Peter T. Euclide

USGS Wisconsin Cooperative Fishery Research Unit
University of Wisconsin at Stevens Point
Stevens Point, WI 05401

Telephone: (330) 612-5137
Primary email: peter.euclide@uwsp.edu
Secondary email: peter.euclide@gmail.com
Personal website: https://peuclide.github.io

EDUCATION

2018 Ph.D. Department of Biology, University of Vermont, VT
Dissertation: *Genetic consequences of habitat fragmentation in the Champlain basin*
Advisor: J. Ellen Marsden

2015 M.Sc. Rubenstein School of Environment and Natural Resources, University of Vermont, VT
Thesis: *Fixed versus plastic partial migration of the aquatic macroinvertebrate,* Mysis diluviana*, in Lake Champlain*
Advisor: Jason D. Stockwell

2012 B.S. Organismal Biology, Kent State University, OH
Graduation status: *summa cum laude*

PUBLICATIONS

Euclide, PE, Kilpatrick, CW, Marsden, JE. **In Prep**. Genetic structure of lake whitefish (*Coregonus clupeaformis*) in Lake Champlain, Vermont 100 years after commercial fishery closure.

Gearhart, TG, Euclide, PT, Kraft, J, Stockwell, JD. **In Prep**. Essential fatty acid deficient diets have immediate impacts on physiology and composition of zebrafish (*Danio rario*).

Euclide, PE, Pientka, B, Marsden, JE. **In Revision**. Genetic versus demographic stock structure of rainbow smelt in a large fragmented lake. *Transactions of the American Fisheries Society*

Euclide, PT, Marsden, JE. **In Revision**. Role of drainage and barriers in the genetic structuring of a tessellated darter metapopulation. *Conservation Genetics*.

Jude, DJ, Rudstam, LG, Holda, TJ, Watkins, JM, Euclide, PT, Balcerd, MD. **2018**. Trends in *Mysis diluviana* abundance in the Great Lakes, 2006-2016. *Journal of Great Research*.

Euclide, PT, Flores, NM, Wargo, MJ, Kilpatrick, CW, Marsden, JE. **2017**. Lack of population genetic structure of slimy sculpin in a large, fragmented lake. *Ecology of Freshwater Fish*.

Euclide, PT, Hansson, S, Stockwell, JD. **2016**. Partial diel vertical migration in an omnivorous macroinvertebrate, *Mysis diluviana. Hydrobiologia*. doi:10.1007/s10750-016-2982-5.

Euclide, PT, Stockwell, JD. **2015**. Effect of gut content on $\delta^{15}N$, $\delta^{13}C$, and C:N of experimentally-fed *Mysis diluviana*. *Journal of Great Lake Research*. 41: 926-929.

RESEARCH PRESENTATIONS (Presenter underlined)

Euclide, PT, Kilpatrick, CW, Parent, T, Marsden, JE 2018. Population genetics of lake whitefish over 100 years after commercial harvest closure. International Association of Great Lakes Research. Toronto, Ontario. [oral presentation]

Euclide, PT, Marsden, JE 2018. Role of drainage and barriers in the genetic structuring of a tessellated darter metapopulation. Lake Champlain Research Conference. Burlington, Vermont [oral presentation]

Euclide, PT, Marsden, JE 2017. Movement of walleye in Lake Champlain: forty years of mark-recapture data. International Association of Great Lakes Research 2017 meeting. Detroit, Michigan [oral presentation]

Euclide, PT, Marsden, JE, Wargo, MJ, Flores, NM, Kilpatrick, CW 2017. Genetic structure of slimy sculpin (*Cottus cognatus*) populations in lakes. Canadian Conference For Fisheries Research, Montreal, Quebec. [oral presentation]

Euclide, PT, Parent, T, Gonzalez, E, Flores, NM, Wargo, MJ, Kilpatrick, CW, Marsden, JE 2016. Effect of Fish Dispersal Ability on Sensitivity to Habitat Fragmentation in a Large Lake. International Association of Great Lakes Research. Guelph, Ontario. [oral presentation]

Euclide, PT, Parent, T, Gonzalez, E, Flores, NM, Wargo, MJ, Kilpatrick, CW, Marsden, JE 2015. Effect of Fish Dispersal Ability on Sensitivity to Habitat Fragmentation in a Large Lake. American Fisheries Society meeting. Portland, Oregon. [oral presentation]

Euclide, PT, Strayer, N, Stockwell, JD. 2015. Is *Mysis* in decline in the Laurentian Great Lakes?. International Association of Great Lakes Research 2015 meeting. Burlington, Vermont [poster]

Euclide, PT, Stockwell, JD. 2014. Fixed versus plastic partial migration of the aquatic macroinvertebrate, *Mysis diluviana*, in Lake Champlain. 2014 Joint Aquatic Sciences Meeting. Portland, Oregon [poster]

Euclide, PT, Stockwell, JD. 2013. Physiological plasticity in the diel vertical migration of *Mysis diluviana*. RSENR Graduate Student Research Symposium, Vermont [oral presentation]

Euclide, PT, Stockwell, JD. 2013. Physiological plasticity in the diel vertical migration of *Mysis diluviana*. University of Vermont Student Research Conference, Vermont [oral presentation]

Euclide, PT, Stockwell, JD. 2013. Physiological plasticity in the diel vertical migration of *Mysis diluviana*. 2013 Lake Champlain Research Consortium Student Symposium [oral presentation]

INVITED TALKS (Presenter underlined)

Euclide, PT, Marsden, JE. 2018. Habitat fragmentation in the Lake Champlain basin. Vermont Fish and Wildlife Department. Essex, VT

DATA PUBLICATIONS

Lake Champlain *Mysis* Stable Isotopes. KNB. https://knb.ecoinformatics.org/#view/knb.749.1

Mysis Density in North America. RShiny. https://peter-euclide.shinyapps.io/Mysis_density_app/

GRANTS and AWARDS

2016 – 2017 Water Resources Research Grant: $10,000
2014 ASLO Student Travel Grant: $500
2014 – 2015 Lintilhac Foundation Research Grant: $10,000
2013 Graduate Student Senate Travel Grant: $300
2012, 2013 Rubenstein School Graduate Student Association Mini-Grant: $200

PROFESSIONAL ACTIVITIES

Workshops/courses:

2018 UC Berkley: Foundations of Data Science: Computational Thinking with Python
2017 GLFC Sculpin in the Great Lakes workshop
2016 GLFC Structured Decision-Making and Barrier Removals
2015 FishR Workshop for Analyzing Fisheries Data

Professional committee participation:

2016 Lake Champlain Fisheries Technical Committee
2015 58th Annual IAGLR Conference, Burlington, VT

Volunteer positions

2012 – 2015 Laboratory Safety Officer

Manuscripts reviewed for:

Journal of Great Lakes Research (1), *Hydrobiologia* (2), *Biological Invasions* (1), *Canadian Journal of Fisheries and Aquatic Science* (1), *North American Journal of Fisheries Management* (1), *Journal of Fish Biology* (1)

PROFESSIONAL EXPERIENCE

2018 – pres. **Genetics Research Scientist**: USGS Wisconsin Cooperative Fishery Unit

- Bioinformatics and visualization of genomics data
- Graduate student mentorship and management

2011 – 2012 **Research Technician**: Kent State University

- Cared for 1,000+ experimental *Lobelia* seedlings.
- Conducted genetic laboratory work including polymerase chain reactions (PCR), pollen and seed counts, and data input.

2010 **Research Technician**: Kent State University

- Conducted stream macroinvertebrate sampling and identification.

2009 **Field biologist**: Milfoil Solution project, EnviroScience Inc.

- Participated in field sampling and client visits across Michigan and Southern Ontario.
- Conducted sample collection and via snorkeling.

2009 – 2012 **Volunteer undergraduate researcher**: Kent State University

- Designed and led aquatic ecology experiments.
- Identified stream macroinvertebrate communities.
- Conducted community diversity analysis.

TEACHING and OUTREACH

2014 – 2016 Champlain Research Experience for Students and Teachers (CREST) Workshop: University of Vermont; Helped plan and facilitated week-long workshop of applied field science to 6th -12th grade STEM teachers.

2016 Guest lectures, Conservation Biology: Genetic distance and gene flow: modern genetic techniques, University of Vermont

2014, 2015 Communicating Science, REU Workshop: University of Vermont

2013 – 2014 ECHO Lake Aquarium Educator Fellowship: University of Vermont and ECHO Lake Aquarium and Science Center.

<u>Teaching Assistantships Rubenstein School of Environment and Natural Resources</u>

2014 Ecosystem Management, University of Vermont.

2012, 2013 Limnology, University of Vermont.

2013 Ecology, Ecosystems and Environment, University of Vermont

RELEVANT SKILLS

Field:

- **Fisheries**: fyke nets, beach seines, bottom trawls, gill nets, fry traps, genetic sample collection and preservation
- **Limnology/plankton**: Schindler-Patalas traps, plankton nets, niskin bottles, CTD, ponar grab
- **Taxonomy**: North American fishes, aquatic macroinvertebrates, zooplankton
- **Manual labor**: Small boat operation and trailering, basic carpentry, plumbing and net repair
- **Leadership**: Field team management of 1-3 individuals, instructor for large classes of 25-35 students

Computer/data analysis (Code availability: http://github.com/peuclide):

- **Graphing**: R, MS Excel, SigmaPlot, and GraphPad Prism
- **Statistics/data analysis**: R, JMP, SPSS, MS Excel
- **Word processing**: MS Word, Google Docs, RMarkdown
- **Data visualization**: RShiny, RMarkdown
- **Population genetic software** [abridged list]: R, diveRsity, ADEGENET, HIERFSTAT, GenePopEdit, Poppr, STRUCTURE, Geneland, GenAlEx, Arlequin, Genepop, PGDSpider, FSTAT, NeEstimator, BottleSim, PowSim, BOTTLENECK, EASYPOP, Barrier
- **Mapping**: R, Leaflet
- **Web development**: RMarkdown

Laboratory:

- **Genetic**: PCR, gel electrophoresis, mitochondrial barcoding, microsatellite analysis, DNA extractions using Qiagen DNEasy, Gentra PurGene, and Chelex
- **Stable Isotope**: Sample preparation and analysis
- **Fisheries**: Removal of aging structures, length, weight and gut dissection protocols
- **Eco-physiology**: Blazka type swim-tunnel respirometry and swimming performance
- **Taxonomy**: dichotomous key identification of macroinvertebrates and fish
- **Husbandry**: Algae and daphnia culturing, aquarium husbandry of yellow perch and zebra fish, plant germination and care, green house maintenance and pest control

RELEVANT COURSEWORK

Graduate

Ecology of Fishes	Basic Probability and Statistics	Community Ecology
Topics in Aquatic Ecology	Aquatic Physiology	Intro to R for Fisheries
Hot Topics in Ecological and Evolutionary Genomics	Fisheries Management	Applied Statistical Genetics
	Ecological Genomics	Population Genetic Readings

Undergraduate

Ecology	Ornithology	Cell Biology
Biological Foundations	Introduction to Plant Biology	General Chemistry I
Elements of Genetics	Writing in Biology	General Chemistry II
Entomology	Vertebrate Zoology	Organic Chemistry I
Basic Probability & Statistics	Conservation	Organic Chemistry II

Tropical Field Biology and Conservation	Advanced Topics in Plant Biology	Analytic Geometry and Calculus