LAKE ERIE COMMITTEE
POSITION STATEMENT
On
Asian Carp

The Lake Erie Committee (LEC) of the Great Lakes Fishery Commission (commission) seeks to prevent the establishment of invasive Asian carp populations in the Lake Erie system, encompassing all waters of Lake St. Clair, the St. Clair and Detroit Rivers, and Lake Erie under provincial and state fisheries management authorities. Asian carp pose serious ecological and economic threats to Great Lakes fisheries if viable populations become established. Environmental conditions are most conducive for Asian carp reproduction and population establishment in the Lake Erie system. While Asian carp have not currently established viable populations in the Lake Erie system, data suggest the presence of Asian carp or their potential introduction vectors throughout the basin. Therefore, the LEC strongly recommends unified decision-making and timely actions among its five provincial and state member jurisdictions, in collaboration with federal fisheries agencies of both countries, to minimize the risk of Asian carp introduction and population establishment in the Lake Erie system. Decisions and management actions should be guided by effective long-term strategic vision and planning, coordination and communication, and emerging science to ensure consistent, effective, and acceptable management of risk among all jurisdictions. Specific LEC recommendations about each strategic component listed above are presented in detail below.

<u>Long-term strategic vision and planning</u>

Asian carp are not addressed in the LEC's fish community goals and objectives and would be a highly undesirable addition to the Lake Erie system in accordance with the committee's future vision. As in past years, individual Asian carp may be rarely observed in the lake but no viable populations should be routinely detected in agency monitoring programs if prevention efforts are successful. The LEC believes that the existing standardized, conventional-gear, monitoring programs used by provincial, state, and federal agencies to assess fisheries, the fish community, and Asian carp (USFWS), are sufficient and necessary to determine the status of detectable Asian carp populations in the Lake Erie system. Early detection tools, such as eDNA, are useful components of surveillance plans, but not for routine assessment of Asian carp population status in the system. If Asian carp can successfully enter and colonize the Lake Erie system, mitigation strategies may be needed to ensure sustainable, desired fisheries.

Asian carp will not be the last invasive threat to the Lake Erie system; aquatic invasive species are not novel to the LEC. A myriad of established invasive species in the Lake Erie system are simply tolerated for lack of any effective management action, the sole exception thus far being sea lamprey. Prevention is the most effective strategy to address the Asian carp threat. Bighead and silver carps remain the major species of interest to the LEC, both listed as priority species during Canada/U.S. risk assessment exercises and as injurious species under the federal Lacey Act. Black carp remain in southern reaches of the Mississippi River, have not been observed in the Great Lakes, but are included as an injurious species in the Lacey Act. Grass carp are present in all Great Lakes, but are not included in the Lacey Act and are legally available for stocking as functionally sterile "triploids" in most U.S. jurisdictions.

The LEC recommends

- priority focus on the identification of specific population sources and introduction vectors that pose the greatest risk of establishment of bighead and silver carp, including waterway connections, live-fish haulers for human food consumption or bait, and incidental direct stocking with other target species,
- priority focus on regulatory and enforcement actions to minimize the risk of bighead or silver carp entry into the Lake Erie system through identified vectors,
- secondary focus on gaps in conventional assessment programs (gears, sampling design), which should be informed by analysis of potential sources of fishes/DNA and existing monitoring efforts,
- use of current early detection techniques (e.g., eDNA) solely for the identification of potential source populations, pathways of introduction, or early stages of colonization, when conventional gears are ineffective, and
- judicious use of monitoring efforts to provide insights on sources and vectors of carp introduction.

Coordination and Communication

The LEC recognizes and applauds the extensive efforts of federal Canadian and U.S. agencies, in collaboration with various non-federal partners, to assess the risk of Asian carp to the Great Lakes, to minimize the risk of their mass introduction into the Great Lakes through a primary pathway, the Chicago Area Waterway System (CAWS). Efforts in the CAWS have been directed by the Asian Carp Regional Coordinating Committee (ACRCC), consisting of federal, state, and local agencies in the Great Lakes region. Formal inter-jurisdictional fisheries representation on the ACRCC is provided through the commission. Recognizing that the CAWS is a primary vector of concern for introduction of Asian carp into Lake Michigan that must be contained, the LEC duly notes that additional vectors of introduction have received much less attention, particularly within the Lake Erie system.

The Asian carp threat to the Great Lakes has received significant media attention and captured public and political interests in both nations. The LEC recognizes that these interests must be sufficiently addressed by consistent and timely communication to stakeholders, other levels of government, and media about coordinated interagency efforts that effectively minimize the risk of Asian carp establishment in the Lake Erie system.

The LEC recommends

- support for ongoing collaborative efforts that effectively minimize the risk of Asian carp introduction into the Great Lakes through the CAWS and other risky pathways, as identified in peer-reviewed risk assessments,
- continued use of the commission, as a formal member of the ACRCC with bi-national representation of Lake Erie fisheries managers, to coordinate focussed actions in the CAWS that specifically address interests and concerns of Lake Erie fisheries jurisdictions,

- coordination with federal and non-federal partners in the Lake Erie system to conduct appropriate research, assessment, law enforcement, and rapid response activities that allow member jurisdictions to effectively minimize the risk of Asian carp introduction through vectors other than the CAWS,
- committee review and coordination of all decisions/actions of Lake Erie jurisdictions relevant to Asian carp detections and potential sources or vectors, including new or existing provincial/state AIS plans,
- committee review and concurrence with chain-of-custody data protocols and notification trees being used by all parties (federal, provincial, state), to ensure the integrity and transfer of information, and appropriate involvement of the committee,
- the development of agency-specific communication strategies that explicitly include other LEC jurisdictions and make use of guiding principles herein,
- reaffirmed commitments by jurisdictions to allow member attendance at LEC face-to-face meetings for full committee discussion about minimizing the risks of Asian carp introductions, and
- timely updates from Asian carp researchers to the committee.

Emerging science

No feasible options currently exist for effectively managing Asian carp populations in Lake Erie, but research may provide future solutions. Basic research should enhance our understanding about how Asian carp behave, which could be useful in assessing sources, vectors, and, ultimately, the risk of introduction. Research should also reveal how Asian carp may affect the Lake Erie fish community and associated fisheries, which may be useful if prevention efforts fail and remedial fisheries management actions become necessary.

The LEC recommends

- research to inform future management decisions should include calibration and interpretation of eDNA results, and development of cost-effective, real-time eDNA (or other genetic tools) testing capability,
- research on control strategies, such as attractants/repellents, delivery of piscicides, capture efficiency of Asian carp in new and conventional sampling gears, tagging studies of Asian carp behavior, and habitat use and diet of Asian carp in North American waters, should be continued in the event that Asian carp establish populations in the Great Lakes,
- coordination and collaboration among researchers to build common knowledge and avoid duplication of efforts, and
- the addition of Asian carp research as a theme area under the commission's fishery research program.