

CURRICULUM VITAE

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EDUCATION

B.S., Coastal Carolina University, Conway, South Carolina (Marine Science and Biology, minor Chemistry, 2003)

Ph.D., University of Louisiana at Lafayette, Lafayette, Louisiana (Environmental and Evolutionary Biology, 2011), D. L. Felder, Advisor

RESEARCH INTERESTS

- a) Biodiversity, Biogeography, and systematics of decapod crustaceans
 - a. DNA sequence analysis to identify closely related and cryptic taxa
 - b. Congruence of phylogeny and biogeography (Phylogeography)
- b) Molecular phylogenomics and systematics of decapod crustaceans in the superfamily Majoidea
 - a. Utilizing genetic sequences to identify phylogenetic relationships among problematic taxonomic groups
 - b. Re-assessing morphological characters of genetically defined clades (encompassing adult, juvenile, and larval stages)
 - c. Biodiversity and biogeography of majoid crabs
- c) Management of a productive research collection
 - a. Securing voucher-based DNA sequences (non-ambiguous databased ties to source specimens)
 - b. Augmenting current archives with specimens viable for modern analysis (e.g. DNA/Genomic sequencing)
 - c. Upgrading preservation, recovery, and archival of historical museum holdings.
- d) DNA sequence analysis to aid in taxonomic classifications & discovery of new species of brachyuran crabs

PUBLICATIONS

Peer-Reviewed

- Windsor, A.M. and Felder D.L. 2014. Molecular phylogenetics and taxonomic reanalysis of the family Mithracidae MacLeay, 1838 (Decapoda: Brachyura: Majoidea). *Invertebrate Systematics*. 28(2): 124-144.
- Lemaitre, R., Campos, N.H., Vilorio Maestre, E.A., and Windsor, A.M. (2013). Discovery of an alien crab, *Scylla serrata* (Forsskål, 1775) (Crustacea: Decapoda: Portunidae), from the Caribbean coast of Colombia. *BioInvasion Records*. 2(4):311-315.
- Windsor, A.M., and Ahyong, S.T. 2013. *Hyastenus baru*, A new species of spider crab from Indonesia (Brachyura, Majoidea, Epialtidae) with a key to the species of *Hyastenus*. *Crustaceana*. 86(6): 718-727.
- Windsor, A.M. and Felder, D.L. 2011. A new species of *Hemus* (Majoidea: Majidae: Mithracinae) from the Pacific coast of Panamá, with a key to the genus. *Zootaxa*. 2799: 63-68.
- Windsor, A.M. and Felder, D.L. 2009. Re-evaluation of species allied to *Mithrax hispidus* (Decapoda: Brachyura: Majoidea: Mithracidae) based on three mitochondrial genes. *Zootaxa*. 2302: 61-68.
- Felder, D.L., Dworschak, P.C., Robles, R., Bracken, H.D., Windsor, A.M., Felder, J., et al. 2009. Obvious invaders and overlooked infauna: unexpected constituents of the decapod crustacean fauna at Twin Cays, Belize. In: M.A. Lang, I.G. Macintyre, and K. Rutzler (Eds), *Smithsonian Contributions to the Marine Sciences*. Smithsonian Institution Scholarly Press, Washington, D.C., pp. 181-188.
- Windsor, A., Crowe, M., Bishop, J. 2005. Determination of temperature preference and the role of the enlarged cheliped in thermoregulation in male sand fiddler crabs, *Uca pugilator*. *Journal of Thermal Biology*. 30: 37-41.

In Preparation

- Windsor, A.M., Ahyong, S.T., and Felder, D.L. (in prep.) Molecular phylogeny of the Majoidea (Decapoda: Brachyura): answers and new questions for a problematic superfamily.

PRESENTED PAPERS AT PROFESSIONAL MEETINGS

- Molecular phylogenetics and taxonomic reanalysis of the family Mithracidae MacLeay, 1838 (Decapoda: Brachyura: Majoidea). The Crustacean Society, San José, Costa Rica, 7-11 July 2013. (With D.L. Felder). Oral presentation
- An Updated Molecular Phylogeny of the Superfamily Majoidea (Decapoda: Brachyura). Annual meeting, The Crustacean Society, San José, Costa Rica, 7-11 July 2013. (With S.T. Ahyong & D.L. Felder). Poster presentation
- Genetically Redefined Clades of Majoidea are Ecologically and Functionally Informative. Annual meeting, The Crustacean Society, Honolulu, Hawaii, 6-9 June 2011. (With D.L. Felder). Poster presentation

- Molecular phylogeny of Majoidea (Decapoda: Brachyura): answers and new questions for a problematic superfamily. 7th International Crustacean Congress, Qindao, China, 20-25 June 2010. (with F. Palero and D.L. Felder). Poster presentation.
- Evaluating the validity of the family Inachoididae Dana, 1851 (Brachyura: Majoidea). Annual Meeting, The Crustacean Society and Carcinological Society of Japan, Tokyo, Japan, 20-24 September 2009. (with D.L. Felder). Oral presentation
- A tree of life phylogeny for the Decapoda. Annual Meeting, The Crustacean Society and Carcinological Society of Japan, Tokyo, Japan, 20-24 September 2009. (with H. Bracken, D.L. Felder, J.W. Martin, R. Robles, B. Thoma, E. Palacios-Theil, M. Finley, J. Rassmussen, and K.A. Crandall). Oral presentation.
- Incongruence between molecular data and morphological classification in four species of the genus *Mithrax* Desmarest, 1823 (Majoidea, Mithracidae). Annual meeting, The Crustacean Society, Galveston, Texas 9-13 June 2008. (with D.L. Felder). Oral presentation.
- Decapod crustaceans of Twin Cays, Belize: obvious invaders and overlooked cryptics. Smithsonian Marine Science Symposium. 15 November 2007. (with D. L. Felder, R. Robles, R. Lemaitre, H. Bracken). Poster presentation.
- Thermoregulation in the fiddler crab *Uca pugilator* (Bosc, 1802). National Conferences on Undergraduate Research, Salt Lake City, Utah. 2003. Oral presentation.
- Thermoregulation in fiddler crabs; South Carolina Academy of Sciences, Clemson, South Carolina. 2003. (with M. Crowe). Poster presentation.

PROFESSIONAL EXPERIENCE

- February 2013-present Support Scientist, National Museum of Natural History, Smithsonian Institution. DNA sequencing and data management for projects focused on marine invertebrate biodiversity and phylogenomics.
- July 2012-January 2013 Endeavour Awards Postdoctoral Research Fellowship, Australian Museum. Collections-based research on phylogenetics and systematics of members of the superfamily Majoidea primarily inhabiting deep waters of the western Pacific Ocean. Development of nuclear markers for genetic analyses, and description of new species based on molecular and morphological data.
- July 2012 Decapod diversity survey of Banda Aceh, Sumatra, Indonesia. Field expedition to Banda Aceh, Sumatra with two American and three Indonesian students for training in collection of decapod crustaceans inhabiting dead *Pocillopora* coral heads using SCUBA for voucher-based molecular phylogenetics and community analyses.
- June-July 2012 UCLA Diversity Project. Assistant Instructor. Marine Biodiversity of the Coral Triangle: lectures covering biodiversity of Decapod and Brachyura instruction and supervision of tissue sampling for DNA analysis. Temporary laboratory set-up and management.

- 2011-2012 Contract Invertebrate Zoology DNA barcode technician, Laboratories of Analytical Biology, Smithsonian Institution: DNA barcode sequencing, extraction method development, PCR optimization for diverse marine invertebrate taxa, intern and visiting researcher training.
- June-July 2011 UCLA Diversity Project. Assistant Instructor. Marine Biodiversity of the Coral Triangle: lectures covering biodiversity of Phylum Crustacea and Order Decapod and instruction and supervision of tissue sampling for DNA analysis.
- 2004-2008 UL Doctoral Fellow, University of Louisiana at Lafayette, Doctoral research: Molecular phylogenetics and systematics of the decapod superfamily Majoidea
- 2008-2010 Graduate Research Assistant: Curation and database management of University of Louisiana at Lafayette Zoological collection (ULLZ) Responsibilities included identifying, cataloging, and general curation of fresh and alcohol-preserved specimens of decapod crustaceans as well as digitizing 35mm color slides of specimen vouchers
- 2007 Field research at Caribbean Coral Reef Ecosystem site, Carrie Bow Cay, Belize: Collection and field identification of decapod crustaceans from shallow, inter- and sub-tidal reef and sea grass communities.
- 2007 Smithsonian Intern, Department of Invertebrate Zoology – Crustacea, National Museum of Natural History, Smithsonian Institution. Sorted and identified specimens of western Atlantic hermit crabs, Advisor: Dr. Rafael Lemaitre
- 2007 Research Cruise: Collected decapod crustaceans exhibiting "cigarette burn" shell disease from otter trawls aboard the R/V Pelican.
- 2006 Smithsonian Intern, Department of Invertebrate Zoology – Crustacea, National Museum of Natural History, Smithsonian Institution. Sorted and identified anomuran, brachyuran, and caridean crustacean specimens collected from Colombia and Dominican Republic, Advisor: Dr. Rafael Lemaitre
- 2004 Research Cruise: Conducted LIDAR surveys of the seafloor off of Charleston, SC. Responsible for monitoring computer systems and data collection
- 2003-2004 GIS research technician, Coastal Carolina University, South Carolina Historical coastal erosion analysis. Created maps of the South Carolina coast using both historical and contemporary shoreline benchmark measurements in the software programs ArcMap and ArcView

TEACHING EXPERIENCE

Smithsonian Institution:

- 2011-2013 Decapod Diversity & Specimen-prep: Lectured students on diversity of the order Decapoda with emphasis on Indo-Pacific coral reef taxa and proper tissue sampling and record keeping for voucher-based specimen collection and sequencing.
- 2011-2012 Laboratory training: trained new technicians and visiting scientists and students in basic laboratory techniques and protocols within the

Laboratories of Analytical Biology

University of Louisiana at Lafayette:

- 2010 Evolution and Adaptation of the Arthropods: Instructed one laboratory section introducing students to anatomy, systematics, and biodiversity of arthropods with an emphasis on decapod crustaceans
- 2008-2010 Advanced Anatomy and Physiology: Instructed two laboratory sections covering detailed anatomy of the sensory, nervous, respiratory, and digestive systems
- 2007-2008 Introduction to Anatomy and Physiology: Instructed two laboratory sections introducing anatomy of the skeletal, nervous, respiratory, and digestive systems
- 2006 Introduction to Biology: Instructed one laboratory section introducing biological concepts such as ecology, genetics, and systematics
- 2005, 2006 General Physiology: Instructed one laboratory section covering basic physiological mechanisms

Coastal Carolina University:

- 2001-2003 Biology and Chemistry Workshop leader: Led practice and review sessions for students covering materials presented in lectures.
- 2001-2003 Writing Center Consultant: Assisted students with brainstorming, composition, and revision of writing assignments in all disciplines.

SPECIAL SKILLS

- AAUS Scientific SCUBA Diving Certified 2012-present
- NAUI Open Water I SCUBA certification 2001

ACADEMIC HONORS AND AWARDS

- Endeavour Awards Postdoctoral Research Fellowship. 2012. Department of Education, Employment, and Workplace Relations, Canberra, Australia. Award for support of research. 2006-2010. E.B. Stueben Student Support Fund, University of Louisiana at Lafayette
- Research Funds Grant, Graduate Student Organization. 2004-2010. University of Louisiana at Lafayette
- UL Doctoral Fellowship, University of Louisiana at Lafayette. 2004-2008. Stipend during doctoral research
- The Crustacean Society Graduate Student Fellowship. 2007. For travel to Los Angeles County Museum to examine crustacean holdings
- Smithsonian Internship, National Museum of Natural History, Smithsonian Institution. Summer 2006, 2007.
- Biology graduate of the year, Coastal Carolina University. 2003.

PROFESSIONAL AFFILIATIONS (past and present)

- The Crustacean Society
- The Biological Society of Washington
- The Society for Integrative and Comparative Biologists

