



**Ph.D. Student Position in Fisheries Ecology (2 of 2)**  
**Aquatic Ecology Laboratory (AEL)**  
**The Ohio State University (OSU)**  
**Columbus, OH**

Dr. Stuart Ludsin ([www.ludsinlab.com/](http://www.ludsinlab.com/)) has an opening for a Ph.D. student to begin during fall 2016. The student would work on a modeling project designed to better understand how climate and land-use change can affect walleye (*Sander vitreus*) habitat quality and distribution across Lake Erie.

**Project description:** Lake Erie is experiencing rapid ecosystem change. Owing to the combined effects of climate change and intensive agriculture in its watersheds, Lake Erie now is warmer, has a longer growing season, and receives more bioavailable nonpoint source phosphorus (NPS-P) relative to the past. These changes underlie Lake Erie's recent re-eutrophication and likely are altering the quality of habitat available for walleye, Lake Erie's top predator. With monetary support from the Great Lakes Fishery Commission, this project will test multiple hypotheses concerning how human-driven change has affected walleye distributions and recruitment across the lake by altering the availability of quality habitat for larvae, juveniles, and adults. Linked watershed-hydrology, lake circulation, water quality, and walleye bioenergetics models will be combined with historical datasets to help Lake Erie agencies better understand the drivers of walleye recruitment and distributions, both past and present, and also assess what the future might hold for this species under expected climate and NPS-P control scenarios.

**Responsibilities:** The successful candidate would work with a team of ecosystem modelers, aquatic ecologists, and fishery biologists to 1) develop predictive relationships between lake habitat quality and walleye distributions (e.g., spatially explicit fishery-independent and fishery-dependent catch rates), and 2) use these predictive relationships and output from the linked physical and biological models to hindcast and forecast habitat quality and walleye distributions across Lake Erie under observed (1995-2015) and anticipated (2016-2046) climate and land-use management scenarios.

**Location:** The incumbent will join a dynamic, interactive group of students, post-docs, and faculty at the AEL (<http://ael.osu.edu/>) within the Department of Evolution, Ecology, and Organismal Biology (<http://eeob.osu.edu/>).

**Qualifications:** Successful applicants will be creative, motivated, and capable of working effectively both independently and in collaborative groups. A master's degree in biology, ecology, general aquatic sciences, or a related field is required; those with a bachelor's degree and an exceptional track record of research or related work experience also are encouraged to apply. Strong writing and quantitative skills are essential. Modeling and programming skills would be beneficial.

**Stipend:** ~\$2,342/month plus full tuition waiver and health benefits. Graduate Research Associates (GRA) support exists for the degree duration, with opportunities to teach (if desired).

**Start date:** Fall 2016.

**How to apply:** Application instructions can be found at <http://eeob.osu.edu/grad/program-admissions>. The published deadline is December 1, but applications for this position can be submitted online until December 31, 2015. You must apply through OSU's online application site to be considered for this position.

Concomitant with your online application submission, please email to [apps.AEL@gmail.com](mailto:apps.AEL@gmail.com) your: **1)** statement of purpose and research interests that briefly describes your educational and research background, as well as describes your research interests/goals; **2)** your curriculum vitae (or resume) that also includes your GRE scores (raw and percentages) and (if applicable) TOEFL/TSE scores; **3)** an unofficial copy of your transcripts; and **4)** contact information for at least three professional references. (Sending these documents by email does not constitute official application.) Please place "GLFC Walleye Project" in the subject line. *Review of applications will begin immediately.*

**Contact information:** For additional information, visit [www.ludsinlab.com/](http://www.ludsinlab.com/) or contact me at [ludsin.1@osu.edu](mailto:ludsin.1@osu.edu).