

Lake Huron Fisheries User Groups



Photo Credit: NOAA

Brandon Schroeder
November 2003



Great Lakes Sea Grant
Fisheries Leadership Institute

Great Lakes Basin

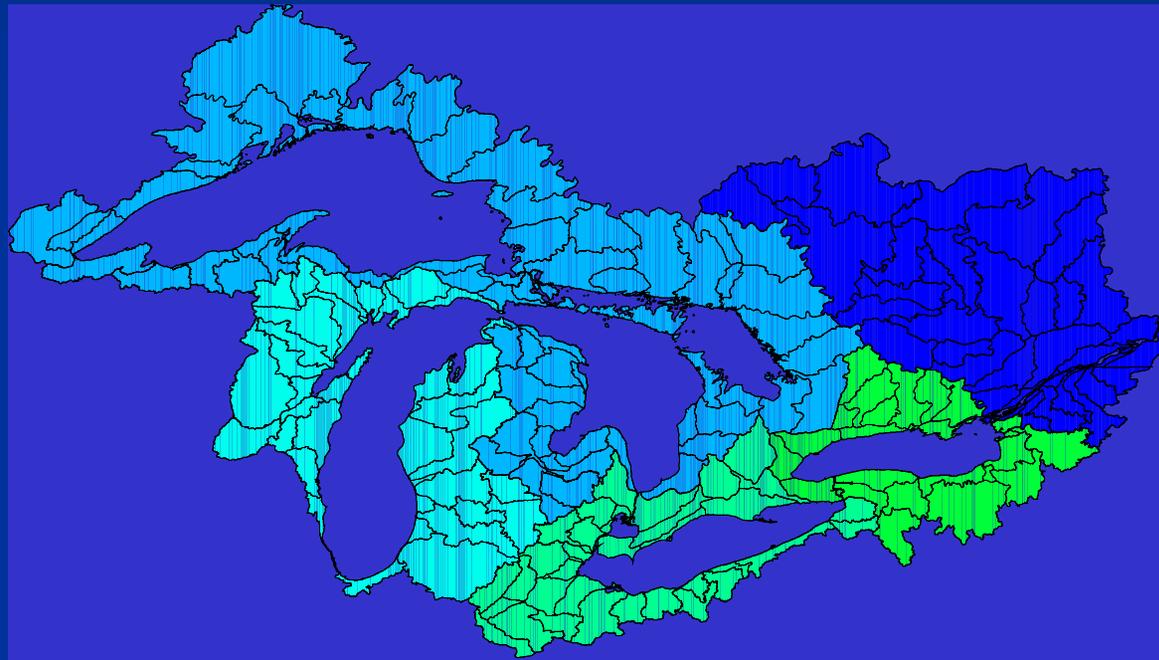


Legend

- Great Lakes Basin
- Lake Basin Boundary
- International Boundary

Lake Huron – a Shared Resource

- A lake with International Borders and many different governing bodies...



...and lots of different users!

Image Source: Michigan DNR

Lake Huron, cont...

- 2nd Largest G.L.
- 23,000 sq miles of surface area, and
- Volume of 849 cubic miles of water!
- Diverse ecosystem, including plants, birds, fish, ...
- ...and people = nearly 3 million people!

Source: MI Sea Grant



Image Source: WI Sea Grant

So who are the “Users” of the
Great Lakes Fishery

Who are the Stakeholders??

Road Map...

- This morning we're going to talk about the PEOPLE!!
- Overview of Fishery Stakeholders
- Looking more specifically @
 - Commercial Fisheries
 - Charter Fishing Industry
 - Tribal Fishers
 - Sport Anglers
- Increasing Public Participation in our Fisheries.
- User Group Conflicts: What are the Challenges?

Sportfishery...

- Great Lakes wide:
 - 1.8 million anglers
 - 23 million days of fishing
 - 16 million fishing trips
- Economic Value:
 - Between \$4-\$7 Billion
- Lake Huron draws:
 - around 155,000 anglers
(8% of all G.L. Anglers)



Data Sources: USFWS 2001, Sea Grant 2002,
ASA 2001

All Photo credits: B. Schroeder

Popularity of Fish Species for Anglers in U.S. Waters of the Great Lakes 2001

Species	Anglers	Days spent angling
Yellow Perch	693,000	6,597,000
Bass	589,000	6,355,000
Walleye	571,000	5,521,000
Salmon	516,000	3,985,000
Lake Trout	349,000	3,605,000
Steelhead	338,000	3,698,000

Number of Anglers Fishing in U.S. Waters of the Great Lakes

State	Anglers	Days spent angling
Illinois	120,000	756,000
Indiana	45,000	721,000
Michigan	680,000	7,002,000
Minnesota	60,000	603,000
New York	368,000	6,324,000
Ohio	430,000	4,241,000
Pennsylvania	80,000	1,406,000
Wisconsin	198,000	2,085,000

Source: U.S. Dept. of Interior, U.S. Fish and Wildlife Service and U.S. Dept. of Commerce, 2001 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation

Number of Anglers Fishing in U.S. Waters of the Great Lakes

Lake/Waters	Anglers	Days spent angling
Erie	645,000	7,748,000
Huron	155,000	1,171,000
Michigan	561,000	4,836,000
Ontario	241,000	3,560,000
Superior	93,000	601,000
St. Clair	96,000	524,000
St. Lawrence	111,000	905,000
Tributaries	284,000	3,331,000

Source: U.S. Dept of Interior, U.S. Fish and Wildlife Service and U.S. Dept. of Commerce, 2001 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation

...Great Lakes Charter Fishing



Photo credits: B. Schroeder



Photo credits: 4H GLNR Camp

- In Michigan...
 - 468 Charter Operations
 - \$10.4 Million in sales!
- MI's Lake Huron Charter Industry:
 - 85 Charter Operations
 - \$1.5 Million in sales

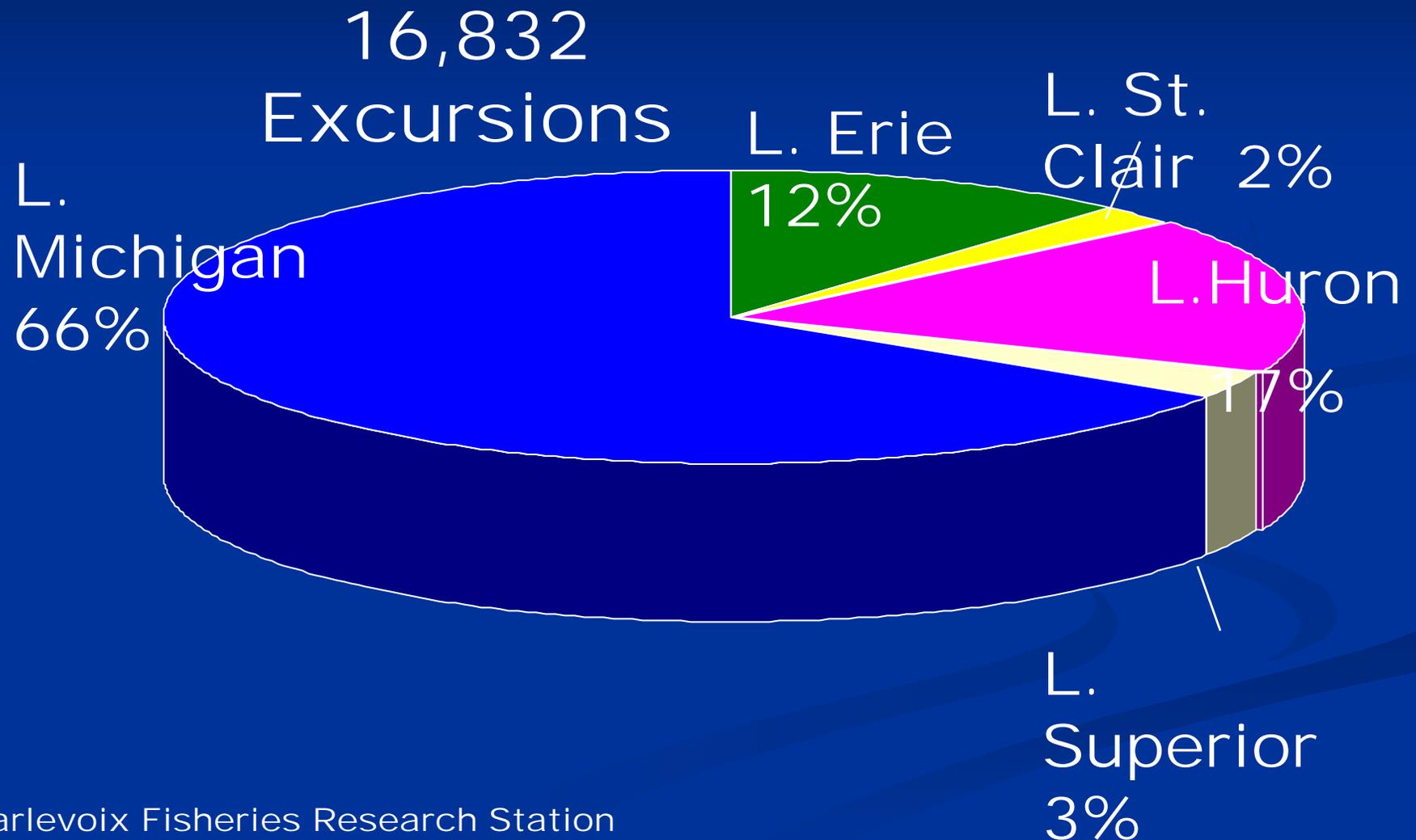
Source: Table 8, The Great Lakes Charter Fishing Industry in 2002 by Frank R. Lichtkoppler, Ohio Sea Grant Extension; Chuck Pistis, Michigan Sea Grant Extension; and Diane Kuehn, New York Sea Grant Extension

Great Lakes Charter Business by State

Region/Body of Water	# of Charter Businesses	Est.Total Sales (millions)
All GL States	1,746	34.5
New York	305	7.0
Pennsylvania	28	0.4
Ohio	651	10.4
Michigan	468	10.4
Illinois-Indiana	64	1.0
Wisconsin	209	4.7
Minnesota	44	0.6

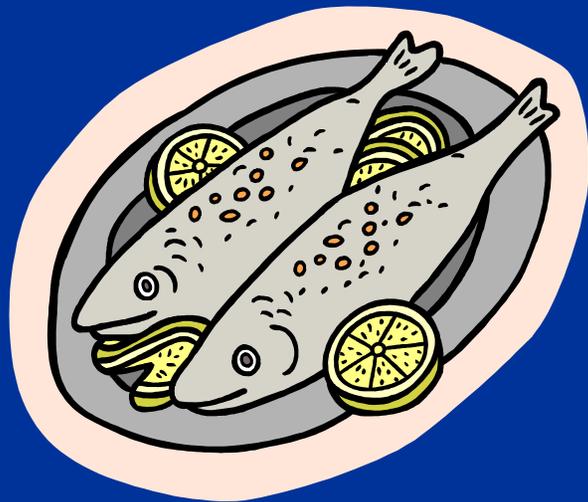
Source: Table 8, The Great Lakes Charter Fishing Industry in 2002 by Frank R. Lichtkopler, Ohio Sea Grant Extension; Chuck Pistis, Michigan Sea Grant Extension; and Diane Kuehn, New York Sea Grant Extension

Composition (%) of Charter Boat Effort & Number of Excursions During 2001



Subsistence Fisheries...

Anyone who fishes as a supplemental source food !!



- Sport licensed anglers
- Tribal subsistence licenses
- HOW MUCH OF THIS ACTUALLY OCCURS????

Cuts across all user groups...

...therefore,

often tough to measure

...Commercial Fishery



- Lake Huron-wide:
 - Over 15 million lbs
 - Nearly \$13 million in Dockside value
 - Ranks 2nd in lbs & value of commercial harvest
- U.S. Lake Huron Waters account for nearly 1/3 of this production and value!

Further complicating matters...

So **USERS** include:

- Sport and Charter
- Subsistence and Commercial

...**BUT** among these user groups are also...

- Michigan State Licensed users
- Tribally Licensed users
- Provincially licensed users
- Unlicensed (or illegal users)

...Shifting Gears...



Great Lakes Commercial Fisheries

Prepared by:

Ronald E. Kinnunen

Michigan Sea Grant

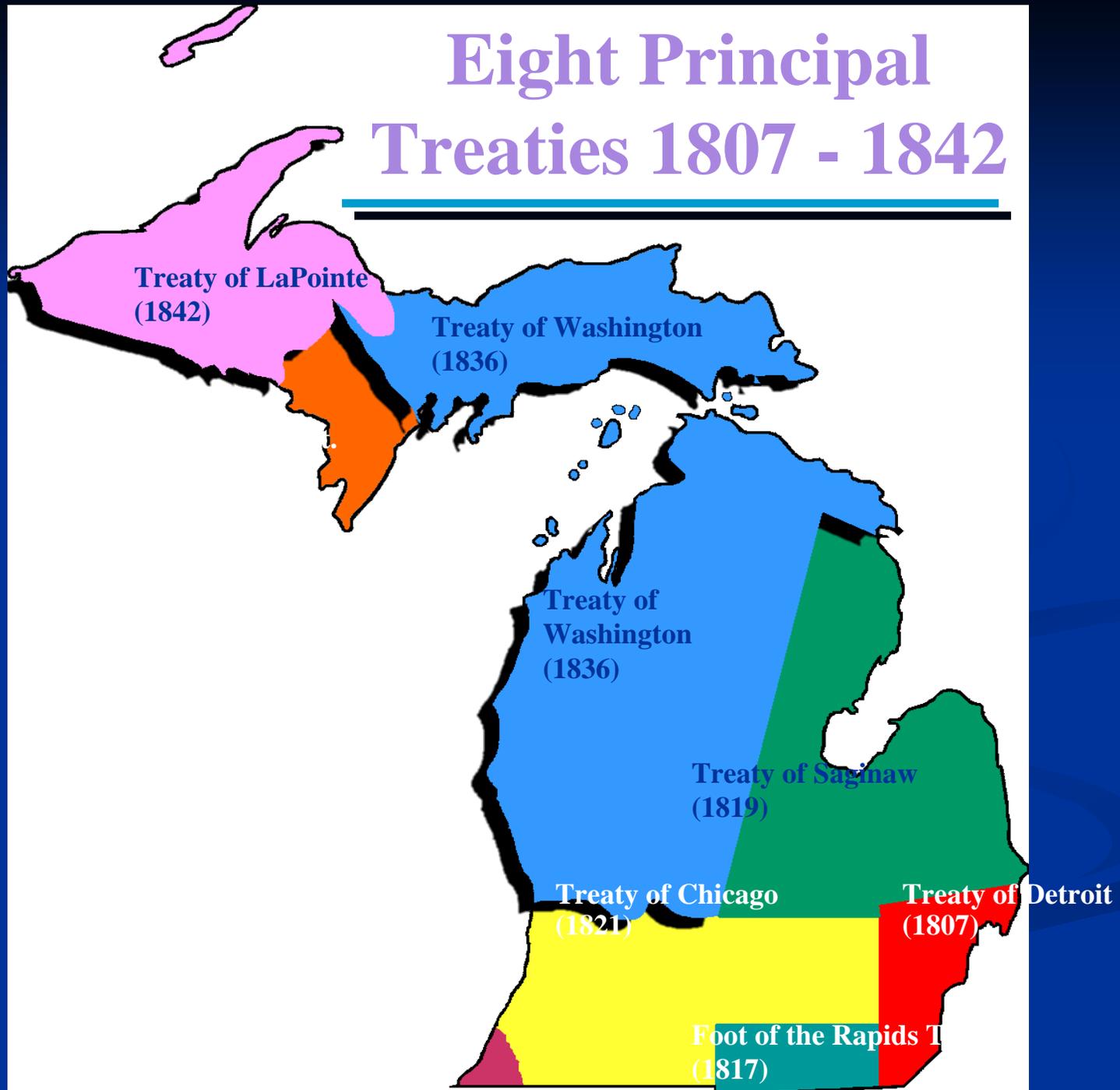


Licensing of Commercial Fishery Operations

- States
- Tribal nations*
- Province of Ontario

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

Eight Principal Treaties 1807 - 1842

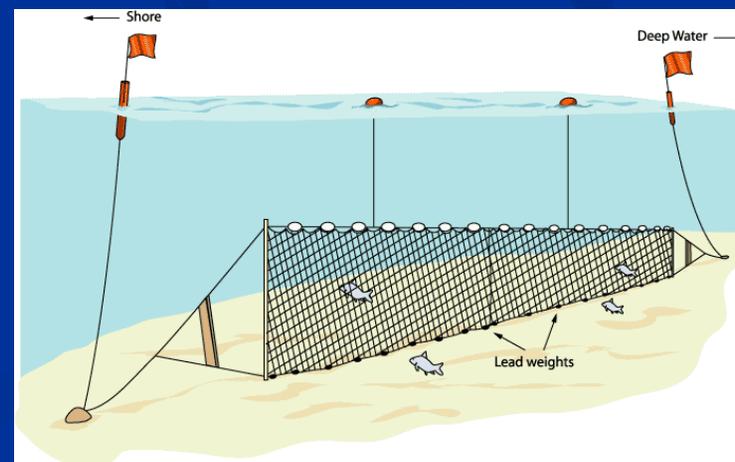
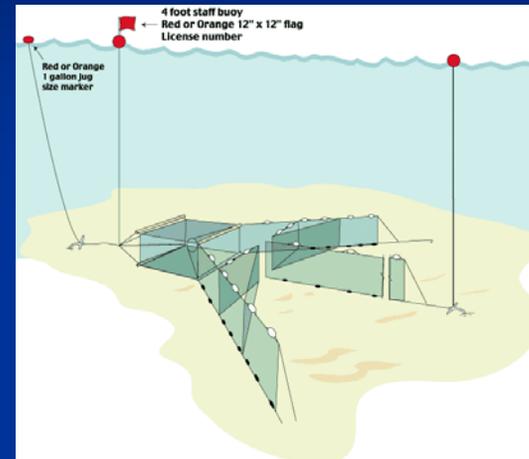


Regulation of Commercial Fishery

- Amount of fish that can be caught (quota)
- Amount and type of gear that can be used (effort)
- Length of Seasons (time)
- 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

U.S. and Canadian Great Lakes Commercial Fishing Statistics in Great Lakes

Species/Lake	U.S. Total lbs.	U.S. \$Value	Canada Total lbs.	CDN \$Value	Grand Total lbs.	Grand Total Value [†]
Erie	3,929,459	3,400,527	23,089,000	30,999,800	27,018,459	24,170,393
Huron	4,819,119	4,517,486	10,472,000	12,270,190	15,291,119	12,738,513
Michigan	7,541,800	7,988,721	0	0	7,541,800	7,988,721
Ontario	70,260	111,401	914,000	1,324,670	984,260	998,929
Superior	2,459,256	1,827,273	1,489,000	1,227,830	3,948,256	2,649,919
Totals	18,819,894	17,845,408	35,964,000	45,822,490	54,783,894	48,546,476

Source: Great Lakes Fisheries Commission, United States Geological Survey, Ontario Commercial Fisheries Association [†]Value in U.S. dollars

U.S. and Canadian Great Lakes Commercial Fishing Statistics in Great Lakes

U.S. and Canadian Great Lakes Commercial Fishing Statistics in Great Lakes

Species/Lake	U.S. Total lbs.	U.S. \$Value	Canada Total lbs.	CDN \$Value	Grand Total lbs.	Grand Total Value*
Lake Whitefish	9,886,310	10,256,122	11,167,000	12,507,040	21,053,310	18,635,838
Yellow Perch	1,169,422	3,034,896	4,004,000	11,771,760	5,173,422	10,921,975
Walleye	22,891	38,851	7,269,000	15,046,830	7,291,891	10,120,227
White Bass	320,895	258,530	127,000	2,908,110	3,447,895	2,206,963
Chubs	1,625,614	1,88,906	300,000	450,000	1,925,614	1,890,406
Smelt	460,842	751,793	7,190,000	1,653,700	7,650,842	1,859,772
Lake Trout	994,087	531,462	563,000	43,430	1,557,087	761,560
Lake Herring	667,584	270,657	793,000	459,940	1,460,584	578,816
Channel Catfish	507,294	299,270	31,000	14,570	538,294	309,031
Pacific Salmon	519,338	262,333	5,000	1,800	524,338	263,539
White Perch	188,275	107,027	313,000	228,490	501,275	260,115
Carp	1,304,048	140,837	197,000	29,550	1,501,048	160,635

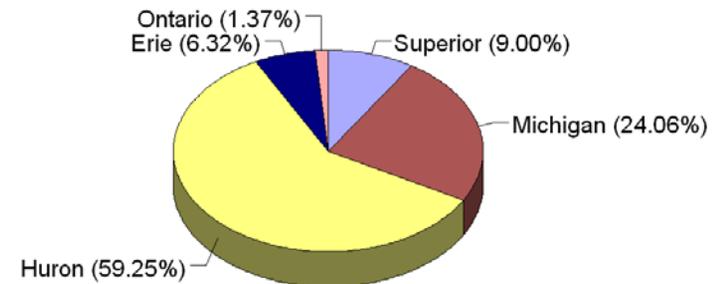
Great Lakes Lake Whitefish Harvest

- 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



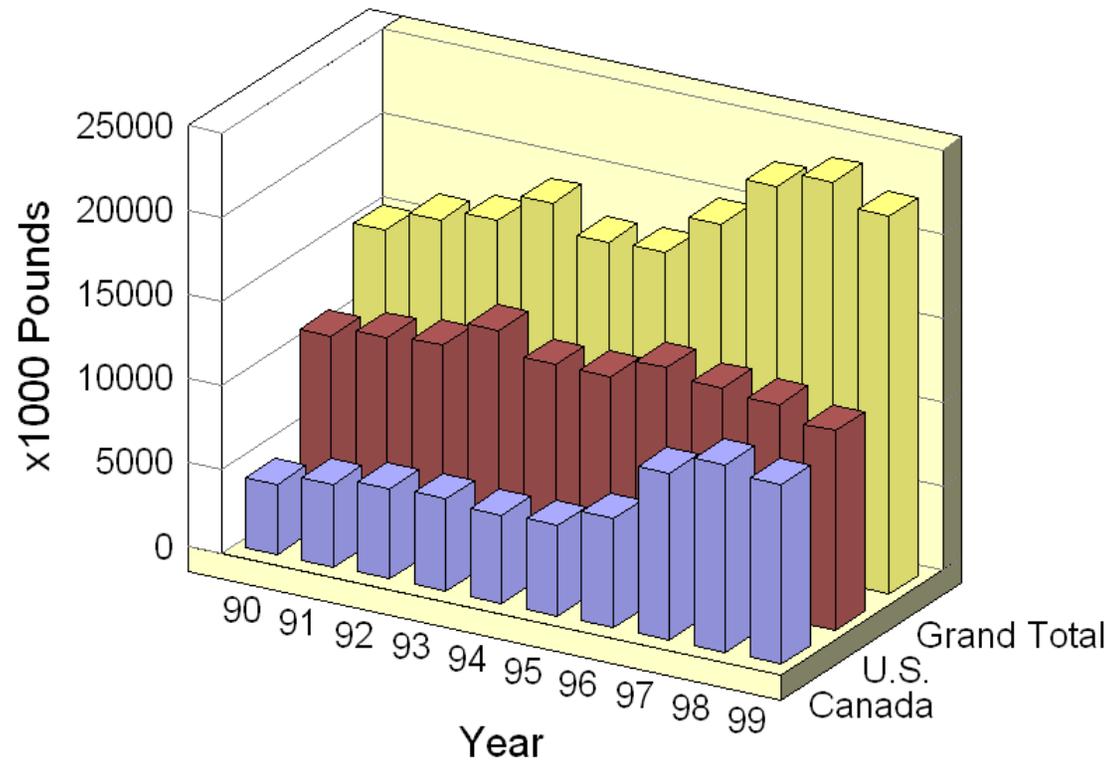
Lake Whitefish Commercial Harvest

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

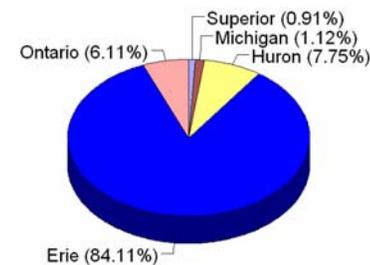


Great Lakes Yellow Perch and Walleye Harvest

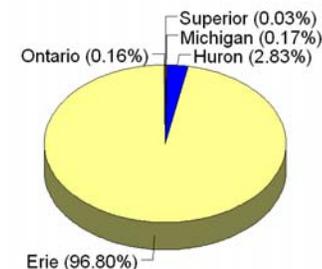
- In 2000 each were worth over \$10 million in dock side value
- 5.2 million pounds of yellow perch and 7.3 million pounds of walleye were harvested
- Yellow perch had the most value of any commercial fish at just over \$2 per pound
- Lake Erie produced most of the walleye and yellow perch



Yellow Perch Commercial Harvest
Percent by each Great Lake in 2000

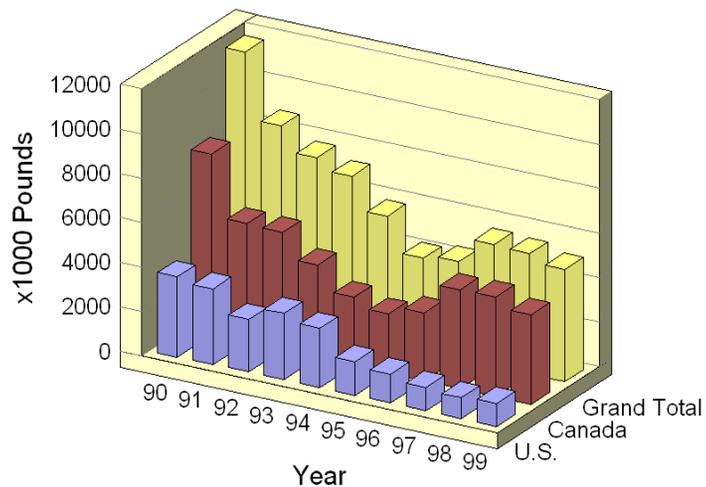


Walleye Commercial Harvest
Percent by each Great Lake in 2000

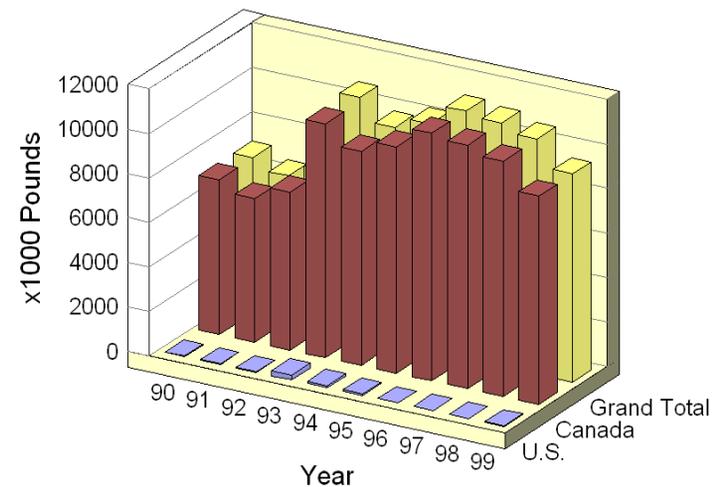


Through the 1990s most of the yellow perch and walleye were harvested from the Canadian waters of the Great Lakes

Yellow Perch Commercial Harvest Great Lakes



Walleye Commercial Harvest Great Lakes



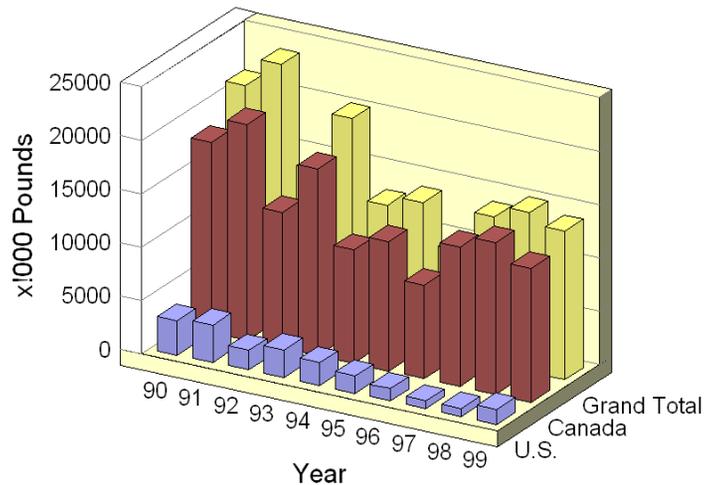
Great Lakes Smelt Harvest

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

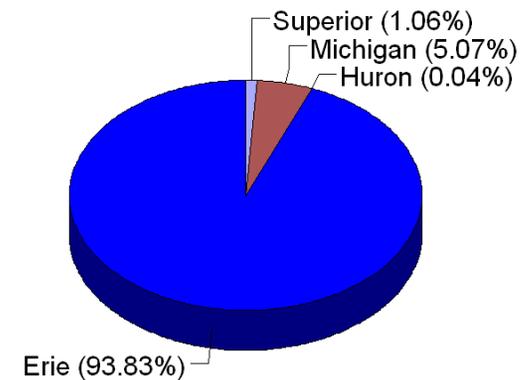


In the 1990s most smelt was harvested from the Canadian waters of the Great Lakes and in 2000 most came from Lake Erie

Smelt Commercial Harvest Great Lakes



Smelt Commercial Harvest Percent by each Great Lake in 2000



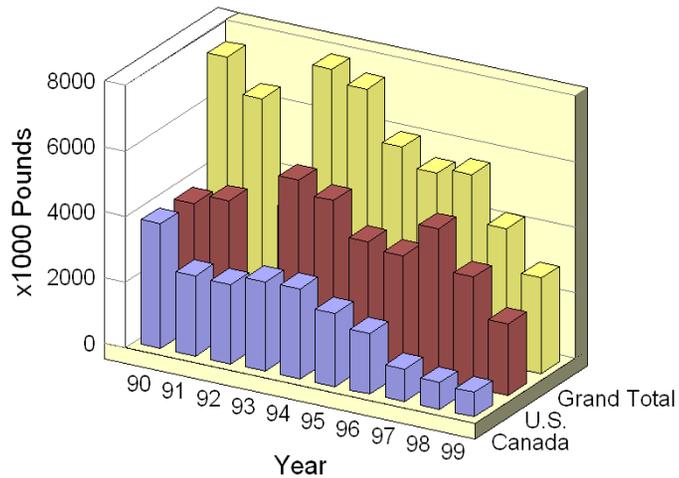
Great Lakes Chub Harvest

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

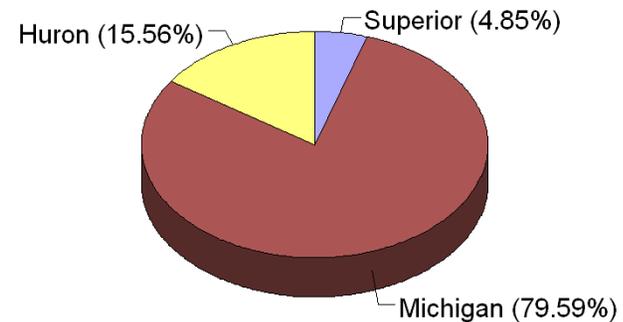


In the 1990s most chubs were harvested from the U.S. waters of the Great Lakes and in 2000 most came from Lake Michigan

Chub Commercial Harvest
Great Lakes



Chub Commercial Harvest
Percent by each Great Lake in 2000



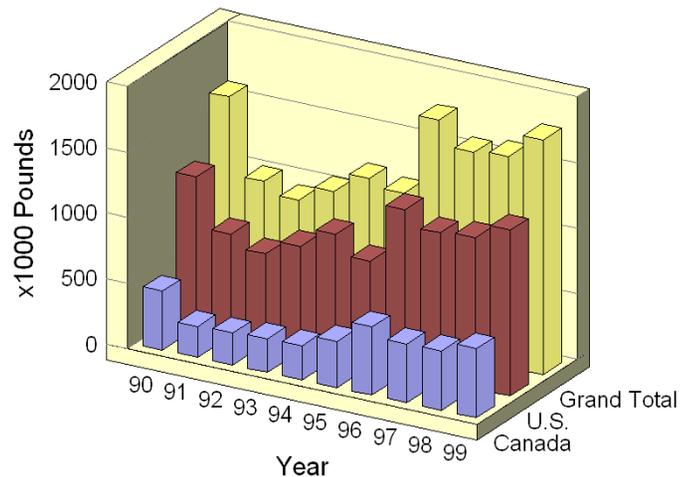
Great Lakes Lake Trout Harvest

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

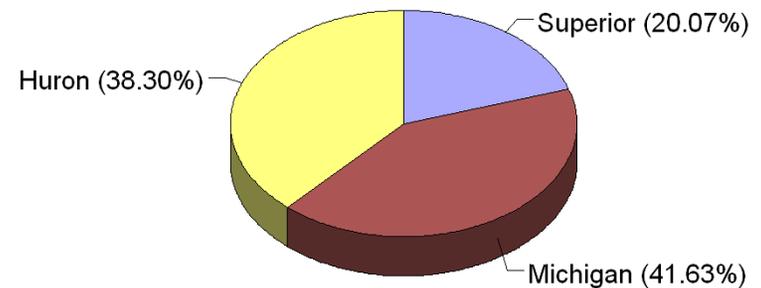


In the 1990s most lake trout were harvested from the U.S. waters of the Great Lakes and in 2000 most came from Lakes Michigan and Huron

Lake Trout Commercial Harvest
Great Lakes



Lake Trout Commercial Harvest
Percent by each Great Lake in 2000

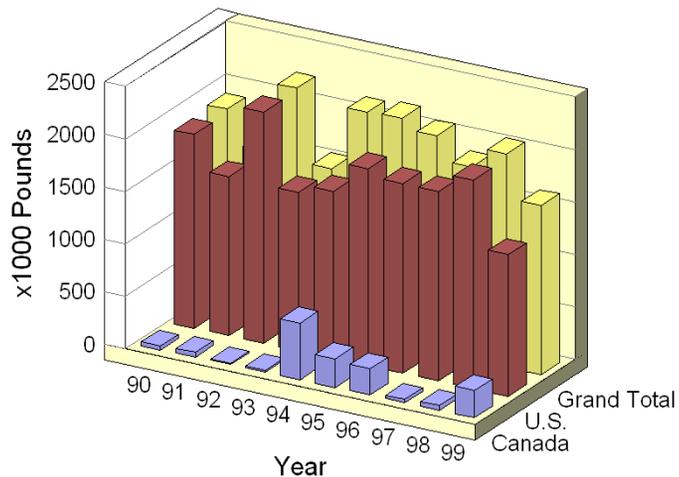


Great Lakes Carp and Channel Catfish Harvest

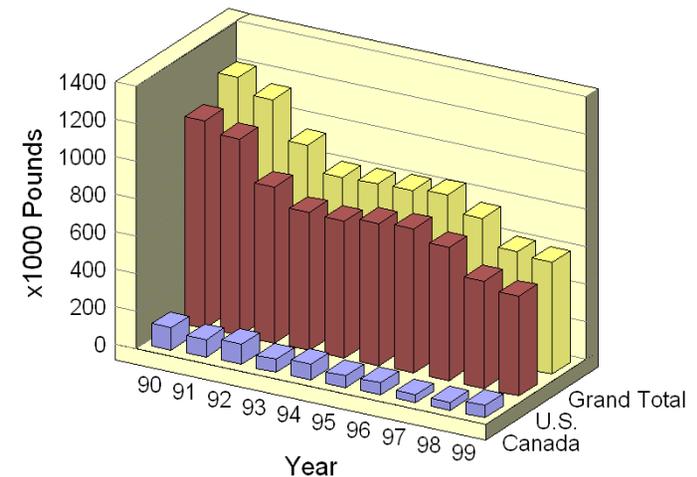
- Harvest of 1.5 million pounds of carp and dock side value of nearly \$160 thousand in 2000
- Harvest of 0.5 million pounds of channel catfish and dock side value of nearly \$310 thousand in 2000

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 Huron commercial fish harvest by pounds and value in the year 2000

Species	U.S. lbs	U.S. Value	Canada lbs	CDN Value (U.S.\$)	Total lbs	Total Value	\$/lb
Lake Whitefish	3622278	\$3,706,606	9065000	\$6,802,376	12687278	\$10,508,982	\$0.83
Yellow Perch	91908	\$246,309	309000	\$608,668	400908	\$854,977	\$2.13
Chubs	676	\$691	299000	\$300,495	299676	\$301,186	\$1.01
Walleye	7475	\$12,636	199000	\$275,993	206475	\$288,629	\$1.40
Lake Trout	139629	\$75,424	433000	\$176,967	572629	\$252,391	\$0.44
Pacific Salmon	470730	\$240,107	0	\$0	470730	\$240,107	\$0.51
Channel Catfish	230835	\$133,825	24000	\$7,558	254835	\$141,383	\$0.55
Carp	34620	\$19,825	1000	\$101	35620	\$19,926	\$0.56

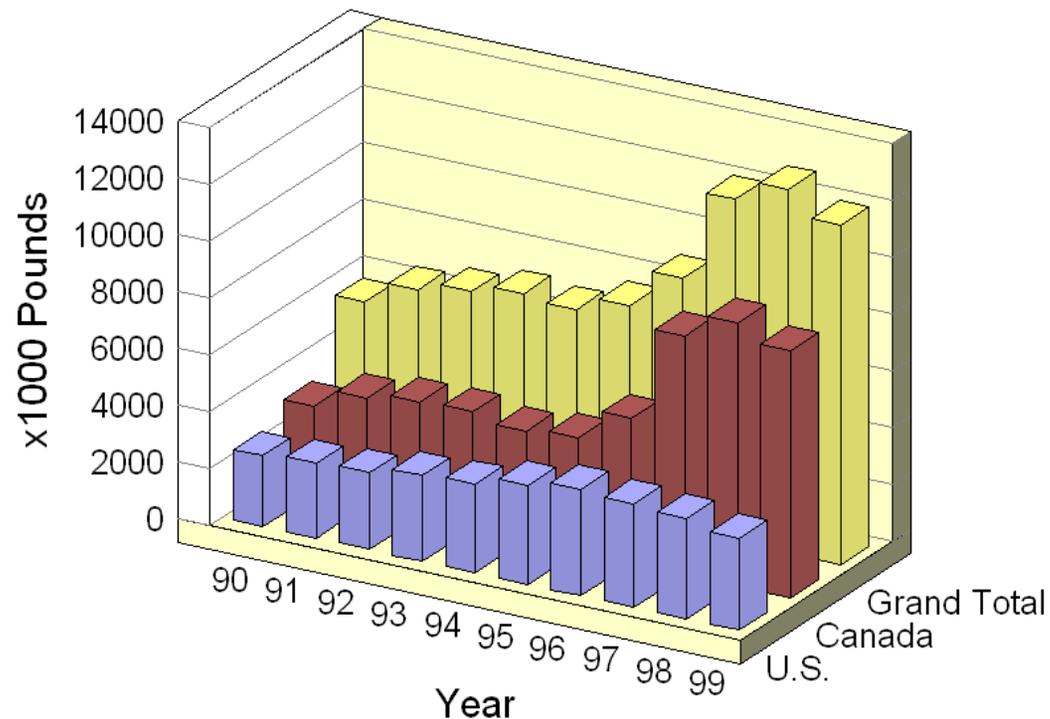
Lake Huron Lake Whitefish Harvest

- 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



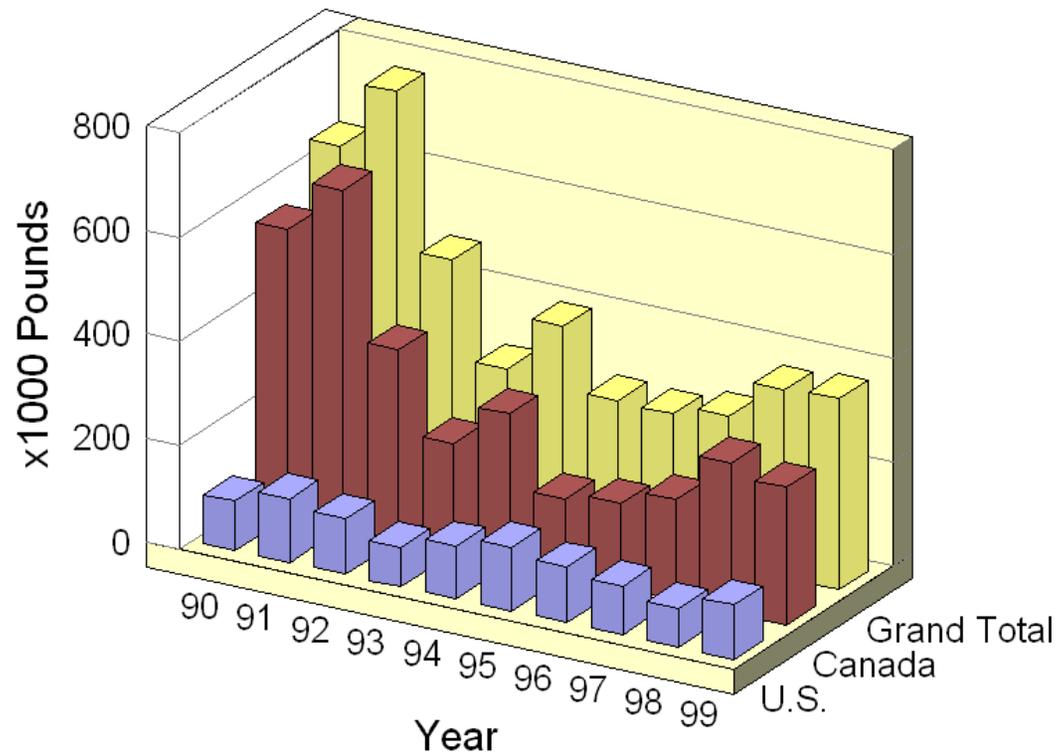
Lake Huron Yellow Perch Harvest

- 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



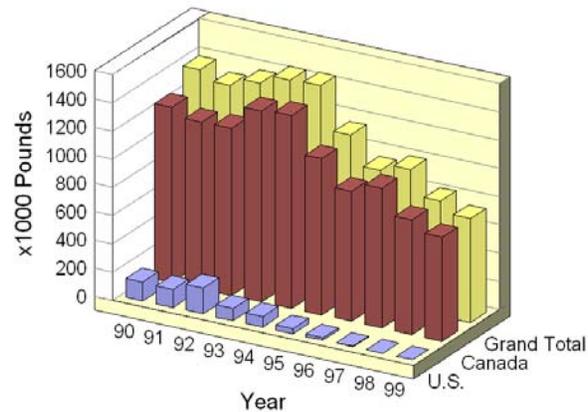
In the 1990s yellow perch harvest in Lake Huron came mostly from Canadian waters

Yellow Perch Commercial Harvest
Lake Huron

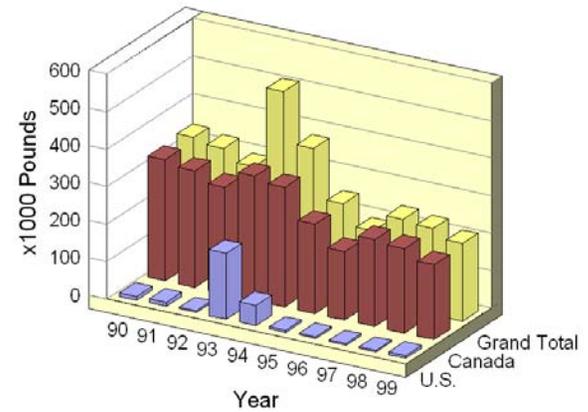


In the 1990s the Canadian fishery dominated the harvest for chubs, walleye, and lake trout in Lake Huron

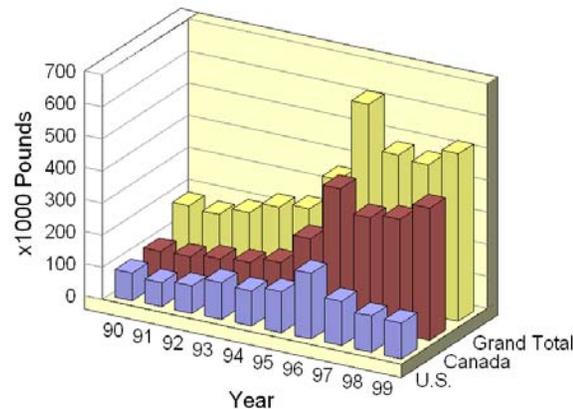
Chub Commercial Harvest Lake Huron



Walleye Commercial Harvest Lake Huron

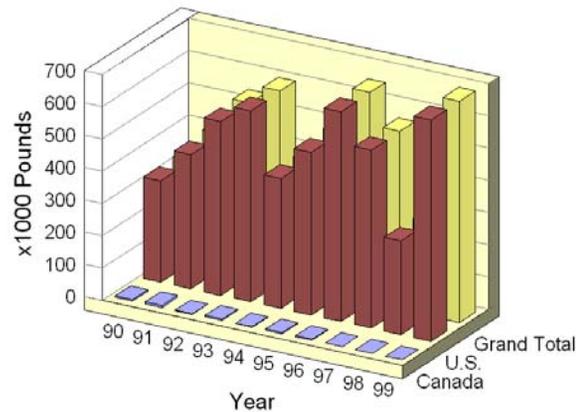


Lake Trout Commercial Harvest Lake Huron

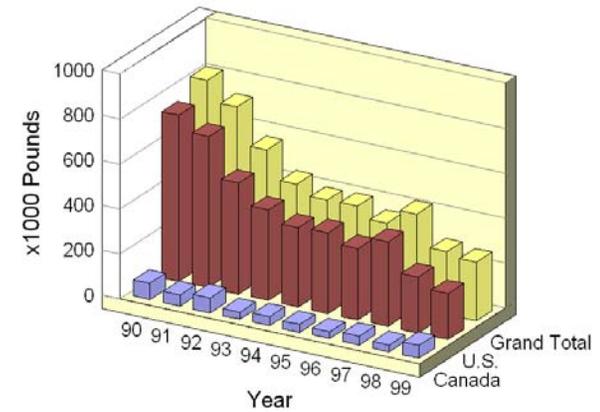


In the 1990s the U.S. fishery dominated the harvest for salmon, catfish, and carp in Lake Huron

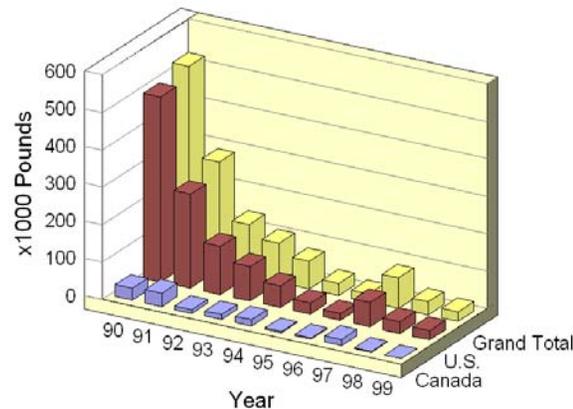
Salmon Commercial Harvest
Lake Huron



Channel Catfish Commercial Harvest
Lake Huron



Carp Commercial Harvest
Lake Huron



Road Map – where we've been...

- This morning we're going to talk about the
PEOPLE!!
- Overview of Fishery Stakeholders
- Looking more specifically @
 - Commercial Fisheries

Road Map – Where we're going...

- Continuing to Look more specifically @
 - Charter Fishing Industry (Janice Deaton, MCBA)
 - Tribal Fishers (Arnie Parish, BMIC)
 - Sport Anglers (Dan Thomas, GLSFC)
- Increasing Public Participation in our Fisheries
 - Heather VanDenBerg, CWRC
- User Group Conflicts: What are the Challenges?
 - Building the 2000 Consent Decree

...Questions??



Photo credit: B. Schroeder



Photo credit: J. Scullon

