CURRICULUM VITAE

Thomas Mark Evans

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Personal web site: https://lampreyhunter.blogspot.com
YouTube Channel: https://www.youtube.com/channel/UCC09WxzEz5OFONBR7AugVHg

EDUCATION

2004-2008	B.S. Biology Department of Biology, Juniata College, Huntingdon, Pennsylvania
2009-2012	M.S., Thesis Title: Assessing Food and Nutritional Resources of Native and Invasive Lamprey Larvae Using Natural Abundance Isotopes Department of Evolution, Ecology, and Organismal Biology, The Ohio State University, Columbus, Ohio Adviser: Dr. James E. Bauer
2012- 2017	Ph.D., Dissertation Title: Evaluation of Lamprey Populations with Natural and Artificial Tags to Understand the Evolution of Lamprey Life Histories Department of Environmental and Forest Biology, State University of New York College of Environmental Science and Forestry (SUNY ESF), Syracuse, New York Adviser: Dr. Karin E. Limburg

WORK EXPERIENCE

8/2019- Current	Visiting assistant professor at St. Mary's College of Maryland Teaching lower and upper level courses, advising undergraduates, working with undergraduates on research projects, St. Mary's City, MD
10/2018- 8/2019	CIGLR Postdoc (NOAA Great Lakes Environmental Lab & Cornell) Size spectra analysis, data management, development of trophic models to forecast changes in the Great Lakes in response stressors, Ithaca, NY

4/2017- 9/2018	Student Contractor, USGS Lake Ontario Biological Station Scientist on various projects concerned with Lake Ontario, Oswego, NY
1/2014 – 5/2017	Graduate Research Assistant, Hudson River Foundation, Project: Understanding ammocoete movement and population ecology, Department of EFB, SUNY ESF, Syracuse, NY
9/2012 – 12/2016	Graduate Research Assistant, USGS, Project: Microchemistry of threatened native species from the Grand Canyon, Department of EFB, SUNY ESF, Syracuse, NY
6/2016 – 8/2016	Teaching Assistant and Course Manager for Cranberry Lake Biological Station (EFB 202 Ecological Monitoring and Biodiversity Assessment) Department of EFB, SUNY ESF, Cranberry Lake, NY
9/2013 – 9/2015	Graduate Research Assistant, Great Lakes Fishery Commission, Project: Determining if eye lenses can be used to understand the origin and life history of lamprey in the Great Lakes, Department of EFB, SUNY ESF, Syracuse, NY
6/2008 – 4/2009	Alaska Fisheries Observer, NWO Inc., Seattle, WA Field sampling for the National Marine Fisheries Service aboard commercial fishing vessels in the Bering Sea
1/2008 – 6/2008	Undergraduate Researcher, Department of Biology, Juniata College, Huntingdon, PA
8/2007 – 9/2007	Undergraduate Researcher, Department of Chemistry, Juniata College, Huntingdon, PA
6/2007 - 8/2007	Research Experience for Undergraduates, Rutgers University, Haskin Shellfish Research Laboratory, Port Norris, NJ
6/2006 – 8/2006	Undergraduate Summer Internship, Juniata College, Albumin binding protein synthesis with Recombinant DNA, Huntingdon, PA

TEACHING EXPERIENCE

Courses as a Teaching Assistant:
The Ohio State University
Human Biology, Anatomy, Human Physiology, Cell Biology, Fish Biology, Limnology, Introduction to Biological Studies-Aquatic Biology (Field based course at Stone Laboratory)

SUNY ESF
Microbiology laboratory, Comparative Vertebrate Anatomy laboratory, Marine Ecology, Ecological Monitoring and Biodiversity Assessment (Field based course at Cranberry Lake Biological Station)

Courses taught as primary instructor:
SUNY ESF
Fisheries Management (3 credits) and Fisheries Management Laboratory (1 credit)
Seminar: Dinosaurs (1 credit)
Special Topics: Dinosaur Ecology and Evolution (2 credits)
Field Course: Ecological Monitoring and Biodiversity Assessment (3 credits)

St. Mary's College of Maryland
BIOL 101 (Biology for non-majors): The Chesapeake Bay: History and Ecology (4 credits)
BIOL 105L (Biology lab for majors): Principles of Biology I Lab (1 credit)
BIOL 106 (Biology for majors): Principles of Biology II (4 credits)
BIOL 106L (Biology for majors): Principles of Biology II Lab (1 credit)

VOLUNTEER ACTIVITIES

Statistics workshop for undergraduate summer technicians, at Shackelton Point Field Station, July 2019

R workshop for fisheries students, at SUNY ESF, April 2019

Lamprey life cycle and specimen table at the Museum of the Earth, March-May 2019

Designed and led sampling trip directed at providing undergraduates from multiple institutions experience in the development of scientific studies, August 2017

Presenter, Poster development workshop, SUNY ESF, April 2016

Field Biologist, BioBlitz, Clark Reservation State Park, May 2014

Presenter, Live animal presentation, The Ohio State University, Museum of Biological Diversity, February 2012

SKILLS

R language (especially the development of graphs)
FiSAT II
Program MARK

QGIS and ArcGIS
Small boat operation and deployment

AWARDS AND GRANTS

Peering into the eye of the lamprey: What can stable isotopes in eye lenses reveal about marine behavior in sea lamprey? submitted to St. Mary's College of Maryland Faculty Development Grant Committee for $2197.40. Awarded $1,647.75 2019.

Biogeochemical tools for Pacific lamprey natal origin, submitted to USFWS Pacific Lamprey Conservation Initiative Regional Implementation Plan for $45,930. Under consideration 2019.

Size spectrum analysis toolbox: An application for autonomous plankton count and hydroacoustic data, submitted to the Great Lakes Fishery Commission for $199,955. Declined 2019.

Using stable isotope ratios and microchemistry of lenses to help identify the origin of sea lamprey, submitted to the Great Lakes Fishery Commission for $84,196. Declined 2017.

SUNY ESF Environmental and Forest Biology Outstanding Ph.D. Student of 2015/2016. Awarded 2016.

Understanding ammocoete movement and population ecology, submitted to the Hudson River Foundation for $17,000. Awarded 2014.

Determining the Natal Origin of Sea Lampreys with Eye Lenses Microchemistry, submitted to the Cornell High Energy Synchrotron Source for access to their instrument. Awarded 2014.

Determining if Eye Lenses can be used to Understand the Origin and Life History of Lamprey in the Great Lakes, submitted to the Great Lakes Fishery Commission for $9,891. Awarded 2013.

Assessing Sea Lamprey (*Petromyzon marinus*) Distribution in the Hudson River Watershed, submitted to Sussman Foundation for $6,370. Awarded 2013.

The distribution of larval lamprey and their potential diet overlap with mayflies in the Hudson River, submitted to the Hudson River Foundation for $4,900 (Tibor T. Polgar Fellowship). Awarded 2013.

Determining the contribution of sea lampreys (*Petromyzon marinus*) to freshwater food webs using stable isotopes and gut content analysis, submitted to EPA STAR. Declined 2013.

PRESENTATIONS

Thomas M. Evans, James Watkins, Doran Mason, Zachary S. Feiner, and Lars Rudstam. June 2019. Using size spectrum modeling to inform ecosystem management of the Great Lakes? Brockport, NY.

Thomas M. Evans, Lars Rudstam, James Watkins, Doran Mason, and Zachary S. Feiner. 2019. Can size spectrum modeling be used to inform ecosystem management of the Great Lakes? Poughkeepsie, NY.

Thomas M. Evans, Maureen G. Walsh, and Brian C. Weidel. 2018. Lake Ontario Deepwater Sculpin diet identification using gut content and stable isotopes: Are all Mysis equal? Cooperstown, NY.

Thomas M. Evans, and Amy M. Weber. 2018. Using stable isotopes to identify the nutritional sources supporting American Brook Lamprey *Lethenteron appendix* along a stream gradient. Cooperstown, NY.

Thomas M. Evans. November 2017. Using life history models to understand the evolution of parasitic and non-parasitic Lampreys. Providence, RI.

Thomas M. Evans. April 2017. Evaluation of lamprey populations with natural and artificial tags to understand the evolution of lamprey life histories. Dissertation defense. Syracuse, NY. Available at: https://www.youtube.com/watch?v=QfFEkyW80Co

Thomas M. Evans. February 2017. American brook lamprey size distributions along stream gradients, implications for their life history in New York. Buffalo, NY. Available at: https://www.youtube.com/watch?v=XoEiYCrOGr8

Thomas M. Evans. February 2016. The population ecology of ammocoetes in three New York streams. New York Chapter of the American Fisheries Society. Cooperstown, NY. Available at: https://www.youtube.com/watch?v=FiV18CuXNJk

Thomas M. Evans. February 2015. Are larval lampreys homebodies? Using elastomer tags to study open populations of lampreys. New York Chapter of the American Fisheries Society. Lake Placid, NY.

Thomas M. Evans and Karin Limburg. February 2014. The distribution of larval sea lamprey and their nutritional sources in the Hudson River. New York Chapter of the American Fisheries Society. Geneva, NY. Available at: https://www.youtube.com/watch?v=vh4isqLdTC0

Thomas M. Evans and Karin Limburg. September 2013. What can we learn about the threatened flannelmouth sucker in Grand Canyon through otolith microchemistry? American Fisheries Society. Little Rock, AK.

Thomas M. Evans and Karin Limburg. March 2013. Determining if eye lenses can be used to understand the origin and life history of adult lamprey. Great Lakes Fishery Commission research proposal. Ann Arbor, MI.

Thomas M. Evans. July 2012. Food sources supporting larval sea lamprey in Great Lakes watersheds using multiple stable isotope analysis. Thesis defense. Columbus, OH.

Thomas M. Evans, James E. Bauer, Amy Barrett, Steven Loeffler. January 2012. Identifying Food and Nutritional Resources Supporting *Lampetra* spp. Ammocoetes Using Isotopic Natural Abundances. Aquatic Ecology Laboratory, Annual Research Review. Columbus, OH

Thomas M. Evans, James E. Bauer, Amy Barrett, Steven Loeffler. August 2011, Oral presentation. Identifying Food and Nutritional Resources Supporting Invasive Sea Lamprey Ammocoetes Using Isotopic Natural Abundances. AFS National Conference. Seattle, WA.

Thomas M. Evans, James E. Bauer, Amy Barrett, Steven Loeffler. February 2011, Poster presentation. Identifying Food and Nutritional Resources Supporting Invasive Sea Lamprey Ammocoetes in Lakes Michigan and Huron Watersheds Using Isotopic Natural Abundances. ASLO International Conference. San Juan, Puerto Rico.

Thomas M. Evans and Vincent Bounaccorsi. April 2008. The Success of Zebrafish Ova Under Different Environmental Conditions. Huntingdon, PA.

Thomas M. Evans, Coren Milbury, Ximing Guo, and David Bushek. August 2011. Poster presentation. Using Microsatellites to Determine if two Rivers in the Delaware Bay are Supporting Disease Refugia for the Eastern Oyster (*Crassostrea virginica*) Populations. New Brunswick, NJ.

PUBLICATIONS

T. M. Evans, A. M. Weber. 2019. Multiple stable isotopes identify aquatic sediments as the primary nutritional source to American brook lamprey larvae along a stream gradient. Canadian Journal of Fisheries and Aquatic Sciences. https://doi.org/10.1139/cjfas-2018-0270

T. M. Evans, K. E. Limburg. 2019. Parasitism offers large rewards but carries high risks: A life history model to predict the adoption of feeding strategies in lampreys (Petromyzontiformes). Journal of Evolutionary Biology. 32:794-805. https://doi.org/10.1111/jeb.13481

T. M. Evans, R. T. Lampman. 2019. Comparison of stable isotope ratios in larval Pacific lamprey tissues and their nutritional sources when reared on a mixed diet. Aquaculture 503:499-507. https://doi.org/10.1016/j.aquaculture.2019.01.012

T. M. Evans, A. R. Bellamy, J. E. Bauer. 2019. Radioisotope and stable isotope ratios ($\Delta^{14}C$, $\delta^{15}N$) suggest larval lamprey growth is dependent on fresh and aged organic matter in streams. Ecology of Freshwater Fish 28:265-275. https://doi.org/10.1111/eff.12459

T. M. Evans, P. Janvier, M. F. Docker. 2018. The evolution of lamprey (Petromyzontida) life history and the origin of metamorphosis. Reviews in Fish Biology and Fisheries 28:825-838. https://doi.org/10.1007/s11160-018-9536-z

T. M. Evans, R. Naddafi, B. C. Weidel, B. F. Lantry, M. G. Walsh, B. T. Boscarino, O. E. Johannsson, L. G. Rudstam. 2018. Stomach contents and stable isotopes analysis indicate *Hemimysis anomala* in Lake Ontario are broadly omnivorous. Journal of Great Lakes Research 44:467-475. https://doi.org/10.1016/j.jglr.2018.03.003

T. M. Evans. 2017. Using visible implant elastomer to study ammocoete populations with Cormack-Jolly-Seber models. Journal of Fish Biology 91:1683-1698. https://doi.org/10.1111/jfb.13489

T. M. Evans. 2017. Measuring the growth rate in three populations of larval lampreys with mark-recapture techniques. Transactions of the American Fisheries Society 146:147-159. https://doi.org/10.1080/00028487.2016.1249292

T. M. Evans. 2017. Are lampreys homebodies? Studying ammocoetes with open population models. Ecology of Freshwater Fish 26:168-180. https://doi.org/10.1111/eff.12261

T. M. Evans, J. E. Bauer. 2016. Using stable isotopes and C:N ratios to examine the life-history strategies and nutritional sources of larval lampreys. Journal of Fish Biology 88:638-654. https://doi.org/10.1111/jfb.12858

T. M. Evans, J. E. Bauer. 2016. Identification of the nutritional resources of larval sea lamprey in two Great Lakes tributaries using stable isotopes. Journal of Great Lakes Research. 42:99-107. https://doi.org/10.1016/j.jglr.2015.11.010

T. M. Evans, K. Limburg. 2015. The distribution of larval sea lampreys, *Petromyzon marinus*, and their nutritional sources in the Hudson River Basin. Northeastern Naturalist 22:69-83. https://doi.org/10.1656/045.022.0107

T. M. Evans, C. Milbury, X. Guo, D. Bushek. 2008. Using microsatellites to determine if two rivers in the Delaware Bay are supporting disease refugia for the eastern oyster (*Crassostrea virginica*). Journal of Shellfish Research, 27:1007.

MANUSCRIPTS IN REVIEW/PREPARATION

T. M. Evans, Z. S. Feiner, J. Watkins, D. Mason, L. Rudstam. (*In prep.*) Size spectra of the Great Lakes over more than a decade show changes across lakes and years. Target journal: Limnology and Oceanography.

T. M. Evans, C. M. Wagner, T. F. Haas, S. Miehls, M. Moser, N. Johnonson, E. Dumlop, R. Manzon. (*In prep.*) Before the first feeding: A review of the information available on the downstream post-metamorphic stage of sea lamprey. Target journal: Journal of Great Lakes Research.

B. J. Clemens, T. M. Evans, J. Skalicky, R. Lampman, J. Harris, S. J. Starcevich. (*In prep.*) Determining appropriate survey designs for larval lampreys: Synthesis of applications and goal specific recommendations. Target journal: Fisheries Research.