



Smithsonian

Volume 7

# NHRE NEWS

REU Site, OCE-1560088



Autumn 2018

## The Newsletter of the NSF REU Site: Natural History Research Experiences Summer Internship Program

Welcome to the NSF REU-Site Natural History  
Research Experiences' annual newsletter.

### NHRE 2018, by the Numbers

#### 1000:

concentration of carbon dioxide, in parts per million, in growth chambers used to study plant growth in high-CO<sub>2</sub> conditions

#### 152:

species of ferns for which their sexual habits were investigated

#### 286:

number of great ape skulls studied in search of pathologies

#### 1:

number of new species of assassin-fly discovered

#### 0:

number of remains of Pre-Cambrian magnetotactic bacteria discovered (the search goes on!)

#### 490:

number of plain white beads chemically analyzed

### Directors' Corner

Greetings from Washington DC!

We are a little late with the newsletter this year, having been distracted first by the transition to the museum's redesigned website and then by being shut down and furloughed for over a month! Check out our new project browser! Your posters are now accessible to all audiences and look amazing!

In personal news... In an attempt to secure our dominion over the museum's entire scientific operations, Gene and I are now Chair and Chair-Elect, respectively, of NMNH's Senate of Scientists. We are now insidiously chipping away at the museum's democratic processes to further entrench ourselves in positions of power. Oh wait – sorry, I got confused with something else.

We love hearing about your adventures and triumphs! Please keep us in the loop!

Cheers,

Liz & Gene



The invertebrate duo, Jared Richards and Amanda Markee, lead the NHRE pack as they scale the steepest section of the Billy Goat Trail while on NHRE's 2018 rock-themed field trip to Great Falls!

## NHRE Class of 2018



**From left to right: Back row** Becca Goughnour, Sadie Friend, Alec Wilken, Jared Richards, Ian Ocampo, Jonathan Huie, Jake Acquadro, Gina Errico, D'Maia Curry. **Front Row:** Kendra McCabe, Hannah Ranft, Maya Woolfolk, Rilla McKeegan, Ashley Espinoza, Catherine Gilbert, Amanda Mar-kee, Mason Scher

## Updates from previous years

### 2010

**Gregg Stull** is a NSF Postdoctoral Research Fellow in the Department of Ecology & Evolution at the University of Michigan.

**Spencer Galen** is NSF postdoctoral fellow at the Academy of Natural Sciences of Drexel University.

The Environmental Law Society at UCLA School of Law was honored as 2018's Student Organization of the Year at the school's fourth annual Student Leadership Breakfast. **Sunjana Supekhar** was one of seven law students to be honored in this organization.

The group was recognized as having uncommon emphasis on social justice, diversity, engagement and partnership with other organizations at UCLA Law.

### 2011

**Anthony Deczynski** is continuing his Ph.D studies in the Caterino Arthropod Biodiversity Lab at Clemson University. His research interests are the systematics of leaf beetles, especially flea beetles. He is revising a large genus (*Epitrix*) which contains a number of pests of Solanaceous crops which include tomato, pepper, eggplant and red potato.

**Victoria Danner** is currently working at the Washington Association for Practicing Anthropologists, Lupus Foundation of America and University of Maryland.

## NHRE Class of 2012

### Future Postdoc at the Field Museum

**Dakota Rowsey** is a PhD candidate in the Department of Ecology, Evolution, and Behavior at the University of Minnesota. He was recently offered a postdoc at the Field Museum in Chicago.



## Graduate School and a NSF Grant

*Submitted by Maris Jones*

In the fall of 2018, former Natural History Research Experience intern G. Maris Jones began a joint PhD in Anthropology and African Studies at the University of Pennsylvania. She plans to do graduate work at the intersection of race, culture, climate change, and government policy. Maris' current research is focused on climate change vulnerability and adaptation practices of communities in coastal regions and small island states of the African diaspora. Through her work, she hopes to create a living archive of narratives of climate-displaced individuals and complicate the discourse around resiliency with accounts of community resistance.

Additionally, Maris was awarded an NSF Graduate Research Fellowship and was named an alternate for the Ford Foundation Pre-doctoral Fellowship. For her NSF grant, Maris proposed a comparative study of Post-Katrina New Orleans, Louisiana and Post-Maria San Juan, Puerto Rico to investigate the effects of the "second disaster," or the cultural and social uprooting that occurs when communities are displaced following an extreme weather event, on diasporic African communities.

Through this research, Maris aims to understand the ways these communities utilize cultural production and embody traditional ecological knowledge inherited from their ancestors as a survival practice when faced with insufficient government assistance in the wake of disaster. She is particularly interested in the ways such practices allow marginalized communities to resist the subjugation and erasure of their bodies by the state.

Most recently, Maris was selected as a 2019 participant in the Minority Scholars from Underrepresented Groups in Engineering and the Social Sciences (SURGE) Capacity in Disasters program, sponsored by the National Science Foundation. Learn more about her previous work at [www.gmarisjones.com](http://www.gmarisjones.com).



## Alumni update 2012

**Sarah Gaffney** has decided to switch from the M.S track to the Ph.D. track at UC Davis in the Graduate Group in Ecology.



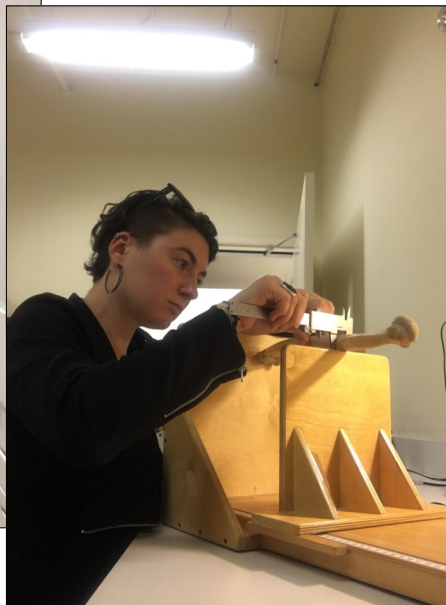
## NHRE Class of 2013

### Another summer at NMNH

*Submitted by Alexandra Kralick*



**Alexandra Kralick** returned to NMNH to work on collecting preliminary data for a dissertation idea. Alexandra is a PhD. student in Biological Anthropology at Penn State University. She is a NSF GRFP Fellow, and is studying the ontogeny and morphology of sex differences in great apes and humans. Her previous work is on gorilla dental development and wrist morphology.



## 2018-19 Fulbright-National Geographic Digital Storytelling Fellows Announced

**Jennifer Gil** was one of five people to be selected for the Fulbright-National Geographic Storytellers.

The Fulbright-National Geographic Digital Storytelling Fellowship is a partnership between the U.S. Department of State and the National Geographic Society, which provides a unique platform for U.S. Fulbrighters to undertake an in-depth exploration of globally relevant issues and use a variety of digital storytelling tools and media, including blogs, photography, video and social media, to share their stories by providing content to National Geographic digital platforms with the support and mentorship of National Geographic staff. These storytelling tools are a powerful resource in building lasting ties across cultures.

Jenny, and an environmental scientist will travel to Panama to collect microalgae samples, documenting her findings for the world in both Spanish and English through blogging, microscopic pictures and video. Jennifer studied interdisciplinary science at the University of Puerto Rico and recently completed her master's in environmental science at Florida International University.

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## The first modern expedition to Sumatra in the last 100 years

*Submitted by Subir B. Shakya*

This year brought more field work and more new discoveries. I led an expedition to Siberut Island and Gunung Talakmau in Sumatra. This marks one of the first modern expeditions to Sumatra in the last 100 years and definitely the first tissue samples for many of the birds in that part of the world. There have been some exciting discoveries with potentials to being new species coming from these expeditions.

My PhD program at Louisiana State University is in its fifth year now and I'm feeling the pressure to start wrapping up my project. Analyzing genomic data has been a blast (pun intended) and am hoping to get it finished soon.

## Alumni update 2013

**Raqual Bryant** is currently a PhD student at the University of Massachusetts. Her research interests are micropaleontology and oceanography.

**Gaurav Kandlikar** is a PhD student at UCLA. He is conducting his thesis work on understanding how spatial environmental variation, intra-specific variation in plant functional traits, and interactions between plants and microbes can influence species coexistence.

**Caitlin Rain Boas** will be joining NYC Parks & Recreation as Project Development Coordinator for the Urban Field Station, partnering with US Forest Service and the Natural Areas Conservancy to oversee urban ecological research and promote environmental stewardship across the city.

## NHRE Class of 2014

### A different path

*Submitted by Megan Moore*

I have had a winding path since participating in the NHRE program in 2014. I completed my Master's in Library and Information Science from the University of Illinois at Urbana-Champaign in December 2017.

I had every intention of becoming a subject librarian at a university, but instead my path led me to my first librarian position as a Children's Librarian in Hawai'i. I have fallen in love with my job, and I am making it my goal to bring STEM into the library. I have put on programs for the community with crowds ranging from 12 to 200 participants. I also put on Storytimes for children of all ages, organize about 10 class visits per month, curate our library collection, and teach basic computer skills. And that's just the tip of the iceberg!

I often think back on my time in the NHRE program as something that changed my life. Even though I did not become a scientist, the NHRE program gave me an insight into what a career in STEM can look like. I hope to encourage a love for science in kids, and I have plans in the works for more STEM activities in our library!

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## Fourth year at Oregon State University

*Submitted by Kellie Wall*

I am now in my fourth year of working on my PhD at Oregon State University. This spring I advanced to candidacy after passing my oral qualifying exams, woohoo! I'm researching the volcanic/magmatic timescales and petrologic/geochemical evolution of the Goat Rocks volcanic complex in the Cascade Mountains of Washington State, and have thoroughly enjoyed the excuse to hike around that beautiful and rugged terrain. I will be presenting a poster at the Geological Society of America meeting in Indianapolis this November.

This spring I helped organize the first Volcanology Students of Oregon (Volc-OR) meeting, which we held at OSU. About 45 students from my department and the Geo departments at Portland State University and Oregon State University came together to present their research and take part in workshops and discussion sessions. It was a huge success, and we're hoping to make it an even bigger event next year.



Goat Rocks Wilderness

I volunteered to be the speaker for "Prehistoric Days," an event for K-12 students that was part of a monthly series of STEM-focused Saturday Academies hosted by the Lebanon Health Career Ladder at Western University of Health Sciences in Lebanon, OR. It was SO much fun interacting with the students-- they asked great questions, and they loved telling me about their rock collections! It was also a huge confidence boost to talk to such a young and excitable crowd... I think that was the best talk I've ever given. Ha!

On a more personal note, this year I discovered that I actually CAN keep plants alive and started a vegetable garden, which was super rewarding (and tasty!). I've also been on a personal mission to reduce the amount of plastic waste I produce, since Oregon recycling services have severely cut back what items they can accept after shipping to China was no longer an option. It has been a fun challenge to move toward a more sustainable lifestyle.

I'm looking forward to a couple more years in Corvallis, Oregon with my boyfriend Tommy (who studies nuclear engineering) while we both work on our PhDs... and then we'll see where life takes us!

I'm so thankful for the big role that NHRE (and my mentors, Liz and Fred) played in paving the way toward my graduate education. Life is good.

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## A summer on Kodiak Island, Alaska

*Submitted by Hollis Miller*



Working in the field at Three Saints Bay, Kodiak Island

I am currently working on my PhD in archaeology at the University of Washington in Seattle. I received my M.A. in December 2017 and spent this past summer on Kodiak Island in Alaska completing a pilot archaeological survey for my dissertation. My research interests focus on archaeologies of colonialism, gender and the environment. These interests are drawn together in my dissertation, the Old Harbor Archaeological History Project (OHAHP), which explores indigenous Sugpiaq/Alutiiq negotiation of Russian colonialism from the late 18th century through the mid-19th century on Kodiak Island in Alaska. For my dissertation, I ask questions about how the experience of Russian occupation and the fur trade differed for indigenous women and men and the effects of the fur trade on the local environment, society and economic system.

I am also working to invest in and practice community-based archaeology, which foregrounds the needs and interests of local, indigenous and/or descendant communities into archaeological research. In this vein, I am excited at the opportunity to collaborate with the community of Old Harbor, which supports the OHAHP. I look forward to continued relationship building and shared engagement in the local history and archaeology through a youth internship program, a field school and public presentations.

You can learn more about the OHAHP here: <https://hollismiller.com/old-harbor-archaeological-history-project/>

## Transition to a PhD path

*Submitted by Allie Snider*

While I started at LSU intending to complete a Master's degree, I have decided to transition my work into a PhD. I will expand on my current research (using sparrow diet to determine how anthropogenic and natural disturbances alter salt-marsh food webs) by adding additional lab components and taking advantage of some wonderful collaborative opportunities that have become available. And a big thank you to fellow LSU Tiger and NHRE 2013 alum, Subir Shakya, for his help and advice while I was thinking this decision over!

## Alumni update 2014

**Kate Duncan Sherwood** finally obtained her Master's in Museum Studies from GWU, eloped, and moved from part-time to full-time photographer for the National Museum of Natural History! She is currently enjoying her new found free time, but will continue working on her NHRE research with Dr. Doug Owsley and Kari Bruwelheide this winter.

**Jennifer Kenyon** is on the R/V Revelle for the next 2 months studying marine radioisotopes. It is part of a research cruise associated with the GEOTRACES project. You can read more about what Jennifer is doing as well as other scientists aboard this vessel here: <https://geotraces-gp15.com/>

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## NHRE Class of 2015

### 3rd Year at Notre Dame

*Submitted by Meena Said*



I'll be a 3rd year graduate at the University of Notre Dame studying actinide chemistry. I passed my qualifying exams last January, and I plan to take my Oral candidacy exam the spring of next year.

I have started a new research project funded by the National Nuclear Security Administration (NNSA), and I am very excited. I attended an interagency meeting this past July that dealt with nuclear forensics, and I was able to network with powerful people at the federal level.

I also recently attended an SEM-EDS summer school, and I am excited to understand the theory and inner workings of an instrument I have loved ever since undergrad and my beloved REU experience back in 2015!



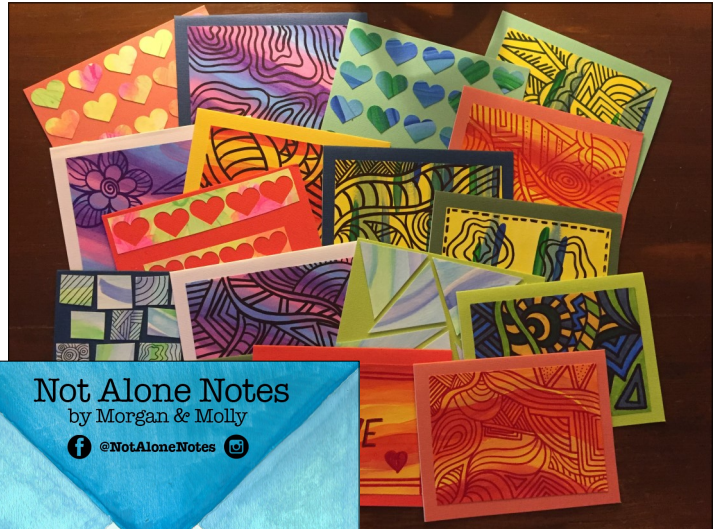
## Not Alone Notes

*Submitted by Morgan Rondinelli*

Several months ago I spoke for University of Michigan's Depression Center at the Ann Arbor District Library on World Suicide Prevention Day.

Also, I am working on a project called "Not Alone Notes". I created this project with my good friend Molly. We mail handwritten letters to others with OCD. We have sent over 300 Notes to 37 states and 17 countries. Here is a [video](#) we recently made about the project. The cards are hand-painted. We are on Facebook and Instagram @NotAloneNotes

As for what I'm up to next, no idea! I'm hoping to do something with mental health advocacy, maybe biology-related but maybe not, and I'm looking at library and information science.



## Anthropology Blog

*Submitted by Ashly Romero*



I finished my MA in the spring of this year in anthropology at the University of Arkansas. This fall is my first semester in the PhD program at the same university, also in anthropology.

Sabrina Sholts and I published a paper with colleagues from the work I did while interning with NHRE. It was published in September 2017.

In other news, I started a fun blog series as an outreach tool for biological anthropology! It's called Peculiar Primates, and each month it features a different primate and some of their stranger and more interesting traits. It's been a fun and rewarding way to make biological anthropology more accessible to my community. The link is below.

<https://terhunelab.uark.edu/category/peculiar-primates/>

## Alumni update 2015

**Ali Galezo** has started her PhD program in the Department of Biology and Evolutionary Anthropology at Duke University. Her advisor Susan Alberts.

**Rachel Johnson** recently graduated from the University of Colorado with an MS in Biostatistics and is now working as a research instructor for the Colorado School of Public Health as a biostatistician.

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## NHRE Class of 2016

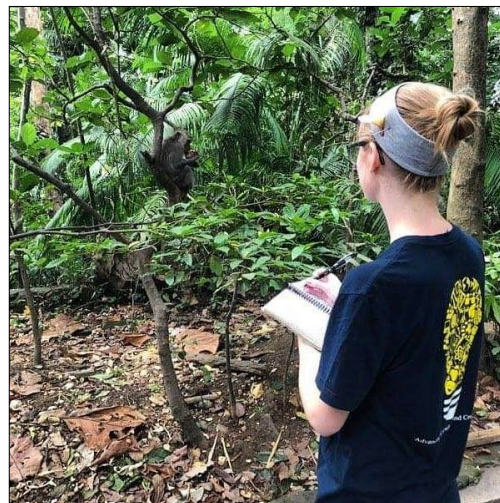
### A summer in Indonesia

*Submitted by Kate Woolard*

I graduated in May with a BA in Anthropology and I am currently in the first year of a PhD in Global Health working with Dr. Ben Trumble at Arizona State University.

I was a TA for the Balinese Ethnoprimateology Field School, which is held through East Carolina University by Dr. James Loudon and Dr. Michaela Howells of University of North Carolina Wilmington. We study the interactions between tourists, long-tailed macaques (*Macaca fascicularis*), and the local Balinese people in the Ubud Sacred Monkey Forest Sanctuary in Bali, Indonesia. The Sanctuary is a popular tourist destination for its beautiful temples, macaques, and rich cultural history.

Here is the website link! <https://www.balimacaqueproject.com/>



### Pursuing a PhD in Geophysics at Brown University

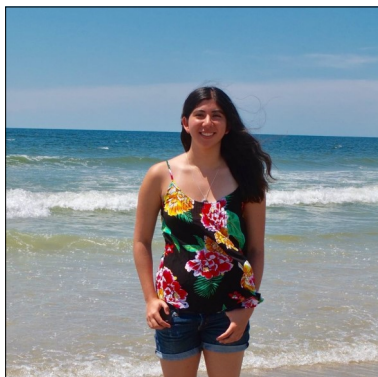
*Submitted by Darien Florez*

As of August 2018, I have graduated with a BS in general geology from the University of Texas at Austin, and have started graduate school at Brown University in order to obtain a PhD in geophysics.

I am working on two projects here at Brown, one involves constraining the lunar volatile budget by modeling diffusion profiles in lunar volcanic glasses and comparing them to lunar pyroclastic samples, as well as data from remote sensing. The other involves investigating the mechanism in which magma is transported from magma chambers to the earth's surface through modeling, field work, and experimental work.

## Ongoing project with Karen Osborn at NMNH

*Submitted by Nadège Aoki*



Here's a little update as to what I've been doing since NHRE!

I've been lucky enough to return to the NMNH every summer since my NHRE internship in 2016 to continue working with my mentor, Karen Osborn, on our project describing the biomechanics of polychaete tomopterid worms. I've presented our work at two conferences, the 2017 meeting of the Association for the Sciences of Limnology and Oceanography in Honolulu, HI and the 2018 Deep Sea Biology Symposium in Monterey, CA. I graduated *magna cum laude* from Cornell University in May 2018 with a BA in Biological Sciences and Distinction in Research based on my honors thesis, which described a new species of African weakly electric fish. I am currently working as a Science Assistant at the National Science Foundation in the Directorate for Mathematical and Physical Sciences, with plans to go to grad school in a couple of years.

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## NSF GRFP recipient last year

*Submitted by Diler Haji*

I graduated and moved on to an MA at the University of Connecticut. I'm finishing up my first year working on the systematics of New Zealand cicadas and the diversity of microbes that live inside of them. I'm getting ready to apply to PhD positions this fall and I'm interested in exploring insect-microbe interactions further.

I'm also happy to report that I was selected as an NSF GRFP recipient last year!

## Alumni update 2016

**Melanie Sorman** is currently a graduate student in the Department of Geology & Environmental Earth Science at Miami University.

**Ashley Defoe** is attending Mississippi University. She is a graduate student studying bioarcheology, paleopathology, and health disparities. Her advisor is Dr. Molly Zuckerman.



## NHRE Class of 2017

### Field work in the West Indies

*Submitted by Kyle Jaynes*

I recently graduated from Adrian College with a B.A. in Biology and Environmental Science, with departmental research honors in biology (thanks to a project/senior thesis I did stemming from my work at the NMNH through my REU project). I am continuing to work on my project and will be submitting to a journal in the next year for publication.

Previously, I presented my REU project at the 2017 CUR REU conference. I also presented at the Joint Meeting of Ichthyologists and Herpetologist (JMIH) in 2018.

After graduation, I went off for the summer to do fieldwork in Trinidad, West Indies as an intern/technician on a long-term eco-evo project, "The Guppy Project", where I hiked, fished, and processed guppies for 3 months at a field station in the jungle - super fun!!!

I have now started a Ph.D. in Integrative Biology; Ecology, Evolutionary Biology, and Behavior (dual program). I am at Michigan State University but have a special appointment at Kellogg Biological Station (a relatively well known off-campus field station in Kalamazoo, MI that is owned and operated by MSU).

There have been many influential mentors and opportunities in my life that led me to where I am, but the NHRE program was the largest single influential factor in my continued education and related career growth.



### Involved with the installation of a new NMNH exhibit

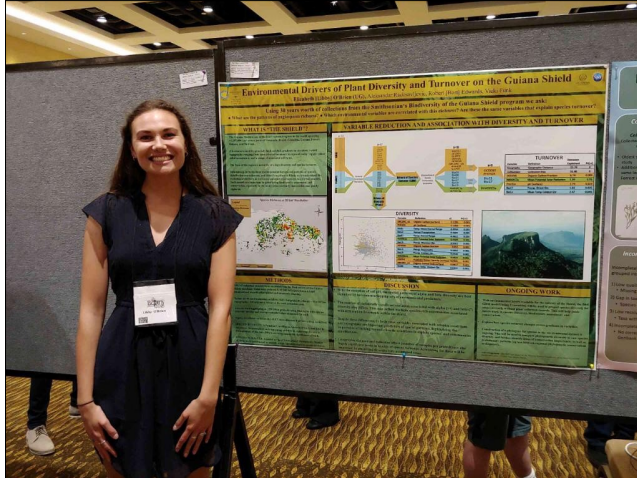
*Submitted by Myria Perez*

I graduated Southern Methodist University (SMU) this year in May with a B.S. in Geology and a B.A. in Anthropology. I presented my NHRE poster at this year's Society of Vertebrate Paleontology meeting in October.

I've been working a new exhibit for the Smithsonian's National Museum of Natural History with SMU. The exhibit is called *Sea Monsters UNEARTHED: Life in Angola's Ancient Seas* and opened on November 9th, 2018. I've been an intern on the exhibit's core team and have prepared specimens for display! I flew to D.C. to help with the installation and train NMNH volunteers.

## 2018 Minnesota Botany meeting

Libby O'Brien presented a poster at the meeting. The poster illustrates her ongoing NHRE project which she continued to work on after her internship ended in 2017.



## Alumni update 2017

**Even Dankowicz** attended the 2017 Entomology meeting in Denver, Colorado where he presented his paper on the Taxonomic revision of the Oriental mydas-fly genus *Cacatuopyga* Papavero and Wilcox, 1974 (Diptera: Mydidae)

**Abby Pratt** presented her NHRE research at the 2018 Ocean Sciences Meeting through the ASLO Multicultural Program.

In May 2018 she graduated from Humboldt State with a BS in Zoology, and has just started grad school at the University of Louisiana, Lafayette for a Masters in Biology studying deep sea cephalopods

**Tania Evans** graduated in May 2018 from the University of Maryland, Baltimore County (UMBC) with a B.S. in Chemical Engineering. Currently, she is enrolled in graduate school at the Georgia Institute of Technology, pursuing a PhD in Chemical Engineering.

**Lucia Mallozzi** was selected this last summer to intern at the prestigious Houston Lab. Lucia is currently studying Meteoritics at Stoney Brook University

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## Updates from 2018

*Submitted by Amanda Markee*

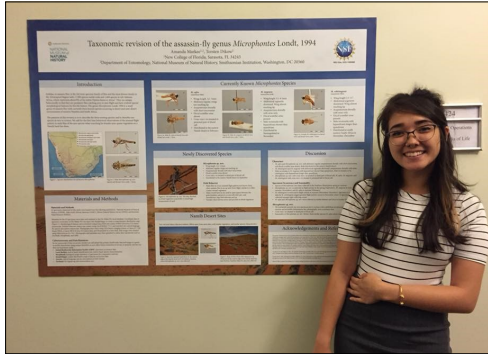


Photo credit: NMNH Photo Services

I recently presented my NHRE research at the Entomological Society of America Annual Meeting in Vancouver BC. I presented four new species from a small genus of assassin fly, called *Microphontes*, found in desert and semi desert habitats, along with their seasonality and distributions. I competed in the student competitions and came in 2nd place for undergraduate systematics and evolutionary biology, and had an amazing time networking with previous NHRE interns and colleagues!

I will graduate New College of Florida after defending my thesis in May 2019, and plan to do a research assistantship directly after graduating if all goes well.

## A Smithsonian Story

Alec Wilken's experience as a NHRE intern in 2018 has been written up in an article for the University of Missouri. The story has been published on the Undergraduate Research website:

<https://undergradresearch.missouri.edu/a-smithsonian-experience/>

## A collage of photographs from the 2018 Museum Outreach Day



Maya Woolfolk with museum visitors



Jared Richards



Ashley Espinoza



Alec Wilken



Becca Goughnour

Photo Credit: SI NMNH Photo Services

Here we list all professional presentations given by NHRE alumni. If you published your NHRE research or presented it at a conference and you don't see it listed here, please let us know.

## NHRE Publications

- Anzaldo, S. S., J. Dombroskie, and J. W. Brown. 2014. Morphological Variation, Taxonomic Distribution, and Phylogenetic Significance of Cornuti in Tortricinae (Lepidoptera: Tortricidae). *Proceedings of the Entomological Society of Washington* 116(1):1-31.
- Blaimer, B. B., M. W. Lloyd, W. X. Guillory, and S. G. Brady. 2016. Sequence Capture and Phylogenetic Utility of Genomic Ultraconserved Elements Obtained from Pinned Insect Specimens. *Plos One* 11 (8).
- Castillo, S., and T. Dikow. 2017. Taxonomic revision of *Plyomydas* Wilcox & Papavero, 1971 with the description of two new species and its transfer to Mydinae (Insecta: Diptera: Mydidae). *Revista Brasileira de Entomologia* in press.
- Davis, F. A., E. Cottrell, S. K. Birner, J. M. Warren, and O. G. Lopez. 2017. Revisiting the electron microprobe method of spinel-olivine-orthopyroxene oxybarometry applied to spinel peridotites. *American Mineralogist* 102(1-2):421-435.
- Gutierrez, E. E., J. E. Maldonado, A. Radosavljevic, J. Molinari, B. D. Patterson, J. M. Martinez, A. R. Rutter, M. T. R. Hawkins, F. J. Garcia, and K. M. Helgen. 2015. The Taxonomic Status of *Mazama bricenii* and the Significance of the Tachira Depression for Mammalian Endemism in the Cordillera de Merida, Venezuela. *PLoS ONE* 10(6).
- He, K., N. Woodman, S. Boaglio, M. Roberts, S. Supekar, and J. E. Maldonado. 2015. Molecular Phylogeny Supports Repeated Adaptation to Burrowing within Small-Eared Shrews Genus of *Cryptotis* (Eulipotyphla, Soricidae). *Plos One* 10(10).
- Lewis, C., B. Bentlage, A. Yanagihara, W. Gillan, J. Van Blerk, D. P. Keil, A. E. Bely, and A. G. Collins.

2013. Redescription of *Alatina alata* (Reynaud, 1830) (Cnidaria: Cubozoa) from Bonaire, Dutch Caribbean. *Zootaxa* 3737(4):473-487.
- Miller, J. H., A. K. Behrensmeyer, A. Du, S. K. Lyons, D. Patterson, A. Toth, A. Villasenor, E. Kanga, and D. Reed. 2014. Ecological fidelity of functional traits based on species presence-absence in a modern mammalian bone assemblage (Amboseli, Kenya). *Paleobiology* 40(4):560-583.
- Monsalve, S., J. J. Dombroskie, W. H. Y. Lam, J. Rota, and J. W. Brown. 2011. Variation in the Female Frenulum in Tortricidae (Lepidoptera). Part 3. Tortricinae. *Proceedings of the Entomological Society of Washington* 113(3):335-370.
- Nielsen, M., and M. Buffington. 2011. Redescription of *Stentorceps* Quinlan, 1984 (Hymenoptera: Figitidae), with a description of five new species. *African Entomology* 19(3):597-613.
- Ravin, I. S., and S. W. Lingafelter. 2015. Review of the genus *Urgleptes* Dillon (1956) of Hispaniola (Coleoptera, Cerambycidae, Acanthocinini): descriptions of five new species and one new synonymy. *ZooKeys* (532):55-85.
- Romero, A. N., M. Herlin, M. Finnilä, M. Korkalainen, H. Håkansson, M. Viluksela, and S. B. Sholts. 2017. Skeletal and dental effects on rats following in utero/lactational exposure to the non-dioxin-like polychlorinated biphenyl PCB 180. *PLOS ONE* 12(9):e0185241.
- Stull, G. W., W. A. DiMichele, H. J. Falcon-Lang, W. J. Nelson, and S. Elrick. 2012. Palaeoecology of *Macroneuropteris scheuchzeri*, and its implications for resolving the paradox of 'xeromorphic' plants in Pennsylvanian wetlands. *Palaeogeography Palaeoclimatology Palaeoecology* 331:162-176.
- Stull, G. W., C. C. Labandeira, W. A. Dimichele, and D. S. Chaney. 2013. The "Seeds" on *Padgettia readi* Are Insect Galls: Reassignment of the Plant to *Odontopteris*, the Gall to *Ovofoligallites* N. Gen., and the Evolutionary Implications Thereof. *Journal of Paleontology* 87(2):217-231.
- Tóth, A., S. K. Lyons, and A. K. Behrensmeyer. 2014. A Century of Change in Kenya's Mammal Communities: Increased Richness and Decreased Uniqueness in Six Protected Areas. *PLoS ONE* 9(4).
- Tóth, A., S. K. Lyons, and A. K. Behrensmeyer. 2014. Mammals of Kenya's protected areas from 1888 to 2013. *Ecological Archives*:E095-E150.
- Woodman, N., and S. A. Gaffney. 2014. Can They Dig It? Functional Morphology and Semifossoriality Among Small-Eared Shrews, Genus *Cryptotis* (Mammalia, Soricidae). *Journal of Morphology* 275(7):745-759.
- Woodman, N., and F. A. Stabile. 2015. Functional Skeletal Morphology and Its Implications for Locomotory Behavior Among Three Genera of Myosoricine Shrews (Mammalia: Eulipotyphla: Soricidae). *Journal of Morphology* 276(5):550-563.
- Woodman, N., and F. A. Stabile. 2015. Variation in the myosoricine hand skeleton and its implications for locomotory behavior (Eulipotyphla: Soricidae). *Journal of Mammalogy* 96(1):159-171.
- Markee, A., and T. Dikow. 2018. Taxonomic revision of the assassin-fly genus *Microphontes* Londt, 1994 (Insecta, Diptera, Asilidae). *African Invertebrates* 59(2):195-237.

### NHRE Presentations

- Rowsey, D.; Helgen, K. 2012. Species boundaries of brushtail possums. Annual Meeting of the Gilbert Ichthyological Society (Oral presentation).
- Toth, A.B.; Behrensmeyer, A.K.; Lyons S.K. 2012. Increased diversity and decreased uniqueness in Kenyan mammal communities over the past century. Ecological Society of America Annual Meeting (Oral presentation).
- Deczynski, A; Chamorro, M L; Konstantinov, A S. 2011. Morphology of the head and associated structures

- in New World Cryptocephalini (Coleoptera: Chrysomelidae: Cryptocephalinae). Entomological Society of America Annual Meeting (Poster presentation).
- Corrigan, C. M.; Cohen, B. A.; Hodges, K.; Lunning, N. G.; Bullock E. S. . 2012. 3.9 Billion Years Ago and the Asteroid Belt: Impact Melts in Ordinary Chondrites. 43rd Lunar and Planetary Science Conference (Poster presentation).
- Lavine, R. J., Wagner, P. J.; Erwin, D. H. 2011. A phylogenetic dissection of the gastropod subfamily Knightitinae across the Permian-Triassic boundary. Geological Society of America Annual Meeting (Oral presentation).
- Kuwahara, A; Meyer, C; Collins, A. 2013. Assessing Autonomous Reef Monitoring Structures (ARMS) as Biodiversity Monitors. Society for Integrative and Comparative Biology Annual Meeting (Oral presentation).
- Lopez, O; Cottrell, E; Warren, J. 2012. Upper mantle oxygen fugacity in ridge and subduction zone settings recorded by spinel peridotite. Fall Meeting of the American Geophysical Union (Poster presentation).
- Goots, Alexis; Bruwelheide, Kari; Owsley, Doug. 2013. Post-traumatic bone loss in Civil War soldiers. Meeting of the American Association of Physical Anthropologist (Poster presentation).
- Rowsey, Dakota M; Helgen, Kristofer M. 2013. Species boundaries of brushtail possums in the Queensland wet tropics. Annual Meeting of the American Society of Mammologists (Poster presentation).
- Imfeld, Tyler S; Chaput, Dominique; Santelli, Cara M. 2013. The effect of nutrients on the growth and manganese oxidation of fungi and bacteria. Ecological Society of America Annual Meeting (Poster presentation).
- Atta, Calder J; LaFlamme, Marc; Sessa, Jocelyn A; Tweedt, Sarah; Erwin, Douglas H. 2012. Taphonomic biases influencing exceptionally preserved Naraoia from the Burgess Shale. Geological Society of America Annual Meeting (Poster presentation).
- Jagani, Sheel; Rick, Torben; Hofman, Courtney. 2011. Ancient Oyster Fisheries of the Chesapeake Bay: Methods and Implications. Annual Meeting of the Society for American Archaeology (Poster presentation).
- Burke, Janet; Behrensmeyer, Anna K; Badgley, Catherine; Barry, John; Lyons, S Kathleen. 2014. Assessing the impact of time-averaging on a Miocene vertebrate fauna from northern Pakistan. North American Paleontological Convention (Poster presentation).
- Ramirez, Gabrielle; Andrews, Benjamin; Dennen, Robert. 2013. Transport and sedimentation in unconfined experimental dilute pyroclastic density currents. Fall Meeting of the American Geophysical Union (Poster presentation).
- Stabile, F; Woodman, N. 2014. Functional limb morphology of African myosoricine shrews (Mammalia, Soricidae). Society for Integrative and Comparative Biology Annual Meeting (Poster presentation).
- Keil, K; Osborn, K. 2014. Associations between hyperiid amphipods and gelatinous zooplankton. Society for Integrative and Comparative Biology Annual Meeting (Poster presentation).
- Lavin, Luke; Bell, Joshua. 2012. Exploring the Collections and Relations of A.C. Haddon At the Smithsonian. American Anthropological Association Annual Meeting (Oral presentation).
- Gil, J; Watson, W. 2014. Improving the learning experience of museum visitors: Examining different types of experience in the Genome: Unlocking Life's Code exhibit. Ocean Sciences Meeting (Poster presentation).
- Kandlikar, Gauruv; Freund, Forrest; Johnson, Gabriel; Taylor, W. Carl; Zimmer, Elizabeth. 2014. Chloroplast DNA reveals uniparental plastid inheritance from *Isoetes engelmannii* in two allotetraploid speciation events. Botany 2014 (Poster presentation).



- Zimmer, Elizabeth; Johnson, Gabriel; Nagi, Suzanne; Wollaeger, Heide; Figlar, Richard. 2014. Genetic variability in *Magnolia acuminata* (L.) populations in the United States. Botany 2014 (Poster presentation).
- LaVine, Rhiannon J. 2014. Ecological gradient structure in the Mississippian Lodgepole Formation, southwest Montana. Geological Society of America (Poster presentation).
- Alison Post. 2014. Experimental Evolution of Divergence with Gene Flow: Testing for Local Adaptation in Yeast. Society for the Study of Evolution (Poster presentation).
- Tyler Imfeld. Dominique Chaput. Cara Santelli. 2013. The effect of nutrients on the growth and manganese oxidation of fungi and bacteria. 98th Meeting of Ecological Society of America (Poster presentation).
- A Rutter, J Maldonado, K Helgen, E Gutiérrez. 2014. Neotropical Deer: Morphometrics and Taxonomy of the *Mazama americana* Species Complex (Mammalia: Cervidae). American Society of Mammalogists 94th Annual Meeting (Poster presentation).
- Boas, Caitlin. 2014. Phylogenetics within Bellerophon: breaking down a classic wastebasket taxon. GSA Annual Meeting (Poster presentation).
- Cooper, G; Bell, J. 2014. Fixing Things: The Politics and Techniques of Cell Phone Repair. 2014 Annual Meeting for the Society For Applied Anthropology (Poster presentation).
- Hill K. N. Bullock E. S. Corrigan C.M. McCoy T. J.. 2014. Unscrambling the History of Enstatite Chondrites. 45th Lunar & Planetary Science Conference (Poster presentation).
- Katie Keil. 2013. Associations between hyperiid amphipods and gelatinous zooplankton. Society of Integrative & Comparative Biology (Poster presentation).
- Jackson, C M; Cottrell, E; Kelley, K A. 2010. Mineral-melt partitioning of V and Sc at arcs: implications for mantle wedge oxygen fugacity. Fall Meeting of the American Geophysical Union (Poster presentation).
- Wall, K; Davis, F A; Cottrell, E. 2014. Oxygen fugacity recorded by xenoliths from Pacific oceanic islands. Geological Society of America (Poster presentation).
- Cohen, Christopher; Dikow, Torsten. 2014. Taxonomic revision of the robber-fly genus *Leptopteromyia* Williston, 1907. Annual Meeting of the Entomological Society of America (Oral presentation).
- Cabrero, Alan; Dikow, Torsten. 2014. Taxonomic revision of the robber-fly genus *Acronyches* (Diptera: Asilidae). Annual Meeting of the Entomological Society of America (Oral presentation).
- Snider, A; Knowlton, N; Al-Rshaidat, M; Leray, M. 2014. Barcoding and metabarcoding the cryptofauna of the northern Red Sea. Western Society of Naturalists (Poster presentation).
- Lyons, S K; Toth, A; Behrensmeyer, A K. 2012. Changes in mammal community structure in Kenya over the last 100 years. Annual Meeting of the American Society of Mammalogists (Oral presentation).
- Toth, A; Behrensmeyer, A K; Miller, J; Lyons, S K. 2013. Species richness, community dynamics, and time-averaging in recent Kenyan ecosystems. 10th North American Paleontological Convention (Oral presentation).
- Marshall, B; Andrews, B J; Fauria, K. 2015. What's all the talc about? Entrainment in dilute pyroclastic density currents. American Geophysical Union Fall Meeting (Poster presentation).
- Miller, H; Rogers, J D. 2015. Using agent-based modeling to examine the effects of social connectivity on resilience. Annual Meeting of the American Association of Geographers (Poster presentation).
- Ehlinger, S. Q.; Wendler, J. E.; Wendler, I.; Huber, B. T.; Macleod, K. 2010. Influence of early diagenesis on foraminiferal shell chemistry and isotope signatures: Results from the Tanzania Drilling Project. Annual Meeting of the Geological Society of America (Poster presentation).

- Rodriguez-Russo, C. A.; Huber, B. T.; Macleod, K. G. 2010. Subtropical Turonian stable isotope ratios from “glassy” foraminifera : No evidence for greenhouse ice sheets. Annual Meeting of the Geological Society of America (Poster presentation).
- Huber, B. T.; Macleod, K. G.; Bryant, R. M.; and Dickie, M. 2014. Oxygen isotope paleotemperatures across the Cretaceous Super greenhouse at southern high latitudes (Naturaliste and Agulhas Plateau). Annual Meeting of the Geological Society of America (Oral presentation).
- Wall, K.; Cottrell, E. 2014. Oxygen fugacity recorded by xenoliths from Pacific oceanic islands. Fall Meeting of the American Geophysical Union (Poster presentation).
- Cottrell, E.; Davis, F.; Birner, S. K.; Warren, J. M.; Wall, K. 2014. Oxybarometry of peridotites from various tectonic settings. Annual Meeting of the Geological Society of America (Oral presentation).
- Birner, S. K.; Warren, J. M.; Cottrell, E.; Lopez, O. G.; Davis, F. A.; Falloon, T. J. 2014. Oxygen Fugacity Variations Among Tonga Trench Forearc Peridotites. Goldschmidt Geochemical Conference (Oral presentation).
- Birner, S. K.; Warren, J. M.; Cottrell, E.; Lopez, O. G.; Davis, F. A.; Falloon, T. J. 2013. Variations in Oxygen Fugacity among Forearc Peridotites from the Tonga Trench. Fall Meeting of the American Geophysical Union (Oral presentation).
- Herron, S.; Wen, J.; Zimmer, E. 2015. Nuclear and Chloroplast Sequences Resolve the Concord Grape Mystery. Botany 2015 (Poster presentation).
- Rosenfeld, C.; Kenyon, J.; Santelli, C. 2014. Environmental selenium transformations: Distinguishing abiotic and biotic factors influencing Se redox transformations. Fall Meeting of the American Geophysical Union (Oral presentation).
- Kenyon, J.; Rosenfeld, C.; Santelli, C. 2015. Investigating the effects of Se on fungal growth and biomineral production. Goldschmidt Conference (Poster presentation).
- Fernandez, A.; Hunt, D. 2015. Sex determination from the human sacrum: A re-assessment. Annual Meeting of the American Association of Physical Anthropologists (Poster presentation).
- Lu, Shaina; Chesson, R. Terry. 2015. Patterns of genetic variation in the Australian Grey Fantail complex: *Rhipidura albiscapa* and *Rhipidura phasiana*. Evolution 2015 (Poster presentation).
- Kralick, Alexandra E.; Tocheri, Matthew W. 2014. A 3D quantitative comparative analysis of wrist morphology among western and eastern gorillas. Annual Meeting of the American Association of Physical Anthropologists (Poster presentation).
- Sherwood, Kate D.; Owsley, Douglas W.; Bruwelheide, Kari S.; Rouse, Stephen L.; Hurlbert, Donald E. 2015. Basketmakers revealed: Physical, CT, and 3D analyses of mummified human remains from the southwest. American Association of Physical Anthropologists (Poster presentation).
- Kate Sherwood. 2015. Basketmakers Revealed. American Association of Physical Anthropologist (Poster presentation).
- Romero, Ashly; Sholts, Sabrina; Hakansson, Helen; Vilukela, Matti. 2016. Craniofacial and dental effects shown in rats following in utero/lactational exposure to 2,2',3,4,4',5,5'-heptachlorobiphenyl (PCB-180). Annual Meeting of the American Association of Physical Anthropologists (Poster presentation).
- Schwartz LC; Gonzalez VL; Goetz FE; Maslakova SA; Wirshing HH; Norenburg JL. 2016. Carcinonemertidae: ribbon worms in search of their family history. SICB Annual Meeting 2016 (Poster presentation).
- Cunningham, Andreana; Hunt, David R.; Coolidge, Rhonda H. 2016. Biocultural evidence through taphonomic observations in the Karluk Salmon Cannery Chinese of Kodiak Island, Alaska. Annual Meeting of the American Association of Physical Anthropologists (Poster presentation).

- Galezo, Allison. 2016. Morphometrics of the dolphin genus *Lagenorhynchus*: deciphering a contested phylogeny. Southeast & Mid-Atlantic Marine Mammal Symposium (Poster presentation).
- Kaufman, SV; Corrigan, CC; McCoy, TJ; Bullock, ES. 2016. Mineral Associations in Enstatite Chondrites: Possible Insights into Minerals on Mercury. 47th Lunar and Planetary Science Conference (Poster presentation).
- Obenda, Johann; Pobiner, Briana; Potts, Richard. 2016. The effect of context on visitor responses to the question "What does it mean to be human?". Annual Meeting of the American Association of Physical Anthropologists (Poster presentation).
- Said, Meena; Birner, Suzanne; Cottrell, Elizabeth. 2015. Oxygen Fugacity of Abyssal Peridotites Along the Gakkel Ridge. Fall Meeting of the American Geophysical Union (Poster presentation).
- Plaza-Torres, Stephanie; Wagner, Peter J; Darroch, Simon A F. 2015. A phylogenetic analysis of the brachiopod genus *Leptaena*. Geological Society of America Annual Meeting (Poster presentation).
- Winters, Noah P; Kula, Abigail A R; Kula, Robert R. 2015. Tall grass, small wasps: Measuring the biodiversity of braconid wasps (Hymenoptera: Ichneumonoidea) in two warm season grasslands.. Entomology 2015 (Oral presentation).
- Rondinelli, M; Droege, S; Kula, Abigail A R; Smith, David R; Kula, Robert R. 2015. Is pan trapping an effective method for estimating hymenopteran diversity in grasslands?. Entomology 2015 (Poster presentation).
- Said, M; Birner, S K; Cottrell, E. 2015. Oxygen fugacity of abyssal peridotites along the Gakkle Ridge. Fall Meeting of the American Geophysical Union (Poster presentation).
- Said, M; Birner, S K; Cottrell, E. 2015. Oxygen fugacity of abyssal peridotites along the Gakkle Ridge. Meeting of the Geological Society of America (Poster presentation).
- Sorman, Melanie; Fraass, Andrew; Huber, Brian; Acha, Beatrice; Wiggins, John Wesley. 2016. Morphometric and stratophenetic study of the *Rotalipora* lineage (planktic foraminifera) during the middle and late Cenomanian. Geological Society of America Annual Meeting (Poster presentation).
- Dafoe, Ashley C; Hunt, David R. 2017. The Accuracy of Nutrient Foramen Versus Midshaft Measurements of the Tibia for Sex Determination. Annual Meeting of the American Academy of Forensic Sciences (Oral presentation).
- Florez, D; Andrews, B J. 2017. Entrainment and runout of Martian pyroclastic density currents. Lunar and Planetary Science Conference (Poster presentation).
- Sosa, E S; Lunning, N G; McCoy, T J; Bullock, E S; Corrigan, C M; Gardner-Vandy, K G. 2017. Constraining the petrogenesis of the paired achondrites GRA 06128/9 through partial melting of an oxidized chondrite. Lunar and Planetary Science Conference (Poster presentation).
- Woolard, Katherine; Pobiner, Briana. 2017. Cautionary tales in the use of captive carnivore tooth mark data. Society for American Archaeology (Oral presentation).
- Aoki, N; Mushegian, N; Katija, K; Osborn, K. 2017. Kinematic description of locomotion in tomopterid polychaetes. Meeting of the Association for the Sciences of Limnology and Oceanography (ASLO) (Oral presentation).
- Abbott, Caroline P; Sues, Hans-Dieter; Lockwood, Rowan. 2017. The Dimetrodon dilemma: reassessing posture in sphenacodonts. Geological Society of American Annual Meeting (Poster presentation).
- Brook, Zev; Barclay, Richard S; Wing, Scott L. 2017. Cell size in Ginkgo and the paleo-CO<sub>2</sub> proxy. Geological Society of America Annual Meeting (Poster presentation).
- Wood, HM; Flynn, BI. 2018. You Are How You Eat: Chelicerae Orientation and the Diversification of Spi-



- ders (Arachnida: Araneae). Society for Integrative and Comparative Biology (Poster presentation).
- Benavidez, B M; Hunt, D. 2018. What teeth can tell you: oral health in two Paleo-Indian populations. American Association of Physical Anthropologists Annual Meeting (Poster presentation).
- Carreon, S; Austin, R; Sholts, S. 2018. Dental Caries Analysis of the Channel Islands. Society for American Archaeology (Poster presentation).
- O'Brien, Elizabeth; Edwards, Robert D; Radosavljevic, Aleksandar; Funk, Vicki. 2018. Patterns of plant endemism and diversity in the Guiana Shield. Botany 2018 (Poster presentation).
- Scher, Mason; Barclay, Richard S; Wing, Scott L. 2018. The effect of CO<sub>2</sub> concentration on carbon isotope discrimination in Ginkgo. American Geophysical Union Fall Meeting (Poster presentation).
- Richards, JC; Vecchione, M. 2019. The Diversity and Distribution of Cephalopods in the Charlie-Gibbs Fracture Zone. Society for Integrative and Comparative Biology Annual Meeting (Poster presentation).
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