

## **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, Univ. 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 52 total)**

\*\*= graduate students, postdocs, and technicians, \*=undergraduate students.

Haponski, A.\*, Marth, T.\*\*, and **C.A. Stepien**. 2007. A preliminary test for genetic divergence above and below a low-head dam using logperch and greenside darters. *Journal of Great Lakes Research*, In Press. (NSF REU student)  
Ohayon, J.L.\* and **C.A. Stepien**. 2007. Genetic and biogeographic relationships of the racer goby *Neogobius gymnotrachelus* (Gobiidae: Teleostei) form introduced and native Eurasian locations. *Journal of Fish Biology*. In Press. (NSF REU student)  
**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  
Strange, R.M.\*\* and **C.A. Stepien**. 2007. DNA analysis distinguishes North American and Eurasian yellow perch in unknown fried fillet samples. *U.S. Fishery Bulletin*. 105(2): 292-295.  
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.

### **FIVE OTHER RELEVANT PUBLICATIONS**

Borden, W.C.\*\* and **C.A. Stepien**. 2006. Discordant population genetic structuring of smallmouth bass, *Micropterus dolomieu* Lacépède, in Lake Erie based on mitochondrial DNA sequences and nuclear DNA microsatellites. *Journal of Great Lakes Research*. 32:242-2.  
**Stepien, C.A.**, J.E. Brown\*\*, M.E. Neilson\*\*, M.A. Tumeo. 2005. Genetic diversity of invasive species in the Great Lakes versus their Eurasian source populations: Insights for Risk Analysis. *Risk Analysis* (Blackwell Science) 25(4): 1043-1060.  
**Stepien, C.A.**, C. D. Taylor\*, and K.A. Dabrowska\*. 2002. Genetic variability and phylogeographic patterns of a nonindigenous species invasion: A comparison of exotic versus native zebra and quagga mussel populations. *Journal of Evolutionary Biology* 15(2): 314-328.  
**Stepien, C.A.**, R.H. Rosenblatt, and B.A. Bargmeyer\*. 2001. Phylogeography of the spotted sandbass, *Paralabrax maculatofasciatus*: Divergence of Gulf of California and Pacific coast populations. *Evolution* 55(9): 64-74.

**Stepien, C.A.,** B. Morton, K. Dabrowska\*, R. Guarnera, T. Radja, and B. Radja\*\*. 2001. Genetic diversity and evolutionary relationships of the troglodytic "living fossil" *Congeria kusceri* (Bivalvia: Dreissenidae). *Molecular Ecology* 10: 1873-1879.

### **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.
- Deep Fin Fish Systematics NSF-sponsored Teleost Tree of Life scholarship committee 06-present.
- **Grant Review Panels:** NSF, USGS, NOAA Sea Grant.
- **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.
- **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.), Miles Coburn (John Carroll Univ.), Brian Dixon (Univ. of Waterloo), Igor Grigorovich (University of Windsor), Shaig Ibraminov (Univ. of Baku, Azerbaijan), Timothy Johnson (Ontario Ministry of Natural Resources), Robert Krebs (Cleveland State Univ.), Brian Morton (University of Hong Kong), Edward Roseman (USGS, Ann Arbor, MI), Mark Tumeo (Cleveland State University), Christopher Wilson (Ontario Ministry of Natural Resources and Trent 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=5), M.S. Thesis Advisor (N=2), Postdoctoral Sponsor (N=1)**  
W. Calvin Borden, Ph.D. co-Advisee (2002-present, Cleveland State U.); JoAnn Banda, M.S. advisee (2007-current, University of Toledo), Joshua Brown, M.S., Ph.D. advisee (2004-current, University of Toledo), Alexander Ford, Ph.D. co-advisee (2001-current, Cleveland State University); Amanda Haponski, M.S. advisee (2005-present, Univ. Toledo); Yuriy Kvach (2006-present, at Ukrainian Academy of Sciences, Odessa) Matthew Neilson, M.S., Ph.D. advisee (2004-present, University of Toledo); Osvaldo Jhonathan Sepulveda Villet, Ph.D. advisee (2005-present, University of Toledo)

### **COMPLETED GRADUATE STUDENTS AND POSTDOCTORAL ADVISEES**

**Ph.D. Dissertation Advisor (N=2), Postdoctoral Sponsor (N=2), M.S. Thesis Advisor (N=3)**  
Dr. Meriel Brooks, postdoctoral advisee (1992-3, now at Green Mt. Univ.); Alison Dillon, M.S. advisee (1996-98, now at Cleveland Clinic, Cleveland, OH); Dr. Joseph Faber, Ph.D. advisee (1992-7, now at Ohio University, Lancaster, OH); Allyson Hubers, M.S. advisee (1995-98, now at Novagen, Inc., Madison, WI); Dr. Rex Strange, Postdoctoral Advisee (2004-6, now at Southern Indiana Univ., IN)  
Jennifer Skidmore, M.S. Advisee (1999-2001, now at NOAA, Washington D.C.)