

The 2002 Walleye Report

by
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For the eighth consecutive year (in each summer issue, from 1995) of Lake Erie Walleye Magazine, we provide a synopsis of the walleye fishery in Lake Erie based on the scientific reports produced by the fisheries management biologists from the states of Michigan, Ohio, Pennsylvania and New York.

This fisheries summary provides estimated size of the walleye population in Lake Erie, walleye growth and migration, catch rates, and other biological factors related to the walleye fish stocks in Lake Erie.

Walleye quotas for 2002

The Lake Erie Committee of the Great Lakes Fishery Commission has held the line on the total allowable catch (TAC) of walleyes for 2002. The TAC for 2002 has been set at 3.4 million fish, the same as in 2001.

Michigan Waters of Lake Erie

In 2001 anglers harvested an estimated 159,186 walleyes from the Michigan waters of Lake Erie. Of these, a total of 115,289 walleyes were taken by private anglers (72%) and 43,897 fish were taken by charter boat anglers (28%). Walleye fishing peaked in the month of July with 79,885 fish caught (Figure 1). Approximately 50% of the total annual walleye harvest occurred in

the month of July. Overall angler effort in 2001 declined slightly compared to a year ago but remains consistent with angler effort observed since 1993.

Age 2,3, and 4 (1999, 1998, and 1997 year classes) walleyes dominated the walleye harvest, comprising 83% of the catch. Harvested and ages 2, 3, and 4 walleyes averaged 14.0 inches, 16.8 inches and 18.5 inches in total length.

In 2001 a total of 4,210 walleyes were tagged by Ontario, Ohio, Pennsylvania, New York and Michigan biologists at eight Lake Erie sites. A total of 89 tags were recovered by fishermen for a single season reporting rate of 2.1%. This inter-agency tagging study will continue to provide valuable information regarding walleye movements throughout the lake.

Ohio Waters of Lake Erie

In the year 2001 an estimated 1.1 million walleyes (combined private and charter catches) were caught in Ohio waters of Lake Erie. This is slightly higher than the .93 million estimated harvest from the previous year (Figure 2). The 2001 private boat harvest of .9 million walleyes was a 32% increase over the previous year harvest of .68 million fish. Targeted effort for walleyes of 2.5 million angler hours was slightly

higher than the 2.2 million angler hours for 2000.

The 2001 charter boat walleye harvest of .26 was just slightly higher than the .25 million fish from the previous year. The harvest rate for charter anglers was .63 fish per angler hour and was higher than the ten-year average of .55 fish per angler hour.

The majority of the walleye sport harvest was from the 1999 and 1998 year classes. Age 5 and older walleye constituted 30% of the lakewide catch.

Walleye size in Ohio waters averaged 18 inches and 2.1 pounds. The average size for walleyes increased from west to east (Figure 3). In District 1 (western basin) walleyes caught averaged 17.6 inches and just 1.9 pounds. The average age of walleyes caught in District 1 was just under 3.7 years. In District 3 (eastern part of the central basin) walleyes taken were significantly larger and older, averaging 22 inches and 4.1 pounds. The average age walleye in District 3 was 6.4 years, 2.7 years older than walleyes taken in District 1.

Walleye Diet

What were walleyes eating in 2001? In the western basin walleyes fed mainly on shad and alewives. These clupeid species represented 89% of the total

walleye diet in the western basin. The diet differed dramatically in the central basin Ohio waters of Lake Erie.

Central basin walleyes fed mainly on shiners and rainbow smelt (Figure 4). Walleyes also fed on round gobies in the central basin. The amount of round gobies found in the stomachs of walleyes has been fairly consistent over the past four years averaging around 6%.

Walleye Tagging/Migrations

A total of 2,318 walleye were tagged in the Ohio waters of Lake Erie and its tributaries during 2001. The locations of the tagging included:

Sandusky Bay (1,035 tagged)
Maumee River (825 tagged),
Maumee Bay (434 tagged)
Grand River (24 tagged).

Approximately 42,000 walleye have been tagged since the tagging program began in 1986.

In 2001 a total of 110 walleye tags were returned by anglers with 60 of the tags being from fish tagged in 2001.

Tag and recapture studies of walleye in Ohio waters over the years have indicated that these fish migrate extensively throughout the lake. In 2001 fish tagged from the Sandusky Bay, Sandusky River and Cedar Point areas were recaptured at numerous points east of the tagging site including the far eastern end of Lake Erie (Figure 5).

Pennsylvania Waters of Lake Erie

The walleye population in Pennsylvania waters continues to be well structured with older fish (average age approximately 8 years) and a strong 1994 year class contributing to the fishery.

In 2001 the estimated number of walleyes caught was 62,041 (harvest of 52,690), a 27% decrease from the previous year and nearly a 40% decrease from the average of the past 6 years.

In 2001, targeted walleye angling effort totaled 241,246 hours, a 1% decrease from the previous year.

The majority of walleyes (70%) were taken in July (Figure 6). Many fewer fish were caught in August and September during 2001.

The average size of walleyes caught in Pennsylvania waters in 2001 was 23 inches. This was a decrease in size of about 1 inch from the previous year. Walleye age ranged from 3 to 14 years with fish from the 1998 year class (3 years old) contributing the greatest proportion of the total catch (17%). Fish 7 years and older made up 62% of the catch.

New York Waters of Lake Erie

In 2001 the estimated walleye harvest was 14,669 fish, down significantly from the estimated 28,594 fish from the previous year (Figure 7). The 2001 walleye harvest was the second lowest in the past 14 years. Angler effort targeted at walleyes totaled 163,144 angler hours and was the

lowest annual angler effort in the past 14 years.

The 2001 walleye sport fishery was centered in offshore waters between Silver Creek and Sturgeon Point. Areas west of Dunkirk, New York, produced a markedly lower harvest of walleyes.

The overall targeted walleye catch rate during the 2001 fishing season was .09 fish per hour which ranks walleye fishing quality very low compared to previous years.

The average total length of walleyes in 2001 was 24 inches.

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Figure 1. The 2001 seasonal and month-by-month comparison of walleye catches from the Michigan waters of Lake Erie.

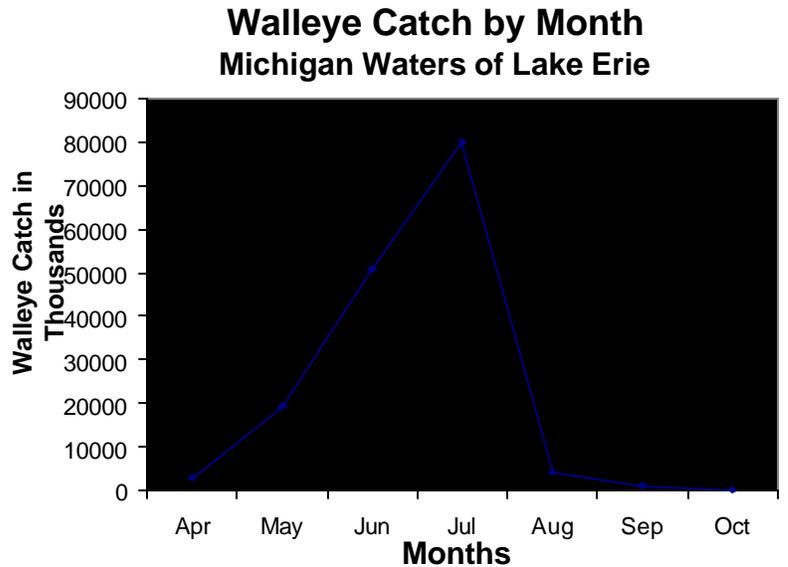


Figure 2. Ten year comparison of walleye annual harvests from the Ohio waters of Lake Erie.

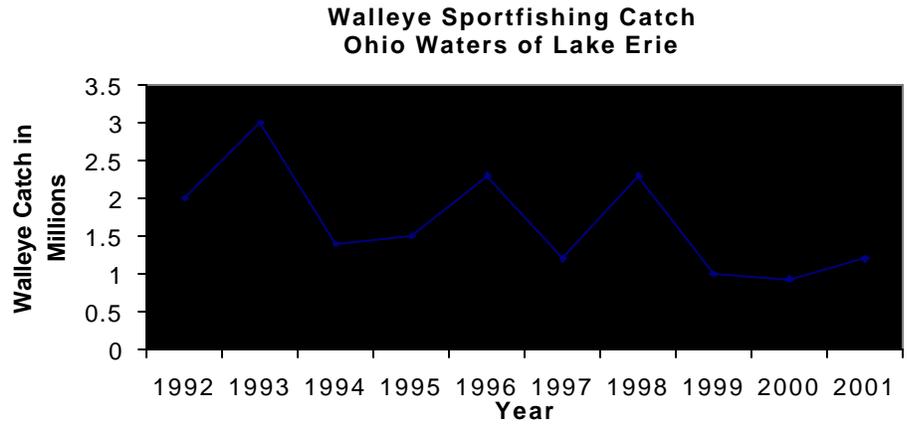
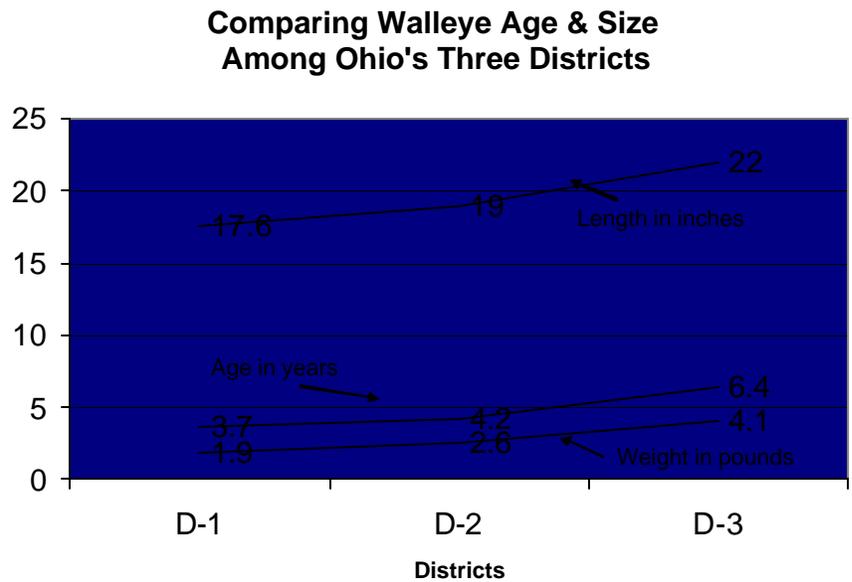


Figure 3. Comparison of walleye age and size among Ohio's District 1 (western basin), District 2 (west-central basin) and District 3 (central basin). See figure 4 for a graphical depiction of these three districts



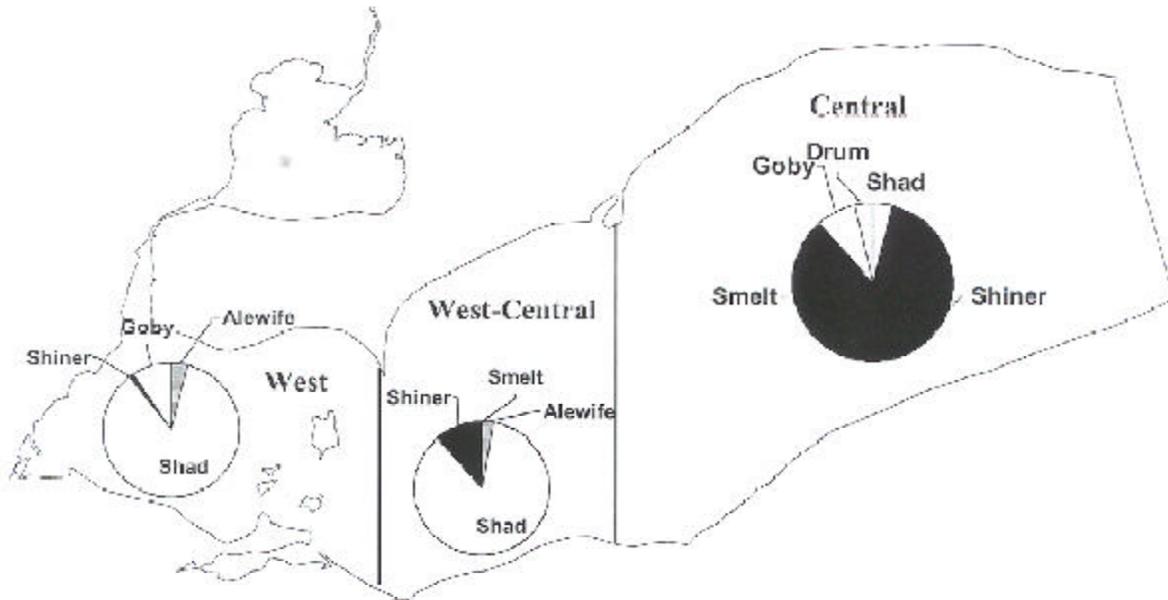


Figure 4. Comparison of diets of year 1 and older walleye sampled in 2001 from the Ohio Districts 1 (West), District 2 (West-Central) and District 3 (Central)

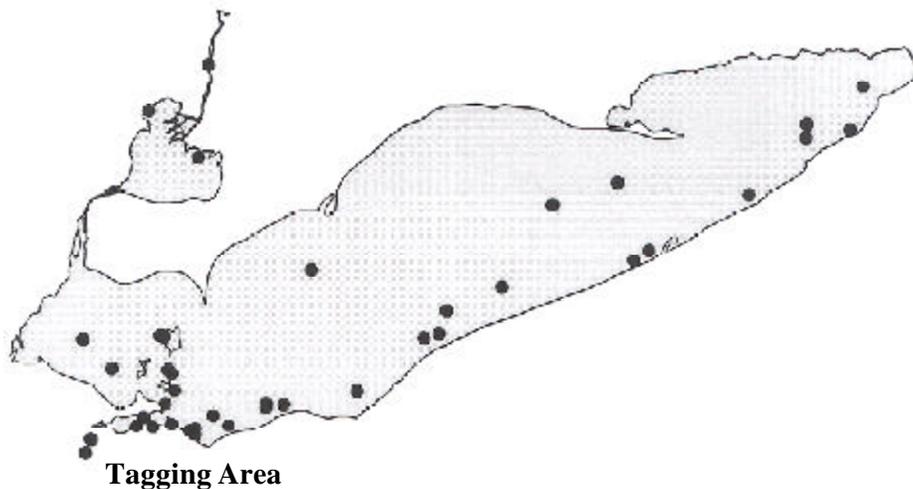


Figure 5. Distribution of the location of walleyes that were tagged in Spring 2001 in the Sandusky Bay and surrounding area and later re-captured by fishermen during the 2001 fishing season. The distribution indicates that walleye range the entire length of the lake during the fishing season.

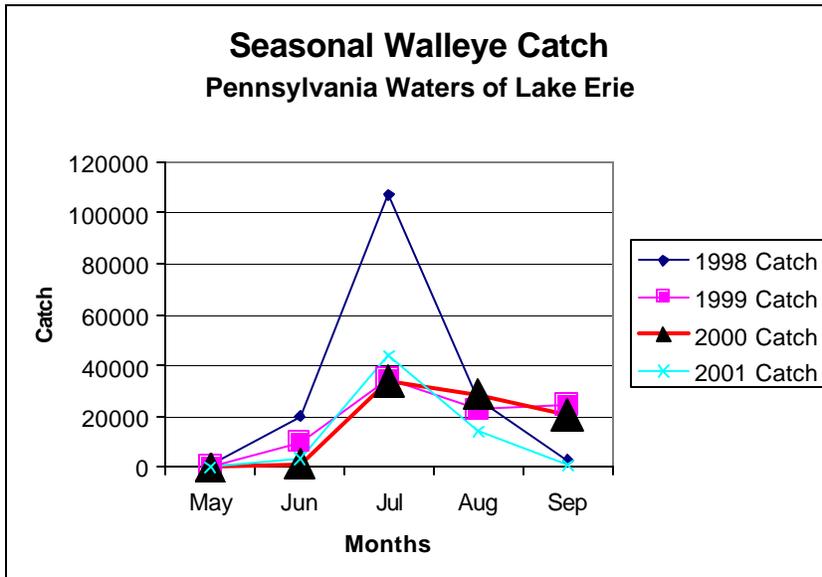


Figure 6. Seasonal comparison of walleye harvest in Pennsylvania waters of Lake Erie for years 1998 to 2001

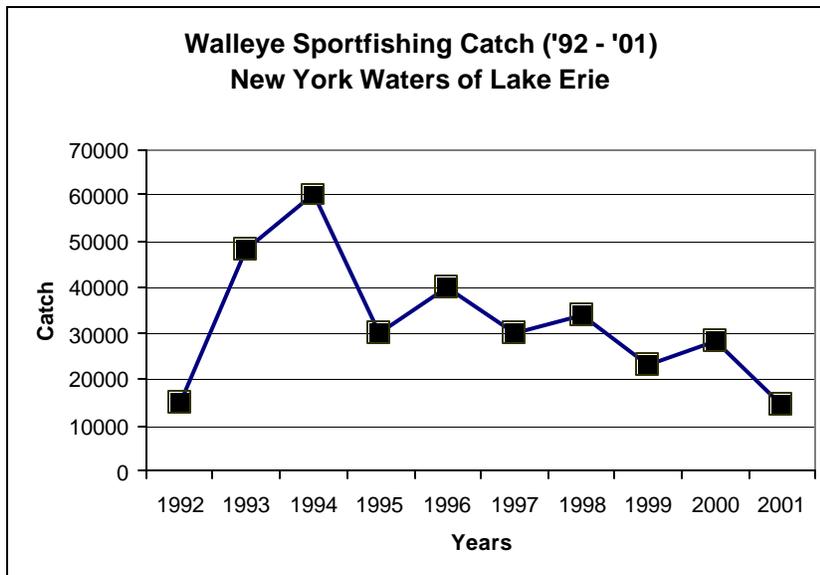


Figure 7. Ten year comparison of walleye sportfishing catch in New York waters of Lake Erie.

**Fish Ohio's
Lake Erie
Artificial Reefs!**

**Updated Locations of All
Lake Erie Artificial Reefs
Based on ODNR/GEO Survey
Side-Scan Sonar Data
Updated August, 2000**

Lorain

Polish Fisherman's Club Reef

41 28 .076 N

82 12 .758 W

The Mountain Reef

41 28 .150 N

82 12 .750 W

Lakewood

Cuyahoga County

Commissioners Reef

41 30 .175 N

81 47 .266 W

1984 Experimental Reef Site "A"

41 30 .271 N

81 47 .533 W

1984 Experimental Reef Site "B"

41 30 .256 N

81 47 .041 W

Cleveland Stadium Artificial Reefs

Edgewater

Cleveland Stadium Reef West #1

(north)

41 30 .148 N

81 45 .575 W

Cleveland Stadium Reef West #2

(south)

41 29 .970 N

81 45 .416 W

Euclid

Cleveland Stadium Reef East

(Euclid)

41 35 .933 N

81 33 .804 W