Science-based, Multi-Jurisdictional Fishery Management in the Laurentian Great Lakes: Exploring Federal Roles

Governance/Collaboration/Science-Decision Making

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June 6, 2012
Intecol, Orlando, Florida
Protecting Our Fishery

Great Lakes Fishery Commission

Field Office Locations:
- Minnesota
- Wisconsin
- Michigan
- Illinois
- Indiana
- Ohio
- Pennsylvania
- New York
- Ontario
- Québec

GLIFWC (headquarters)

Treaty of 1842

U.S. FISH & WILDLIFE SERVICE

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United States Environmental Protection Agency

U.S. GEOLOGICAL SURVEY

Sea Lamprey Control

Partnerships
OUTLINE

• WHO MANAGES THE GREAT LAKES FISHERY?
  – Tribal, State, Provincial Roles
  – Federal Role
  – Great Lakes Fishery Commission Role

• JOINT STRATEGIC PLAN/LAKE COMMITTEES
  – Why and How Agencies Cooperate
  – Procedures for Fishery Management
  – Lake Committee Process
  – Conditions of the Plan

➔ WHY IT WORKS
PRIMARY MANAGEMENT AUTHORITY: PROVINCE, STATES, AND U.S. TRIBES

- Harvest regulation
- Licensing
- Stocking
- Species rehabilitation
- Assessment
- Habitat protection
- Public involvement
ROLE OF FEDERAL AGENCIES: USGS

• Vessels → long-term, prey-fish monitoring

• Research driven by Lake Committee needs, e.g.,
  – Potential Asian carp impacts
  – Commonalities via across-lake comparisons
  – Population status of unexploited burbot

• Partnership waxes & wanes, but now, USGS:
  – Renewed 5-yr MOU with CLC
  – Awarded CLC a Partnership Award
ROLE OF FEDERAL AGENCIES: USEPA

• Oversees Great Lakes Restoration Initiative ($475 M), restoring
  – Aquatic habitat
  – Terrestrial habitat (watersheds to break walls)
  – Areas of Concern by toxics removal

• Registration and re-registration of:
  – Lampricide
  – Bayluscide
  – Pheromones
ROLE OF FEDERAL AGENCIES: USACOE

- Reduces sea lamprey by helping USFWS apply
  - Barriers
  - Traps

- Prevents Asian carp → GL basin
  - Designs, operates, & maintains electric barrier(s) in CSSC

- Implements (with co-partner GLFC) the GL Fish and Wildlife Restoration Act
  - Seeks CLC advice re project approval
ROLE OF FEDERAL AGENCIES: USFWS

- Restores native fishes and habitat
- Fulfills trust responsibilities of the Tribes
  - Provides technical assistance
  - Identifies funding sources
  - Provides fish to support sustainable fisheries
  - Protects tribal rights

• Reduces sea lamprey via control measures
  - Provides technical support
    - Mass marking program
      - Purchased mass-marking trailers (N=4) to
        - Quantify Chinook salmon reproduction
        - Assess lake trout reproduction

• Enforces Lacey Act (interstate transportation)
  - Asian carp movement across state/country borders
Management authority

Province of ON, States, U.S. Tribes

Great Lakes Fishery Commission

Facilitator

U.S. Federal Agencies

Partners
ROLE OF GL FISHERY COMMISSION

• Funded by Canada & U.S. (via State Dept.)

• Lacks fishery management authority

• Oversees/manages sea lamprey control program

• Facilitates Joint Strategic Plan

• Facilitates/mediates among mgmt agencies
ROLE OF THE GREAT LAKES
FISHERY COMMISSION

Convention on Great Lakes Fisheries

• Duties
  – Control sea lamprey
  – Coordinate fishery research
  – Communicate to Governments
  – Coordinate fishery management

• Mechanism?
  ➔ A Joint Strategic Plan for Management of Great Lakes Fisheries
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Un-successful attempts at cooperation

Failed Treaty

Multi-state Conference: Madison, WI
Lake Superior

Percent of Historic Average Abundance

Year


100

lamprey - est. U.S. waters

wild lake trout - MI

lamprey enter lake
Multi-state Conference: Madison, WI

Lake Trout and Sea Lamprey Committees

Treaty: Convention on Great Lakes Fisheries (GLFC)

Joint Strategic Plan

Formal Lake Committees

1940s 1950s 1960s 1970s 1980s 1990s 2000s
Lake Superior

Percent of Historic Average Abundance

Year


wild lake trout - MI

lamprey - est. U.S. waters

lamprey enter lake

1st stream treatments
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PROCEDURES FOR GREAT LAKES FISHERY MANAGEMENT UNDER THE PLAN

- Consensus
- Accountability
- Information Sharing
- Ecosystem Management
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Each lake has its own Technical Committee.
LAKE COMMITTEE PROCESS

- Composed of primary management agencies:
  - Province, States, Tribes (U.S.)

- Meet publicly

- Develop shared objectives

- Report on actions to achieve objectives

- Make information-based decisions on:
  - stocking
  - harvest
  - law enforcement
  - environmental mgmt, etc.

- Receive support, including facilitation, from GLFC
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MAJOR DESIGN ELEMENTS OF THE JSP

- Respect for jurisdictional independence
- Reliance on shared strategies and tactics
- Decisions based on science
- Development of personal relationships
CONDITIONS OF THE PLAN

• State/Tribal/Provincial roles
  – Federal entities viewed as partners, not co-managers
  – Independence paramount

• State/Tribal/Provincial authority
  – Authority to manage within jurisdiction
  – Responsibility to manage a shared resource

• State/Tribal/Provincial concerns
  – Threat of external preemption (by the feds)
  – Third-party (GLFC) facilitation acceptable
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WHY IT WORKS
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• Lacks fishery management authority

• Oversees/manages sea lamprey control program

• Facilitates Joint Strategic Plan

• Facilitates/mediates among mgmt agencies
  – Appreciated as a neutral, respected facilitator
  – Viewed as having no stake in mgmt actions
  – Viewed as relying on science-driven recommendations
Personal and professional rewards

Commitment to consensus (JSP)

Historical long-term relationships

Trust

Relationships

Better interjurisdictional management

Accountability

Personal and professional rewards