

Jacob Reese Lake Erie Water Snake Recovery Project

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During the past four years I have been involved with the Lake Erie Water Snake Recovery Project at Ohio State's Stone Laboratory through my Junior Naturalist group at the Ohio Bird Sanctuary. In the three trips I have participated in, I have caught, tagged, and learned about the Lake Erie Water Snake or LEWS for short. Each trip was a new experience and helped me understand the LEWS and its habitat. We also helped with relations between the island residents, tourists, and the LEWS. A large part of the project was working with Biologist Kristin Stanford, to better the LEWS place in the world.

The Lake Erie Water Snake (LEWS) is indigenous to the Lake Erie Islands and a subspecies of the northern water snake (Ohio Division of Wildlife 1). It was at great risk of becoming extinct on the islands when tourists and locals started to kill snakes, seeing them as nuisances and threats to their pets. During 1993 the Round Goby, an invasive species, entered the great lakes; these fish eat larger fish's eggs such as small and large mouth bass (Fuller, Benson, ET. AL. 1). Round Gobies also reproduce rapidly, so much so there are an estimated 5 million in western Lake Erie. When studies began on LEWS it was found that the snakes were starting to eat the invasive gobies, instead of native fish and amphibians that had been their previous diet (Ohio Division of Wildlife 1). The Round Goby has become 90% of the LEWS's diet and has helped to advocate the snakes to fishermen and tourists as a way to protect the sport fish of the lake (1). This massive new food source along with education programs has helped the LEWS explode back in population and be removed from the federally endangered species list. Much of the research and work has been carried out by Kristin Stanford, PhD "The Snake Lady"; she directs the project and has deemed it a major success since Kristin and her team accomplished their goal in 2011 (1).

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Our first volunteer trip in 2010 I visited Middle Bass Island with my group where we looked at hibernacula and caught LEWS to tag and mark as part of an island census. Hibernacula are underground structures snakes use to hibernate. We then split into three teams to visit each hibernacula and capture any remaining LEWS. We planned to capture primarily first year snakes that had been born the previous Fall and would be near the hibernacula after coming out of hibernation. When finished, we met at the docks with the captured LEWS where we tagged LEWS with a small pit tag and marked them with a waterproof chalk for the census. We also recorded information such as weight, gender, length, recent meals, and if already tagged. While doing this we met some local teenagers who had helped with the project before and were able to hear how the LEWS was faring from their viewpoint. Before we left we found a red eared slider stuck in the shore rocks, we were able to free it and take back to Stone Lab for rehabilitation. We captured a total of 211 snakes during the trip, approximately 180 were LEWS, and I personally captured over 40 LEWS and 3 Brown snakes. This was the last census before the application for the LEWS to be taken off the federal endangered species list. We had a successful trip to the islands and had fun helping the LEWS.

On our second trip in 2012 we worked with a college student named Sam to capture LEWS as part of the five year monitoring period needed to keep the LEWS off the federal endangered species list. We worked on South Bass Island to capture adult LEWS under sun mats, then again tagged and recorded them. We caught over 40 adult LEWS that were taken back to Stone Laboratory by Sam. I personally caught 18 LEWS during the trip as well as a Brown snake. During some of the free time we had we were able to travel around South Bass Island. This was when we were able to advocate to tourists how the LEWS were helping Lake Erie and were not a threat to them, but only to the Gobies who were really the unwanted ones. We handed out water tattoos, patches, and flyers to anyone interested in the snakes or their impact. We were able to work with more people this trip and still help with the LEWS project.

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Our most recent trip in 2013 we were very fortunate to capture LEWS on North Bass Island. We were invited to North Bass Island, which is restricted to those with special permission, to help capture LEWS and to work with Kristin again. We caught adult LEWS for tagging and information as well as other local species such as Fox, Garter, and Brown Snakes. We captured and tagged over 50 LEWS and several other species. I caught 21 LEWS, 2 Fox snakes and 5 Garter snakes. We stayed at the South Bass Island State Park where we captured additional LEWS and helped out several visiting college students. We helped the community relations much more since it was a busy tourist weekend on South Bass Island. Many people we met had heard of the LEWS program and we were able to convince them to help spread the story to other visitors. Our trip was very helpful to the LEWS with our more active campaign.

I have assisted three times over the past four years with the recovery of the Lake Erie Water Snake. I helped to capture LEWS for census and information as well as helping human snake relations. This species is making a wonderful comeback and helping the ecosystem in many ways. It was wonderful working with students and professionals to ensure the survival of the Lake Erie Water Snake.

Annotated Bibliography

Fuller, P. A. Benson, E. Maynard, M. Neilson, J. Larson, and A. Fusaro

“Round Goby (Neogobius Melanostomus) – Fact Sheet”. Nonindigenous Aquatic Species, U.S. Geological Survey, June 14, 2103, Web. Mar. 1, 2014

<http://nas.er.usgs.gov/queries/factsheet.aspx?SpeciesID=713>

This site is an informational public site that is supported by a national program for informational use. This site has all of its own resources cited and provides information on its authors. It provides information on the round goby such as date of sightings, origin, habitat, and

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identification. I will use the information it provides to describe the goby in my essay and how it affects the Lake Erie Water Snakes.

n.a. "*Lake Erie Water Snake*" Ohio Division of Wildlife. Ohio.gov. n.d. Web. Mar. 1 2014.

<http://wildlife.ohiodnr.gov/species-and-habitats/species-guide-index/reptiles/lake-erie-watersnake>

This is an official state government site that is used for information, and entertainment purposes. It has information on the Lake Erie Water Snake such as biology, habitat, and research. It is recent and accurate information that can be trusted. I used this information in my essay when describing the LEWS and their success.



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