

**Recent publications:** (\* denotes a Washington College student)

Connaughton, M.A. 2004. Sound production in the searobin (*Prionotus carolinus*), a fish with alternate sonic muscle contraction. *Journal of Experimental Biology*, 207: 1643-1654.

Connaughton, M.A., M.L. Lunn\*, M.L. Fine, and M.H. Taylor. 2002. Characterization of sounds and their use in two sciaenid species: weakfish and Atlantic croaker. In: Conference Proceedings: Listening to Fish. Passive Acoustic Applications in Marine Fisheries, 8-10 April, 2002, AN International Workshop on the Applications of Passive Acoustics in Fisheries, MIT Cambridge, MD. *MIT Sea Grant Special Report*

Vance, T.L\*, J.M. Hewson\*, S. Modla\*, and M.A Connaughton. 2002. Variability in sonic muscle size and innervation among three sciaenids: spot, Atlantic croaker and weakfish. *Copeia* 2002 (4): 1137-1143

Connaughton, M.A., M.L. Fine, and M.H. Taylor. 2002. Weakfish sonic muscle: influence of size, temperature and season. *Journal of Experimental Biology* 205: 2183-2188.

Connaughton, M.A., M.L. Fine, and M.H. Taylor. 2002. Use of sound for localisation of spawning weakfish in Delaware Bay and effects of fish size, temperature and season on sound parameters. *Bioacoustics* 12(2/3): 294-296.

Connaughton, M.A., M.H. Taylor, and M.L. Fine. 2000. Effects of fish size and temperature on weakfish disturbance calls: implications for the mechanism of sound generation. *Journal of Experimental Biology* 203: 1503-1512.

**Publications in preparation:**

Connaughton, M.A., S. Modla\*, M.L. Lunn\*, L. Marini\*. "Seasonal variation in the sonic muscles of male and female Atlantic croaker, *Micropogonias undulatus*."  
- this manuscript represents the culmination of three student research projects

**Other student publications:**

Petrone, C.J. 2001. Copepod diversity and density at the mouth of the Delaware Bay. *Bios* 72(3): 92-99.

Vance, T.A. 2000. Variability in stridulatory sound production in the channel catfish, *Ictalurus punctatus*. *Bios* 71: 79-84.

*Bios is an undergraduate research publication of Tri-Beta, the national biology honor society.*

**Select examples of student senior thesis and summer research projects & their presentation at regional and national meetings:**

2007-2008 Himmelberger, Katie. *The Effect of Copper on the Growth and Development of Zebrafish (Danio rerio)*.  
Senior thesis

Presented at: Northeast District 2 TriBeta Conference, Mount Saint Mary's College, March 28, 2008.

Award: second place award for poster presentations.

- 2006-2007 Martin, Jonathan. *Effects of 17 $\alpha$ ,20 $\beta$ -dihydroxy-4-pregnen-3-one (17,20 $\beta$ P) and 17 $\beta$ -estradiol (E2) on the reproductive physiology of male Nile Tilapia, *Oreochromis niloticus*.  
Senior thesis  
Presented at: Northeast District 2 TriBeta Conference, Elizabethtown College, March 24, 2007*
- 2006-2007 Moser, Shane. *Bioacoustic analysis of the effects of sex, total length, and sonic muscle mass on the startle call of the Atlantic croaker, *Micropogonias undulatus*.*  
Senior thesis
- 2005-2006 Dane Brady. *Courtship behavior and sound production in *Oreochromis niloticus*: Impact of male size.*  
Senior thesis
- 2005-2006 Corey Smith. *Cichlid (*Oreochromis niloticus*) antagonistic behavior: Effects of an established dominance on subsequent pairings.*  
Senior thesis
- 2005 Work by S. Modla, M.L. Lunn, and L. Marini (see below). *Seasonal variation in the sonic muscles of male and female Atlantic croaker, *Micropogonias undulatus*.*  
Presented at the Joint Meeting of Ichthyologists and Herpetologists (American Society of Ichthyologists and Herpetologists, The Herpetologist League, American Elasmobranch Society, The Society for the Study of Amphibians and Reptiles) Tampa, Florida, July 6-11 2005  
Co-authors: S. Modla, M.L. Lunn, and L. Marini
- 2001-2002 L. Marini. *Do croaker sonic muscle fibers hypertrophy or atrophy during the spawning season?*  
Senior thesis  
Presented at: Northeast District 2 TriBeta Conference, Washington College, April 2002
- 2001 S. Modla. *Seasonal variability in the sonic muscles of the Atlantic croaker.*  
Summer 2001  
Presented at: Northeast District 2 TriBeta Conference, Washington College, April 2002
- 2000-2001 J. Hewson. *An examination of sciaenid sonic muscle innervation.*  
Summer 2000, BIO 495: Ind. Research SP 2001  
Presented at: Northeast District 2 TriBeta Conference, The College of New Jersey, March 2001.  
Presented in part at: The 81st annual meeting of the American Society of Ichthyologists and Herpetologists, Penn State University, State College,

PA, 2001. Title: *A comparison of the sonic muscle innervation patterns of three Sciaenids: the spot, weakfish and Atlantic croaker*. Co-authors: Vance, T.L., M.A. Connaughton.  
Published along with work by Vance and Modla in *Copeia*, see above.

2000-2001 M. Lunn. *Comparison of Atlantic croaker fright response and courtship sound production*.  
Senior thesis  
Presented in part at: International Workshop on the Application of Passive Acoustics in Fisheries. Brooks Center, Massachusetts Institute of Technology, Dedham, MA, April 2002. Title: *Characterization of sounds and their use in two sciaenid species: weakfish and Atlantic croaker*. Co-authors, Connaughton, M.A., M.L. Fine, and M.H. Taylor.

1999-2000 T.L. Vance. *A comparative study of sonic muscle innervation patterns of three sciaenids: spot, croaker and weakfish*.  
Senior thesis.  
Presented at: Fifth Annual Centennial Conference Student Research Colloquium, April 15, 2000, Dickinson College.  
Presented at: The 81st annual meeting of the American Society of Ichthyologists and Herpetologists, Penn State University, State College, PA, 2001. Title: *A comparison of the sonic muscle innervation patterns of three Sciaenids: the spot, weakfish and Atlantic croaker*. Co-authors: Hewson, J.M., M.A. Connaughton.  
Published along with work by Hewson and Modla in *Copeia*, see above.