A History of Cooperative Lake Erie Fisheries Management



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"We do not, however, expect that Walleyes will again become as abundant as they were in the early 1950s..." (Regier et al. 1969)

Large (9-10 lb) walleye, commonly caught ~1900, now rare (1942)

(Doan 1944)

During 1942-1961

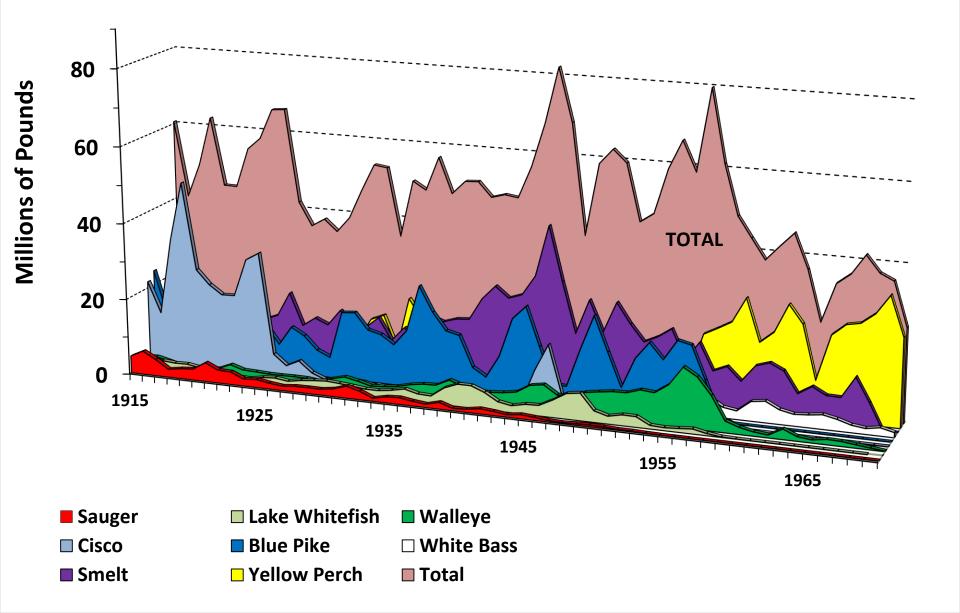
- Strong hatches last 2-3 years
- Weak hatches last a year
- Few females reach maturity
 (Parsons 1970)

During 1963-1968

- Fisheries annually removed 84% of the population

(Kutkuhn et al. 1976)

Annual Commercial Yields in Lake Erie 1915-1970



Key Characteristics of Historical Commercial Fisheries in Lake Erie

- Heavily capitalized during 20th century
- Highly-valued industry, prominent members of society
- Adaptable (gears, technology, fish behavior)
- Targeted abundant, high-value, species
- Belief that fish populations can't be over-fished
- Fishery management varied among jurisdictions





1883

First Great Lakes Interstate Conference

13 recommendations agreed upon; none adopted.

1884

Second Great Lakes Interstate Conference

Same issues as first conference; same result.

1891

International Fish and Game Conference

Nothing came of several resolutions produced.

1892 JOINT COMMISSION

Advised uniform regulations, a joint management plan, and a permanent international body with regulatory authority. Recommendations not widely appreciated.

1896

Interstate committee of IL MI, MN, and WI

Met to draw up a code of uniform regulations. No printed record of results.

1897

American Fisheries Society annual meeting

Stressed need for uniform regulations. Nothing came of the meeting.

1897 INTERNATIONAL COMMISSION

Recommended a treaty and permanent joint commission to supervise the fisheries, review science, and promulgate regulations. No treaty proposed immediately.

1904

Conference of State Officials

Recommendations to state legislatures for uniform regulations, "Nothing accomplished."

1906

American Fisheries Society annual meeting

No record.

1908

Agreement concerning the fisheries of all waters between Canada and the U.S. Established a permanent international commission. Failed to pass Congress and was withdrawn in 1914.

1910

INTERNATIONAL COMMISSION

Commission formed to investigate border issues, including Great Lakes fishery management.

Same recommendations of the 1897 commission; same results.

1927

Lake Erie International Conservation Council

Council formed to coordinate action on Lake Erie. Resolutions adopted but no future meetings occurred.

1928

International Fisheries Conservation Council of the Great Lakes

Met twice in 1928. Agreements on general measures for the Great Lakes fishery. "Nothing definite was achieved and the conference was soon forgotten."

1929

Meeting of Michigan and Ontario on Lake Huron

Effort to form a code of uniform regulations. No action by either government.

1931

Conference of Lake Erie jurisdictions

Resulted in the formation of the Lake Erie Advisory Committee and the Toronto Agreement of 1933.

1933

Toronto Agreement signed by each of the jurisdictions on Lake Erie

Agreement covered all vital regulations on Lake Erie. However, implementation was a disaster.

1933

Meeting of IN, IL, MI, WI, and the U.S. Bureau of Commercial Fisheries

Attempt to draw up uniform regulations for Lake Michigan, measures raised to be enacted.

1936

Meeting in Washington

Attempt to resurrect the Lake Erie Advisory Committee

1936

Meeting in Chicago among IN, IL, MI, MN, OH, WI and U.S. Federal Government

A few regulations for Lakes Huron and Superior were enacted by IL and MI.

1936

Meeting in Toronto between MI and ON

Tentative agreement was reached on u regulations for Lake Huron, but held in

1938

Council of State Governments Meeting Resulted in formation of International B of Enquiry.

1938

Midwest Regional Assembly

Goal to develop uniform regulations for Lake Michigan. Nothing accomplished.

1938

INTERNATIONAL BOARD OF ENQUIRY

Formed to investigate fishing practices and government regulations.

1942

Board of Enquiry Report

Rejected interstate compact; recommended treaty.

1943

Interstate conference, Madison, WI

Established Lake Trout Committee

1946 TREATY

Created bi-national committee to make regulations, subject to federal approval. Not ratified; withdrawn.

Infringements on management rights



CONVENTION 1954

Great Lakes Fishery Commission formed

Major Duties:

- I. Sea lamprey control
- 2. Science
- 3. Working arrangements

ARTICLE X

Nothing in this Convention shall be construed as preventing any of the States of the United States of America bordering on the Great Lakes or, subject to their constitutional arrangements, Canada or the Province of Ontario from making or enforcing laws or regulations within their respective jurisdictions relative to the fisheries of the Great Lakes so far as such laws or regulations do not preclude the carrying out of the Commission's duties.

Article X (paraphrased):

Nothing in this Convention prevents the states and Ontario from making or enforcing their own fishery regulations.

GLFC Lake Committees, est. 1965



GREAT LAKES FISHERY MANAGEMENT

- Sustain fish stocks
- Protect diversity
- Balance predator/prey
- Manage → best information
- Balance constituent needs





JOINT STRATEGIC PLAN 1981, 1997

- Non-binding
- Non-regulatory
- Collective action

FOCUS ON RELATIONSHIPS



JOINT STRATEGIC PLAN 1981, 1997

common goal......

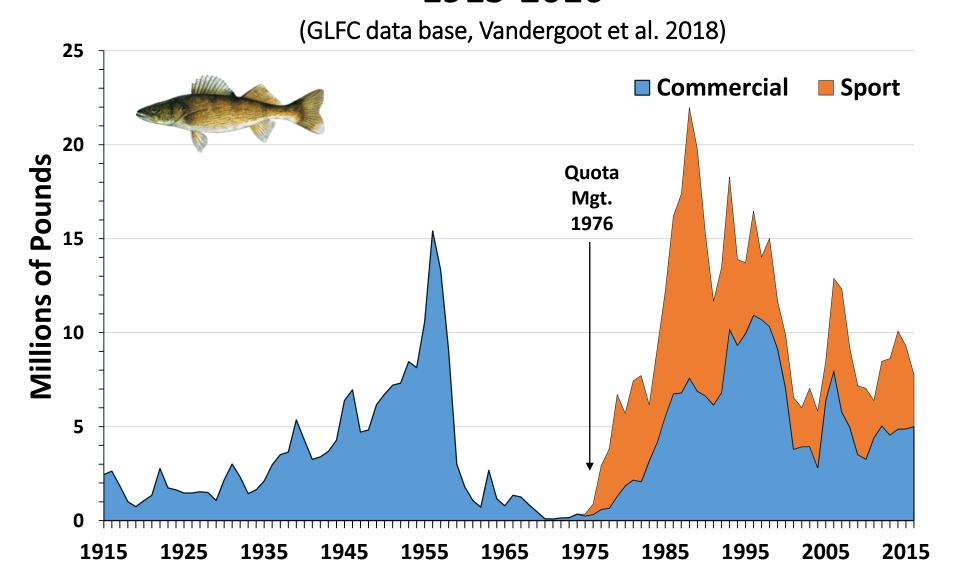
To **secure fish communities**, based on foundations of **stable self-sustaining stocks**, supplemented by judicious **plantings of hatchery-reared fish**, and provide from these communities an optimum contribution of fish, fishing opportunities, and **associated benefits** to meet needs identified by society for wholesome food, recreation, cultural heritage, employment & income, and a **healthy aquatic ecosystem**.

strategies for cooperative fishery mgt.....

Consensus
Accountability
Information Sharing
Ecosystem Management

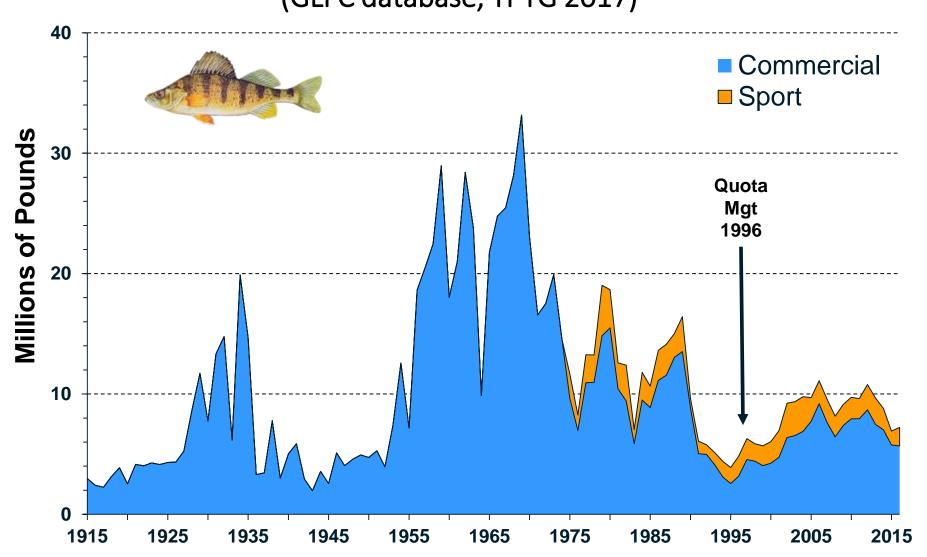


Annual Fishery Yield of Lake Erie Walleye 1915-2016

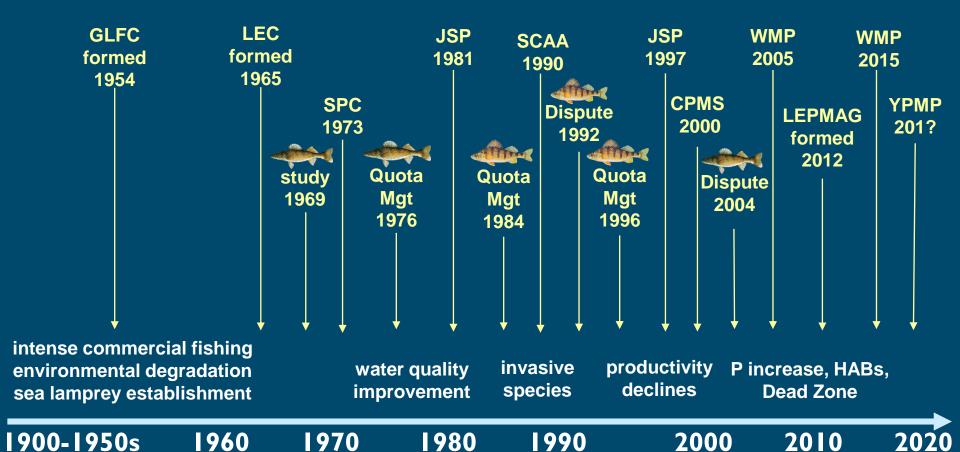


Annual Fishery Yield of Lake Erie Yellow Perch 1915-2016

(GLFC database, YPTG 2017)



Interagency Fisheries Management Milestones Lake Erie Committee/GLFC



Other notable LEC/GLFC achievements (www.glfc.org)



- Lake Trout Restoration Plan 1985, 2008
- Fish Community Objectives 2003
- Environmental Objectives 2005
- State of the Lake Reports (2005, 2009, 2015)

SUMMARY

Historically, fishing adversely affected Lake Erie fish stocks

- 30-80 million lbs harvested annually
- Extirpated: Lake Trout, Cisco, Blue-Pike, Sauger
- Survivors: Lake Whitefish, Walleye, Yellow Perch (others)
- Commercial fisheries were primary drivers
- Habitat loss limited fish production



Cooperative inter-jurisdictional fisheries management

- Non-existent prior to mid-1960s
- Lake committees 1965
- Successful walleye recovery in Lake Erie
- Sustainable fisheries management

Elements of Success

- Common agenda
- Investment in shared science
- Continuous communication
- Trust and relationships
- Backbone support



Challenges

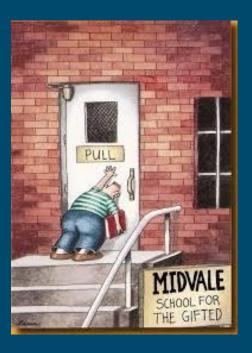
• Environmental game-changers





- Departure from the JSP
- Communication





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QUESTIONS?