

Floyd Nichols

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Education

2019 - Current: PhD Student, Earth and Planetary Sciences, Northwestern University. Advisor Magdalena Osburn.

August 2015 – May 2019: **B.S., Biology**, Saint Vincent College, Latrobe, Pennsylvania. Research Advisor Jennifer Koehl, Professor of Biology.

January 2018 – May 2018: **Study Abroad**, CIEE (Cape Town, South Africa; Paris, France; London, England).

Research Experience

September 2018 – May 2019: **Senior Research**, Saint Vincent College, Latrobe, PA (*Determining Microbial Community Shifts in Response to Alkaline Mine Drainage in the Loyalhanna Creek System*).

May 2018 – July 2018: **Research Experience for Undergraduates**, National Science Foundation, Lab of Melissa Berke, Ph.D., University of Notre Dame, South Bend, IN (*Determining Microbial Community with Altitude From the Active Layer of Permafrost Regions*).

July 2017 – Dec 2017: **Research Assistant**, Rachel Harenchar, Saint Vincent College, Latrobe, PA (*The Influence of Pre-Natal Nicotine Exposure on Ethanol Place Preference in Adolescent Zebrafish*).

Sept 2016 – Feb 2017: **Research Assistant**, Lacie Werner, Saint Vincent College, Latrobe, PA (*Lactobacillus Probiotics Have Sex-Dependent Effects of on Behavior of Maternally Separated Rat Pups*).

May 2016 – Aug 2016: **Research Experience for Undergraduates**, National Heart, Lung, and Blood Institute, Lab of Benjamin Gaston, Ph.D., Case Western Reserve University, Cleveland, OH (*Inhibition of S-Nitrosoglutathione Reductase in Asthma*).

Technical Skills

- R programming language
- Python programming language
- Xcalibur
- Isodat
- Adobe Creative Cloud
- Lipid Extraction
- GC
- EA-IRMS

Research Interest

My research interests include, exploring how microorganisms interact with the environment through the lens of geochemistry and geobiology. I also have research interest in astrobiology and understanding the implications for life in extreme environments here on Earth as they may relate to life outside of Earth.

Awards and Honors

2019: Saint Vincent College President's Award Winner

2019: The ETS Exam High Score Recipient

2019: John C. Johnson Award for Excellence in Student Research

2015 – 2019: Dean's List (5 semesters) Saint Vincent College, Latrobe, PA

2018: Undergraduate Research Award given to the student who shows an outstanding passion and commitment to research, University of Notre Dame, South Bend, IN

2017: Global Scholars Grant in Honor of Nelson Mandela, For study abroad

2017: Service & Leadership Award, Saint Vincent College, Latrobe, PA

Research Grants

2018: AJ Palumbo Grant, Saint Vincent College

Professional Activities

2019: Academic Careers in Data Science, Northwestern University

2019: GeoClub, Northwestern University

Poster Presentations

Nichols, Floyd., Koehl, Jennifer., Mills, Sara. (2019). Microbial Community Shifts in Response to Alkaline Mine Drainage in the Loyalhanna Creek System. Saint Vincent College Academic Conference. April 24, 2019. **Oral.**

Nichols, Floyd., Koehl, Jennifer. (2019). Determining Microbial Community Shifts in Response to Alkaline Mine Drainage in the Loyalhanna Creek System. Tri-Beta Northeastern Region District III Convention. April 7, 2019. **Poster.**

Nichols, Floyd., O'Connor, Keith, Berke, Melissa, Ziolkowski, Lori. (2019). Determining the Effects of Climate Warming in the Active Layer of Permafrost Regions in Alaska. Geological Society of America. March 18, 2019. **Poster.**

Nichols, Floyd., O'Connor, Keith., Berke, Melissa. (2018). Determining Microbial Community Shifts with Altitude from the Active Layer of Permafrost Regions in Alaska. University of Notre Dame. July 28, 2018. **Poster.**

Nichols, Floyd., Smith, Laura., Gaston, Benjamin. (2016). Inhibition of S-Nitrosoglutathione Reductase in Asthma. Intersections Undergraduate Poster Session. Case Western Reserve University. August 4, 2016. **Poster.**