The Siscowette

Great women doing great science in the Great Lakes

FEATURED RESEARCH

Lafrancois et al. 2011. Links between type E botulism outbreaks, lake levels, and surface water temperatures in Lake Michigan, 1963-2008. J. Great Lakes Res. 37:86-91.

In response to a recent resurgence of type E botulism in the Great Lakes, Brenda Moraska Lafrancois and her colleagues evaluated long-term relationships between botulism outbreaks and large-scale environmental factors in Lake Michigan. The team found associations between avian botulism outbreaks and low water levels and high summer surface water temperatures. Notable outbreaks coincided with periods of high prey fish abundance (alewife in the 1960s, round gobies in the 2000s).

Given that climate change scenarios predict lower water levels and higher water temperatures in the Great Lakes region, this study suggests that the frequency and magnitude of type E botulism outbreaks may increase in the future.

Brenda is a regional aquatic ecologist with the National Park Service and is stationed in St. Croix, Minnesota. She received a BS from the University of Wisconsin-La Crosse and a PhD in ecology from Colorado State University. Her current role is to advise on water resource issues in Great Lakes' national parks, including nutrient enrichment,

Brenda Moraska Lafrancois

atmospheric contaminants, and aquatic invasive species.

FEATURED PROFESSIONAL

Kathy Sakamoto is driven to build her knowledge of fish habitat to help protect our aquatic resources. After graduating from Lakehead University in Forest Technology, she worked with the Ontario Ministry of Natural Resources, Nipigon District, on fish habitat issues. A workshop on fluvial geomorphology by David Rosgen opened her eyes to the connection between surficial geology and fish habitat, and whetted her appetite for more knowledge.

A move to Thunder Bay was an opportunity to go back to school to complete an Honour's BSc part time. Her thesis research focused on surficial geology and fish habitat in the Black Sturgeon River. This tributary of Lake Superior flows into Black Bay, the location of a historically important walleye fishery. Besides reviewing files, maps, and aerial photographs, Kathy spent long days doing field work by canoe along 70 km of the river. Her research identified important spawning habitat for walleye, most of which was blocked by a logging dam used for sea lamprey control.

In her current role as Regional Information Management Specialist, Kathy advises fisheries personnel on how to use technology to collect and organize information.

Kathy is currently focusing on an early retirement and return to graduate school to complete a MSc in fisheries science. Choosing a university is her next challenge!

FEATURED STUDENT OR POSTDOC

Kimberly Peters is a recent Master's graduate of the Department of Fisheries and Wildlife at Michigan State University.

Having grown up in Toledo, Ohio, she grew to love the Great Lakes at a young age. She pursued a BA in Environmental Policy and Analysis at Bowling Green State University to further cultivate this passion and get involved with the protection of the Great Lakes. She quickly realized that policy in combination with science could provide a deeper and richer understanding of the Great Lakes.

Under the supervision of Dr. Scott Peacor, Kim completed an interdisciplinary Master's project that brought together stakeholders, policy-makers, and scientists to battle common environmental stressors in Saginaw Bay, Lake Huron. Her research focused on the influence of light and nutrient limitation on benthic algal health, the main biotic culprits in shoreline fouling events in this system. In recognition of her work, Kim was awarded the prestigious Paul W. Rodgers Scholarship from IAGLR.

Kim continues to work with the research community and stakeholders in Saginaw Bay to help residents predict and alleviate future fouling events. In the future, she hopes to continue developing the joint policy-ecology

Kimberly Peters

arena to help protect the Great Lakes ecosystem.