

CURRICULUM VITAE

DR. MATTHEW E.L. ALTENRITTER

POSTDOCTORAL RESEARCH ASSOCIATE

University of Illinois at Urbana-Champaign
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EDUCATION:

Doctor of Philosophy – 2015 – *Shortnose sturgeon (Acipenser brevirostrum) in the Gulf of Maine: local population dynamics and metapopulation implications*. University of Maine. Co-Advisors: Dr. Gayle Zydlewski and Dr. Michael Kinnison.

Master of Science – 2010 – *Reproductive status and early life history of lake sturgeon in Muskegon Lake*. Grand Valley State University. Advisor: Dr. Carl Ruetz.

Bachelor of Science – 2008
Major: Biology
Institution: Grand Valley State University

CURRENT PROFESSIONAL POSITION:

Postdoctoral Research Associate – April 2017 - Present
University of Illinois at Urbana-Champaign
Illinois Natural History Survey, Havana, IL

PAST PROFESSIONAL POSITIONS:

Postdoctoral Research Associate – June 2015 – April 2017
Texas A&M University-Corpus Christi, Corpus Christi TX
University of Texas at Austin, Port Aransas TX*
**Same project as A&M, moved universities*

GRANTS AWARDED:

2016– Texas A&M University-Corpus Christi Postdoctoral Travel Award
-\$500

- 2016 – “Investigating resiliency in a key fish species exposed to anthropogenic hypoxia inhabiting the northern Gulf of Mexico”
 - **Co-PI**, Texas A&M University-Corpus Christi Research Enhancement Grant
 -\$5,000
- 2014 – Inez Boyd Environmental Research Award
 -\$1,000
- 2014 – UMaine Graduate Student Government Travel to Present Award
 -\$636
- 2014 – UMaine School of Biology and Ecology Student Travel Award
 -\$500
- 2012 – North American Sturgeon and Paddlefish Student Travel Award
 -\$200
- 2012 – American Fisheries Society Skinner Memorial Fund Award
 -\$800
- 2011 – UMaine High End Instrumentation Research Grant (**Co-PI**)
 -\$2,765
- 2010 – Great Lakes Fishery Commission Travel Award
 -\$1,172
- 2008 – Student Travel Grant-In-Aid, Grand Valley State University
 -\$360
- 2007 – GVSU Student Summer Scholar Research Grant
 -\$3,000
- 2007 – Bill and Diana Wipperfurth Student Research Scholarship
 -\$1,800
- 2004 – American Fisheries Society Hutton Scholar
 -\$3,000

ACADEMIC AWARDS:

- 2014 – Penobscot Valley Conservation Association Horace Bond Scholarship
 2011 – GVSU Outstanding Graduate Student in Biology
 2010 – GVSU Graduate Dean’s Academic Excellence Award

PEER REVIEWED PUBLICATIONS

- (4) **Altenritter, M.E.**, G.B., Zydlewski, M.T. Kinnison, J.D. Zydlewski, and G.S. Wipfelhauser. *Accepted*. Understanding the basis of shortnose sturgeon (*Acipenser brevirostrum*) partial migration in the Gulf of Maine. *Canadian Journal of Fisheries and Aquatic Sciences*.
- (3) Harris, B.S., C.R. Ruetz III, A.C. Wieten, and **M.E. Altenritter**. *Accepted*. Age, growth, and status of a remnant population of lake sturgeon in the Muskegon River system, USA. *Journal of Applied Ichthyology*.
- (2) **Altenritter, M.E.**, M. Kinnison, G. Zydlewski, D. Secor, J. Zydlewski. 2015. Assessing dorsal scute microchemistry for reconstruction of shortnose sturgeon life histories. *Environmental Biology of Fishes* 98:2321-2335.

- (1) **Altenritter, M.E.L.**, A. C. Weiten, C.R. Ruetz III, and K.M. Smith. 2013. Seasonal spatial distribution of juvenile lake sturgeon in Muskegon Lake, MI. *Ecology of Freshwater Fish* 22:467-478.

MANUSCRIPTS IN PREPARATION:

Altenritter, M.E., G.B. Zydlewski, M.T. Kinnison, and J.D. Zydlewski. *In Prep.* Shortnose sturgeon population viability in the Gulf of Maine. Target Journal: *Transactions of the American Fisheries Society*

Altenritter, M.E., A. Cohuo, and B.D. Walther. *In Prep.* Sublethal hypoxia exposure is common in a demersal coastal fish as revealed by otolith chemistry. Target Journal: *Marine Ecology Progress Series*

TEACHING EXPERIENCE:

Spring 2017 - Texas A&M University-Corpus Christi

- Guest Lecturer: Fisheries Techniques
 - Prepared 50 minute lecture and led four-hour lab session on preparing fish otoliths for age and growth analysis

Fall 2016 – Texas A&M University-Corpus Christi

- Guest Lecturer: Principles of Ecology
- Guest Lecturer: Fisheries Biology and Management
 - Prepared and led two 75 minute lectures on Life History Strategies (Principles of Ecology) and Age and Growth in Fishes (Fisheries Biology and Management).

Fall 2014 – University of Maine

- Teaching Assistant: Vertebrate Biology (BIO 331)
 - Led recitation lectures on weekly topics in vertebrate biology and two laboratory sections per week. Developed laboratory exams and collaborated on curriculum development throughout the semester. Maintained active, respectful, and dynamic laboratory environment.

Spring 2014 – University of Maine

- Teaching Assistant: Ecological Statistics (WLE 220)
 - Promoted advancement in statistical abilities of undergraduate students during one laboratory section weekly. Graded and provided feedback on 25 lab reports weekly and served as a proctor for graded and oral exams.

Fall 2011 & 2013 – University of Maine

- Guest Lecturer: Biology of Marine Vertebrates (SMS 322)
 - Led two 75 minute lectures (one per fall semester) on osmoregulation and communication in marine vertebrates for upperclassmen in the Marine Science program.

Fall 2011 – University of Maine

- Teaching Assistant: Introductory Biology (BIO 100)
 - Led three laboratory sections of introductory biology weekly. Responsible for grading and providing feedback on approximately 60 lab reports weekly. Maintained laboratory equipment and a safe, educational working environment.

PRESENTATIONS BY M. ALTENRITTER (28 as primary author):

Altenritter, M. and B. Walther. 2017. Live fish and the Dead Zone: Using otoliths to track hypoxia exposure in Atlantic Croaker. Harte Research Institute Seminar, Texas A&M University-Corpus Christi, Corpus Christi, TX, March 1.

Altenritter, M.E., B. Walther, and J. Mohan. 2016. Effects of sublethal hypoxia exposure recorded in otoliths of the ubiquitous Atlantic croaker (*Micropogonias undulatus*) in the northern Gulf of Mexico. Oral presentation. Annual meeting of the American Fisheries Society, Kansas City, MO, August 21-26.

Altenritter, M.E., and B. Walther. 2016. Migratory diversity in Atlantic croaker from the northern Gulf of Mexico: implications for understanding the sublethal consequences of hypoxia exposure. Oral presentation. International Congress on the Biology of Fish, San Marcos, TX, June 12-16.

Altenritter, M.E., B. Walther, and J.A. Mohan. 2016. Geochemical indicators of sublethal hypoxia exposure in otoliths of a ubiquitous demersal fish species in the northern Gulf of Mexico. Poster presentation. Annual Ocean Sciences meeting, New Orleans, LA, February 21-26.

Altenritter, M.E., M.T. Kinnison, G.B. Zydlewski, D.H. Secor, and J.D. Zydlewski. 2015. Using dorsal scutes to infer origins and life histories of shortnose sturgeon. Oral presentation. Annual meeting of the American Fisheries Society, Portland, OR, August 16-22.

Altenritter, M.E., G. Zydlewski, M. Kinnison. 2015. Shortnose sturgeon of the Gulf of Maine: a regional perspective. Oral presentation. Penobscot Valley Chapter of the Maine Audubon Society, May 21.

Altenritter, M.E., G. Zydlewski, M. Kinnison, J. Zydlewski, D. Secor, and D. Sigourney. 2015. Shortnose sturgeon population dynamics in the Gulf of Maine. Oral presentation. Annual meeting of the Maine Cooperative Fish and Wildlife Research Unit, University of Maine, Orono. March 25.

- Altenritter, M.E.,** M.T. Kinnison, G.B. Zydlewski, J.D. Zydlewski, and M. Yates. 2014. Using dorsal scutes to infer origins and life histories of shortnose sturgeon. Oral presentation. Annual meeting of the American Fisheries Society, Quebec City, QC, August 17-21.
- Altenritter, M.E.,** G. Zydlewski, M. Kinnison, J. Zydlewski, D. Secor, D. Sigourney. Population dynamics of shortnose sturgeon in the Gulf of Maine. Oral presentation. Annual meeting of the Maine Cooperative Fish and Wildlife Research Unit, University of Maine, Orono. April 2.
- Altenritter, M.E.,** M.T. Kinnison, G.B. Zydlewski, J.D. Zydlewski, and M. Yates. Shortnose sturgeon life histories and origins: inferences from microchemistry. Poster presentation. Annual meeting of the Maine Cooperative Fish and Wildlife Research Unit, University of Maine, Orono. April 2.
- Altenritter, M.E.,** M. Kinnison, G. Zydlewski, J. Zydlewski, M. Yates. 2014. Assessing the applicability of using dorsal scutes to infer origins and life histories of shortnose sturgeon. Oral presentation. Atlantic Salmon and Their Environment Meeting, University of Maine Orono, January 8-9.
- Altenritter, M.E.,** M. Dzaugis, G.B. Zydlewski, M.T. Kinnison, J.D. Zydlewski, and G.S. Wippelhauser. Shortnose sturgeon of the Penobscot: local residency and regional connections. Poster presentation. Meeting of the Diadromous Species Restoration Research Network, University of Maine, Orono, ME, January 10-11.
- Altenritter, M.E.,** G. Zydlewski, M. Kinnison, G. Wippelhauser, and J. Sulikowski. Demography of a potential shortnose sturgeon metapopulation in the Gulf of Maine: recovery implications. Oral presentation. Annual meeting of the American Fisheries Society, St. Paul, MN August 19-23.
- Altenritter, M.E.,** G. Zydlewski, K. Lachepelle, M. Wegener, M. Kinnison, J. Zydlewski. Evaluating restoration outcomes of the Penobscot River project: an assessment of pre-dam removal conditions. Oral presentation. Maine Water Conference, Augusta, ME March 14.
- Altenritter, M.E.,** G.B. Zydlewski, M.T. Kinnison, J.D. Zydlewski. Coastal river connectivity and shortnose sturgeon: a metapopulation perspective. Oral presentation. Atlantic Salmon Forum, Bangor, ME January 10-11.
- Altenritter, M.E.,** G.B. Zydlewski, M.T. Kinnison, J.D. Zydlewski, G.S. Wippelhauser, and J. A. Sulikowski. Coastal river connectivity and shortnose sturgeon: a metapopulation perspective. Poster presentation. Annual meeting of the American Fisheries Society, Seattle, WA September 4-8.
- Altenritter, M.E.,** C.R. Ruetz III, and K.M. Smith. 2010. Movement and habitat use of juvenile lake sturgeon (*Acipenser fulvescens*) in a Lake Michigan tributary. Oral presentation. Annual meeting of the American Fisheries Society, Pittsburgh, PA September 12-16.
- Altenritter, M.E.,** C.R. Ruetz III, and K.M. Smith. 2010. Status of lake sturgeon reproduction in the Muskegon River. Poster presentation. 2nd annual Graduate Education Day held in the state capitol, Lansing, MI April 13th.

- Altenritter, M.E.**, C.R. Ruetz III, and K.M. Smith. 2010. Reproductive status and juvenile ecology of lake sturgeon in the Muskegon River. Oral presentation. American Fisheries Society (Michigan chapter) annual meeting, Grayling, MI. February 24-25.
- Altenritter, M.E.**, C.R. Ruetz III, and K.M. Smith. 2009. Reproductive status and juvenile ecology of lake sturgeon in the Muskegon River. Oral presentation. Midwest Fish and Wildlife Conference, Springfield, IL. December 6-9.
- Altenritter, M.E.**, C.R. Ruetz III, and K.M. Smith. 2009. Status of lake sturgeon reproduction in the Muskegon River. Poster presentation. Annual meeting of the North American Benthological Society, Grand Rapids, MI. May 16-23.
- Altenritter, M.E.**, C.R. Ruetz III, and K.M. Smith. 2009. Reproductive status and early life history of lake sturgeon in the Muskegon River. Poster presentation. American Fisheries Society (Michigan chapter) annual meeting, Dundee, MI. March 17-19.
- Altenritter, M.E.**, C.R. Ruetz III, and K.M. Smith. 2008. Status of lake sturgeon reproduction in the Muskegon River. Poster presentation. Midwest Fish and Wildlife Conference, Columbus, OH, December 14-17.
- Altenritter, M.E.**, C.R. Ruetz III, and K.M. Smith. 2008. Recruitment dynamics and movement patterns of lake sturgeon in the Muskegon River system. Poster presentation. Great Lakes Lake Sturgeon Coordination Meeting, Port Huron, MI. December 3-4.
- Altenritter, M.E.**, and C.R. Ruetz III. 2008. Risk of predation across a gradient of habitat structure: are results scale dependent? Oral presentation. Annual meeting of the North American Benthological Society, Salt Lake City, UT. May 25-30.
- Altenritter, M.E.**, and C.R. Ruetz III. 2008. Risk of predation across a gradient of habitat structure: are results scale dependent? Oral presentation. American Fisheries Society (Michigan chapter) annual meeting, Lake Superior State University, Sault Ste. Marie, MI. March 3-5.
- Altenritter, M.E.**, and C.R. Ruetz III. 2007. Risk of predation to stream invertebrates by fish across a gradient of habitat complexity. Poster presentation. 1st Annual West Michigan Regional Undergraduate Science Research Conference, Van Andel Institute, Grand Rapids, MI. October 20.
- Altenritter, M.E.**, and C.R. Ruetz III. 2007. Risk of predation to stream invertebrates by fish across a gradient of habitat complexity. Poster presentation. Student Summer Scholars Showcase, Grand Valley State University, Allendale, MI. July 30.

PROFESSIONAL MEMBERSHIPS:

American Fisheries Society

- Parent Society, Michigan Chapter, Education Section, Estuaries Section, Marine Fisheries Section

Coastal Conservation Association (CCA) Texas

PROFESSIONAL SERVICE AND ACTIVITIES:

Grantsmanship:

- Current participant in year-long Faculty Research Development Program at Texas A&M University-Corpus Christi (August 2016 – April 2017)

Committee Member:

- UMaine Graduate Student Health Insurance Committee (2014-2015)
- UMaine Graduate Student Government Senator (2013-2015)
- UMaine Mentor Awards Committee (2013-2014)
- UMaine Biology and Ecology Seminar Coordination Committee (2013)
- UMaine Fish Club Secretary (2012)
- Michigan AFS Student Concerns Committee (2008-2010)
- GVSU Teaching Awards Committee Member (2007)

Manuscript Reviewer

- Canadian Journal of Fisheries and Aquatic Sciences, Environmental Biology of Fishes, Estuaries and Coasts, Fisheries Research, Journal of Fish Biology, Journal of Visualized Experiments, Marine Ecology Progress Series

Grants Reviewer

- New York Sea Grant

Advisory Committee Member

- UMaine Honors Undergraduate Student Matthew Dzaugis
 - Honors Thesis: “Diet and prey availability of sturgeons in the Penobscot River, Maine.”

Symposia and Workshops Organized

- Symposium: “Effects of Drought on Aquatic Resources, Fisheries Management, and Mitigation Strategies” 2016 AFS meeting Kansas City, MO.
- Workshop: “Otolith Microchemistry 101: An Introduction for Fisheries Scientists” at the annual meeting of the Texas Chapter of the AFS

Email Listserv Manager

- Parent society of the American Fisheries Society (June 2016 – Present)

Workshops Attended

- Texas A&M University-Corpus Christi: Grant Writing Workshop (September 2016)
- Texas A&M University-Corpus Christi: “Hands-On Minds-On Teaching: Active Strategies for Improving Student Learning Outcomes” (January 2017)

- Texas A&M University-Corpus Christi: “Broader Impacts in Research” (February 2017)

OUTREACH ACTIVITIES:

K-12 Education

- Participated in “Water World” week at the Maine Audubon Society Children’s Camp and discussed sturgeon biology, and ecology of the Penobscot River with children ages 8-10 years old (July 10, 2014).
- Presented “Atlantic sturgeon of Maine” to elementary students at Weatherbee School, Hampden, ME (March 19, 2012).

Media

- Hosted a news crew from CBS while conducting sturgeon research as part of their story, “Maine’s Penobscot River restored after 200 years.” (October 9, 2013). Link: <http://www.cbsnews.com/videos/maines-penobscot-river-restored-after-200-years/>
- Hosted a film crew in collaboration with NOAA’s Northeast Fisheries Science Center from the TV show AquaKids during sturgeon research on the Penobscot River (June 28, 2013). Link: www.aquakids.tv

PROFESSIONAL REFERENCES:

Dr. Benjamin Walther, Assistant Professor, Texas A&M University Corpus Christi
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Dr. Gayle Zydlewski, Associate Professor, University of Maine
School of Marine Sciences Office: (207) 581-4365
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Dr. Michael Kinnison, Professor, University of Maine
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