# **Student Research Projects**

Rhawn Denniston Cornell College

# 2019

- Linking Observational Records of Rainfall to Cave Flooding Events, cave KNI-51, Australian Tropics Paige Kluge
- HONORS THESIS: Testing the Impact of Temperature and Humidity Variations on Isotopes in Speleothems from Tropical Australian Caves – Chloe Martin
- HONORS THESIS: Testing the Influence of Major Volcanic Eruptions on the Indo-Australian Summer Monsoon
  using the Last Millennium Ensemble (with Dr. Caroline Ummenhofer, Woods Hole Oceanographic Institution)

   Cali
  Pfleger
- Environmental Signals in Portuguese Caves Jace Bricker
- Environmental Signals in Portuguese Caves Gabrielle Hiatt
- Two Centuries of Sub-Annual Resolution Stable Isotopic Variability in a Tropical Australian Stalagmite Kat Armstrong
- Paleofire Reconstructions from Tropical Australian Stalagmites (with Dr. Elena Argiriadis, Ca' Foscari University, Venice)

  – Jamie Thompson (Macalester College)

### 2018

- HONORS THESIS: Boron Isotope-Based Shallow Ocean pH Estimates from Miocene and Pliocene Caribbean Corals
   Kira Fish
- Isotopic Signals of Volcanic Eruptions in the Australian Summer Monsoon as Recorded in Tropical Australian Stalagmites – Savhana Chrisco
- Environmental Monitoring of Three Tropical Western Australia Caves: Implications for Speleothem Paleoclimate Reconstructions – Cole Zrinsky
- Calibrating the Links between Rainfall and Thresholds for Cave Flooding in Three Tropical Western Australia Caves
   Matthew Stivland
- The Response of the Indo-Australian Summer Monsoon to the AD 1257 Mount Salamas Eruption as Indicated by the Last Millennium Ensemble (with Dr. Caroline Ummenhofer, Woods Hole Oceanographic Institution)— Cali Pfleger,
- Paleofire Reconstructions from Tropical Australian Stalagmites (with Dr. Elena Argiriadis, Ca' Foscari University, Venice)

  – Anhia Nguyen
- Reconstructing Late Holocene Cave Flooding Events using Mud Layers in KNI-51 Stalagmites Paige Kluge
- Reconstructing Late Holocene Cave Flooding Events using Mud Layers in KNI-51 Stalagmites Chloe Martin

# 2017

- Testing the Influence of Major Volcanic Eruptions on the Indo-Australian Summer Monsoon using Sub-Annually-Resolved Stable Isotope Analyses of Tropical Australia Stalagmites – Cole Zrinsky
- Stable Isotopic Analysis of Aragonite Stalagmites from Central Nepal Daniel Klever
- Trace Elements in Late Holocene Aragonite Stalagmites from the Australian Tropics Stephanie Voller
- Trace Elements in Late Holocene Aragonite Stalagmites from the Australian Tropics Cali Pfleger
- Investigating Rainwater, Dripwater, and Australian Cave Environments Danielle Polson
- Investigating Rainwater, Dripwater, and Australian Cave Environments Shay Rule

#### 2016

- Assessing Southern Hemisphere Behavior of the Indo-Pacific Tropical Rain Belt during the Late Holocene through Stable Isotope and U-Th Analyses of a Tropical Australia Stalagmite – Elena Skosey-LaLonde
- Maintaining a Cave Environmental Monitoring Program, Western Australia James Garrett

### 2015

- Design and Installation of Cave Environmental Monitoring Program, Western Australia James Garrett
- Paleoclimate Stalagmite Records from Cape Range, Western Australia Spanning Portions of the Last Five Glacial Cycles - James Garrett
- HONORS THESIS: Monthly-Resolved Paleoceanographic Variability Reconstructed from Pristine Miocene Corals from the Dominican Republic - Thomas Weiss
- HONORS THESIS: Stable Isotopic and Petrographic Analysis of Bounding Surfaces in Nevada Stalagmites Chris
   Felt

#### 2014

- Millennial-Scale Climate Variability of Marine Isotope Stages 2-5b from Blanchard Springs Caverns, northern Arkansas - Vreni Reidel
- Paleomonsoon Implications of Carbon Isotopic Variability in Late Holocene Aragonite Stalagmites from the Central Australian Tropics - Stephanie Lucker

#### 2013

- Stalagmite Records of the Penultimate Glacial Cycle from Western Iberia Setsen Altan-Ochir
- HONORS THESIS: Ultra-High Resolution Isotopic Records of Late Holocene Indo-Australian Summer Monsoon Dynamics - Kristian Passaro

# 2012

- Sea Level Variability over the Last Glacial Cycle (literature study) Daniel Pawlak
- Tropical Sea Surface Temperature Variability over the Last Glacial Cycle (literature study) David Allen
- HONORS THESIS: Coupled Stable Isotopes and Mud Layer Analysis of Aragonite Stalagmites from Tropical Western Australia Angelique Gonzales
- HONORS THESIS: Climate of the Last Glacial Cycle from Portugal Reconstructed using Stalagmites from Glory Hole Cave - Amanda Houts
- HONORS THESIS: The Last Glacial Maximum through Middle Holocene Climate Record from Stalagmites from Cape Range, Western Australia - Ni An

# 2011

- Modeling Oxygen Isotopic Ratios in Recent Stalagmite Aragonite from Northern Australia Andrew Roers
- Constraining Initial Thorium Ratios in Northern Australia Stalagmites Julian Peota
- Towards a Unified Paleoclimate Reconstruction from Portuguese Stalagmites Lucas Anderson
- Tropical Cyclones Reconstructions using Mud Layers in a 300-900 Yr Old Tropical Western Australia Stalagmite -Mike Barthelmes

 Tropical Cyclones Reconstructions using Mud Layers in a 300-600 Yr Old Tropical Western Australia Stalagmite -Dan Cleary

# 2010

- Comparison of Middle Holocene Oxygen Isotopic Time Series from Australian Stalagmites Elizabeth Greaves
- High-Precision U/Th Dates of GH Cave Stalagmites, Portugal Megan Denner
- Sub-Decadal Climate Reconstructions from Late Holocene Aragonite Stalagmites from the Ning Bing Range, Kimberley, Western Australia - Nick Campbell

### 2009

 Preliminary Dates on a Suite of Stalagmites from the Ning Bing Range, Kimberley, Western Australia - Bipul Timilsina

# 2008

- Refining a U-Th Chronology for a Western Australia Stalagmite Paleoclimate Series Emily Krauter
- Trace Element Characteristics of a Kimberley Australia Stalagmite Abby Michaelson
- Investigating Late Pleistocene Australian Monsoon Variability Rebecca Ellerbroek

## 2006

- Growth Histories of Stalagmites from Western Australia: Implications for Reconstructing the Australian Monsoon over the Last Glacial Cycle - Kristyn Rodzinyak
- A Comparison of U/Ca and Sr/Ca-Based Sea Surface Temperatures from Caribbean Fossil Corals Michael Lommler

# 2005

- An Arkansas Stalagmite Penultimate Deglaciation Record: Pt I Lara Moellers
- An Arkansas Stalagmite Penultimate Deglaciation Record: Pt II Diana Krogmeier
- Reconstructing Growth Histories of Portuguese Stalagmites: Relationships to Heinrich Events Charles Trodick
- U/Th Dating of Select Great Basin Stalagmites Amanda Gibson

# 2004

- Collection, Preparation, and Preliminary Chronology of Stalagmites from Coastal Portugal Alyssa Borowske
- U-Pb Dating Pristine Neogene Corals from Dominican Republic Peter Cole
- Construction of Chronologies and Stable Isotopic Trends of Ozark Stalagmites Brian Hoye

## 2003

- High-Resolution Stable Isotopic Analysis of Sea Surface Temperatures from Neogene Corals from Dominican Republic - Stephanie Penn
- High-Res. Stable Isotopic Analysis of a New Zealand Stalagmite Alexa Clements

# 2002

• A Late Holocene Speleothem Record from Devils Ice Box Cave, Central Missouri - Michelle DuPree