

Great Lakes Commercial Fisheries

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Michigan Sea Grant



Licensing of Commercial Fishery Operations

- States
- Tribal nations*
- Province of Ontario

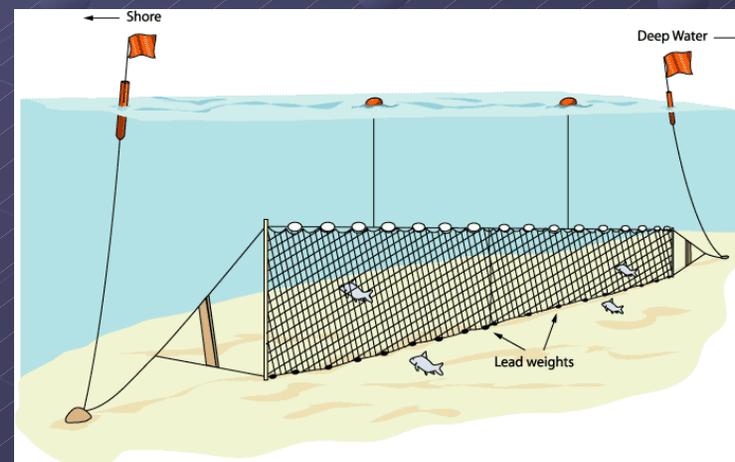
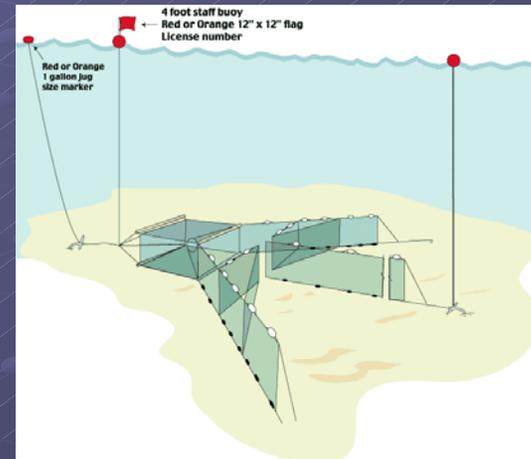
*Every lake has a Native American commercial fishery except Lake Erie

Regulation of Commercial Fishery

- Amount of fish that can be caught (quota)
- Amount and type of gear that can be used (effort)
- Province of Ontario has extensive dockside monitoring of commercial catch

Types of Great Lakes Commercial Fishing Gear Used

- Trap nets
- Gill nets
- Hoop nets
- Seines
- Trawls
- Hook/trot lines



Maintaining a Sustainable Great Lakes Commercial Fishery

- Closure of the fishery during spawning season
- Permanent and seasonal designated refuge areas
- Minimum size restrictions to allow fish to spawn at least once before they enter the fishery

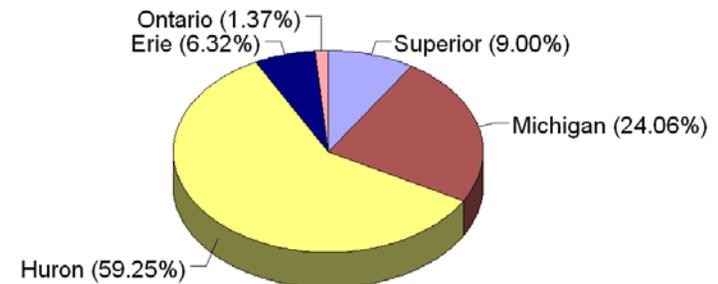
Great Lakes Lake Whitefish Harvest

- In 2000 the most harvested fish in both U.S. and Canadian waters
- Harvest of over 21 million pounds and dock side value of over \$18 million
- Over half harvested from Lake Huron



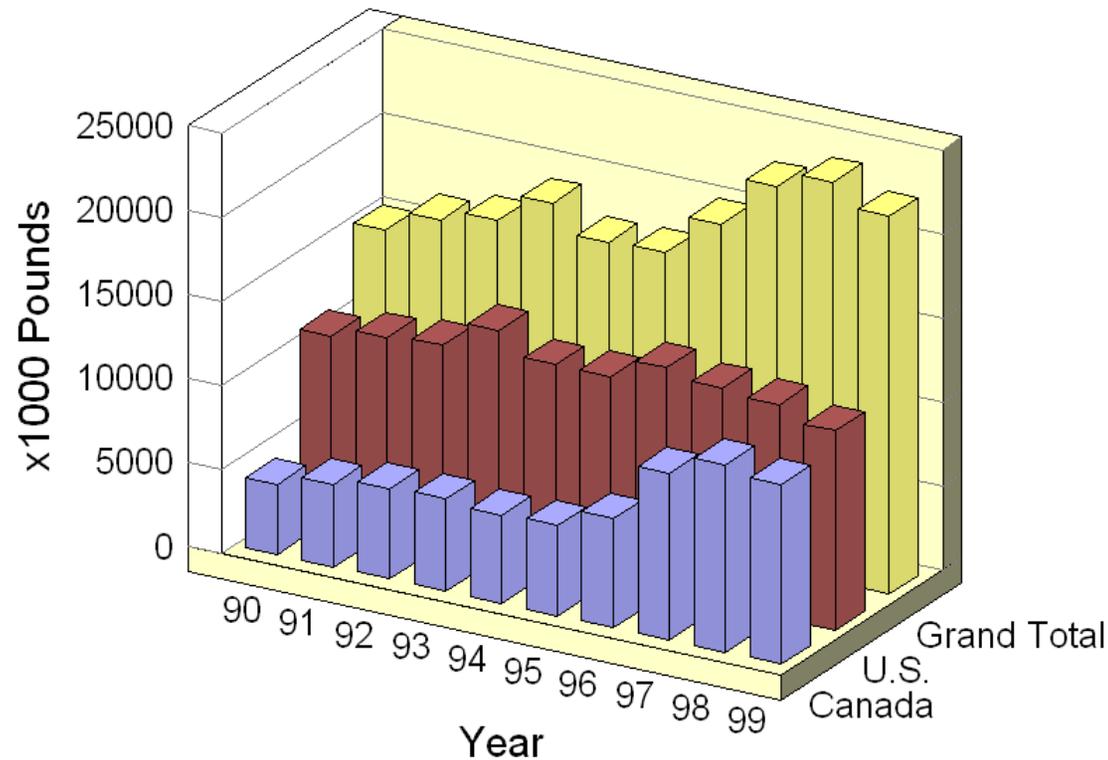
Lake Whitefish Commercial Harvest

Percent by each Great Lake in 2000



Through the 1990s most of the lake whitefish were harvested from the U.S. waters of the Great Lakes

Lake Whitefish Commercial Harvest Great Lakes

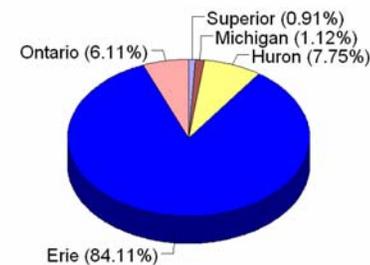


Great Lakes Yellow Perch and Walleye Harvest

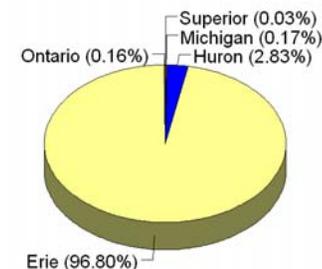
- In 2000 each were worth over \$10 million in dock side value
- 5.2 million pounds of yellow perch and 7.3 million pounds of walleye were harvested
- Yellow perch had the most value of any commercial fish at just over \$2 per pound
- Lake Erie produced most of the walleye and yellow perch



Yellow Perch Commercial Harvest
Percent by each Great Lake in 2000

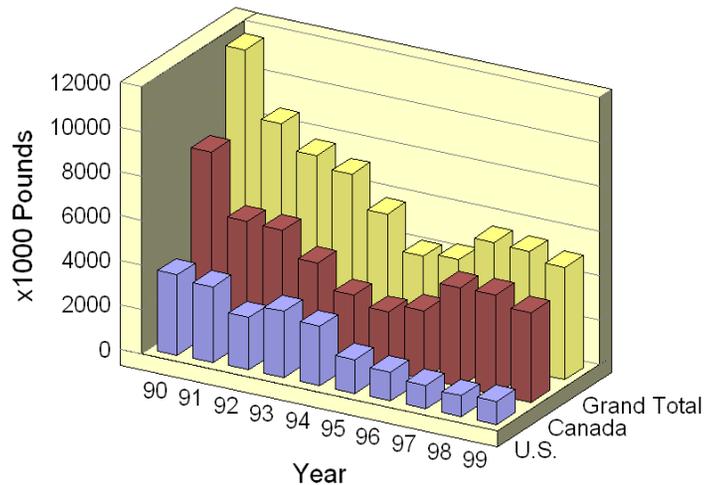


Walleye Commercial Harvest
Percent by each Great Lake in 2000

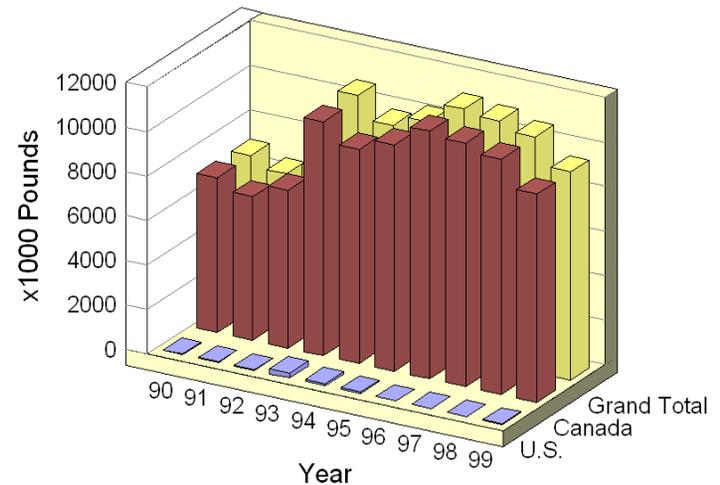


Through the 1990s most of the yellow perch and walleye were harvested from the Canadian waters of the Great Lakes

Yellow Perch Commercial Harvest Great Lakes



Walleye Commercial Harvest Great Lakes



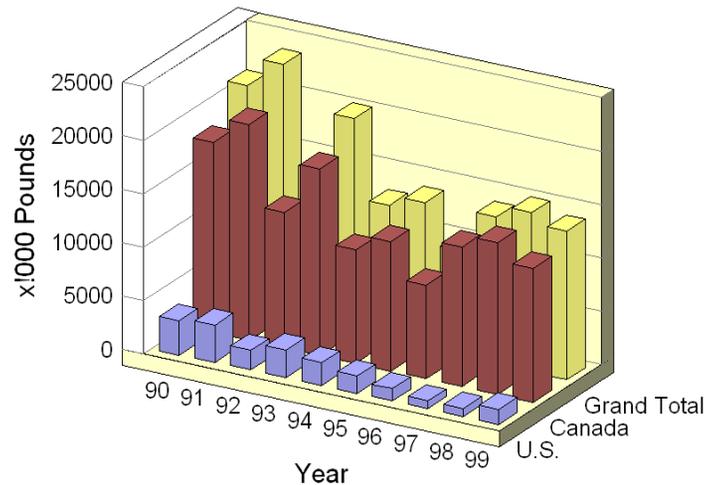
Great Lakes Smelt Harvest

- Harvest of just over 7.6 million pounds and dock side value of nearly \$2 million in 2000

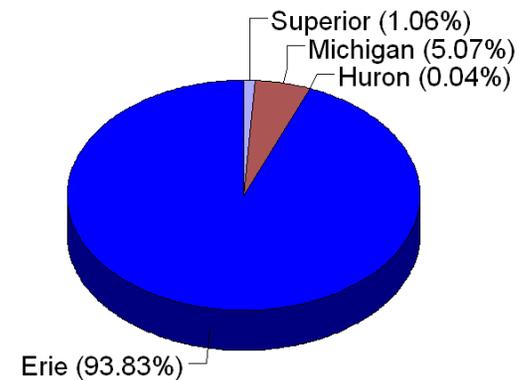


In the 1990s most smelt was harvested from the Canadian waters of the Great Lakes and in 2000 most came from Lake Erie

**Smelt Commercial Harvest
Great Lakes**



**Smelt Commercial Harvest
Percent by each Great Lake in 2000**



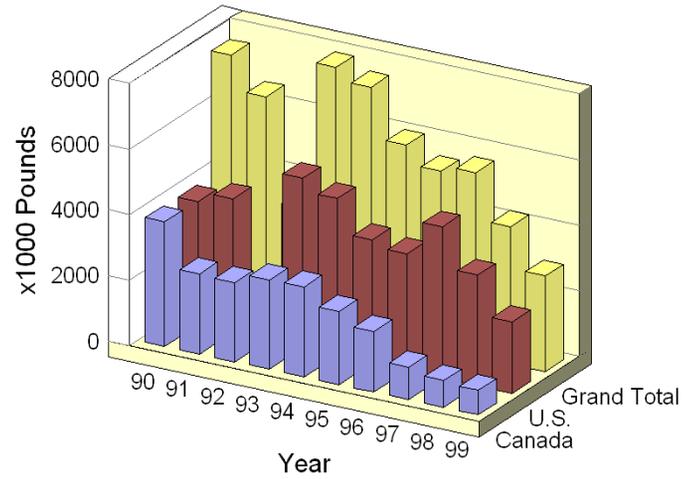
Great Lakes Chub Harvest

- Harvest of almost 2 million pounds and dock side value of nearly \$2 million in 2000

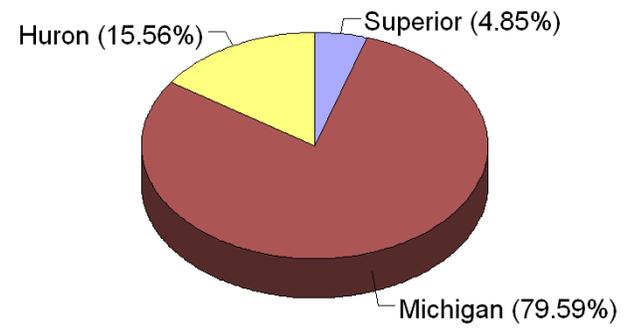


In the 1990s most chubs were harvested from the U.S. waters of the Great Lakes and in 2000 most came from Lake Michigan

Chub Commercial Harvest
Great Lakes



Chub Commercial Harvest
Percent by each Great Lake in 2000



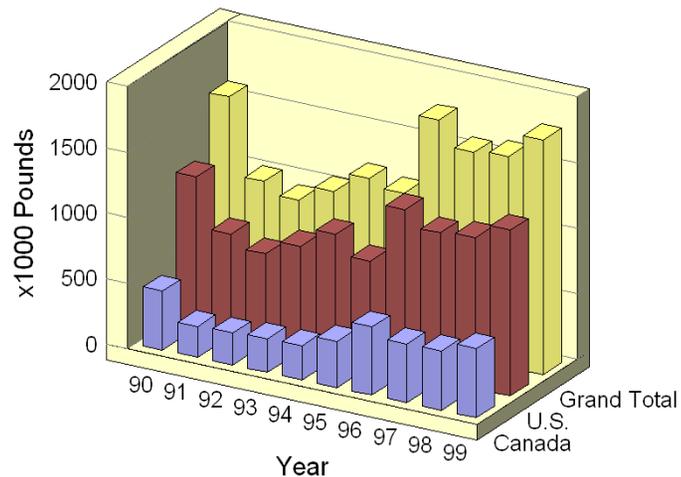
Great Lakes Lake Trout Harvest

- Harvest of just over 1.5 million pounds and dock side value of nearly \$0.76 million in 2000

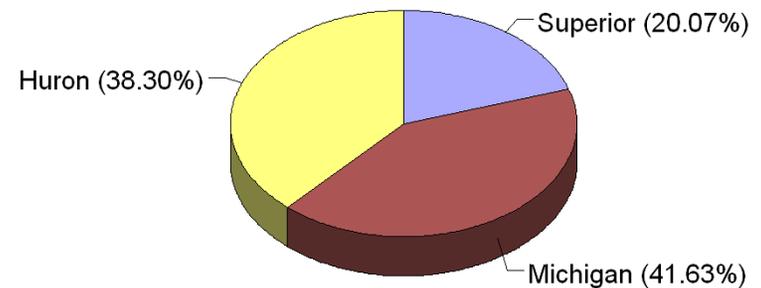


In the 1990s most lake trout were harvested from the U.S. waters of the Great Lakes and in 2000 most came from Lakes Michigan and Huron

Lake Trout Commercial Harvest
Great Lakes



Lake Trout Commercial Harvest
Percent by each Great Lake in 2000

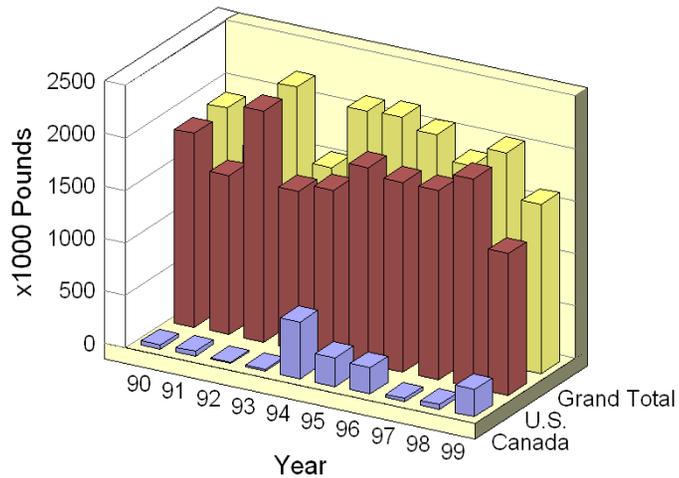


Great Lakes Carp and Channel Catfish Harvest

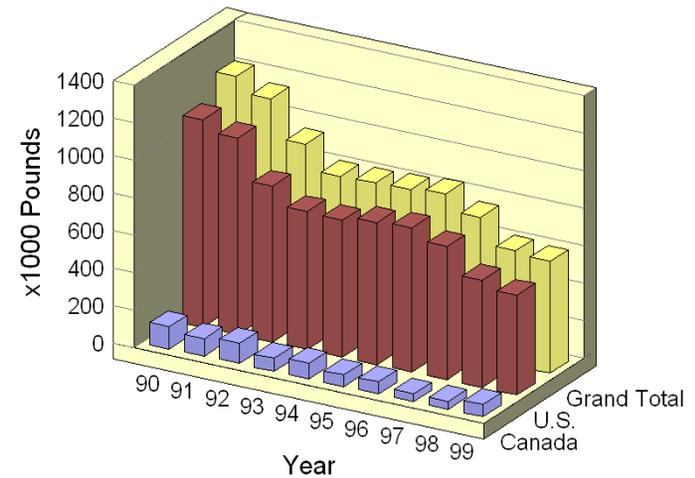
- Harvest of 1.5 million pounds of carp and dock side value of nearly \$160 thousand in 2000
- Harvest of 0.5 million pounds of channel catfish and dock side value of nearly \$310 thousand in 2000

In the 1990s most of the carp and channel catfish were harvested from the U.S. waters of the Great Lakes

Carp Commercial Harvest Great Lakes



Channel Catfish Commercial Harvest Great Lakes



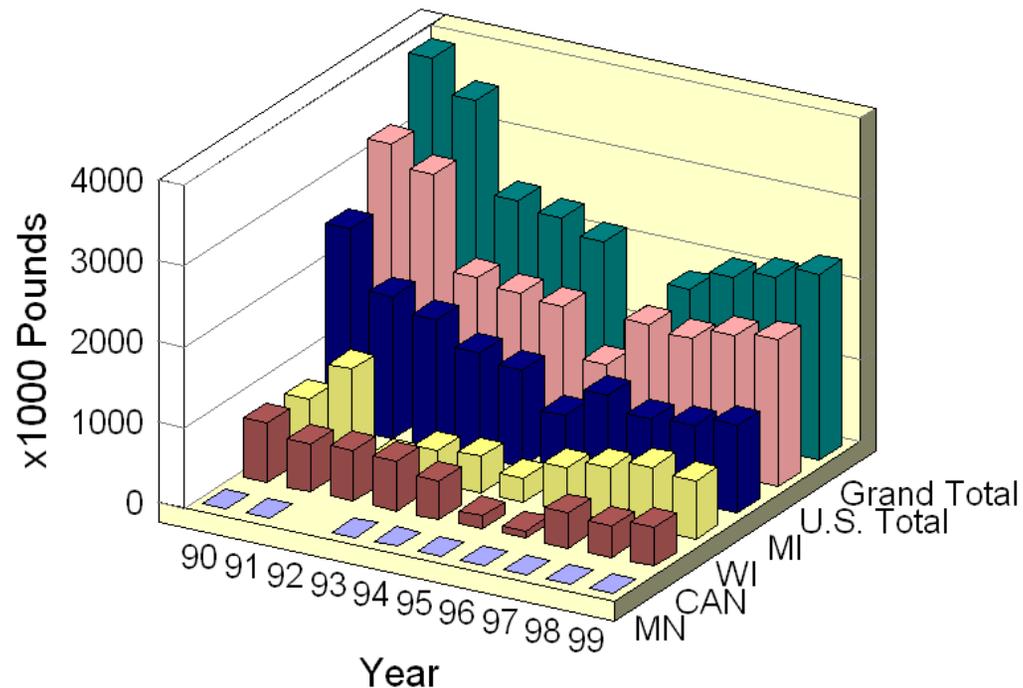
Lake Superior Lake Whitefish Harvest

- Most harvested fish in U.S. waters and second most harvested fish in Canadian waters in 2000
- Almost 2 million pounds harvested with a dock side value of just over \$1.7 million



In the 1990s most of the lake whitefish was harvested from U.S. waters of Lake Superior with most coming from the states of Michigan and Wisconsin

Lake Whitefish Commercial Harvest Lake Superior



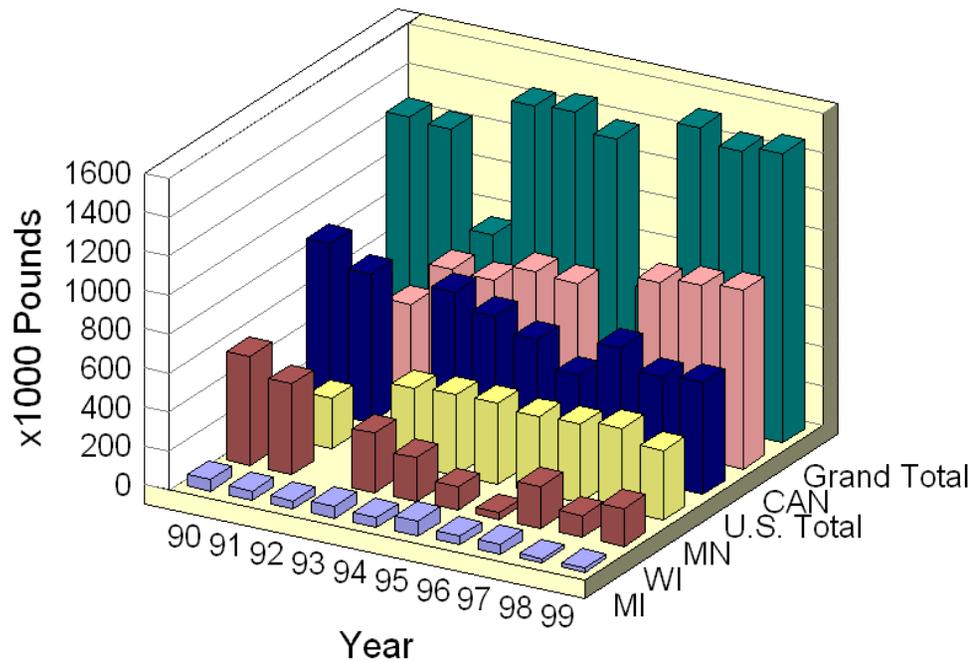
Lake Superior Lake Herring Harvest

- Most harvested fish in Canadian waters and second most harvested fish in U.S. waters in 2000
- Almost 1.4 million pounds harvested with a dock side value of just over \$0.5 million



In the 1990s lake herring harvest in Lake Superior was equally divided between the U.S. and Canada. Most of this harvest on the U.S. side came from the states of Minnesota and Wisconsin

Lake Herring Commercial Harvest
Lake Superior



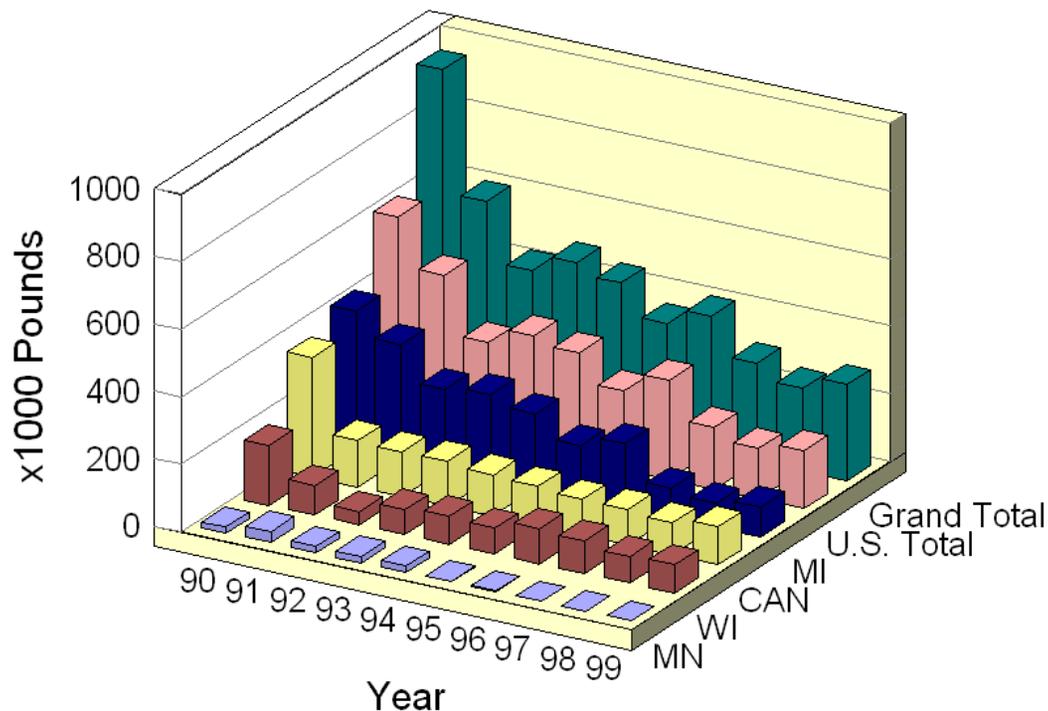
Lake Superior Lake Trout Harvest

- Third most harvested fish in Canadian and U.S. waters in 2000
- 300 thousand pounds harvested with a dock side value of \$151 thousand



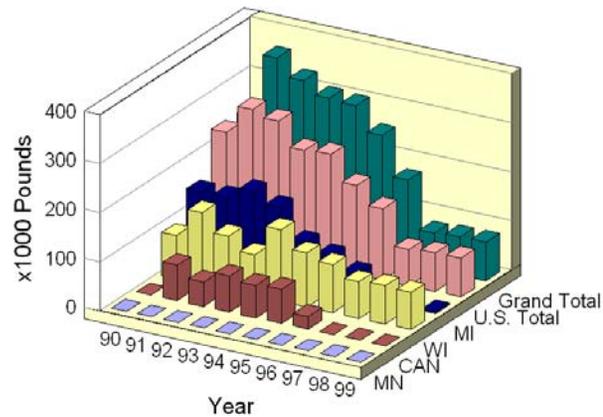
The majority of lake trout harvest in Lake Superior in the 1990s came from the U.S. waters. Most came from the states of Michigan and Wisconsin

Lean Lake Trout Commercial Harvest Lake Superior

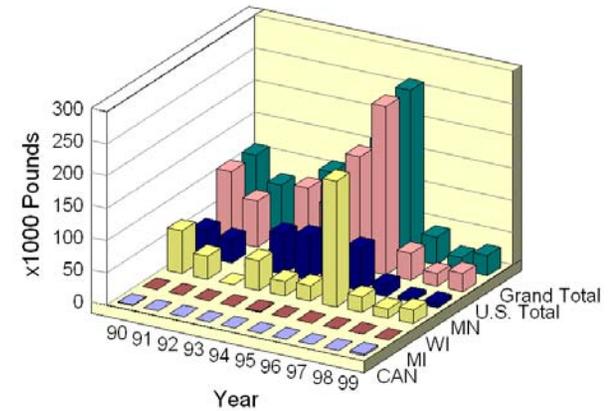


Other Commercial Fish Harvested in Lake Superior in the 1990s

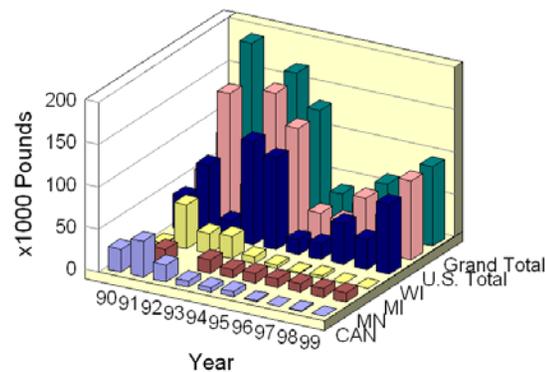
Siscowet Commercial Harvest
Lake Superior



Smelt Commercial Harvest
Lake Superior



Chub Commercial Harvest
Lake Superior



Lake Michigan Lake Whitefish Harvest

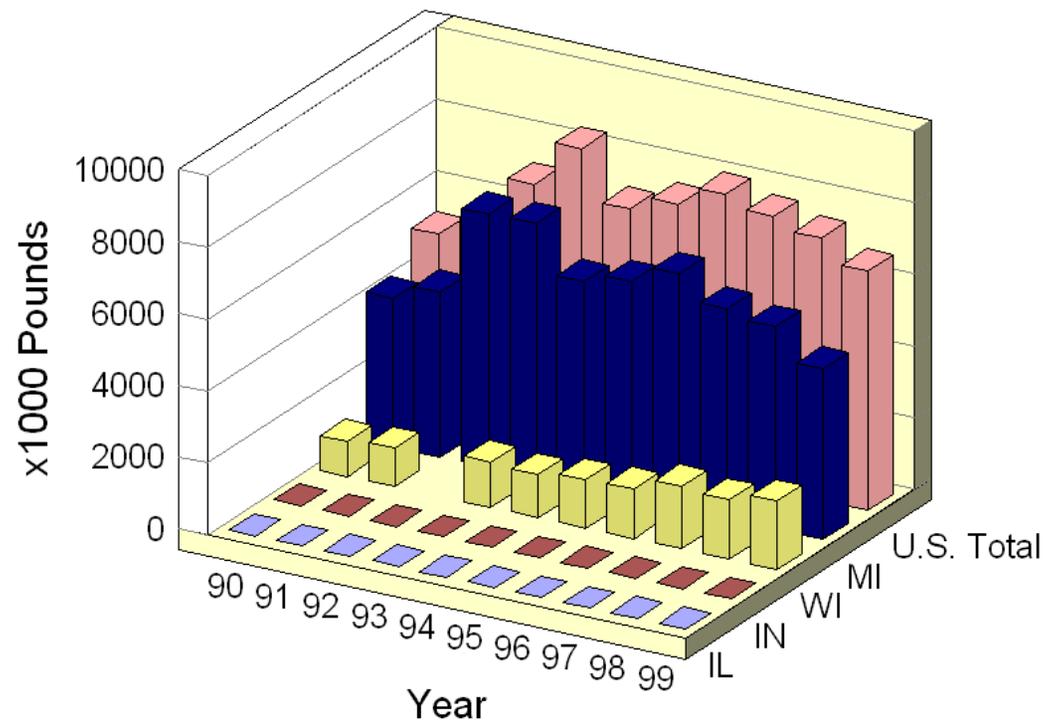
- Most harvested fish in Lake Michigan in 2000
- Almost 4.8 million pounds harvested with a dock side value of just over \$5.1 million



In the 1990s the majority of lake whitefish harvest in Lake Michigan came from the state of Michigan with some additional harvest from Wisconsin

Lake Whitefish Commercial Harvest

Lake Michigan



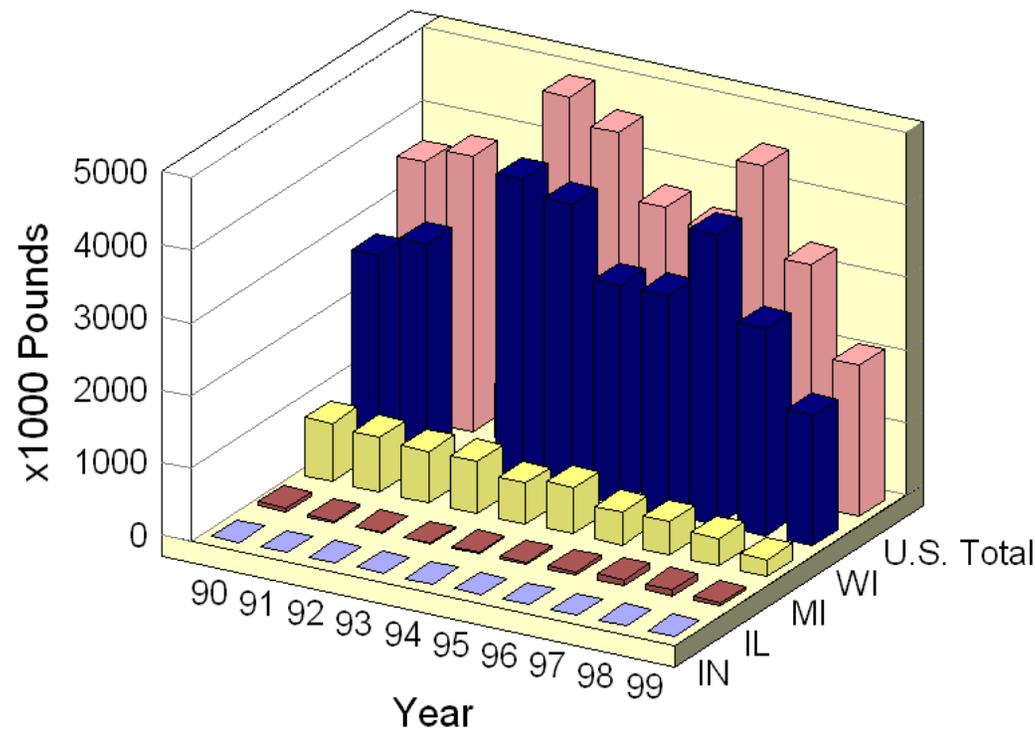
Lake Michigan Chub Harvest

- Second most harvested fish in Lake Michigan in 2000
- 1.5 million pounds harvested with a dock side value of just over \$1.5 million



In the 1990s the majority of chub harvest in Lake Michigan came from the state of Wisconsin with some additional harvest from Michigan

Chub Commercial Harvest
Lake Michigan

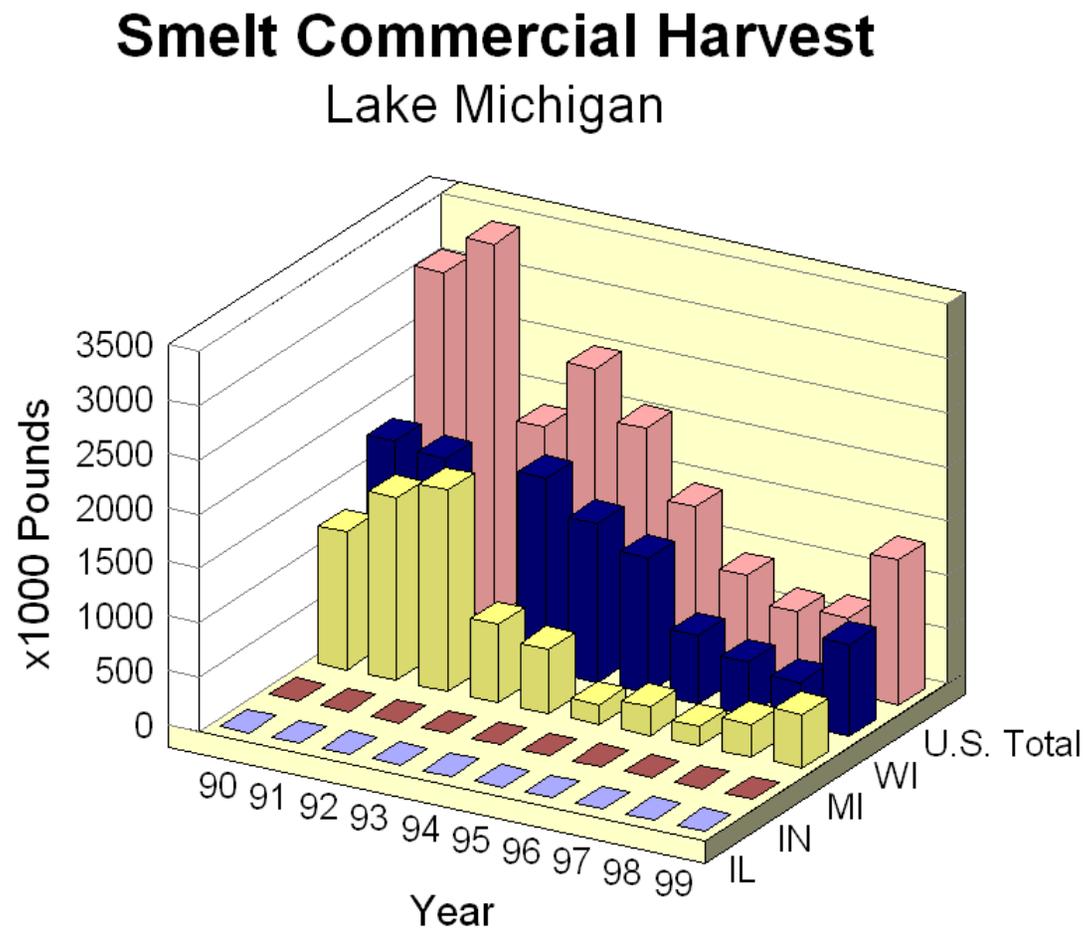


Lake Michigan Smelt Harvest

- Almost 390 thousand pounds harvested with a dock side value of just over \$0.72 million in 2000



In the 1990s the smelt harvest in Lake Michigan came from trawl fisheries in the states of Wisconsin and Michigan



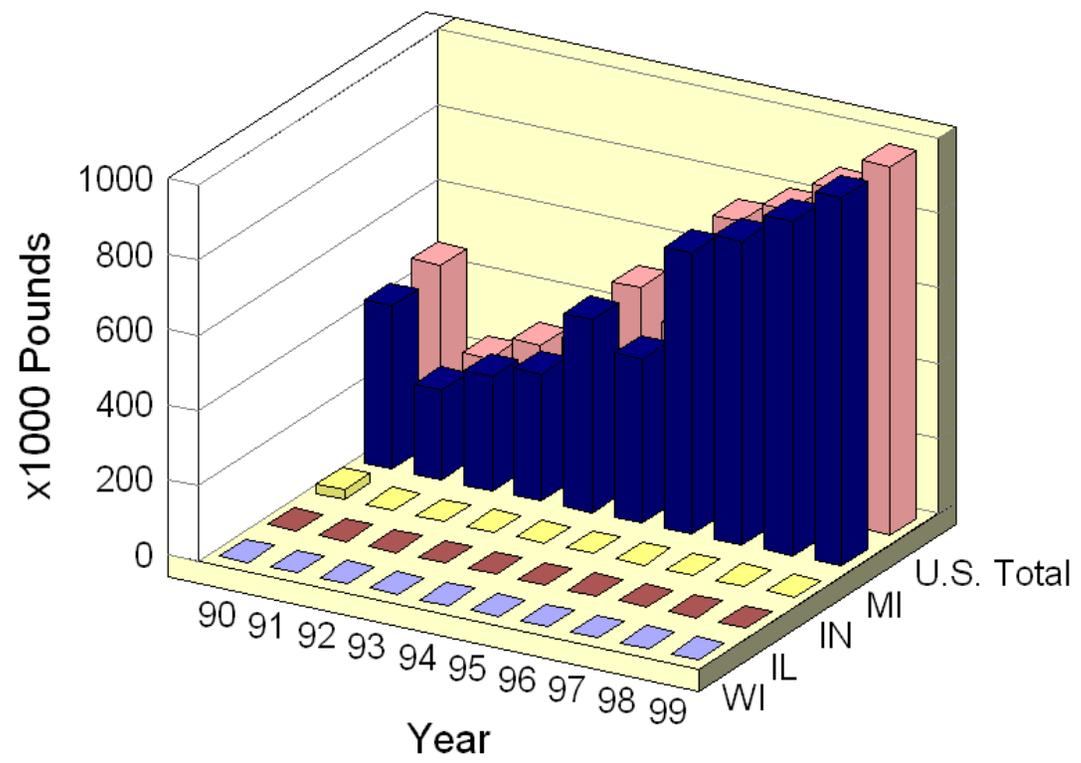
Lake Michigan Lake Trout Harvest

- Just over 620 thousand pounds harvested with a dock side value of almost \$340 thousand in 2000



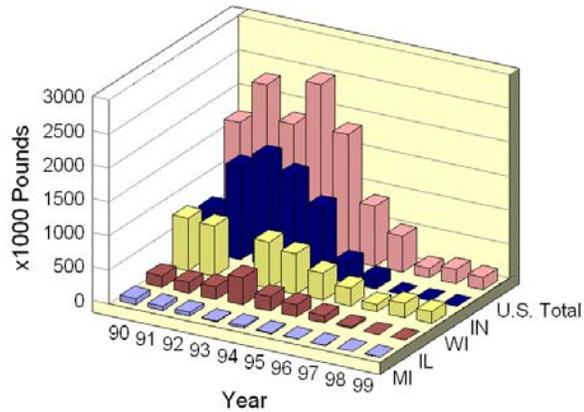
In the 1990s virtually all of the lake trout harvest came from the state of Michigan

Lake Trout Commercial Harvest
Lake Michigan

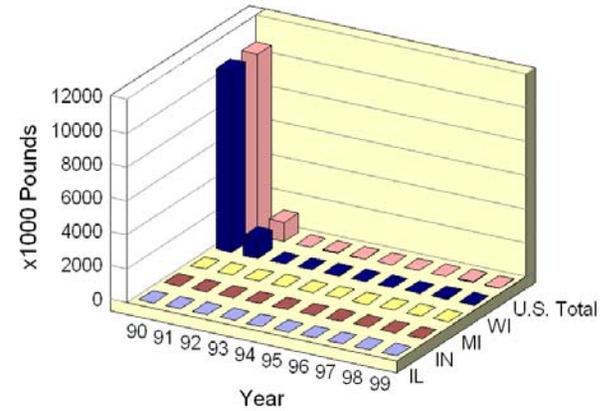


Other Commercial Fish Harvested in Lake Michigan in the 1990s

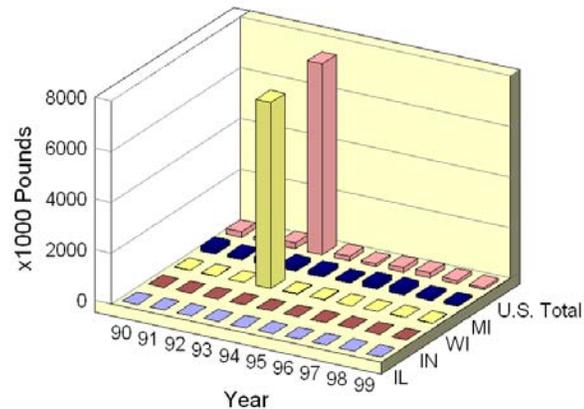
Yellow Perch Commercial Harvest
Lake Michigan



Alewife Commercial Harvest
Lake Michigan



Round Whitefish Commercial Harvest
Lake Michigan



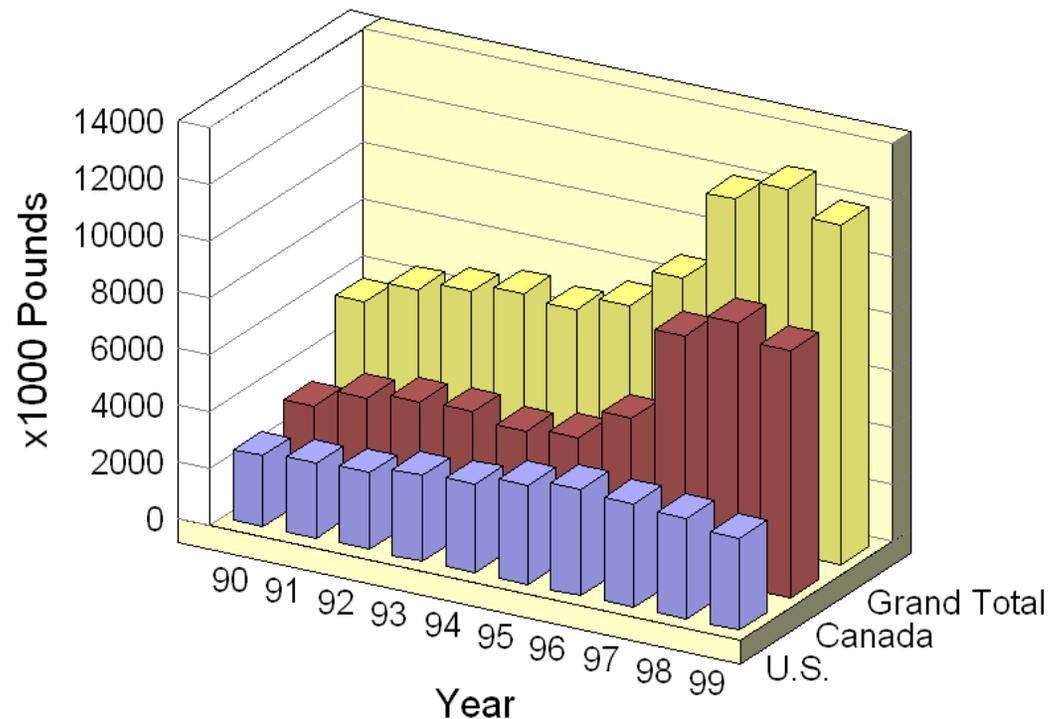
Lake Huron Lake Whitefish Harvest

- Most harvested fish in Lake Huron in both U.S. and Canadian waters in 2000
- Almost 12.7 million pounds harvested with a dock side value of \$10.5 million



In the early 1990s lake whitefish harvest in Lake Huron was evenly split between the U.S. and Canada. In the late 1990s more was harvested from Canadian waters.

Lake Whitefish Commercial Harvest
Lake Huron



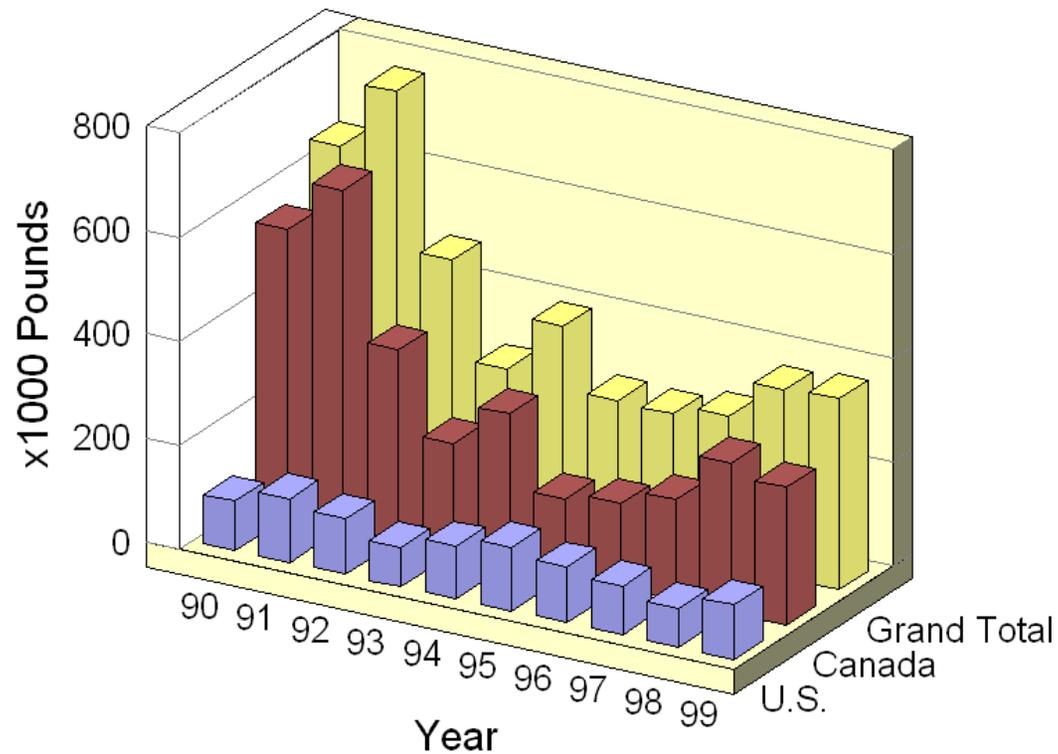
Lake Huron Yellow Perch Harvest

- Second most valued fish in total dockside value in 2000 with most coming from Canadian waters
- 400 thousand pounds harvested with a dock side value of \$0.85 million



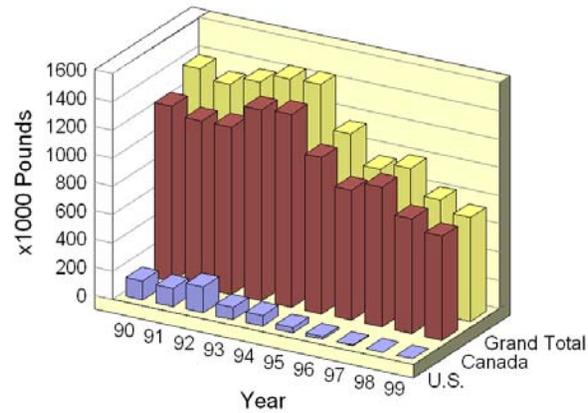
In the 1990s yellow perch harvest in Lake Huron came mostly from Canadian waters

Yellow Perch Commercial Harvest Lake Huron

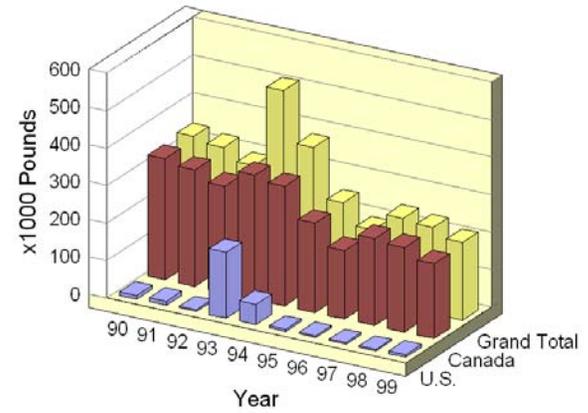


In the 1990s the Canadian fishery dominated the harvest for chubs, walleye, and lake trout in Lake Huron

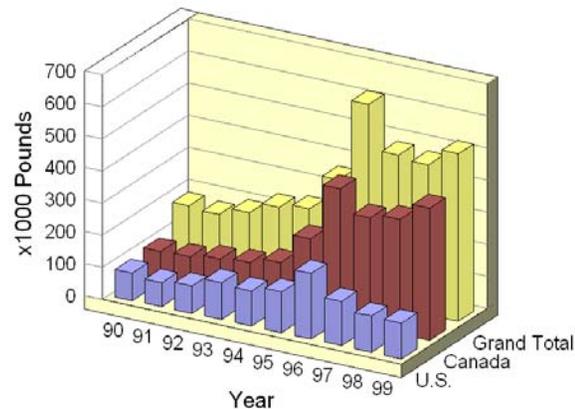
Chub Commercial Harvest Lake Huron



Walleye Commercial Harvest Lake Huron

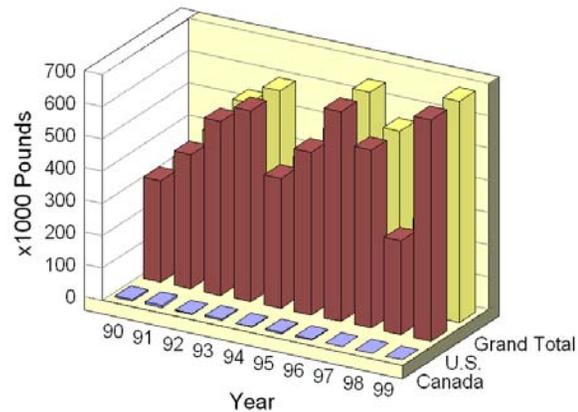


Lake Trout Commercial Harvest Lake Huron

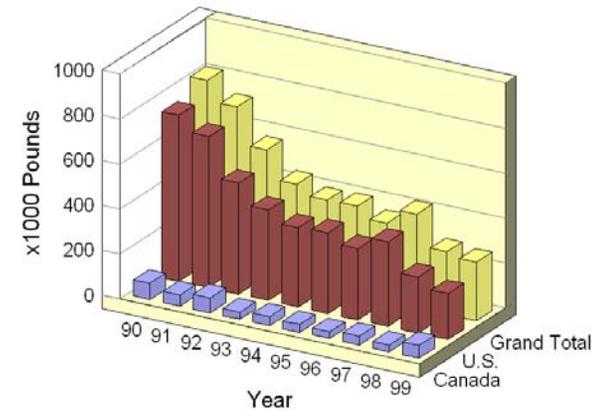


In the 1990s the U.S. fishery dominated the harvest for salmon, catfish, and carp in Lake Huron

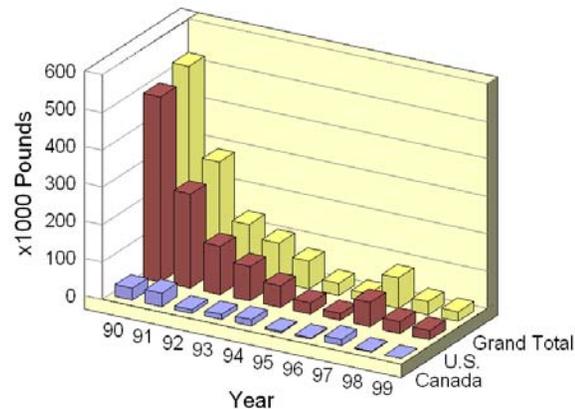
Salmon Commercial Harvest
Lake Huron



Channel Catfish Commercial Harvest
Lake Huron



Carp Commercial Harvest
Lake Huron



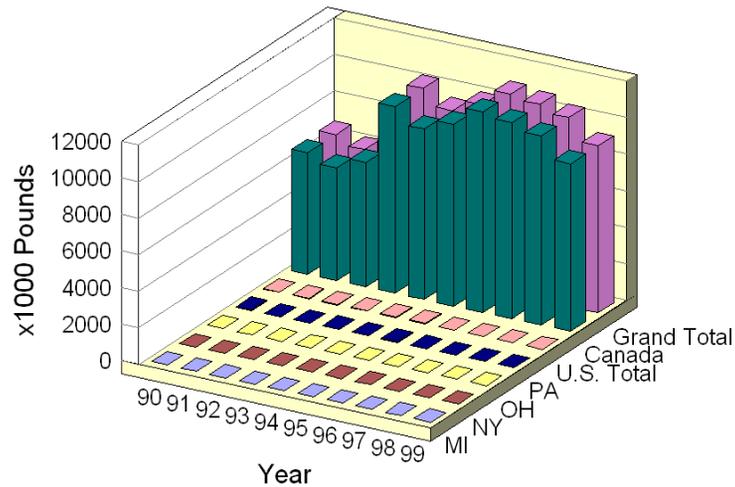
Lake Erie Walleye and Yellow Perch Harvest

- In 2000 walleye was worth \$9.8 million and yellow perch \$9.2 million in dock side value
- 7.1 million pounds of walleye and 4.3 million pounds of yellow perch were harvested
- Most harvested in Canadian waters of Lake Erie

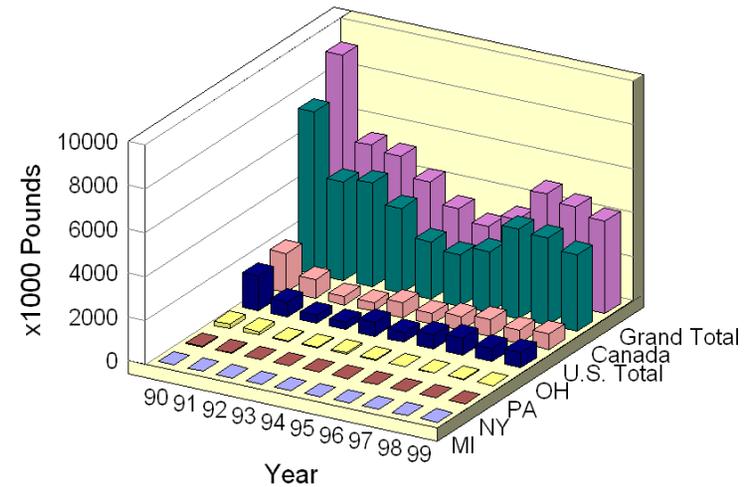


Through the 1990s most of the walleye and yellow perch were harvested from the Canadian waters of Lake Erie

**Walleye Commercial Harvest
Lake Erie**



**Yellow Perch Commercial Harvest
Lake Erie**



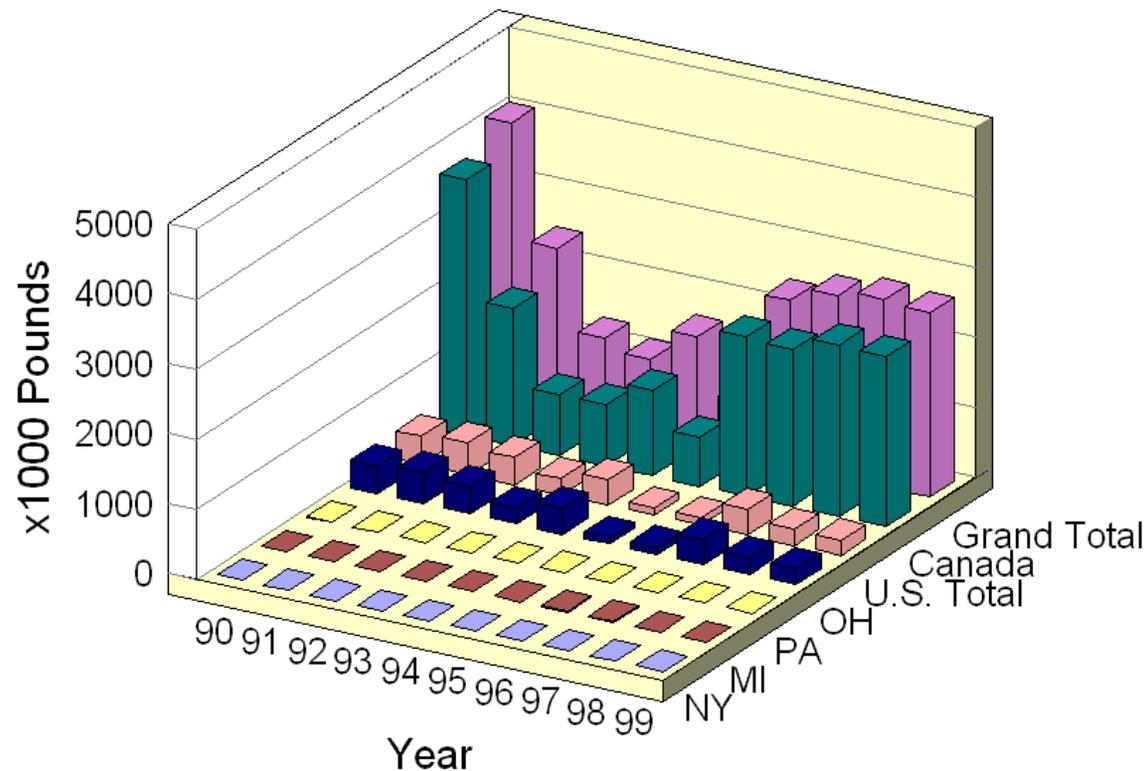
Lake Erie White Bass Harvest

- Almost 3.5 million pounds harvested in 2000 with a dockside value of \$2.2 million
- Most harvested in Canadian waters of Lake Erie



Through the 1990s most of the white bass was harvested from the Canadian waters of Lake Erie

White Bass Commercial Harvest
Lake Erie

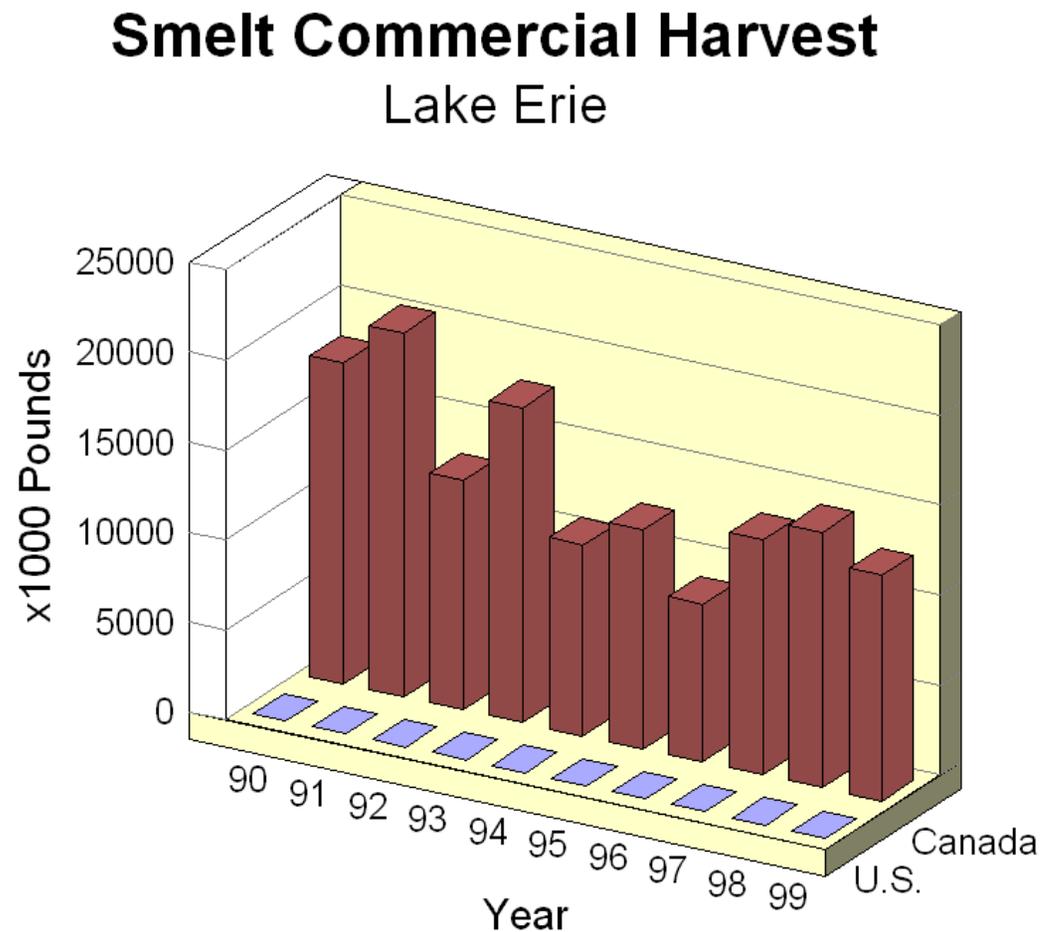


Lake Erie Smelt Harvest

- Almost 7.2 million pounds harvested in 2000 with a dockside value of \$1.1 million
- All harvested in Canadian waters of Lake Erie



Through the 1990s virtually all of the smelt was harvested from the Canadian waters of Lake Erie



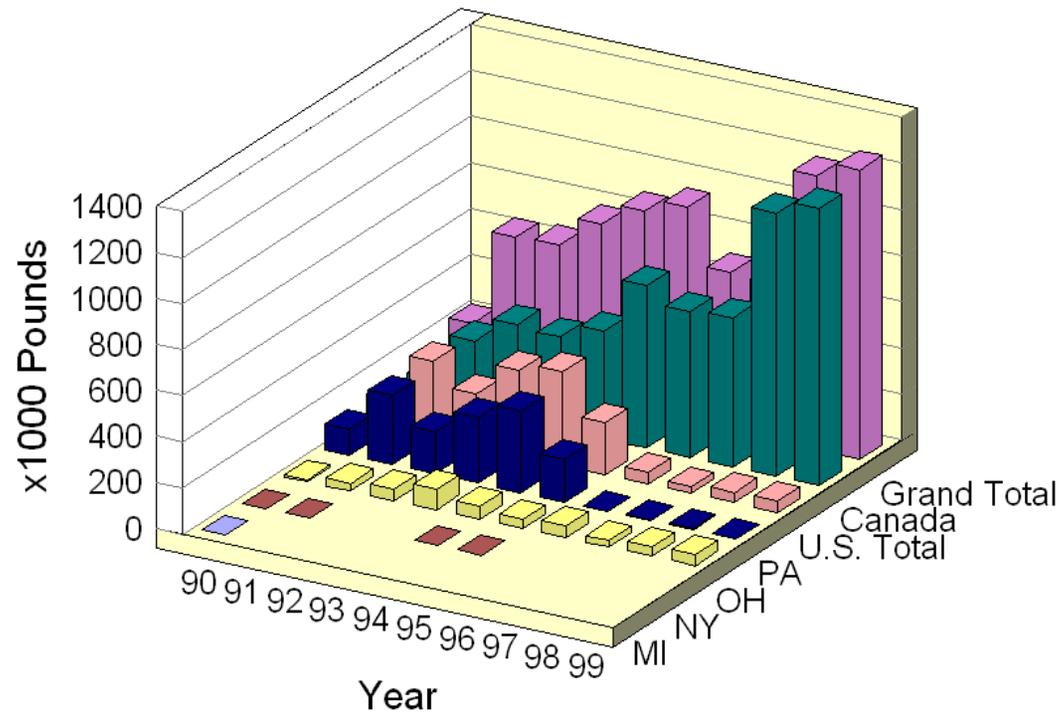
Lake Erie Lake Whitefish Harvest

- Almost 1.4 million pounds harvested in 2000 with a dockside value of \$1.0 million
- Most harvested in Canadian waters of Lake Erie



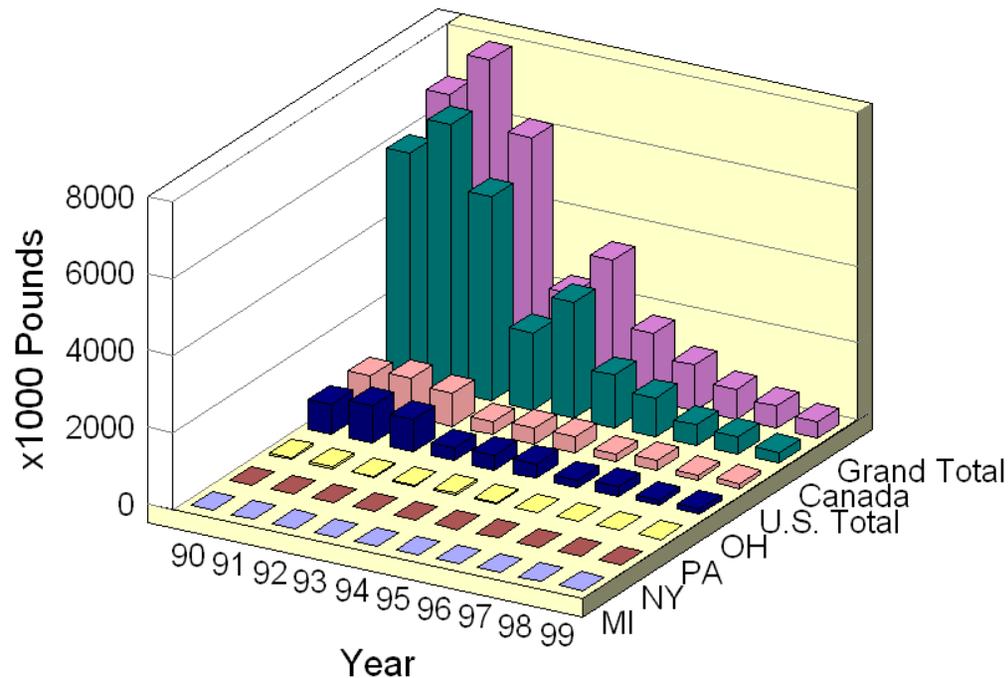
Through the 1990s lake whitefish harvest increased in the Canadian waters of Lake Erie. Declines occurred in Ohio and Pennsylvania waters since the mid-90s

Lake Whitefish Commercial Harvest
Lake Erie



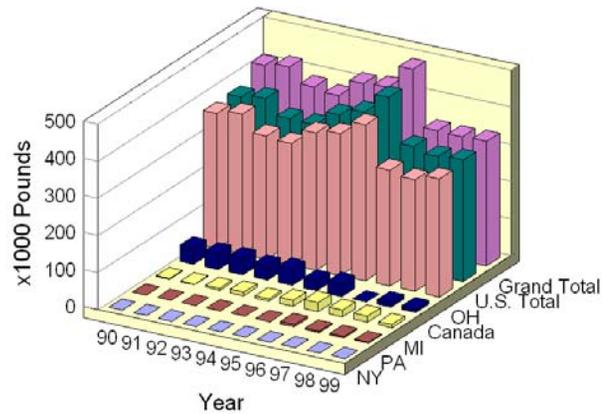
Significant fishery for white perch existed in Canadian and Ohio waters of Lake Erie in the early 1990s. Majority was taken out of Canadian waters

White Perch Commercial Harvest
Lake Erie

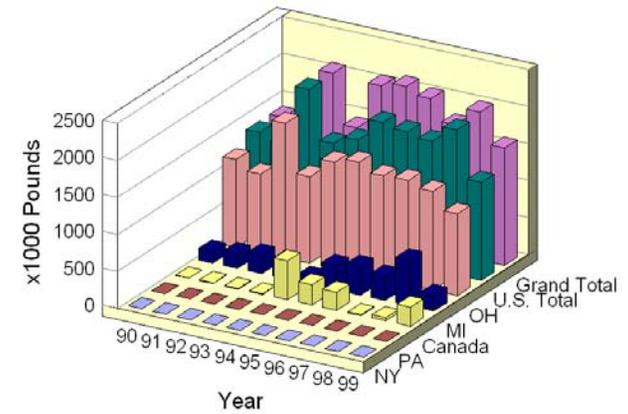


Majority of channel catfish, carp, and sheepshead harvested in Lake Erie in the 1990s came from Ohio waters

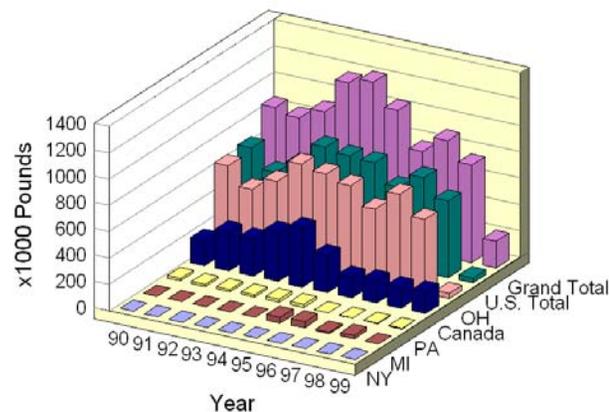
Channel Catfish Commercial Harvest
Lake Erie



Carp Commercial Harvest
Lake Erie



Sheepshead Commercial Harvest
Lake Erie

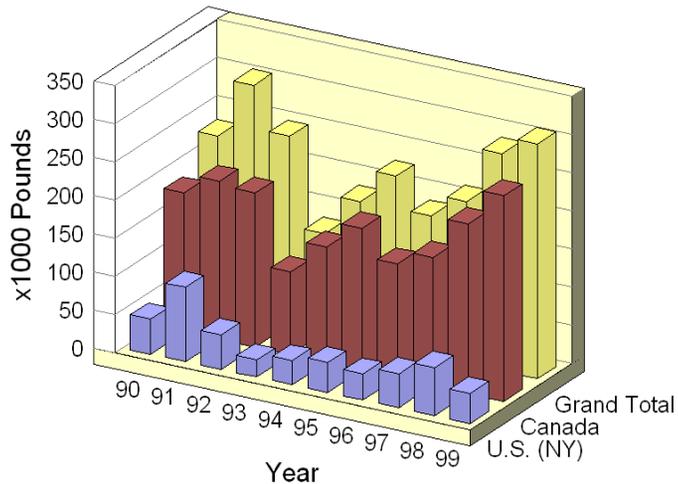


Lake Ontario Yellow Perch and Lake Whitefish Harvest

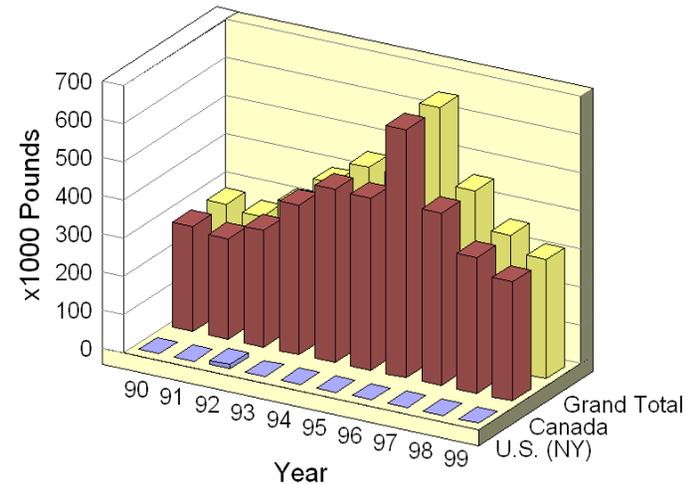
- Almost 316 thousand pounds of yellow perch harvested in 2000 with a dockside value of \$0.6 million
- Nearly 300 thousand pounds of lake whitefish harvested in 2000 with a dockside value of \$220 thousand
- Most of yellow perch and all of lake whitefish harvested in Canadian waters of Lake Ontario

Majority of yellow perch and lake whitefish harvested in Lake Ontario in the 1990s came from Canadian waters

Yellow Perch Commercial Harvest Lake Ontario



Lake Whitefish Commercial Harvest Lake Ontario

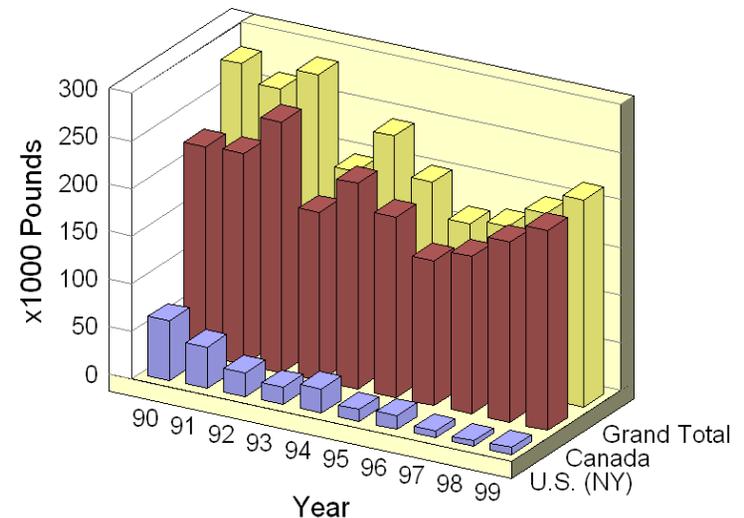


Lake Ontario Bullhead Harvest

- 182 thousand pounds harvested in 2000 with a dockside value of \$44 thousand
- Most was harvested in Canadian waters in 2000 and through the 1990s

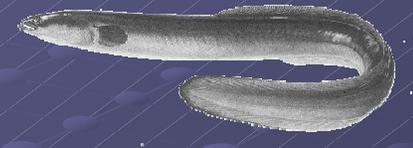


Bullhead Commercial Harvest
Lake Ontario

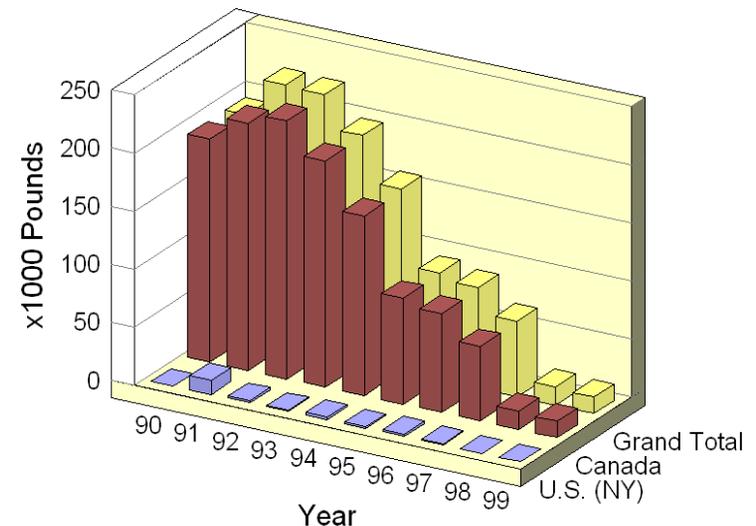


Lake Ontario Eel Harvest

- 29 thousand pounds harvested in 2000 with a dockside value of \$41 thousand
- Most or all was harvested in Canadian waters in 2000 and through the 1990s



American Eel Commercial Harvest
Lake Ontario



References

- Baldwin, N.A., R.W. Saalfeld, M.R. Dochoda, H.J. Buettner, and R.L. Eshenroder. (August 2002). Commercial fish production in the Great Lakes 1867-2000.
<http://www.glfc.org/databases/commercial/commerc.asp>
- U.S. Department of the Interior, U.S. Geological Survey-Great Lakes Science Center. (February 2003). Commercial fishing reports.
<http://www.glsc.usgs.gov/data/commercialFishingReports.htm>