Lindsey R. Pierce

Great Lakes Genetics Laboratory
Lake Erie Center and Department of Environmental Sciences, University of Toledo,
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PROFESSIONAL PREPARATION:

Ph.D. Biology (Ecology track) University of Toledo, Toledo, OH --- in progress
M.S. Fisheries and Wildlife Sciences (emphasis in aquaculture genetics) Virginia Polytechnic Institute and State University, Blacksburg, VA --- July 2008
B.S. Animal and Veterinary Sciences (Magna Cum Laude) West Virginia University, Morgantown, WV --- May 2006

APPOINTMENTS:

2008-present Research assistant, Lake Erie Center, University of Toledo, Toledo, OH (funded by USDA)
Spring 2009 Teaching assistantship, University of Toledo, Toledo, OH
Experience: Lake Erie Center website
Fall 2008 Teaching assistant, University of Toledo, Toledo, OH
Teaching experience: Introduction to Environmental Sciences, Honors
2007-2008 Teaching assistant, Virginia Polytechnic Institute and State University, Blacksburg, VA
Teaching experience: Human Dimensions and Ichthyology Lab
Summer 2008 Research assistant, Virginia Polytechnic Institute and State University, Blacksburg, VA
Research experience: Horseshoe crab population dynamics
2006-2007 Laboratory Technician, National Center for Cool and Cold Water Aquaculture, Leetown, WV
Projects: Characterization of the genomic linkage map for rainbow trout, DNA bac fingerprinting, Parental analysis, and *Flavobacterium* disease challenge

RESEARCH INTERESTS:

Population genetics, conservation genetics, aquaculture genetics, nutrigenomics, epidemiology, spatial ecology.

GRADUATE RESEARCH:

Dissertation research: Genetic Detection and Geographic Analysis of Great Lakes Fish Infection by Viral Hemorrhagic Septicemia.
Master's thesis research: Family growth response to fishmeal and plant-based diets shows genotype x diet interaction in rainbow trout (*Oncorhynchus mykiss*). Manuscript in the journal *Aquaculture*.

PUBLICATIONS:

Lindsey R. Pierce, Yniv Palti, Jeffrey T. Silverstein, Fredrick T. Barrows, Eric M. Hallerman, James E. Parsons. 2008. Family growth response to fishmeal and

plant-based diets shows genotype x diet interaction in rainbow trout (*Oncorhynchus mykiss*). Aquaculture 278, 37-42.

PRESENTATIONS:

2008 Developing a Rapid Molecular Assay with Internal Controls for Detecting the VHS Fish Virus. Midwest Fish and Wildlife Conference, Columbus, OH.

2008 Genetic Detection and Geographic Analysis of Great Lakes Fish Infection by Viral Hemorrhagic Septicemia (VHS). Lake Erie Fisheries Genetics Workshop for Managers, Oregon, OH.

2008 Developing a Rapid Molecular Assay with Internal Controls for Detecting the VHS Fish Virus.Sigma Xi, University of Toledo, Toledo, OH.

2008 DNA marker-based parentage assignment supports practical experiments at commercial aquaculture operations: A case study assessing family basis for growth on experimental diets for rainbow trout (*Oncorhynchus mykiss*). Recirculating Aquaculture Conference, Virginia Tech., Ronoake, VA.

POSTERS:

2007 Evaluation of family growth response to fishmeal and plant-based diets in rainbow trout (*Oncorhynchus mykiss*).Dean's Forum on Health, Food, and Nutrition, Virginia Tech., Blacksburg, VA.

2007 Evaluation of family growth response to fishmeal and plant-based diets in rainbow trout (*Oncorhynchus mykiss*). Annual American Fisheries Society Meeting, San Francisco, CA.

GRADUATE ADVISOR:

Dr. Carol A. Stepien, Professor of Ecology and Director of the Lake Erie Center, University of Toledo

PROFESSIONAL MEMBERSHIPS:

American Fisheries Society
International Association for Great Lakes Research

RESEARCH SKILLS:

Laboratory skills: DNA extraction, DNA purification, DNA quantification, RNA extraction, RNA purification, RNA quantification, RNA transcription, polymerase chain reaction (PCR), agarose gel electrophoresis, DNA sequencing, microsatellite genotyping, parental allocation, lipid digestion, hematology, SMIS
Laboratory instrumentation: Agilent Bioanalyzer 2100, Hydra II Robotic Pipettor, PCR thermocycler, DNA genomic analyzer (ABI 3730), Centrifuges (floor and table), Typhoon scanner, NanoDrop, autoclave, nanopure distillation system, pH meter, Chemiimager, vortex, incubator, DNA speed vac 120 (savant)

Basic computer software: Microsoft excel, Microsoft word, Outlook, End Note, Power Point
Specialized software: PAPA, FAP, JMP, SAS, MEGA, PAUP, ARLEQUIN, STRUCTURE, OLIGO, ArcGIS, GenePop, GeneMapper, GenBank, data collection software for ABI 3730, data collection software for Agilent Bioanalyzer 2100
Field experience: Back-pack electro-fishing and fish identification, benthic macro invertebrate sampling and identification, horseshoe crab length/weight assessment and sexing.