

Jansen A. Smith

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EDUCATION

2008-2012	MACALESTER COLLEGE Bachelor of Arts Geology and Biology Double Major Graduation: May 2012, GPA 3.50	Saint Paul, MN
2012-Present	CORNELL UNIVERSITY PhD Candidate Department of Earth and Atmospheric Sciences Expected Completion: May 2017	Ithaca, NY

RESEARCH

Summer 2010	Research Experiences for Undergraduates (University of North Carolina-Wilmington) <ul style="list-style-type: none">- Generated molluscan community data for interdisciplinary group project on the Plio-Pleistocene extinction- Conducted individual research on cannibalism in fossil snail populations across extinction boundary- Visited and collected data at Virginia Museum of Natural History, Florida Museum of Natural History, and Paleontological Research Institution during 2011/2012	
Summer 2011	Research Assistant to Dr. Raymond Rogers (Macalester College) <ul style="list-style-type: none">- Target sampled and prospected for microfossil bone beds in Montana- Conducted actualistic taphonomy study on mammal and trout bone surface alteration	
Summer 2012	Taphonomic & Ecological Processes in Marine Environments (Gerace Research Centre) <ul style="list-style-type: none">- Developed and conducted individual research project on crab predation of snails in rocky intertidal environments	
Spring 2012	Field Assistant to Stephen Durham (Cornell University) <ul style="list-style-type: none">- Prospected for fossil oyster exposures on the Intracoastal Waterway- Sampled live oyster reefs and corresponding death assemblages near Myrtle Beach, South Carolina	
Jan/Feb 2013	Field/Lab Assistant to Gregory Dietl (Paleontological Research Institution) <ul style="list-style-type: none">- Sampled live oyster reefs and corresponding death assemblages along Louisiana Gulf Coast- Washed, shucked, and sorted oyster samples	
April 2013	Dissertation Research in the Colorado River delta, Mexico (Cornell University) <ul style="list-style-type: none">- Led multi-institutional research team (Denison University, University of Arizona, Cornell University)- Developed and implemented sampling strategy of fossil molluscan assemblages at southern delta localities	
March 2014	Dissertation Research in the Colorado River delta, Mexico (Cornell University) <ul style="list-style-type: none">- Collected baseline data on living and dead molluscan assemblages to assess effects of restoration actions- Sampled fossil assemblages in northern delta to establish pre-impact north-south molluscan community gradient- Curated live and dead samples for incorporation into Paleontological Research Institution collections	
Spring 2015	Field Assistant to Stephen Durham (Cornell University) <ul style="list-style-type: none">- Prospected for fossil oyster exposures on the Intracoastal Waterway- Sampled live oyster reefs and corresponding death assemblages near Myrtle Beach, South Carolina	
November 2016 (Upcoming)	Dissertation Research in the Colorado River delta, Mexico (Cornell University) <ul style="list-style-type: none">- Collect live molluscan community samples to assess efficacy of restoration flows during Spring 2014- Sample central delta locality to improve north-south gradient data for molluscan community- Curate live and dead samples for incorporation into Paleontological Research Institution collections	

TEACHING & MENTORING

- 2011-Present **Teaching Assistant**
MACALESTER COLLEGE
- Cellular Biology and Genetics Laboratory (Biol 255 - Fall 2011)
 - Taught laboratory skills (e.g., gel electrophoresis, pipetting)
 - Comparative Vertebrate Anatomy (Biol 365 - Spring 2012)
 - Demonstrated and assisted students with dissections in laboratory section
 - Co-led review sessions on evolution and development of vertebrate anatomy prior to exams
- CORNELL UNIVERSITY
- Mineralogy (EAS 4530 - Fall 2013)
 - Taught laboratory exercises on identification, microscopy, and industrial applications of minerals
 - The Earth System (EAS 2200 - Spring 2014, 2016)
 - Taught and developed laboratory exercises on topography, rock identification, and global cycles
 - Led review sessions on geological principles prior to exams
 - Oceanography: Laboratory Instructor (EAS 1560 - Fall 2014, 2016)
 - Create laboratory syllabus, quizzes, and exams
 - Develop and teach new exercises
 - Lead discussion groups on climate change, sustainability, fossil fuels
 - Oceanography: Lecture Coordinator (EAS 1540/1560 - Fall 2015, 2016)
 - Address day-to-day questions and concerns of ~1000 Oceanography students
 - Schedule and proctor make up and special accommodation exams
 - Manage class Blackboard page (e.g., grade updates, assignment reminders, etc.)
 - Earthquake! (EAS 1220 - Spring 2015)
 - Led reviews on catastrophic events and underlying geological processes prior to exams
- Summer 2013 **Undergraduate Research Mentor** (Neil Adams, Royal Holloway, University of London)
- Introduced paleoecological methodology using Colorado River delta molluscan samples
 - Oversaw sample processing and data collection on molluscan community composition
- Summer 2014 **Undergraduate Research Mentor** (Evan Jones, State University of New York at Geneseo)
- Introduced paleoecological methodology using Colorado River delta molluscan samples
 - Taught snail morphology so Evan could identify presence/absence of multiple snail species
 - Discussed snail predation and oversaw identification of drill holes in clams from the Colorado River delta
- Spring 2015 **Undergraduate Research Mentor** (Kaylin Greene, Cornell University)
- Provided guidance for Kaylin as she developed an individual research project on changes in molluscan body size since the damming of the Colorado River (during Cornell's Paleobiology course; BIOEE 4790)
 - Discussed topics in taphonomy, time-averaging, and paleoecological methodology
- Fall 2015 **Teaching in Higher Education Coursework** (Dept. of Agricultural and Life Sciences, Cornell University)
- Discussed and demonstrated ability to assess quality of learning in higher education classrooms
 - Improved capacity for, and understanding of, reflective teaching practice and learning
 - Gave and received peer feedback on teaching and presentation styles
- May 2016 **The Practice of Inclusive Teaching in STEM Workshop** (Center for Teaching Excellence, Cornell University)
- Learned and discussed inclusive teaching practices (e.g., Think-Pair-Share, Authentic Assessment)
 - Designed course syllabus for Conservation Paleobiology incorporating inclusive teaching practices
 - Critiqued co-participants' syllabi and received constructive criticism to improve my syllabus
- 2016-Present **Teaching Assistant Trainer** (Engineering Learning Initiative, Cornell University)
- Discuss and develop best-teaching practices as a team of trainers
 - Lead training session on Effective Grading Practices for ~200 engineering TAs
 - Facilitate practice teaching sessions for small groups (3-5) of TAs; provide feedback and lead group discussions

SERVICE & OUTREACH

- 2013-Present **Summer Symposium Organizing Committee** (Paleontological Research Institution)
- Coordinate annual regional meeting for 50-60 geologists
- Manage day-of activities
- 2013-Present **Fossil ID Day** (Museum of the Earth)
- Interact with Museum patrons by identifying their rocks and fossils
- 2013-Present **ACSF Research Fellows** (Atkinson Center for a Sustainable Future, Cornell University)
- Assist with group logistics (e.g., inviting speakers, proofing announcements)
- Develop media and outreach materials (e.g., group research video)
- Hosted Cornell Homecoming booth on “Sustainability of the World’s Oceans” for general public (Fall 2015)
- Lead writing of group publication on implementing academic knowledge in applied conservation practice
- May 2013 **Paleobiology Lesson for Middle School Students** (Longfellow Middle School, La Crosse, WI)
- Introduced two classes each of 5th, 6th, and 7th grade students to paleobiology
- Orchestrated hour-long lessons around mollusk specimens and what they can teach us about the past
- May 2014 **Google Hangout with Elementary School Students** (Triton and Culver Elementary Schools, Indiana)
- Delivered an interactive lesson on rocks and minerals to three classes of 3rd graders
- Answered student questions supplied prior to Hangout with hand samples and videos
- 2016-Present **Graduate and Professional Student Mental Health Committee** (Cornell University)
- Participate in monthly discussion on the state of mental health at Cornell
- Increase awareness of mental health issues among graduate and professional students

PUBLICATIONS

- Smith, J.A.**, & Dietl, G.P. 2016. The value of geohistorical data in identifying a recent human-induced range expansion of a predatory gastropod in the Colorado River delta, Mexico, *Journal of Biogeography*: 43, 791-800.
** Featured on the journal cover
- Dietl, G.P.,* Durham, S.R.,* **Smith, J.A.**,* & Tweitmann, A.* 2016. Mollusk assemblages as records of past and present ecological status, *Frontiers in Marine Science*. **3**, <http://dx.doi.org/10.3389/fmars.2016.00169>
- Smith, J.A.**, Auerbach, D., Flessa, K.W., Flecker, A., & Dietl, G.P. 2016. Fossil clam shells reveal unintended carbon cycling consequences of Colorado River management, *Royal Society Open Science*. **3**, <http://dx.doi.org/10.1098/rsos.160170>
** Featured on the journal cover
- Dietl, G.P.,* & **Smith, J.A.*** (*in press*). Live-dead analysis reveals long-term response of estuarine bivalve communities to damming and water diversions of the Colorado River, *Ecological Engineering*.
- Smith, J.A.**, Durham, S.R., & Dietl, G.P. (*accepted*). Conceptions of long-term data among marine conservation biologists and what conservation paleobiologists need to know, In: Marine Conservation Paleobiology (Topics in Geobiology). *Springer Verlag, New York. Approved May 10th, 2015. Volume submission October, 2016.* Tyler, C.L., Schneider, C.L. (eds).
- * Authors contributed equally

IN PREP MANUSCRIPTS

- Smith, J.A.** The effect of wave exposure on crab predation of gastropods on San Salvador Island, Bahamas.
- Smith, J.A.** & Rogers, R.R. Surface alteration of fish and mammal bone in the burial environment: A comparative study.
- Smith, J. A.**, Dietl, G.P., Kelley, P.H., Christie, M., Lockwood, R. & Layou, K.M. Confamilial predation on naticid gastropods through a pulsed extinction in the Plio-Pleistocene of the Carolinas.
- Smith, J.A.**, Goodwin, D.H., & Dietl, G.P. Complementary processes structuring the Colorado River delta molluscan fauna as revealed by species abundance distributions.
- Smith, J.A.**, Young, C.E., Auerbach, D., Simonin, P. Cross-disciplinary training as a means to bridge the knowing-doing gap in conservation science.

ABSTRACT PRESENTATIONS: ORAL

- Smith, J.A.** 2012. The effect of wave exposure on crab predation of littorinids on San Salvador Island, Bahamas. Geological Society of America *Abstracts with Programs*, vol. 44, no. 7.
- Smith, J.A.**, Dietl, G.P., Goodwin, D.H., & Zamora, H.A. 2013. Can predation metrics be reliably calculated from target collected samples? Geological Society of America *Abstracts with Programs*, vol. 45, no. 7.
- Smith, J.A.**, Dietl, G.P., & Goodwin, D.H. 2014. Building a pre-dam baseline for molluscan predator-prey interactions in the northern Gulf of California. The Paleontological Society Special Publications, vol. 13, no. 83.
- Smith, J.A.**, & Dietl, G.P. 2014. Utilization of geohistorical data to identify an invasive predatory gastropod in the Colorado River delta, Mexico. Summer Symposium at the Paleontological Research Institute, Ithaca, NY.
- Smith, J.A.**, Auerbach, D., Flessa, K.W., Flecker, A., & Dietl, G.P. 2015. Unintended carbon consequences of Colorado River water management. Summer Symposium at the Paleontological Research Institute, Ithaca, NY.
- Smith, J.A.**, Goodwin, D.H., & Dietl, G.P. 2015. Complementary processes structuring the Colorado River delta molluscan fauna as revealed by species abundance distributions. Geological Society of America *Abstracts with Programs*, vol. 47, no. 7.
- Smith, J.A.**, Durham, S.R., & Dietl, G.P. 2016. Conceptions of long-term data among marine conservation biologists: Opportunities for Conservation Paleobiologists. Geological Society of America *Abstracts with Programs*, vol. 48, no. 7.

ABSTRACT PRESENTATIONS: POSTER

- Smith, J. A.**, Dietl, G.P., & Kelley, P.H. 2011. Confamilial predation on naticid gastropods through a pulsed extinction in the Plio-Pleistocene of the Carolinas. Geological Society of America *Abstracts with Programs*, vol. 43, no. 2.
- Smith, J. A.**, Dietl, G.P., Kelley, P.H., Christie, M., Lockwood, R. & Layou, K.M. 2011. Confamilial predation on naticid gastropods through a pulsed extinction in the Plio-Pleistocene of the Carolinas. Geological Society of America *Abstracts with Programs*, vol. 43, no. 5.
- Weik, A.S., Goodwin, D.H., **Smith, J.A.**, Dietl, G.P., & Zamora, H.A. 2013. Here yesterday – Gone today: Preliminary investigation of anthropologically induced littoral community change in the Colorado River delta Geological Society of America *Abstracts with Programs*, vol. 45, no. 7.
- Dietl, G.P., **Smith, J.A.**, Zamora, H.A., Durham, S.R., & Flessa, K.W. 2014. Using the tools of Conservation Paleobiology to provide a baseline for estuarine restoration resulting from the 2014 engineered spring-flood of the Colorado River. Geological Society of America *Abstracts with Programs*, vol. 46, no. 6.
- Smith, J.A.** & Dietl, G.P. 2014. Utilization of geohistorical data to identify a human-induced range expansion of a predatory gastropod in the Colorado River delta, Mexico. Geological Society of America *Abstracts with Programs*, vol. 46, no. 6.
- Dietl, G.P., Durham, S.R., & **Smith, J.A.** 2014. Conservation Paleobiology: Using the past to inform coastal and estuarine restoration. Restore America's Estuaries Summit, Washington D.C.
- Dietl, G.P., Burney, D., Casey, M., Crowley, B., Durham, S.R., Reed, E., & **Smith, J.A.** 2016. Conservation paleobiology: Using the past to manage the future. International Union for Conservation of Nature World Conservation Congress.
- Friend, D.S., **Smith, J.A.**, & Dreelin, A. 2016. Preservation potential of rocky intertidal biota in temperate and tropical environments. Geological Society of America *Abstracts with Programs*, vol. 48, no. 7.

INVITED LECTURES

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| April 10, 2015 | St. Lawrence University, Geology Department, Seminar, <i>Life before the dams: Building a baseline for the molluscan community in the Colorado River delta, Mexico.</i> |
| April 18/19 2016 | Cornell University, Department of Natural Resources, "Environmental Conservation" in-class lecture, <i>A case study in Conservation Paleobiology: The molluscan community of the Colorado River delta, Mexico.</i> |
| September 12, 2016 | Macalester College, Geology Department, Conservation Paleobiology mini-workshop, <i>An introduction to Conservation Paleobiology.</i> |

- September 14, 2016 Macalester College, Geology Department, Conservation Paleobiology mini-workshop, *A case study in Conservation Paleobiology: The molluscan community of the Colorado River delta, Mexico.*
- October 11, 2015 Environmental Protection Agency, Office of Water, Seminar, *Fossil clam shells reveal unintended carbon cycling consequences of Colorado River management.*

GRANTS AND AWARDS

- 2011 Best Undergraduate Poster in Paleocology, SEGSA, Paleontological Society (\$50)
- 2011 John W. Wells Grants-In-Aid of Research, Paleontological Research Institution (\$350)
- 2012 Hugh S. Alexander Endowed Prize, Dept. of Geology, Macalester College (\$100)
- 2012 Cornell Fellowship, Department of Earth and Atmospheric Sciences, Cornell University
- 2012 Sustainable Biodiversity Fund, Atkinson Center for a Sustainable Future, Cornell University (\$5000)
- 2013 N. Gary Lane Award, Paleontological Society (\$800)
- 2014 NSF RAPID (Co-writer under Dr. Dietl; \$16,500)
- 2014 Student Research Grant, Geological Society of America (\$900)
- 2015 Grants to Malacology, Conchologists of America (\$1900)
- 2015 Grants-in-Aid of Research, Sigma Xi, Cornell Chapter (\$600)
- 2016 Grant for Advanced Scientific Research, The Eppley Foundation (Co-writer under Dr. Dietl; \$13,225)