Ohio Sea Grant

RECREATIONAL FISHING IN CENTRAL LAKE ERIE

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PREFACE

The Ohio shoreline of central Lake Erie is 160 miles long and the Ohio waters encompass an area of 2,900 square miles. Shoreline and offshore fishing are popular endeavors for sport anglers in these waters. The purpose of this guide is to provide fishermen with useful information on where to fish in central Lake Erie, habitats of the fish in this portion of the lake, and tips on how to Lake Erie fish.

This guide is intended as a companion to Ohio Sea Grant Guide Series, No. 8, "Guide to Fishing in Central Lake Erie. Guide Series No. 8 is a map of the physical characteristics of central Lake Erie. We believe that a more complete understanding of the lake's physical, chemical, geological and biological characteristics, and how they function together, will make your fishing experience more successful and enjoyable.

Fish Ohio!

WHERE TO FISH IN CENTRAL LAKE ERIE

In his fascinating book, "Where the Fish Are," Leonard M. Wright (1978) points out dozens of places to catch fish in freshwater and marine environments. Several of these habitats, which are particularly applicable to central Lake Erie, are discussed below.

Breakwaters, Jetties and Channels

Structures such as harbor breakwaters, jetties, and piers give shore anglers access to deeper water, and they have special fish-attracting qualities. Rip-rap, the rock material of which many of these structures are constructed, offers hiding places for forage fish and many invertebrate species. They also provide shelter and create currents and eddies that concentrate food items on the lee side of the structures. Piers and pilings, with attachments of algae such as Cladophora, provide habitat and food for forage fish upon which sport fish feed. Fishing on the windward side of harbor breakwaters during moderately rough conditions can also be profitable.

Fish often follow navigation channels in and out of harbor areas with rising and falling lake levels. Movement is often near the edge of dredged channels. It is illegal to tie up to buoys which mark the channel boundaries, but fishing near them can be good.

Gradual Shores

Where the shore slopes gently into the lake, the water is often shallow well offshore. Such areas, particularly if they have a sandy bottom, are commonly unproductive. But if there are boulders and beds of aquatic vegetation, these reaches attract fish. If schools of forage species, such as minnows and shad, are noticed, larger fish may be found feeding in these areas at dawn and at dusk. Whenever a school of jumping minnows is noted, it usually means they are trying to escape bigger fish which are lurking below and are actively feeding. During mid-day and during the summer months, large fish are usually in deep water. Stirring up the bottom by dragging an anchor can uncover bottom organisms and the clouded water itself can draw some fish. If working deeper, cooler water does not yield fish, surface fishing at night in shallower areas with a lantern may produce good catches.

Points and Spits

A peninsula or sand spit jutting out from the shore offers the fisherman three benefits: 1) it yields a greater area of the depth fish prefer along both sides; 2) it provides shelter on the lee side during rough lake conditions; and, 3) fish cruising the shoreline will tend to pass through a narrow area off the underwater tip. Many such features are located in western Lake Erie and at Presque Isle in the eastern

basin. In central Lake Erie, points and spits are few in number and are mainly associated with the rock shores between Vermilion and Cleveland and at the mouths of the smaller tributaries.

Coves, Embayments and Estuaries

With their often irregular shorelines, extensive shallows, and protection from most winds and waves, coves, embayments and estuaries are noted food producing areas. Shallow reaches should yield warm-water fish, while deeper water off the entrance or adjacent headlands are ideal places for larger fish waiting to make nightly feeding raids. Estuaries, such as the one found at the mouth of the Chagrin River, are particularly good fishing areas because inflowing stream waters bring extra food. Also, the flow of stream water itself seems to attract some fish species such as smelt, trout and salmon.

Cliffs

Steep cliffs, particularly those of exposed bedrock, often indicate deep nearshore water which provides good fishing locations. Also, most of these shores contain pieces of rock which have eroded from the cliff face over the years, building up a productive area of rubble and boulders. Even some of the steep glacial till bluffs east of Cleveland contain enough granite boulders to form good fishing areas near the base of cliffs during calm and moderate wave-action periods.

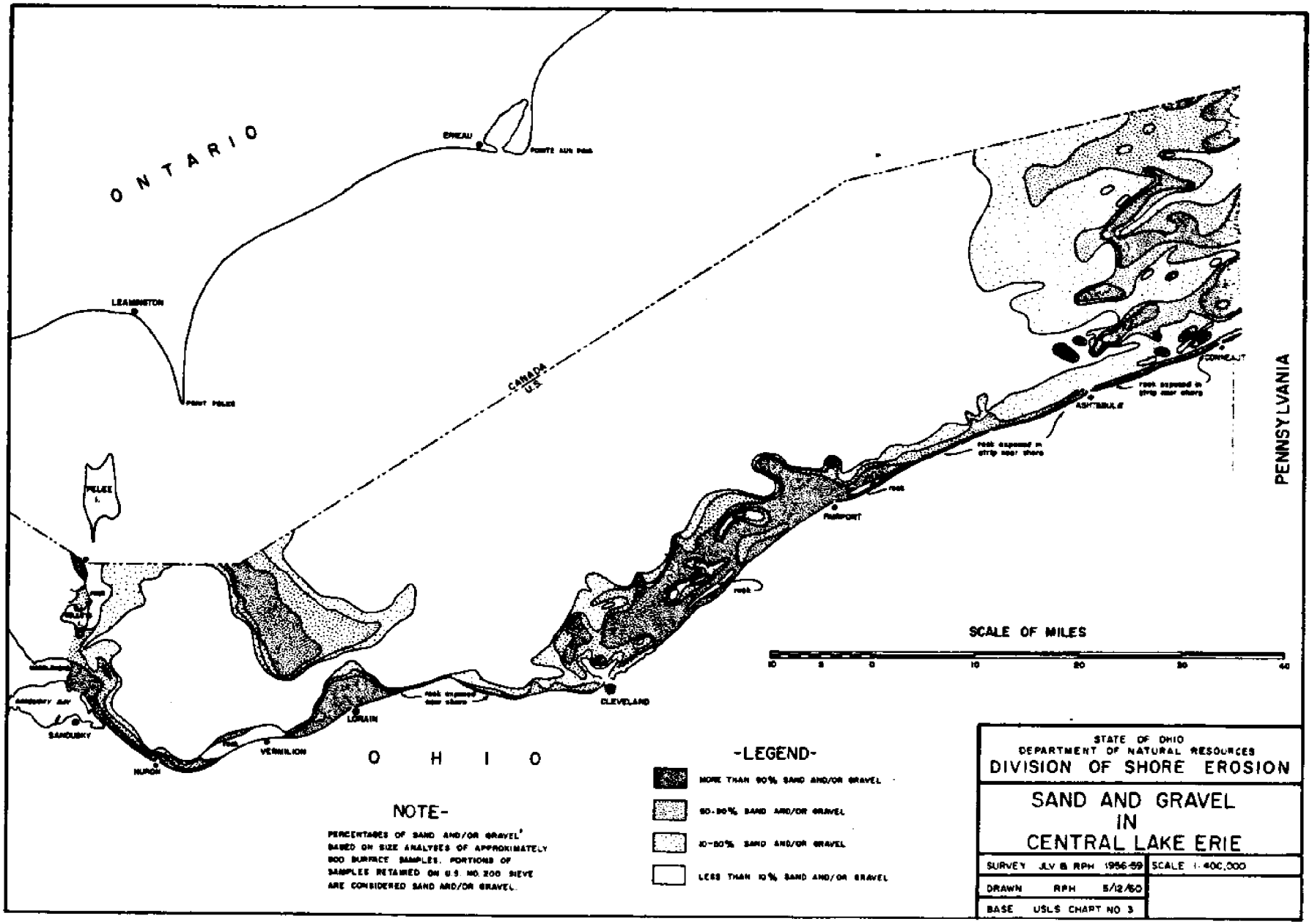
Offshore Breakers and Beaches

Where waves break well offshore, usually on a submerged sand bar or rock ledge, there is usually a relatively calm patch of water between the surf line and where the waves finally hit the shore. The deeper water inside the breakers is a natural place for food, forage fish and game fish to collect. Major storms can often muddy the inshore water so badly that fishing is poor. However, moderate storms can stir up extra food. If the water remains reasonably clear, this is a prime time to try surf casting.

Surf anglers are most successful in casting for salmon and steelhead in the fall. A 7 to 8 foot rod and a pair of chest waders allow the beach angler to cast farther out into the lake. Calm days at dawn and at dusk are the most productive for the surf caster. The beaches at Arcola Creek and Geneva State Park are the prime beach fishing sites in northeastern Ohio.

Foam Lines

On windy days a series of long foam lines or drift lines appears on the lake surface, most often parallel to the wind and in the same direction of wave progression. Scientists have named this phenomenon Langmir Cells; it is a stable condition of water movement caused by the wind and characterized by downward moving water masses adjacent to upward moving masses, forming a circular cell. The downward water flow leaves foam, debris and plankton at the surface. The food concentrated in these lines attracts fish. Commonly, foam lines are in a group; each line is less than 1 foot wide (0.3 m) and 10 to 20 feet (3-6 m) apart. Drift lines are also caused by rapidly moving surface currents downwind from points and islands, again producing areas of food concentration and good fishing.


ONTARIO
EMEAU
POINTE AUX PINS
LEAMINGTON
POINT PELEE
CANADA
U.S.
PELEE I.
PENNSYLVANIA
CONNEAUT
ASHTABULA
rock exposed in strip near shore
FAIRPORT
rock
CLEVELAND
LORAIN
VERMILION
SANDUSKY
MARBLEHEAD
NORTH BASS I.
KELLEYS I.
O H I O
SCALE OF MILES
10 5 0 10 20 30 40
-LEGEND-
MORE THAN 90% SAND AND/OR GRAVEL
50-90% SAND AND/OR GRAVEL
10-50% SAND AND/OR GRAVEL
LESS THAN 10% SAND AND/OR GRAVEL
NOTE-
PERCENTAGES OF SAND AND/OR GRAVEL BASED ON SIZE ANALYSES OF APPROXIMATELY 900 SURFACE SAMPLES. PORTIONS OF SAMPLES RETAINED ON U.S. NO. 200 SIEVE ARE CONSIDERED SAND AND/OR GRAVEL.
STATE OF OHIO
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF SHORE EROSION
SAND AND GRAVEL
IN
CENTRAL LAKE ERIE
SURVEY JLV & RPH 1956-59
SCALE 1:400,000
DRAWN RPH 5/12/60
BASE USLS CHART NO 3

Popular Access Points and Fishing Areas in Northeastern Ohio

Conneaut. Boating access to the lake is offered by 2 ramps at the public dock inside Conneaut Harbor at the end of Route 7. Upstream there is a boat ramp for small boats (16 ft. or less) at Woodward Road. Take Route 20 to Old Main Street to Woodworth on the east side of Conneaut City. River fishermen have access to Conneaut Creek beneath the Old Main Street Bridge and the Route 20 Bridge on the east side of Conneaut and the Route 7 and Center Street Bridge south of the city. Some sections are wadeable. Shoreline fishermen gain access to the west breakwall at Conneaut Harbor from Conneaut Park off of Route 531.

Ashtabula. Three boat ramps at Lake Shore Park allow fishermen easy access to the lake. The park is on Route 53 just east of Ashtabula City. Shore fishing is possible at Lake Shore Park from two 50-foot rock platforms. Shoreline anglers utilize the west breakwall at Walnut Beach Park off Walnut Boulevard on the city's west side. River fishing is done north of the historic 5th Street Bridge near the coal docks and at the 24th Street Bridge behind the hospital in Ashtabula City. Indian Trail Park at State Road on East 51st Street has good access and parking for stream fishing in a scenic setting. Some sections are wadeable.

Geneva State Park. The park is located on the Lake Erie shore just north of Geneva, Ohio on Route 534. Cowles Creek on the east end and Wheeler Creek on the west end of the park offer easy access and lots of parking for beach and surf fishing.

Arcola Creek at the north end of Dock Road off of Route 20 near the Lake County/Ashtabula county line is utilized by Lake Erie surf fishermen.

Fairport Harbor. The east pier at the end of Water Street offers access to the Grand River mouth for pier fishermen. Four boat ramps also at the end of Water Street in Fairport offer easy access to Lake Erie. A launching fee is charged. Upriver in Grand River boating access is available at Rutherford's Landing for a fee. River fishermen wade the Grand near the Painesville City Kiwanis Recreation Park. Lake Metroparks also offer public access to the upper Grand River at Mason's Landing off Vrooman Road. The west breakwall at Headlands Beach State Park at the end of Route 44 allows access to Lake Erie shore fishermen willing to scramble over its irregular surface.

Chagrin River. Shoreline fishing is available at the seawall near the Cleveland Electric Illuminating Company power plant at the end of Erie Road off of Route 283 in Eastlake. A fee is charged for fishing here.

Fishermen have access to the river at Woodlawn Park just north of Route 283 in Eastlake. Stream fishing is popular in Willoughby at Gilson Park off of Lost Nation Road, at Todd Field off of Route 20, and at the Daniels Park Dam off of Route 84. Some sections of the river are wadeable. Snagging for salmon only is allowed downriver from the Daniels Park Dam to the Route 2 overpass at Gilson Park.

Boaters gain access to the lake at Lake Shore Marina at the Route 283 Bridge over the Chagrin River in Eastlake. A boat launching fee is charged.

A Note of Caution. For Lake Erie boating, a large boat with a deep V hull and a wide beam is needed. Flat bottomed bass boats are not designed for Lake

Erie wave conditions. Be sure your boat is seaworthy and has all safety devices in operating order before you set out. A marine band radio is useful in keeping in touch with the changing weather conditions on the lake. File a float plan with someone on shore and wear your personal flotation device. Check your compass and other navigational aids. Use common sense and think safety first before you range too far from a safe harbor.

FISH SPAWNING AND NURSERY AREAS

Sea Lamprey

The first recorded capture of the sea lamprey in Lake Erie occurred in 1921, 92 years after the completion of the Welland Canal connection Lake Erie and Lake Ontario. The population in central Lake Erie is small because only a few tributaries have suitable spawning habitats.

Alewife

This species, first observed in Lake Erie in 1931, also entered Lake Erie via the Welland Canal. In the central basin, alewife spawn close to shore and primarily in harbor areas.

Gizzard Shad

The gizzard shad may be native to Lake Erie; however, the first report of this species was not until 1948, 18 years after the first canal connecting the lake and the Ohio River was completed. Gizzard shad are now common throughout the inshore waters of the lake and are often attracted to warm water outlets. Gizzard shad spawn in harbors and rivers in the central basin, mainly near breakwaters and dark pilings over beds of the green, filamentous algae, Cladophora.

Coho Salmon

Annual plantings of coho salmon in the central basin began in 1969. Spawning runs have developed in several Ohio and Pennsylvania tributaries but little natural reproduction occurs.

Chinook Salmon

Annual plantings of chinook salmon in the Pennsylvania waters of Lake Erie began in 1971. Like the coho, spawning runs have developed in several Ohio and Pennsylvania streams but little natural reproduction results.

Rainbow Trout

The initial plantings of rainbow trout in the Lake Erie watershed occurred in 1882 at Michigan tributaries, in 1886 at Cold Creek near Sandusky, Ohio, around 1895 in Pennsylvania tributaries and in 1889 at New York streams. Continued stocking of rainbow trout (steelhead), particularly in the central and eastern basins, has produced spawning runs in several tributaries of Lake Erie. Small reproducing populations occur in some of these streams.

Rainbow Smelt

The first reported capture of smelt in Lake Erie occurred in 1935, 23 years after it was stocked in a small lake tributary to Lake Michigan. Most of the successful spawning in Lake Erie occurs on sandy shoals along the Ontario shore. However, smelt do spawn in almost every stream and harbor along the Ohio shore from Lorain to Conneaut.

Northern Pike

This pike makes extensive spawning migrations from the lake into tributaries; some runs proceed to the headwaters. Historically, northern pike ran into most rivers of the central basin; but now spawning is limited to any area where there is aquatic vegetation, such as in sheltered harbors and marinas.

Muskellunge

This pike historically made spawning migrations from Lake Erie into tributaries in early spring shortly before or after ice breakup. The demise of the muskellunge populations in Lake Erie by 1850 was caused by blockage of tributaries by dams. Very limited runs now enter the lower reaches of a few central basin tributaries.

Goldfish

This species, introduced probably in the late 1800s, interbreeds readily with carp. In central Lake Erie goldfish spawn in sheltered bays and harbors, tributary mouths and shoreline areas over mud bottoms with vegetation.

Carp

The first recorded carp in Lake Erie was in 1883. In the central basin, carp spawn in vegetated, shallow protected areas such as harbors and stream mouths.

Emerald Shiner

This shiner spawns on the surface of the open lake or in areas of calm, quiet water. The central basin may contain two populations of emerald shiner, one which spawns offshore and a second which spawns in rivers and harbors.

Spottail Shiner

This shiner prefers the rocky areas of the western basin but does spawn on Cladophora beds, sandy areas or breakwaters in the central basin. It has also been observed spawning in quiet river mouths from Vermilion to Conneaut.

Quillback

This native sucker appears in two populations in the Lake Erie drainage basin, a lake-run quillback and a riverine quillback. The lake-run population migrates into harbors and the lower reaches of the major tributaries to spawn, where the quillback scatters eggs over vegetation or gravel. The riverine population inhabits the major streams and migrates further upstream to spawn in small tributaries.

White Sucker

Along the Ohio shoreline of the central basin, white suckers spawn at night in almost all tributaries that have gravel or rubble riffles. They also spawn on gravel bars and beaches in the lake where there is suitable current. Adults only remain in the streams for a few days before returning to the lake.

Brown Bullhead

In the central basin, brown bullheads spawn in harbors where they build nests in breakwaters. They also spawn in tributaries with overhung banks and submerged fallen trees.

Channel Catfish

This catfish commonly enters Lake Erie tributaries to spawn. Young-of-the-year fish move downstream, and, after hatching, take up residence in bays and nearshore areas of the lake. Channel catfish are fairly abundant in the central basin where spawning is successful in unpolluted water adjacent to rock breakwaters.

White Perch

The first reported capture of white perch in Lake Erie occurred in 1953 near Erie, Pennsylvania. The first significant hatch was not detected until 1977. By 1982, high densities of adult white perch were found in the western and central basins of Lake Erie. Little is known of the spawning habits of this species in central Lake Erie. It is believed to spawn in nearshore waters of a sand bottom.

Trout-Perch

In central Lake Erie, trout-perch spawn over pebbly beaches near river mouths. Spawning also occurs in offshore areas between Ashtabula and Erie, Pennsylvania, where the substrates are sand and gravel.

White Bass

White bass probably enter all of the rivers of the central basin to spawn. Spawning may also occur in the open lake. Tagging studies conducted along the Ohio shoreline have shown that adults migrate out into the lake after spawning, some entering Canadian waters. In the 1960s and 1970s, young-of-the-year white bass were often more abundant in the central basin than in the western basin.

Rock Bass

Rock bass build nests on shallow sand and gravel shoals around the islands, in the western basin and in protected bays and harbors, and in the lower reaches of tributaries in the central basin.

Pumpkinseed

This sunfish spawns in all harbors along the Ohio shoreline of central Lake Erie. Large nests, built on a gravel bottom, are commonly located in groups.

Smallmouth Bass

The bass spawn inshore on shallow, rocky shoals in the western basin. They also enter tributaries to spawn, particularly those streams in the central basin with rocky bottoms.

Black Crappie

Several of the estuarine mouths of the central basin tributaries contain good spawning habitat for black crappie.

Yellow Perch

In Lake Erie, spawning runs of yellow perch occur in shallow water along the shoreline and in tributary mouths. Eggs are deposited in flat, ribbon-like masses. The western basin is the major spawning and nursery ground for Lake Erie yellow perch, but some individuals that spawn in the western basin in the spring migrate to the central basin in the summer and return to the western basin to overwinter. However, since 1958, young-of-the-year perch have been abundant from Vermilion to Erie, Pennsylvania.

Logperch

This species spawns on shallow gravel, sand and rock beaches with little or no aquatic vegetation. In the central basin, logperch also spawn in harbor areas and offshore of tributary mouths.

Sauger

Saugers were virtually extirpated from Lake Erie but have recently been reintroduced. Runs into tributaries occur in the spring when spawning occurs over rock and sandy bottoms. A few young-of-the-year saugers have been collected in central basin stream mouths in recent years.

Walleye

The western basin is the major spawning and nursery area for walleye in Lake Erie. Walleye also spawn along the entire shoreline of eastern part of the lake from the Ohio-Pennsylvania border to east of Dunkirk. The spawning grounds are rocky and usually 1-2 meters (3-6 feet deep). In the central basin spawning is limited. There are few reefs or shoals in this area, and spawning takes place wherever rocky areas exist.

Freshwater Drum

In the central basin, drum prefer the slack water of the lower reaches of rivers and harbors for spawning. Some adults which spawn in the western basin probably move into the deeper waters of the central basin in the summer. Spawning also occurs in the open lake at depths of up to 12 meters (40 feet).

Mottled Sculpin

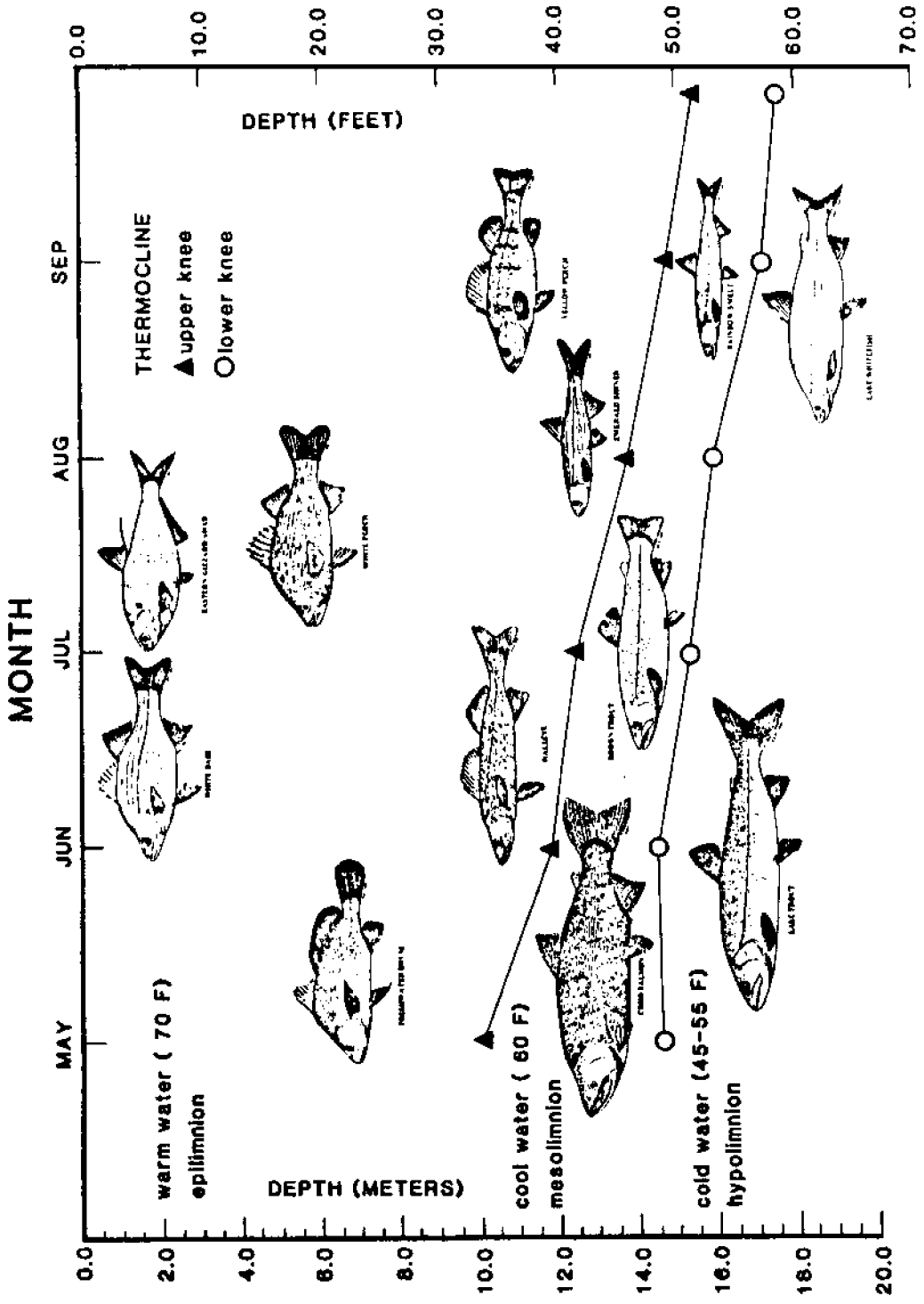
In the central basin, spawning occurs over substrate of large rocks, including harbor breakwaters.

FOOD PREFERENCE AND IMPORTANCE OF CENTRAL LAKE ERIE FISHES

	Common Name	Adult Feeding Niche	Importance to Man
1.	Sea lamprey	Fish parasite	Destruction of sport fish
2.	Alewife	Zooplankton feeder	Forage fish for predators, nuisance
3.	Gizzard shad	Phytoplankton feeder	Forage fish for predators, nuisance
4.	Coho salmon	Fish predator	Common sport fish
5.	Chinook salmon	Fish predator	Common sport fish
6.	Rainbow trout	Benthos predator	Uncommon sport fish
7.	Rainbow smelt	Fish predator	Uncommon sport fish
8.	Northern pike	Fish predator	Uncommon sport fish
9.	Muskellunge	Fish predator	Rare sport fish
10.	Goldfish	Benthic omnivore	Minor commercial fish
11.	Carp	Benthic omnivore	Moderate commercial fish, destructive
12.	Emerald shiner	Zooplankton feeder	Forage fish for predators, bait
13.	Spottail shiner	Zooplankton feeder	Forage fish for predators, bait
14.	Quillback	Benthic omnivore	Minor commercial fish
15.	White sucker	Benthic omnivore	Minor commercial fish
16.	Brown bullhead	Benthic omnivore	Minor sport fish
17.	Channel catfish	Benthos predator	Minor sport and moderate commercial fish
18.	Trout-perch	Benthos predator	Forage fish for predators
19.	White perch	Fish predator	Minor sport fish
20.	White bass	Fish predator	Important commercial and sport fish
21.	Rock bass	Benthos and fish predator	Minor sport fish
22.	Pumpkinseed	Benthos predator	Common sport fish
23.	Smallmouth bass	Fish and benthos predator	Uncommon sport fish
24.	Black crappie	Fish and benthos predator	Common sport fish
25.	Yellow perch	Fish and benthos predator	Important commercial and sport fish
26.	Logperch	Benthos predator	Forage fish for predators
27.	Sauger	Fish predator	Uncommon sport fish
28.	Walleye	Fish predator	Important sport fish
29.	Freshwater drum	Benthos and fish predator	Minor sport and moderate commercial fish
30.	Mottled sculpin	Benthos predator	Forage fish for predators

SPAWNING PERIOD AND WATER TEMPERATURE FOR CENTRAL LAKE ERIE FISHES

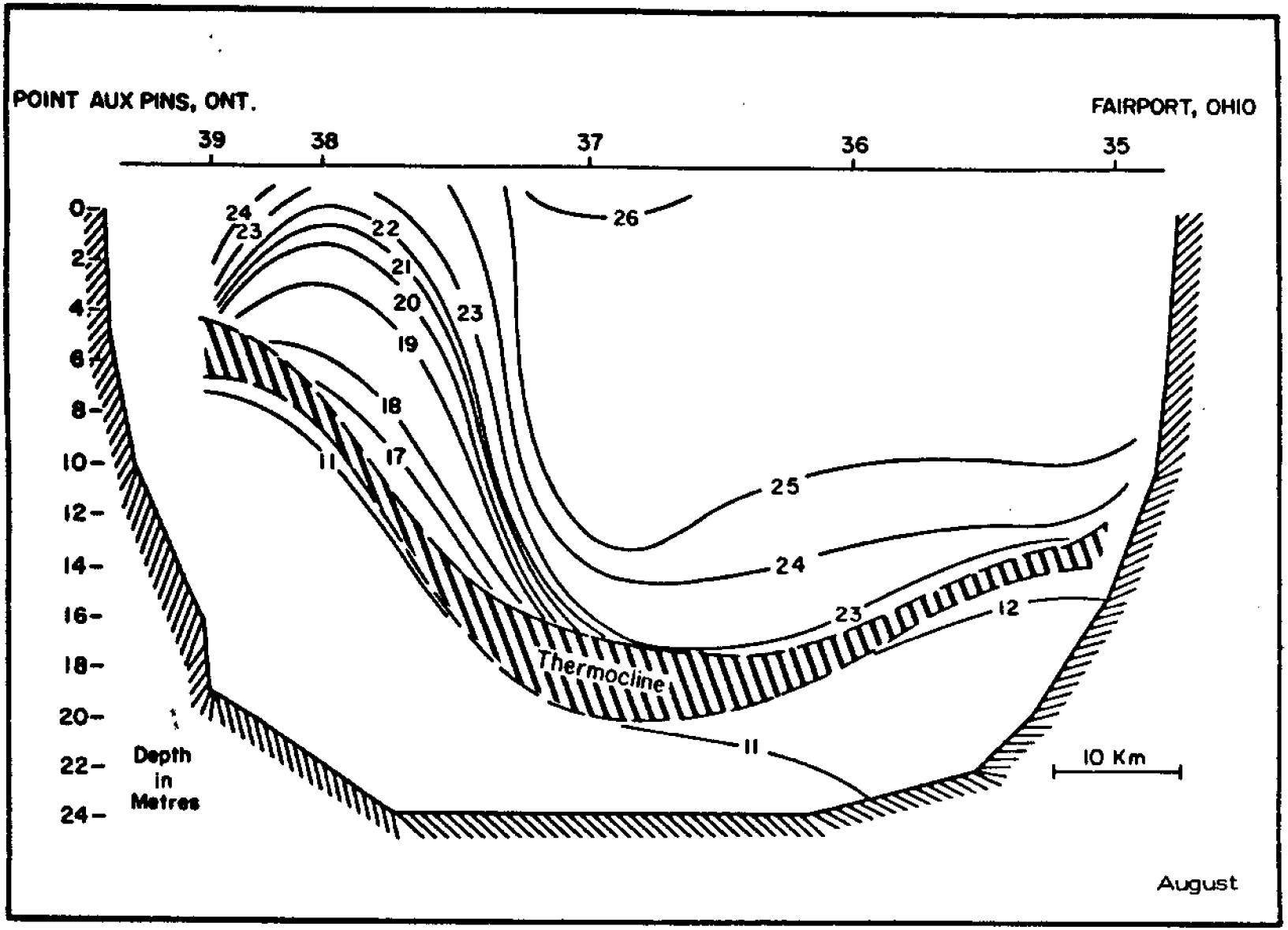
	Common Name	Spawning Period	Water Temperature for Peak Spawning (^{o}C)	(^{o}F)
1.	Sea lamprey	Apr - May	11.1-11.7^{o}	52-53^{o}
2.	Alewife	June - July	15.6-22.2^{o}	60-72^{o}
3.	Gizzard shad	June - July	17.2-24.8^{o}	63-73^{o}
4.	Coho salmon	Sept - Oct	12.8-19.4^{o}	55-67^{o}
5.	Chinook salmon	Sept - Nov	10.0-18.3^{o}	50-65^{o}
6.	Rainbow trout	Oct - May	10.0-15.6^{o}	50-60^{o}
7.	Rainbow smelt	Apr - May	8.9-18.3^{o}	48-65^{o}
8.	Northern pike	Mar - Apr	4.4-11.1^{o}	40-52^{o}
9.	Muskellunge	Mar - Apr	9.4-15.0^{o}	49-59^{o}
10.	Goldfish	May - Aug	18.6-24.4^{o}	65-76^{o}
11.	Carp	May - July	17.2-23.9^{o}	63-75^{o}
12.	Emerald shiner	June - Aug	20.0-23.9^{o}	68-75^{o}
13.	Spottail shiner	May - July	20.0-23.9^{o}	68-75^{o}
14.	Quillback	May - July	15.6-23.9^{o}	60-75^{o}
15.	White sucker	Apr - May	10.0-12.8^{o}	50-55^{o}
16.	Brown bullhead	June - Aug	15.6-23.9^{o}	60-75^{o}
17.	Channel catfish	May - July	20.6-25.6^{o}	69-78^{o}
18.	Trout-perch	May - Aug	15.6-23.9^{o}	60-73^{o}
19.	White perch	May - June	11.1-15.6^{o}	52-60^{o}
20.	White bass	May - June	12.8-20.0^{o}	55-68^{o}
21.	Rock bass	June - July	15.6-21.1^{o}	60-70^{o}
22.	Pumpkinseed	June - July	17.8-21.1^{o}	58-70^{o}
23.	Smallmouth bass	May - June	14.4-17.8^{o}	58-64^{o}
24.	Black crappie	May - June	14.4-17.8^{o}	58-64^{o}
25.	Yellow perch	Apr - May	6.7-14.4^{o}	44-58^{o}
26.	Logperch	June - Aug	20.0-23.9^{o}	68-75^{o}
27.	Sauger	Apr - June	6.1-12.8^{o}	43-55^{o}
28.	Walleye	Apr - May	4.4-11.1^{o}	40-52^{o}
29.	Freshwater drum	May - Aug	20.0-21.1^{o}	68-70^{o}
30.	Mottled sculpin	Apr - June	10.0-14.4^{o}	50-58^{o}


MONTH
MAY
JUN
JUL
AUG
SEP
DEPTH (FEET)
0.0
10.0
20.0
30.0
40.0
50.0
60.0
70.0
THERMOCLINE
▲upper knee
○lower knee
warm water (70 F)
epilimnion
cool water (60 F)
mesolimnion
cold water (45-55 F)
hypolimnion
DEPTH (METERS)
0.0
2.0
4.0
6.0
8.0
10.0
12.0
14.0
16.0
18.0
20.0

SPAWNING AND NURSERY AREAS OF COMMON CENTRAL LAKE ERIE FISHES

COMMON NAME	SCIENTIFIC NAME	TRIBUTARY STREAM AND ADJACENT NEARSHORE AREA								
		Huron	Vermilion	Black	Rocky	Cuyahoga	Chagrin	Grand	Ashtabula	Conneaut
1. Sea lamprey	Petromyzon marinus	---	S	---	---	---	S	S	---	S
2. Alewife	Alosa pseudoharengus	SN	SN	SN	SN	SN	SN	SN	SN	SN
3. Gizzard shad	Dorosoma cepedianum	SN	SN	SN	SN	SN	SN	SN	SN	SN
4. Coho salmon	Oncorhynchus kistuch	S	---	S	---	---	S	---	---	S
5. Chinook salmon	Oncorhynchus tshawytscha	---	---	S	---	---	S	---	---	S
6. Rainbow trout	Salmo gairdneri	---	---	---	S	---	S	---	---	S
7. Rainbow smelt	Osmerus mordax	SN	SN	SN	SN	SN	SN	SN	SN	SN
8. Northern pike	Esox lucius	S	S	---	S	S	S	S	S	S
9. Muskellunge	Esox masquinongy	---	S	---	---	S	S	S	---	---
10. Goldfish	Carrassius auratus	SN	SN	SN	SN	SN	SN	---	---	---
11. Carp	Cyprinus carpio	SN	SN	SN	SN	SN	SN	SN	SN	SN
12. Emerald shiner	Notropis atherinoides	SN	SN	SN	---	SN	SN	SN	SN	SN
13. Spottail shiner	Notropis hudsonius	---	SN	SN	SN	SN	SN	SN	SN	SN
14. Quillback	Carpiodes cyprinus	SN	SN	SN	SN	SN	SN	---	---	---
15. White sucker	Catostomus commersoni	---	SN	SN	SN	SN	SN	SN	---	SN
16. Brown bullhead	Ictalurus nebulosus	SN	SN	---	SN	---	SN	---	---	SN
17. Channel catfish	Ictalurus punctatus	SN	SN	SN	---	SN	SN	---	---	SN
18. Trout-perch	Percopsis omiscomaycus	SN	SN	SN	SN	SN	SN	SN	SN	SN
19. White perch	Morone americana	SN	SN	SN	---	SN	---	SN	SN	SN
20. White bass	Morone chrysops	SN	SN	SN	SN	SN	SN	SN	SN	SN
21. Rock bass	Ambloplites rupestris	---	---	---	SN	SN	SN	SN	SN	SN
22. Pumpkinseed	Lepomis gibbosus	---	---	---	---	---	SN	SN	---	SN
23. Smallmouth bass	Micropterus dolomieui	SN	SN	SN	SN	---	---	---	---	SN
24. Black crappie	Pomoxis nigromaculatus	SN	SN	---	SN	SN	SN	---	---	SN
25. Yellow perch	Perca flavescens	SN	SN	SN	SN	SN	SN	SN	SN	SN
26. Logperch	Percina caprodes	---	SN	SN	SN	SN	SN	SN	SN	SN
27. Sauger	Stizostedion canadense	---	---	SN	---	---	SN	---	SN	SN
28. Walleye	Stizostedion v. vitreum	SN	SN	SN	SN	SN	SN	SN	SN	---
29. Freshwater drum	Aplodinotus grunniens	SN	SN	SN	SN	---	SN	SN	SN	SN
30. Mottled sculpin	Cottus bairdi	---	---	SN	---	---	---	---	SN	SN

S = Spawning Area
N = Nursery Area



Thermal structure of Lake Erie (°C)

SPORT ANGLER HARVEST AND COMMERCIAL FISH LANDINGS

In the central basin of Lake Erie, sport anglers commonly harvest seven species of fish: channel catfish, white perch, white bass, smallmouth bass, yellow perch, walleye and freshwater drum (sheepshead). In 1983, the sport harvest totaled over 2.5 million fish in this basin or about 27% of the total sport catch in Ohio waters of Lake Erie.

Six species dominate the commercial fish landings in central Lake Erie: gizzard shad, suckers, channel catfish, white bass, white perch and freshwater drum. In 1983, exclusive of gizzard shad, the commercial harvest is estimated at 1 million fish in this basin or about 30% of the total commercial catch in Ohio waters of Lake Erie. The central basin commercial landings amounted to about 27% of the total sport and commercial harvest expressed as numbers of fish.

SPORT HARVESTS* OF MAJOR FISH SPECIES
OHIO WATERS OF LAKE ERIE, 1981-1983

Toledo to Huron
(Numbers and Pounds in Thousands)

	1981		1982		1983		3 Year Average	
	Number	Pound	Number	Pound	Number	Pound	Number	Pound
Yellow Perch	10,100	1,824	9,491	2,009	4,122	731	7,904	1,521
Sheepshead	238	301	176	199	134	141	183	214
Walleye	2,867	5,315	3,000	5,309	1,629	2,855	2,499	4,493
White Bass	524	365	766	496	751	498	681	453
Catfish	119	104	183	167	79	64	127	112
White Perch	---	---	37	6	12	2	17	3
Smallmouth Bass	13	11	64	108	46	78	41	66

Huron to Fairport
(Numbers and Pounds in Thousands)

	1981		1982		1983		3 Year Average	
	Number	Pound	Number	Pound	Number	Pound	Number	Pound
Yellow Perch	551	143	2,286	692	1,037	366	1,291	400
Sheepshead	142	208	134	168	137	210	137	195
Walleye	38	188	49	78	208	274	98	180
White Bass	887	185	1,985	681	856	400	1,243	422
Catfish	6	7	6	8	13	18	9	11
White Perch	---	---	6	1	28	5	11	2
Smallmouth Bass	5	7	3	2	6	9	5	6

Fairport to Conneaut
(Numbers and Pounds in Thousands)

	1981		1982		1983		3 Year Average	
	Number	Pound	Number	Pound	Number	Pound	Number	Pound
Yellow Perch	284	99	451	129	113	42	283	90
Sheepshead	31	45	21	23	30	44	27	37
Walleye	48	85	8	13	27	40	27	46
White Bass	87	16	99	36	82	33	89	28
Catfish	3	5	1	2	2	4	2	4
White Perch	---	---	0.6	0.1	4	0.6	1	0.2
Smallmouth Bass	20	24	16	16	13	15	16	18

* Estimates by ODNR, Division of Wildlife, Lake Erie Fisheries Unit

COMMERCIAL HARVESTS* OF MAJOR FISH SPECIES OHIO WATERS OF LAKE ERIE, 1981-1983

Toledo to Huron[1]
(Numbers and Pounds in Thousands)

	1981		1982		1983		3 Year Average	
	Number	Pound	Number	Pound	Number	Pound	Number	Pound
Yellow Perch	754	216	330	114	191	56	425	129
Sheepshead	2,142	992	1,580	731	1,718	796	1,813	840
Walleye	---	---	---	---	---	---	---	---
White Bass	1,030	1,023	607	602	893	814	844	813
Catfish	150	256	121	212	124	209	131	226
White Perch	9	3	83	27	299	97	130	42

Huron to Fairport[2]
(Numbers and Pounds in Thousands)

	1981		1982		1983		3 Year Average	
	Number	Pound	Number	Pound	Number	Pound	Number	Pound
Yellow Perch	5,629	1,589	231	90	548	179	2,136	619
Sheepshead	189	59	45	14	241	75	159	49
Walleye	---	---	---	---	---	---	---	---
White Bass	12	12	6	6	15	13	11	10
Catfish	4	7	2	4	3	4	3	5
White Perch	0.2	0.1	---	---	42	14	14	5

Fairport to Conneaut[2]
(Numbers and Pounds in Thousands)

	1981		1982		1983		3 Year Average	
	Number	Pound	Number	Pound	Number	Pound	Number	Pound
Yellow Perch	673	190	100	41	96	31	290	88
Sheepshead	---	---	---	---	---	---	---	---
Walleye	---	---	---	---	---	---	---	---
White Bass	0.1	0.1	0.7	0.7	1	1	0.7	0.6
Catfish	0.1	0.1	---	---	0.1	0.1	0.1	0.1
White Perch	---	---	---	---	5	2	2	1

* Estimates by ODNR, Division of Wildlife, Lake Erie Fisheries Unit
1 Harvest methods - trapnets, shore seines and trot lines
2 Harvest methods - gill nets

TOTAL SPORT AND COMMERCIAL HARVESTS* OF MAJOR FISH SPECIES OHIO WATERS OF LAKE ERIE, 1981-1983

Toledo to Huron
(Numbers and Pounds in Thousands)

	1981		1982		1983		3 Year Average	
	Number	Pound	Number	Pound	Number	Pound	Number	Pound
Yellow Perch	10,855	2,040	9,821	2,123	4,313	786	8,330	1,650
Sheepshead	2,380	1,292	1,756	831	1,853	937	1,996	1,053
Walleye	2,867	5,315	3,000	5,309	1,629	2,855	2,499	4,493
White Bass	1,555	1,389	1,373	1,098	1,645	1,311	1,524	1,266
Catfish	268	360	303	380	203	273	258	338
White Perch	9	3	120	33	311	99	147	45
Smallmouth Bass	13	11	64	108	46	78	41	66

Huron to Fairport
(Numbers and Pounds in Thousands)

	1981		1982		1983		3 Year Average	
	Number	Pound	Number	Pound	Number	Pound	Number	Pound
Yellow Perch	6,180	1,731	2,517	781	1,585	545	3,427	1,019
Sheepshead	331	266	178	182	377	285	295	245
Walleye	38	188	49	78	208	274	98	180
White Bass	899	197	1,991	687	871	413	1,254	432
Catfish	10	14	9	12	16	22	12	16
White Perch	0.2	0.1	6	1	69	19	25	7
Smallmouth Bass	5	7	3	2	6	9	5	6

Fairport to Conneaut
(Numbers and Pounds in Thousands)

	1981		1982		1983		3 Year Average	
	Number	Pound	Number	Pound	Number	Pound	Number	Pound
Yellow Perch	957	289	551	170	209	73	572	177
Sheepshead	31	45	21	23	30	44	27	37
Walleye	48	85	8	13	27	40	27	46
White Bass	87	17	100	37	83	34	90	29
Catfish	3	5	1	2	2	4	2	4
White Perch	---	---	1	0.1	9	2	3	1
Smallmouth Bass	20	24	16	16	13	15	16	18

* Estimates by ODNR, Division of Wildlife, Lake Erie Fisheries Unit

CENTRAL LAKE ERIE FISHING TIPS

by

Dave Kelch, Frank Lichtkoppler, and Fred Snyder

Walleye

Drift Fishing. Drifting and casting weight-forward spinners tipped with a worm is a proven, lethal technique for catching Lake Erie walleye. A discussion of the hows and whys of setting up a simple drift will increase your fishing success and enjoyment.

Lake Erie walleye can be found on the bottom, on the surface, or suspended anywhere in between. Those walleye on the bottom are not very likely to be spooked by boat traffic unless you are fishing over a shallow reef. However, schools of walleye closer to the surface will head for other areas, and quite rapidly, when boats begin zooming overhead. Drifting is a quiet, sneaky maneuver which seldom spooks suspended fish. Drifting also helps you maintain a constant lure depth, adds action to the lure, allows you to cover a lot of territory, and is a very effective means of catching fish while saving fuel.

First, you must be able to locate fish. Although not essential, a depth finder or fish locator will dramatically (probably by 95 percent) improve your search and locate efforts. Immediately after entering the lake, turn on your depth finder and keep it on until you return to the dock--you may be surprised to find a large school of walleye between the dock and your planned fishing area!

Once you begin to approach your fishing area, slow down to, at most, a fast trolling speed (1,000 rpm's or less if you have gauges) and watch your depth finder. Once you begin to spot fish, record your position (some people use marker buoys to mark these locations), head into the wind, keep moving until your depth finder shows no more fish, and record your position again. Then turn your boat perpendicular or broadside to the wind, turn off the engine and begin casting with weight-forward spinners. Fish the depth where you saw fish on the depth finder, and remember, keep the depth finder on while drifting. As long as you are catching fish continue your drift; schools of walleye can be quite large. Once you stop taking fish, record your position and start your engine.

You now have recorded your position three times: 1) when you began to sight fish on your depth finder; 2) when you ran into the wind until reaching an area where you recorded no more fish; and, 3) when you reached the end of your drift. If you had a successful drift you will want to return to your upwind position where you first turned your engine off and started your drift, without spooking the fish.

This is easily accomplished. Circle out and run slowly back to that upwind position. Do not run back through the middle of your drift, for even at a low idle or trolling speed, suspended walleye can be spooked. And, if the drift was good, it makes no sense to take a chance and save two or three minutes at the expense of

disrupting and scattering the school.

Continue making drifts over the same area as long as you are catching fish. It is very common to "limit out" after a number of drifts over a school of actively feeding walleye. On the other hand, you may make one productive drift and find that the second drift is a real loser. Fish can "turn on" and "turn off" for a number of reasons: increased light begins to penetrate the water, suspended schools of bait fish leave the area or scatter, the school's active feeding period simply ends, a barometric pressure change occurs, heavy boat traffic spooks the school, or countless other reasons known only to the Maker! In the case of excessive boat pressure or the relocation of bait-fish schools, the walleye may have simply moved to the right or left of your original drift. Next time, try drifting either to the right or left of your initial drift and you may relocate the school. If this fails, begin a slow, low-speed search.

Trolling. Many anglers prefer trolling to drift-casting for walleye. Trolling allows one to cover more water and to actually fish while searching with an electronic fish locator for walleye. Trolling is also another means of locating fish for the angler who does not own electronic gear.

Nearshore anglers (depth less than 35 feet) will troll diving plugs at various depths until fish are located (remember that walleye may be found suspended at depths from 5-20 feet in search of food). Once a fish is caught, a marker buoy is placed and the area is trolled again or a drift is set up on this location.

Many anglers have discovered excellent walleye fishing offshore in depths greater than 45 feet; generally 6 miles or more out. Trolling deep diving lures is productive, yet many times walleye are deeper than these plugs can dive. Weight can be added above the lure to acquire greater diving depth; however, this may affect lure action. Wire line (10-12 lb. test) has become popular for this type of fishing and will allow diving lures to reach greater depths. A bait casting type reel must be used, however, with wire line.

Downriggers are another method employed in trolling for walleye. Downriggers allow the angler to fish at a specific depth and with different types of lures. Although diving lures are popular with downrigger anglers, spoons, spinners and weight-forward spinners are used with success. Many offshore anglers will use downriggers to fish at depths greater than 40 feet while trolling diving lures at depths of 20-35 feet, thus fishing the entire water column. Downriggers can also be used nearshore in shallower water when walleyes are found suspended at a certain depth. This allows the angler to fish lures at the depth of heaviest concentration of fish.

When and Where to Fish. Ice fishing in the central basin is not recommended, since ice conditions are generally not safe. This results in a spring, summer and fall walleye fishery between Huron and Conneaut. Walleye will move into shallow, nearshore areas (bottom composition of rock, gravel and sand) and offshore reefs in the spring to spawn. Water temperature for spawning is generally in the low 40s. Although walleye are difficult to catch at this time, anglers are successful fishing jigs tipped with minnows and nightcrawlers on slip sinker rigs dragged slowly along the bottom. Spawning in the central basin is generally 2-3 weeks behind the western basin since water temperature warms more slowly. Post-spawn walleyes will move into deeper water to rest and recuperate. Fishing activity is slow at this time. Offshore anglers begin to have success early to mid-

June and nearshore activity generally picks up by late June. During July through August, central basin anglers catch limits of walleye from 100 yards offshore (10-15 feet) out to 10 miles or more (55 feet). Walleye are even taken by pier fishermen during this time at Huron, Lorain and Cleveland although not with the frequency and success of the boat angler. During September and October, thoughts usually turn to yellow perch. However, walleye are taken offshore in deeper water by trolling slowly and deeply.

Central basin walleye anglers are fortunate in that most of the nearshore areas are rock, sand and gravel to a depth of approximately 35 feet. Walleyes prefer this type of habitat. Algae attached to rocks harbor emerging insects and zooplankters. Zooplankton attract small fish, generally shiners, upon which walleye prey. Walleyes have also been observed by scuba divers lying motionless on the bottom. This "resting requirement" may tend to limit them to hard bottom areas since silty or mud bottoms have lower oxygen concentrations. Walleye also prefer to spawn over this type of bottom.

Large schools of walleye are also found suspended in search of large schools of forage fish, in depths of 55-60 feet far offshore.

Anglers must remember, however, that the surface area of the central basin is considerably larger than the western basin, and finding concentrations of walleye may take longer than in the western basin. Seldom will anglers find large packs of boats fishing a school of walleye. Electronic fish locators or trolling will decrease your time in locating fish.

Artificial reefs will help to concentrate fish within a given area, thus limiting the angler's search. Such reefs are planned for the Lorain, Cleveland, Fairport and Ashtabula areas and will provide successful, easy access fishing areas.

Although walleyes can be found anywhere in the central basin, there are time tested "hot spots." Some of these areas include the following:

- nearshore areas between Huron and Vermilion, including the Ruggles Beach area;
- nearshore areas between Vermilion and Avon Point, including the Lorain Ford Plant, Elyria Water Works, Sheffield Lake and Avon Point;
- offshore between Vermilion and Lorain, 6 to 10 miles, depths of 40 to 60 feet, and specifically around the sand/gravel bar which extends down from Point Pelee and parallels the shore (see map);
- nearshore areas between Rocky River and Lakewood and deep water trolling offshore, including Cleveland; and,
- nearshore off the Perry Nuclear Power Plant, Fairport Harbor.

Yellow Perch

Although walleye are coming into the sport fishing "limelight" in the central basin, the yellow perch is probably the most sought after species. Pier anglers as well as boat fishermen have excellent success in harvesting this fine eating fish,

and one does not need expensive gear to catch the yellow perch. The angler who desires to catch a bucketful of "jumbo perch" can do just that in the central basin. The growth rate of perch in the central basin has been shown to be significantly greater than in the western basin, probably due to lower harvest rates, abundant food supply and less overcrowding. This can be the difference of a full inch for perch of the same age.

Yellow perch can be found nearshore during the spring when water temperatures reach the low to mid 40s. Yellow perch spawn at this time and prefer the nearshore rocky bottom and breakwall areas to deposit their eggs. After spawning, the perch move out to deeper water habitats and are available to the offshore angler during the summer months. Come late August to early September, the perch move back in close to shore to feed. They will remain nearshore through the winter and offer excellent fishing until ice-up.

Most perch fishermen will use a spreader with long-shanked snell hooks of the No. 6 size. The long shank keeps the bait and hook from being swallowed. The standard bait is minnows hooked through the tail, back or lips. Light to medium action rods and line no heavier than 8 lb. test will allow the angler to feel the delicate nibble.

Since perch are bottom oriented, the standard technique is to lower the bait to the bottom, raise it about 1 foot, and wait for the action. Slowly raising and lowering the rod tip may help to attract schools of perch. Spreaders, with 2 baited hooks, are routine since large schools of hungry perch can produce constant "double-headers." A good trick to improve your score is to increase the number of "double-headers" you pull up. When a school is under your boat, set the hook gently when you get a strike, but allow the hooked fish to swim around on a snug line for a few seconds. This often induces another perch to strike the second minnow on your spreader.

The entire shoreline in the central basin is productive for yellow perch during the spring and fall months including shoreline fishing piers. For the boat angler new to the area, watch for concentrations of boats within 1-2 miles of shore and you'll likely find fast perch action. For the angler without a boat, piers at Huron, Lorain and Cleveland produce. Perch and walleye fishing party boats are located in Lorain and Cleveland and offer the angler an opportunity to fish nearshore at a very moderate price. Small boat rental businesses are present along the entire shoreline at moderate rates.

Salmon and Trout Fishing

In the fall, as nearshore water temperatures decline to about 68-70°F, salmon begin moving inshore from their offshore summer habitats. Nearshore salmon reach their peak densities when water temperatures range from 57-65°F, usually from late September to early October.

During this period, most salmon range only 50 yards to 1/4 mile from the shoreline and within 1/2 mile of river mouths. This indicates that large numbers of salmon may concentrate into rather small areas.

Salmon show three types of behavior patterns during these pre-spawning migrations: stream searching, stream testing, and false runs. Stream searching involves back-and-forth movements extremely close to shore, usually close to

stream mouths. Stream testing is salmon movements in and out of streams other than the one chosen for spawning. Salmon making false runs enter and back out of the streams they eventually try to spawn in. Thus, both the near offshore waters around a stream mouth as well as the mouth itself see considerable salmon traffic.

Stream level, affected by rainfall, is the main factor affecting the timing of stream entry. Most salmon enter the streams as the water rises to high levels. Once salmon enter the streams, their movements are often minimal and they may stay near the river mouth for two or three weeks. Stream temperatures during the fall spawning runs are lower than lake temperatures. Salmon enter streams at temperatures ranging from 64°F down to 43°F, but usually in response to rising stream levels.

Remember that Lake Erie's steelhead and brown trout also run up into streams during the fall although they do not attempt spawning until spring. Steelhead and browns also remain within a quarter-mile of the shoreline, moving in at about the same time as salmon but entering the streams about 2-3 weeks later.

In Ohio, cohos, and until recently chinooks, are stocked in the Huron and Chagrin Rivers. Due to straying, sizeable salmon runs also occur in the Rocky and Grand Rivers, and some fish are seen in nearly every other major tributary.

Tackle and Methods. Lake Erie salmon can be taken on any good quality spinning or casting outfit. Eight or ten-pound line is suitable but should be in good condition. Your reel's drag should be set low enough to give up line before it breaks as the fish runs.

The most popular lures for fall salmon are diving crank baits with spoons and spinners coming in second. Salmon respond well to "hot" colors--pink, chartreuse, green and yellow; silver and gold should also be in your box. A few of the patterns reported to be successful by many Ohio salmon anglers are the Bomber 6A, 7A and 8A, Hot-N-Tots and Wiggle Warts, Tad Pollies, Lindy Deep Shad and Shadling, Arbogast Mud Bug, and Bill Norman's Lures. Popular spoons are Little Cleos, Eppinger Devle Dogs and Cop-E-Cats, K-O Wobblers, Flutter-Chucks, and Northport Nailers. Commonly used spinners include Rooster Tails and Mepps (no lure endorsements are intended). It is important to carry a diverse selection of lure patterns and colors. Salmon can be finicky and it pays to change patterns and colors every half-hour or so until you get some action.

Flat-line trolling from small boats seems to be the most popular method of fishing near the Chagrin River. Trollers may let out 50 feet to 75 yards of line. Slow trolling speeds are best although occasionally changing speed will sometimes bring a strike. Downriggers can be very effective if the fish are near bottom in 20-25 feet of water.

Spawn bags and night crawlers fished near the bottom will also take salmon, especially at the mouths of the rivers. It is not uncommon to pick up steelhead on live bait, particularly spawn bags, while salmon fishing. Steelhead frequently follow salmon to spawning sites to feed on fresh eggs.

Salmon are also taken by casting from the stream banks, jetties and breakwalls, and from boats in the river mouths. Spoons and large spinners are especially popular for making long casts.

When to Fish. As a general rule, mid-day is the poorest time to fish for salmon. Dawn and dusk hours routinely account for the lion's share of the fish taken each fall. Ohio anglers do very little casting at night, but Michigan fishermen report night casting from breakwalls to be deadly. The favorite trick there is to apply phosphorescent paint to the lure which can be charged up with a flashlight or camera strobe light to glow in the dark.

SALMONID STOCKING BY OHIO DNR

1980	1981	1982	1983
Conneaut Creek			
58,694 RBT	61,610 RBT	58,680 RBT	112,500 RBT
Wheeler Creek			
20,000 RBT	4,000 RBT	---	18,750 RBT
Arcola Creek			
8,000 RBT	8,000 RBT	---	18,750 RBT
Grand River			
20,500 BT	31,280 BT	38,650 BT	30,000 BT
10,000 RBT	2,800 RBT	93,200 RBT	101,880 RBT
Chagrin River			
178,660 Coho	128,683 Coho	109,706 Coho	174,864 Coho
140,300 Chinook	19,000 RBT	70,000 RBT	50,000 RBT
90,000 RBT			
Rocky River			
20,000 RBT	4,000 RBT	---	50,000 RBT
Vermilion River			
12,200 RBT	25,000 RBT	16,700 RBT	18,000 RBT
Huron River			
212,695 Coho	120,431 Coho	171,904 Coho	104,000 Coho
140,300 Chinook			
TOTAL	404,804	558,840	678,744

Legend

RBT -- Rainbow trout (Steelhead)
BT -- Brown trout
Coho -- Coho salmon
Chinook -- Chinook salmon

Smallmouth Bass

The following tips will aid you in fishing for smallmouth bass in Lake Erie:

Fish on the bottom. Smallmouth bass rarely feed on the surface. For best results, fish your baits as close to the bottom as possible.

Find preferred habitat. Smallmouth prefer cool, clear water with rocky or gravel bottoms. The breakwaters in the central basin and areas with gravel bottoms are all productive smallmouth habitats. Smallmouth bass are structure oriented fish attracted to ledges, humps, rock piles, artificial reefs and wrecks.

Fish in shallow water. Smallmouth are a relatively shallow water fish. As water temperatures rise to 50°F in spring, smallmouth move into the shallow waters along shore. In Lake Erie, the magic temperature is 55-56°F for spring spawning of smallmouth. This generally occurs in mid-April through May and fish will spawn on gravel, rocky bottoms at depths of 3-15 feet. In summer and fall they will seek out their preferred water temperatures of 68-70°F.

Use light or ultra-light tackle. Smallmouth are very wary; anything unnatural will scare them away. Use a light or ultra-light 5-6 foot rod and 4-6 pound test line. When weighting the line, use only as much weight as is necessary to get the bait to the bottom. Light line reduces the chance that it will be seen by the bass.

Use natural or natural-like bait. Smallmouth feed almost exclusively on crayfish and minnows, and these items make good natural baits. A worm or night crawler also makes a productive, reliable bait. If artifical baits are used, a close imitation of minnows or crayfish will prove to be most productive. A 1/4, 1/8 or 1/16 ounce black or brown lead-head jig tipped with a minnow works well in spring. Once the smallmouth move from the shallows to their deeper 15-30 foot habitats in summer, use live crayfish no longer than 2 or 2 1/2 inches for bait.

By paying attention to the five guidelines above, you can increase your chances of hooking a Lake Erie smallmouth bass.

Playing and landing the fish is an exciting experience you should be prepared for. Learn to set the hook. Set the hook, but not so hard as to tear the bait out of the fish's mouth. Keep the rod tip up. This will keep tension on the line and not let the fish have the opportunity to throw the hook. Check the drag before you start fishing. Your line should come off the reel with a moderate pull after the reel has been engaged to retrieve the line. A properly set drag will reduce the chances of a broken line. Watch those jumps! Smallmouth are a very hard fighting, acrobatic fish. Be prepared for the changes in line tension a jumping fish can exert. A decrease in line tension can be compensated for by raising the rod tip and reeling in the line. An increase in line tension can be dealt with by lowering the rod tip momentarily to avoid breaking the line. Use a net to land the fish. Have the net in the water before the fish is brought in close to the boat to avoid scaring the fish. Try to net fish head first as they are limited in their ability to swim backwards.

White Bass

White bass can offer the central basin angler fast and furious action, with coolers full of this tasty fish being taken within just a few hours.

They can be found nearshore during late spring (water temperature in the mid 50s) when they prefer to spawn over hard bottom areas. During the summer and fall, white bass are constantly on the move in search of food for their voracious appetites. Large schools of white bass can be observed in both near and offshore areas, close to the surface feeding on minnows. During these "feeding frenzies," they will strike almost any type of lure or bait, and provide fast action for boat, pier and shoreline anglers. During late June through August, anglers fishing from piers and around harbor areas will find the white bass plentiful. Hot water discharge areas are favorite haunts of the white bass during the summer months.

Pier and shoreline anglers will cast small spinners, spoons and jigs into the feeding school, which generally boils the water with it's feeding activity. Small white flies, attached 15-20 inches behind a weighted, floating cone-shaped device called an "agitator," are a favorite lure. The weighted agitator allows the angler to cast farther out and provides action for the trailing fly when reeled in.

When boat anglers observe a school of white bass feeding on the surface, they should approach the school slowly at low speed, so as not to spook the school, causing them to descend. Stop the boat within casting distance and cast small spinners, spoons or jigs into the school. The action will be non-stop until the school stops feeding. Be on the lookout for flocks of seagulls hovering and diving over the water. This generally indicates a school of minnows close to the surface which is attempting to flee a school of feeding white bass.

White bass are caught throughout the central basin, late spring through fall. Although they can be caught throughout the day, early morning and late evening hours seem to be best since active surface feeding generally occurs at these times.

Freshwater drum

The freshwater drum, Aplodinotus grunniens Rafinesque, is a member of the drum family, Sciaenidae. The drum family is of moderate size, perhaps 160 species. In the United States, with the exception of the freshwater drum, all members of this family occur naturally in salt or brackish water.

Most members of the drum family have a unique trait of producing a "drumming" sound. The freshwater drum was named because of this sound-producing ability. This sound is produced voluntarily by strong muscles attached to the sides of the air bladder. The air bladder serves as a resonance chamber, amplifying the snapping of the muscles much like the action of guitar strings upon a guitar body. The reason for this drumming is not well understood but it is noted more often during the spawning period.

Freshwater drum are abundant in Lake Erie today. Drum populations have remained stable and abundant over the past year(s) and this trend is expected to continue.

The freshwater drum is becoming increasingly important to the commercial and sport fisheries of Lake Erie. Since 1915 the commercial fishery has averaged 3 million pounds of drum annually, peaking at about 6 million pounds in the late 1950s. The Ohio Division of Wildlife estimates that 10 million pounds of drum could be harvested annually but low market demand has prevented this.

Considered for years a "trash fish not fit for the table," the freshwater drum is now kept by many anglers. In 1980 a sport fishing survey revealed that drum composed over 10.5 percent of the total angler harvest. Sport fishermen are realizing that the drum is not only an excellent fighter but also quality table fare when properly handled.

Contrary to popular belief, the Lake Erie freshwater drum is not limited to bottom feeding like the common carp. Young drum feed upon zooplankton (microscopic aquatic animals), tubifex worms, blood worms and other aquatic insect larvae. Older drum prefer larger aquatic insects, such as mayflies, and ichthyoplankton (larval forms of fish). Once drum reach maturity, emerald shiners, gizzard shad and crayfish become an important part of their diet. Food habits of the walleye, yellow perch and smallmouth bass are quite similar to that of the freshwater drum. All four of these species are classified as predators.

The freshwater drum is found throughout Lake Erie, its tributaries and adjoining bays. They inhabit both shallow and deep water, preferring rocky bottoms and reefs from 5 to 25 feet deep.

These spunky fish can easily be caught from shore or from piers. Practically any natural bait will work, though minnows, worms and crayfish work best. Drum will readily take artificial lures as well. Spinner baits, including the popular weight-forward walleye spinners, jigs, and small to medium crankbaits are most successful. To increase your luck, tip spinners and jigs with a natural bait like worms or minnows.

Fly fishermen can also enjoy catching this excellent fighter since drum will readily take a wide variety of artificial flies (wet flies are best). An added incentive for fly fishermen is the potential for a world record catch. As of 1981 the International Game Fish Association (IGFA) listed vacancies for freshwater drum in all established tippet classes. Check with the IGFA for details.

REEF FISHING

Why Do Fish Prefer Reefs?

Walleye and many other fish species rely on sight to find their prey. Efficient sight feeding, especially for a large fish seeking moving prey, requires sufficiently clear water to discern the prey at some distance. Such relatively clear water is found over the bedrock reefs in the island region. Experienced sport fishermen expect to find walleye concentrated around clean, hard bottoms, such as rocky reefs, gravel or clean sand, and at the edge of weed beds. Reefs are good feeding places for walleye. Cladophora beds (a filamentous green algae) harbor emerging insects and zooplankters. Zooplankton attract small fish, usually shiners, upon which walleye prey.

Scuba divers who have inspected reefs in western Lake Erie have observed walleye lying motionless on the rocky bottom during daylight. This daily "resting requirement" may tend to limit them to reefs and other hard bottoms. Silty or muddy bottoms with high organic concentrations tend to have lower oxygen concentrations. This is especially true during calm periods when currents and water mixing are slight. Walleye prefer not to rest in these areas because of their additional requirement for high oxygen concentrations.

Walleye and other species commonly spawn over rock, rubble or gravel in streams, shallow offshore reefs or along shorelines of lakes. Spawning runs of walleye persist in only two major Ohio streams, the Sandusky and Maumee rivers. In the 1800s and the early part of this century many of the lake's other tributaries were productive spawning sites, but the construction of dams, siltation, excessive pollution and irregularity of stream flow due to man's activities have destroyed spawning sites. Today, the major existing spawning grounds in the Erie Basin are found on the reefs of the island region. These reefs are free from oxygen-consuming mud.

Researchers have postulated that walleye fry imprint some essential characteristics of their birthplace and that most sexually mature adults return to that birthplace to spawn. These factors would also favor the continued utilization of the reefs by future walleye populations.

Artificial Reefs

Saltwater anglers in the United States have used artificial reefs to enhance their fishing efforts for over 100 years. Freshwater artificial reefs were not tried until the late 1950s and the first such structures in the Great Lakes have only been constructed in the last decade. The Ohio Sea Grant Program, in cooperation with the Ohio Department of Natural Resources, Division of Wildlife, has obtained permits to construct three artificial reefs in central Lake Erie in the vicinity of Lorain (Site 1), Lakewood (Site 2), and Cleveland (Site 3). These will be the first to

be built in Lake Erie. The descriptions of the sites as they appear on the U.S. Army Corps of Engineers' permits are given below and shown on the map above.

Beaver Creek-Lorain (Site 1). This site, a one-half mile square with the southern corner trimmed off (about 150 acres), is just over one half mile from shore in 20-30 feet of water (low water datum). The maximum amount of material to be deposited is 1.5 million cubic yards. No material will be less than 15 feet from the surface (low water datum). The bottom type here is sand and gravel to boulders. The polygon is delineated by 41° 28.1'N x 82° 13.6'W, 41° 28.3'N x 82° 13.08'W, 41° 27.9'N x 82° 12.8'W, 41° 27.75'N x 82° 13.2'W, and 41° 27.77'N x 82° 13.2'W, and 41° 27.77'N x 82°13.4'W.

Lakewood Park (Site 2). This site is in 20-30 feet of water (low water datum), approximately half a mile from shore, between Rocky River and Edgewater Park. The site is one half mile by one quarter mile, or 80 acres in area. The bottom material is shale close to shore and sand farther offshore. No material will be less than 15 feet from the surface (low water datum). The maximum amount deposited will be 775,000 cubic yards. The rectangle is delineated by 41° 30.2'N x 81° 47.6'W, 41° 30.2'N x 81° 47.0'W, 41° 30.0'N x 81° 47.6'W, and 41° 30.0'N x 81° 47.0'W.

Edgewater Park (Site 3). This site is right at the shoreline surrounding ODNR's new fishing pier. Dimensions are 300' x 300' or 2.1 acres. Bottom type is mostly sand with some mud. Depth ranges from 0-20 feet (low water datum). No material will be less than 10 feet from the surface (low water datum). The maximum amount of material to be placed is 20,000 cubic yards. The latitude and longitude of the site midpoint is 41° 29.6'N x 81° 44.3'W.

Th objective of placing artificial reefs in central Lake Erie is to simulate the excellent fishing habitat found in the western basin. The artificial reefs will be constructed of clean concrete, brick or rock rubble for the purpose of creating new spawning habitat and to improve the area for fishing by attracting fish to these structures for food and shelter. The Ohio Sea Grant Program plans to conduct evaluation studies to determine effectiveness of the artifical reefs in achieving these objectives.

Northeastern Ohio

Ohio Sea Grant advisory committees in northeastern Ohio have recommended two additional sites for artificial reefs in that part of the state. These proposed sites, shown with a red, dashed border on the map above, are being studied for the Fairport Harbor and Ashtabula Harbor areas.

Fairport Harbor Site. The proposed reef is about 7/8 mile west of the harbor entrance channel in water 29-33 feet deep (low water datum). The reef would be well marked and easy to find, being less than one mile offshore from Headlands Beach State Park. The proposed reef site is located out of commercial navigation lanes. The reef site is 1/4 mile square and covers 40 acres. The maximum amount of material to be deposited is 385,000 cubic yards. The reef will be constructed of clean concrete, brick and rock rubble. No material will be placed less than 15 feet from the surface (low water datum, 568.6'). Bottom type is presumed to be sand. The reef is over 1/2 mile from any water intake.

Ashtabula Harbor Site. The proposed reef is about 1/4 mile offshore of and roughly parallel to the west breakwater in water 24-37 feet deep (low water datum). The reef would be well marked and easy to find being less than one mile southwest of the harbor entrance. This proposal reef is located out of commercial navigation lanes and offshore of public property (Walnut Beach Park). The reef site is 1/4 mile square and covers 40 acres. The maximum amount of material to be deposited is 385,000 cubic yards. The reef will be constructed of clean concrete, brick and rock rubble. No material will be placed less than 15 feet from the surface (low water datum, 568.6'). Bottom type is thought to be sand or mud. The reef is over 1/2 mile from any water intake.