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Bighead & Silver Carp in the Lake Erie System 2017 Update

- √ No positive detections of either Bighead or Silver Carp
 eDNA in 2017.
- √ No Bighead or Silver Carp were observed in
 - targeted sampling,
 - agency core fish community assessments, or
 - commercial and recreational fisheries.
- ✓ Bighead Carp have not been observed since 2000.
- \checkmark Silver Carp have never been observed in the system.

2017 Targeted Sampling (2,709 sites)

Targeted Fishing (•)

No Bighead or Silver Carp collected from standard gears

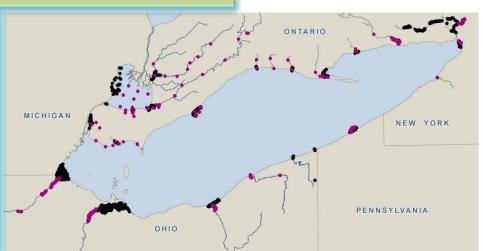
Targeted eDNA (•)

No detections of Bighead or Silver Carp

(1,520 samples, system-wide)

Sampling by:

DFO, MDNR, ODNR, OMNRF, & USFWS



2017 Core Fish Community Assessments (1,334 sites)

No Bighead or Silver Carp observed

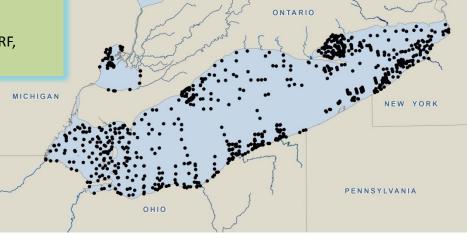
Standard Gears:

electrofishing, gill nets, trawls, seines, and trap nets

Sampling by:

MDNR, NYSDEC, ODNR, OMNRF, PFBC, &USGS





Effort of major fisheries monitored by LEC jurisdictions in the three basins of Lake Erie during 2017. *No Bighead or Silver Carp reported* *

Fishery (units of effort)	West Basin	Central Basin	East Basin
Ontario Percid Commercial Gillnet (kms)	14,312	24,896	2,098
U.S. Commercial Trap Net (lifts)	5,374	4,277	470
U.S. Percid Recreational (angler hours)	2,518,211	1,502,584	480,255

^{*} Note: neither species of carp was reported from other monitored fisheries in the Lake Erie system during 2017, including commercial hoop net, pound net, seine, and trawl fisheries, as well as non-Percid recreational fisheries.

Who serves on the Lake Erie Committee (LEC) and what is their purpose? Fisheries managers from Michigan, New York, Ohio, Ontario, and Pennsylvania coordinate priorities in the Lake Erie system (Lake Erie, Lake St. Clair, and St. Clair/Detroit Rivers).

How serious is the threat of Asian Carps to Lake Erie

fisheries? Bi-national studies clearly identify the Lake Erie system as having the highest risk of Asian Carp establishment and biological impact of any Great Lake.

What is the LEC doing about the potential Asian Carp

threat to Lake Erie fisheries? The priority is to prevent population establishment of carp species not currently in the system (Bighead and Silver Carp) by focusing on the identification and elimination of outside sources and their pathways of entry, through early surveillance, and application of effective control programs where feasible.

For more information, please contact:

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Bighead & Silver Carp History in Lake Erie

Individual adult Bighead Carp have been captured by commercial fishers in Sandusky Bay, OH (1995) and near Point Pelee, ON and Cedar Point, OH (2000). Silver Carp have never been observed in the system.

eDNA surveillance1

2011 – 2012: sampling in Sandusky River(R) & Bay (B) and Maumee R/B (Notre Dame and USACE)

- Bighead Carp, 4 positive (+) detections/200 samples in Sandusky Bay in 2011; 0 (+)/150 samples in 2012.
- Silver Carp, 2 (+) /200 samples in Maumee Bay in 2011;
 20 (+) /150 samples (Sandusky R/B) and 3 (+)/350 samples (Maumee R/B) in 2012.

2013: 817 samples, lakewide (USFWS and DFO)

- Silver Carp, 1 (+) / 207 samples, Maumee River, OH.

2014: 1,457 samples, lakewide (USFWS and OMNRF)

 Bighead Carp, 1 (+) / 30 samples Canard River and 2 (+) /129 samples , Grand River , ON.

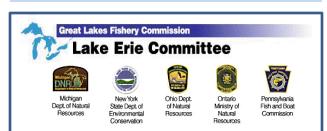
2015: 1,997 samples, lakewide (USFWS and OMNRF)

- Silver Carp 2 (+) / 54 samples, in the Thames R.; 1 (+) / 42 samples, Colchester Harbour, ON.

2016: 1,520 samples, lakewide (USFWS and OMNRF)

- Bighead Carp, 1 (+) / 72 samples, Thames R., ON.

¹Some of the (+) eDNA signals, have proven difficult to replicate and/or have possible sources of contamination; e.g. 2016 (+) in only 1/3 replicates, collected at one site, close to Water Pollution Control Plant outflow. Regardless, No Bighead or Silver Carp have been found in follow-up assessment, or in targeted or core fish assessment programs in the Lake Erie system.



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