Tracking Change in Lake Michigan's Fisheries

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http://naturechange.org/2016/07/06/tracking-change-in-lake-michigans-fisheries/

To develop this video essay, ***Nature Change*** joined the crew for a day of sampling during this spring's annual lake-wide fisheries assessment. The sampling process keeps the crew busy on the water for weeks with sampling locations ranging from southern Lake Michigan to the far north.

Readily merged with surveys from other states, this annual lake-wide survey plays a key role in understanding the characteristics of Lake Michigan fisheries. In recent years, sampling data have documented dramatic changes in the fisheries as well the entire ecosystem attributed to the arrival and explosive growth of new invasive animals and plants. As described by DNR Fisheries Biologist, Jory Jonas, these rapid ecosystem changes make management decisions extremely difficult and complex.

Topics Covered

Lake Michigan; Fisheries; Invasive Species; Biology; History; Ecosystems

Next Generation Science Standards

- 3-LS4-3. Construct an argument with evidence that in a particular habitat some organisms can survive well, some survive less well, and some cannot survive at all.
- 3-LS4-4. Make a claim about the merit of a solution to a problem caused when the environment changes and the types of plants and animals that live there may change.
- MS-ESS3-3. Apply scientific principles to design a method for monitoring and minimizing a human impact on the environment.
- MS-LS2-1. Analyze and interpret data to provide evidence for the effects of resource availability on organisms and populations of organisms in an ecosystem.
- MS-LS2-4. Construct an argument supported by empirical evidence that changes to physical or biological components of an ecosystem affect populations.
- MS-LS2-5. Evaluate competing design solutions for maintaining biodiversity and ecosystem services.
- MS-LS1-5. Construct a scientific explanation based on evidence for how environmental and genetic factors influence the growth of organisms.
- HS-LS2-7. Design, evaluate, and refine a solution for reducing the impacts of human activities on the environment and biodiversity.