

SOUTHERN LAKE HURON ASSESSMENT



Charting the Course for the Bluewater Coast

2010-2012

Commercial and Recreational Fishing

Included in this presentation:

- Status and trends of fishing in Southern Lake Huron
- Research update of Michigan's Charter Boat industry
- Research update of angler profiles

For more information, contact Jim Diana
jimd@umich.edu

Fishing in Southern Lake Huron

Status and Trends



Changes That Have Occurred

Charter or Large Boat Fishing	Small Boat Fishing	Pier, Shore or Creek fishing
↑ Walleye* ↑ Lake trout ↑ Lake whitefish Lake herring (Cisco) Burbot ↑ <i>Atlantic salmon</i> ↓ <i>Steelhead</i> ↓ <i>Chinook salmon</i> ↓ <i>Brown trout</i>	↑ Smallmouth bass Northern pike* Freshwater drum* Emerald shiner Channel catfish* Yellow perch	Yellow perch ↑ Pumpkinseed and Bluegill Channel catfish Common carp* White sucker (spring, creeks) ↑ Lake whitefish (fall only) <i>Rainbow smelt</i> (spring, creeks)
<div> <i>Non-native species</i> </div> <div> ↑ Increasing in numbers </div>		
<div> * Abundant in Saginaw Bay </div> <div> ↓ Small populations </div>		

Commercial Fishing

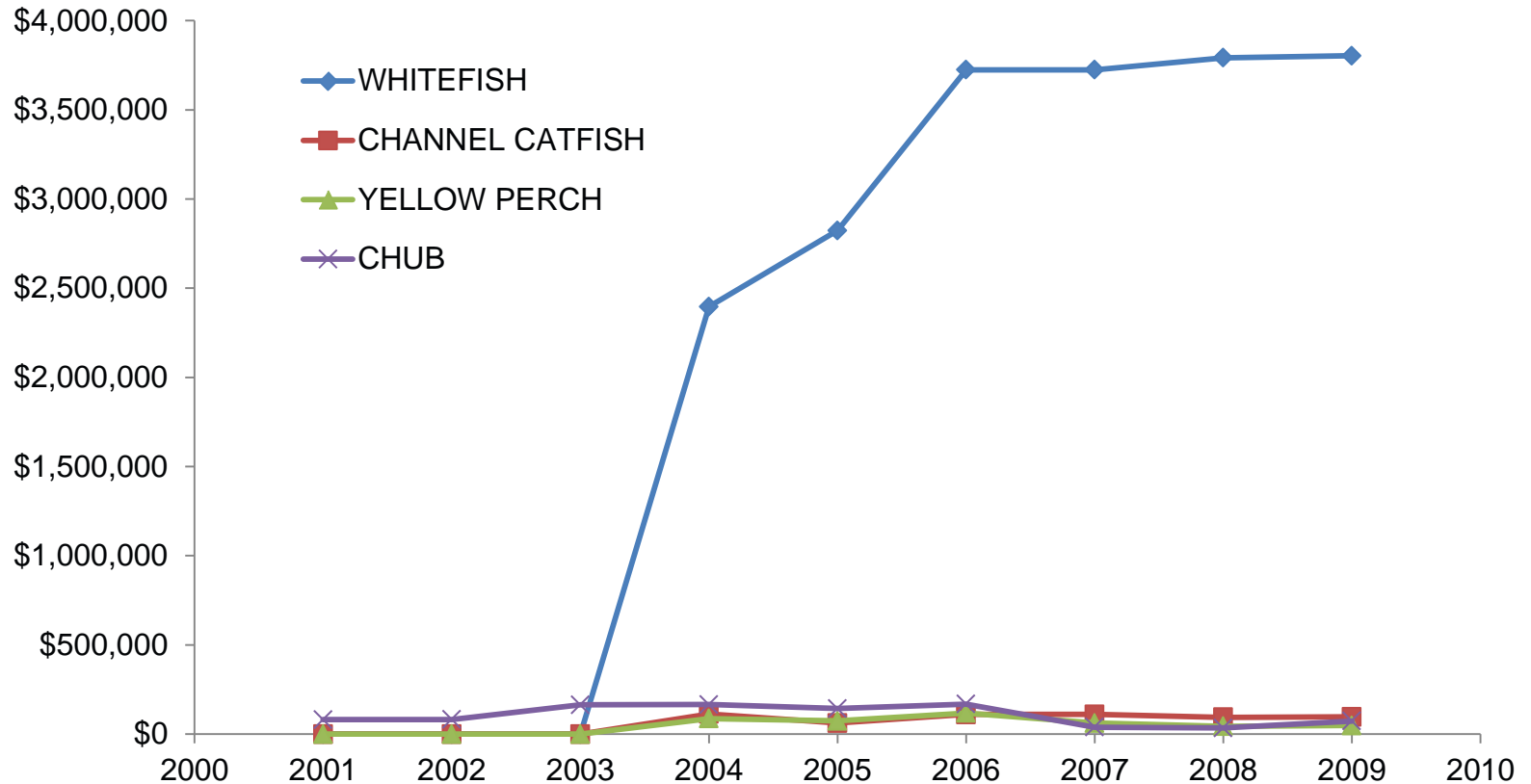
Michigan Waters 2009

State Licensed		Tribal		Total	
WHITEFISH	\$3,803,227	WHITEFISH	\$6,379,278	WHITEFISH	\$10,182,505
CHANNEL CATFISH	\$96,615	LEAN LAKE TROUT	\$290,998	LEAN LAKE TROUT	\$290,998
GOLD FISH	\$81,685	CHUB	\$121,839	CHUB	\$194,857
CHUB	\$73,018	CHINOOK SALMON	\$155,314	CHINOOK SALMON	\$155,314



Commercial Fishing Trends

Commercial Value State Licensed All Lakes





Great Lakes Whitefish: The Great Fish

Welcome to the Home of Michigan Great Lakes Whitefish.

Michigan is surrounded by the largest freshwater system in the world, commonly known as the Great Lakes. With 6 quadrillion gallons of water, this amazing ecosystem is home to many species of fantastic fish, including the delicious and versatile Great Lakes whitefish.

Michigan fishermen are out every day, early in the morning, on the pristine waters to bring back the freshest, best-tasting wild-caught whitefish for your plate. By choosing Michigan whitefish you are assured the most flavorful fish packed with Omega-3 fatty acids that make it a powerhouse of nutrition.

Take a dip into this site to learn about this versatile fish and its fishermen. You'll also find out how to locate Michigan whitefish for yourself and cook it to perfection with one of our many recipes. One bite and you'll be hooked.



Fish News

MSU effort gets Mich. products on store shelves

December 15, 2008 Lansing State Journal: MSU effort gets Mich. products on store shelves.

[Read more...](#)

Featured Fishing Family

Petersen's Fisheries

Three generations and counting.

[Read more...](#)

Featured Fish Recipe

Great Lakes Whitefish Sandwich

Making your own fish sandwich is a snap. And it tastes better, too! Choosing your....

[Read more...](#)

Featured Chef

Hans Burtcher

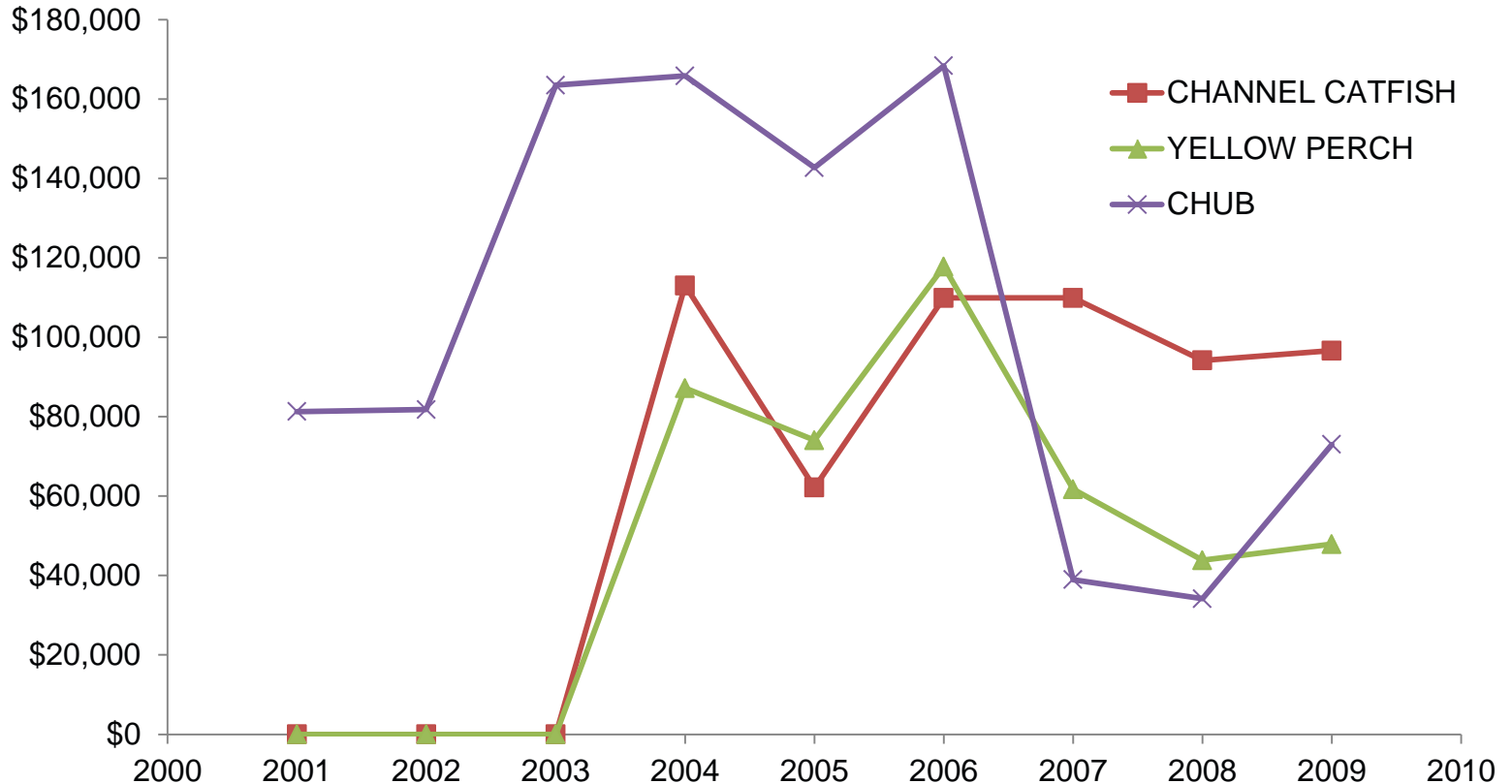
Vice President, Food and Beverage - Executive Chef - Grand Hotel - Mackinac Island, Michigan

[Read more....](#)

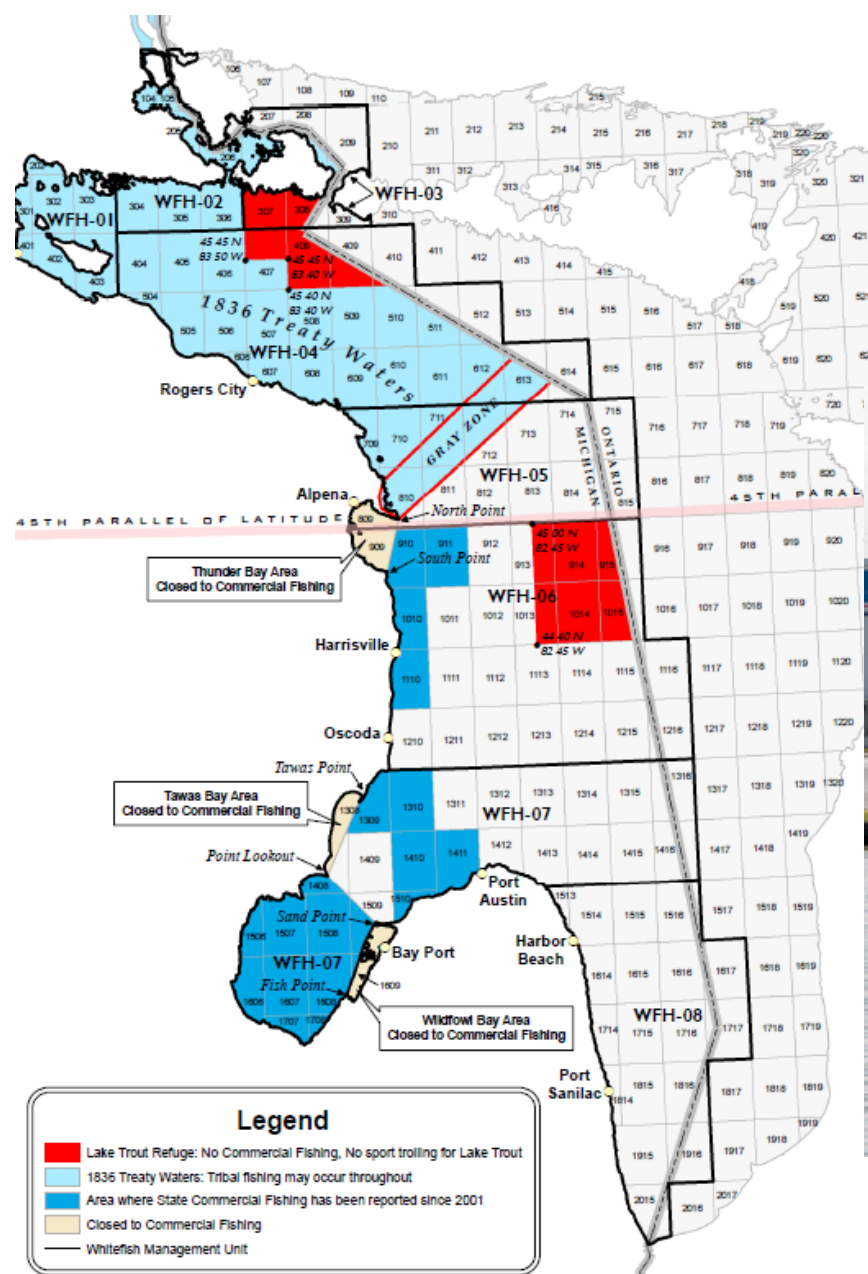
Great Lakes Whitefish Marketing

Commercial Fishing Trends

State Licensed without Whitefish



Commercial Fishing Zones



Commercial Fishing Zones



Bay Port Fish Company



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33RD ANNUAL FISH SANDWICH FESTIVAL August 6th & 7th, 2010

An Original Creation

With the cooperation from community organizations and local volunteers, the Bay Port Chamber of Commerce sponsors and coordinates the annual Bay Port Fish Sandwich Festival.

They're Delicious!!

Bay Port Fish Sandwiches are an original creation in this small fishing community. They're so big that
"It takes two hands to hold one!"

NEW MENU!

Famous Original Bay Port Fish Sandwich for \$3.00

Back by popular demand:

French Fries
Hot Dogs
Nachos

Sandwiches Served:

Friday, Aug. 6th- 12:00-8:00
Saturday, Aug. 7th- 11:00-7:00

Featured Event Favorites

Area's Largest Crafter's Show

CRAFTERS WANTED!!

Apply now

**FIREWORKS!
BINGO!**

PLENTY OF ENTERTAINMENT
EACH DAY

PETTING ZOO

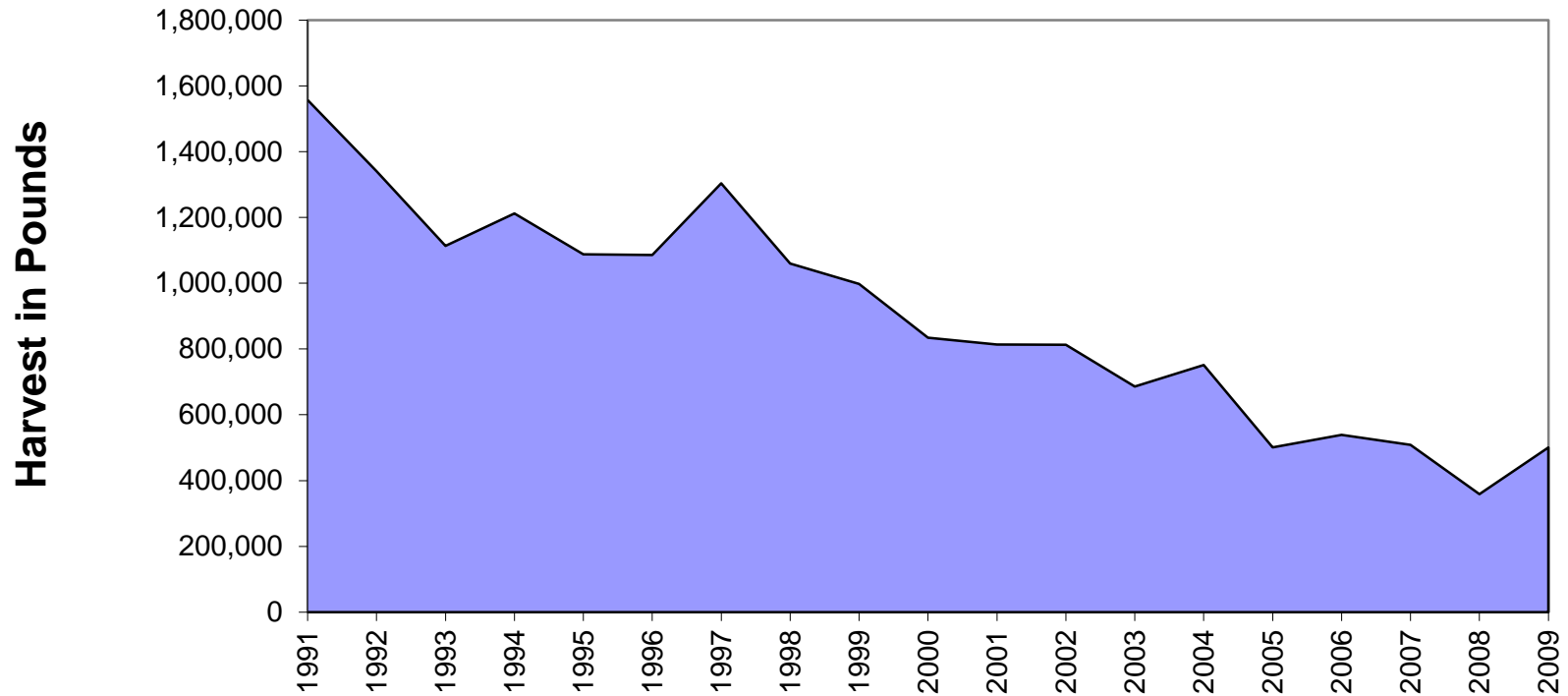
LAWN MOWER RACES RULES

NEW THIS YEAR!!!!

[Event Schedule](#)

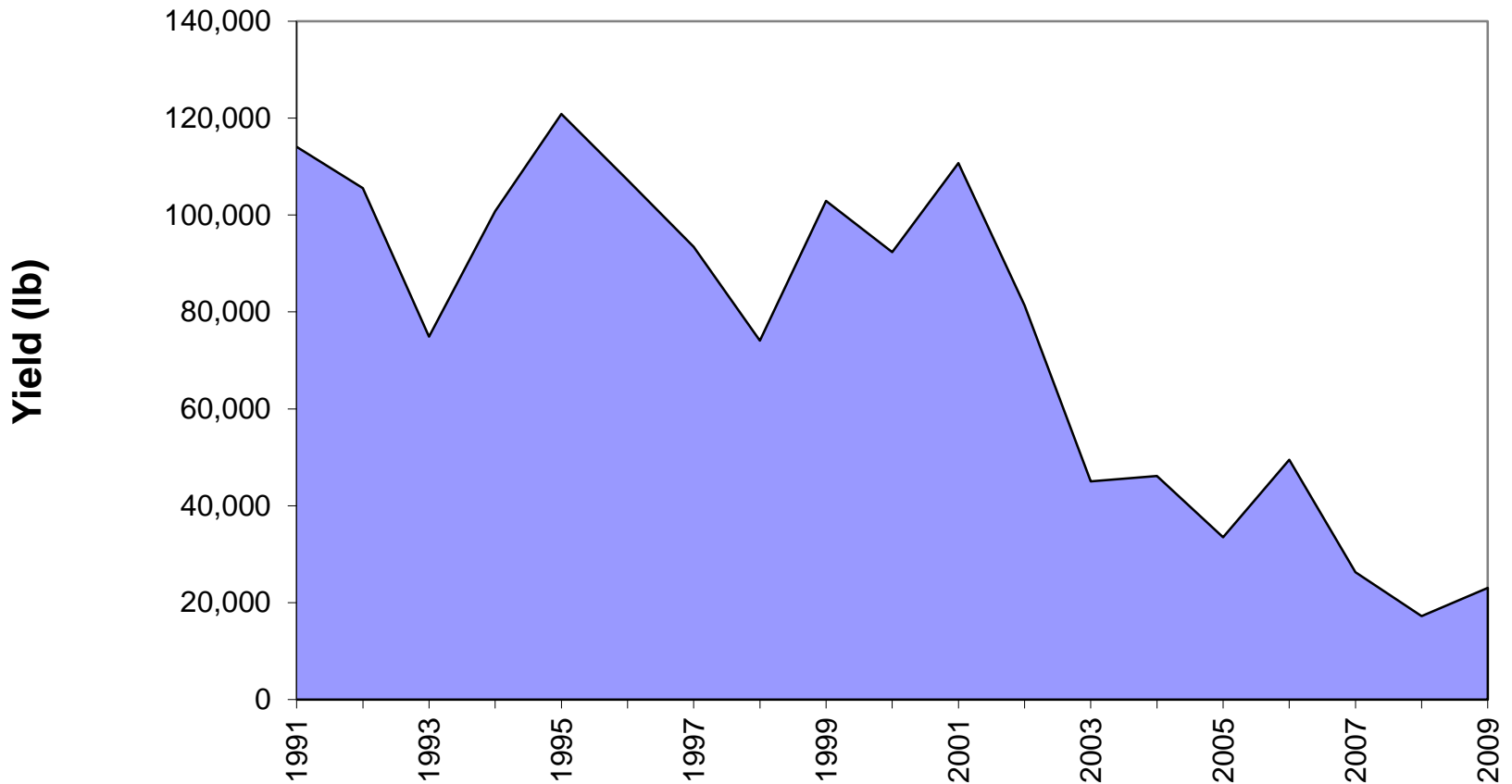
Commercial Fishing Trends

Total Combined Harvest in Inner Saginaw Bay



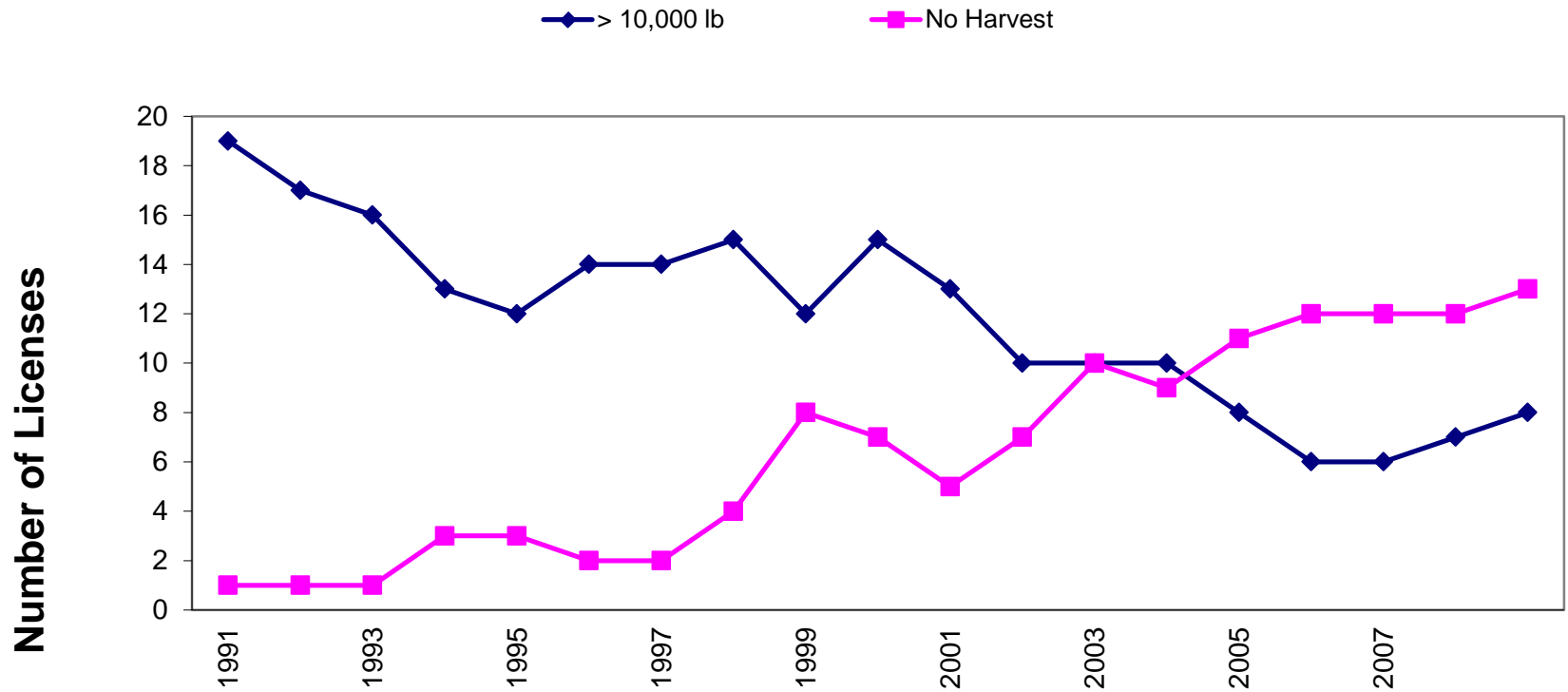
Commercial Fishing Trends

Yellow Perch Harvest in Inner Saginaw Bay



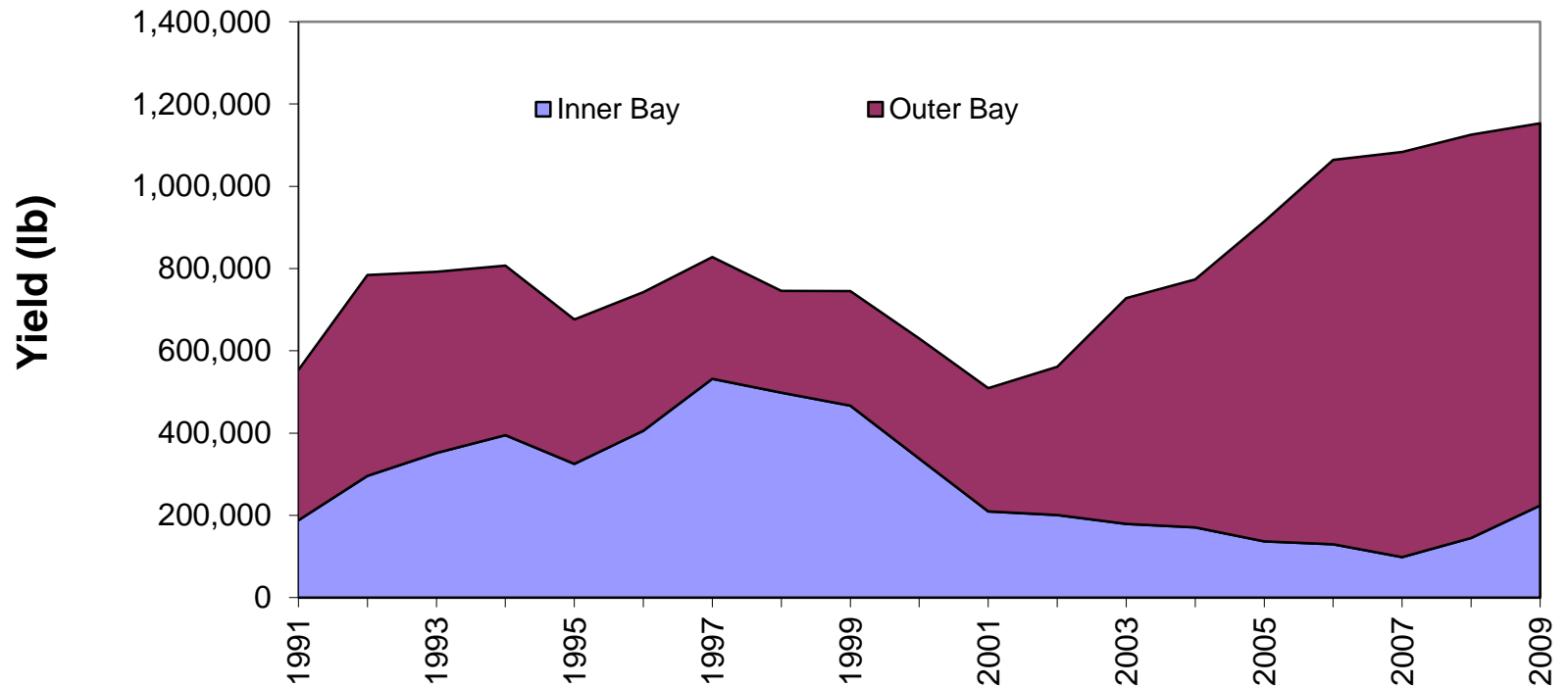
Commercial Fishing Trends

Active Fisheries in Saginaw Bay (23 licenses total)



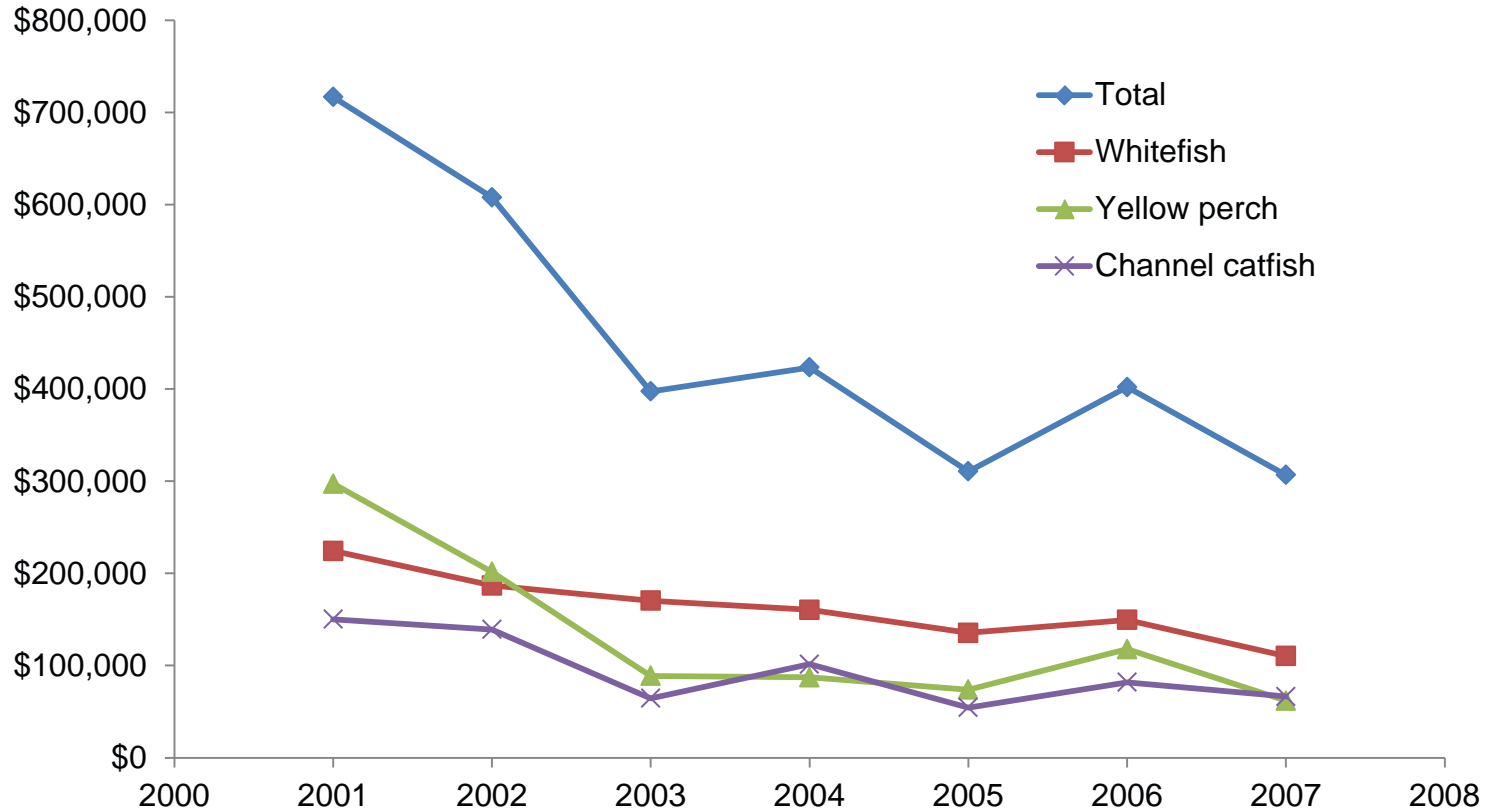
Commercial Fishing Trends

Whitefish Harvest



Commercial Fishing Trends

Harvest Value in Inner Saginaw Bay



Recreational Fishing

U.S. Waters of the Great Lakes in 2001

Species	Angling Days
Yellow Perch	6,597,000
Bass	6,355,000
Walleye	5,521,000
Salmon	3,985,000
Lake Trout	3,605,000
Steelhead (Rainbow Trout)	3,698,000

Lake/ water	Angling Days
Erie	7,748,000
Michigan	4,836,000
Ontario	3,560,000
Huron	1,171,000
Superior	601,000
St. Clair	524,000
Tributaries	3,331,000

Anglers spent an estimated \$1.3 – 2.5 billion in 2001, for bait, tackle, food, gas, boats and charter services.

Commercial Fishing

U.S. Waters of the Great Lakes in 2000

Species	U.S. \$ Value
Lake Whitefish	\$10,256,122
Yellow Perch	\$3,034,896
Chubs	\$1,888,906
Smelt	\$751,793
Lake Trout	\$531,462

Lake	U.S. \$ Value
Michigan	\$7,988,721
Huron	\$4,517,486
Erie	\$3,400,527
Superior	\$1,827,273
Ontario	\$70,260



Charter

Fully equipped, specialized boat

~\$450 half day, \$550 full day
+ \$183.31 spent per angler on
other travel expenses



Sport

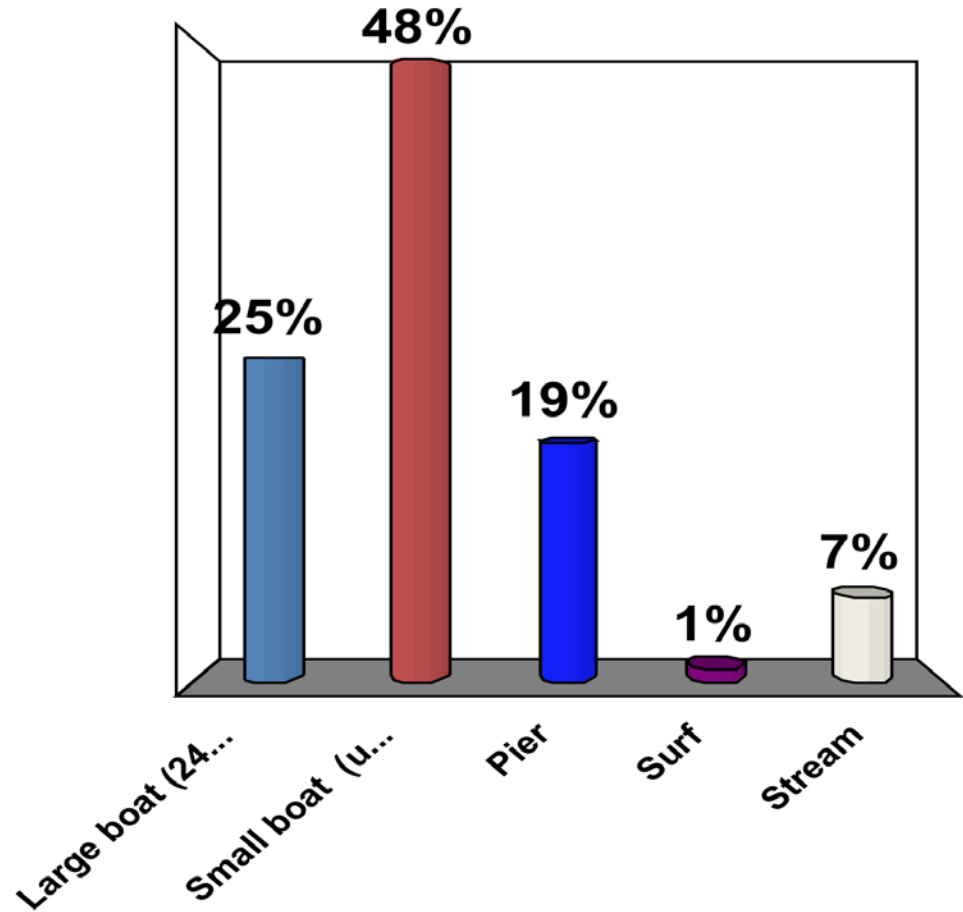
Personal boat, pier, shore

Estimated spending per
angler day = \$73

Fishery Workshop Survey:

How important are the following types of Great Lakes fishing opportunities?

1. Large boat (24' and above)
2. Small boat (under 24')
3. Pier
4. Surf
5. Stream

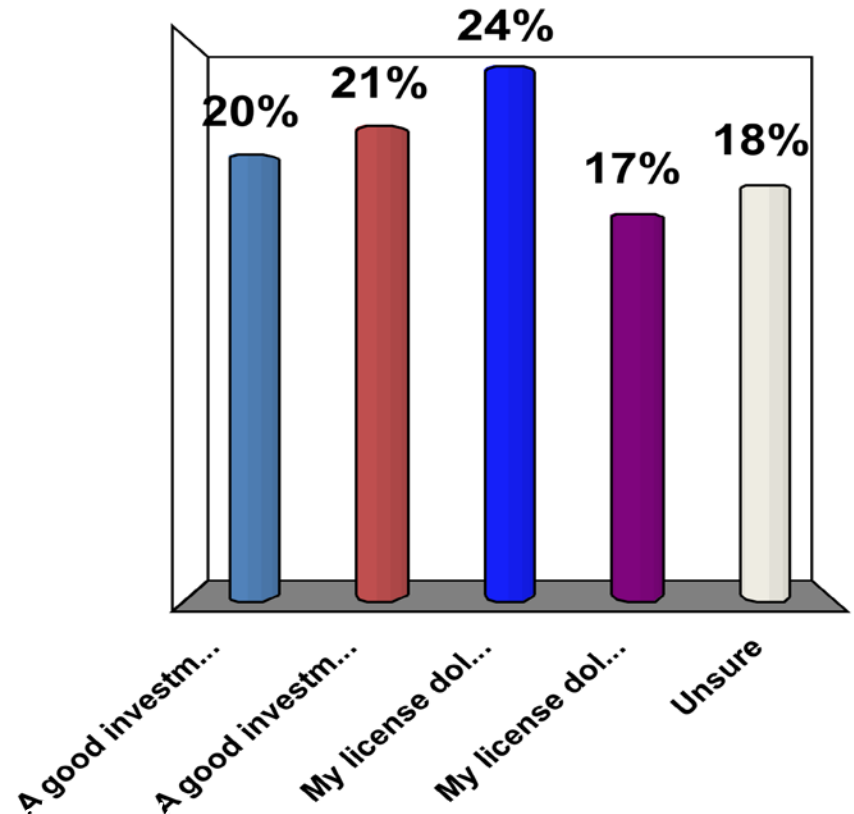


Fishery Workshop Survey

DNRE Fisheries spends roughly \$400,000 to stock 1,500,000 Chinooks in Lake Huron.

Based on your experiences, how do you feel about the DNRE's current Chinook salmon stocking program in Lake Huron?

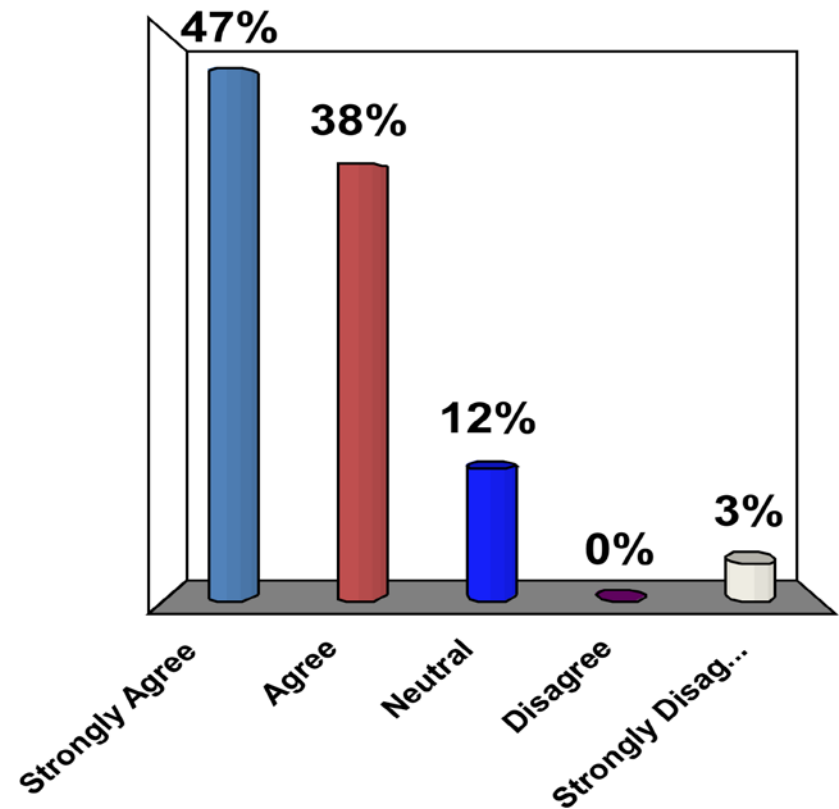
1. A good investment, increase stocking
2. A good investment of my license dollars, keep about the same stocking plan
3. My license dollars could be better spent, decrease Chinook stocking
4. My license dollars could be better spent, cease Chinook stocking
5. Unsure



Fishery Workshop Survey:

The DNRE should divert money and resources from raising game species to devote to rehabilitation of native forage fish?

1. Strongly Agree
2. Agree
3. Neutral
4. Disagree
5. Strongly Disagree



Trends over time for:

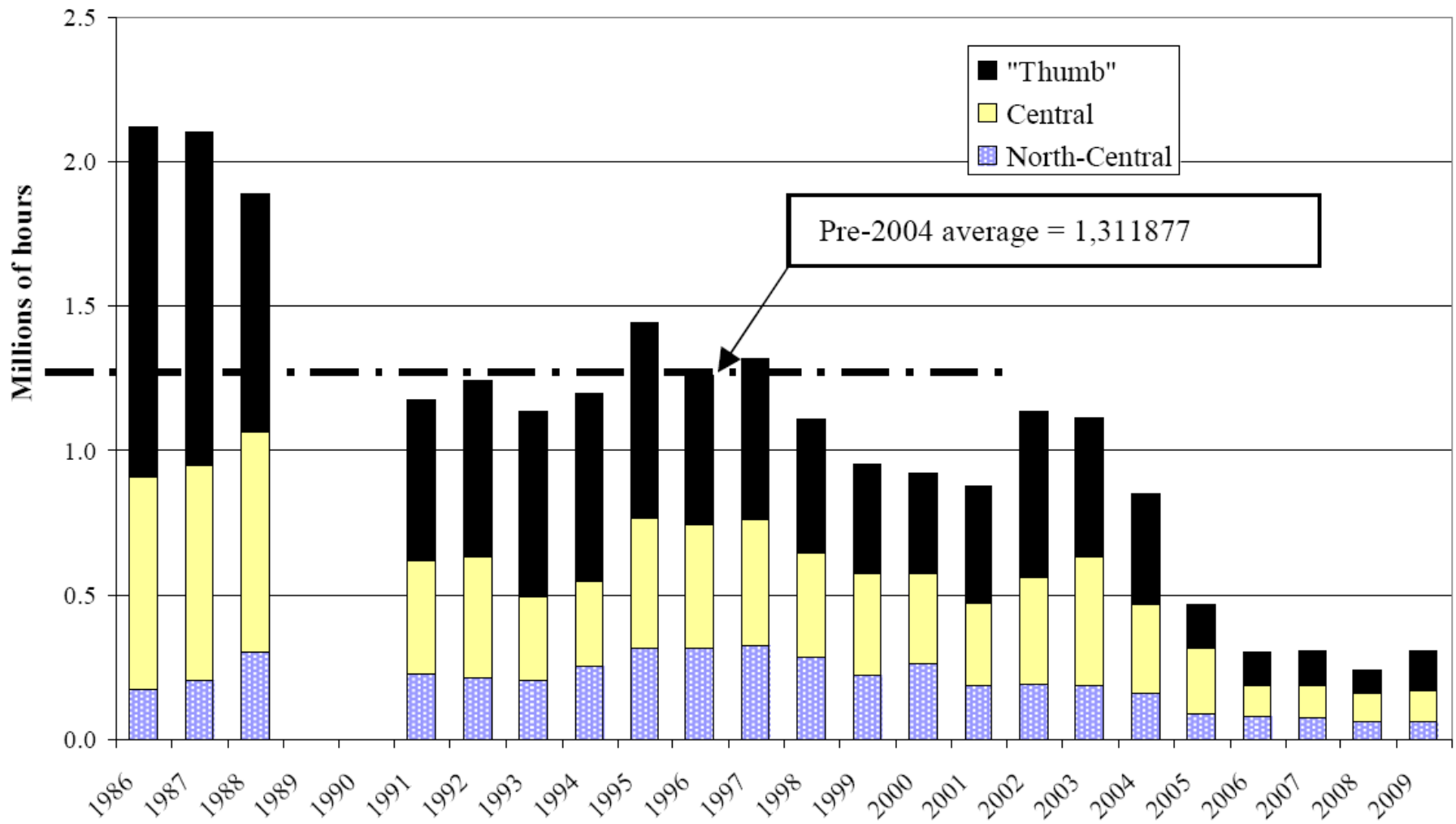
Overall Fishing Activity and Catch Rates

Sport Fishing and Charter Fishing (separately)

- Lake-wide harvest
- Fishing activity by port
- Species caught by port

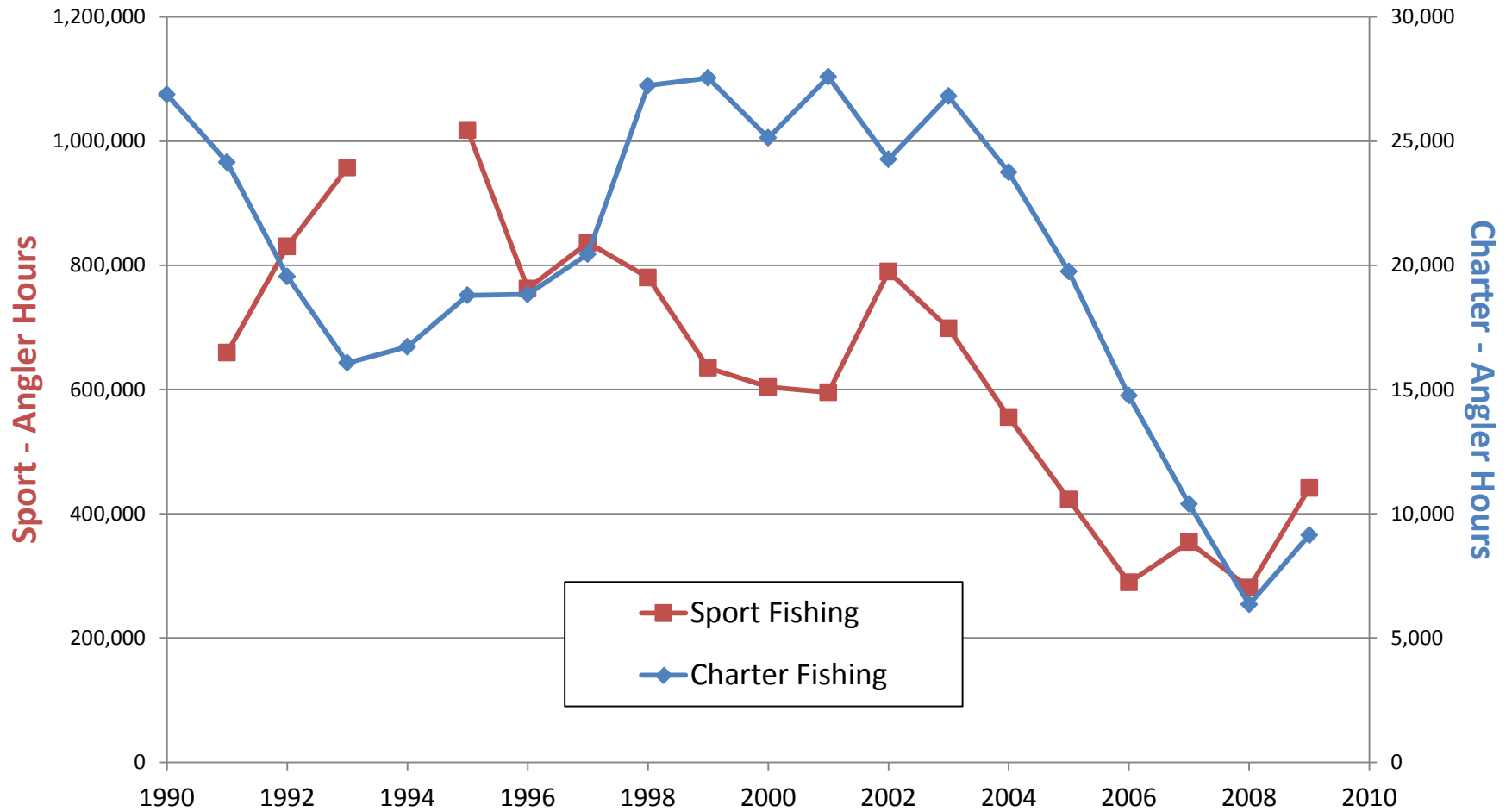
Fish Stocking

Trends in fishing hours, 10 Main Basin Index Ports, Lake Huron



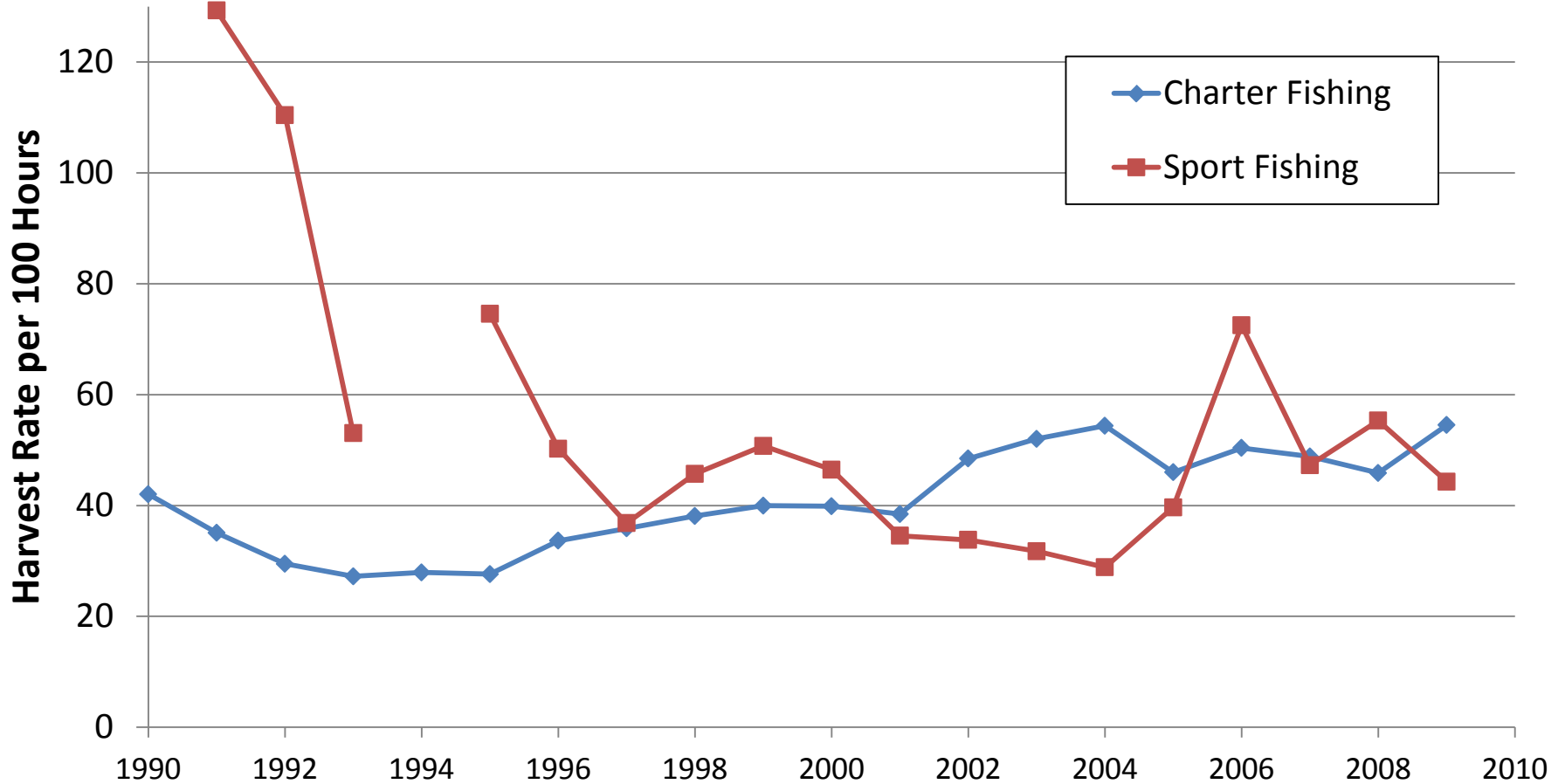
Comparison of Sport and Charter Fishing Effort

US waters of Lake Huron

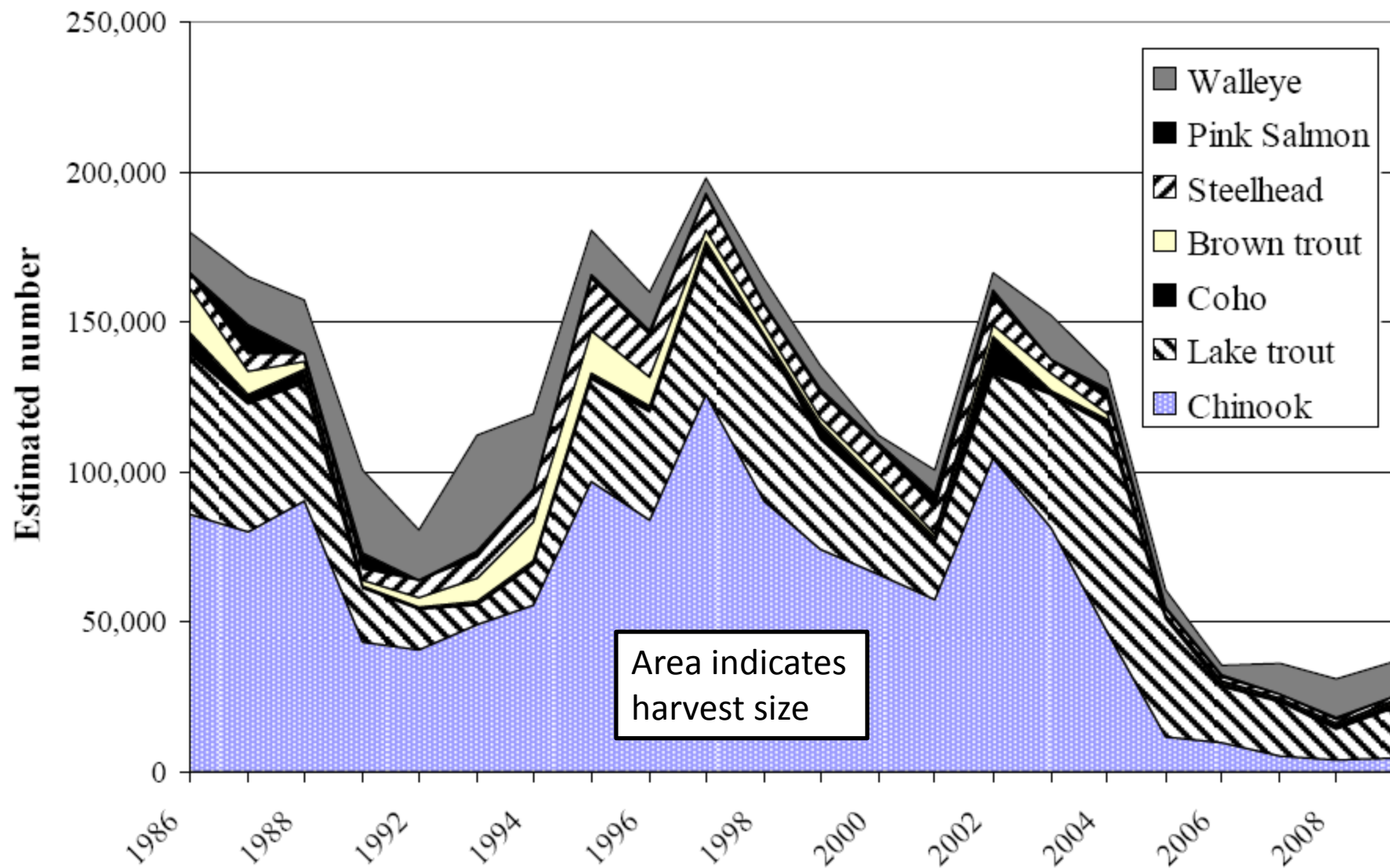


Harvest Rates for Charter and Sport Fishing

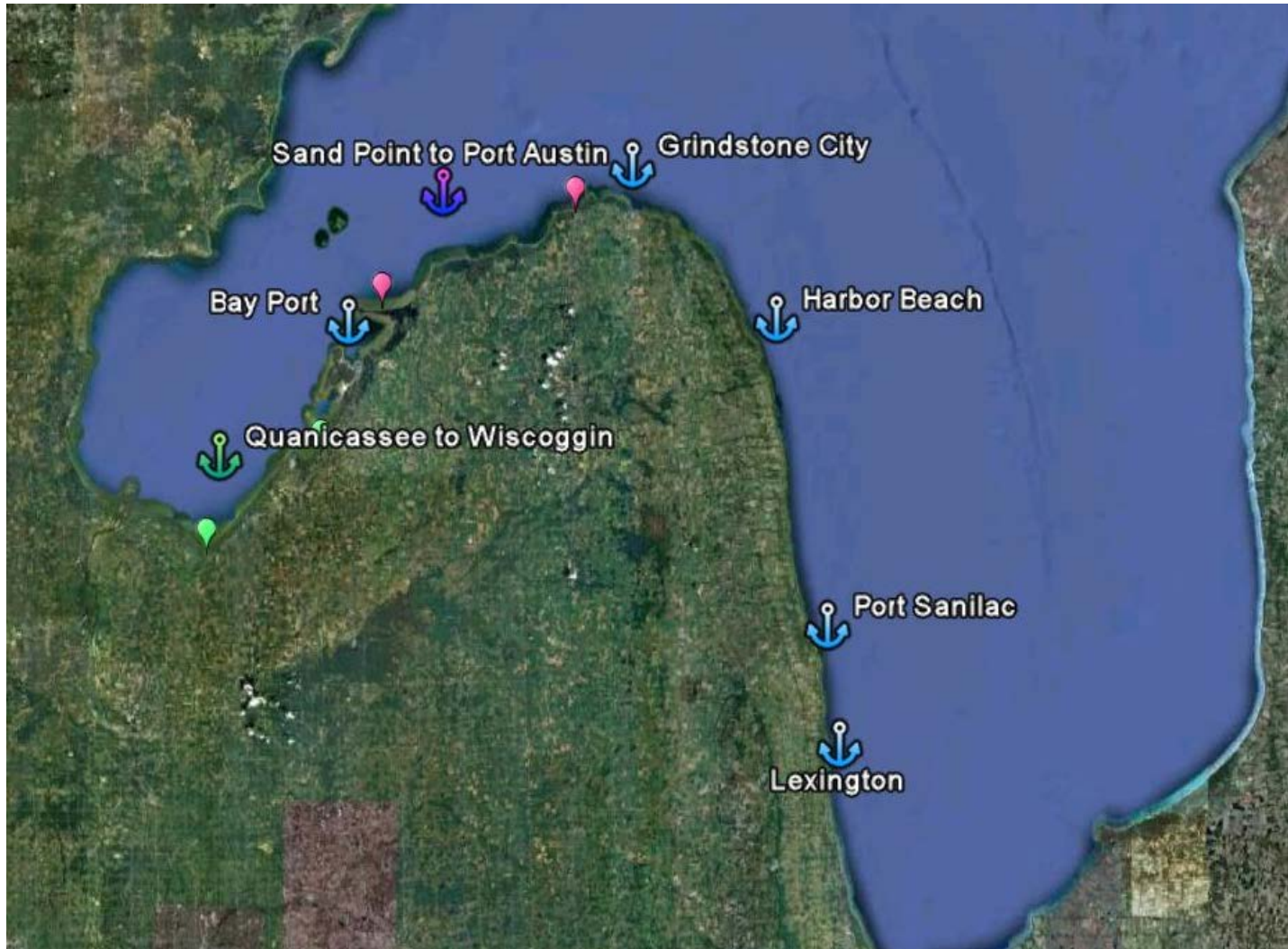
Thumb Area Ports



Harvest Trends, Lake Huron's 10 offshore index ports

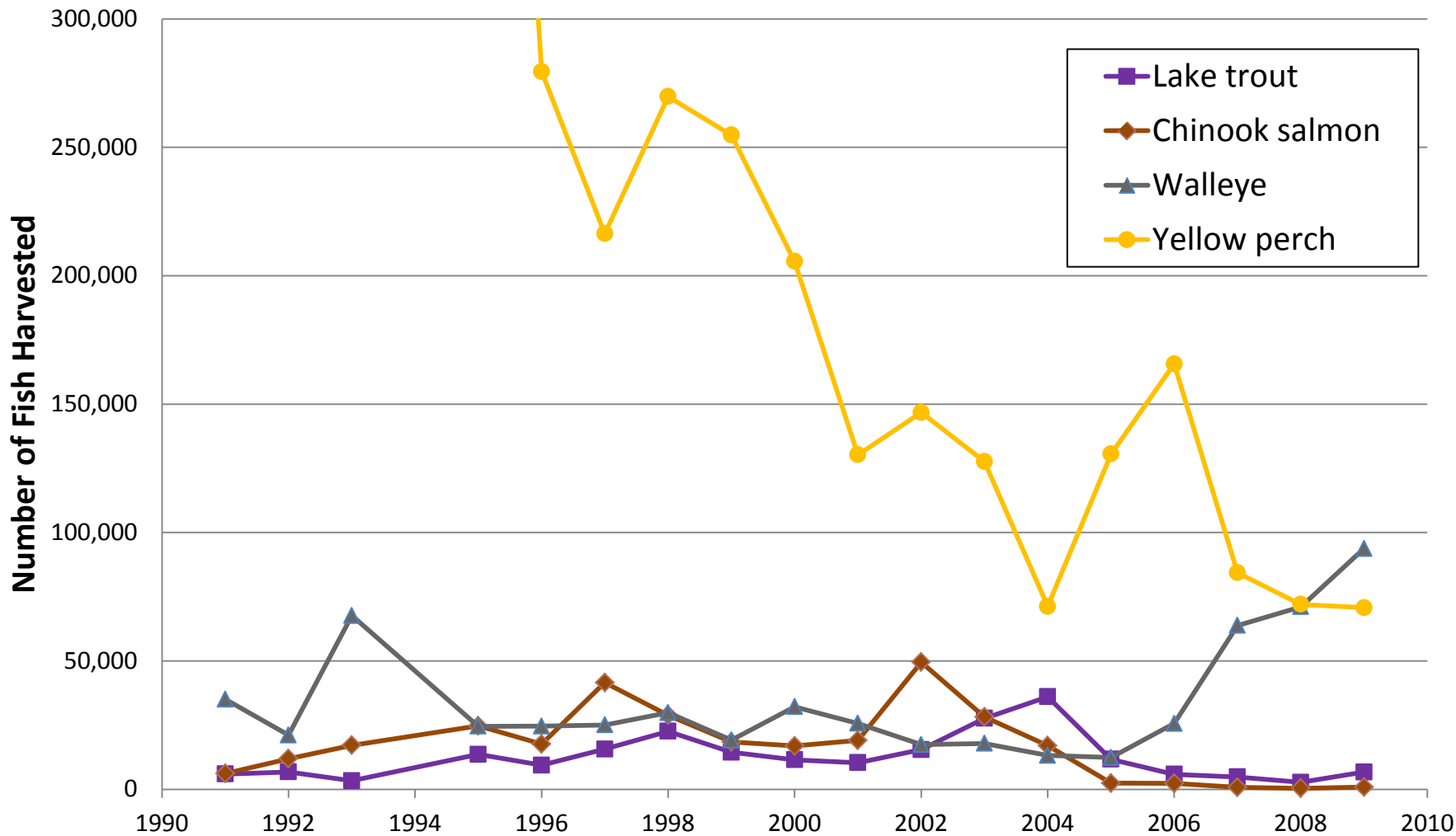


Ports Used for Sport and Charter Surveys



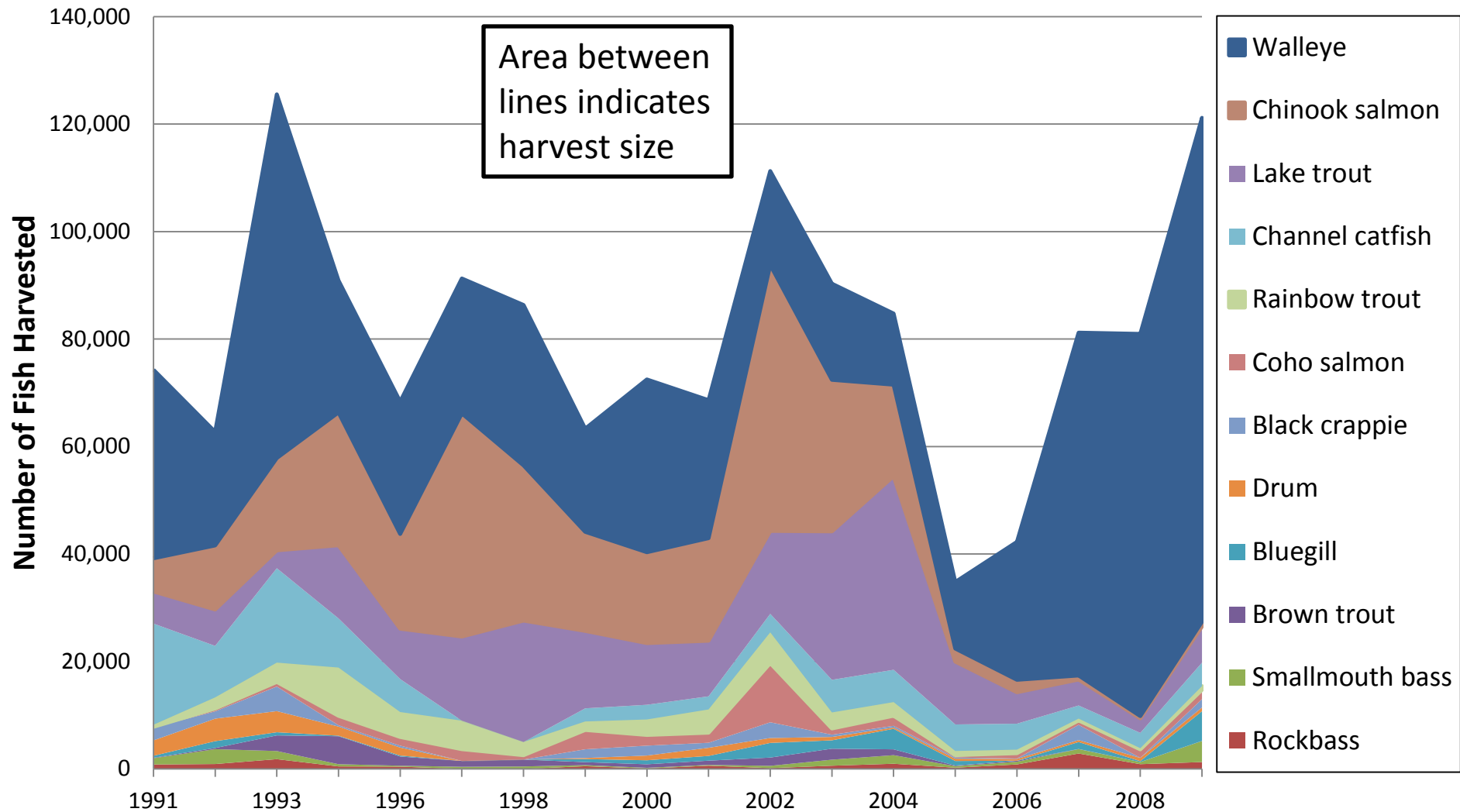
Sport Fishing Harvest from Thumb Ports

Top 4 Species



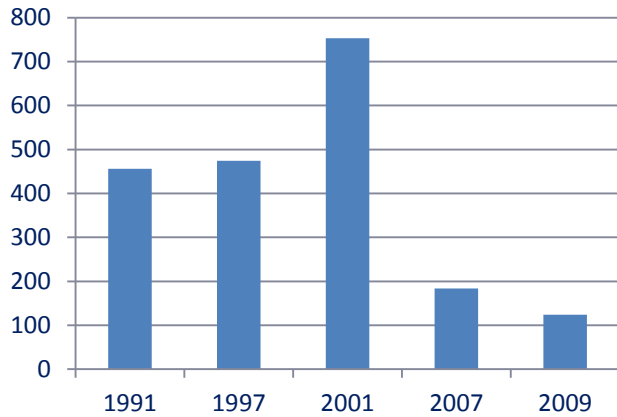
Sport Fishing Harvest from Thumb Ports

Top 12 Species without Yellow Perch

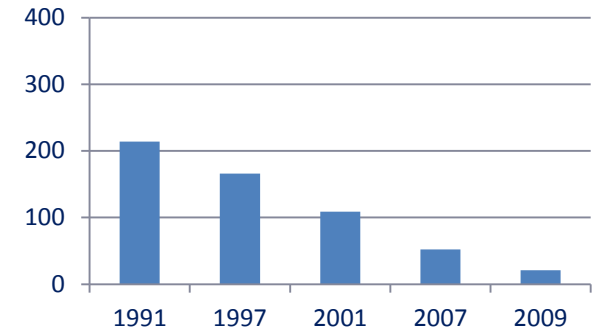


Number of Charter Fishing Trips by Year

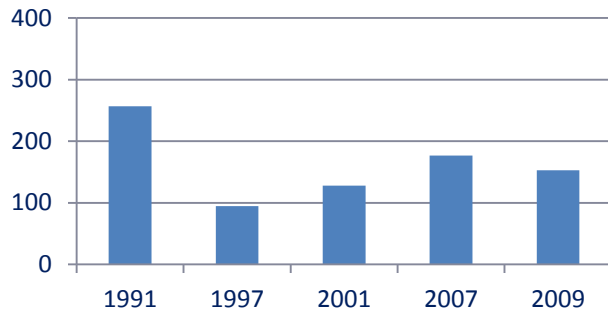
Grindstone City



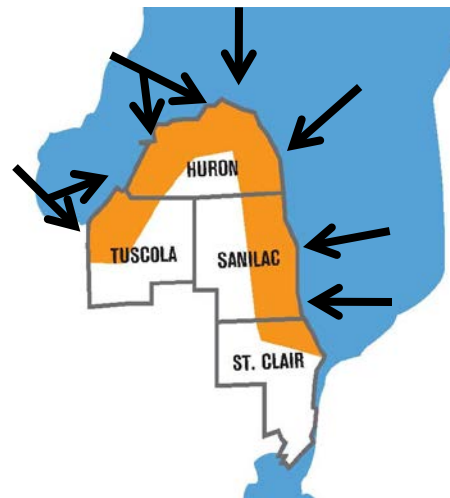
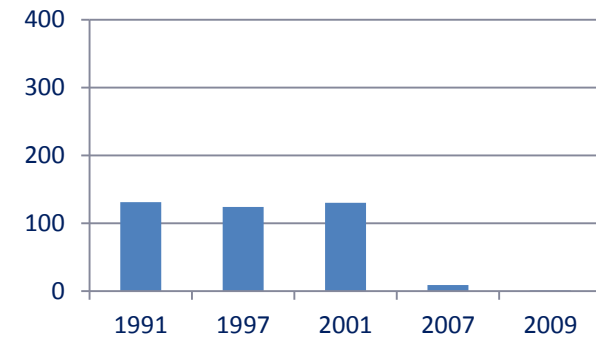
Harbor Beach



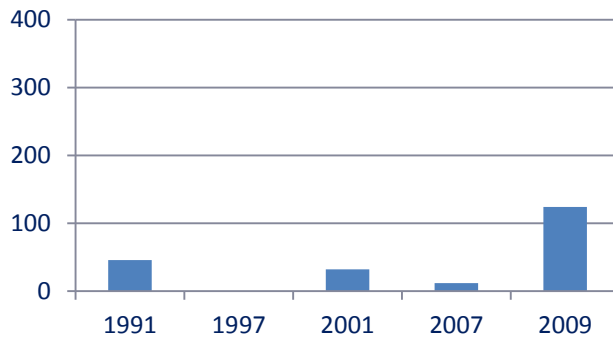
Sand Point – Port Austin



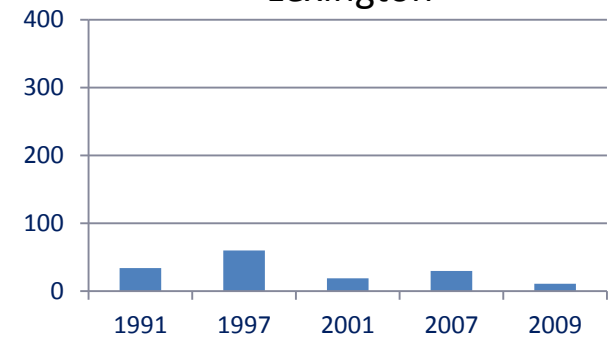
Port Sanilac



Quanicassee to Sebawaing

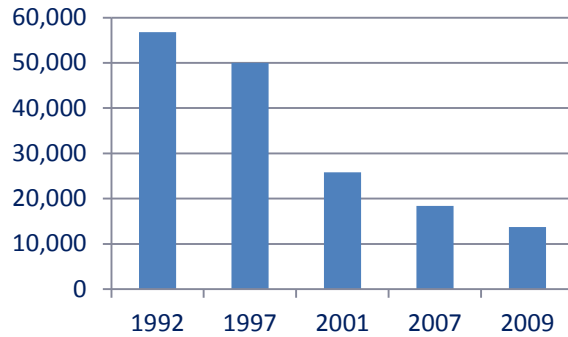


Lexington

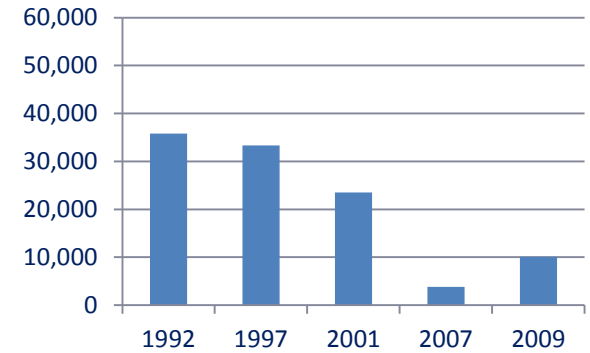


Number of Sport Fishing Days by Year

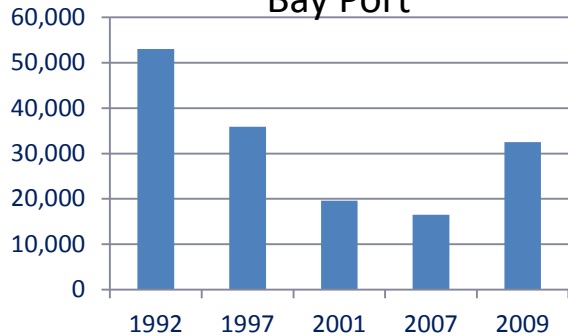
Sand Point – Port Austin



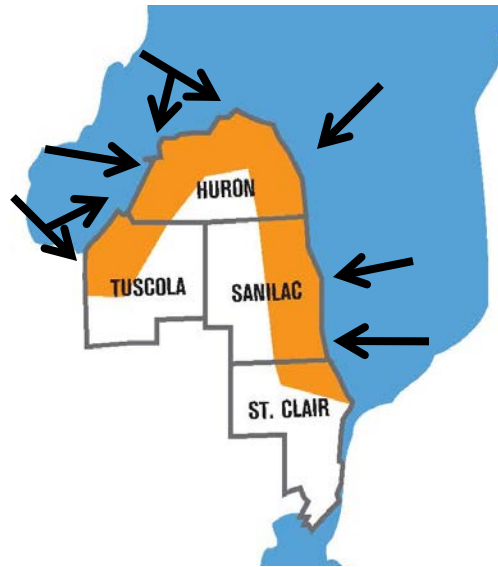
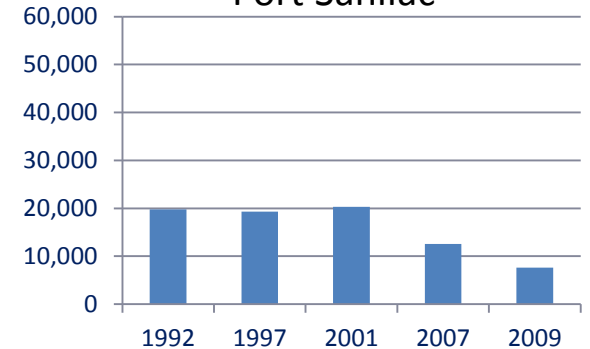
Harbor Beach



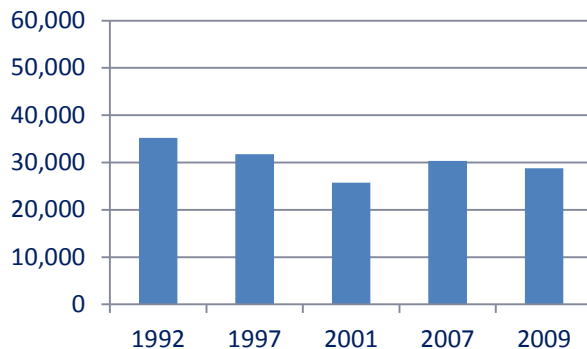
Bay Port



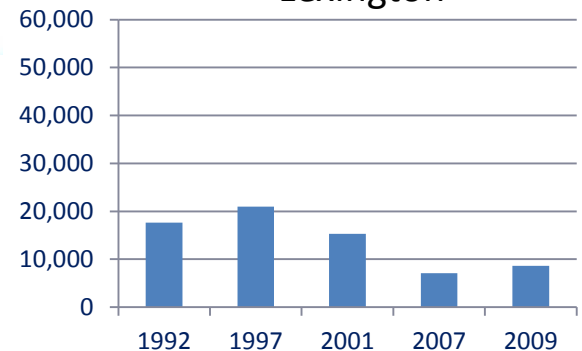
Port Sanilac



Quanicassee to Sebawaing

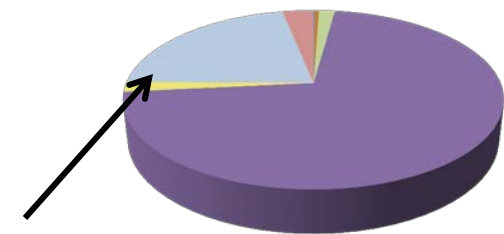


Lexington

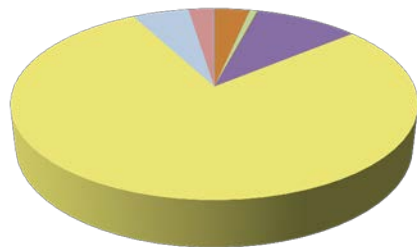
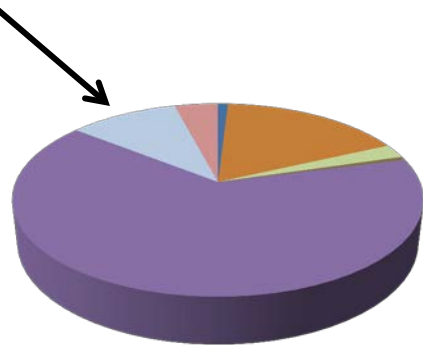


Fish Species Caught by Charters

Sand Point – Port Austin



Walleye



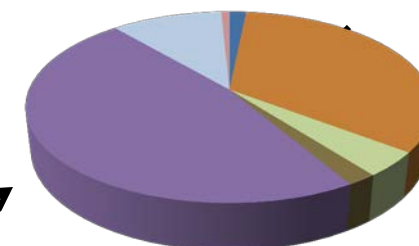
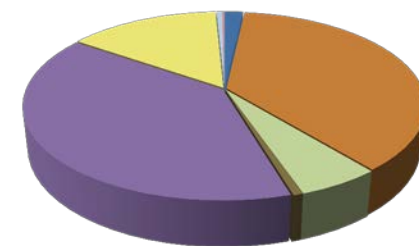
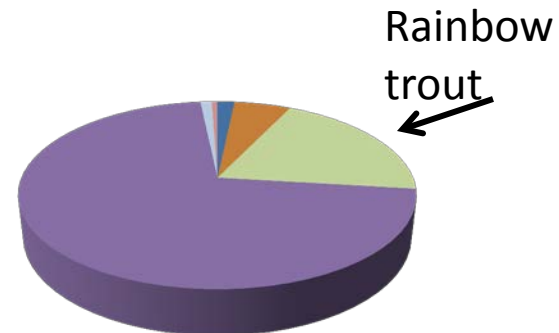
Yellow Perch

2009

2000

1992

Harbor Beach



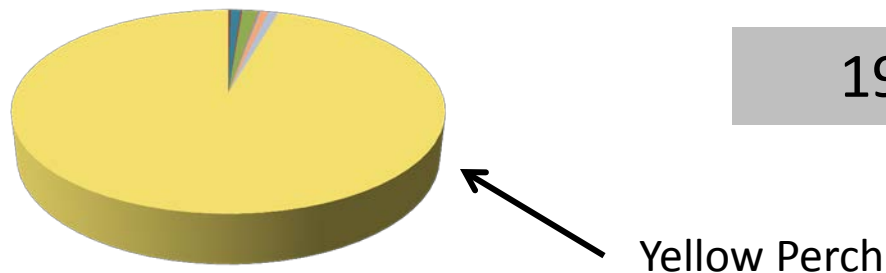
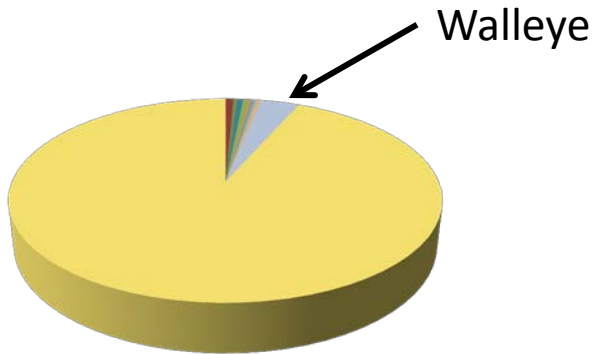
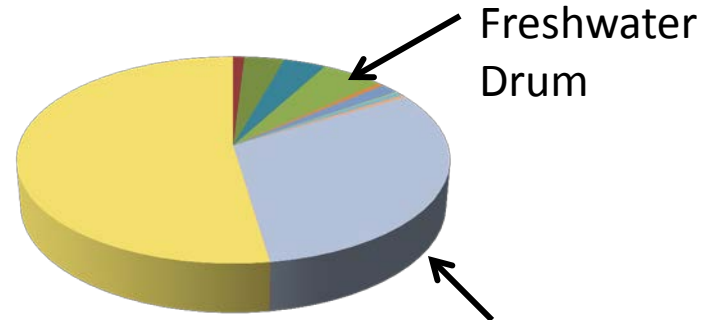
Rainbow trout

Chinook salmon

Lake Trout

Fish Species Caught by Anglers (Sport)

Bay Port



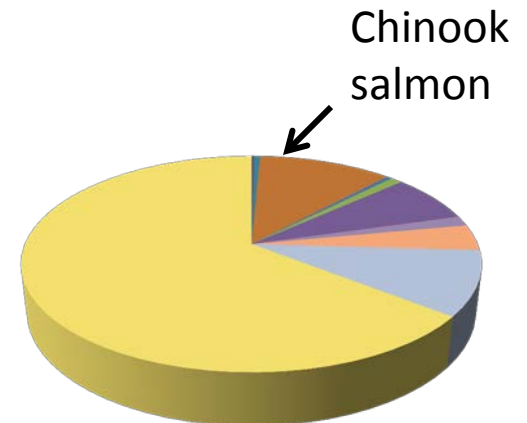
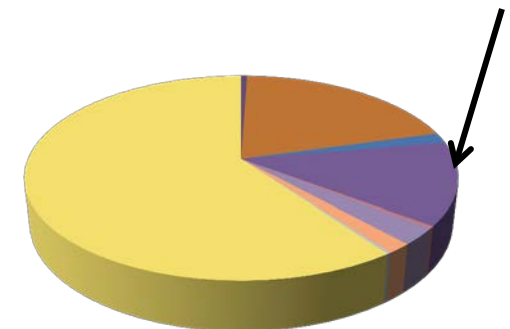
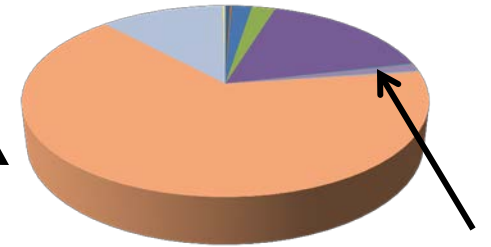
2009

2000

1992

Harbor Beach

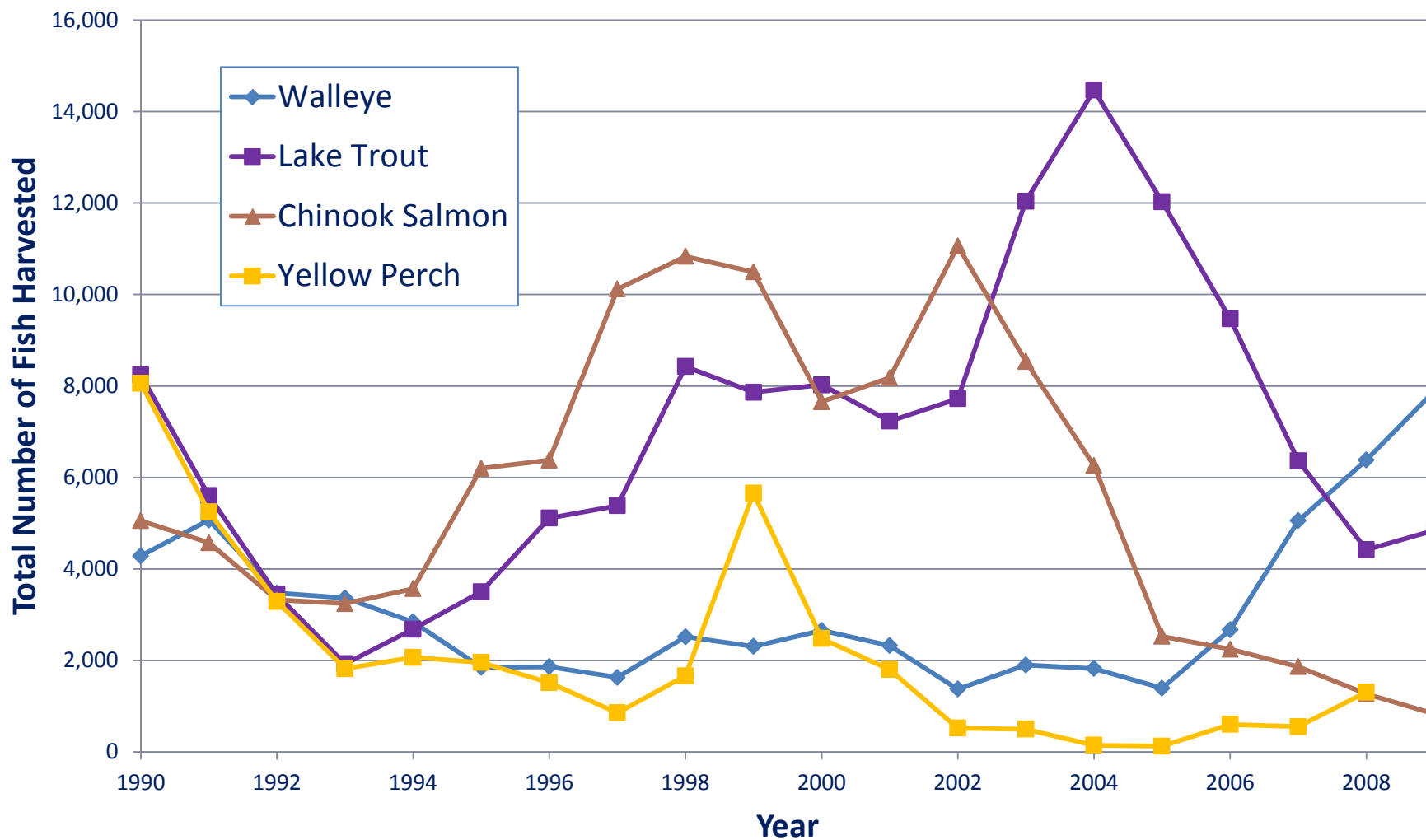
Smallmouth
bass



Yellow Perch

Charter Fishing Harvest

US Waters of Lake Huron



Fishery Workshop Survey

180 respondents, Ubly and Port Huron

Since 2005, how has your target fish changed?

Less Often Targeted

Chinook Salmon

Non-native

Brown Trout

Coho Salmon

Lake Trout

Yellow Perch

More Often Targeted

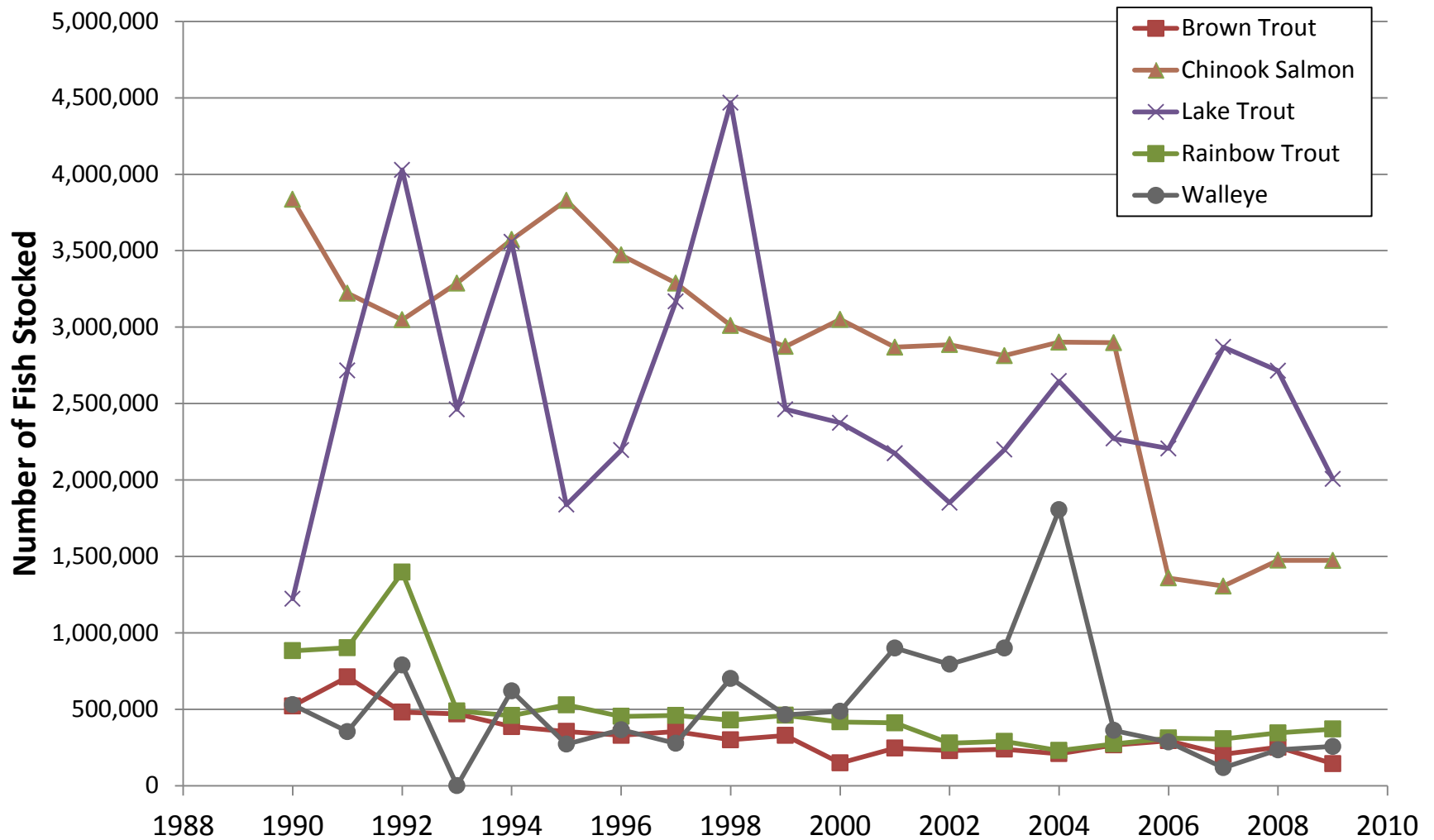
Walleye

Native

Yellow Perch

Lake Trout

Fish Stocking in Lake Huron



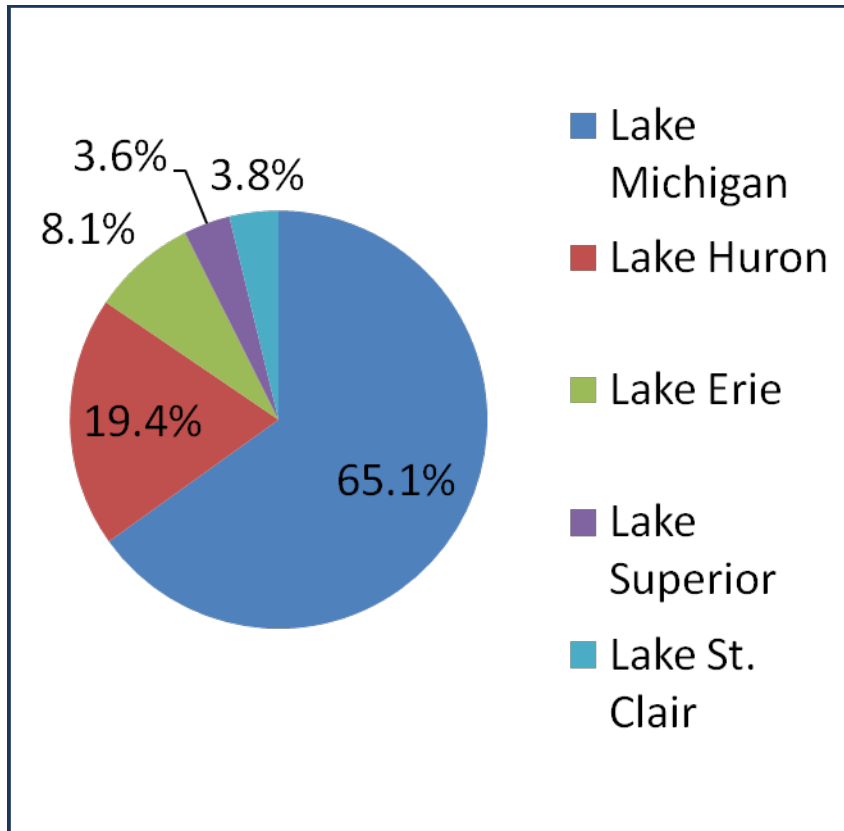
Summary

- Decline in the number of people fishing
- Shift away from salmon species towards a more diverse fishery
- Species caught and overall activity varies across the Thumb
- Changes bring both opportunities and challenges

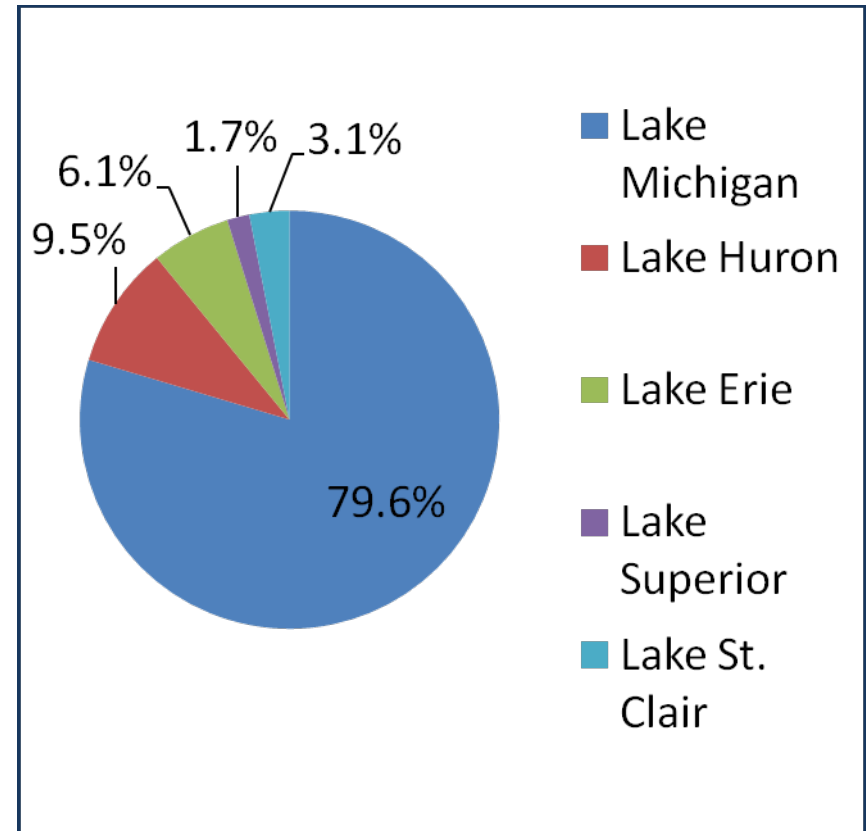
Research Update: Michigan's Charter Boat Industry

Where do charter boat trips occur?: Then and now

1990



2008



Source: DNR Charter Boat Report, 2008

Great Lakes Charter Boat Angler Trips

- Number of charter boat angler trips on the Great Lakes
 - 1990: 85,079
 - 2008: 59,840 (a 30% decrease)
- Average decrease per year: 1.7% ↓

Things have gotten worse since 2003

- Average decrease per year
 - Before 2003: 0.6% ↓
 - Since 2003: 4.5% ↓

And in Lake Huron...

- Number of charter boat angler trips on Lake Huron
 - 1990: 14,604
 - 2008: 4,951 (a 66.1% decrease)
- Average decrease per year: 5.0% ↓

Things have gotten MUCH worse since 2003

- Average decrease per year
 - Before 2003: 1.8% ↓
 - Since 2003: 13.5% ↓
- Lake Michigan avg. decrease per year since 2003: 1.8% ↓

Chinook Salmon

Average annual change in Chinook harvest rates (Chinook caught per 5 angler hours)

Lake Michigan

- 1990 – 2003: Increase of 11.0% per year
- 2003 – 2008: Increase of 5.8% per year

Catch rate is still growing, but not as fast

Lake Huron

- 1990 – 2003: Increase of 9.1% per year
- 2003 – 2008: DECREASE of 11.9% per year

Catch rate has gone from strong annual growth to very strong annual declines

What about Walleye?

Walleye harvest rates from charter boats on Lake Huron
(Walleye caught per 5 angler hours)

- 1990 – 2003: Avg. annual increase of **0.5%** ↑
- 2003-2008: Avg. annual increase of **24.5%** ↑
 - 2008 rate was **3.28 Walleye** per 5 angler hours
 - Best rate for Chinook on Lake Huron: **1.04 Chinook** per 5 angler hours (1997 & 2002)
 - 2008 rate for Chinook on Lake Michigan: **1.28 Chinook** per 5 angler hours

Charter anglers on Lake Huron can catch more than three times as many Walleye now as they could Chinook in the best years.

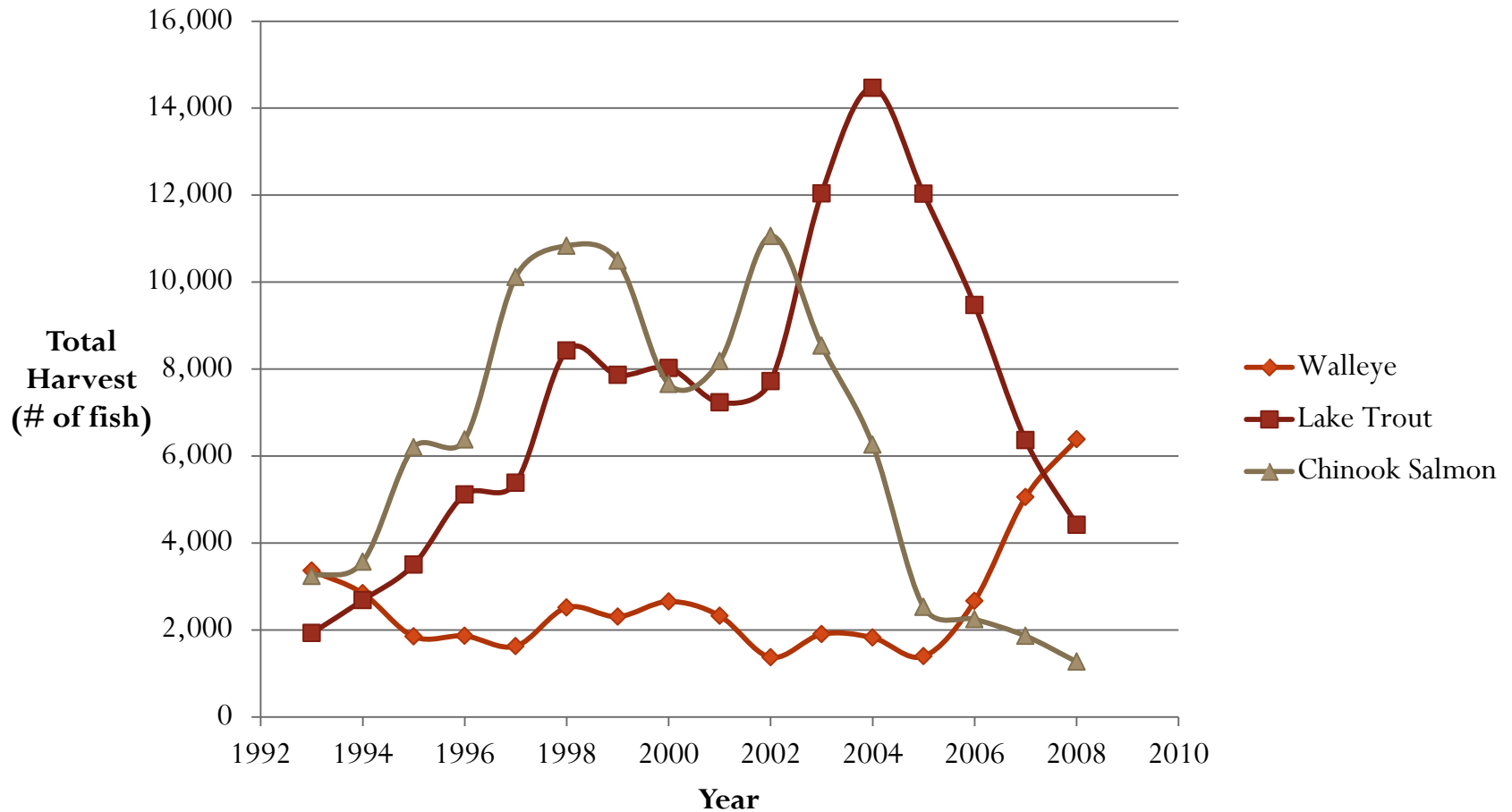
And almost three times as many Walleye as Chinook in Lake Michigan

Do people want to fish for Walleye?

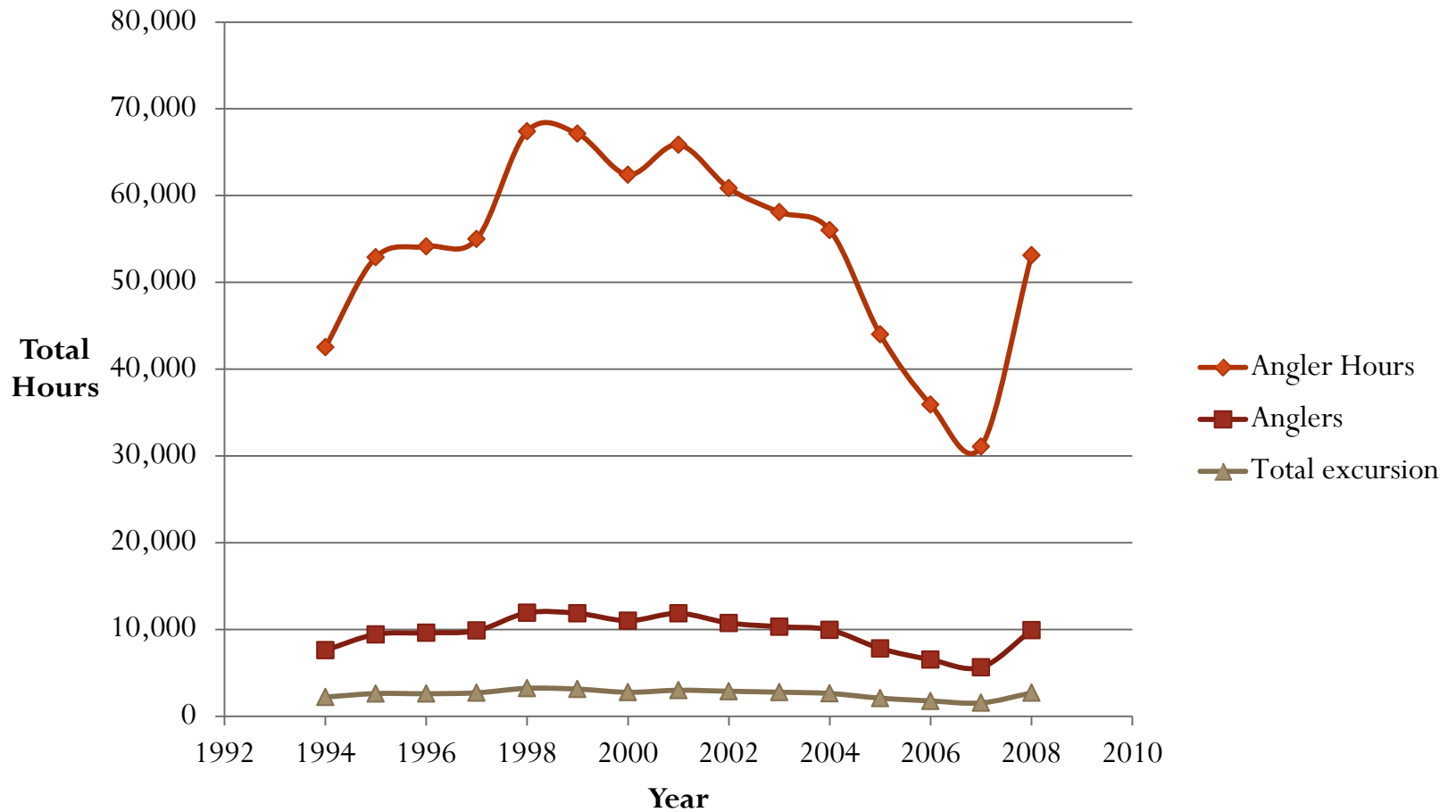
- On the Great Lakes, more US anglers fish for Walleye than any other species
- Canadians caught more walleye than any other fish (especially Ontario residents)

Research Update: Angler Profile

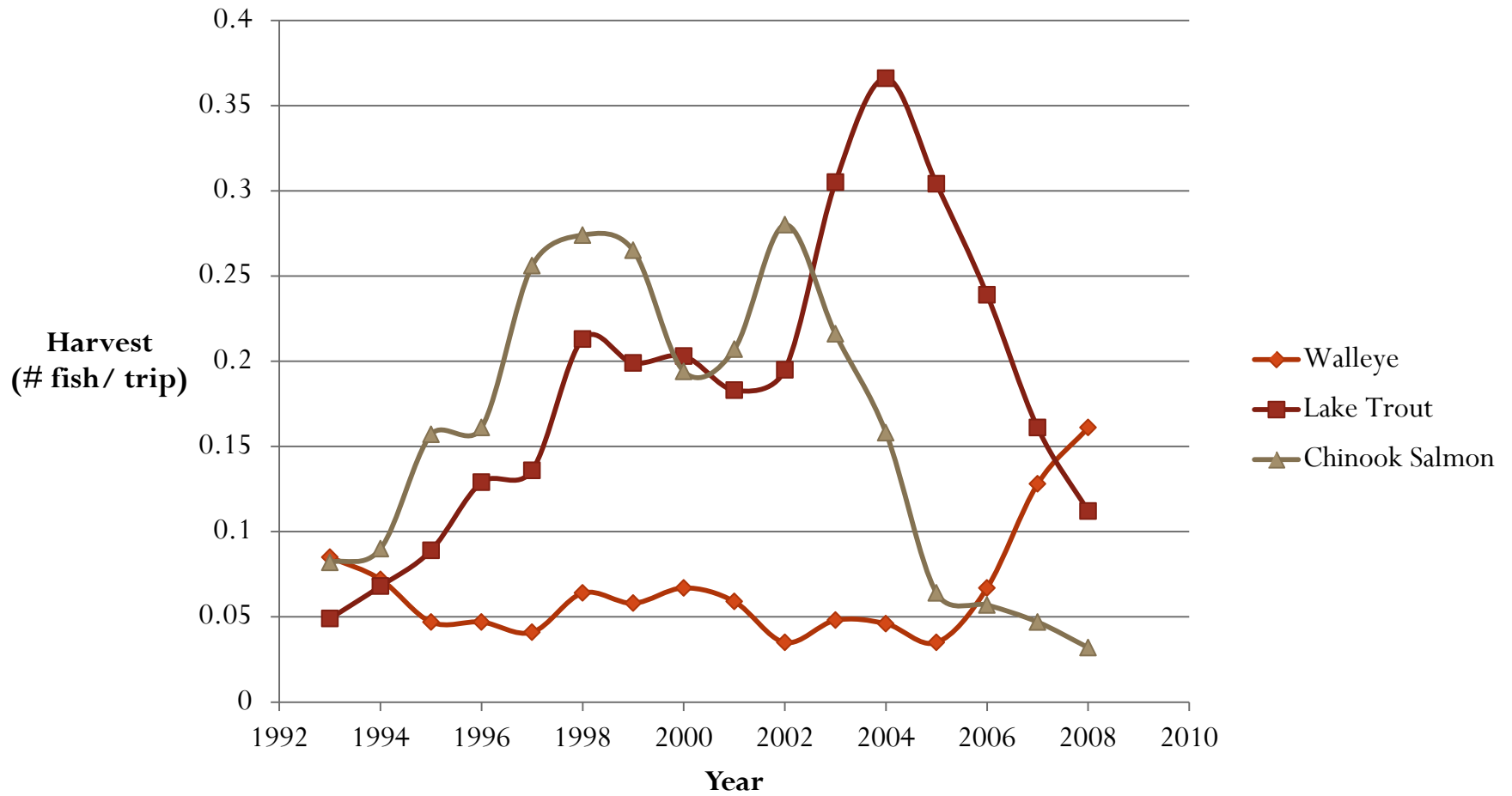
Lake Huron Charter Fishing: 1993-2008



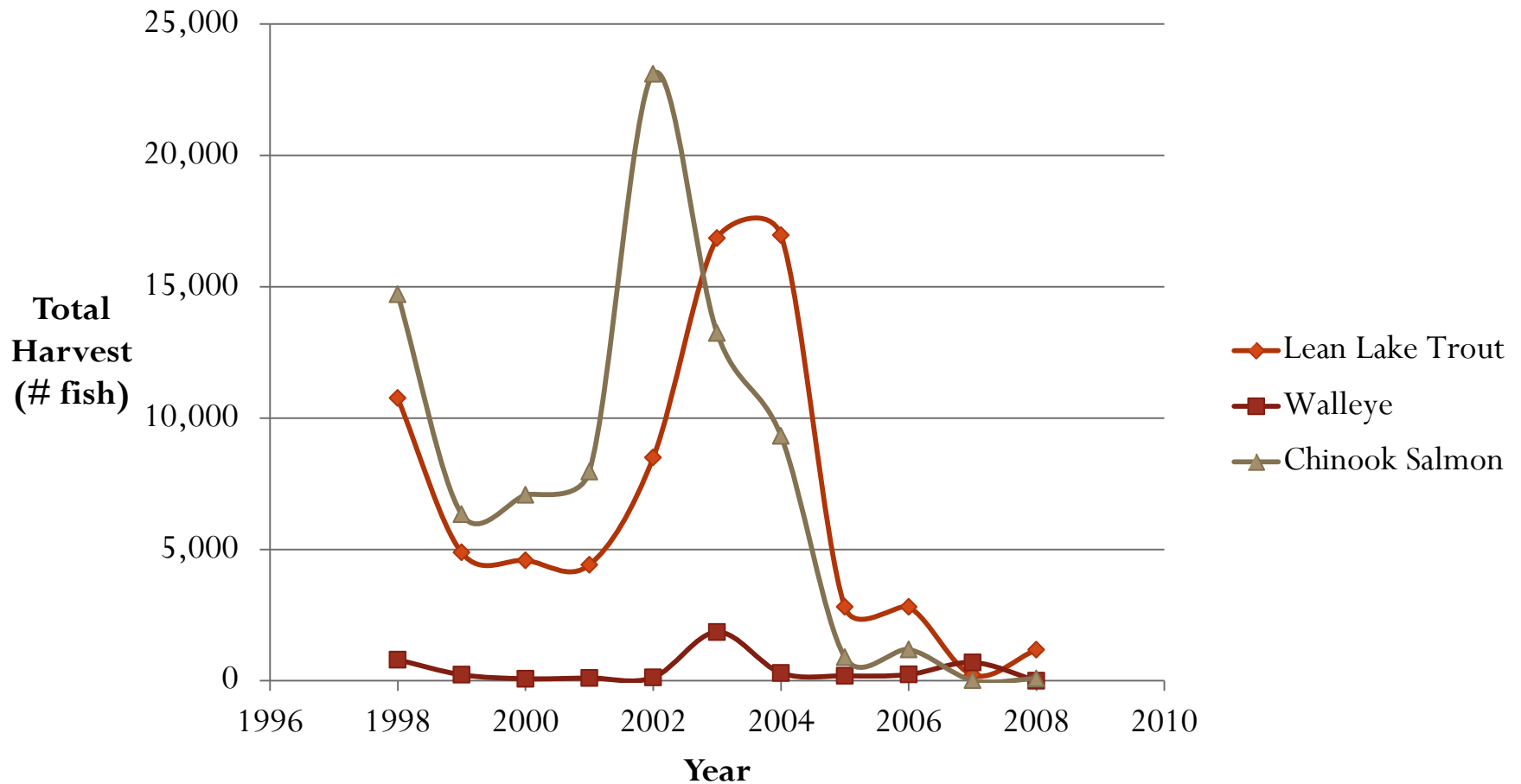
Lake Huron Charter Fishing Effort



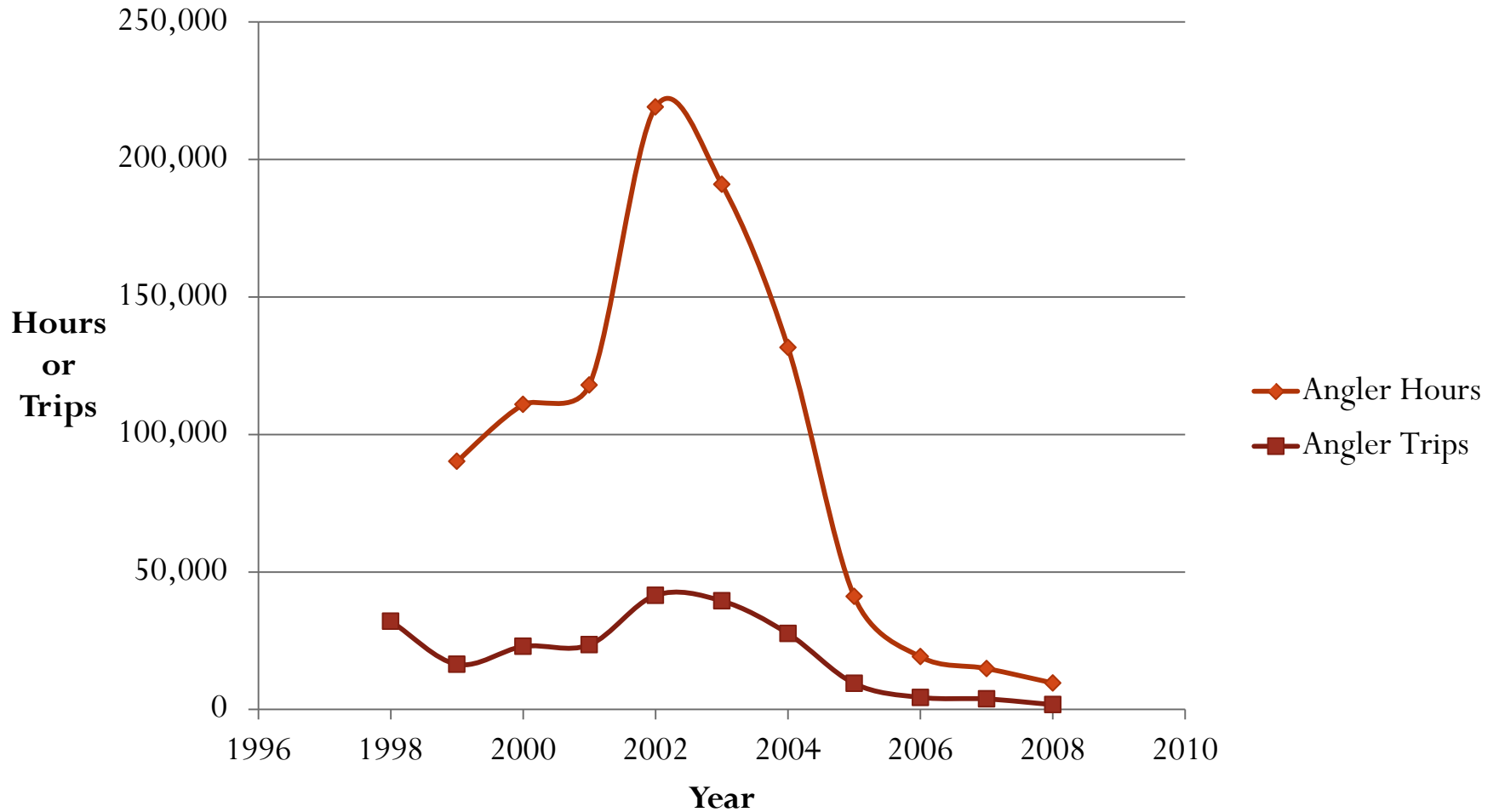
Harvest Per Excursion



Lake Huron Sport Fishing: Harbor Beach



Lake Huron Sport Fishing: Harbor Beach



Sport Fishing

- More Americans fish than play golf (40 million anglers)
- 2.3 million sport-anglers (US & Can) on the Great Lakes
- \$910 million in federal, state and local taxes from GL fishing expenditures

But...

- Declining trend
 - 30% decline in US Great Lakes fishing 1996-2006
 - 27% decline in ON anglers from 1995-2005
 - Percentage of North Central US population that participates in fishing has decreased from 19% to 15% from 1991 – 2006
 - Percentage of ON residents who fish has dropped from 10% in 1995 to 6% in 2005 (35% drop)
 - 13% decrease in fishing expenditures from 1996 – 2006
 - Percentage of Michigan males who fish dropped from 23.4% in 1995 to 18.9% in 2004 (*the percentage of women only dropped from 5.0% - 4.3% in the same period*)

Sources: American Sportfishing Association, 2008; Dann, et. al., 2008; RMFAM, 2007; US Fish and Wildlife Service, 2008

Michigan Anglers

- 80% male
- 91% white
- 48% earn over \$50,000/year
- 82% have high school diploma
- 53% have some post-high school education
- 89% of anglers fish with others

Michigan Fishing Data

	Michigan Residents	Nonresidents
# Anglers	1,077,000	318,000
Avg. days fished	21	7
Total annual expenditures	\$1.67 billion	\$216 million
Avg. expenditures/year	\$1,350	\$683
Avg. trip expenditure/day	\$19	\$64
# fished Great Lakes	367,000 (34%)	94,000 (30%)
Avg. days fished GL	17	7

Expenditures are for all bodies of water (not just Great Lakes). Spending for Great Lakes fishing tends to be higher and has been reported between 112% - 134% of average spending for state.

Source: US Fish and Wildlife Service, 2008

Annual Fishing Spending in Michigan...

Avg. Michigan Resident

Spends \$1,350* in MI on all fishing expenditures, including...

Food & Lodging	\$211
Boat fuel, mooring & launching	\$115
Bait & Ice	\$53
Transportation	\$166
Fishing gear	\$176

Avg. Nonresident

Spends \$683* in MI on all fishing expenditures, including...

Food & Lodging	\$224
Boat fuel, mooring & launching	\$59
Bait & Ice	\$33
Transportation	\$242
Fishing gear	\$69