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PROFESSIONAL PREPARATION:

WHOI/NOAA Fisheries	Postdoc	Current
University of Southern Mississippi	Ph.D., Coastal Sciences	2013
Auburn University	M.S., Fisheries	2007
Texas A&M University-Galveston	B.S., Marine Fisheries	2004

APPOINTMENTS:

Guest Investigator	Woods Hole Oceanographic Institution	2013-
Biological Technician	National Marine Fisheries Service	2000-2004
Research Fellow	Texas Institute of Oceanography	2002-2003
Field Technician	Fisheries Ecology Laboratory (TAMUG)	2001-2002

PUBLICATIONS:

Manuscripts In Review:

Lowe, M.R., and M.S. Peterson (In Review) Impacts of coastal urbanization on salt marsh faunal assemblages. *Marine and Coastal Fisheries: Dynamics, Management, and Ecosystem Science* **Accepted with minor revisions 13 November 2013**

Lowe, M.R., and M.S. Peterson (In Review) Relative condition and foraging patterns of nekton from salt marsh habitats arrayed along a gradient of urbanization. *Estuaries and Coasts*

Manuscripts In Prep:

Lowe, M.R., M.S. Peterson, and K.S. Dillon. Structural changes in salt marsh food webs resulting from coastal urbanization: Inferences based on stable isotope analyses. Target Journal: *Ecological Applications*

Book Chapters:

DeVries, D.R., D.C. Glover, T.M. Farmer, **M.R. Lowe**, A.J. Norris, A.C. Peer, R.A. Wright. (In Press) Largemouth bass in coastal estuaries: A comprehensive study from the Mobile-Tensaw River Delta, Alabama. *Southern Division of the American Fisheries Society Symposium, Black Bass Diversity: Multidisciplinary Science for Conservation*. **Accepted for publication on 18 September 2013**

Manuscripts In Print:

Lowe, M.R. (In Press) Book Review: “Billion Dollar Fish: The Untold Story of Alaska Pollock.” *Copeia*. **Accepted for publication on 14 October 2013**

Lowe, M.R., W. Wu, M.S. Peterson, N.J. Brown-Peterson, Schofield, P.J., and W.T. Slack. (2012) Survival, growth and reproduction of non-native Nile tilapia (*Oreochromis niloticus* [Linnaeus 1758]). II. Mapping its fundamental niche in the northern Gulf of Mexico and implications for spread and invasion potential. *PLOS One* 7(7): e41580. doi:10.1371/journal.pone.0041580

Lowe, M.R., S.A. Ludsin, D.R. DeVries, R.A. Wright, T.A. Farmer, and B.J. Fryer (2012). Reply to P. Morais; Comment on “Otolith Microchemistry Reveals Substantial Use of Freshwater by Southern Flounder in the Northern Gulf of Mexico” by Lowe et al. 2011. *Estuaries and Coasts* 35: 907-910.

Schofield, P.J., M.S. Peterson, **M.R. Lowe**, N.J. Brown-Peterson, and W.T. Slack. (2011) Survival, growth and reproduction of nonindigenous Nile tilapia (*Oreochromis niloticus* [Linnaeus 1758]). I. Physiological capabilities in various temperatures and salinities. *Marine and Freshwater Research* 62: 439-449

Lowe, M.R., D.R. DeVries, R.A. Wright, S.A. Ludsin, and B.J. Fryer. (2010) Otolith microchemistry reveals substantial use of freshwater by Southern flounder in the northern Gulf of Mexico. *Estuaries and Coasts* 34:630-639.

Lowe, M.R., D.R. DeVries, R.A. Wright, S.A. Ludsin, and B.J. Fryer. (2009). Coastal largemouth movement in response to changing salinity. *Canadian Journal of Fisheries and Aquatic Sciences* 66:2174-2188.

Peterson, M.S. and **M.R. Lowe**. (2009) Implications of cumulative impacts to estuarine and marine habitat quality and fish and invertebrate resources. *Reviews in Fisheries Science* 17:505-523.

Peterson, M.S. and **M.R. Lowe**. (2009) Alterations to estuarine and marine habitat quality and fish and invertebrate resources: what have we wrought and where do we go? *Proceedings of the Gulf and Caribbean Fisheries Institute* 61: 256-262.

PRESENTATIONS:

Invited:

SPRING SEMINAR SERIES, WOODS HOLE OCEANOGRAPHIC INSTITUTION, Woods Hole, MA – 2013. “From Aquatic Chickens to Cumulative Impacts: Fish[y] Issues From the Northern Gulf of Mexico.” **M.R. Lowe**.

GULF COAST RESEARCH LABORATORY'S EARTH DAY SEMINAR SERIES, Ocean Springs, MS – 2011. "Human Alterations to the Coastal Zone: Past, Present, and Future Impacts to Important Fisheries Habitats." **M.R. Lowe**, and M.S. Peterson.

Professional:

COASTAL AND ESTUARINE RESEARCH FEDERATION, San Diego, CA - 2013. "Hierarchical Evaluation of the Impacts of Coastal Urbanization on Salt Marsh Nekton Assemblages and Food Web Structure." **M.R. Lowe** and M.S. Peterson.

ICES ANNUAL SCIENCE CONFERENCE, Reykjavik, Iceland – 2013. "Impact of Urbanization on Salt Marsh Habitat Value for Nekton Resources in the Northern Gulf of Mexico." **M.R. Lowe** and M.S. Peterson.

AMERICAN FISHERIES SOCIETY ANNUAL MEETING, Little Rock, AR – 2013. "Trophic Structure in Salt Marsh Tidal Creeks Arrayed Along a Gradient of Urbanization." **M.R. Lowe** and M.S. Peterson.

SOUTHERN DIVISION OF THE AMERICAN FISHERIES SOCIETY SPRING MEETING, Nashville, TN – 2013. "Largemouth Bass in Coastal Estuaries: A Comprehensive Study from the Mobile-Tensaw River Delta, Alabama." D.R. DeVries, D.C. Glover, T.M. Farmer, **M.R. Lowe**, A.J. Norris, A.C. Peer, R.A. Wright.

ALABAMA-MISSISSIPPI BAYS AND BAYOUS, Gulfport, MS – 2012. "Assemblage-Level Metrics of Trophic Structure in Fragmented Saltmarsh Habitats Based on Stable Isotopes." **M.R. Lowe**, M.S. Peterson, and K.S. Dillon.

AMERICAN FISHERIES SOCIETY ANNUAL MEETING, Minneapolis, MN – 2012. "Nile Tilapia -- Free Ranging "Aquatic Chickens": Modeling the Spread of a Non-Native Species in the Northern Gulf of Mexico Under Different Climate Change Scenarios." **M.R. Lowe**, W. Wu, M.S. Peterson, N.J. Brown-Peterson, Schofield, P.J., and W.T. Slack.

SOUTHERN DIVISION OF THE AMERICAN FISHERIES SOCIETY SPRING MEETING, Biloxi, MS – 2012. "Climate Change Impacts on the Spread of Invasive Nile Tilapia in the Northern Gulf of Mexico." **M.R. Lowe**, W. Wu, M.S. Peterson, N.J. Brown-Peterson, Schofield, P.J., and W.T. Slack.

AMERICAN FISHERIES SOCIETY ANNUAL MEETING, Seattle, WA – 2011. "Nekton Assemblage Responses to an Anthropogenically Fragmented, Coastal Landscape: Differential Responses of Resident and Transient Nekton." **M.R. Lowe** and M.S. Peterson. ***AWARD FOR BEST STUDENT PAPER**

MISSISSIPPI CHAPTER OF THE AMERICAN FISHERIES SOCIETY ANNUAL MEETING, Starkville, MS – 2011. "Nekton Assemblage Response to anthropogenic alteration of salt marsh habitat in coastal Mississippi." **M.R. Lowe**, M.S. Peterson, and B. Houston. ***AWARD FOR BEST STUDENT PAPER**

ALABAMA-MISSISSIPPI BAYS AND BAYOUS, Mobile AL - 2010. “Impacts of anthropogenic development on the nursery function of salt marsh habitats.” **M.R. Lowe**, B. Houston, and M.S. Peterson.

GULF & SOUTH ATLANTIC REGIONAL PANEL ON AQUATIC INVASIVE SPECIES, GULFPORT, MS – 2010. “Model-based projection of Nile tilapia’s (*Oreochromis niloticus*) invasive ability in coastal Mississippi. M.S. Peterson, **M.R. Lowe**, W. Wu, N.J. Brown-Peterson, P. Schofield, and W.T. Slack. [Invited seminar].

MISSISSIPPI CHAPTER OF THE AMERICAN FISHERIES SOCIETY ANNUAL MEETING, Tara, MS – 2010. “Model-based projections of Nile tilapia’s (*Oreochromis niloticus*) invasive ability: the importance of estuarine salt bridges.” **M.R. Lowe**, W. Wu, M.S. Peterson, N.J. Brown-Peterson, Schofield, P.J., and W.T. Slack. ***AWARD FOR BEST STUDENT PAPER**

COASTAL AND ESTUARINE RESEARCH FEDERATION, Portland, OR - 2009. “Survival, growth, and reproduction of Nile tilapia in saline waters; projected effects of climate change and sea level rise on the distribution of an invasive species.” **M.R. Lowe**, M.S. Peterson, N.J. Brown-Peterson, W. Wu, P.J. Schofield, and W.T. Slack.

COASTAL AND ESTUARINE RESEARCH FEDERATION, Portland, OR - 2009. “Cumulative impacts to estuarine habitats; Revisiting Odum’s warnings.” M.S. Peterson and **M.R. Lowe**.

AMERICAN SOCIETY OF ICHTHYOLOGISTS AND HERPETOLOGISTS, Portland, OR - 2009. “Habitat Preferences and Movements of Dusky and Silky Sharks in the Northern Gulf of Mexico.” E. Hoffmayer, J. Franks, W. Driggers III, M. Grace, J. McKinney, and **M.R. Lowe**.

ALABAMA-MISSISSIPPI BAYS AND BAYOUS SYMPOSIUM, Biloxi, MS - 2008. “Quantification of Nile tilapia’s ability to survive, grow, and reproduce in estuarine waters of coastal Mississippi.” **M.R. Lowe**, M.S. Peterson, N.J. Brown-Peterson, P.J. Schofield, J.N. Langston, D.R. Gregoire, and W.T. Slack.

AMERICAN FISHERIES SOCIETY ANNUAL MEETING, Ottawa, Ontario, Canada - 2008. “Implications of cumulative impacts to estuarine marsh habitat quality and fish and invertebrate resources.” M.S. Peterson and **M.R. Lowe**.

WORKSHOP ON THE MANAGEMENT AND RESEARCH OF COASTAL AND ESTUARINE LARGEMOUTH BASS POPULATIONS, Spanish Fort, AL - 2008. “Movement by largemouth bass in response to salinity. Workshop on the Management and Research of Coastal and Estuarine Largemouth Bass Populations, Spanish Fort, Alabama.” D.R. DeVries, R.A. Wright, A. Norris, and **M.R. Lowe**.

MISSISSIPPI CHAPTER OF THE AMERICAN FISHERIES SOCIETY ANNUAL MEETING, Tupelo, MS - 2008. “Quantifying Nile tilapia reproduction across a range of salinities: how salty do aquatic chickens like it?” **M.R. Lowe**, Mark S. Peterson, Nancy J. Brown-Peterson, Pamela J. Schofield, Jacqueline N. Langston, Denis R. Gregoire, and W. Todd Slack.
***RUNNER UP BEST STUDENT PAPER**

AMERICAN FISHERIES SOCIETY NATIONAL MEETING, San Francisco, CA - 2007. “Using otolith microchemistry to reconstruct the past environments of an aquatic and marine piscivore in a seasonally saline, tidal river estuary.” **M.R. Lowe**, D.R. DeVries, R.A. Wright, S.A. Ludsins, and B.J. Fryer.

ECOLOGICAL SOCIETY OF AMERICA ANNUAL MEETING, MEMPHIS, TN – 2006. “Using otolith microchemistry to reconstruct past environments of age-0 largemouth bass and southern flounder in a seasonally saline, tidal river estuary.” **M.R. Lowe**, D.R. DeVries, R.A. Wright, S.A. Ludsins, and B.J. Fryer.

AMERICAN FISHERIES SOCIETY ANNUAL MEETING, Anchorage, AK - 2005.
“Reconstructing patterns of habitat use of largemouth bass and southern flounder in the Mobile–Tensaw Delta; Inferences based upon otolith microchemistry.” **M.R. Lowe**, D.R. DeVries, R.A. Wright, S.A. Ludsins, and B.J. Fryer.

TEXAS CHAPTER OF THE AMERICAN FISHERIES SOCIETY ANNUAL MEETING, College Station, TX - 2004. “Age and growth using daily growth increments in the sagittal otoliths and preliminary investigation of mercury in blackfin tuna *Thunnus atlanticus*.” **M.R. Lowe**, J.R. Rooker, G. Gill, and Y. Cai.

TEXAS A&M RESEARCH PATHWAYS ANNUAL MEETING, Galveston, TX - 2003.
“Preliminary investigation of the use of daily growth increments in the sagittal otoliths of blackfin tuna *Thunnus atlanticus* for age determination.” **M.R. Lowe** and J.R. Rooker.

AMERICAN FISHERIES SOCIETY ANNUAL MEETING, Baltimore, MD - 2002. “Habitat specific growth of brown shrimp *Farfantepenaeus aztecus* and white shrimp *Litopenaeus setiferus* in a Texas salt marsh estuary.” **M.R. Lowe**, G.W. Stunz, and T. Minello.

TEXAS CHAPTER OF THE AMERICAN FISHERIES SOCIETY ANNUAL MEETING, Junction, TX - 2002. “Habitat specific growth of brown shrimp *Farfantepenaeus aztecus* and white shrimp *Litopenaeus setiferus* in a Texas salt marsh estuary.” **M.R. Lowe**, G.W. Stunz, and T. Minello. ***AWARD FOR BEST POSTER**.

EXTRAMURAL FUNDING:

Fish and invertebrate community structure and food-web dynamics in tidal creeks in an anthropogenically fragmented, coastal landscape. Mississippi-Alabama SeaGrant;, Associate Investigator (PI: Mark S. Peterson). 2010-Current. \$10,000.

MERITORIOUS FUNDING:

Travel Award, International Council for the Exploration of the Sea, NSF (2013). Full support to attend the ICES Annual Science Meeting in Reykjavik, Iceland.

Travel Award, Southern Association of Marine Laboratories, Estuaries Section, American Fisheries Society (2012). \$500.

Travel Award, John E. Skinner Memorial Award, American Fisheries Society (2012). \$800

Travel Award, Northern Gulf Institute (2010). \$400.

Monetary Award, Tom and Julia Lytle Graduate Student Award (2010). \$500.

Travel Award, Marine Fisheries Section of the American Fisheries Society (2005) \$600.

Undergraduate Research Fellowship, Texas Institute of Oceanography (2003). Salary support for one semester plus travel funds.

AWARDS:

- AFS-Sea Grant Best Student Paper, American Fisheries Society Annual Meeting, Seattle, WA (2011)
- Best Student Paper, Mississippi Chapter of the American Fisheries Society, Starkville, MS (2011)
- Best Student Paper, Mississippi Chapter of the American Fisheries Society, Tara, MS (2010)
- Runner-up, Best Student Paper, Mississippi Chapter of the American Fisheries Society (2008).
- Best Poster Presentation, Texas Chapter of the American Fisheries Society (2002).

STUDENT MENTORSHIP:

Brock S. Houston (summer internship), B.S. Biology, Southwest Missouri State. Summer 2010. (Current position: M.S. Program, Department of Marine Sciences, University of South Florida).

PROFESSIONAL MEMBERSHIPS:

- American Fisheries Society
 - President, University of Southern Mississippi Student Subunit
 - Student Caucus Representative, Mississippi Chapter

- At-Large Student Representative, Estuaries Section
- Vice President, Auburn University Chapter
- Coastal and Estuarine Research Federation
- Ecological Society of America
- American Institute of Fishery Research Biologist, Member

MEETING ORGANIZATION ACTIVITIES:

2010 – Mississippi Chapter of the American Fisheries Society, Tara, MS.

2009 – Mississippi Chapter of the American Fisheries Society, Biloxi, MS.

2006 - The American Fisheries Society Student Research Colloquium, Auburn, AL.

MANUSCRIPT REFEREE:

- Aquatic Ecology
- Environmental Assessment and Monitoring
- Estuaries and Coasts
- Journal of Experimental Marine Biology and Ecology
- Journal of Landscape Ecology
- Marine Ecology Progress Series
- Proceedings of the National Academy of Science
- Transactions of the American Fisheries Society