

Stewart M. Edie
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Department of the Geophysical Sciences
The University of Chicago
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EDUCATION

- **The University of Chicago**
PhD Candidate in Geophysical Sciences – Expected Summer 2017
Dissertation Research: Evolutionary Patterns of Morphological Variation and Geographic Distribution in Marine Bivalves
Advisor: Dr. David Jablonksi
- 2011 **The University of North Carolina at Chapel Hill**
B.S. with Distinction and Highest Honors in Geology
Minor in Geography: Geographic Information Science
Honors Thesis: Deciphering annual growth characteristics of Chione elevata shells using stable isotope sclerochronology
Advisor: Dr. Donna Surge

PUBLICATIONS

- Edie, S.M.**, P.D. Smits, D. Jablonksi. 2017. Probabilistic models of species discovery and biodiversity comparisons. PNAS 114(14):3666-3661.
- Tomašových A., Kennedy J.D., Betzner T.J., Kuehnle N.B., **Edie S.**, Kim S., K. Supriya, White A.E., Rahbek C., Huang S., Price T.D., Jablonksi D. 2016. Unifying latitudinal gradients in range size and richness across marine and terrestrial systems. Proceedings of the Royal Society B 283(1830).
- Edie, S.M.**, and J.J. Ruffini. 2010. Craters of the Moon National Monument and Preserve 2010 Waterhole Inventory. U.S. Department of the Interior Report. August 24, 2010.

PRESENTATIONS

*Presenter

†Invited Talk

Oral

- 2016 ***Edie, S.M.**, 2016. Weighing environmental and biotic factors on the ecomorphological evolution and spatial distribution of marine bivalves Geological Society of America Abstracts with Programs. September 2016.
- 2016 †***Edie, S.M.**, 2016. When Chione collide: Ecological displacement in shell morphology. Conchologists of America Annual Meeting. July 2016.

- 2015 ***Edie, S.M.**, Testing biotic vs environmental factors in the evolution of marine bivalves: character displacement and convergence among related species. *Geological Society of America Abstracts with Programs*. October 2015.
- 2014 ***Edie, S.M.**, Geographic co-occurrence and character displacement in modern and fossil marine bivalves. *Geological Society of America Abstracts with Programs*. October 2014.
- 2014 ***Edie, S.M.**, S. Huang, and Jablonski, D. Species description no longer influences first-order global diversity patterns. *Challenges in Macroecology – Scaling the Time Barrier*. April 2014.
- 2013 *Jablonski, D., S. Berke, **S.M. Edie**, S. Huang, A.Z. Krug, A. Tomasovych, and J.W. Valentine. Temperature tolerances, geographic range dynamics, and extinction: Complex, multilevel responses to climate change. *Geological Society of America Abstracts with Programs* 45(7): 91.
- 2012 ***Edie, S.M.**, D. Surge, G.P. Dietl, and P.H. Kelley. An application of stable isotope sclerochronology to determine annual growth characteristics of *Chione elevata*. *Geological Society of America Abstracts with Programs* 43(2): 85.

Poster

- 2014 ***Edie, S.M.** 2014. Fossil insights to drivers of geographic co-occurrence and ecological differentiation between marine bivalves. *Evolution*. Raleigh, NC. June 2014.
- 2013 *Chiang, S., C.L. Belanger, S.K. Berke, **S.M. Edie**, and D. Jablonski. Does oceanography constrain marine bivalve invasions? *Society for Integrative and Comparative Biology*. San Francisco, CA. January 3-7. 2013
- 2010 ***Edie, S.M.**, G.P. Dietl, P.H. Kelley. Assessing life span bias on relative species abundance in coastal marine fossil assemblages. *Geological Society of America Abstracts with Programs* 42(1): 188.

FELLOWSHIPS

- 2013–2016 **National Science Foundation Graduate Research Fellowship**
Three years of support to conduct dissertation research
- 2011-2013 **Weller Fellowship**
Award given to selected incoming students to the Paleobiology Program at the University of Chicago.
- 2010-2011 **Jupiter Ball Fellowship**
Granted to a student employee of the Morehead Planetarium and Science Center to develop an educational program.

RESEARCH GRANTS

- 2015-2017 **National Science Foundation Doctoral Dissertation Improvement Grant**
DISSERTATION RESEARCH: Integrating Fossils and Molecules to Trace Ecological Divergence and Convergence in Marine Bivalves
- 2014 **Geological Society of America Graduate Student Grant**
Photography of fossil bivalves held at the Florida Museum of Natural History.
- 2014 **Paleontological Research Institute Collections Grant**
Photography of fossil Venerid bivalves held in the PRI collections.

2009 **University of North Carolina Wilmington REU in Biodiversity Conservation Research Grant**
Collection of new material for an assessment of life span bias on species relative abundance in coastal marine fossil assemblages.

2009 **Geological Society of America Undergraduate Research Grant**
Awarded by the Southeastern Section of the Geological Society of America to study the sclerochronology of the cross-barred venus clam, *Chione elevata*.

ACADEMIC AWARDS

2011 & 2012 **National Science Foundation Graduation Research Fellowship**
Honorable Mention

2011 **University of North Carolina at Chapel Hill Chancellor's Award – The Op White Prize in Geology**
Award granted annually to the faculty-selected outstanding senior in geology

2011 **Grover E. Murray Field Camp Scholarship**
A merit-based scholarship given to the top undergraduate in geology at the University of North Carolina at Chapel Hill

2011 **National Association of Geoscience Teachers Field Camp Scholarship**
A merit-based scholarship for undergraduate students attending field camp

2011 **Lehigh University Field Camp Scholarship**

2010 **Phi Beta Kappa**

2007-2011 **University of North Carolina at Chapel Hill Dean's List**

MUSEUM COLLECTIONS RESEARCH

2013-2017 **Field Museum of Natural History: Invertebrate Zoology**
Dr. Jochen Gerber and Dr. Rüdiger Bieler

2015 **Santa Barbara Museum of Natural History: Invertebrate Zoology**
Dr. Paul Valentich-Scott

2015 **Los Angeles County Museum of Natural History: Invertebrate Paleontology and Zoology**
Dr. Austin Hendy

2014 **Paleontological Research Institute: Invertebrate Paleontology**
Dr. Gregory Dietl

2014 **Florida Museum of Natural History: Invertebrate Paleontology**
Mr. Roger Portell

2014 **Natural History Museum United Kingdom: Invertebrate Zoology and Paleontology**
Dr. David Reid and Dr. Jon Todd

2014 **California Academy of Sciences: Invertebrate Zoology and Paleontology**
Dr. Peter Roopnarine

TECHNICAL SKILLS

Daily use of **R**, **Bash**, **QGIS**, **PostgreSQL**, **ImageJ**, **LaTeX**, **markdown**, **Sublime Text**, **git**
Proficient with **ArcGIS**, **OpenCV**, **LibreOffice Base**, **Affinity Designer**, **VG Studio Max**, **Stratovan Checkpoint**, **Geomagic**

- 2014 **NESCENT Workshop on Paleobiological and Phylogenetic Methods for Macroevolution**
National Evolutionary Synthesis Center Workshop
- 2011 **R/V Melville 1211 Research Cruise**
Experience in Vibracoring Oceanic Shelf, Subsampling Boxcores
- 2011 **Standardized Core Logging**
Geological Society of America Southeastern Section Workshop
- 2010 **GeoCorps America**
Craters of the Moon National Monument and Preserve, U.S. National Park Service
Experience in field mapping water features and taking chemical measurements in the field
- 2010 **Merchantek Micromill System**
Experience microdrilling bivalve shells
- 2009 **National Science Foundation Research Experience for Undergraduates in Biodiversity Conservation**
University of North Carolina at Wilmington
Experience collecting, processing, and identifying paleontological material

TEACHING EXPERIENCE

Teaching Assistantships

- 2016-17 **Biological Evolution**
Dr. David Jablonski
Led discussion section and lab at the Field Museum of Natural History
- 2015 **Topics in Biostratigraphy and Sedimentology**
Dr. Susan Kidwell
Logistics and course content for a field course to the Salton Trough in Southern California.
- 2013 **Modern and Ancient Carbonate Environments**
Drs. Susan Kidwell and Michael LaBarbera
Organized travel arrangements to San Salvador, Bahamas for 28 faculty, graduate, and undergraduate students
- 2012 **Environmental History of the Earth**
Dr. Susan Kidwell
Taught weekly laboratories on paleontology and geology
- 2011 **Natural Hazards**
Dr. Noboru Nakamura
Taught weekly laboratories on atmospheric, oceanographic, and geological events
- 2011 **Chemistry in the Atmosphere**
Dr. John Frederick
Taught weekly laboratories on the chemical and physical properties of the atmosphere

OUTREACH

- 2014 **Jr. Science Café: Climate Clues** – Developed and presented a 30 minute interactive session for middle school students at the Chicago Museum of Science and Industry on using climate proxies to reconstruct past climates
- 2013-2014, **Participating Scientist** – The Museum of Science and Industry’s Science, Technology, Engineering, and Mathematics Career Day
- 2013 **Science Advisor** – Brainstorming Science Fair Ideas with high school students at the Field Museum of Natural History
- 2010-2011 **Science 360: Earthquakes!** – Developed a 30 minute interactive session for the general public on the science behind earthquakes. The show still plays at the Morehead Planetarium and Science Center today.
- 2009-2011 **Student Coordinator** – Carolina Science Café, a public venue for scientists at the University of North Carolina to discuss their research with the general public at the Morehead Planetarium and Science Center

PROFESSIONAL EXPERIENCE

2008-20011 **Morehead Planetarium and Science Center:**
Jupiter Ball Fellow, Science Educator, Exhibits Development Assistant

SERVICE

- 2014-2015 **UChicago Geophysical Sciences Seminar Selection Committee**
Coordinated student nominations for visiting speakers and invited/hosted selected speakers for the department’s weekly seminar.
- 2012-2013 **DoGS Lunch Co-Chair**
Organized weekly seminars presented by graduate students from the Department of Geophysical Sciences at the University of Chicago during the academic year.

AFFILIATIONS

Geological Society of America, Society for the Study of Evolution, The Paleontological Society