Focus of fight against Asian carp turns to Lake Erie after eDNA found in Michigan, Ohio waters

By Tim Anderson [1]
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Stateline Midwest ~ September 2012 [2]

First came the report from a binational group of Great Lakes scientists [3] exploring the risk of Asian carp entering the freshwater system. Yes, the study concluded, the invasive species would likely survive and, within a decade, spread to all five Great Lakes. And yes, the Asian carp’s ecological impact would likely be severe. Then, days later, came news that Lake Erie water samples, two from Michigan’s North Maumee Bay and four from Ohio’s Sandusky Bay, tested positive for the presence of Asian carp environmental DNA.

Additional sampling done this summer [4] then netted 20 positive eDNA samples for silver carp in Sandusky Bay.

The results led to an intensive search for live carp. After a week in August of electro-fishing and gill netting activities, no carp were found. But that does not mean the area is free of the invasive species. The ability to find Asian carp in such a large area is limited, and smaller fish could have gone undetected. Determining the source of the eDNA, Rich Carter of the Ohio Department of Natural Resources says, remains priority No. 1. Was it the presence of live carp? Or were the positive results caused by other sources, such as bird feces or bait buckets?

Another mystery is how live carp could have reached Lake Erie. Eagle Marsh in Indiana has been identified as an area where carp could move from the Wabash River to the Maumee River, and into Lake Erie. But a fence has been constructed at Eagle Marsh to prevent carp movement, and that pathway seems to be an unlikely source for any current live carp in the lake.

As the two states search for answers, they will also be pursuing new ways to stop carp movement, including the use of portable electrical barriers, says Todd Kalish of the Michigan Department of Natural Resources.

To this point, the fight against Asian carp has centered on the threat of entry via the Chicago Area Waterway System. However, the eDNA results are a reminder that other pathways and risks exist — hydraulic connections or human-mediated releases of carp into the lakes. And the binational study underscores the importance of addressing those risks.

“If you don’t pay attention to what you’re doing, you’ll have a lot of fish in the lake, but they’ll be the weeds — the fish you don’t want,” says Marc Gaden of the Great Lakes Fishery Commission. “That has ecological and economic consequences.”

Tags:
Policy Area [5], Environment [6], Water [7], Quality [8]