5-25	5-27	6-1	6-3
	S		5				
	B		1				
perch	S						
	B						
bass	S		0	1	9	83	32
	B		9	5	1	81	16
sucker	S	1	2				
	B	1	0				
d shad	S		2	6	49	174	1543
	B		12	43	97	449	2553
ater drum	S						
	B						
e	S						
	B						
d shiner	S						
	B						
rch	S		1		0		
	B		0		1		
e	S						
	B						
e	S						
	B						
	S						
	B						
il shiner	S						
	B						
n	S						
	B						
e	S						
	B						
l catfish	S						
	B						
	S		2	0		6	43
	B		4	3		0	160

ber of larvae/100 m^3

TABLE 5 (CON'T.)
DENSITY OF FISH LARVAE
IN MAUMEE RIVER AND BAY IN 1976[1]
STATION 1A (CON'T.)

Species		6-8					
	S						
	B						
perch	S						
	B						
ass	S	0					
	B	16					
ucker	S						
	B						
shad	S	2426					
	B	1963					
ter drum	S						
	B						
	S						
	B						
shiner	S						
	B						
ch	S						
	B						
	S						
	B						
	S						
	B						
	S						
	B						
l shiner	S						
	B						
	S						
	B						
	S						
	B						
catfish	S						
	B						
	S	43					
	B	32					

er of larvae/100 m^3

TABLE 5 (CON'T.)
DENSITY OF FISH LARVAE
IN MAUMEE RIVER AND BAY IN 1976[1]
STATION 1B

Species		5-20	5-25	5-27	6-1	6-3	6-8
	S	4					0
	B	32					1
w perch	S						
	B						
bass	S	19	2	14	32	0	11
	B	32	20	30	43	10	499
sucker	S	1					
	B	0					
rd shad	S	28	31	379	404	85	681
	B	47	52	359	809	124	132
water drum	S		0				
	B		1				
ye	S						
	B						
ld shiner	S						
	B						
erch	S	1	1	10			0
	B	1	0	5			1
fe	S						
	B						
ye	S						
	B						
	S						
	B						
ail shiner	S						
	B						
sh	S						
	B						
ie	S						
	B						
el catfish	S						
	B						
	S	1	6		21	4	11
	B	1	1		43	9	0

nber of larvae/100 m^3

TABLE 5 (CON'T.)
DENSITY OF FISH LARVAE
IN MAUMEE RIVER AND BAY IN 1976[1]
STATION 2

Species		4-7	4-8	4-13	4-15 day	4-15 night	4-21	4-23 day	4-23 night
	S								
	B								
erch	S								
	B								
ss	S								
	B								
cker	S								
	B								
shad	S							0	1
	B							0	0
er drum	S								
	B								
	S								
	B								
shiner	S								
	B								
n	S							0	1
	B							0	1
	S								
	B								
	S			1	0	3	1	0	3
	B			0	0	0	0	0	1
	S								
	B								
shiner	S								
	B								
	S								
	B								
	S								
	B								
catfish	S								
	B								
	S								
	B								

of larvae/100 m^3

TABLE 5 (CON'T.)
DENSITY OF FISH LARVAE
IN MAUMEE RIVER AND BAY IN 1976[1]
STATION 2 (CONT'D.)

Species		4-27	4-29 night	5-4	5-7	5-10	5-12
)	S	1	2				
	B	0	0				
ow perch	S						
	B						
e bass	S	1					
	B	0					
e sucker	S	3	6	1	1		
	B	2	1	0	0		
ard shad	S	1					
	B	0					
hwater drum	S						
	B						
eye	S						
	B						
ald shiner	S						
	B						
perch	S		1				
	B		0				
ife	S						
	B						
eye	S					0	
	B					2	
t	S						
	B						
tail shiner	S						
	B						
ish	S						
	B						
pie	S						
	B						
nel catfish	S						
	B						
s	S						
	B						

umber of larvae/100 m^3

TABLE 5 (CON'T.)
DENSITY OF FISH LARVAE
IN MAUMEE RIVER AND BAY IN 1976[1]
STATION 2 (CONT'D.)

Species		5-14	5-18	5-20	5-25	5-27 day	5-27 night	6-1
	S			0	0	0	5	0
	B			28	21	5	2	2
ow perch	S							
	B							
e bass	S		1	4	11	5	5	404
	B		14	10	21	13	37	54
e sucker	S							
	B							
ard shad	S		1	539	213	449	32	681
	B		9	29	106	101	88	49
nwater drum	S							0
	B							6
eye	S							
	B							
ald shiner	S							
	B							
perch	S		2					
	B		0					
ife	S							
	B							
eye	S	0		1				
	B	1		0				
	S							
	B							
tail shiner	S							
	B							
sh	S							
	B							
pie	S							
	B							
el catfish	S							
	B							
	S		19		10		87	
	B		13		0		23	

mber of larvae/100 m^3

TABLE 5 (CON'T.)
DENSITY OF FISH LARVAE
IN MAUMEE RIVER AND BAY IN 1976[1]
STATION 2 (CONT'D.)

Species		6-3	6-8				
	S						
	B						
w perch	S						
	B						
bass	S	149	0				
	B	53	43				
sucker	S						
	B						
rd shad	S	7021	2361				
	B	511	43				
water drum	S	0					
	B	11					
eye	S						
	B						
ld shiner	S						
	B						
erch	S						
	B						
fe	S						
	B						
eye	S						
	B						
t	S						
	B						
ail shiner	S						
	B						
ish	S						
	B						
ie	S						
	B						
el catfish	S						
	B						
	S	0	32				
	B	160	53				

mber of larvae/100 m^3

TABLE 5 (CON'T.)
DENSITY OF FISH LARVAE
IN MAUMEE RIVER AND BAY IN 1976[1]
STATION 2A (Con't.)

Species		5-14	5-18	5-20	5-25	5-27	5-27/28[2]
	S						3
	B		2				7
perch	S						
	B						
ass	S		5		10	2	1
	B		4	128	32	11	3
ucker	S						
	B						
shad	S		20	2043	53	172	17
	B		13	1681	266	468	41
ter drum	S						
	B						
	S						
	B						
rappie	S						
	B						
ch	S			11			
	B						
rch	S						
	B						
	S						
	B						
	S						
	B						
l shiner	S						
	B						
Shiner	S						
	B						
	S						
	B						
	S						
	B						
	S		5		1		122
	B		6				100

er of larvae/100 m³
t study

TABLE 5 (CON'T.)
DENSITY OF FISH LARVAE
IN MAUMEE RIVER AND BAY IN 1976[1]
STATION 2A (Con't.)

Species		6-1	6-3	6-8			
	S	2					
	B	0					
perch	S						
	B						
ass	S	23	64				
	B	191	638				
ucker	S						
	B						
shad	S	291	1670	1676			
	B	143	2745	223			
ter drum	S	2					
	B	0					
	S						
	B						
Crappie	S						
	B						
rch	S						
	B						
erch	S						
	B						
	S						
	B						
	S						
	B						
l shiner	S						
	B						
Shiner	S						
	B						
	S						
	B						
	S						
	B						
	S	298	245	80			
	B	470	415	53			

er of larvae/100 m³

TABLE 5 (CON'T.)
DENSITY OF FISH LARVAE
IN MAUMEE RIVER AND BAY IN 1976[1]
STATION 3

Species		4-7	4-8	4-13	4-15	4-15/16[2]	4-21
	S						
	B						
perch	S						
	B						
ass	S						
	B						
ucker	S						
	B						
shad	S						
	B						
ter drum	S						
	B						
	S						
	B						
Crappie	S						
	B						
ch	S						
	B						
erch	S						
	B						
	S				1		
	B				0		
	S						
	B						
l shiner	S						
	B						
Shiner	S						
	B						
	S						
	B						
	S						
	B						
	S						
	B						

er of larvae/100 m^3
ht Study

TABLE 5 (CON'T.)
DENSITY OF FISH LARVAE
IN MAUMEE RIVER AND BAY IN 1976[1]
STATION 3 (Con't.)

Species		4-23	4-22/23[2]	4-27	4-29/30[2]	5-4	5-7
	S			0			
	B			1			
perch	S	0	2		0		5
	B	6	6		3		2
bass	S						
	B						
sucker	S				3		
	B				0		
d shad	S	5		0			
	B	0		1			
ater drum	S						
	B						
	S						
	B						
Crappie	S						
	B						
rch	S					1	
	B					0	
erch	S						
	B						
e	S		1	0			
	B		1	2			
	S						1
	B						1
il shiner	S						
	B						
Shiner	S						
	B						
	S						
	B						
	S						
	B						
	S					1	
	B					0	

ber of larvae/100 m³
ght Study

TABLE 5 (CON'T.)
DENSITY OF FISH LARVAE
IN MAUMEE RIVER AND BAY IN 1976[1]
STATION 4 (CONT'D.)

Species		4-27	4-29 night	5-4	5-7	5-10	5-12
	S						
	B						
perch	S		0	0	0		
	B		13	7	1		
bass	S	1				3	
	B	0				0	
sucker	S						
	B						
d shad	S	14				0	
	B	3				1	
ater drum	S						
	B						
e	S						
	B						
d shiner	S						
	B						
rch	S			1		1	
	B			0		0	
e	S						
	B						
e	S	0	0				
	B	6	1				
	S						
	B						
il shiner	S						
	B						
h	S						
	B						
e	S						
	B						
l catfish	S						
	B						
	S						
	B						

ber of larvae/100 m^3

TABLE 5 (CON'T.)
DENSITY OF FISH LARVAE
IN MAUMEE RIVER AND BAY IN 1976[1]
STATION 3 (Con't.)

Species		5-10	5-12	5-14	5-18	5-20	5-20/21[2]
	S				0	0	
	B				2	1	
perch	S						
	B						
bass	S					0	3
	B					1	1
sucker	S						
	B						
d shad	S					5	10
	B					5	13
ater drum	S						
	B						
	S						
	B						
Crappie	S						
	B						
rch	S						
	B						
erch	S						1
	B						0
e	S				0		
	B				1		
	S						
	B						
il shiner	S						
	B						
Shiner	S						
	B						
	S						
	B						
	S						
	B						
	S					0	1
	B					1	3

ber of larvae/100 m^3
nt study

TABLE 5 (CON'T.)
DENSITY OF FISH LARVAE
IN MAUMEE RIVER AND BAY IN 1976[1]
STATION 3 (Con't.)

Species		5-25	5-27	5-27/28[2]	6-1	6-3	6-8
	S			5			0
	B			0	1		3
perch	S		1	3			
	B		0	0			
bass	S	53	4	112	3	48	0
	B	15	95	48	12	0	27
sucker	S						
	B						
d shad	S	64	36	150	35	271	436
	B	13	4	72	3	21	48
ater drum	S			0	4	0	11
	B			1	1	53	57
	S						
	B						
Crappie	S						
	B						
rch	S						
	B						
erch	S						
	B						
e	S						
	B						
	S	11		1			0
	B	0		0			1
il shiner	S			2			
	B			0			
Shiner	S						
	B						
	S						
	B						
	S						
	B						
	S	64		21	523	1213	660
	B	61	4	35	630	638	461

ber of larvae/100 m^3
ht study

TABLE 5 (CON'T.)
DENSITY OF FISH LARVAE
IN MAUMEE RIVER AND BAY IN 1976[1]
STATION 4

Species		4-7	4-8	4-13	4-15 day	4-15 night	4-21	4-23 day	4-23 night
	S								
	B								
erch	S								
	B								
ss	S								
	B								
cker	S								
	B								
shad	S							1	0
	B							0	0
er drum	S								
	B								
	S								
	B								
shiner	S								
	B								
h	S								
	B								
	S								
	B								
	S						0		
	B						1		
	S								
	B								
shiner	S								
	B								
	S								
	B								
	S								
	B								
catfish	S								
	B								
	S								
	B								

er of larvae/100 m³

TABLE 5 (CON'T.)
DENSITY OF FISH LARVAE
IN MAUMEE RIVER AND BAY IN 1976[1]
STATION 4 (CON'T.)

Species		5-14	5-18	5-20 day	5-20 night	5-25	5-27 day	5-27 night	6-1
	S	0	0	0	1	3		1	
	B	1	1	3	1	0		1	
ow perch	S			1					
	B			1					
e bass	S	0		3	1	26	9	6	64
	B	1		5	0	2	14	10	74
e sucker	S								
	B								
ard shad	S		1	4	4	13	27	16	1298
	B		0	4	0	1	11	10	53
hwater drum	S								0
	B								11
eye	S								
	B								
ald shiner	S								
	B								
perch	S								
	B								
ife	S								
	B								
eye	S				1				
	B				0				
t	S				3		1	0	
	B				0		0	1	
tail shiner	S								
	B								
ish	S								
	B								
pie	S								
	B								
nel catfish	S								
	B								
	S		1	5	0	1	38	57	830
	B		1	2	3	1	10	86	436

umber of larvae/100 m^3

TABLE 5 (CON'T.)
DENSITY OF FISH LARVAE
IN MAUMEE RIVER AND BAY IN 1976[1]
STATION 4 (CON'T.)

Species		6-3	6-8				
	S	0	0				
	B	21	9				
ɔw perch	S		0				
	B		2				
e bass	S	32	0				
	B	0	15				
e sucker	S						
	B						
ard shad	S	367	2170				
	B	32	30				
hwater drum	S	0	21				
	B	32	23				
eye	S						
	B						
ald shiner	S						
	B						
perch	S						
	B						
ife	S						
	B						
eye	S						
	B						
t	S						
	B						
tail shiner	S						
	B						
ish	S						
	B						
pie	S						
	B						
nel catfish	S						
	B						
	S	1628	1319				
	B	1468	323				

umber of larvae/100 m^3

TABLE 5 (CON'T.)
DENSITY OF FISH LARVAE
IN MAUMEE RIVER AND BAY IN 1976[1]
STATION 78

Species		4-7	4-8	4-23	5-25	5-27 day	5-27 night	6-1
	1			1	0	3	582	1
	2			0	1	0	259	2
w perch	1							
	2							
bass	1				4	2	3	1
	2				1	1	0	0
sucker	1			2		1	3	
	2			0		4	5	
rd shad	1				10	11	10	13
	2				0	5	2	1
water drum	1							
	2							
ye	1							
	2							
ld shiner	1							
	2							
erch	1							
	2							
fe	1							
	2							
ye	1	4	2					
	2	2	1					
	1							
	2							
ail shiner	1							
	2							
sh	1							
	2							
	1	0					2	
	2	3					13	
n Shiner	1					0	1	
	2					0	0	
	1				0	0	0	
	2				3	0	1	

nber of larvae/100 m³

TABLE 5 (CON'T.)
DENSITY OF FISH LARVAE
IN MAUMEE RIVER AND BAY IN 1976[1]
STATION 78 (CON'T.)

Species		6-3	6-8				
	1	10	3				
	2	11	3				
ow perch	1						
	2						
e bass	1	1					
	2	5					
e sucker	1		2				
	2		4				
ard shad	1	1	2				
	2	1	0				
hwater drum	1						
	2						
eye	1						
	2						
ald shiner	1						
	2						
perch	1						
	2						
ife	1						
	2						
eye	1						
	2						
t	1						
	2						
tail shiner	1						
	2						
ish	1						
	2						
	1	6					
	2	61					
nel catfish	1						
	2						
ole madtom	1						
	2						

umber of larvae/100 m^3

TABLE 5 (CON'T.)
DENSITY OF FISH LARVAE
IN MAUMEE RIVER AND BAY IN 1976[1]
STATION 79

Species		4-8	4-13	4-15 Day	4-15 Night	4-21	4-23 Night	4-27
	1[2]					1	37	12
	2					0	15	1
) perch	1							
	2							
bass	1							
	2							
sucker	1							
	2					1		
d shad	1							
	2							
ater drum	1							
	2							
e	1							
	2							
d shiner	1							
	2							
rch	1							
	2							
e	1							
	2							
e	1	3	5	3	7	0		
	2	1	11	5	4	1		
	1							
	2							
il shiner	1							
	2							
h	1							
	2							
e	1							
	2							
l catfish	1							
	2							
	1	57	0		1	60	11	217
	2	20	1		0	20	16	191
	1	1						
	2	0						

ber of larvae/100 m^3
- Replicate sample no. 1
- Replicate sample no. 2

TABLE 5 (CON'T.)
DENSITY OF FISH LARVAE
IN MAUMEE RIVER AND BAY IN 1976[1]
STATION 79 (CON'T.)

Species		4-29 night	5-4		5-10	5-12	5-14
	1	20					
	2	18					
ow perch	1						
	2						
e bass	1						
	2						
e sucker	1	0					0
	2	1					5
ard shad	1						
	2						
water drum	1						
	2						
eye	1						
	2						
ld shiner	1						
	2						
perch	1						
	2						
ife	1						
	2						
eye	1						
	2						
t	1						
	2						
tail shiner	1						
	2						
sh	1						
	2						
pie	1						
	2						
el catfish	1						
	2						
	1	0	638		16	702	10851
	2	1	691		6	745	8590
er	1						
	2						

umber of larvae/100 m^3
- Replicate sample no. 1
- Replicate sample no. 2

TABLE 5 (CON'T.)
DENSITY OF FISH LARVAE
IN MAUMEE RIVER AND BAY IN 1976[1]
STATION 79 (CON'T.)

Species		5-18	5-20				
	1[2]	4	1				
	2	99	0				
perch	1						
	2						
bass	1						
	2						
sucker	1	0					
	2	7					
d shad	1						
	2						
ater drum	1						
	2						
e	1						
	2						
d shiner	1						
	2						
rch	1						
	2						
e	1						
	2						
e	1						
	2						
	1						
	2						
il shiner	1						
	2						
n	1						
	2						
e	1						
	2						
catfish	1						
	2						
	1	306	20				
	2	1170	21				
	1						
	2						

ber of larvae/100 m^3
- Replicate sample no. 1
- Replicate sample no. 2

TABLE 5 CON'T.

WESTERN LAKE ERIE FISH LARVAE STUDY
Numbers of Larvae per 100 Cubic Meters
at Surface and Bottom

ruise No.: April 12, 1976
ake Sector: Sandusky River

Species \ Station		74	77													
zzard shad	S															
	B															
inbow smelt	S															
	B															
erald shiner	S															
	B															
ottail shiner	S															
	B															
rp	S															
	B															
eshwater drum	S															
	B															
llow perch	S															
	B															
ite bass	S															
	B															
lleye	S	22														
	B	20														
ite sucker	S															
	B															
cker	S															
	B															
nfish	S															
	B															
lack crappie	S															
	B															
gperch darter	S															
	B															
outperch	S															
	B															
nknown sucker	S															
	B															
rter	S															
	B															
untnose minnow	S															
	B															
hnny darter	S															
	B															
ggs	S	1021														
	B	936														

TABLE 5 CON'T.

WESTERN LAKE ERIE FISH LARVAE STUDY
Numbers of Larvae per 100 Cubic Meters
at Surface and Bottom

ruise No.: April 12, 1976
ake Sector: Sandusky River

Station / pecies		74	77													
.zzard shad	S															
	B															
inbow smelt	S															
	B															
erald shiner	S															
	B															
ottail shiner	S															
	B															
arp	S															
	B															
eshwater drum	S															
	B															
ellow perch	S															
	B															
hite bass	S															
	B															
alleye	S	22														
	B	20														
hite sucker	S															
	B															
ucker	S															
	B															
unfish	S															
	B															
lack crappie	S															
	B															
gperch darter	S															
	B															
outperch	S															
	B															
nknown sucker	S															
	B															
rter	S															
	B															
luntnose minnow	S															
	B															
ohnny darter	S															
	B															
ggs	S	1021														
	B	936														

TABLE 5 CON'T.

WESTERN LAKE ERIE FISH LARVAE STUDY
Numbers of Larvae per 100 Cubic Meters
at Surface and Bottom

Cruise No.: April 14, 1976
Lake Sector: Sandusky River

Species \ Station		74	75	76	77											
Gizzard shad	S															
	B															
Rainbow smelt	S															
	B															
Emerald shiner	S															
	B															
Spottail shiner	S															
	B															
Carp	S															
	B															
Freshwater drum	S															
	B															
Yellow perch	S															
	B															
White bass	S															
	B															
Walleye	S	14														
	B	16														
White sucker	S															
	B															
Sucker	S															
	B															
Sunfish	S															
	B															
Black crappie	S															
	B															
Logperch darter	S															
	B															
Troutperch	S															
	B															
Unknown sucker	S															
	B															
Darter	S															
	B															
Bluntnose minnow	S															
	B															
Johnny darter	S															
	B															
Eggs	S	777														
	B	234														

TABLE 5 CON'T.

WESTERN LAKE ERIE FISH LARVAE STUDY
Numbers of Larvae per 100 Cubic Meters at Surface and Bottom

ruise No.: April 17, 1976
ake Sector: Sandusky River

Species \ Station		74	75	76	77											
zzard shad	S															
	B															
inbow smelt	S															
	B															
erald shiner	S															
	B															
ottail shiner	S															
	B															
rp	S															
	B															
eshwater drum	S															
	B															
llow perch	S															
	B															
ite bass	S															
	B															
lleye	S	4	0		0											
	B	4	1		1											
ite sucker	S															
	B															
cker	S															
	B															
nfish	S															
	B															
lack crappie	S															
	B															
gperch darter	S															
	B															
outperch	S															
	B															
nknown sucker	S															
	B															
arter	S															
	B															
untnose minnow	S															
	B															
hnny darter	S															
	B															
gs	S	65														
	B	56														

TABLE 5 CON'T.

WESTERN LAKE ERIE FISH LARVAE STUDY
Numbers of Larvae per 100 Cubic Meters at Surface and Bottom

:ruise No.: April 22, 1976
ake Sector: Sandusky River

Species \ Station		74	75	76	77											
izzard shad	S															
	B															
ainbow smelt	S															
	B															
merald shiner	S															
	B															
Spottail shiner	S															
	B															
Carp	S	2		1	0											
	B	0		0	2											
Freshwater drum	S															
	B															
Yellow perch	S															
	B															
hite bass	S															
	B															
alleye	S		0	0	0											
	B		6	4	1											
hite sucker	S															
	B															
ucker	S															
	B															
unfish	S															
	B															
Black crappie	S															
	B															
ogperch darter	S	0	1	5												
	B	1	3	2												
routperch	S															
	B															
nknown sucker	S															
	B															
arter	S															
	B															
luntnose minnow	S															
	B															
ohnny darter	S															
	B															
ggs	S	13														
	B	17														

TABLE 5 CON'T.

WESTERN LAKE ERIE FISH LARVAE STUDY
Numbers of Larvae per 100 Cubic Meters at Surface and Bottom

Cruise No.: April 26, 1976
Lake Sector: Sandusky River

Species \ Station		74	75	76	77											
Gizzard shad	S		7	1	0											
	B		0	5	7											
Rainbow smelt	S															
	B															
Emerald shiner	S															
	B															
Spottail shiner	S															
	B															
Carp	S	1	1		2											
	B	1	0		1											
Freshwater drum	S															
	B															
Yellow perch	S															
	B															
White bass	S		1	0												
	B		0	1												
Walleye	S		3	5												
	B		0	2												
White sucker	S	1			0											
	B	0			1											
Sucker	S															
	B															
Sunfish	S															
	B															
Black crappie	S															
	B															
Logperch darter	S	3		4	1											
	B	0		3	2											
Troutperch	S															
	B															
Unknown sucker	S															
	B															
Darter	S	0														
	B	1														
Bluntnose minnow	S															
	B															
Johnny darter	S															
	B															
eggs	S															
	B															

TABLE 5 CON'T.

WESTERN LAKE ERIE FISH LARVAE STUDY
Numbers of Larvae per 100 Cubic Meters
at Surface and Bottom

Cruise No.: April 28, 1976
Lake Sector: Sandusky River

Species \ Station		74	75	76	77											
Gizzard shad	S		3	1	0											
	B		1	14	1											
Rainbow smelt	S															
	B															
Emerald shiner	S															
	B															
Spottail shiner	S															
	B															
Carp	S	1														
	B	2														
Freshwater drum	S															
	B															
Yellow perch	S															
	B															
White bass	S		1	0												
	B		0	7												
Walleye	S			0	0											
	B			9	1											
White sucker	S															
	B															
Sucker	S															
	B															
Sunfish	S															
	B															
Black crappie	S															
	B															
Logperch darter	S		2	0	2											
	B		3	3	0											
Troutperch	S															
	B															
Unknown sucker	S															
	B															
Darter	S															
	B															
Bluntnose minnow	S															
	B															
Johnny darter	S															
	B															
eggs	S	67														
	B	109														

TABLE 5 CON'T.

WESTERN LAKE ERIE FISH LARVAE STUDY
Numbers of Larvae per 100 Cubic Meters at Surface and Bottom

ruise No.: May 3, 1976
ake Sector: Sandusky River

Species \ Station		74	75	76	77											
izzard shad	S			0	1											
	B			1	11											
ainbow smelt	S															
	B															
merald shiner	S															
	B															
pottail shiner	S															
	B															
arp	S															
	B															
reshwater drum	S															
	B															
ellow perch	S															
	B															
hite bass	S			0	1											
	B			1	1											
alleye	S			0	1											
	B			1	0											
hite sucker	S	1														
	B	0														
ucker	S															
	B															
unfish	S			1												
	B			0												
Black crappie	S															
	B															
ogperch darter	S		1	2	4											
	B		1	3	5											
routperch	S															
	B															
Unknown sucker	S															
	B															
Darter	S	1														
	B	0														
Bluntnose minnow	S															
	B															
Johnny darter	S															
	B															
eggs	S	22		0												
	B	6		5												

TABLE 5 CON'T.

WESTERN LAKE ERIE FISH LARVAE STUDY
Numbers of Larvae per 100 Cubic Meters
at Surface and Bottom

ruise No.: May 5, 1976
ake Sector: Sandusky River

Station / pecies		74	75	76	77											
izzard shad	S			0												
	B			1												
ainbow smelt	S															
	B															
merald shiner	S															
	B															
potail shiner	S															
	B															
arp	S															
	B															
reshwater drum	S															
	B															
ellow perch	S															
	B															
hite bass	S															
	B															
alleye	S															
	B															
hite sucker	S															
	B															
ucker	S															
	B															
unfish	S															
	B															
lack crappie	S															
	B															
ogperch darter	S		0		3											
	B		3		1											
routperch	S															
	B															
nknown sucker	S															
	B															
arter	S	0														
	B	1														
luntnose minnow	S															
	B															
ohnny darter	S															
	B															
ggs	S	24														
	B	27														

TABLE 5 CON'T.

WESTERN LAKE ERIE FISH LARVAE STUDY
Numbers of Larvae per 100 Cubic Meters
at Surface and Bottom

ruise No.: May 11, 1976
ake Sector: Sandusky River

Species \ Station		74	75	76	77											
izzard shad	S															
	B															
inbow smelt	S															
	B															
erald shiner	S															
	B															
ottail shiner	S															
	B															
rp	S															
	B															
eshwater drum	S															
	B															
llow perch	S															
	B															
ite bass	S															
	B															
lleye	S															
	B															
ite sucker	S															
	B															
cker	S															
	B															
fish	S															
	B															
ack crappie	S															
	B															
perch darter	S			1	20											
	B			0	37											
utperch	S															
	B															
nown sucker	S															
	B															
ter	S															
	B															
ntnose minnow	S															
	B															
nny darter	S															
	B															
s	S	1596														
	B	6734														

TABLE 5 CON'T.

WESTERN LAKE ERIE FISH LARVAE STUDY
Numbers of Larvae per 100 Cubic Meters
at Surface and Bottom

uise No.: May 13, 1976
ake Sector: Sandusky River

Station / ecies		74	75	76	77											
zzard shad	S															
	B															
inbow smelt	S															
	B															
erald shiner	S															
	B															
ottail shiner	S															
	B															
rp	S															
	B															
eshwater drum	S															
	B															
llow perch	S															
	B															
ite bass	S															
	B															
lleye	S															
	B															
ite sucker	S	0														
	B	1														
cker	S															
	B															
nfish	S															
	B															
lack crappie	S															
	B															
gperch darter	S		0	2	6											
	B		2	0	14											
outperch	S															
	B															
nknown sucker	S	1														
	B	0														
arter	S															
	B															
luntnose minnow	S															
	B															
ohnny darter	S															
	B															
ggs	S	3255														
	B	2128														

TABLE 5 CON'T.

WESTERN LAKE ERIE FISH LARVAE STUDY
Numbers of Larvae per 100 Cubic Meters at Surface and Bottom

ruise No.: May 17, 1976
ake Sector: Sandusky River

Species \ Station		74	75	76	77											
izzard shad	S		0	0	7											
	B		10	2	2											
ainbow smelt	S															
	B															
merald shiner	S															
	B															
pottail shiner	S															
	B															
arp	S	30														
	B	74														
reshwater drum	S															
	B															
ellow perch	S															
	B															
hite bass	S		2	0	4											
	B		2	1	0											
alleye	S															
	B															
hite sucker	S	0														
	B	1														
ucker	S															
	B															
unfish	S															
	B															
lack crappie	S															
	B															
gperch darter	S		2	4	15											
	B		3	0	13											
outperch	S															
	B															
nknown sucker	S	0														
	B	2														
Darter	S															
	B															
luntnose minnow	S															
	B															
ohnny darter	S															
	B															
ggs	S	1979	4	0	2											
	B	2606	1	1	4											

TABLE 5 CON'T.

WESTERN LAKE ERIE FISH LARVAE STUDY
Numbers of Larvae per 100 Cubic Meters
at Surface and Bottom

Cruise No.: May 19, 1976
Lake Sector: Sandusky River

Species \ Station		74	75	76	77											
Gizzard shad	S			1	2											
	B			2	33											
Rainbow smelt	S															
	B															
Emerald shiner	S															
	B															
Spottail shiner	S															
	B															
Carp	S	5	47	0	0											
	B	5	54	2	1											
Freshwater drum	S															
	B															
Yellow perch	S															
	B															
White bass	S	1		2	0											
	B	0		1	6											
Walleye	S															
	B															
White sucker	S	1	2	10												
	B	0	0	1												
Sucker	S															
	B															
Sunfish	S															
	B															
Black crappie	S															
	B															
Logperch darter	S				0											
	B				3											
Trout perch	S															
	B															
Unknown sucker	S	1	2													
	B	0	1													
Darter	S															
	B															
Bluntnose minnow	S															
	B															
Johnny darter	S															
	B															
Eggs	S	332	132	2	4											
	B	322	51	1	1											

TABLE 5 CON'T.

WESTERN LAKE ERIE FISH LARVAE STUDY
Numbers of Larvae per 100 Cubic Meters at Surface and Bottom

Cruise No.: May 24, 1976
Lake Sector: Sandusky River

Species \ Station		74	75	76	77											
Gizzard shad	S		1	9	32											
	B		0	0	44											
Rainbow smelt	S															
	B															
Emerald shiner	S															
	B															
Spottail shiner	S															
	B															
Carp	S	1		1												
	B	0		0												
Freshwater drum	S															
	B															
Yellow perch	S															
	B															
White bass	S			4	13											
	B			0	21											
Walleye	S															
	B															
White sucker	S				1											
	B				0											
Sucker	S															
	B															
Sunfish	S															
	B															
Black crappie	S															
	B															
Logperch darter	S			1	4											
	B			0	2											
Troutperch	S															
	B															
Unknown sucker	S															
	B															
Darter	S	1														
	B	1														
Bluntnose minnow	S															
	B															
Johnny darter	S															
	B															
Eggs	S	264	48	245	148											
	B	895	0	74	174											

TABLE 5 CON'T.

WESTERN LAKE ERIE FISH LARVAE STUDY
Numbers of Larvae per 100 Cubic Meters
at Surface and Bottom

Cruise No.: May 26, 1976
Lake Sector: Sandusky River

Species \ Station		74	75	76	77											
Gizzard shad	S		29	4	80											
	B		7	0	82											
Rainbow smelt	S															
	B															
Emerald shiner	S															
	B															
Spottail shiner	S															
	B															
Carp	S															
	B															
Freshwater drum	S			0	3											
	B			3	40											
Yellow perch	S															
	B															
White bass	S		0	1	17											
	B		4	0	23											
Walleye	S															
	B															
White sucker	S															
	B															
Sucker	S															
	B															
Sunfish	S															
	B															
Black crappie	S			1												
	B			0												
Logperch darter	S		1		1											
	B		0		7											
Troutperch	S															
	B															
Unknown sucker	S															
	B															
Darter	S	0														
	B	1														
Bluntnose minnow	S															
	B															
Johnny darter	S															
	B															
eggs	S	319	44	5	55											
	B	264	16	5	0											

TABLE 5 CON'T.

WESTERN LAKE ERIE FISH LARVAE STUDY
Numbers of Larvae per 100 Cubic Meters at Surface and Bottom

Cruise No.: May 31, 1976
Lake Sector: Sandusky River

Species \ Station		74	75	76	77											
Gizzard shad	S		255	149	819											
	B		351	649	64											
Rainbow smelt	S															
	B															
Emerald shiner	S															
	B															
Spottail shiner	S															
	B															
Carp	S	0		11	11											
	B	1		0	0											
Freshwater drum	S		0		0											
	B		11		21											
Yellow perch	S															
	B															
White bass	S		11	11	0											
	B		0	255	43											
Walleye	S															
	B															
White sucker	S	2														
	B	2														
Sucker	S															
	B															
Sunfish	S															
	B															
Black crappie	S															
	B															
Logperch darter	S															
	B															
Troutperch	S															
	B															
Unknown sucker	S															
	B															
Darter	S	0														
	B	1														
Bluntnose minnow	S															
	B															
Johnny darter	S															
	B															
eggs	S	337	43	43	266											
	B	221	43	74	85											

TABLE 5 CON'T.

WESTERN LAKE ERIE FISH LARVAE STUDY
Numbers of Larvae per 100 Cubic Meters
at Surface and Bottom

Cruise No.: June 2, 1976
Lake Sector: Sandusky River

Species \ Station		74	75*	76	77											
Gizzard shad	S		11	367	128											
	B			96	85											
Rainbow smelt	S															
	B															
Emerald shiner	S															
	B															
Spottail shiner	S															
	B															
Carp	S	18	21													
	B	7														
Freshwater drum	S															
	B															
Yellow perch	S															
	B															
White bass	S			16												
	B			0												
Walleye	S															
	B															
White sucker	S															
	B															
Sucker	S															
	B															
Sunfish	S															
	B															
Black crappie	S															
	B															
Logperch darter	S		11	16												
	B			0												
Troutperch	S			16												
	B			0												
Unknown sucker	S															
	B															
Darter	S															
	B															
Bluntnose minnow	S	1														
	B	0														
Johnny darter	S															
	B															
eggs	S	267	734	590	64											
	B	224		713	43											

* bottom sample lost

TABLE 5 CON'T.

WESTERN LAKE ERIE FISH LARVAE STUDY
Numbers of Larvae per 100 Cubic Meters at Surface and Bottom

Cruise No.: June 7, 1976
Lake Sector: Sandusky River

Species \ Station		74	75	76	77											
Sizzard shad	S		59	97	149											
	B		20	13	691											
Rainbow smelt	S															
	B															
Emerald shiner	S															
	B															
Spottail shiner	S															
	B															
Carp	S	2		1												
	B	20		1												
Freshwater drum	S															
	B															
Yellow perch	S															
	B															
White bass	S			1	0											
	B			2	138											
Walleye	S															
	B															
White sucker	S															
	B															
Sucker	S															
	B															
Sunfish	S															
	B															
Black crappie	S															
	B															
Logperch darter	S				0											
	B				11											
Troutperch	S															
	B															
Unknown sucker	S	1														
	B	11														
Darter	S															
	B															
Bluntnose minnow	S															
	B															
Johnny darter	S	1														
	B	0														
eggs	S	2340	44	38	500											
	B	904	12	4	564											

TABLE 5 CON'T.

WESTERN LAKE ERIE FISH LARVAE STUDY
Numbers of Larvae per 100 Cubic Meters
at Surface and Bottom

Cruise No.: 1 (1976)
Lake Sector: A

Species \ Station		5	8	6	11	10	12	7	13							
Gizzard shad	S															
	B															
Rainbow smelt	S															
	B															
Emerald shiner	S															
	B															
Spottail shiner	S															
	B															
Carp	S															
	B															
Freshwater drum	S															
	B															
Yellow perch	S															
	B															
White bass	S															
	B															
Walleye	S															
	B															
White sucker	S															
	B															
Sucker	S															
	B															
Sunfish	S															
	B															
Quillback carpsucker	S															
	B															
Mooneye	S															
	B															
Crappie	S															
	B															
Smallmouth bass	S															
	B															
Bass	S															
	B															
Alewife	S															
	B															
Logperch darter	S															
	B															
Channel catfish	S															
	B															
Tadpole madtom	S															
	B															
Unknown	S															
	B															

TABLE 5 CON'T.

WESTERN LAKE ERIE FISH LARVAE STUDY
Numbers of Larvae per 100 Cubic Meters
at Surface and Bottom

Cruise No.: 2 (1976)
Lake Sector: A

Species \ Station		5	8			10										
Gizzard shad	S															
	B															
Rainbow smelt	S															
	B															
Emerald shiner	S															
	B															
Spottail shiner	S															
	B															
Carp	S															
	B															
Freshwater drum	S															
	B															
Yellow perch	S															
	B															
White bass	S															
	B															
Walleye	S	12	8			47										
	B	28	17													
White sucker	S															
	B															
Sucker	S															
	B															
Sunfish	S															
	B															
Quillback carpsucker	S															
	B															
Mooneye	S															
	B															
Crappie	S															
	B															
Smallmouth bass	S															
	B															
Bass	S															
	B															
Alewife	S															
	B															
Logperch darter	S															
	B															
Channel catfish	S															
	B															
Tadpole madtom	S															
	B															
Unknown	S															
	B															

TABLE 5 CON'T.

WESTERN LAKE ERIE FISH LARVAE STUDY
Numbers of Larvae per 100 Cubic Meters at Surface and Bottom

ruise No.: 3 (1976)
ake Sector: A

Species \ Station		5	8	6	11	10	12	7	13							
Gizzard shad	S			0	19	1	0		3							
	B			1	30	0	3		0							
Rainbow smelt	S															
	B															
Emerald shiner	S															
	B															
Spottail shiner	S															
	B															
Carp	S															
	B															
Freshwater drum	S															
	B															
Yellow perch	S	3	69	1	1	7	0	0	3							
	B	7	7	3	5	13	1	3	3							
White bass	S															
	B															
Walleye	S				0		0									
	B				3		8									
White sucker	S			4				3								
	B			0				0								
Sucker	S															
	B															
Sunfish	S															
	B															
Quillback carpsucker	S															
	B															
Mooneye	S															
	B															
Crappie	S															
	B															
Smallmouth bass	S															
	B															
Bass	S															
	B															
Alewife	S															
	B															
Logperch darter	S															
	B															
Channel catfish	S															
	B															
Tadpole madtom	S															
	B															
Unknown	S															
	B															

TABLE 5 CON'T.

WESTERN LAKE ERIE FISH LARVAE STUDY
Numbers of Larvae per 100 Cubic Meters at Surface and Bottom

Cruise No.: 4 (1976)
Lake Sector: A

Species \ Station		5	8	6	11	10	12	7	13							
Gizzerd shad	S															
	B															
Rainbow smelt	S	1	0	3	3	0			0							
	B	0	1	0	2	4			5							
Emerald shiner	S															
	B															
Spottail shiner	S															
	B															
Carp	S															
	B															
Freshwater drum	S															
	B															
Yellow perch	S		1		3	0	0	0	3							
	B		5		9	1	3	2	1							
White bass	S															
	B															
Walleye	S															
	B															
White sucker	S															
	B															
Sucker	S															
	B															
Sunfish	S															
	B															
Quillback carpsucker	S															
	B															
Mooneye	S															
	B															
Crappie	S															
	B															
Smallmouth bass	S															
	B															
Bass	S															
	B															
Alewife	S															
	B															
Logperch darter	S															
	B															
Channel catfish	S															
	B															
Tadpole madtom	S															
	B															
Unknown	S															
	B															

TABLE 5 CON'T.

WESTERN LAKE ERIE FISH LARVAE STUDY
Numbers of Larvae per 100 Cubic Meters at Surface and Bottom

Cruise No.: 5 (1976)
Lake Sector: A

Species		Station 5	8	6	11	10	12	7	13							
Gizzard shad	S					7										
	B					6										
Rainbow smelt	S	0	2	0		1	0	0	0							
	B	9	1	1		5	2	8	16							
Emerald shiner	S															
	B															
Spottail shiner	S															
	B															
Carp	S															
	B															
Freshwater drum	S															
	B															
Yellow perch	S	1	4	0	2			0								
	B	0	1	1	2			1								
White bass	S															
	B															
Walleye	S															
	B															
White sucker	S															
	B															
Sucker	S															
	B															
Sunfish	S															
	B															
Quillback carpsucker	S															
	B															
Mooneye	S															
	B															
Crappie	S															
	B															
Smallmouth bass	S															
	B															
Bass	S															
	B															
Alewife	S															
	B															
Logperch darter	S															
	B															
Channel catfish	S															
	B															
Tadpole madtom	S															
	B															
Unknown	S															
	B															

TABLE 5 CON'T.

WESTERN LAKE ERIE FISH LARVAE STUDY
Numbers of Larvae per 100 Cubic Meters at Surface and Bottom

Cruise No.: 7 (1976)
Lake Sector: A

Species \ Station		5	8	6	11	10	12	7	13							
Gizzard shad	S	80	33	2	11	9	13	7	4							
	B	144	31	27	51	9	24	3	4							
Rainbow smelt	S															
	B															
Emerald shiner	S															
	B															
Spottail shiner	S					1										
	B					0										
Carp	S															
	B															
Freshwater drum	S	0	0	2												
	B	4	1	0												
Yellow perch	S						0									
	B						3									
White bass	S	2	0													
	B	7	1													
Walleye	S															
	B															
White sucker	S															
	B															
Sucker	S															
	B															
Sunfish	S															
	B															
Quillback carpsucker	S															
	B															
Moonsye	S															
	B															
Crappie	S				1											
	B				1											
Smallmouth bass	S															
	B															
Bass	S															
	B															
Alewife	S															
	B															
Logperch darter	S															
	B															
Channel catfish	S															
	B															
Tadpole madtom	S															
	B															
Unknown	S															
	B															

TABLE 5 CON'T.

WESTERN LAKE ERIE FISH LARVAE STUDY
Numbers of Larvae per 100 Cubic Meters at Surface and Bottom

Cruise No.: 8 (1976)
Lake Sector: A

Species	Station	5	8	6	11	10	12	7	13							
Gizzard shad	S	83	187	78	5	100	82		6	322						
	B	47	57		6	1	2		0	15						
Rainbow smelt	S															
	B															
Emerald shiner	S				2			3								
	B				0			0								
Spottail shiner	S															
	B															
Carp	S						2									
	B						0									
Freshwater drum	S									0						
	B									1						
Yellow perch	S															
	B															
White bass	S								0	1						
	B								1	8						
Walleye	S															
	B															
White sucker	S															
	B															
Sucker	S															
	B															
Sunfish	S						0									
	B						2									
Quillback carpsucker	S															
	B															
Mooneye	S															
	B															
Crappie	S															
	B															
Smallmouth bass	S															
	B															
Bass	S															
	B															
Alewife	S	3				9										
	B	0				0										
Logperch darter	S															
	B															
Channel catfish	S															
	B															
Tadpole madtom	S															
	B															
Unknown	S															
	B															

TABLE 5 CON'T.

WESTERN LAKE ERIE FISH LARVAE STUDY
Numbers of Larvae per 100 Cubic Meters at Surface and Bottom

Cruise No.: 9 (1976)
Lake Sector: A

Species \ Station		5	8		11	10	12	7	13							
Gizzard shad	S	1	4			0			1							
	B	7	0			2			5							
Rainbow smelt	S					0										
	B					2										
Emerald shiner	S	1				12	2	1	3							
	B	2				0	0	0	0							
Spottail shiner	S															
	B															
Carp	S															
	B															
Freshwater drum	S	0					2									
	B	2					0									
Yellow perch	S															
	B															
White bass	S															
	B															
Walleye	S															
	B															
White sucker	S															
	B															
Sucker	S															
	B															
Sunfish	S															
	B															
Quillback carpsucker	S															
	B															
Mooneye	S															
	B															
Crappie	S															
	B															
Smallmouth bass	S															
	B															
Bass	S															
	B															
Alewife	S															
	B															
Logperch darter	S															
	B															
Channel catfish	S															
	B															
Tadpole madtom	S															
	B															
Unknown	S															
	B															

TABLE 5 CON'T.

WESTERN LAKE ERIE FISH LARVAE STUDY
Numbers of Larvae per 100 Cubic Meters at Surface and Bottom

Cruise No.: 10 (1976)
Lake Sector: A

Species		Station 5	8		11	10	12	7	13							
Gizzard shad	S	2	6		13		1	9	0							
	B	0	9		19		10	0	13							
Rainbow smelt	S															
	B															
Emerald shiner	S	2				1	0	106	1							
	B	0				6	1	12	2							
Spottail shiner	S															
	B															
Carp	S					1										
	B					0										
Freshwater drum	S															
	B															
Yellow perch	S															
	B															
White bass	S															
	B															
Walleye	S															
	B															
White sucker	S															
	B															
Sucker	S															
	B															
Sunfish	S															
	B															
Quillback carpsucker	S															
	B															
Mooneye	S															
	B															
Crappie	S															
	B															
Smallmouth bass	S															
	B															
Bass	S															
	B															
Alewife	S															
	B															
Logperch darter	S							2								
	B							0								
Channel catfish	S															
	B															
Tadpole madtom	S															
	B															
Unknown	S															
	B															

TABLE 5 CON'T.

WESTERN LAKE ERIE FISH LARVAE STUDY
Numbers of Larvae per 100 Cubic Meters at Surface and Bottom

Cruise No.: 11 (1976)
Lake Sector: A

Species		Station 5	8		11	10	12	7	13							
Gizzard shad	S		0		30	0	6		4							
	B		2		18	4	2		7							
Rainbow smelt	S															
	B															
Emerald shiner	S	17	2		15	25	2	267	10							
	B	0	2		0	2	0	14	0							
Spottail shiner	S															
	B															
Carp	S					1										
	B					2										
Freshwater drum	S								0							
	B								2							
Yellow perch	S															
	B															
White bass	S															
	B															
Walleye	S															
	B															
White sucker	S															
	B															
Sucker	S															
	B															
Sunfish	S															
	B															
Quillback carpsucker	S															
	B															
Mooneye	S															
	B															
Crappie	S															
	B															
Smallmouth bass	S															
	B															
Bass	S															
	B															
Alewife	S															
	B															
Logperch darter	S															
	B															
Channel catfish	S															
	B															
Tadpole madtom	S															
	B															
Unknown	S															
	B															

TABLE 5 CON'T.

WESTERN LAKE ERIE FISH LARVAE STUDY
Numbers of Larvae per 100 Cubic Meters at Surface and Bottom

Cruise No.: 12 (1976)
Lake Sector: A

Species \ Station		5	8		11	10	12	7	13							
Gizzard shad	S	19	4			0	0									
	B	13	0			2	2									
Rainbow smelt	S															
	B															
Emerald shiner	S	12	95		12	42		93	0							
	B	0	3		9	18		13	1							
Spottail shiner	S															
	B															
Carp	S															
	B															
Freshwater drum	S	2														
	B	2														
Yellow perch	S															
	B															
White bass	S															
	B															
Walleye	S															
	B															
White sucker	S															
	B															
Sucker	S															
	B															
Sunfish	S															
	B															
Quillback carpsucker	S															
	B															
Mooneye	S															
	B															
Crappie	S															
	B															
Smallmouth bass	S															
	B															
Bass	S															
	B															
Alewife	S															
	B															
Logperch darter	S															
	B															
Channel catfish	S															
	B															
Tadpole madtom	S															
	B															
Unknown	S															
	B															

TABLE 5 CON'T.

WESTERN LAKE ERIE FISH LARVAE STUDY
Numbers of Larvae per 100 Cubic Meters at Surface and Bottom

Cruise No.: 14 (1976)
Lake Sector: A

Species \ Station		5	8		11	10	12	7	13							
Gizzard shad	S															
	B															
Rainbow smelt	S															
	B															
Emerald shiner	S	2			3											
	B	0			0											
Spottail shiner	S															
	B															
Carp	S															
	B															
Freshwater drum	S															
	B															
Yellow perch	S															
	B															
White bass	S															
	B															
Walleye	S															
	B															
White sucker	S															
	B															
Sucker	S															
	B															
Sunfish	S															
	B															
Quillback carpsucker	S															
	B															
Mooneye	S															
	B															
Crappie	S															
	B															
Smallmouth bass	S															
	B															
Bass	S															
	B															
Alewife	S															
	B															
Logperch darter	S															
	B															
Channel catfish	S															
	B															
Tadpole madtom	S															
	B															
Unknown	S															
	B															

TABLE 5 CON'T.

WESTERN LAKE ERIE FISH LARVAE STUDY
Numbers of Larvae per 100 Cubic Meters
at Surface and Bottom

Cruise No.: 1 (1976)
Lake Sector: B

Species \ Station		14	15	56	17											
Gizzard shad	S															
	B															
Rainbow smelt	S															
	B															
Emerald shiner	S															
	B															
Spottail shiner	S															
	B															
Carp	S															
	B															
Freshwater drum	S															
	B															
Yellow perch	S															
	B															
White bass	S															
	B															
Walleye	S															
	B															
White sucker	S															
	B															
Sucker	S															
	B															
Sunfish	S															
	B															
Quillback carpsucker	S															
	B															
Mooneye	S															
	B															
Crappie	S															
	B															
Smallmouth bass	S															
	B															
Bass	S															
	B															
Alewife	S															
	B															
Logperch darter	S															
	B															
Channel catfish	S															
	B															
Tadpole madtom	S															
	B															
Unknown	S															
	B															

TABLE 5 CON'T.

WESTERN LAKE ERIE FISH LARVAE STUDY
Numbers of Larvae per 100 Cubic Meters
at Surface and Bottom

Cruise No.: 3 (1976)
Lake Sector: B

Species \ Station		14	15	56	17										
Gizzard shad	S														
	B														
Rainbow smelt	S														
	B														
Emerald shiner	S														
	B														
Spottail shiner	S														
	B														
Carp	S														
	B														
Freshwater drum	S														
	B														
Yellow perch	S														
	B														
White bass	S														
	B														
Walleye	S														
	B														
White sucker	S														
	B														
Sucker	S														
	B														
Sunfish	S														
	B														
Quillback carpsucker	S														
	B														
Mooneye	S														
	B														
Crappie	S														
	B														
Smallmouth bass	S														
	B														
Bass	S														
	B														
Alewife	S														
	B														
Logperch darter	S														
	B														
Channel catfish	S														
	B														
Tadpole madtom	S														
	B														
Unknown	S														
	B														

TABLE 5 CON'T.

WESTERN LAKE ERIE FISH LARVAE STUDY
Numbers of Larvae per 100 Cubic Meters
at Surface and Bottom

Cruise No.: 4 (1976)
Lake Sector: B

Species \ Station		14	15	56	17											
Gizzard shad	S															
	B															
Rainbow smelt	S	0	0													
	B	6	1													
Emerald shiner	S															
	B															
Spottail shiner	S															
	B															
Carp	S															
	B															
Freshwater drum	S															
	B															
Yellow perch	S	0	0		2											
	B	1	1		1											
White bass	S															
	B															
Walleye	S															
	B															
White sucker	S															
	B															
Sucker	S															
	B															
Sunfish	S															
	B															
Quillback carpsucker	S															
	B															
Mooneye	S															
	B															
Crappie	S															
	B															
Smallmouth bass	S															
	B															
Bass	S															
	B															
Alewife	S															
	B															
Logperch darter	S															
	B															
Channel catfish	S															
	B															
Tadpole madtom	S															
	B															
Unknown	S															
	B															

TABLE 5 CON'T.

WESTERN LAKE ERIE FISH LARVAE STUDY
Numbers of Larvae per 100 Cubic Meters at Surface and Bottom

Cruise No.: 5 (1976)
Lake Sector: B

Species \ Station		14	15	56	17											
Gizzard shad	S															
	B															
Rainbow smelt	S	2	6	0	3											
	B	5	39	116	0											
Emerald shiner	S															
	B															
Spottail shiner	S															
	B															
Carp	S															
	B															
Freshwater drum	S															
	B															
Yellow perch	S															
	B															
White bass	S															
	B															
Walleye	S															
	B															
White sucker	S															
	B															
Sucker	S															
	B															
Sunfish	S															
	B															
Quillback carpsucker	S															
	B															
Mooneye	S															
	B															
Crappie	S															
	B															
Smallmouth bass	S															
	B															
Bass	S															
	B															
Alewife	S															
	B															
Logperch darter	S															
	B															
Channel catfish	S															
	B															
Tadpole madtom	S															
	B															
Unknown	S															
	B															

TABLE 5 CON'T.

WESTERN LAKE ERIE FISH LARVAE STUDY
Numbers of Larvae per 100 Cubic Meters
at Surface and Bottom

Cruise No.: 6 (1976)
Lake Sector: B

Species \ Station					17										
Gizzard shad	S														
	B														
Rainbow smelt	S				1										
	B				8										
Emerald shiner	S														
	B														
Spottail shiner	S														
	B														
Carp	S														
	B														
Freshwater drum	S														
	B														
Yellow perch	S														
	B														
White bass	S														
	B														
Walleye	S														
	B														
White sucker	S														
	B														
Sucker	S														
	B														
Sunfish	S														
	B														
Quillback carpsucker	S														
	B														
Mooneye	S														
	B														
Crappie	S														
	B														
Smallmouth bass	S														
	B														
Bass	S														
	B														
Alewife	S														
	B														
Logperch darter	S														
	B														
Channel catfish	S														
	B														
Tadpole madtom	S														
	B														
Unknown	S														
	B														

TABLE 5 CON'T.

WESTERN LAKE ERIE FISH LARVAE STUDY
Numbers of Larvae per 100 Cubic Meters at Surface and Bottom

Cruise No.: 7 (1976)
Lake Sector: B

Species \ Station		14	15	56	17											
Gizzard shad	S	0	0	1												
	B	4	1	0												
Rainbow smelt	S															
	B															
Emerald shiner	S															
	B															
Spottail shiner	S															
	B															
Carp	S															
	B															
Freshwater drum	S															
	B															
Yellow perch	S	1														
	B	0														
White bass	S															
	B															
Walleye	S															
	B															
White sucker	S															
	B															
Sucker	S															
	B															
Sunfish	S															
	B															
Quillback carpsucker	S															
	B															
Mooneye	S															
	B															
Crappie	S															
	B															
Smallmouth bass	S															
	B															
Bass	S															
	B															
Alewife	S															
	B															
Logperch darter	S	0	0													
	B	1	1													
Channel catfish	S															
	B															
Tadpole madtom	S															
	B															
Unknown	S															
	B															

TABLE 5 CON'T.

WESTERN LAKE ERIE FISH LARVAE STUDY
Numbers of Larvae per 100 Cubic Meters at Surface and Bottom

Cruise No.: 8 (1976)
Lake Sector: B

Species \ Station		14	15	56	17											
Gizzard shad	S	3	1	42												
	B	0	0	9												
Rainbow smelt	S															
	B															
Emerald shiner	S	6	1	16	1											
	B	0	0	6	1											
Spottail shiner	S															
	B															
Carp	S		1													
	B		1													
Freshwater drum	S															
	B															
Yellow perch	S															
	B															
White bass	S															
	B															
Walleye	S															
	B															
White sucker	S															
	B															
Sucker	S															
	B															
Sunfish	S															
	B															
Quillback carpsucker	S															
	B															
Mooneye	S															
	B															
Crappie	S															
	B															
Smallmouth bass	S															
	B															
Bass	S															
	B															
Alewife	S	23														
	B	2														
Logperch darter	S															
	B															
Channel catfish	S															
	B															
Tadpole madtom	S															
	B															
Unknown	S															
	B															

TABLE 5 CON'T.

WESTERN LAKE ERIE FISH LARVAE STUDY
Numbers of Larvae per 100 Cubic Meters at Surface and Bottom

Cruise No.: 9 (1976)
Lake Sector: B

Species \ Station		14	15	56	17											
Gizzard shad	S		1	0	19											
	B		1	1	0											
Rainbow smelt	S															
	B															
Emerald shiner	S	2	26	2	16											
	B	0	2	1	3											
Spottail shiner	S	1														
	B	0														
Carp	S		1													
	B		0													
Freshwater drum	S				0											
	B				3											
Yellow perch	S															
	B															
White bass	S	0														
	B	1														
Walleye	S															
	B															
White sucker	S															
	B															
Sucker	S															
	B															
Sunfish	S															
	B															
Quillback carpsucker	S															
	B															
Mooneye	S															
	B															
Crappie	S															
	B															
Smallmouth bass	S															
	B															
Bass	S															
	B															
Alewife	S															
	B															
Logperch darter	S															
	B															
Channel catfish	S															
	B															
Tadpole madtom	S															
	B															
Unknown	S															
	B															

TABLE 5 CON'T.

WESTERN LAKE ERIE FISH LARVAE STUDY
Numbers of Larvae per 100 Cubic Meters at Surface and Bottom

Cruise No.: 10 (1976)
Lake Sector: B

Species \ Station		14	15	56	17											
Gizzard shad	S	4	0	0												
	B	9	3	4												
Rainbow smelt	S															
	B															
Emerald shiner	S	19	3	9	165											
	B	9	0	1	77											
Spottail shiner	S															
	B															
Carp	S			0												
	B			1												
Freshwater drum	S															
	B															
Yellow perch	S															
	B															
White bass	S															
	B															
Walleye	S															
	B															
White sucker	S															
	B															
Sucker	S															
	B															
Sunfish	S															
	B															
Quillback carpsucker	S															
	B															
Mooneye	S															
	B															
Crappie	S															
	B															
Smallmouth bass	S															
	B															
Bass	S															
	B															
Alewife	S															
	B															
Logperch darter	S	0														
	B	1														
Channel catfish	S															
	B															
Tadpole madtom	S															
	B															
Unknown	S															
	B															

TABLE 5 CON'T.

WESTERN LAKE ERIE FISH LARVAE STUDY
Numbers of Larvae per 100 Cubic Meters at Surface and Bottom

Cruise No.: 11 (1976)
Lake Sector: B

Species \ Station		14	15	56	17										
Gizzard shad	S	0													
	B	2													
Rainbow smelt	S														
	B														
Emerald shiner	S	24	48	12	4										
	B	9	47	18	0										
Spottail shiner	S														
	B														
Carp	S														
	B														
Freshwater drum	S														
	B														
Yellow perch	S														
	B														
White bass	S														
	B														
Walleye	S														
	B														
White sucker	S														
	B														
Sucker	S														
	B														
Sunfish	S														
	B														
Quillback carpsucker	S														
	B														
Mooneye	S														
	B														
Crappie	S														
	B														
Smallmouth bass	S														
	B														
Bass	S														
	B														
Alewife	S														
	B														
Logperch darter	S														
	B														
Channel catfish	S														
	B														
Tadpole madtom	S														
	B														
Unknown	S														
	B														

TABLE 5 CON'T.

WESTERN LAKE ERIE FISH LARVAE STUDY
Numbers of Larvae per 100 Cubic Meters at Surface and Bottom

Cruise No.: 12 (1976)
Lake Sector: B

Species \ Station		14	15	56	17											
Gizzard shad	S															
	B															
Rainbow smelt	S															
	B															
Emerald shiner	S	12	10	5	23											
	B	6	0	3	0											
Spottail shiner	S															
	B															
Carp	S															
	B															
Freshwater drum	S															
	B															
Yellow perch	S															
	B															
White bass	S															
	B															
Walleye	S															
	B															
White sucker	S															
	B															
Sucker	S															
	B															
Sunfish	S															
	B															
Quillback carpsucker	S															
	B															
Mooneye	S															
	B															
Crappie	S															
	B															
Smallmouth bass	S															
	B															
Bass	S															
	B															
Alewife	S															
	B															
Logperch darter	S															
	B															
Channel catfish	S															
	B															
Tadpole madtom	S															
	B															
Unknown	S															
	B															

TABLE 5 CON'T.

WESTERN LAKE ERIE FISH LARVAE STUDY
Numbers of Larvae per 100 Cubic Meters at Surface and Bottom

Cruise No.: 14 (1976)
Lake Sector: B

Species \ Station		14	15	56	17											
Gizzard shad	S															
	B															
Rainbow smelt	S															
	B															
Emerald shiner	S															
	B															
Spottail shiner	S															
	B															
Carp	S															
	B															
Freshwater drum	S															
	B															
Yellow perch	S															
	B															
White bass	S															
	B															
Walleye	S															
	B															
White sucker	S															
	B															
Sucker	S															
	B															
Sunfish	S															
	B															
Quillback carpsucker	S															
	B															
Mooneye	S															
	B															
Crappie	S															
	B															
Smallmouth bass	S															
	B															
Bass	S															
	B															
Alewife	S															
	B															
Logperch darter	S															
	B															
Channel catfish	S															
	B															
Tadpole madtom	S															
	B															
Unknown	S															
	B															

TABLE 5 CON'T.

WESTERN LAKE ERIE FISH LARVAE STUDY
Numbers of Larvae per 100 Cubic Meters at Surface and Bottom

Cruise No.: 14 (1976)
Lake Sector: C

Species \ Station		18		26	27	31	21		30	19	24	32	20	29	25	28
Gizzard shad	S															
	B															
Rainbow smelt	S															
	B															
Emerald shiner	S						3									
	B						0									
Spottail shiner	S															
	B															
Carp	S															
	B															
Freshwater drum	S															
	B															
Yellow perch	S															
	B															
White bass	S															
	B															
Walleye	S															
	B															
White sucker	S															
	B															
Sucker	S															
	B															
Sunfish	S															
	B															
Quillback carpsucker	S															
	B															
Mooneye	S															
	B															
Crappie	S															
	B															
Smallmouth bass	S															
	B															
Bass	S															
	B															
Alewife	S															
	B															
Logperch darter	S															
	B															
Channel catfish	S															
	B															
Tadpole madtom	S															
	B															
Unknown	S															
	B															

TABLE 5 CON'T.

WESTERN LAKE ERIE FISH LARVAE STUDY
Numbers of Larvae per 100 Cubic Meters
at Surface and Bottom

Cruise No.: 1 (1976)
Lake Sector: C

Species \ Station		18		26	27	31			30	19		32	20	29		28
Gizzard shad	S															
	B															
Rainbow smelt	S															
	B															
Emerald shiner	S															
	B															
Spottail shiner	S															
	B															
Carp	S															
	B															
Freshwater drum	S															
	B															
Yellow perch	S															
	B															
White bass	S															
	B															
Walleye	S															
	B															
White sucker	S															
	B															
Sucker	S															
	B															
Sunfish	S															
	B															
Quillback carpsucker	S															
	B															
Mooneye	S															
	B															
Crappie	S															
	B															
Smallmouth bass	S															
	B															
Bass	S															
	B															
Alewife	S															
	B															
Logperch darter	S															
	B															
Channel catfish	S															
	B															
Tadpole madtom	S															
	B															
Unknown	S															
	B															

TABLE 5 CON'T.

WESTERN LAKE ERIE FISH LARVAE STUDY
Numbers of Larvae per 100 Cubic Meters at Surface and Bottom

Cruise No.: 2 (1976)
Lake Sector: C

Species \ Station				26	27	31	21		30	19	24	32	20	29	25	28
Gizzard shad	S															
	B															
Rainbow smelt	S															
	B															
Emerald shiner	S															
	B															
Spottail shiner	S															
	B															
Carp	S															
	B															
Freshwater drum	S															
	B															
Yellow perch	S					2										
	B															
White bass	S															
	B															
Walleye	S															
	B															
White sucker	S															
	B															
Sucker	S															
	B															
Sunfish	S															
	B															
Quillback carpsucker	S															
	B															
Mooneye	S															
	B															
Crappie	S															
	B															
Smallmouth bass	S															
	B															
Bass	S															
	B															
Alewife	S															
	B															
Logperch darter	S															
	B															
Channel catfish	S															
	B															
Tadpole madtom	S															
	B															
Unknown	S															
	B															

TABLE 5 CON'T.

WESTERN LAKE ERIE FISH LARVAE STUDY
Numbers of Larvae per 100 Cubic Meters at Surface and Bottom

Cruise No.: 3 (1976)
Lake Sector: C

Species \ Station		18		26	27	31	21		30	19	24	32	20	29	25	28
Gizzard shad	S	2														
	B															
Rainbow smelt	S															
	B															
Emerald shiner	S															
	B															
Spottail shiner	S															
	B															
Carp	S															
	B															
Freshwater drum	S															
	B															
Yellow perch	S	32		0	0	66	3		71	0	4	149	17	12		1
	B			4	3		124		224	6	1	86	1			
White bass	S															
	B															
Walleye	S	5			68		0		2			12	1			
	B						14		34			2	0			
White sucker	S															
	B															
Sucker	S															
	B															
Sunfish	S															
	B															
Quillback carpsucker	S															
	B															
Mooneye	S															
	B															
Crappie	S															
	B															
Smallmouth bass	S															
	B															
Bass	S															
	B															
Alewife	S															
	B															
Logperch darter	S															
	B															
Channel catfish	S															
	B															
Tadpole gadfish	S															
	B															
Unknown	S															
	B															
Whitefish	S											1				
	B											0				

TABLE 5 CON'T.

WESTERN LAKE ERIE FISH LARVAE STUDY
Numbers of Larvae per 100 Cubic Meters
at Surface and Bottom

Cruise No.: 4 (1976)
Lake Sector: C

Species \ Station		18		26	27	31	21		30	19	24	32	20	29	25	28
Gizzard shad	S												2			
	B												0			
Rainbow smelt	S	1		2		3	0			0			0			
	B			0			1			.6			16			
Emerald shiner	S															
	B															
Spottail shiner	S															
	B															
Carp	S															
	B															
Freshwater drum	S															
	B															
Yellow perch	S	1		0	0	18	1			0			0	1	0	
	B			2	3		1			1			1	2	1	
White bass	S															
	B															
Walleye	S					2										
	B															
White sucker	S															
	B															
Sucker	S															
	B															
Sunfish	S															
	B															
Quillback carpsucker	S															
	B															
Mooneye	S															
	B															
Crappie	S															
	B															
Smallmouth bass	S															
	B															
Bass	S															
	B															
Alewife	S															
	B															
Logperch darter	S															
	B															
Channel catfish	S															
	B															
Tadpole madtom	S															
	B															
Unknown	S															
	B															

TABLE 5 CON'T.

WESTERN LAKE ERIE FISH LARVAE STUDY
Numbers of Larvae per 100 Cubic Meters at Surface and Bottom

Cruise No.: 5 (1976)
Lake Sector: C

Species \ Station		18		26	27	31	21		30	19	24	32	20	29	25	28
Gizzard shad	S	6					3									
	B						0									
Rainbow smelt	S			1	23				3	10	0	0	0	0	0	3
	B			3	31				3	6	5	5	14	16	15	51
Emerald shiner	S															
	B															
Spottail shiner	S															
	B															
Carp	S															
	B															
Freshwater drum	S															
	B															
Yellow perch	S			2		6	0		1		0	3		0		0
	B			4			1		5		1	2		1		3
White bass	S					2										
	B															
Walleye	S															
	B															
White sucker	S															
	B															
Sucker	S															
	B															
Sunfish	S															
	B															
Quillback carpsucker	S					2										
	B															
Mooneye	S															
	B															
Crappie	S															
	B															
Smallmouth bass	S															
	B															
Bass	S															
	B															
Alewife	S															
	B															
Logperch darter	S															
	B															
Channel catfish	S															
	B															
Tadpole madtom	S															
	S															
Unknown	S															
	S															

TABLE 5 CON'T.

WESTERN LAKE ERIE FISH LARVAE STUDY
Numbers of Larvae per 100 Cubic Meters at Surface and Bottom

Cruise No.: 7 (1976)
Lake Sector: C

Species \ Station		18		26	27	31	21		30	19	24	32	20	29	25	28
Gizzard shad	S			0	0		4		0	13		0	5	0	5	
	B			4	9		0		2	5		3	1	1	1	
Rainbow smelt	S															
	B															
Emerald shiner	S															
	B															
Spottail shiner	S				1									1	1	
	B				.0									0	0	
Carp	S															
	B															
Freshwater drum	S															
	B															
Yellow perch	S															
	B															
White bass	S															
	B															
Walleye	S															
	B															
White sucker	S															
	B															
Sucker	S															
	B															
Sunfish	S															
	B															
Quillback carpsucker	S															
	B															
Mooneye	S															
	B															
Crappie	S									1						
	B									0						
Smallmouth bass	S															
	B															
Bass	S															
	B															
Alewife	S															
	B															
Logperch darter	S															
	B															
Channel catfish	S															
	B															
Tadpole madtom	S															
	B															
Unknown	S															
	B															

TABLE 5 CON'T.

WESTERN LAKE ERIE FISH LARVAE STUDY
Numbers of Larvae per 100 Cubic Meters at Surface and Bottom

Cruise No.: 8 (1976)
Lake Sector: C

Species \ Station		18		26	27	31	21		30	19	24	32	20	29	25	28
Gizzard shad	S	100		39	94	1·1	58		3	6	15	2	4	2	6	19
	B			47	33		215		9	1	5	2	0	8	0	23
Rainbow smelt	S											1				
	B											1				
Emerald shiner	S	1		25	40		4		1	1	18	0	3	63	13	32
	B			1	0		3		0	0	8	7	0	12	0	1
Spottail shiner	S													2		
	B													1		
Carp	S	4				2	1									
	B						0									
Freshwater drum	S								0			32		0		
	B								5			0		8		
Yellow perch	S	3														
	B															
White bass	S	55					0									
	B						7									
Walleye	S															
	B															
White sucker	S															
	B															
Sucker	S															
	B															
Sunfish	S															
	B															
Quillback carpsucker	S															
	B															
Mooneye	S															
	B															
Crappie	S															
	B															
Smallmouth bass	S															
	B															
Bass	S															
	B															
Alewife	S										0					
	B										2					
Logperch darter	S															
	B															
Channel catfish	S															
	B															
Tadpole madtom	S															
	B															
Unknown	S															
	B															

TABLE 5 CON'T.

WESTERN LAKE ERIE FISH LARVAE STUDY
Numbers of Larvae per 100 Cubic Meters at Surface and Bottom

Cruise No.: 9 (1976)
Lake Sector: C

Species \ Station			26	27	31	21		30	19	24	32	20	29	25	28
Gizzard shad	S			0		7		0	0	0			1	23	0
	B			4		5		2	9	1			0	1	1
Rainbow smelt	S														
	B														
Emerald shiner	S		394	129		6			4	859	8	18	111	135	1280
	B		50	29		0			0	28	1	10	14	7	46
Spottail shiner	S														
	B														
Carp	S				3	0									
	B					1									
Freshwater drum	S							0				0	0	0	0
	B							6				5	1	2	4
Yellow perch	S														
	B														
White bass	S		0							0					
	B		3							2					
Walleye	S														
	B														
White sucker	S														
	B														
Sucker	S														
	B														
Sunfish	S														
	B														
Quillback carpsucker	S														
	B														
Mooneye	S														
	B														
Crappie	S														
	B														
Smallmouth bass	S														
	B														
Bass	S														
	B														
Alewife	S														
	B														
Logperch darter	S														
	B														
Channel catfish	S														
	B														
Tadpole madtom	S														
	B														
Unknown	S														
	B														

TABLE 5 CON'T.

WESTERN LAKE ERIE FISH LARVAE STUDY
Numbers of Larvae per 100 Cubic Meters at Surface and Bottom

Cruise No.: 10 (1976)
Lake Sector: C

Species \ Station		18		26	27		21			19	24		20		25	28
Gizzard shad	S	8		6	15		8			9	0		13		8	4
	B			0	6		17			1	7		9		2	5
Rainbow smelt	S															
	B															
Emerald shiner	S			71	88					39	734		38		100	10
	B			3	19					3	39		14		83	169
Spottail shiner	S															
	B															
Carp	S						0									
	B						1									
Freshwater drum	S			1											0	
	B			0											2	
Yellow perch	S															
	B															
White bass	S				0											
	B				1											
Walleye	S															
	B															
White sucker	S															
	B															
Sucker	S															
	B															
Sunfish	S															
	B															
Quillback carpsucker	S															
	B															
Mooneye	S															
	B															
Crappie	S				1											
	B				0											
Smallmouth bass	S															
	B															
Bass	S															
	B															
Alewife	S															
	B															
Logperch darter	S															
	B															
Channel catfish	S															
	B															
Tadpole madtom	S															
	B															
Unknown	S															
	B															

TABLE 5 CON'T.

WESTERN LAKE ERIE FISH LARVAE STUDY
Numbers of Larvae per 100 Cubic Meters at Surface and Bottom

Cruise No.: 11 (1976)
Lake Sector: C

Species \ Station		18		26	27	31	21		30	19	24	32	20	29	25	28
Gizzard shad	S				0		1		3							0
	B				1		0		0							1
Rainbow smelt	S															
	B															
Emerald shiner	S	24		1	3		1			1	1		4		6	5
	B			0	1		0			0	0		0		2	0
Spottail shiner	S															
	B															
Carp	S															
	B															
Freshwater drum	S															
	B															
Yellow perch	S															
	B															
White bass	S															
	B															
Walleye	S															
	B															
White sucker	S															
	B															
Sucker	S															
	B															
Sunfish	S															
	B															
Quillback carpsucker	S															
	B															
Mooneye	S															
	B															
Crappie	S															
	B															
Smallmouth bass	S															
	B															
Bass	S															
	B															
Alewife	S	2														
	B															
Logperch darter	S															
	B															
Channel catfish	S															
	B															
Tadpole madtom	S															
	B															
Unknown	S															
	B															

TABLE 5 CON'T.

WESTERN LAKE ERIE FISH LARVAE STUDY
Numbers of Larvae per 100 Cubic Meters at Surface and Bottom

Cruise No.: 12 (1976)
Lake Sector: C

Species \ Station		18		26	27	31	21		30	19	24	32	20	29	25	28
Gizzard shad	S	2					2			2						
	B						2			2						
Rainbow smelt	S															
	B															
Emerald shiner	S	6		3	0					7	17		14		32	
	B			2	2					5	0		2		9	
Spottail shiner	S															
	B															
Carp	S															
	B															
Freshwater drum	S															
	B															
Yellow perch	S															
	B															
White bass	S															
	B															
Walleye	S															
	B															
White sucker	S															
	B															
Sucker	S															
	B															
Sunfish	S															
	B															
Quillback carpsucker	S															
	B															
Mooneye	S															
	B															
Crappie	S															
	B															
Smallmouth bass	S															
	B															
Bass	S															
	B															
Alewife	S										0					
	B										1					
Logperch darter	S															
	B															
Channel catfish	S															
	B															
Tadpole madtom	S															
	B															
Unknown	S															
	B															

TABLE 5 CON'T.

WESTERN LAKE ERIE FISH LARVAE STUDY
Numbers of Larvae per 100 Cubic Meters
at Surface and Bottom

Cruise No.: 1 (1976)
Lake Sector: D

Species \ Station		40	37	34	38	41	39	35	36	42	33	43				
Gizzard shad	S															
	B															
Rainbow smelt	S															
	B															
Emerald shiner	S															
	B															
Spottail shiner	S															
	B															
Carp	S															
	B															
Freshwater drum	S															
	B															
Yellow perch	S															
	B															
White bass	S															
	B															
Walleye	S															
	B															
White sucker	S															
	B															
Sucker	S															
	B															
Sunfish	S															
	B															
Quillback carpsucker	S															
	B															
Mooneye	S															
	B															
Crappie	S															
	B															
Smallmouth bass	S															
	B															
Bass	S															
	B															
Alewife	S															
	B															
Logperch darter	S															
	B															
Channel catfish	S															
	B															
Tadpole madtom	S															
	B															
Unknown	S															
	B															
Whitefish	S			1				1								
	B			0				0								

TABLE 5 CON'T.

WESTERN LAKE ERIE FISH LARVAE STUDY
Numbers of Larvae per 100 Cubic Meters at Surface and Bottom

Cruise No.: 2 (1976)
Lake Sector: D

Species \ Station		40	37	34	38	41	39	35	62	36	42	33	43			
Gizzard shad	S															
	B															
Rainbow smelt	S															
	B															
Emerald shiner	S															
	B															
Spottail shiner	S															
	B															
Carp	S															
	B															
Freshwater drum	S															
	B															
Yellow perch	S															
	B															
White bass	S															
	B															
Walleye	S															
	B															
White sucker	S															
	B															
Sucker	S															
	B															
Sunfish	S															
	B															
Quillback carpsucker	S															
	B															
Rhoanyo	S															
	B															
Crappie	S															
	B															
Smallmouth bass	S															
	B															
Bass	S															
	B															
Alewife	S															
	B															
Logperch darter	S															
	B															
Channel catfish	S															
	B															
Tadpole madtom	S															
	B															
Unknown	S															
	B															

TABLE 5 CON'T.

WESTERN LAKE ERIE FISH LARVAE STUDY
Numbers of Larvae per 100 Cubic Meters at Surface and Bottom

Cruise No.: 3 (1976)
Lake Sector: D

Species \ Station		40	37	34	38	41	39	35	62	36	42	33	43			
Gizzard shad	S															
	B															
Rainbow smelt	S															
	B															
Emerald shiner	S															
	B															
Spottail shiner	S															
	B															
Carp	S															
	B															
Freshwater drum	S															
	B															
Yellow perch	S	36	7		5		0		11	6	0		4			
	B	79	9		108		2		17		1					
White bass	S															
	B															
Walleye	S	0			0				7	1		0				
	B	14			3				15			3				
White sucker	S															
	B															
Sucker	S															
	B															
Sunfish	S															
	B															
Quillback carpsucker	S															
	B															
Mooneye	S															
	B															
Crappie	S															
	B															
Smallmouth bass	S															
	B															
Bass	S															
	B															
Alewife	S															
	B															
Logperch darter	S															
	B															
Channel catfish	S															
	B															
Tadpole madtom	S															
	B															
Unknown	S															
	B															
Sculpin	S						0									
	B						1									
Whitefish	S		5													
	B		0													

TABLE 5 CON'T.

WESTERN LAKE ERIE FISH LARVAE STUDY
Numbers of Larvae per 100 Cubic Meters at Surface and Bottom

Cruise No.: 4 (1976)
Lake Sector: D

Species		Station 40	37	34	38	41	39	35	62	36	42	33	43			
Gizzard shad	S															
	B															
Rainbow smelt	S															
	B															
Emerald shiner	S															
	B															
Spottail shiner	S															
	B															
Carp	S															
	B															
Freshwater drum	S															
	B															
Yellow perch	S	0	10	1	21	10	2	6	0	0	4		10			
	B	3	20	3	63	1	5	3	5	1	38		12			
White bass	S															
	B															
Walleye	S		0		0				1				0			
	B		2		1				0				1			
White sucker	S						1									
	B						0									
Sucker	S															
	B															
Sunfish	S															
	B															
Quillback carpsucker	S															
	B															
Mooneye	S															
	B															
Crappie	S															
	B															
Smallmouth bass	S															
	B															
Bass	S															
	B															
Alewife	S															
	B															
Logperch darter	S															
	B															
Channel catfish	S															
	B															
Tadpole madtom	S															
	B															
Unknown	S															
	B															

TABLE 5 CON'T.

WESTERN LAKE ERIE FISH LARVAE STUDY
Numbers of Larvae per 100 Cubic Meters at Surface and Bottom

Cruise No.: 5 (1976)
Lake Sector: D

Species		Station 40	37	34	38	41	39	35	62	36	42	33	43			
Gizzard shad	S	0														
	B	1														
Raintow smelt	S			0				0	0	7						
	B			1				3	1	5						
Emerald shiner	S															
	B															
Spottail shiner	S															
	B															
Carp	S															
	B															
Freshwater drum	S															
	B															
Yellow perch	S	0	3		3	0	2	2	6	1	0					
	B	4	3		0	1	1	0	15	3	1					
White bass	S															
	B															
Walleye	S								0							
	B								1							
White sucker	S															
	B															
Sucker	S															
	B															
Sunfish	S															
	B															
Quillback carpsucker	S															
	B															
Mooneye	S															
	B															
Crappie	S															
	B															
Smallmouth bass	S															
	B															
Bass	S															
	B															
Alewife	S															
	B															
Logperch darter	S															
	B															
Channel catfish	S															
	B															
Tadpole madtom	S															
	B															
Unknown	S															
	B															

TABLE 5 CON'T.

WESTERN LAKE ERIE FISH LARVAE STUDY
Numbers of Larvae per 100 Cubic Meters at Surface and Bottom

Cruise No.: 6 (1976)
Lake Sector: D

Species		Station 40	37	34	38	41	39	35	62		42	33	43			
Gizzard shad	S															
	B															
Rainbow smelt	S	1				2			0		0					
	B	0				1			5		1					
Emerald shiner	S															
	B															
Spottail shiner	S						3									
	B						0									
Carp	S															
	B															
Freshwater drum	S															
	B															
Yellow perch	S			1		28	1						0			
	B			0		1	0						1			
White bass	S															
	B															
Walleye	S															
	B															
White sucker	S		0													
	B		2													
Sucker	S															
	B															
Sunfish	S															
	B															
Quillback carpsucker	S															
	B															
Mooneye	S															
	B															
Crappie	S															
	B															
Smallmouth bass	S															
	B															
Bass	S															
	B															
Alewife	S															
	B															
Logperch darter	S															
	B															
Channel catfish	S															
	B															
Tadpole madtom	S															
	B															
Unknown	S															
	B															

TABLE 5 CON'T.

WESTERN LAKE ERIE FISH LARVAE STUDY
Numbers of Larvae per 100 Cubic Meters at Surface and Bottom

Cruise No.: 7 (1976)
Lake Sector: D

Species		Station 40	37	34	38	41	39	35	62	36	42	33	43			
Gizzard shad	S	0	7		3	0		0		1						
	B	1	12		8	1		5		5						
Rainbow smelt	S															
	B															
Emerald shiner	S															
	B															
Spottail shiner	S			1				1			2		4			
	B			0				0			0		1			
Carp	S						1				0					
	B						0				2					
Freshwater drum	S															
	B															
Yellow perch	S			0												
	B			1												
White bass	S															
	B															
Walleye	S															
	B															
White sucker	S															
	B															
Sucker	S															
	B															
Sunfish	S															
	B															
Quillback carpsucker	S															
	B															
Mooneye	S															
	B															
Crappie	S															
	B															
Smallmouth bass	S															
	B															
Bass	S															
	B															
Alewife	S															
	B															
Logperch darter	S															
	B															
Channel catfish	S															
	B															
Tadpole madtom	S															
	B															
Unknown	S															
	B															

TABLE 5 CON'T.

WESTERN LAKE ERIE FISH LARVAE STUDY
Numbers of Larvae per 100 Cubic Meters at Surface and Bottom

Cruise No.: 8 (1976)
Lake Sector: D

Species		Station 40	37	34	38	41	39	35	62	36	42	33	43			
Gizzard shad	S	0	10	3	8	0	4	0	3		0	4	3			
	B	6	15	5	124	2	9	4	49		2	2	6.			
Rainbow smelt	S															
	B															
Emerald shiner	S		187		165		6	2	27	12	7	6	27			
	B		4		12		0	0	1	0	0	0	1			
Spottail shiner	S		9		4		9		1				1			
	B		0		0		0		0				0			
Carp	S	1		0	1		3			3	0		0			
	B	1		1	3		1			0	1		1			
Freshwater drum	S						0	0	0	0	0					
	B						4	1	1	1	1					
Yellow perch	S															
	B															
White bass	S															
	B															
Walleye	S															
	B															
White sucker	S															
	B															
Sucker	S															
	B															
Sunfish	S															
	B															
Quillback carpsucker	S															
	B															
Mooneye	S															
	B															
Crappie	S															
	B															
Smallmouth bass	S															
	B															
Bass	S															
	B															
Alewife	S															
	B															
Logperch darter	S															
	B															
Channel catfish	S															
	B															
Tadpole madtom	S															
	B															
Unknown	S															
	B															

TABLE 5 CON'T.

WESTERN LAKE ERIE FISH LARVAE STUDY
Numbers of Larvae per 100 Cubic Meters at Surface and Bottom

Cruise No.: 9 (1976)
Lake Sector: D

Species		Station 40	37	34	38	41	39	35	62	36	42	33	43			
Gizzard shad	S	0	670	23	77	25	30	4	26	15	0	36				
	B	48	224	12	89	3	22	2	7	2	4	1				
Rainbow smelt	S															
	B															
Emerald shiner	S	734		17	6	3	62	30	58	49	7	37				
	B	155		7	0	0	18	5	20	8	0	11				
Spottail shiner	S															
	B															
Carp	S		12		1						0					
	B		0		1						1					
Freshwater drum	S		0	2		0	0	0	2	0	0	0				
	B		14	0		1	31	7	0	3	1	7				
Yellow perch	S															
	B															
White bass	S			2												
	B			0												
Walleye	S															
	B															
White sucker	S															
	B															
Sucker	S															
	B															
Sunfish	S															
	B															
Quillback carpsucker	S															
	B															
Mooneye	S															
	B															
Crappie	S															
	B															
Smallmouth bass	S															
	B															
Bass	S															
	B															
Alewife	S															
	B															
Logperch darter	S															
	B															
Channel catfish	S															
	B															
Tadpole madtom	S															
	B															
Unknown	S															
	B															

TABLE 5 CON'T.

WESTERN LAKE ERIE FISH LARVAE STUDY
Numbers of Larvae per 100 Cubic Meters at Surface and Bottom

Cruise No.: 11 (1976)
Lake Sector: D

Species		Station 40	37	34	38	41	39	35	62	36	42	33	43			
Gizzard shad	S									3						
	B									0						
Rainbow smelt	S															
	B															
Emerald shiner	S	105				2	0	18			3		14			
	B	4				0	2	0			0		0			
Spottail shiner	S															
	B															
Carp	S															
	B															
Freshwater drum	S															
	B															
Yellow perch	S															
	B															
White bass	S															
	B															
Walleye	S															
	B															
White sucker	S															
	B															
Sucker	S															
	B															
Sunfish	S															
	B															
Quillback carpsucker	S															
	B															
Mooneye	S															
	B															
Crappie	S															
	B															
Smallmouth bass	S															
	B															
Bass	S															
	B															
Alewife	S											0				
	B											1				
Logperch darter	S															
	B															
Channel catfish	S															
	B															
Tadpole madtom	S															
	B															
Unknown	S															
	B															

TABLE 5 CON'T.

WESTERN LAKE ERIE FISH LARVAE STUDY
Numbers of Larvae per 100 Cubic Meters at Surface and Bottom

Cruise No.: 10 (1976)
Lake Sector: D

Species \ Station		40	37	34	38	41	39	35	62	36	42	33	43			
Gizzard shad	S	1	3		1	0	1		9	0						
	B	2	8		5	2	0		7	1						
Rainbow smelt	S															
	B															
Emerald shiner	S	4	14	321		0	23	362	103	56	10	315	73			
	B	0	3	88		1	0	35	12	16	10	12	7			
Spottail shiner	S	1														
	B	0														
Carp	S				1											
	B				0											
Freshwater drum	S		1			0										
	B		1			1										
Yellow perch	S															
	B															
White bass	S															
	B															
Walleye	S															
	B															
White sucker	S															
	B															
Sucker	S															
	B															
Sunfish	S															
	B															
Quillback carpsucker	S															
	B															
Mooneye	S															
	B															
Crappie	S															
	B															
Smallmouth bass	S															
	B															
Bass	S															
	B															
Alewife	S		15													
	B		0													
Logperch darter	S															
	B															
Channel catfish	S															
	B															
Tadpole madtom	S															
	B															
Unknown	S															
	B															

TABLE 5 CON'T.

WESTERN LAKE ERIE FISH LARVAE STUDY
Numbers of Larvae per 100 Cubic Meters at Surface and Bottom

Cruise No.: 12 (1976)
Lake Sector: D

Species		Station 40	37	34	38	41	39	35	62	36	42	33	43			
Gizzard shad	S						0									
	B						1									
Rainbow smelt	S															
	B															
Emerald shiner	S	13	2		4	1	1	1	2	3	3		1			
	B	0	0		0	0	0	3	0	0	0		0			
Spottail shiner	S															
	B															
Carp	S															
	B															
Freshwater drum	S															
	B															
Yellow perch	S															
	B															
White bass	S															
	B															
Walleye	S															
	B															
White sucker	S															
	B															
Sucker	S															
	B															
Sunfish	S															
	B															
Quillback carpsucker	S															
	B															
Mooneye	S															
	B															
Crappie	S															
	B															
Smallmouth bass	S															
	B															
Bass	S															
	B															
Alewife	S		1		0											
	B		0		1											
Logperch darter	S															
	B															
Channel catfish	S															
	B															
Tadpole madtom	S															
	B															
Unknown	S															
	B															

TABLE 5 CON'T.

WESTERN LAKE ERIE FISH LARVAE STUDY
Numbers of Larvae per 100 Cubic Meters at Surface and Bottom

Cruise No.: 13 (1976)
Lake Sector: D

Species \ Station		40	37	34	38	41	39	35	62	36	42	33	43			
Gizzard shad	S															
	B															
Rainbow smelt	S															
	B															
Emerald shiner	S		0										1			
	B		1										0			
Spottail shiner	S															
	B															
Carp	S															
	B															
Freshwater drum	S															
	B															
Yellow perch	S															
	B															
White bass	S															
	B															
Walleye	S															
	B															
White sucker	S															
	B															
Sucker	S															
	B															
Sunfish	S															
	B															
Quillback carpsucker	S															
	B															
Mooneye	S															
	B															
Crappie	S															
	B															
Smallmouth bass	S															
	B															
Bass	S															
	B															
Alewife	S															
	B															
Logperch darter	S															
	B															
Channel catfish	S															
	B															
Tadpole madtom	S															
	B															
Unknown	S															
	B															

TABLE 5 CON'T.

WESTERN LAKE ERIE FISH LARVAE STUDY
Numbers of Larvae per 100 Cubic Meters at Surface and Bottom

Cruise No.: 14 (1976)
Lake Sector: D

Species \ Station		40	37	34	38	41	39	35	62	36	42	33	43			
Gizzard shad	S															
	B															
Rainbow smelt	S															
	B															
Emerald shiner	S						1									
	B						0									
Spottail shiner	S															
	B															
Carp	S															
	B															
Freshwater drum	S															
	B															
Yellow perch	S															
	B															
White bass	S															
	B															
Walleye	S															
	B															
White sucker	S															
	B															
Sucker	S															
	B															
Sunfish	S															
	B															
Quillback carpsucker	S															
	B															
Mooneye	S															
	B															
Crappie	S															
	B															
Smallmouth bass	S															
	B															
Bass	S															
	B															
Alewife	S															
	B															
Logperch darter	S															
	B															
Channel catfish	S															
	B															
Tadpole madtom	S															
	B															
Unknown	S															
	B															

TABLE 5 CON'T.

WESTERN LAKE ERIE FISH LARVAE STUDY
Numbers of Larvae per 100 Cubic Meters
at Surface and Bottom

Cruise No.: 1 (1976)
Lake Sector: E

Species \ Station		44	52	49	51	45	46	63	54	48	50	47	55			
Gizzard shad	S															
	B															
Rainbow smelt	S															
	B															
Emerald shiner	S															
	B															
Spottail shiner	S															
	B															
Carp	S															
	B															
Freshwater drum	S															
	B															
Yellow perch	S															
	B															
White bass	S															
	B															
Walleye	S															
	B															
White sucker	S															
	B															
Sucker	S															
	B															
Sunfish	S															
	B															
Quillback carpsucker	S															
	B															
Mooneye	S															
	B															
Crappie	S															
	B															
Smallmouth bass	S															
	B															
Bass	S															
	B															
Alewife	S															
	B															
Logperch darter	S															
	B															
Channel catfish	S															
	B															
Tadpole madtom	S															
	B															
Unknown	S															
	B															
Whitefish	S		2													
	B		0													

TABLE 5 CON'T.

WESTERN LAKE ERIE FISH LARVAE STUDY
Numbers of Larvae per 100 Cubic Meters at Surface and Bottom

Cruise No.: 3 (1976)
Lake Sector: E

Species \ Station		44	52	49	51	45			54	48	50	47	55			
Gizzard shad	S															
	B															
Rainbow smelt	S															
	B															
Emerald shiner	S															
	B															
Spottail shiner	S															
	B															
Carp	S															
	B															
Freshwater drum	S															
	B															
Yellow perch	S					0			22							
	B					19			7							
White bass	S															
	B															
Walleye	S					0										
	B					3										
White sucker	S															
	B															
Sucker	S															
	B															
Sunfish	S															
	B															
Quillback carpsucker	S															
	B															
Mooneye	S															
	B															
Crappie	S															
	B															
Smallmouth bass	S															
	B															
Bass	S															
	B															
Alewife	S															
	B															
Logperch darter	S															
	B															
Channel catfish	S															
	B															
Tadpole madtom	S															
	B															
Unknown	S															
	B															
Whitefish	S					1										
	B					0										

TABLE 5 CON'T.

WESTERN LAKE ERIE FISH LARVAE STUDY
Numbers of Larvae per 100 Cubic Meters at Surface and Bottom

Cruise No.: 4 (1976)
Lake Sector: E

Species		Station 44	52	49	51	45	46	63	54	48	50	47	55			
Gizzard shad	S															
	B															
Rainbow smelt	S									0						
	B									3						
Emerald shiner	S															
	B															
Spottail shiner	S															
	B															
Carp	S															
	B															
Freshwater drum	S															
	B															
Yellow perch	S	27	0	4	0	6	0	16	1	3	36	2	7			
	B		7	9	7	110	17	15	3	17	9	10	16			
White bass	S															
	B															
Walleye	S	3				0										
	B					1										
White sucker	S															
	B															
Sucker	S															
	B															
Sunfish	S															
	B															
Quillback carpsucker	S															
	B															
Mooneye	S															
	B															
Crappie	S															
	B															
Smallmouth bass	S															
	B															
Bass	S															
	B															
Alewife	S															
	B															
Logperch darter	S															
	B															
Channel catfish	S															
	B															
Tadpole madtom	S															
	B															
Unknown	S															
	B															

TABLE 5 CON'T.

WESTERN LAKE ERIE FISH LARVAE STUDY
Numbers of Larvae per 100 Cubic Meters at Surface and Bottom

Cruise No.: 5 (1976)
Lake Sector: E

Species \ Station		44	52	49	51	45	46	63	54	48	50	47	55			
Gizzard shad	S															
	B															
Rainbow smelt	S		3	5	0		1			0	0	13	0			
	B		25	24	1		6			2	2	63	5			
Emerald shiner	S															
	B															
Spottail shiner	S															
	B															
Carp	S															
	B															
Freshwater drum	S															
	B															
Yellow perch	S		1	0	3	1	8	0	3	0	2		0			
	B		1	9	2	3	0	2	0	1	1		1			
White bass	S															
	B															
Walleye	S															
	B															
White sucker	S															
	B															
Sucker	S															
	B															
Sunfish	S															
	B															
Quillback carpsucker	S															
	B															
Mooneye	S															
	B															
Crappie	S															
	B															
Smallmouth bass	S															
	B															
Bass	S															
	B															
Alewife	S															
	B															
Logperch darter	S															
	B															
Channel catfish	S															
	B															
Tadpole madtom	S															
	B															
Unknown	S															
	B															
Troutperch	S															
	B							0								
								1								

TABLE 5 CON'T.

WESTERN LAKE ERIE FISH LARVAE STUDY
Numbers of Larvae per 100 Cubic Meters at Surface and Bottom

Cruise No.: 6 (1976)
Lake Sector: E

Species \ Station		44	52	49	51	45	46	63		48	50	47	55			
Gizzard shad	S															
	B															
Rainbow smelt	S			3				0		0		0				
	B			8				1		11		6				
Emerald shiner	S															
	B															
Spottail shiner	S															
	B															
Carp	S				3											
	B				0											
Freshwater drum	S															
	B															
Yellow perch	S				0						0	0				
	B				9						1	1				
White bass	S															
	B															
Walleye	S															
	B															
White sucker	S															
	B															
Sucker	S															
	B															
Sunfish	S															
	B															
Quillback carpsucker	S															
	B															
Mooneye	S															
	B															
Crappie	S															
	B															
Smallmouth bass	S															
	B															
Bass	S															
	B															
Alewife	S															
	B															
Logperch darter	S															
	B															
Channel catfish	S															
	B															
Tadpole madtom	S															
	B															
Unknown	S															
	B															

TABLE 5 CON'T.

WESTERN LAKE ERIE FISH LARVAE STUDY
Numbers of Larvae per 100 Cubic Meters at Surface and Bottom

Cruise No.: 7 (1976)
Lake Sector: E

Species \ Station		44	52	49	51	45	46	63	54	48	50	47	55			
Gizzard shad	S	6	0			11		0	9	0						
	B		7			3		1	0	6						
Rainbow smelt	S											0				
	B											3				
Emerald shiner	S															
	B															
Spottail shiner	S		1	3	1	1		4	1	5		1	3			
	B		1	0	0	0		0	0	0		1	0			
Carp	S			4	0					1	3	8	0			
	B			168	1					0	1	1	1			
Freshwater drum	S								1							
	B								0							
Yellow perch	S															
	B															
White bass	S															
	B															
Walleye	S															
	B															
White sucker	S															
	B															
Sucker	S															
	B															
Sunfish	S															
	B															
Quillback carpsucker	S															
	B															
Mooneye	S															
	B															
Crappie	S															
	B															
Smallmouth bass	S															
	B															
Bass	S															
	B															
Alewife	S															
	B															
Logperch darter	S															
	B															
Channel catfish	S															
	B															
Tadpole madtom	S															
	B															
Unknown	S															
	B															

TABLE 5 CON'T.

WESTERN LAKE ERIE FISH LARVAE STUDY
Numbers of Larvae per 100 Cubic Meters at Surface and Bottom

Cruise No.: 8 (1976)
Lake Sector: E

Species \ Station		44	52	49	51	45	46	63	54	48	50	47	55			
Gizzard shad	S	8	2	3	1	3		34	8	1	8	0.	20			
	B	0	7	5	52	80		9	18	1	13	1	1			
Rainbow smelt	S															
	B															
Emerald shiner	S	2	127	302	3	49	41	27	28	81	4	130	23			
	B	0	37	34	0	13	0	7	1	7	1	71	5			
Spottail shiner	S		6	0		1		1					1			
	B		0	1		0		0					0			
Carp	S			1	7					0						
	B			1	0					1						
Freshwater drum	S							0		0	2	0				
	B							1		1	0	1				
Yellow perch	S															
	B															
White bass	S															
	B															
Walleye	S															
	B															
White sucker	S															
	B															
Sucker	S															
	B															
Sunfish	S															
	B															
Quillback carpsucker	S															
	B															
Mooneye	S															
	B															
Crappie	S															
	B															
Smallmouth bass	S															
	B															
Bass	S															
	B															
Alewife	S															
	B															
Logperch darter	S															
	B															
Channel catfish	S															
	B															
Tadpole madtom	S															
	B															
Unknown	S															
	B															

TABLE 5 CON'T.

WESTERN LAKE ERIE FISH LARVAE STUDY
Numbers of Larvae per 100 Cubic Meters at Surface and Bottom

Cruise No.: 9 (1976)
Lake Sector: E

Species		Station 44	52	49	51	45	46	63	54	48	50	47	55			
Gizzard shad	S	26	0	1	0	45	102	210	25		143	0	4			
	B		13	3	24	14	8	21	27		52	2	16			
Rainbow smelt	S															
	B															
Emerald shiner	S	3	65	28	8	1	39	227	45	43	471	66	26			
	B		10	12	5	0	8	17	14	1	24	8	6			
Spottail shiner	S								3	1						
	B								0	0						
Carp	S			8	1	5							2			
	B			47	1	0							1			
Freshwater drum	S			0	0		0	0	1		0					
	B			2	1		12	1	1		4					
Yellow perch	S															
	B															
White bass	S															
	B															
Walleye	S															
	B															
White sucker	S															
	B															
Sucker	S															
	B															
Sunfish	S															
	B															
Quillback carpsucker	S															
	B															
Mooneye	S															
	B															
Crappie	S					1										
	B					0										
Smallmouth bass	S															
	B															
Bass	S															
	B															
Alewife	S								0							
	B								1							
Logperch darter	S															
	B															
Channel catfish	S															
	B															
Tadpole madtom	S															
	B															
Unknown	S															
	B															

TABLE 5 CON'T.

WESTERN LAKE ERIE FISH LARVAE STUDY
Numbers of Larvae per 100 Cubic Meters at Surface and Bottom

Cruise No.: 10 (1976)
Lake Sector: E

Species		Station 44	52	49	51	45	46	63	54	48	50	47	55			
Gizzard shad	S	1				1	1		2		5		1			
	B					1	5		1		1		0			
Rainbow smelt	S															
	B															
Emerald shiner	S		32	6	0		8	48	13	28	53	50	56			
	B		10	3	13		0	4	3	6	19	5	3			
Spottail shiner	S			2												
	B			0												
Carp	S															
	B															
Freshwater drum	S				0											
	B				1											
Yellow perch	S															
	B															
White bass	S															
	B															
Walleye	S															
	B															
White sucker	S															
	B															
Sucker	S															
	B															
Sunfish	S															
	B															
Quillback carpsucker	S															
	B															
Mooneye	S															
	B															
Crappie	S															
	B															
Smallmouth bass	S															
	B															
Bass	S															
	B															
Alewife	S															
	B															
Logperch darter	S															
	B															
Channel catfish	S															
	B															
Tadpole madtom	S															
	B															
Unknown	S															
	B															

TABLE 5 CON'T.

WESTERN LAKE ERIE FISH LARVAE STUDY
Numbers of Larvae per 100 Cubic Meters at Surface and Bottom

Cruise No.: 11 (1976)
Lake Sector: E

Species \ Station		44	52	49	51	45	46	63	54	48	50	47	55			
Gizzard shad	S	1														
	B															
Rainbow smelt	S															
	B															
Emerald shiner	S		1	1				1	23	1	3	2	1			
	B		0	0				0	0	0	0	0	0			
Spottail shiner	S															
	B															
Carp	S															
	B															
Freshwater drum	S															
	B															
Yellow perch	S															
	B															
White bass	S															
	B															
Walleye	S															
	B															
White sucker	S															
	B															
Sucker	S															
	B															
Sunfish	S															
	B															
Quillback carpsucker	S															
	B															
Mooneye	S															
	B															
Crappie	S															
	B															
Smallmouth bass	S															
	B															
Bass	S															
	B															
Alewife	S															
	B															
Logperch darter	S															
	B															
Channel catfish	S															
	B															
Tadpole madtom	S															
	B															
Unknown	S															
	B															

TABLE 5 CON'T.

WESTERN LAKE ERIE FISH LARVAE STUDY
Numbers of Larvae per 100 Cubic Meters
at Surface and Bottom

Cruise No.: 12 (1976)
Lake Sector: E

Species \ Station		44	52	49	51	45	46	63	54	48	50	47	55			
Gizzard shad	S															
	B															
Rainbow smelt	S															
	B															
Emerald shiner	S		1		4	3			3			0				
	B		0		0	0			0			1				
Spottail shiner	S															
	B															
Carp	S															
	B															
Freshwater drum	S															
	B															
Yellow perch	S															
	B															
White bass	S															
	B															
Walleye	S															
	B															
White sucker	S															
	B															
Sucker	S															
	B															
Sunfish	S															
	B															
Quillback carpsucker	S															
	B															
Mooneye	S															
	B															
Crappie	S															
	B															
Smallmouth bass	S															
	B															
Bass	S															
	B															
Alewife	S	1			3	3										
	B				0	0										
Logperch darter	S															
	B															
Channel catfish	S															
	B															
Tadpole madtom	S															
	B															
Unknown	S															
	B															

TABLE 5 CON'T.

WESTERN LAKE ERIE FISH LARVAE STUDY
Numbers of Larvae per 100 Cubic Meters
at Surface and Bottom

Cruise No.: 14 (1976)
Lake Sector: E

Species \ Station		44	52	49	51	45	46	63	54	48	50	47	55			
Gizzard shad	S															
	B															
Rainbow smelt	S															
	B															
Emerald shiner	S															
	B															
Spottail shiner	S															
	B															
Carp	S															
	B															
Freshwater drum	S															
	B															
Yellow perch	S															
	B															
White bass	S															
	B															
Walleye	S															
	B															
White sucker	S															
	B															
Sucker	S															
	B															
Sunfish	S															
	B															
Quillback carpsucker	S															
	B															
Mooneye	S															
	B															
Crappie	S															
	B															
Smallmouth bass	S															
	B															
Bass	S															
	B															
Alewife	S															
	B															
Logperch darter	S															
	B															
Channel catfish	S															
	B															
Tadpole madtom	S															
	B															
Unknown	S															
	B															

TABLE 5 CON'T.

WESTERN LAKE ERIE FISH LARVAE STUDY
Numbers of Larvae per 100 Cubic Meters
at Surface and Bottom

Cruise No.: 1 (1976)
Lake Sector: F

Species \ Station		59	58	60	61	57										
Gizzard shad	S															
	B															
Rainbow smelt	S															
	B															
Emerald shiner	S															
	B															
Spottail shiner	S															
	B															
Carp	S															
	B															
Freshwater drum	S															
	B															
Yellow perch	S															
	B															
White bass	S															
	B															
Walleye	S															
	B															
White sucker	S															
	B															
Sucker	S															
	B															
Sunfish	S															
	B															
Quillback carpsucker	S															
	B															
Mooneye	S															
	B															
Crappie	S															
	B															
Smallmouth bass	S															
	B															
Bass	S															
	B															
Alewife	S															
	B															
Logperch darter	S															
	B															
Channel catfish	S															
	B															
Tadpole madtom	S															
	B															
Unknown	S															
	B															

TABLE 5 CON'T.

WESTERN LAKE ERIE FISH LARVAE STUDY
Numbers of Larvae per 100 Cubic Meters
at Surface and Bottom

Cruise No.: 3 (1976)
Lake Sector F

Species \ Station		59	58	60	61	57										
Gizzard shad	S															
	B															
Raintow smelt	S															
	B															
Emerald shiner	S															
	B															
Spottail shiner	S															
	B															
Carp	S															
	B															
Freshwater drum	S															
	B															
Yellow perch	S															
	B															
White bass	S															
	B															
Walleye	S															
	B															
White sucker	S															
	B															
Sucker	S															
	B															
Sunfish	S															
	B															
Quillback carpsucker	S															
	B															
Mooneye	S															
	B															
Crappie	S															
	B															
Smallmouth bass	S															
	B															
Bass	S															
	B															
Alewife	S															
	B															
Logperch darter	S															
	B															
Channel catfish	S															
	B															
Tadpole madtom	S															
	B															
Unknown	S															
	B															

TABLE 5 CON'T.

WESTERN LAKE ERIE FISH LARVAE STUDY
Numbers of Larvae per 100 Cubic Meters at Surface and Bottom

Cruise No.: 4 (1976)
Lake Sector: F

Species \ Station		59	58	60	61	57										
Gizzard shad	S															
	B															
Rainbow smelt	S															
	B															
Emerald shiner	S															
	B															
Spottail shiner	S															
	B															
Carp	S															
	B															
Freshwater drum	S															
	B															
Yellow perch	S		1		1											
	B		1		47											
White bass	S															
	B															
Walleye	S			0												
	B			2												
White sucker	S															
	B															
Sucker	S															
	B															
Sunfish	S															
	B															
Quillback carpsucker	S															
	B															
Mooneye	S															
	B															
Crappie	S															
	B															
Smallmouth bass	S															
	B															
Bass	S															
	B															
Alewife	S															
	B															
Logperch darter	S															
	B															
Channel catfish	S															
	B															
Tadpole madtom	S															
	B															
Unknown	S															
	B															

TABLE 5 CON'T.

WESTERN LAKE ERIE FISH LARVAE STUDY
Numbers of Larvae per 100 Cubic Meters at Surface and Bottom

Cruise No.: 5 (1976)
Lake Sector: F

Species \ Station		59	58	60	61	57										
Gizzard shad	S															
	B															
Raintow smelt	S	1	4	0	3	0										
	B	0	15	6	0	4										
Emerald shiner	S															
	B															
Spottail shiner	S															
	B															
Carp	S															
	B															
Freshwater drum	S															
	B															
Yellow perch	S		1	3												
	B		1	0												
White bass	S															
	B															
Walleye	S															
	B															
White sucker	S															
	B															
Sucker	S															
	B															
Sunfish	S															
	B															
Quillback carpsucker	S															
	B															
Mooneye	S															
	B															
Crappie	S															
	B															
Smallmouth bass	S															
	B															
Bass	S															
	B															
Alewife	S															
	B															
Logperch darter	S															
	B															
Channel catfish	S															
	B															
Tadpole madtom	S															
	B															
Unknown	S															
	B															
Sculpin	S			0												
	B			3												

TABLE 5 CON'T.

WESTERN LAKE ERIE FISH LARVAE STUDY
Numbers of Larvae per 100 Cubic Meters at Surface and Bottom

Cruise No.: 6 (1976)
Lake Sector: F

Species		Station 59	58	60	61	57										
Gizzard shad	S															
	B															
Rainbow smelt	S	0	0	3	0	0										
	B	2	4	4	5	2										
Emerald shiner	S															
	B															
Spottail shiner	S				0											
	B				1											
Carp	S															
	B															
Freshwater drum	S															
	B															
Yellow perch	S	0														
	B	2														
White bass	S															
	B															
Walleye	S															
	B															
White sucker	S															
	B															
Sucker	S															
	B															
Sunfish	S															
	B															
Quillback carpsucker	S															
	B															
Mooneye	S															
	B															
Crappie	S															
	B															
Smallmouth bass	S															
	B															
Bass	S															
	B															
Alewife	S															
	B															
Logperch darter	S															
	B															
Channel catfish	S															
	B															
Tadpole madtom	S															
	B															
Unknown	S															
	B															

TABLE 5 CON'T.

WESTERN LAKE ERIE FISH LARVAE STUDY
Numbers of Larvae per 100 Cubic Meters at Surface and Bottom

Cruise No.: 7 (1976)
Lake Sector: F

Species		Station 59	58	60	61	57										
Gizzard shad	S	0	0			2										
	B	7	1			0										
Rainbow smelt	S					0										
	B					1										
Emerald shiner	S															
	B															
Spottail shiner	S	1		5	2											
	B	0		0	0											
Carp	S			26												
	B			4												
Freshwater drum	S															
	B															
Yellow perch	S															
	B															
White bass	S															
	B															
Walleye	S															
	B															
White sucker	S															
	B															
Sucker	S															
	B															
Sunfish	S															
	B															
Quillback carpsucker	S															
	B															
Mooneye	S															
	B															
Crappie	S															
	B															
Smallmouth bass	S															
	B															
Bass	S															
	B															
Alewife	S															
	B															
Logperch darter	S					0										
	B					1										
Channel catfish	S															
	B															
Tadpole madtom	S															
	B															
Unknown	S															
	B															

TABLE 5 CON'T.

WESTERN LAKE ERIE FISH LARVAE STUDY
Numbers of Larvae per 100 Cubic Meters at Surface and Bottom

Cruise No.: 8 (1976)
Lake Sector: F

Species		Station 59	58	60	61	57										
Gizzard shad	S	0	0	1	0											
	B	2	6	1	8											
Raintow smelt	S	0														
	B	1														
Emerald shiner	S	16	68	207	77	5										
	B	11	6	42	42	3										
Spottail shiner	S		6	1												
	B		0	0												
Carp	S	21	1	0		5										
	B	21	0	1		0										
Freshwater drum	S	0	0			0										
	B	3	4			1										
Yellow perch	S															
	B															
White bass	S															
	B															
Walleye	S															
	B															
White sucker	S															
	B															
Sucker	S															
	B															
Sunfish	S															
	B															
Quillback carpsucker	S															
	B															
Mooneye	S															
	B															
Crappie	S															
	B															
Smallmouth bass	S															
	B															
Bass	S															
	B															
Alewife	S															
	B															
Logperch darter	S															
	B															
Channel catfish	S															
	B															
Tadpole madtom	S															
	B															
Unknown	S															
	B															

TABLE 5 CON'T.

WESTERN LAKE ERIE FISH LARVAE STUDY
Numbers of Larvae per 100 Cubic Meters at Surface and Bottom

Cruise No.: 9 (1976)
Lake Sector: F

Species \ Station		59	58	60	61	57										
Gizzard shad	S	10	18	2	0	5										
	B	9	8	0	2	4										
Rainbow smelt	S															
	B															
Emerald shiner	S	57	10	1	8	39										
	B	8	2	0	9	3										
Spottail shiner	S															
	B															
Carp	S															
	B															
Freshwater drum	S		0	1		0										
	B		4	0		1										
Yellow perch	S															
	B															
White bass	S															
	B															
Walleye	S															
	B															
White sucker	S															
	B															
Sucker	S															
	B															
Sunfish	S															
	B															
Quillback carpsucker	S															
	B															
Mooneye	S															
	B															
Crappie	S					0										
	B					1										
Smallmouth bass	S															
	B															
Bass	S															
	B															
Alewife	S															
	B															
Logperch darter	S															
	B															
Channel catfish	S															
	B															
Tadpole madtom	S															
	B															
Unknown	S															
	B															

TABLE 5 CON'T.

WESTERN LAKE ERIE FISH LARVAE STUDY
Numbers of Larvae per 100 Cubic Meters at Surface and Bottom

Cruise No.: 10 (1976)
Lake Sector: F

Species \ Station		59	58	60	61	57										
Gizzard shad	S															
	B															
Rainbow smelt	S															
	B															
Emerald shiner	S	89	321	18	72	82										
	B	3	56	29	3	16										
Spottail shiner	S															
	B															
Carp	S															
	B															
Freshwater drum	S															
	B															
Yellow perch	S															
	B															
White bass	S															
	B															
Walleye	S															
	B															
White sucker	S															
	B															
Sucker	S															
	B															
Sunfish	S															
	B															
Quillback carpsucker	S															
	B															
Mooneye	S															
	B															
Crappie	S															
	B															
Smallmouth bass	S															
	B															
Bass	S															
	B															
Alewife	S															
	B															
Logperch darter	S															
	B															
Channel catfish	S															
	B															
Tadpole madtom	S															
	B															
Unknown	S															
	B															

TABLE 5 CON'T.

WESTERN LAKE ERIE FISH LARVAE STUDY
Numbers of Larvae per 100 Cubic Meters at Surface and Bottom

Cruise No.: 11 (1976)
Lake Sector: F

Species		Station 59	58	60	61	57										
Gizzard shad	S		1													
	B		0													
Rainbow smelt	S															
	B															
Emerald shiner	S	1	1			1										
	B	0	0			0										
Spottail shiner	S															
	B															
Carp	S															
	B															
Freshwater drum	S															
	B															
Yellow perch	S															
	B															
White bass	S															
	B															
Walleye	S															
	B															
White sucker	S															
	B															
Sucker	S															
	B															
Sunfish	S															
	B															
Quillback carpsucker	S															
	B															
Mooneye	S															
	B															
Crappie	S															
	B															
Smallmouth bass	S															
	B															
Bass	S															
	B															
Alewife	S															
	B															
Logperch darter	S															
	B															
Channel catfish	S															
	B															
Tadpole madtom	S															
	B															
Unknown	S															
	B															

TABLE 5 CON'T.

WESTERN LAKE ERIE FISH LARVAE STUDY
Numbers of Larvae per 100 Cubic Meters at Surface and Bottom

Cruise No.: 12 (1976)
Lake Sector: F

Species \ Station		59	58	60	61	57										
Gizzard shad	S															
	B															
Rainbow smelt	S															
	B															
Emerald shiner	S	4	1			59										
	B	0	0			11										
Spottail shiner	S															
	B															
Carp	S															
	B															
Freshwater drum	S															
	B															
Yellow perch	S															
	B															
White bass	S															
	B															
Walleye	S															
	B															
White sucker	S															
	B															
Sucker	S															
	B															
Sunfish	S															
	B															
Quillback carpsucker	S															
	B															
Mooneye	S															
	B															
Crappie	S															
	B															
Smallmouth bass	S															
	B															
Bass	S															
	B															
Alewife	S															
	B															
Logperch darter	S															
	B															
Channel catfish	S															
	B															
Tadpole madtom	S															
	B															
Unknown	S															
	B															

TABLE 5 CON'T.

WESTERN LAKE ERIE FISH LARVAE STUDY
Numbers of Larvae per 100 Cubic Meters
at Surface and Bottom

Cruise No.: 14 (1976)
Lake Sector: F

Species \ Station		59	58	60	61	57										
Gizzard shad	S															
	B															
Rainbow smelt	S															
	B															
Emerald shiner	S															
	B															
Spottail shiner	S															
	B															
Carp	S															
	B															
Freshwater drum	S															
	B															
Yellow perch	S															
	B															
White bass	S															
	B															
Walleye	S															
	B															
White sucker	S															
	B															
Sucker	S															
	B															
Sunfish	S															
	B															
Quillback carpsucker	S															
	B															
Mooneye	S															
	B															
Crappie	S															
	B															
Smallmouth bass	S															
	B															
Bass	S															
	B															
Alewife	S															
	B															
Logperch darter	S															
	B															
Channel catfish	S															
	B															
Tadpole madtom	S															
	B															
Unknown	S															
	B															

TABLE 5 CON'T.

WESTERN LAKE ERIE FISH LARVAE STUDY
Numbers of Larvae per 100 Cubic Meters at Surface and Bottom

Cruise No.: 1 (1976)
Lake Sector: G

Species \ Station		66	67	69	70	71	68									
Gizzard shad	S															
	B															
Rainbow smelt	S															
	B															
Emerald shiner	S															
	B															
Spottail shiner	S															
	B															
Carp	S															
	B															
Freshwater drum	S															
	B															
Yellow perch	S															
	B															
White bass	S															
	B															
Walleye	S															
	B															
White sucker	S															
	B															
Sucker	S															
	B															
Sunfish	S															
	B															
Quillback carpsucker	S															
	B															
Mooneye	S															
	B															
Crappie	S															
	B															
Smallmouth bass	S															
	B															
Bass	S															
	B															
Alewife	S															
	B															
Logperch darter	S															
	B															
Channel catfish	S															
	B															
Tadpole madtom	S															
	B															
Unknown	S															
	B															

TABLE 5 CON'T.

WESTERN LAKE ERIE FISH LARVAE STUDY
Numbers of Larvae per 100 Cubic Meters at Surface and Bottom

Cruise No.: 2 (1976)
Lake Sector: G

Species \ Station		66	67	69	70	71	68									
Gizzard shad	S															
	B															
Raintow smelt	S															
	B															
Emerald shiner	S															
	B															
Spottail shiner	S															
	B															
Carp	S															
	B															
Freshwater drum	S															
	B															
Yellow perch	S															
	B															
White bass	S															
	B															
Walleye	S															
	B															
White sucker	S															
	B															
Sucker	S															
	B															
Sunfish	S															
	B															
Quillback carpsucker	S															
	B															
Mooneye	S															
	B															
Crappie	S															
	B															
Smallmouth bass	S															
	B															
Bass	S															
	B															
Alewife	S															
	B															
Logperch darter	S															
	B															
Channel catfish	S															
	B															
Tadpole madtom	S															
	B															
Unknown	S															
	B															

TABLE 5 CON'T.

WESTERN LAKE ERIE FISH LARVAE STUDY
Numbers of Larvae per 100 Cubic Meters at Surface and Bottom

Cruise No.: 3 (1976)
Lake Sector: G

Species \ Station		66	67	69	70	71	68									
Gizzard shad	S			0		3										
	B			2		0										
Raintow smelt	S															
	B															
Emerald shiner	S															
	B															
Spottail shiner	S															
	B															
Carp	S															
	B															
Freshwater drum	S															
	B															
Yellow perch	S	6	20	14	16	3	17									
	B	21	16	19	2	27	37									
White bass	S															
	B															
Walleye	S															
	B															
White sucker	S															
	B															
Sucker	S															
	B															
Sunfish	S															
	B															
Quillback carpsucker	S															
	B															
Mooneye	S															
	B															
Crappie	S															
	B															
Smallmouth bass	S															
	B															
Bass	S															
	B															
Alewife	S															
	B															
Logperch darter	S															
	B															
Channel catfish	S															
	B															
Tadpole madtom	S															
	B															
Unknown	S															
	B															

TABLE 5 CON'T.

WESTERN LAKE ERIE FISH LARVAE STUDY
Numbers of Larvae per 100 Cubic Meters at Surface and Bottom

Cruise No.: 4 (1976)
Lake Sector: G

Species \ Station			69	70	71										
Gizzard shad	S														
	B														
Rainbow smelt	S														
	B														
Emerald shiner	S														
	B														
Spottail shiner	S														
	B														
Carp	S														
	B														
Freshwater drum	S														
	B														
Yellow perch	S			0	8	9									
	B			5	17	44									
White bass	S														
	B														
Walleye	S														
	B														
White sucker	S														
	B														
Sucker	S														
	B														
Sunfish	S														
	B														
Quillback carpsucker	S														
	B														
Mooneye	S														
	B														
Crappie	S														
	B														
Smallmouth bass	S														
	B														
Bass	S														
	B														
Alewife	S														
	B														
Logperch darter	S														
	B														
Channel catfish	S														
	B														
Tadpole madtom	S														
	B														
Unknown	S														
	B														

TABLE 5 CON'T.

WESTERN LAKE ERIE FISH LARVAE STUDY
Numbers of Larvae per 100 Cubic Meters at Surface and Bottom

Cruise No.: 5 (1976)
Lake Sector: G

Species		Station 66	67	69	70	71	68									
Gizzard shad	S															
	B															
Rainbow smelt	S															
	B															
Emerald shiner	S															
	B															
Spottail shiner	S	0		0												
	B	1		1												
Carp	S															
	B															
Freshwater drum	S															
	B															
Yellow perch	S	16	12	3	16	3	38									
	B	8	14	14	12	7	26									
White bass	S															
	B															
Walleye	S		0													
	B		1													
White sucker	S															
	B															
Sucker	S															
	B															
Sunfish	S															
	B															
Quillback carpsucker	S															
	B															
Mooneye	S															
	B															
Crappie	S															
	B															
Smallmouth bass	S															
	B															
Bass	S															
	B															
Alewife	S															
	B															
Logperch darter	S															
	B															
Channel catfish	S															
	B															
Tadpole madtom	S															
	B															
Unknown	S															
	B															

TABLE 5 CON'T.

WESTERN LAKE ERIE FISH LARVAE STUDY
Numbers of Larvae per 100 Cubic Meters at Surface and Bottom

Cruise No.: 7 (1976)
Lake Sector: G

Species		Station 66	67	69	70	71	68									
Gizzard shad	S	76	158	2	255	71	54									
	B	24	151	23	36	143	410									
Rainbow smelt	S															
	B															
Emerald shiner	S															
	B															
Spottail shiner	S															
	B															
Carp	S															
	B															
Freshwater drum	S	1	8		5	0	0									
	B	1	23		3	8	15									
Yellow perch	S															
	B															
White bass	S		0				0									
	B		1				2									
Walleye	S															
	B															
White sucker	S															
	B															
Sucker	S															
	B															
Sunfish	S															
	B															
Quillback carpsucker	S															
	B															
Mooneye	S															
	B															
Crappie	S		1													
	B		0													
Smallmouth bass	S															
	B															
Bass	S															
	B															
Alewife	S															
	B															
Logperch darter	S															
	B															
Channel catfish	S															
	B															
Tadpole madtom	S															
	B															
Unknown	S															
	B															

TABLE 5 CON'T.

WESTERN LAKE ERIE FISH LARVAE STUDY
Numbers of Larvae per 100 Cubic Meters at Surface and Bottom

Cruise No.: 8 (1976)
Lake Sector: G

Species		Station 66	67	69	70	71	68									
Gizzard shad	S	345	1692	199	3179	2626	329									
	B	33	128	26	1277	510	163									
Rainbow smelt	S															
	B															
Emerald shiner	S	0														
	B	1														
Spottail shiner	S															
	B															
Carp	S															
	B															
Freshwater drum	S		38	0	26	51	39									
	B		502	84	189	73	0									
Yellow perch	S															
	B															
White bass	S															
	B															
Walleye	S															
	B															
White sucker	S															
	B															
Sucker	S															
	B															
Sunfish	S															
	B															
Quillback carpsucker	S															
	B															
Mooneye	S															
	B															
Crappie	S															
	B															
Smallmouth bass	S															
	B															
Bass	S															
	B															
Alewife	S															
	B															
Logperch darter	S															
	B															
Channel catfish	S															
	B															
Tadpole madtom	S															
	B															
Unknown	S															
	B															

TABLE 5 CON'T.

WESTERN LAKE ERIE FISH LARVAE STUDY
Numbers of Larvae per 100 Cubic Meters at Surface and Bottom

Cruise No.: 9 (1976)
Lake Sector: G

Species \ Station		66	67	69	70	71	68									
Gizzard shad	S	17	224	291	297	248	41									
	B	14	80	120	210	102	71									
Rainbow smelt	S															
	B															
Emerald shiner	S				0											
	B				16											
Spottail shiner	S															
	B															
Carp	S						14									
	B						2									
Freshwater drum	S	9	30	0	0	14	534									
	B	215	2540	30	194	1385	50									
Yellow perch	S															
	B															
White bass	S															
	B															
Walleye	S															
	B															
White sucker	S															
	B															
Sucker	S															
	B															
Sunfish	S															
	B															
Quillback carpsucker	S															
	B															
Mooneye	S															
	B															
Crappie	S	2														
	B	0														
Smallmouth bass	S															
	B															
Bass	S															
	B															
Alewife	S															
	B															
Logperch darter	S															
	B															
Channel catfish	S															
	B															
Tadpole madtom	S															
	B															
Unknown	S															
	B															

TABLE 5 CON'T.

WESTERN LAKE ERIE FISH LARVAE STUDY
Numbers of Larvae per 100 Cubic Meters at Surface and Bottom

Cruise No.: 10 (1976)
Lake Sector: G

Species		Station 66	67	69	70	71										
Gizzard shad	S	127	95	72	75	141										
	B	20	21	5	70	36										
Rainbow smelt	S															
	B															
Emerald shiner	S		6	30		7										
	B		0	0		2										
Spottail shiner	S															
	B															
Carp	S															
	B															
Freshwater drum	S		0			0										
	B		1			1										
Yellow perch	S															
	B															
White bass	S				0											
	B				1											
Walleye	S															
	B															
White sucker	S															
	B															
Sucker	S															
	B															
Sunfish	S															
	B															
Quillback carpsucker	S															
	B															
Mooneye	S															
	B															
Crappie	S		0		0	1										
	B		1		1	1										
Smallmouth bass	S															
	B															
Bass	S															
	B															
Alewife	S															
	B															
Logperch darter	S															
	B															
Channel catfish	S															
	B															
Tadpole madtom	S															
	B															
Unknown	S															
	B															

TABLE 5 CON'T.

WESTERN LAKE ERIE FISH LARVAE STUDY
Numbers of Larvae per 100 Cubic Meters at Surface and Bottom

Cruise No.: 11 (1976)
Lake Sector: G

Species \ Station		66	67	69	70	71	68									
Gizzard shad	S	22	32	4	1	8	11									
	B	38	3	1	2	0	5									
Rainbow smelt	S															
	B															
Emerald shiner	S			4	0	1										
	B			0	2	0										
Spottail shiner	S															
	B															
Carp	S															
	B															
Freshwater drum	S															
	B															
Yellow perch	S			1												
	B			0												
White bass	S					0	1									
	B					1	0									
Walleye	S															
	B															
White sucker	S															
	B															
Sucker	S															
	B															
Sunfish	S					1										
	B					0										
Quillback carpsucker	S															
	B															
Mooneye	S															
	B															
Crappie	S															
	B															
Smallmouth bass	S															
	B															
Bass	S															
	B															
Alewife	S															
	B															
Logperch darter	S															
	B															
Channel catfish	S															
	B															
Tadpole madtom	S															
	B															
Unknown	S															
	B															

TABLE 5 CON'T.

WESTERN LAKE ERIE FISH LARVAE STUDY
Numbers of Larvae per 100 Cubic Meters at Surface and Bottom

Cruise No.: 12 (1976)
Lake Sector: G

Species \ Station		66		69	70	71	68									
Gizzard shad	S	13					2									
	B	5					0									
Rainbow smelt	S															
	B															
Emerald shiner	S	2			7	6										
	B	0			0	0										
Spottail shiner	S															
	B															
Carp	S															
	B															
Freshwater drum	S															
	B															
Yellow perch	S															
	B															
White bass	S	2														
	B	0														
Walleye	S															
	B															
White sucker	S															
	B															
Sucker	S															
	B															
Sunfish	S															
	B															
Quillback carpsucker	S															
	B															
Mooneye	S															
	B															
Crappie	S						2									
	B						0									
Smallmouth bass	S															
	B															
Bass	S															
	B															
Alewife	S															
	B															
Logperch darter	S															
	B															
Channel catfish	S															
	B															
Tadpole madtom	S															
	B															
Unknown	S															
	B															

TABLE 5 CON'T.

WESTERN LAKE ERIE FISH LARVAE STUDY
Numbers of Larvae per 100 Cubic Meters at Surface and Bottom

Cruise No.: 14 (1976)
Lake Sector: G

Species \ Station		66	67	69	70	71	68									
Gizzard shad	S	4	2				23									
	B	1	0				4									
Rainbow smelt	S															
	B															
Emerald shiner	S	4	5													
	B	0	0													
Spottail shiner	S															
	B															
Carp	S															
	B															
Freshwater drum	S															
	B															
Yellow perch	S															
	B															
White bass	S															
	B															
Walleye	S															
	B															
White sucker	S															
	B															
Sucker	S															
	B															
Sunfish	S															
	B															
Quillback carpsucker	S															
	B															
Mooneye	S															
	B															
Crappie	S						0									
	B						4									
Smallmouth bass	S															
	B															
Bass	S															
	B															
Alewife	S															
	B															
Logperch darter	S															
	B															
Channel catfish	S															
	B															
Tadpole madtom	S															
	B															
Unknown	S															
	B															

TABLE 6

ESTIMATED NUMBER OF FISH IN LAKE ERIE
Sector A Cruise 1 , 1976

Depth Zones / Species	1	2	3	4	5	6		TOTAL
Gizzard shad								
Rainbow smelt								
Emerald shiner								
Spottail shiner								
Carp								
Freshwater drum								
Yellow perch								
White bass								
Walleye								
White sucker								
Sunfish								
Quillback carpsucker								
Crapple								
Alewife								
Logperch darter								
Troutperch								
Sculpin								
Whitefish								
TOTAL								

ESTIMATED NUMBER OF FISH IN LAKE ERIE
Sector A Cruise 2, 1976

Depth Zones / Species	1	2	3	4	5	6		TOTAL
Gizzard shad								
Rainbow smelt								
Emerald shiner								
Spottail shiner								
Carp								
Freshwater drum								
Yellow perch								
White bass								
Walleye	9.5×10^6	2.2×10^7						3.1×10^7
White sucker								
Sunfish								
Quillback carpsucker								
Crappie								
Alewife								
Logperch darter								
Troutperch								
Sculpin								
Whitefish								
TOTAL								

ESTIMATED NUMBER OF FISH IN LAKE ERIE
Sector A Cruise 3, 1976

Depth Zones / Species	1	2	3	4	5	6		TOTAL
Gizzard shad	3.6×10^6	9.3×10^5	1.3×10^6					5.8×10^6
Rainbow smelt								
Emerald shiner								
Spottail shiner								
Carp								
Freshwater drum								
Yellow perch	6.9×10^6	4.9×10^6	3.9×10^6					1.6×10^7
White bass								
Walleye	2.2×10^5	1.9×10^6						2.1×10^6
White sucker	2.9×10^5		1.3×10^6					1.6×10^6
Sunfish								
Quillback carpsucker								
Crapple								
Alewife								
Logperch darter								
Troutperch								
Sculpin								
Whitefish								
TOTAL								

ESTIMATED NUMBER OF FISH IN LAKE ERIE
Sector A Cruise 4, 1976

Depth Zones / Species	1	2	3	4	5	6		TOTAL
Gizzard shad								
Rainbow smelt	7.2×10^5	9.3×10^5	2.1×10^6					3.8×10^6
Emerald shiner								
Spottail shiner								
Carp								
Freshwater drum								
Yellow perch	1.3×10^6	9.3×10^5	2.6×10^6					4.8×10^6
White bass								
Walleye								
White sucker								
Sunfish								
Quillback carpsucker								
Crappie								
Alewife								
Logperch darter								
Troutperch								
Sculpin								
Whitefish								
TOTAL								

ESTIMATED NUMBER OF FISH IN LAKE ERIE
Sector A Cruise 5, 1976

Depth Zones / Species	1	2	3	4	5	6		TOTAL
Gizzard shad		3.0×10^6						3.0×10^6
Rainbow smelt	9.3×10^5	1.9×10^6	1.0×10^7					1.3×10^7
Emerald shiner								
Spottail shiner								
Carp								
Freshwater drum								
Yellow perch	7.9×10^5		4.3×10^5					1.2×10^6
White bass								
Walleye								
White sucker								
Sunfish								
Quillback carpsucker								
Crappie								
Alewife								
Logperch darter								
Troutperch								
Sculpin								
Whitefish								
TOTAL								

ESTIMATED NUMBER OF FISH IN LAKE ERIE
Sector A Cruise 7, 1976

Depth Zones / Species	1	2	3	4	5	6		TOTAL
Gizzard shad	2.7×10^7	1.3×10^7	7.7×10^6					4.8×10^7
Rainbow smelt								
Emerald shiner								
Spottail shiner		2.3×10^5						2.3×10^5
Carp								
Freshwater drum	5.0×10^5							5.0×10^5
Yellow perch		7.0×10^5						7.0×10^5
White bass	7.2×10^5							7.2×10^5
Walleye								
White sucker								
Sunfish								
Quillback carpsucker								
Crappie	1.4×10^5							1.4×10^5
Alewife								
Logperch darter								
Troutperch								
Sculpin								
Whitefish								
TOTAL								

ESTIMATED NUMBER OF FISH IN LAKE ERIE
Sector A Cruise 8, 1976

Depth Zones / Species	1	2	3	4	5	6		TOTAL
Gizzard shad	3.6×10^7	4.3×10^7	2.6×10^6					8.1×10^7
Rainbow smelt								
Emerald shiner	1.4×10^5							1.4×10^5
Spottail shiner								
Carp		4.7×10^5						4.7×10^5
Freshwater drum								
Yellow perch								
White bass			4.3×10^5					4.3×10^5
Walleye								
White sucker								
Sunfish		2.3×10^5						2.3×10^5
Quillback carpsucker								
Crappie								
Alewife	2.2×10^5	2.1×10^6						2.3×10^6
Logperch darter								
Troutperch								
Sculpin								
Whitefish								
TOTAL								

ESTIMATED NUMBER OF FISH IN LAKE ERIE
Sector A Cruise 9, 1976

Depth Zones / Species	1	2	3	4	5	6		TOTAL
Gizzard shad	1.2×10^6	4.7×10^5	2.6×10^6					4.2×10^6
Rainbow smelt		4.7×10^5						4.7×10^5
Emerald shiner	2.9×10^5	3.3×10^6	1.7×10^6					5.3×10^6
Spottail shiner								
Carp								
Freshwater drum	2.0×10^5	4.7×10^5						6.6×10^5
Yellow perch								
White bass								
Walleye								
White sucker								
Sunfish								
Quillback carpsucker								
Crapple								
Alewife								
Logperch darter								
Troutperch								
Sculpin								
Whitefish								
TOTAL								

ESTIMATED NUMBER OF FISH IN LAKE ERIE
Sector A Cruise 10, 1976

Depth Zones / Species	1	2	3	4	5	6		TOTAL
Gizzard shad	4.7×10^6	2.6×10^6	9.4×10^6					1.7×10^7
Rainbow smelt								
Emerald shiner	2.0×10^5	1.9×10^6	5.2×10^7					5.4×10^7
Spottail shiner								
Carp		2.3×10^5						2.3×10^5
Freshwater drum								
Yellow perch								
White bass								
Walleye								
White sucker								
Sunfish								
Quillback carpsucker								
Crappie								
Alewife								
Logperch darter			8.6×10^5					8.6×10^5
Troutperch								
Sculpin								
Whitefish								
TOTAL								

ESTIMATED NUMBER OF FISH IN LAKE ERIE
Sector A Cruise 11, 1976

Depth Zones / Species	1	2	3	4	5	6		TOTAL
Gizzard shad	4.8×10^6	2.8×10^6	4.7×10^6					1.2×10^7
Rainbow smelt								
Emerald shiner	3.4×10^6	6.7×10^6	1.2×10^8					1.4×10^8
Spottail shiner								
Carp		7.0×10^5						7.0×10^5
Freshwater drum			8.6×10^5					8.6×10^5
Yellow perch								
White bass								
Walleye								
White sucker								
Sunfish								
Quillback carpsucker								
Crappie								
Alewife								
Logperch darter								
Troutperch								
Sculpin								
Whitefish								
TOTAL								

ESTIMATED NUMBER OF FISH IN LAKE ERIE
Sector A Cruise 12, 1976

Depth Zones / Species	1	2	3	4	5	6		TOTAL
Gizzard shad	3.4×10^6	9.3×10^5						4.4×10^6
Rainbow smelt								
Emerald shiner	1.3×10^7	1.4×10^7	4.6×10^7					7.2×10^7
Spottail shiner								
Carp								
Freshwater drum	3.8×10^5							3.8×10^5
Yellow perch								
White bass								
Walleye								
White sucker								
Sunfish								
Quillback carpsucker								
Crapple								
Alewife								
Logperch darter								
Troutperch								
Sculpin								
Whitefish								
TOTAL								

ESTIMATED NUMBER OF FISH IN LAKE ERIE
Sector A Cruise 14, 1976

Depth Zones / Species	1	2	3	4	5	6		TOTAL
Gizzard shad								
Rainbow smelt								
Emerald shiner	4.8×10^5							4.8×10^5
Spottail shiner								
Carp								
Freshwater drum								
Yellow perch								
White bass								
Walleye								
White sucker								
Sunfish								
Quillback carpsucker								
Crapple								
Alewife								
Logperch darter								
Troutperch								
Sculpin								
Whitefish								
TOTAL								

ESTIMATED NUMBER OF FISH IN LAKE ERIE
Sector B Cruise 1 , 1976

Depth Zones / Species				4	5	6		TOTAL
Gizzard shad								
Rainbow smelt								
Emerald shiner								
Spottail shiner								
Carp								
Freshwater drum								
Yellow perch								
White bass								
Walleye								
White sucker								
Sunfish								
Quillback carpsucker								
Crapple								
Alewife								
Logperch darter								
Troutperch								
Sculpin								
Whitefish								
TOTAL								

ESTIMATED NUMBER OF FISH IN LAKE ERIE
Sector B Cruise 3, 1976

Depth Zones / Species				4	5	6		TOTAL
Gizzard shad								
Rainbow smelt								
Emerald shiner								
Spottail shiner								
Carp								
Freshwater drum								
Yellow perch								
White bass								
Walleye								
White sucker								
Sunfish								
Quillback carpsucker								
Crapple								
Alewife								
Logperch darter								
Troutperch								
Sculpin								
Whitefish								
TOTAL								

ESTIMATED NUMBER OF FISH IN LAKE ERIE
Sector B Cruise 4, 1976

Depth Zones / Species				4	5	6		TOTAL
Gizzard shad								
Rainbow smelt				2.3×10^7	2.4×10^8			2.6×10^7
Emerald shiner								
Spottail shiner								
Carp								
Freshwater drum								
Yellow perch				4.0×10^6	2.4×10^6	1.6×10^7		2.2×10^7
White bass								
Walleye								
White sucker								
Sunfish								
Quillback carpsucker								
Crapple								
Alewife								
Logperch darter								
Troutperch								
Sculpin								
Whitefish								
TOTAL								

ESTIMATED NUMBER OF FISH IN LAKE ERIE
Sector B Cruise 5, 1976

Depth Zones / Species				4	5	6		TOTAL
Gizzard shad								
Rainbow smelt				2.7×10^7	3.9×10^8			4.2×10^8
Emerald shiner								
Spottail shiner								
Carp								
Freshwater drum								
Yellow perch								
White bass								
Walleye								
White sucker								
Sunfish								
Quillback carpsucker								
Crappie								
Alewife								
Logperch darter								
Troutperch								
Sculpin								
Whitefish								
TOTAL								

ESTIMATED NUMBER OF FISH IN LAKE ERIE
Sector B Cruise 6, 1976

Depth Zones / Species						6		TOTAL
Gizzard shad								
Rainbow smelt						4.8×10^7		4.8×10^7
Emerald shiner								
Spottail shiner								
Carp								
Freshwater drum								
Yellow perch								
White bass								
Walleye								
White sucker								
Sunfish								
Quillback carpsucker								
Crappie								
Alewife								
Logperch darter								
Troutperch								
Sculpin								
Whitefish								
TOTAL								

ESTIMATED NUMBER OF FISH IN LAKE ERIE
Sector B Cruise 7, 1976

Depth Zones / Species				4	5	6		TOTAL
Gizzard shad				1.6×10^7	4.9×10^6			2.0×10^7
Rainbow smelt								
Emerald shiner								
Spottail shiner								
Carp								
Freshwater drum								
Yellow perch				3.9×10^6				3.9×10^6
White bass								
Walleye								
White sucker								
Sunfish								
Quillback carpsucker								
Crappie								
Alewife								
Logperch darter				3.9×10^6	2.4×10^6			6.3×10^6
Troutperch								
Sculpin								
Whitefish								
TOTAL								

ESTIMATED NUMBER OF FISH IN LAKE ERIE
Sector B Cruise 8, 1976

Depth Zones / Species				4	5	6		TOTAL
Gizzard shad				1.2×10^7	1.3×10^8			1.4×10^8
Rainbow smelt								
Emerald shiner				2.3×10^7	5.8×10^7	1.1×10^7		9.2×10^7
Spottail shiner								
Carp					4.9×10^6			4.9×10^6
Freshwater drum								
Yellow perch								
White bass								
Walleye								
White sucker								
Sunfish								
Quillback carpsucker								
Crappie								
Alewife				1.2×10^7				1.2×10^7
Logperch darter								
Troutperch								
Sculpin								
Whitefish								
TOTAL								

ESTIMATED NUMBER OF FISH IN LAKE ERIE
Sector B Cruise 9, 1976

Depth Zones / Species				4	5	6		TOTAL
Gizzard shad					9.7×10^6	7.6×10^7		8.5×10^7
Rainbow smelt								
Emerald shiner				7.8×10^6	7.5×10^7	1.1×10^8		1.8×10^8
Spottail shiner				3.9×10^6				3.9×10^6
Carp					2.4×10^6			2.4×10^6
Freshwater drum						1.6×10^7		1.6×10^7
Yellow perch								
White bass				3.9×10^6				3.9×10^6
Walleye								
White sucker								
Sunfish								
Quillback carpsucker								
Crapple								
Alewife								
Logperch darter								
Troutperch								
Sculpin								
Whitefish								
TOTAL								

ESTIMATED NUMBER OF FISH IN LAKE ERIE
Sector C Cruise 3, 1976

Species \ Depth Zones	1	2	3	4	5			TOTAL
Gizzard shad	1.1×10^5							1.1×10^5
Rainbow smelt								
Emerald shiner								
Spottail shiner								
Carp								
Freshwater drum								
Yellow perch	3.0×10^6	2.6×10^8	2.6×10^8	5.7×10^7	4.7×10^8			5.7×10^8
White bass								
Walleye	4.0×10^6	3.1×10^7	1.5×10^7	1.9×10^6				5.1×10^7
White sucker								
Sunfish								
Quillback carpsucker								
Crappie								
Alewife								
Logperch darter								
Troutperch								
Sculpin								
Whitefish			1.1×10^6					1.1×10^6
TOTAL								

ESTIMATED NUMBER OF FISH IN LAKE ERIE
Sector B Cruise 11, 1976

Depth Zones / Species				4	5	6		TOTAL
Gizzard shad				7.8×10^6				7.8×10^6
Rainbow smelt								
Emerald shiner				1.3×10^8	3.0×10^8	2.1×10^7		4.5×10^8
Spottail shiner								
Carp								
Freshwater drum								
Yellow perch								
White bass								
Walleye								
White sucker								
Sunfish								
Quillback carpsucker								
Crappie								
Alewife								
Logperch darter								
Troutperch								
Sculpin								
Whitefish								
TOTAL								

ESTIMATED NUMBER OF FISH IN LAKE ERIE
Sector B Cruise 10, 1976

Depth Zones / Species				4	5	6		TOTAL
Gizzard shad				5.1×10^7	1.7×10^7			6.8×10^7
Rainbow smelt								
Emerald shiner				1.1×10^8	3.2×10^7	1.3×10^9		1.4×10^9
Spottail shiner								
Carp					2.4×10^6			2.4×10^6
Freshwater drum								
Yellow perch								
White bass								
Walleye								
White sucker								
Sunfish								
Quillback carpsucker								
Crappie								
Alewife								
Logperch darter				3.9×10^6				3.9×10^6
Troutperch								
Sculpin								
Whitefish								
TOTAL								

ESTIMATED NUMBER OF FISH IN LAKE ERIE
Sector B Cruise 12, 1976

Depth Zones / Species				4	5	6		TOTAL
Gizzard shad								
Rainbow smelt								
Emerald shiner				7.0×10^7	4.4×10^7	1.2×10^8		2.4×10^8
Spottail shiner								
Carp								
Freshwater drum								
Yellow perch								
White bass								
Walleye								
White sucker								
Sunfish								
Quillback carpsucker								
Crappie								
Alewife								
Logperch darter								
Troutperch								
Sculpin								
Whitefish								
TOTAL								

ESTIMATED NUMBER OF FISH IN LAKE ERIE
Sector B Cruise 14, 1976

Depth Zones / Species				4	5	6		TOTAL
Gizzard shad								
Rainbow smelt								
Emerald shiner								
Spottail shiner								
Carp								
Freshwater drum								
Yellow perch								
White bass								
Walleye								
White sucker								
Sunfish								
Quillback carpsucker								
Crapple								
Alewife								
Logperch darter								
Troutperch								
Sculpin								
Whitefish								
TOTAL								

ESTIMATED NUMBER OF FISH IN LAKE ERIE
Sector C Cruise 1, 1976

Depth Zones / Species	1	2	3	4	5			TOTAL
Gizzard shad								
Rainbow smelt								
Emerald shiner								
Spottail shiner								
Carp								
Freshwater drum								
Yellow perch								
White bass								
Walleye								
White sucker								
Sunfish								
Quillback carpsucker								
Crappie								
Alewife								
Logperch darter								
Troutperch								
Sculpin								
Whitefish								
TOTAL								

ESTIMATED NUMBER OF FISH IN LAKE ERIE
Sector C Cruise 2, 1976

Depth Zones / Species	1	2	3	4	5			TOTAL
Gizzard shad								
Rainbow smelt								
Emerald shiner								
Spottail shiner								
Carp								
Freshwater drum								
Yellow perch	5.4×10^4							5.4×10^4
White bass								
Walleye								
White sucker								
Sunfish								
Quillback carpsucker								
Crapple								
Alewife								
Logperch darter								
Troutperch								
Sculpin								
Whitefish								
TOTAL								

ESTIMATED NUMBER OF FISH IN LAKE ERIE
Sector C Cruise 4, 1976

Depth Zones / Species	1	2	3	4	5			TOTAL
Gizzard shad				3.8×10^6				3.8×10^6
Rainbow smelt	1.6×10^5	6.1×10^5	6.3×10^6	3.1×10^7				3.8×10^7
Emerald shiner								
Spottail shiner								
Carp								
Freshwater drum								
Yellow perch	7.9×10^5	1.2×10^6	1.1×10^6	7.6×10^6	1.2×10^6			1.2×10^7
White bass								
Walleye	5.4×10^4							5.4×10^4
White sucker								
Sunfish								
Quillback carpsucker								
Crappie								
Alewife								
Logperch darter								
Troutperch								
Sculpin								
Whitefish								
TOTAL								

ESTIMATED NUMBER OF FISH IN LAKE ERIE
Sector C Cruise 5, 1976

Species \ Depth Zones	1	2	3	4	5			TOTAL
Gizzard shad	1.6×10^5	1.8×10^6						2.0×10^6
Rainbow smelt	1.6×10^6	3.7×10^6	2.7×10^7	5.7×10^7	8.2×10^7			1.7×10^8
Emerald shiner								
Spottail shiner								
Carp								
Freshwater drum								
Yellow perch	4.3×10^5	4.3×10^6	6.3×10^6	1.9×10^6	3.6×10^6			1.7×10^7
White bass								
Walleye								
White sucker								
Sunfish								
Quillback carpsucker	5.4×10^4							5.4×10^4
Crappie								
Alewife								
Logperch darter								
Troutperch								
Sculpin								
Whitefish								
TOTAL								

ESTIMATED NUMBER OF FISH IN LAKE ERIE
Sector C Cruise 7, 1976

Depth Zones / Species	1	2	3	4	5			TOTAL
Gizzard shad	3.5×10^5	3.7×10^6	2.2×10^7	1.3×10^7	8.3×10^6			4.8×10^7
Rainbow smelt								
Emerald shiner								
Spottail shiner	2.8×10^4			1.9×10^6	1.2×10^6			3.1×10^6
Carp								
Freshwater drum								
Yellow perch								
White bass								
Walleye								
White sucker								
Sunfish								
Quillback carpsucker								
Crapple			1.1×10^6					1.1×10^6
Alewife								
Logperch darter								
Troutperch								
Sculpin								
Whitefish								
TOTAL								

ESTIMATED NUMBER OF FISH IN LAKE ERIE
Sector C Cruise 8, 1976

Depth Zones / Species	1	2	3	4	5			TOTAL
Gizzard shad	1.1×10^7	1.7×10^8	3.3×10^7	2.7×10^7	5.7×10^7			3.0×10^8
Rainbow smelt								
Emerald shiner	1.9×10^6	4.9×10^6	3.6×10^7	1.5×10^8	5.4×10^7			2.5×10^8
Spottail shiner				5.8×10^8				5.8×10^8
Carp	1.6×10^5	6.1×10^5						7.7×10^5
Freshwater drum		3.1×10^6	3.4×10^7	1.5×10^7				5.2×10^5
Yellow perch								
White bass	3.0×10^6	4.3×10^6						7.3×10^6
Walleye								
White sucker								
Sunfish								
Quillback carpsucker								
Crappie								
Alewife			1.9×10^6					1.9×10^6
Logperch darter	6.5×10^4							6.5×10^4
Troutperch								
Sculpin								
Whitefish								
TOTAL								

ESTIMATED NUMBER OF FISH IN LAKE ERIE
Sector C Cruise 9 , 1976

Species \ Depth Zones	1	2	3	4	5			TOTAL
Gizzard shad	1.5×10^5	8.5×10^6	1.1×10^7	1.9×10^6	3.0×10^7			5.1×10^7
Rainbow smelt								
Emerald shiner	2.2×10^7	3.7×10^6	9.5×10^8	2.9×10^8	1.7×10^9			3.0×10^9
Spottail shiner								
Carp	1.1×10^5	6.1×10^5						7.2×10^5
Freshwater drum		3.7×10^6		1.2×10^7	7.1×10^6			2.2×10^7
Yellow perch								
White bass	1.1×10^5		2.1×10^6					2.3×10^6
Walleye								
White sucker								
Sunfish								
Quillback carpsucker								
Crappie								
Alewife								
Logperch darter								
Troutperch								
Sculpin								
Whitefish								
TOTAL								

ESTIMATED NUMBER OF FISH IN LAKE ERIE
Sector C Cruise 10, 1976

Depth Zones / Species	1	2	3	4	5			TOTAL
Gizzard shad	1.3×10^6	3.2×10^7	2.7×10^7	8.4×10^7	2.3×10^7			1.7×10^8
Rainbow smelt								
Emerald shiner	6.6×10^6	1.2×10^6	1.3×10^9	2.0×10^8	4.3×10^8			1.9×10^9
Spottail shiner								
Carp		1.2×10^6						1.2×10^6
Freshwater drum	3.7×10^4				2.4×10^6			2.4×10^6
Yellow perch								
White bass	3.7×10^4							3.7×10^4
Walleye								
White sucker								
Sunfish								
Quillback carpsucker								
Crappie	3.7×10^4							3.7×10^4
Alewife								
Logperch darter								
Troutperch								
Sculpin								
Whitefish								
TOTAL								

ESTIMATED NUMBER OF FISH IN LAKE ERIE
Sector C Cruise 11, 1976

Depth Zones / Species	1	2	3	4	5			TOTAL
Gizzard shad	2.8×10^4	2.4×10^6			1.2×10^6			3.7×10^6
Rainbow smelt								
Emerald shiner	7.9×10^5	6.1×10^5	2.1×10^6	7.6×10^6	1.5×10^7			2.7×10^7
Spottail shiner								
Carp								
Freshwater drum								
Yellow perch								
White bass								
Walleye								
White sucker								
Sunfish								
Quillback carpsucker								
Crapple								
Alewife	5.4×10^4							5.4×10^4
Logperch darter								
Troutperch								
Sculpin								
Whitefish								
TOTAL								

ESTIMATED NUMBER OF FISH IN LAKE ERIE
Sector C Cruise 12, 1976

Depth Zones / Species	1	2	3	4	5			TOTAL
Gizzard shad	5.4×10^4	2.4×10^6	4.2×10^6					6.7×10^6
Rainbow smelt								
Emerald shiner	3.5×10^5		3.1×10^7	3.1×10^7	4.9×10^7			1.1×10^8
Spottail shiner								
Carp								
Freshwater drum								
Yellow perch								
White bass								
Walleye								
White sucker								
Sunfish								
Quillback carpsucker								
Crappie								
Alewife			1.1×10^6					1.1×10^6
Logperch darter								
Troutperch								
Sculpin								
Whitefish								
TOTAL								

ESTIMATED NUMBER OF FISH IN LAKE ERIE
Sector C · Cruise 14, 1976

Depth Zones / Species	1	2	3	4	5			TOTAL
Gizzard shad								
Rainbow smelt								
Emerald shiner		1.8×10^6						1.8×10^6
Spottail shiner								
Carp								
Freshwater drum								
Yellow perch								
White bass								
Walleye								
White sucker								
Sunfish								
Quillback carpsucker								
Crapple								
Alewife								
Logperch darter								
Troutperch								
Sculpin								
Whitefish								
TOTAL								

ESTIMATED NUMBER OF FISH IN LAKE ERIE
Sector D Cruise 1, 1976

Depth Zones / Species	1	2	3	4	5	6		TOTAL
Gizzard shad								
Rainbow smelt								
Emerald shiner								
Spottail shiner								
Carp								
Freshwater drum								
Yellow perch								
White bass								
Walleye								
White sucker								
Sunfish								
Quillback carpsucker								
Crappie								
Alewife								
Logperch darter								
Troutperch								
Sculpin								
Whitefish		6.0×10^4		6.2×10^5				6.8×10^5
TOTAL								

ESTIMATED NUMBER OF FISH IN LAKE ERIE
Sector D Cruise 3, 1976

Depth Zones / Species	1	2	3	4	5	6		TOTAL
Gizzard shad								
Rainbow smelt								
Emerald shiner								
Spottail shiner								
Carp								
Freshwater drum								
Yellow perch	2.3×10^6	6.8×10^6	3.1×10^5	1.7×10^7	1.5×10^7	8.0×10^6		4.9×10^7
White bass								
Walleye	2.5×10^5	1.8×10^5		1.4×10^7	4.2×10^6	9.6×10^6		2.8×10^7
White sucker								
Sunfish								
Quillback carpsucker								
Crapple								
Alewife								
Logperch darter								
Troutperch								
Sculpin			1.5×10^5					1.5×10^5
Whitefish	8.9×10^4							8.9×10^4
TOTAL								

ESTIMATED NUMBER OF FISH IN LAKE ERIE
Sector D Cruise 4, 1976

Depth Zones / Species	1	2	3	4	5	6		TOTAL
Gizzard shad								
Rainbow smelt								
Emerald shiner								
Spottail shiner								
Carp								
Freshwater drum								
Yellow perch	5.9×10^5	5.3×10^6	2.8×10^6	8.7×10^6	8.9×10^7	3.5×10^7		1.4×10^8
White bass								
Walleye	3.6×10^4	6.0×10^4		6.2×10^5		1.6×10^6		2.3×10^6
White sucker			1.5×10^5					1.5×10^5
Sunfish								
Quillback carpsucker								
Crappie								
Alewife								
Logperch darter								
Troutperch								
Sculpin								
Whitefish								
TOTAL								

ESTIMATED NUMBER OF FISH IN LAKE ERIE
Sector D Cruise 5, 1976

Depth Zones / Species	1	2	3	4	5	6		TOTAL
Gizzard shad	1.8×10^4							1.8×10^4
Rainbow smelt		6.0×10^4		2.5×10^6	2.5×10^7			2.7×10^7
Emerald shiner								
Spottail shiner								
Carp								
Freshwater drum								
Yellow perch	1.8×10^5	1.8×10^5	6.1×10^5	1.4×10^7	1.0×10^7			2.6×10^7
White bass								
Walleye				6.2×10^5				6.2×10^5
White sucker								
Sunfish								
Quillback carpsucker								
Crappie								
Alewife								
Logperch darter								
Troutperch								
Sculpin								
Whitefish								
TOTAL								

ESTIMATED NUMBER OF FISH IN LAKE ERIE
Sector D Cruise 6, 1976

Depth Zones / Species	1	2	3	4	5	6		TOTAL
Gizzard shad								
Rainbow smelt	1.8×10^4		4.6×10^5	3.1×10^6	2.1×10^6			5.7×10^6
Emerald shiner								
Spottail shiner			4.6×10^5					4.6×10^5
Carp								
Freshwater drum								
Yellow perch		6.0×10^4	4.6×10^6			1.6×10^6		6.2×10^6
White bass								
Walleye								
White sucker	3.6×10^4							3.6×10^4
Sunfish								
Quillback carpsucker								
Crappie								
Alewife								
Logperch darter								
Troutperch								
Sculpin								
Whitefish								
TOTAL								

ESTIMATED NUMBER OF FISH IN LAKE ERIE
Sector D Cruise 7, 1976

Depth Zones / Species	1	2	3	4	5	6		TOTAL
Gizzard shad	3.6×10^5	6.6×10^5	1.5×10^5	4.3×10^6	1.2×10^7			1.8×10^7
Rainbow smelt								
Emerald shiner								
Spottail shiner		6.0×10^4		6.2×10^5	4.2×10^6	8.0×10^6		1.3×10^7
Carp			1.5×10^5		4.2×10^6			4.3×10^6
Freshwater drum								
Yellow perch		6.0×10^4						6.0×10^4
White bass								
Walleye								
White sucker								
Sunfish								
Quillback carpsucker								
Crapple								
Alewife								
Logperch darter								
Troutperch								
Sculpin								
Whitefish								
TOTAL								

ESTIMATED NUMBER OF FISH IN LAKE ERIE
Sector D. Cruise 8, 1976

Species \ Depth Zones	1	2	3	4	5	6		TOTAL
Gizzard shad	5.5×10^5	8.4×10^6	2.3×10^6	3.5×10^7	4.2×10^6	2.4×10^7		7.4×10^7
Rainbow smelt								
Emerald shiner	3.4×10^6	1.1×10^7	9.2×10^5	1.9×10^7	3.9×10^7	5.2×10^7		1.3×10^8
Spottail shiner	1.6×10^5	2.4×10^5	1.4×10^6	6.2×10^5		1.6×10^6		4.0×10^6
Carp	3.6×10^4	3.0×10^5	6.1×10^5		8.3×10^6	1.0×10^6		1.1×10^7
Freshwater drum			6.1×10^5	1.2×10^6	4.2×10^6			6.0×10^6
Yellow perch								
White bass								
Walleye								
White sucker								
Sunfish								
Quillback carpsucker								
Crapple								
Alewife								
Logperch darter								
Troutperch								
Sculpin								
Whitefish								
TOTAL								

ESTIMATED NUMBER OF FISH IN LAKE ERIE
Sector D Cruise 9, 1976

Depth Zones / Species	1	2	3	4	5	6		TOTAL
Gizzard shad	1.7×10^7	1.2×10^7	1.2×10^7	2.4×10^7	4.4×10^7	5.9×10^7		1.7×10^8
Rainbow smelt								
Emerald shiner	1.6×10^7	1.7×10^6	1.3×10^7	7.0×10^7	1.3×10^8	7.7×10^7		3.1×10^8
Spottail shiner								
Carp	2.2×10^5	1.2×10^5			2.1×10^6			2.4×10^6
Freshwater drum	2.5×10^5	1.2×10^5	4.9×10^6	5.6×10^6	8.3×10^6	1.1×10^7		3.0×10^7
Yellow perch								
White bass		1.2×10^5						1.2×10^5
Walleye								
White sucker								
Sunfish								
Quillback carpsucker								
Crapple								
Alewife								
Logperch darter								
Troutperch								
Sculpin								
Whitefish								
TOTAL								

ESTIMATED NUMBER OF FISH IN LAKE ERIE
Sector D Cruise 10, 1976

Depth Zones / Species	1	2	3	4	5	6		TOTAL
Gizzard shad	2.5×10^5	3.6×10^5	4.6×10^5	9.9×10^6	2.1×10^6			1.3×10^7
Rainbow smelt								
Emerald shiner	3.8×10^5	2.5×10^7	3.7×10^6	3.2×10^8	1.9×10^8	6.5×10^8		1.2×10^9
Spottail shiner	1.8×10^4							1.8×10^4
Carp		6.0×10^4						6.0×10^4
Freshwater drum	3.6×10^4		3.1×10^5					3.4×10^5
Yellow perch								
White bass								
Walleye								
White sucker								
Sunfish								
Quillback carpsucker								
Crapple								
Alewife	2.7×10^5							2.7×10^5
Logperch darter								
Troutperch								
Sculpin								
Whitefish								
TOTAL								

ESTIMATED NUMBER OF FISH IN LAKE ERIE
Sector D Cruise 11, 1976

Depth Zones / Species	1	2	3	4	5	6		TOTAL
Gizzard shad					6.2×10^6			6.2×10^6
Rainbow smelt								
Emerald shiner	2.0×10^6		6.1×10^5	1.1×10^7	6.2×10^6	2.2×10^7		4.2×10^7
Spottail shiner								
Carp								
Freshwater drum								
Yellow perch								
White bass								
Walleye								
White sucker								
Sunfish								
Quillback carpsucker								
Crapple								
Alewife						1.6×10^6		1.6×10^6
Logperch darter								
Troutperch								
Sculpin								
Whitefish								
TOTAL								

ESTIMATED NUMBER OF FISH IN LAKE ERIE
Sector D Cruise 12, 1976

Species \ Depth Zones	1	2	3	4	5	6		TOTAL
Gizzard shad			1.5×10^5					1.5×10^5
Rainbow smelt								
Emerald shiner	2.7×10^5	2.4×10^5	3.1×10^5	3.7×10^6	1.2×10^7	1.6×10^6		1.9×10^7
Spottail shiner								
Carp								
Freshwater drum								
Yellow perch								
White bass								
Walleye								
White sucker								
Sunfish								
Quillback carpsucker								
Crapple								
Alewife	1.8×10^4	6.0×10^4						7.8×10^4
Logperch darter								
Troutperch								
Sculpin								
Whitefish								
TOTAL								

ESTIMATED NUMBER OF FISH IN LAKE ERIE
Sector D Cruise 13, 1976

Depth Zones / Species	1	2	3	4	5	6		TOTAL
Gizzard shad								
Rainbow smelt								
Emerald shiner	1.8×10^4					1.6×10^6		1.6×10^6
Spottail shiner								
Carp								
Freshwater drum								
Yellow perch								
White bass								
Walleye								
White sucker								
Sunfish								
Quillback carpsucker								
Crapple								
Alewife								
Logperch darter								
Troutperch								
Sculpin								
Whitefish								
TOTAL								

ESTIMATED NUMBER OF FISH IN LAKE ERIE
Sector D Cruise 14, 1976

Depth Zones / Species	1	2	3	4	5	6		TOTAL
Gizzard shad								
Rainbow smelt								
Emerald shiner			1.5×10^5					1.5×10^5
Spottail shiner								
Carp								
Freshwater drum								
Yellow perch								
White bass								
Walleye								
White sucker								
Sunfish								
Quillback carpsucker								
Crappie								
Alewife								
Logperch darter								
Troutperch								
Sculpin								
Whitefish								
TOTAL								

ESTIMATED NUMBER OF FISH IN LAKE ERIE
Sector E · Cruise 1, 1976

Depth Zones / Species	1	2	3	4	5	6		TOTAL
Gizzard shad								
Rainbow smelt								
Emerald shiner								
Spottail shiner								
Carp								
Freshwater drum								
Yellow perch								
White bass								
Walleye								
White sucker								
Sunfish								
Quillback carpsucker								
Crapple								
Alewife								
Logperch darter								
Troutperch								
Sculpin								
Whitefish	3.5×10^4							3.5×10^4
TOTAL								

ESTIMATED NUMBER OF FISH IN LAKE ERIE
Sector E Cruise 4, 1976

Depth Zones / Species	1	2	3	4	5	6		TOTAL
Gizzard shad								
Rainbow smelt								
Emerald shiner								
Spottail shiner								
Carp								
Freshwater drum								
Yellow perch	6.0×10^5	1.5×10^6	3.9×10^7	2.3×10^7	5.8×10^7	1.3×10^8		2.5×10^8
White bass								
Walleye	5.3×10^4		2.9×10^5					3.5×10^5
White sucker								
Sunfish								
Quillback carpsucker								
Crapple								
Alewife								
Logperch darter								
Troutperch								
Sculpin								
Whitefish								
TOTAL								

ESTIMATED NUMBER OF FISH IN LAKE ERIE
Sector E Cruise 3, 1976

Depth Zones / Species	1	2	3	4	5	6		TOTAL
Gizzard shad								
Rainbow smelt								
Emerald shiner								
Spottail shiner								
Carp								
Freshwater drum								
Yellow perch			5.5×10^6	6.9×10^7				2.4×10^7
White bass								
Walleye			8.8×10^5					8.8×10^5
White sucker								
Sunfish								
Quillback carpsucker								
Crappie								
Alewife								
Logperch darter								
Troutperch								
Sculpin								
Whitefish			2.9×10^5					2.9×10^5
TOTAL								

ESTIMATED NUMBER OF FISH IN LAKE ERIE
Sector E Cruise 5, 1976

Species \ Depth Zones	1	2	3	4	5	6		TOTAL
Gizzard shad								
Rainbow smelt	4.9×10^5	2.2×10^6	2.1×10^6		3.6×10^8	3.1×10^8		6.7×10^8
Emerald shiner								
Spottail shiner								
Carp								
Freshwater drum								
Yellow perch	3.5×10^4	1.0×10^6	3.5×10^6	3.3×10^6	3.6×10^6	3.8×10^6		1.5×10^7
White bass								
Walleye								
White sucker								
Sunfish								
Quillback carpsucker								
Crappie								
Alewife								
Logperch darter								
Troutperch				6.5×10^5				6.5×10^5
Sculpin								
Whitefish								
TOTAL								

ESTIMATED NUMBER OF FISH IN LAKE ERIE
Sector E Cruise 6, 1976

Depth Zones / Species	1	2	3	4	5	6		TOTAL
Gizzard shad								
Rainbow smelt		8.1×10^5		6.5×10^5	9.8×10^6	2.3×10^7		3.4×10^7
Emerald shiner								
Spottail shiner								
Carp		2.3×10^5						2.3×10^5
Freshwater drum								
Yellow perch		6.6×10^5			1.8×10^6			2.5×10^6
White bass								
Walleye								
White sucker								
Sunfish								
Quillback carpsucker								
Crappie								
Alewife								
Logperch darter								
Troutperch								
Sculpin								
Whitefish								
TOTAL								

ESTIMATED NUMBER OF FISH IN LAKE ERIE
Sector E Cruise 7, 1976

Species \ Depth Zones	1	2	3	4	5	6		TOTAL
Gizzard shad	2.3×10^5		4.1×10^6	6.5×10^6	5.4×10^6			1.6×10^7
Rainbow smelt						1.1×10^7		1.1×10^7
Emerald shiner								
Spottail shiner	3.5×10^4	2.9×10^5	2.9×10^5	3.3×10^6	4.5×10^6	1.9×10^7		2.7×10^7
Carp		1.3×10^7			4.5×10^6	3.8×10^7		5.5×10^7
Freshwater drum				6.5×10^5				6.5×10^5
Yellow perch								
White bass								
Walleye								
White sucker								
Sunfish								
Quillback carpsucker								
Crappie								
Alewife								
Logperch darter								
Troutperch								
Sculpin								
Whitefish								
TOTAL								

ESTIMATED NUMBER OF FISH IN LAKE ERIE
Sector 5 Cruise 8, 1976

Depth Zones / Species	1	2	3	4	5	6		TOTAL
Gizzard shad	3.0×10^5	4.5×10^6	2.4×10^7	4.5×10^7	2.1×10^7	8.3×10^7		1.8×10^8
Rainbow smelt								
Emerald shiner	2.9×10^6	2.5×10^7	3.0×10^7	4.1×10^7	8.3×10^7	8.7×10^8		1.1×10^9
Spottail shiner	1.1×10^5	7.4×10^4	2.9×10^5	6.5×10^5		3.8×10^6		4.9×10^6
Carp		6.6×10^5			8.9×10^5			1.6×10^6
Freshwater drum				6.5×10^5	2.7×10^6	3.8×10^6		7.1×10^6
Yellow perch								
White bass								
Walleye								
White sucker								
Sunfish								
Quillback carpsucker								
Crapple								
Alewife								
Logperch darter								
Troutperch								
Sculpin								
Whitefish								
TOTAL								

ESTIMATED NUMBER OF FISH IN LAKE ERIE
Sector 5 Cruise 9, 1976

Depth Zones / Species	1	2	3	4	5	6		TOTAL
Gizzard shad	6.9×10^5	2.1×10^6	4.9×10^7	1.8×10^8	1.7×10^8	8.3×10^7		4.9×10^8
Rainbow smelt								
Emerald shiner	1.4×10^6	3.9×10^6	1.4×10^7	2.0×10^8	4.8×10^8	4.0×10^8		1.1×10^9
Spottail shiner			8.8×10^5	6.5×10^5				1.5×10^6
Carp		4.2×10^6	1.5×10^6			3.8×10^6		9.5×10^6
Freshwater drum		2.2×10^5	3.5×10^6	2.0×10^6	3.6×10^6			9.3×10^6
Yellow perch								
White bass								
Walleye								
White sucker								
Sunfish								
Quillback carpsucker								
Crappie			2.9×10^5					2.9×10^5
Alewife				6.5×10^5				6.5×10^5
Logperch darter								
Troutperch								
Sculpin								
Whitefish								
TOTAL								

ESTIMATED NUMBER OF FISH IN LAKE ERIE
Sector E Cruise 10, 1976

Depth Zones / Species	1	2	3	4	5	6		TOTAL
Gizzard shad	1.8×10^4		2.3×10^6	2.0×10^6	5.4×10^6	3.8×10^6		1.3×10^7
Rainbow smelt								
Emerald shiner	7.4×10^5	1.6×10^6	2.3×10^6	4.4×10^7	9.5×10^7	4.3×10^8		5.7×10^8
Spottail shiner		7.4×10^4						7.4×10^4
Carp								
Freshwater drum		7.4×10^4						7.4×10^4
Yellow perch								
White bass								
Walleye								
White sucker								
Sunfish								
Quillback carpsucker								
Crappie								
Alewife								
Logperch darter								
Troutperch								
Sculpin								
Whitefish								
TOTAL								

ESTIMATED NUMBER OF FISH IN LAKE ERIE
Sector E Cruise 11, 1976

Depth Zones / Species	1	2	3	4	5	6		TOTAL
Gizzard shad	1.7×10^4							1.7×10^4
Rainbow smelt								
Emerald shiner	1.8×10^4	7.4×10^4		1.6×10^7	3.6×10^6	1.1×10^7		3.1×10^7
Spottail shiner								
Carp								
Freshwater drum								
Yellow perch								
White bass								
Walleye								
White sucker								
Sunfish								
Quillback carpsucker								
Crappie								
Alewife								
Logperch darter								
Troutperch								
Sculpin								
Whitefish								
TOTAL								

ESTIMATED NUMBER OF FISH IN LAKE ERIE
Sector 5 Cruise 12, 1976

Depth Zones / Species	1	2	3	4	5	6		TOTAL
Gizzard shad								
Rainbow smelt								
Emerald shiner	1.8×10^4	2.9×10^5	8.8×10^5	2.0×10^6		3.8×10^6		6.9×10^6
Spottail shiner								
Carp								
Freshwater drum								
Yellow perch								
White bass								
Walleye								
White sucker								
Sunfish								
Quillback carpsucker								
Crappie								
Alewife	1.8×10^4	2.2×10^5	8.8×10^5					1.1×10^6
Logperch darter								
Troutperch								
Sculpin								
Whitefish								
TOTAL								

ESTIMATED NUMBER OF FISH IN LAKE ERIE
Sector E Cruise 14, 1976

Depth Zones / Species	1	2	3	4	5	6		TOTAL
Gizzard shad								
Rainbow smelt								
Emerald shiner								
Spottail shiner								
Carp								
Freshwater drum								
Yellow perch								
White bass								
Walleye								
White sucker								
Sunfish								
Quillback carpsucker								
Crappie								
Alewife								
Logperch darter								
Troutperch								
Sculpin								
Whitefish								
TOTAL								

ESTIMATED NUMBER OF FISH IN LAKE ERIE
Sector F Cruise 1, 1976

Depth Zones / Species	1		3	4		6		TOTAL
Gizzard shad								
Rainbow smelt								
Emerald shiner								
Spottail shiner								
Carp								
Freshwater drum								
Yellow perch								
White bass								
Walleye								
White sucker								
Sunfish								
Quillback carpsucker								
Crappie								
Alewife								
Logperch darter								
Troutperch								
Sculpin								
Whitefish								
TOTAL								

ESTIMATED NUMBER OF FISH IN LAKE ERIE
Sector F Cruise 3, 1976

Depth Zones / Species	1		3	4		6		TOTAL
Gizzard shad								
Rainbow smelt								
Emerald shiner								
Spottail shiner								
Carp								
Freshwater drum								
Yellow perch								
White bass								
Walleye								
White sucker								
Sunfish								
Quillback carpsucker								
Crappie								
Alewife								
Logperch darter								
Troutperch								
Sculpin								
Whitefish								
TOTAL								

ESTIMATED NUMBER OF FISH IN LAKE ERIE
Sector F Cruise 4, 1976

Depth Zones / Species	1		3	4		6		TOTAL
Gizzard shad								
Rainbow smelt								
Emerald shiner								
Spottail shiner								
Carp								
Freshwater drum								
Yellow perch				4.3×10^7				4.3×10^7
White bass								
Walleye				1.0×10^6				1.0×10^6
White sucker								
Sunfish								
Quillback carpsucker								
Crappie								
Alewife								
Logperch darter								
Troutperch								
Sculpin								
Whitefish								
TOTAL								

ESTIMATED NUMBER OF FISH IN LAKE ERIE
Sector F Cruise 5, 1976

Depth Zones / Species	1		3	4		6		TOTAL
Gizzard shad								
Rainbow smelt	2.1×10^4		3.0×10^6	1.9×10^7		3.4×10^7		5.6×10^7
Emerald shiner								
Spottail shiner								
Carp								
Freshwater drum								
Yellow perch			1.5×10^6	1.7×10^6				3.3×10^6
White bass								
Walleye								
White sucker								
Sunfish								
Quillback carpsucker								
Crappie								
Alewife								
Logperch darter								
Troutperch								
Sculpin			1.5×10^6					1.5×10^6
Whitefish								
TOTAL								

ESTIMATED NUMBER OF FISH IN LAKE ERIE
Sector F Cruise 6, 1976

Depth Zones / Species	1		3	4		6		TOTAL
Gizzard shad								
Rainbow smelt	4.3×10^4		3.5×10^6	7.8×10^6		1.7×10^7		2.9×10^7
Emerald shiner								
Spottail shiner				8.7×10^5				8.7×10^5
Carp								
Freshwater drum								
Yellow perch	4.3×10^4							4.3×10^4
White bass								
Walleye								
White sucker								
Sunfish								
Quillback carpsucker								
Crappie								
Alewife								
Logperch darter								
Troutperch								
Sculpin								
Whitefish								
TOTAL								

ESTIMATED NUMBER OF FISH IN LAKE ERIE
Sector F Cruise 7, 1976

Depth Zones / Species	1		3	4		6		TOTAL
Gizzard shad	1.5×10^5			8.7×10^5		1.7×10^7		1.8×10^7
Rainbow smelt								
Emerald shiner								
Spottail shiner	2.1×10^4		2.5×10^6	1.7×10^6				4.3×10^6
Carp								
Freshwater drum								
Yellow perch								
White bass								
Walleye								
White sucker								
Sunfish								
Quillback carpsucker								
Crapple								
Alewife								
Logperch darter						8.6×10^6		8.6×10^6
Troutperch								
Sculpin								
Whitefish								
TOTAL								

ESTIMATED NUMBER OF FISH IN LAKE ERIE
Sector F Cruise 9, 1976

Depth Zones / Species	1		3	4		6		TOTAL
Gizzard shad	4.1×10^5		1.0×10^6	2.4×10^7		7.7×10^7		1.0×10^8
Rainbow smelt								
Emerald shiner	1.4×10^6		5.1×10^5	2.5×10^7		3.6×10^8		3.9×10^8
Spottail shiner								
Carp								
Freshwater drum			5.1×10^5	4.3×10^6				4.8×10^6
Yellow perch								
White bass								
Walleye								
White sucker								
Sunfish								
Quillback carpsucker								
Crappie						8.6×10^6		8.6×10^6
Alewife								
Logperch darter								
Troutperch								
Sculpin								
Whitefish								
TOTAL								

ESTIMATED NUMBER OF FISH IN LAKE ERIE
Sector F Cruise 10, 1976

Depth Zones / Species	1		3	4		6		TOTAL
Gizzard shad								
Rainbow smelt								
Emerald shiner	2.0×10^6		2.4×10^7	3.9×10^8		8.4×10^8		1.3×10^9
Spottail shiner								
Carp								
Freshwater drum								
Yellow perch								
White bass								
Walleye								
White sucker								
Sunfish								
Quillback carpsucker								
Crappie								
Alewife								
Logperch darter								
Troutperch								
Sculpin								
Whitefish								
TOTAL								

ESTIMATED NUMBER OF FISH IN LAKE ERIE
Sector F Cruise 11, 1976

Depth Zones / Species	1		3	4		6		TOTAL
Gizzard shad				8.7×10^5				8.7×10^5
Rainbow smelt								
Emerald shiner	2.1×10^4			8.7×10^5		8.6×10^6		9.4×10^6
Spottail shiner								
Carp								
Freshwater drum								
Yellow perch								
White bass								
Walleye								
White sucker								
Sunfish								
Quillback carpsucker								
Crappie								
Alewife								
Logperch darter								
Troutperch								
Sculpin								
Whitefish								
TOTAL								

ESTIMATED NUMBER OF FISH IN LAKE ERIE
Sector F Cruise 12, 1976

Depth Zones / Species	1		3	4		6		TOTAL
Gizzard shad								
Rainbow smelt								
Emerald shiner	8.6×10^4			8.7×10^5		6.0×10^8		6.0×10^8
Spottail shiner								
Carp								
Freshwater drum								
Yellow perch								
White bass								
Walleye								
White sucker								
Sunfish								
Quillback carpsucker								
Crappie								
Alewife								
Logperch darter								
Troutperch								
Sculpin								
Whitefish								
TOTAL								

ESTIMATED NUMBER OF FISH IN LAKE ERIE
Sector F Cruise 14, 1976

Depth Zones / Species	1		3	4		6		TOTAL
Gizzard shad								
Rainbow smelt								
Emerald shiner								
Spottail shiner								
Carp								
Freshwater drum								
Yellow perch								
White bass								
Walleye								
White sucker								
Sunfish								
Quillback carpsucker								
Crappie								
Alewife								
Logperch darter								
Troutperch								
Sculpin								
Whitefish								
TOTAL								

ESTIMATED NUMBER OF FISH IN LAKE ERIE
Sector G Cruise 1, 1976

Depth Zones / Species	1	2	3	4	5	6		TOTAL
Gizzard shad								
Rainbow smelt								
Emerald shiner								
Spottail shiner								
Carp								
Freshwater drum								
Yellow perch								
White bass								
Walleye								
White sucker								
Sunfish								
Quillback carpsucker								
Crappie								
Alewife								
Logperch darter								
Troutperch								
Sculpin								
Whitefish								
TOTAL								

ESTIMATED NUMBER OF FISH IN LAKE ERIE
Sector G Cruise 3, 1976

Depth Zones / Species	1	2	3	4	5	6		TOTAL
Gizzard shad	6.8×10^5							6.8×10^5
Rainbow smelt								
Emerald shiner								
Spottail shiner								
Carp								
Freshwater drum								
Yellow perch	2.7×10^7							2.7×10^7
White bass								
Walleye								
White sucker								
Sunfish								
Quillback carpsucker								
Crappie								
Alewife								
Logperch darter								
Troutperch								
Sculpin								
Whitefish								
TOTAL								

ESTIMATED NUMBER OF FISH IN LAKE ERIE
Sector G Cruise 4, 1976

Depth Zones / Species	1	2	3	4	5	6		TOTAL
Gizzard shad								
Rainbow smelt								
Emerald shiner								
Spottail shiner								
Carp								
Freshwater drum								
Yellow perch	2.2×10^7							2.2×10^7
White bass								
Walleye								
White sucker								
Sunfish								
Quillback carpsucker								
Crappie								
Alewife								
Logperch darter								
Troutperch								
Sculpin								
Whitefish								
TOTAL								

ESTIMATED NUMBER OF FISH IN LAKE ERIE
Sector G Cruise 5, 1976

Depth Zones / Species	1	2	3	4	5	6		TOTAL
Gizzard shad								
Rainbow smelt								
Emerald shiner								
Spottail shiner	2.7×10^5							2.7×10^5
Carp								
Freshwater drum								
Yellow perch	2.3×10^7							2.3×10^7
White bass								
Walleye	1.5×10^5							1.5×10^5
White sucker								
Sunfish								
Quillback carpsucker								
Crappie								
Alewife								
Logperch darter								
Troutperch								
Sculpin								
Whitefish								
TOTAL								

ESTIMATED NUMBER OF FISH IN LAKE ERIE
Sector G Cruise 7, 1976

Depth Zones / Species	1	2	3	4	5	6		TOTAL
Gizzard shad	1.9×10^8							1.9×10^8
Rainbow smelt								
Emerald shiner								
Spottail shiner								
Carp								
Freshwater drum	8.6×10^6							8.6×10^6
Yellow perch								
White bass	4.0×10^5							4.0×10^5
Walleye								
White sucker								
Sunfish								
Quillback carpsucker								
Crappie	1.5×10^5							1.5×10^5
Alewife								
Logperch darter								
Troutperch								
Sculpin								
Whitefish								
TOTAL								

ESTIMATED NUMBER OF FISH IN LAKE ERIE
Sector G. Cruise 8, 1976

Depth Zones / Species	1	2	3	4	5	6		TOTAL
Gizzard shad	1.4×10^9							1.4×10^9
Rainbow smelt								
Emerald shiner	1.5×10^5							1.5×10^5
Spottail shiner								
Carp								
Freshwater drum	1.3×10^8							1.3×10^8
Yellow perch								
White bass								
Walleye								
White sucker								
Sunfish								
Quillback carpsucker								
Crappie								
Alewife								
Logperch darter								
Troutperch								
Sculpin								
Whitefish								
TOTAL								

ESTIMATED NUMBER OF FISH IN LAKE ERIE
Sector G Cruise 9, 1976

Depth Zones / Species	1	2	3	4	5	6		TOTAL
Gizzard shad	2.3×10^8							2.3×10^8
Rainbow smelt								
Emerald shiner	2.2×10^6							2.2×10^6
Spottail shiner								
Carp	2.1×10^6							2.1×10^6
Freshwater drum	6.7×10^8							6.7×10^8
Yellow perch								
White bass								
Walleye								
White sucker								
Sunfish								
Quillback carpsucker								
Crapple	2.7×10^5							2.7×10^5
Alewife								
Logperch darter								
Troutperch								
Sculpin								
Whitefish								
TOTAL								

ESTIMATED NUMBER OF FISH IN LAKE ERIE
Sector G Cruise 10, 1976

Depth Zones / Species	1	2	3	4	5	6		TOTAL
Gizzard shad	1.1×10^8							1.1×10^8
Rainbow smelt								
Emerald shiner	7.3×10^6							7.3×10^6
Spottail shiner								
Carp								
Freshwater drum	3.2×10^5							3.2×10^5
Yellow perch								
White bass	1.6×10^5							1.6×10^5
Walleye								
White sucker								
Sunfish								
Quillback carpsucker								
Crapple	6.4×10^5							6.4×10^5
Alewife								
Logperch darter								
Troutperch								
Sculpin								
Whitefish								
TOTAL								

ESTIMATED NUMBER OF FISH IN LAKE ERIE
Sector G Cruise 11, 1976

Depth Zones / Species	1	2	3	4	5	6		TOTAL
Gizzard shad	1.7×10^7							1.7×10^7
Rainbow smelt								
Emerald shiner	9.3×10^5							9.3×10^5
Spottail shiner								
Carp								
Freshwater drum								
Yellow perch	1.5×10^5							1.5×10^5
White bass	2.7×10^5							2.7×10^5
Walleye								
White sucker								
Sunfish	1.5×10^5							1.5×10^5
Quillback carpsucker								
Crappie								
Alewife								
Logperch darter								
Troutperch								
Sculpin								
Whitefish								
TOTAL								

ESTIMATED NUMBER OF FISH IN LAKE ERIE
Sector G Cruise 12, 1976

Depth Zones / Species	1	2	3	4	5	6		TOTAL
Gizzard shad	3.2×10^6							3.2×10^6
Rainbow smelt								
Emerald shiner	2.4×10^6							2.4×10^6
Spottail shiner								
Carp								
Freshwater drum								
Yellow perch								
White bass	3.2×10^5							3.2×10^5
Walleye								
White sucker								
Sunfish								
Quillback carpsucker								
Crappie	3.2×10^5							3.2×10^5
Alewife								
Logperch darter								
Troutperch								
Sculpin								
Whitefish								
TOTAL								

ESTIMATED NUMBER OF FISH IN LAKE ERIE
Sector G Cruise 14, 1976

Depth Zones / Species	1	2	3	4	5	6		TOTAL
Gizzard shad	4.6×10^6							4.6×10^6
Rainbow smelt								
Emerald shiner	1.2×10^6							1.2×10^6
Spottail shiner								
Carp								
Freshwater drum								
Yellow perch								
White bass								
Walleye								
White sucker								
Sunfish								
Quillback carpsucker								
Crapple	5.5×10^5							5.5×10^5
Alewife								
Logperch darter								
Troutperch								
Sculpin								
Whitefish								
TOTAL								

TABLE 7

ESTIMATED NUMBER OF LARVAL FISH ENTERING THE MAUMEE RIVER ESTUARY AT PERRYSBURG PER DAY[a]

Species	SAMPLE DATE (1976)									
	4-7	4-8	4-13	4-15	4-21	4-23	4-27	4-29	5-4	5-7
Carp						3.89×10^5	1.27×10^6	2.28×10^6		2.33×10^4
Common shiner										
Gizzard shad										
Sauger	2.59×10^4									
Sucker spp.										
Walleye	1.83×10^5	8.99×10^4	2.94×10^5	1.74×10^5	2.16×10^4					2.33×10^4
White bass										
White sucker						1.47×10^4		5.96×10^4		

TABLE 7

ESTIMATED NUMVER OF LARVAL FISH ENTERING THE MAUMEE RIVER ESTUARY AT PERRYSBURG PER DAY (CON'T)

	SAMPLE DATE (1976)									
Species	5-10	5-14	5-18	5-20	5-25	5-27	6-1	6-3	6-8	
Carp			$4.79X10^6$	$3.46X10^4$	$1.55X10^4$	$4.65X10^6$	$3.63X10^4$	$1.13X10^6$	$1.17X10^5$	
Common shiner						$1.12X10^4$				
Gizzard shad					$1.59X10^5$	$1.54X10^5$	$1.71X10^5$	$1.08X10^5$	$3.89X10^4$	
Sauger										
Sucker spp.					$4.75X10^4$		$1.21X10^4$			
Walleye										
White bass					$7.95X10^4$	$3.28X10^4$	$1.21X10^4$	$3.23X10^5$		
White sucker		$1.65X10^5$	$3.26X10^5$			$7.17X10^4$			$1.17X10^5$	

a. Estimate obtained by pooling mean density values from replicate samples at Stations 75 and 76. The resultant mean density for the riffle zone was then multiplied by the discharge rate of the Maumee River in cubic meters per second to obtain the total estimated numbers of larvae entering the estuary for the 24-hour period. Discharge rates were converted from cubic feet per second (CFS) as recorded by U.S. Geological Survey at Waterville, Ohio (Figure 8).

TABLE 8
ESTIMATED NUBMER OF LARVAL FISH
IN THE MAUMEE RIVER ESTUARY[a]

Species	SAMPLING DATE (1976)									
	4-7	4-8	4-13	4-15	4-21	4-23	4-27	4-29	5-4	5-7
Carp							2.63×10^7	2.11×10^7	7.02×10^6	7.02×10^6
Crappie spp.										
Freshwater drum										
Gizzard shad						2.46×10^7	9.48×10^7			
Log Perch						7.02×10^6		7.02×10^6	7.02×10^6	7.02×10^6
Shiner										
Smelt										
Walleye			2.11×10^7	3.69×10^7	2.11×10^7	4.21×10^7	3.16×10^7	7.02×10^6		7.02×10^6
White Bass							1.05×10^7			
White Sucker						2.39×10^7	3.69×10^7	4.92×10^7	1.41×10^7	7.02×10^6
Yellow Perch								1.05×10^8	4.92×10^7	7.02×10^6

a. Estimate obtained by pooling the mean values of surface and bottom densities of three sampling localities: Corbutt Island area (Sta. 2, 16 and 16A), navigation channel area (Sta. 44) and mouth of the estuary (Sta. 43). The resultant mean density for the estuary was then multiplied by the volume of water in the estuary from Corbutt Island to the mouth to obtain the total population estimate.

TABLE 8
ESTIMATED NUBMER OF LARVAL FISH
IN THE MAUMEE RIVER ESTUARY
(CON'T)

	SAMPLING DATE(1976)									
Species	5-10	5-12	5-14	5-18	5-20	5-25	5-27	6-1	6-3	6-8
Carp			$1.41x10^7$	$5.62x10^7$	$3.4x10^8$	$1.26x10^8$	$5.27x10^7$	$1.58x10^7$	$1.11x10^8$	$5.27x10^7$
Crappie spp.							$1.05x10^7$			
Freshwater drum						$2.63x10^7$		$8.95x10^7$	$2.27x10^8$	$2.42x10^8$
Gizzard shad	$7.02x10^6$			$1.91x10^9$	$6.04x10^9$	$1.97x10^9$	$4.38x10^9$	$1.49x10^{10}$	$7.03x10^{10}$	$5.15x10^{10}$
Log Perch			$7.02x10^6$	$1.41x10^7$	$5.27x10^7$		$5.27x10^7$			
Shiner							$5.27x10^6$			
Smelt					$1.58x10^7$		$5.27x10^6$			
Walleye	$1.41x10^7$		$1.41x10^7$		$1.32x10^7$					
White Bass	$2.11x10^7$		$7.02x10^6$	$3.79x10^8$	$2.19x10^8$	$3.58x10^8$	$3.58x10^8$	$4.12x10^9$	$2.05x10^9$	$4.11x10^8$
White Sucker						$1.05x10^7$		$5.27x10^6$		
Yellow Perch						$5.27x10^6$				$1.05x10^7$

TABLE 9

RESULTS FROM PUMP USED AT BAYSHORE SCREEN HOUSE - 1976
Larval Fish Expressed as Number per 100 M^3

DATE	5-3	5-3/4	5-4	5-4/5	5-5	5-5/6	5-6	5-6/7	5-10	5-10/11	5/11	5-11/12	5-12	5-12/13	5-13	5-13/14	5-17/18	5-18	5-18/19	5-19	5-19/20
TIME ON/OFF	1200 / 2200	2200 / 0900	0900 / 2100	2100 / 0900	0900 / 2100	2100 / 0900	0900 / 2100	2100 / 0900	1200 / 2100	2100 / 0900	0900 / 2100	2100 / 0900	0900 / 2100	2100 / 0900	0900 / 2100	2100 / 0900	2100 / 0900	0900 / 2100	2100 / 0900	0900 / 2100	2100 / 0900
No. HOURS	10	11	12	12	12	12	12	12	9	12	12	12	12	12	12	12	12	12	12	12	12
VOLUME PUMPED (M^3)	154	170	185	185	185	185	185	185	139	185	185	185	185	185	185	185	185	185	185	185	185
PUMPING DEPTH (M)	7	7	7	7	5	5	3	3	3	3	3	3	7	7	7	7	7	7	7	1	1
WHITE BASS													<1		<1	3		<1	2	24	3
GIZZARD SHAD																				2	3
YELLOW PERCH							<1	<1													
FRESHWATER DRUM																					
CARP																	1	4	1	2	<1
SMELT		NO LARVAE	NO LARVAE	NO LARVAE	NO LARVAE	NO LARVAE			NO LARVAE	NO LARVAE	NO LARVAE	NO LARVAE			<1						
WHITE SUCKER	<1																				
SAND SHINER																					
EGGS (>99.5% F.W. DRUM)													3	<1	2	12		3		<1	

RESULTS FROM PUMP USED AT BAYSHORE SCREEN HOUSE - 1976
Larval Fish Expressed as Number per 100 M^3

DATE	5-20	5-20/21	5-24	5-24/25	5-25	5-25/26	5-26	5-26/27	5-27	5-27/28	5-31	5-31/6-1	6-1	6-1/2	6-2	6-2/3	6-3	6-3/4	6-7	6-7/8	6-8/9
TIME ON/OFF	0900 / 2100	2100 / 1500	1200 / 2100	2100 / 0900	0900 / 2100	2100 / 0900	0900 / 2100	2100 / 0900	0900 / 2230	2230 / 1300	1200 / 2100	2100 / 0900	0900 / 2100	2100 / 0900	0900 / 2100	2100 / 0900	0900 / 2100	2100 / 0900	1130 / 2030	0830 / 0930	0930 / 0930
No. HOURS	12	18	9	12	12	12	12	12	13.5	14.5	9	12	12	12	12	12	12	12	9	25	24
VOLUME PUMPED (M^3)	185	278	139	185	185	185	185	185	208	224	139	185	185	185	185	185	185	185	139	386	370
PUMPING DEPTH (M)	1	1	5	5	3	3	7	7	1	1	5	5	3	3	7	7	1	1	7	7	1
WHITE BASS	110	6	32	<1	108	22	16		34	4	1	32	7	32		16		16	7	5	3
GIZZARD SHAD	69	12	31	<1	32		16	1	66	3		38	5					49	79	3	59
YELLOW PERCH																					
FRESHWATER DRUM													1			16			22	16	
CARP									<1				<1								
SMELT																					
WHITE SUCKER																					
SAND SHINER									<1												
EGGS (>99.5% F.W. DRUM)	<1		<1	18		432	5	2	11	10	19	146	33	195	65	76	29	319	424	67	576

TABLE 10

1976 POPULATION ESTIMATES OF LARVAL FISHES IN THE SANDUSKY RIVER ESTUARY FROM STATION 74 TO Station 77[a]

SPECIES \ DATE	4-12	4-14	4-17	4-22	4-26	4-28	5-3	5-5	5-11
Gizzard shad					1.6×10^5	1.6×10^5	1.1×10^5	8.2×10^3	
White bass					1.6×10^4	6.5×10^4	2.4×10^4		
Walleye	6.7×10^5	2.4×10^5	8.1×10^4	9.0×10^4	8.2×10^4	8.2×10^4	1.6×10^4		
Freshwater drum									
Logperch darter				9.8×10^4	1.1×10^5	8.2×10^4	1.3×10^5	5.7×10^4	4.7×10^5
Carp				4.1×10^4	4.9×10^4	2.4×10^4			
White sucker					1.6×10^4		8.2×10^3		
Troutperch									
Black crappie									
Bluntnose minnow									
Johnny darter									
Other darters					8.2×10^3		8.2×10^3	8.2×10^3	
Sunfish							8.2×10^3		
Other suckers									
TOTAL	6.7×10^5	2.4×10^5	8.1×10^4	2.3×10^5	4.4×10^5	4.2×10^5	3.0×10^5	7.3×10^4	4.7×10^5

a. Estimates obtained by pooling the surface, bottom, and riffle-tail densities of four sampling locations: 74, 75, 76, and 77. The resultant mean density for the estuary was then multiplied by the volume of water in the estuary from the first riffle to the mouth.

TABLE 10 CON'T.

1976 POPULATION ESTIMATES OF LARVAL FISHES IN THE SANDUSKY RIVER ESTUARY FROM STATION 74 TO Station 77[a]

SPECIES \ DATE	5-13	5-17	5-19	5-24	5-26	5-31	6-2	6-7	
Gizzard shad	$1.6x10^4$	$1.7x10^5$	$3.1x10^5$	$7.0x10^5$	$1.6x10^6$	$1.9x10^7$	$5.6x10^6$	$8.4x10^6$	
White bass		$7.3x10^4$	$8.2x10^4$	$3.0x10^5$	$3.7x10^5$	$2.6x10^6$	$1.3x10^5$	$1.1x10^6$	
Walleye									
Freshwater drum					$3.7x10^5$	$2.6x10^5$			
Logperch darter	$2.0x10^5$	$3.0x10^5$	$2.4x10^4$	$5.7x10^4$	$7.3x10^4$		$2.2x10^5$	$8.9x10^4$	
Carp		$8.5x10^5$	$9.3x10^5$	$1.6x10^4$		$1.9x10^5$	$3.8x10^5$	$2.0x10^5$	
White sucker	$8.2x10^3$	$8.2x10^3$	$1.1x10^5$	$8.2x10^3$		$3.3x10^4$			
Troutperch							$1.3x10^5$		
Black crappie					$8.3x10^3$				
Bluntnose minnow							$8.3x10^3$		
Johnny darter								$8.3x10^3$	
Other darters				$1.6x10^4$	$8.2x10^3$	$8.2x10^3$			
Sunfish									
Other suckers	$8.2x10^3$	$1.6x10^4$	$3.3x10^4$					$9.8x10^4$	
TOTAL	$2.3x10^5$	$1.4x10^6$	$1.5x10^6$	$1.1x10^6$	$2.5x10^6$	$2.2x10^7$	$6.5x10^6$	$9.9x10^6$	

a. Estimates obtained by pooling the surface, bottom, and riffle-tail densities of four sampling locations: 74, 75, 76, and 77. The resultant mean density for the estuary was then multiplied by the volume of water in the estuary from the first riffle to the mouth.

ESTIMATED NUMBER OF FISH IN LAKE ERIE
Sectors A-G, Cruise 1, 1976

Depth Zones / Species	1	2	3	4	5	6		TOTAL
Gizzard shad								
Rainbow smelt								
Emerald shiner								
Spottail shiner								
Carp								
Freshwater drum								
Yellow perch								
White bass								
Walleye								
White sucker								
Sunfish								
Quillback carpsucker								
Crappie								
Alewife								
Logperch darter								
Troutperch								
Miller's thumb								
Whitefish	3.5×10^4	6.0×10^4		6.2×10^5				7.2×10^5
TOTAL								

ESTIMATED NUMBER OF FISH IN LAKE ERIE
Sectors A-G, Cruise 2, 1976

Note: Partial Survey

Depth Zones / Species	1	2	3	4	5	6		TOTAL
Gizzard shad								
Rainbow smelt								
Emerald shiner								
Spottail shiner								
Carp								
Freshwater drum								
Yellow perch	5.4×10^4							5.4×10^4
White bass								
Walleye	9.3×10^6							9.3×10^6
White sucker								
Sunfish								
Quillback carpsucker								
Crapple								
Alewife								
Logperch darter								
Troutperch								
Miller's thumb								
Whitefish								
TOTAL								

ESTIMATED NUMBER OF FISH IN LAKE ERIE
Sectors A-G, Cruise 3, 1976

Depth Zones / Species	1	2	3	4	5	6		TOTAL
Gizzard shad	1.4×10^7	9.3×10^5	1.3×10^6					1.6×10^7
Rainbow smelt								
Emerald shiner								
Spottail shiner								
Carp								
Freshwater drum								
Yellow perch	3.9×10^7	2.7×10^8	2.7×10^8	9.4×10^7	1.9×10^7	8.0×10^6		7.0×10^8
White bass								
Walleye	4.4×10^6	3.3×10^7	1.6×10^7	1.6×10^7	4.2×10^6	9.6×10^6		1.8×10^8
White sucker	2.9×10^5		1.3×10^6					1.6×10^6
Sunfish								
Quillback carpsucker								
Crappie								
Alewife								
Logperch darter								
Troutperch								
Miller's thumb			1.5×10^5					1.5×10^5
Whitefish	8.9×10^4		1.4×10^6					1.5×10^6
TOTAL								

ESTIMATED NUMBER OF FISH IN LAKE ERIE
Sectors A-G, Cruise 4, 1976

Species \ Depth Zones	1	2	3	4	5	6		TOTAL
Gizzard shad				3.8×10^6				3.8×10^6
Rainbow smelt	8.8×10^5	1.5×10^6	8.4×10^6	5.4×10^7	2.4×10^6			6.7×10^7
Emerald shiner								
Spottail shiner								
Carp								
Freshwater drum								
Yellow perch	2.6×10^7	8.9×10^6	4.5×10^7	1.7×10^8	1.5×10^8	1.8×10^8		5.8×10^8
White bass								
Walleye	1.4×10^5	6.0×10^4	1.3×10^6	6.2×10^5		1.6×10^6		3.7×10^6
White sucker			1.5×10^5					1.5×10^5
Sunfish								
Quillback carpsucker								
Crappie								
Alewife								
Logperch darter								
Troutperch								
Miller's thumb								
Whitefish								
TOTAL								

ESTIMATED NUMBER OF FISH IN LAKE ERIE
Sectors A-G, Cruise 5, 1976

Depth Zones / Species	1	2	3	4	5	6		TOTAL
Gizzard shad	1.8×10^5	4.9×10^6						5.0×10^6
Rainbow smelt	3.6×10^6	7.8×10^6	4.3×10^7	1.1×10^8	8.6×10^8	3.4×10^8		1.4×10^9
Emerald shiner								
Spottail shiner	2.7×10^5							2.7×10^5
Carp								
Freshwater drum								
Yellow perch	2.4×10^7	3.5×10^6	1.2×10^7	2.1×10^7	1.8×10^7	3.8×10^6		8.5×10^7
White bass								
Walleye	1.5×10^5							1.5×10^5
White sucker								
Sunfish								
Quillback carpsucker	4.5×10^4							4.5×10^4
Crapple								
Alewife								
Logperch darter								
Troutperch				6.5×10^5				6.5×10^5
Miller's thumb			1.5×10^6					1.5×10^6
Whitefish								
TOTAL								

ESTIMATED NUMBER OF FISH IN LAKE ERIE
Sectors A-G, Cruise 6, 1976

Note: Partial Survey

Species \ Depth Zones	1	2	3	4	5	6		TOTAL
Gizzard shad								
Rainbow smelt	6.1×10^4	8.1×10^5	4.0×10^6	1.2×10^7	1.2×10^7	8.8×10^7		1.2×10^8
Emerald shiner								
Spottail shiner			4.6×10^5	8.7×10^5				1.3×10^6
Carp		2.3×10^5						2.3×10^5
Freshwater drum								
Yellow perch	4.3×10^4	7.2×10^5	4.6×10^6		1.8×10^6	1.6×10^6		8.7×10^6
White bass								
Walleye								
White sucker	3.6×10^4							3.6×10^4
Sunfish								
Quillback carpsucker								
Crapple								
Alewife								
Logperch darter								
Troutperch								
Miller's thumb								
Whitefish								
TOTAL								

ESTIMATED NUMBER OF FISH IN LAKE ERIE
Sectors A-G, Cruise 7, 1976

Depth Zones / Species	1	2	3	4	5	6		TOTAL
Gizzard shad	2.2×10^8	1.7×10^7	3.4×10^7	4.1×10^7	3.1×10^7	1.7×10^7		3.6×10^8
Rainbow smelt						2.0×10^7		2.0×10^7
Emerald shiner								
Spottail shiner	8.5×10^4	5.9×10^5	2.8×10^6	7.5×10^6	9.8×10^6	2.7×10^7		4.8×10^7
Carp		1.3×10^7	1.5×10^5		8.6×10^6	3.8×10^7		5.9×10^7
Freshwater drum	9.1×10^6			6.5×10^5				9.7×10^6
Yellow perch		7.6×10^5		3.9×10^6				4.7×10^6
White bass	1.1×10^6							1.1×10^6
Walleye								
White sucker								
Sunfish								
Quillback carpsucker								
Crappie	2.9×10^5		1.1×10^6					1.4×10^6
Alewife								
Logperch darter				3.9×10^6	2.4×10^6	8.6×10^6		1.5×10^7
Troutperch								
Miller's thumb								
Whitefish								
TOTAL								

ESTIMATED NUMBER OF FISH IN LAKE ERIE
Sectors A-G, Cruise 8, 1976

Depth Zones / Species	1	2	3	4	5	6		TOTAL
Gizzard shad	1.5×10^9	2.3×10^8	6.3×10^7	1.3×10^8	2.1×10^8	1.1×10^8		2.2×10^9
Rainbow smelt	2.1×10^4							2.1×10^4
Emerald shiner	8.8×10^6	4.0×10^7	1.9×10^8	4.0×10^8	2.4×10^8	1.0×10^9		1.9×10^9
Spottail shiner	2.7×10^5	3.2×10^5	2.2×10^6	5.8×10^8		5.4×10^6		5.9×10^8
Carp	1.1×10^6	2.0×10^6	1.1×10^6	8.7×10^5	1.4×10^7	4.4×10^7		6.4×10^7
Freshwater drum	1.3×10^8	3.5×10^6	3.4×10^7	2.0×10^7	6.8×10^6	1.2×10^7		2.1×10^8
Yellow perch								
White bass	3.0×10^6	4.3×10^6	4.3×10^5					7.6×10^6
Walleye								
White sucker								
Sunfish		2.3×10^5						2.3×10^5
Quillback carpsucker								
Crapple								
Alewife	2.2×10^5	2.1×10^6	1.9×10^6	1.2×10^7				1.6×10^7
Logperch darter	6.5×10^4							6.5×10^4
Troutperch								
Miller's thumb								
Whitefish								
TOTAL								

ESTIMATED NUMBER OF FISH IN LAKE ERIE
Sectors A-G, Cruise 9, 1976

Species \ Depth Zones	1	2	3	4	5	6		TOTAL
Gizzard shad	2.5×10^8	2.3×10^7	7.6×10^7	2.3×10^8	2.6×10^8	3.0×10^8		1.1×10^9
Rainbow smelt		4.7×10^5						4.7×10^5
Emerald shiner	4.3×10^7	1.3×10^7	9.7×10^8	5.9×10^8	2.4×10^9	9.4×10^8		5.0×10^9
Spottail shiner			8.8×10^5	4.5×10^6				5.4×10^6
Carp	2.5×10^6	4.9×10^6	1.5×10^6		4.5×10^6	3.8×10^6		1.7×10^7
Freshwater drum	6.7×10^8	4.5×10^6	8.9×10^6	2.3×10^7	1.9×10^7	2.7×10^7		7.6×10^8
Yellow perch								
White bass	1.1×10^5	1.2×10^5	2.1×10^6	3.9×10^6				6.3×10^6
Walleye								
White sucker								
Sunfish								
Quillback carpsucker								
Crappie	2.7×10^5		2.9×10^5			8.6×10^6		9.1×10^6
Alewife				6.5×10^5				6.5×10^5
Logperch darter								
Troutperch								
Miller's thumb								
Whitefish								
TOTAL								

ESTIMATED NUMBER OF FISH IN LAKE ERIE
Sectors A-G, Cruise 10, 1976

Depth Zones / Species	1	2	3	4	5	6		TOTAL
Gizzard shad	1.1×10^8	3.5×10^7	3.9×10^7	1.5×10^8	4.7×10^7	3.8×10^6		3.8×10^8
Rainbow smelt								
Emerald shiner	1.7×10^7	2.9×10^7	1.4×10^9	1.1×10^9	7.5×10^8	3.2×10^9		6.4×10^9
Spottail shiner	1.8×10^4	7.4×10^4						9.1×10^4
Carp		1.5×10^6			2.4×10^6			3.9×10^6
Freshwater drum	4.0×10^5	7.4×10^4	3.1×10^5		2.4×10^6			3.1×10^6
Yellow perch								
White bass	2.0×10^5							2.0×10^5
Walleye								
White sucker								
Sunfish								
Quillback carpsucker								
Crapple	6.8×10^5							6.8×10^5
Alewife	2.7×10^5							2.7×10^5
Logperch darter			8.6×10^5	3.9×10^6				4.8×10^6
Troutperch								
Miller's thumb								
Whitefish								
TOTAL								

ESTIMATED NUMBER OF FISH IN LAKE ERIE
Sectors A-G, Cruise 11, 1976

Depth Zones / Species	1	2	3	4	5	6		TOTAL
Gizzard shad	2.2×10^7	5.2×10^6	4.7×10^6	8.6×10^6	7.4×10^6			4.8×10^7
Rainbow smelt								
Emerald shiner	7.2×10^6	7.4×10^6	1.3×10^8	1.6×10^8	3.3×10^8	6.3×10^7		7.0×10^8
Spottail shiner								
Carp		7.0×10^5						7.0×10^5
Freshwater drum			8.6×10^5					8.6×10^5
Yellow perch	1.5×10^5							1.5×10^5
White bass	2.7×10^5							2.7×10^5
Walleye								
White sucker								
Sunfish	1.5×10^5							1.5×10^5
Quillback carpsucker								
Crapple								
Alewife	5.4×10^4					1.6×10^6		1.7×10^6
Logperch darter								
Troutperch								
Miller's thumb								
Whitefish								
TOTAL								

ESTIMATED NUMBER OF FISH IN LAKE ERIE
Sectors A-G, Cruise 12, 1976

Depth Zones / Species	1	2	3	4	5	6		TOTAL
Gizzard shad	6.7×10^6	3.4×10^6	4.4×10^6					1.5×10^7
Rainbow smelt								
Emerald shiner	1.6×10^7	1.5×10^7	7.7×10^7	1.1×10^8	1.1×10^8	7.3×10^8		1.1×10^9
Spottail shiner								
Carp								
Freshwater drum	3.8×10^5							3.8×10^5
Yellow perch								
White bass	3.2×10^5							3.2×10^5
Walleye								
White sucker								
Sunfish								
Quillback carpsucker								
Crapple	3.2×10^5							3.2×10^5
Alewife	3.6×10^4	2.8×10^5	2.0×10^6					2.3×10^6
Logperch darter								
Troutperch								
Miller's thumb								
Whitefish								
TOTAL								

ESTIMATED NUMBER OF FISH IN LAKE ERIE
Sectors A-G, Cruise 13, 1976

Note: Incomplete, only Sec "D"

Depth Zones / Species	1	2	3	4	5	6		TOTAL
Gizzard shad								
Rainbow smelt								
Emerald shiner	1.8×10^4					1.6×10^6		1.6×10^6
Spottail shiner								
Carp								
Freshwater drum								
Yellow perch								
White bass								
Walleye								
White sucker								
Sunfish								
Quillback carpsucker								
Crappie								
Alewife								
Logperch darter								
Troutperch								
Miller's thumb								
Whitefish								
TOTAL								

ESTIMATED NUMBER OF FISH IN LAKE ERIE
Sectors A-G, Cruise 14, 1976

Depth Zones / Species	1	2	3	4	5	6		TOTAL
Gizzard shad	4.6×10^6							4.6×10^6
Rainbow smelt								
Emerald shiner	1.7×10^6	1.8×10^6	1.5×10^5					3.7×10^6
Spottail shiner								
Carp								
Freshwater drum								
Yellow perch								
White bass								
Walleye								
White sucker								
Sunfish								
Quillback carpsucker								
Crapple (White)	5.5×10^5							5.5×10^5
Alewife								
Logperch darter								
Troutperch								
Miller's thumb								
Whitefish								
TOTAL								

TABLE 12

ESTIMATED NUMBER OF FISH IN LAKE ERIE
CRUISES 1-14, 1976

Species \ Cruises	1	2 Partial Survey	3	4	5	6 Partial Survey	7	8
Gizzard shad			1.6×10^7	3.8×10^6	5.0×10^6		3.6×10^8	2.2×10^9
Rainbow smelt				6.7×10^7	1.4×10^9	1.2×10^8	2.0×10^7	2.1×10^4
Emerald shiner								1.9×10^9
Spottail shiner					2.7×10^5	1.3×10^6	4.8×10^7	5.9×10^8
Carp						2.3×10^5	5.9×10^7	6.4×10^7
Freshwater drum							9.7×10^6	2.1×10^8
Yellow perch		5.4×10^4	7.0×10^8	5.8×10^8	8.5×10^7	8.7×10^6	4.7×10^6	
White bass							1.1×10^6	7.6×10^6
Walleye		9.3×10^6	1.8×10^8	3.7×10^6	1.5×10^5			
White sucker			1.6×10^6	1.5×10^5		3.6×10^4		
Sunfish								2.3×10^5
Quillback carpsucker					4.5×10^4			
Crapple							1.4×10^6	
Alewife								1.6×10^7
Logperch darter							1.5×10^7	6.5×10^4
Troutperch					6.5×10^5			
Sculpin			1.5×10^5		1.5×10^6			
Whitefish	7.2×10^5		1.5×10^6					
TOTAL								

TABLE 12 CON'T.

ESTIMATED NUMBER OF FISH IN LAKE ERIE
CRUISES 1-14, 1976

Species \ Cruises	9	10	11	12	13 Partial Survey	14	TOTAL	
Gizzard shad	1.1×10^9	3.8×10^8	4.8×10^7	1.5×10^7		4.6×10^6	4.2×10^9	
Rainbow smelt	4.7×10^5						1.6×10^9	
Emerald shiner	5.0×10^9	6.4×10^9	7.0×10^8	1.1×10^9	1.6×10^6	3.7×10^6	1.5×10^{10}	
Spottail shiner	5.4×10^6	9.1×10^4					6.4×10^8	
Carp	1.7×10^7	3.9×10^6	7.0×10^5				1.5×10^8	
Freshwater drum	7.6×10^8	3.1×10^6	8.6×10^5	3.8×10^5			9.8×10^8	
Yellow perch			1.5×10^5				1.4×10^9	
White bass	6.3×10^6	2.0×10^5	2.7×10^5	3.2×10^5			1.6×10^7	
Walleye							2.0×10^8	
White sucker							1.8×10^6	
Sunfish			1.5×10^5				3.8×10^5	
Quillback carpsucker							4.5×10^4	
Crapple	9.1×10^6	6.8×10^5		3.2×10^5		5.5×10^5	1.2×10^7	
Alewife	6.6×10^5	2.7×10^5	1.7×10^6	2.3×10^6			2.1×10^7	
Logperch darter		4.8×10^6					2.0×10^7	
Troutperch							6.5×10^5	
Sculpin							1.7×10^6	
Whitefish							2.2×10^6	
TOTAL								

DAY VS. NIGHT TOWS

Station: D 5/1 Date: 7-4-76

SURFACE

Day 1045			Night 2330		
Species	Length (mm)	No/100 m^3	Species	Length (mm)	No/100 m^3
Gizzard shad	10-16	15	Gizzard shad	13-19	16
			Alewife	20-25	11
			Smelt	21	1
Emerald shiner	7-12	49	Emerald shiner	7-11	5
			Carp	7	3
			White bass	10	1

BOTTOM

Gizzard shad	6-14	2	Gizzard shad	10-16	8
			Alewife	20-23	26
			Smelt	17-38	48
Emerald shiner	7-9	8	Emerald shiner		0
			Carp		0
			White bass	10	2
Drum	5-6	3			

Station: D 2/1 Date: 7-4-76

SURFACE

Day 1120			Night 2320		
Gizzard shad	10-15	23			
			Alewife	14-20	239
Emerald shiner	7	17	Emerald shiner	6-14	1431
			Spottail shiner	7	15
Drum	8	2	Drum	5	15
White bass	8	2			

BOTTOM

Gizzard shad	12-13	12	Gizzard shad	12-23	152
			Alewife	17-20	59
			Smelt	20-40	53
Emerald shiner	8	7	Emerald shiner	6-9	106
			Drum	4-7	28
			White bass	10	1

SURFACE/BOTTOM VS. OBLIQUE TOWS

Station: D 5/1 Date: 7-7-76 Time: 1500 hrs. Species: Emerald shiners

Tow No.	Surface	Bottom	Mean S/B	Oblique
1	310*	34	172	12
2	458	64	261	49
3	128	25	77	28
4	204	25	114	16
5	225	37	131	63

* All numbers are No. larvae/100 m^3 water