

Carol A. Stepien, Ph.D.

Director of the Lake Erie Center and Professor of Ecology

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PROFESSIONAL PREPARATION

National Research Council Postdoctoral Associate, National Marine Fisheries Service; 1990-92.
Sloan Postdoctoral Associate in Molecular Evolution, The University of Texas, Austin; 1988-90.
NSF Postdoctoral Scholar and PI, Scripps Inst. of Oceanography, University of California; 1986-88.
Ph.D. University of Southern California, Ecology and Evolution; 1985.
M.S. University of Southern California, Ecology and Evolution; 1980.
B.S. Bowling Green University, Ohio; Biology (Chemistry and English minors); 1979.

APPOINTMENTS

2004-present Director of the Lake Erie Center and Professor of Ecology; Department of Environmental Sciences, The University of Toledo
2000-2004 Research Associate Professor, Director of Great Lakes Genetics Program, and Assoc. Director of Program in Environmental Risk Analysis, Cleveland State Univ.
1992-2000 Assistant Professor of Biology and Endowed Research Chair in Urban Environmental Sciences, Department of Biology, Case Western Reserve University

5 RECENT RELEVANT PUBLICATIONS (of 63 total)

*=undergraduate students, **= graduate students or teachers, ***=postdocs or technicians
Stepien, C.A., D.J. Murphy***, R.N. Lohner***, O.J. Sepulveda-Villet**, and A.E. Haponski**. 2009. Signatures of vicariance, postglacial dispersal, and spawning philopatry: Population genetics and biogeography of the walleye *Sander vitreus*. *Molecular Ecology*. In Press.
Neilson, M.E.** and **C.A. Stepien**. 2009a. Evolution and phylogeography of the tubenose goby genus *Proterorhinus* (Gobiidae: Teleostei): Evidence for new cryptic species. *Journal of the Linnean Society*. 96(3): 664-684.
Brown, J.E.** and **C.A. Stepien**. 2009. Invasion genetics of the round goby: Tracing Eurasian source populations to the New World. *Molecular Ecology*. 18:64-79.
Neilson, M.E.** and **C.A. Stepien**. 2009b. Escape from the Ponto-Caspian: Evolution and biogeography of the neogobiin species flock (Gobiidae: Teleostei). *Molecular Phylogenetics and Evolution*. 52: 84-102.
Kvach, Y.*** and **C.A. Stepien**. 2008. Metazoan parasites of introduced round and tubenose gobies in the Great Lakes: Support for the "enemy release hypothesis". *Journal of Great Lakes Research*. 34:23-35.

5 OTHER RELEVANT PUBLICATIONS

Stepien, C.A., D. Murphy***, and R.M. Strange***. 2007. Broad- to fine-scale population genetic patterning in the smallmouth bass *Micropterus dolomieu* across the Laurentian Great Lakes and beyond: An interplay of behavior and geography. *Molecular Ecology*. 16:1605-1624.
Brown, J.E.** and **C.A. Stepien**. 2008. Ancient divisions, recent expansions: Phylogeography and population genetics of the round goby *Apollonia melanostoma* across Eurasia. *Molecular Ecology*. 17(11): 2598-2615.
Haponski, A.** and **C.A. Stepien**. 2008. Molecular, morphological, and biogeographic resolution of cryptic taxa in the greenside darter *Etheostoma blennioides* complex. *Molecular Phylogenetics and Evolution*. 49:69-83.
Ohayon, J.L.* and **C.A. Stepien**. 2007. Genetic and biogeographic relationships of the racer goby *Neogobius gymnotrachelus* (Gobiidae: Teleostei) from exotic and native Eurasian locations. *Journal of Fish Biology*. 71(C):360-370.

Strange, R.M.*** and C.A. Stepien. 2007. Genetic divergence and connectivity among river and reef spawning groups of walleye (*Sander vitreus*) in Lake Erie. *Canadian J. Fisheries and Aquatic Sciences*. 64:437-448.

SYNERGISTIC ACTIVITIES

- **Editorial Board and Editor:** *Molecular Phylogenetics and Evolution* (1998-present)
Associate Editor (Genetics): *Journal of Great Lakes Research* (2004-present)
Editor's Award 2007.
- **Board of Directors:** *International Association for Great Lakes Research (IAGLR)* 04-07
Outreach committee co-chair, scholarship committee. Chair of 2009 annual conference.
- **Deep Fin Fish Systematics NSF-sponsored Teleost Tree of Life scholarship committee** 06-present.
- **Grant Review Panels:** NSF, USGS, NOAA Sea Grant, AAAS.
- **Grant Reviewer:** NSF, USGS, NOAA Sea Grant, Great Lakes Fishery Commission, Great Lakes Fishery Trust
- **Journal reviewer:** *Canadian Journal of Fisheries & Aquatic Sciences, Canadian Journal of Zoology, Copeia, Evolution, Journal of Great Lakes Research, Journal of Fish Biology, Molecular Ecology, Molecular Phylogenetics and Evolution, Transactions of the American Fisheries Society*, etc.
- **Gk-12 Program Principal Investigator:** *Graduate Fellows in High School STEM Education: An Environmental Science Learning Community at the Land-Lake Ecosystem Interface (NSF Gk-12 program)*(2008-present)
- **Minority Mentoring and Advisory Panel:** National Council on Science and the Environment
Minority Programs Office, Panel, Washington, D.C. (2003-2004)
- **Best Student Paper Judge:** American Society of Ichthyologists and Herpetologists,
International Assoc. for Great Lakes Research, International Science Fair

SCIENTIFIC COLLABORATORS OUTSIDE OF THE UNIVERSITY OF TOLEDO

Nina Bogutskaya (Russian Academy of Sciences), Ted Cavender (Ohio State Univ.), Frederick Goetz (Univ. Wisconsin, Milwaukee), Igor Grigorovich (University of Windsor), Shaig Ibraminov (Univ. of Baku, Azerbaijan), Robert Krebs (Cleveland State Univ.), Edward Roseman (USGS, Ann Arbor, MI), Mariusz Sapota (University of Gdansk), Mark Tumeo (Cleveland State University), Katerina Vasil'eva (Moscow State University)

GRADUATE AND POST DOCTORAL ADVISORS

David M. Hillis, Postdoctoral Advisor (1988-90, University of Texas, Austin)
John R. Hunter (1990-92, National Marine Fisheries Service, La Jolla, CA)
Basil Nafpaktitis, Ph.D. Advisor (1980-85, University of Southern California)
Richard H. Rosenblatt, Postdoctoral Advisor (1986-88, University of California, San Diego)

CURRENT GRADUATE STUDENTS AND POSTDOCTORAL ADVISEE

Ph.D. Dissertation Advisor (N=6), M.S. Thesis Advisor (N=1)

J. Banda, M.S. advisee (2007-current), J. Brown, M.S., Ph.D. advisee (2004-current, A. Ford, Ph.D. co-advisee (2001-current; also full-time employee Ohio DNR); A. Haponski, M.S., Ph.D. advisee (2005-present); M. Neilson, M.S., Ph.D. advisee (2004-present,); L. Pierce, M.S., Ph.D. advisee (2008-present,); O.Sepulveda-Villet, M.S., Ph.D. advisee (2005-present)

COMPLETED GRADUATE STUDENTS AND POSTDOCTORAL ADVISEES

Ph.D. Dissertation Advisor (N=2), Postdoctoral Sponsor (N=3), M.S. Thesis Advisor (N=4)

W. C. Borden, Ph.D. co-Advisee (2002-08, now at U. Nebraska); M. Brooks, Ph.D., postdoctoral advisee (1992-3, now at Green Mt. Univ.); A. Dillon, M.S. advisee (1996-98, now at Cleveland Clinic); J. Faber, Ph.D. advisee (1992-7, now at Ohio University); A. Haponski, M.S. advisee (2005-07; current Ph.D. student); A. Hubers, M.S. advisee (1995-98, now at Novagen, Inc., Madison, WI); Y. Kvach, Ph.D., postdoctoral advisee (2006-08, now at Ukrainian Academy of Sciences, Odessa); R. Strange, Ph.D., Postdoctoral Advisee (2004-6, now at Southern Indiana Univ.) J. Skidmore, M.S. Advisee (1999-2001, now at NOAA, Washington D.C.)