Vincent O'Leary

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Education

2013 - 2018 **Drexel University** Pennoni Honors College Philadelphia, PA - Cumulative GPA 3.53
BS **Environmental Science** - Minors in *Mathematics, Geoscience*
Relevant Courses: Biogeography, Biodiversity, Earth System Processes, GIS & Environmental Modeling, GIS & Field Surveying Methods, Environmental GIS, Scientific Data Analysis, Probability & Statistics, Community Mobilization and Advocacy

Dec 2015 **Reykjavik University** Reykjavik, Iceland, studied energy and policy through the GREEN Program

Academic and Professional History

Dec 2013 - present **Curatorial Assistant** (Ted Daeschler, PhD.)
Vertebrate Paleontology, Academy of Natural Sciences Philadelphia, PA

- Develop and standardize a FileMaker Pro database of 20,000+ specimens to publish online
- Describe morphology of fossils using scanning electron microscopy and 3D imaging techniques

Jun - Aug 2017 **NOAA Hollings Scholar Intern** (Chris Amante)
National Centers for Environmental Information (NCEI) Boulder, CO.

- Created a global model of elevation with public bathymetric and topographic datasets, available publicly through NOAA as GLOBATO
- Wrote and maintained scripts for the development of this new model

Mar - Sep 2016 **Biodiversity Informatics Research CO-OP** (Steve Dilliplane)
Center for Systematic Biology and Evolution, Academy of Natural Sciences Philadelphia, PA

- Migrated and organized 8860 records in FileMaker Pro using recognized metadata standards
- Developed automated work-flow using MySQL to import and standardize several distinct Symbiota, Microsoft Excel, and FileMaker Pro databases into a single Specify repository

Mar - Sep 2015 **Geographic Information System (GIS) Research CO-OP** (Jerry Mead, PhD.)
Patrick Center for Environmental Research, Academy of Natural Sciences Philadelphia, PA

- Modeled Jamaican landsnail biodiversity for 600+ sampled locations using ArcGIS, QGIS, and R
- Surveyed stream topography via bar-code and laser level techniques and sampled invertebrate biodiversity

Jun - Aug 2014 **STAR (Students Tackling Advanced Research) Scholar** (Daniel Duran, PhD.)
Drexel University Office of Undergraduate Research Philadelphia, PA

- Forecasted potential range expansion of invasive crayfish using MaxEnt and online environmental data

Activities

2016 - present **Student Ambassador** for Drexel Fellowships Office

2015 **Founding member** and event coordinator of two new student professional societies at Drexel University

2013 - 2017 **Vice President** Phi Kappa Psi Fraternity Philadelphia, PA

- Presided over 70 members and implemented new messaging system to improve notifications and archiving*

2013 - 2015 **President** Drexel Smart Initiatives Program - Drexel Smart House Project Philadelphia, PA

- Secured funding for original student research and partnered with Philadelphia Water Department and PECO*

Teaching and Outreach

2017 - present **Society for Science and the Public Advocate** working with the Drexel Lindy Center and community partners to develop and oversee a high school science fair mentorship program in West Philadelphia high schools *2016 - present* **Drexel Community Scholar** coordinating after-school STEM activities for students in West Philadelphia elementary schools

2017 **Science fair judge** for Alain Locke Elementary School science fair
2017 **Guest lecturer** for Alain Locke Elementary School fifth grade students
2014 Co-created new community based learning course at Drexel focused around climate change, urban ecology, and scientific communication which was offered to 18 students in the fall term of 2014
2008 - 2013 **Educator** Oglebay Good Zoo Wheeling, WV

Presentations

8 - **O'Leary, V**., C. Amante. GLOBATO: An enhanced global relief model at 30 arc-seconds resolution. *NOAA Hollings Scholarship Science and Education Symposium* 2017.
7 - Shirey, V., **V. O'Leary**, S. Dilliplane. More Than a Map: Adventures in Biodiversity Informatics Visualization. *The Society For The Preservation of Natural History Collections Annual Meeting* 2017.
6 - **O'Leary,V**. Digitization of the ANSP Vertebrate Paleontology collections. *Drexel University's Week of Undergraduate Excellence* 2017.
5 - **O'Leary, V**. Building Communities around a Shared River. *Drexel University's Week of Undergraduate Excellence* 2017.
4 - **O'Leary, V**., T. Daeschler. Building an urban ecology curriculum along the Schuylkill River walking trail. *Student Conference on Global Challenges* 2016.
3 - **O'Leary, V**. 1 Footpath, 100 Stories: Climate change and the importance of "talking science". *Presented twice for Drexel University's Undergraduate Research Nerd Nite* 2016.
2 - **O'Leary, V**., M. Sei, G. Rosenberg and J. Mead. Defining spatial distributions of landsnail biodiversity in Jamaica. *1) the National Conference on Undergraduate Research, 2) the Harvard Undergraduate Research Conference, and 3) the Stanford Undergraduate Research Conference* 2016.
1 - **O'Leary, V**., Z. Loughman. Habitat Preferences and Movement Patterns of Invasive Virile Crayfish Determined by Radio-Telemetry. *National Junior Science and Humanities Symposium* 2013.

Posters

6 - **O'Leary, V**., C. Amante. GLOBATO: An enhanced global relief model at 30 arc-seconds resolution. *American Geophysical Union Annual Meeting* 2017.
5 - (DECLINED) **O'Leary, V**., V. Shirey, S. Dilliplane. Connecting natural history collections to their

historical context and telling those stories to a global online audience. *Ecological Society of America Annual Meeting* 2017.
4 - Shirey, V., **V. O'Leary**, S. Dilliplane. Big Data Opportunities in Ecological and Biodiversity Informatics: A Functional Trait Perspective. *Digital Data in Biodiversity Research Conference* 2017.
3 - Raphelson, M., **V. O'Leary**, A. Adams, K. Luckenbill and T. Daeschler. Student projects using digital imaging techniques in Vertebrate Paleontology to capture new details of Late Devonian-age fossils. *Drexel University Research Day* 2016.
2 - **O'Leary, V**., D. Duran. Niche Modeling for Management of Invasive Crayfish. *STAR Scholars Summer Showcase Program* 2014.
1 - **O'Leary, V**., Z. Loughman. A Multi-Year Analysis of Orconectid Crayfish Invasion Dynamics in West Virginia Utilizing Laboratory and Field Methodologies. *Science Talent Search Competition* 2013.

Awards and Grants

2017

- Truman Scholarship
- Udall Scholarship
- Society for Science and the Public Advocate Grant ($3,000)
- Drexel University Arcadia Grant ($3000)

2016

- National Oceanic and Atmospheric Administration (NOAA) Hollings Scholarship
- Drexel University ExCITe Center Seed Fund Research Grant ($5,000)
- Drexel University Steinbright Corporate Partners Scholarship
- American Leadership Academy NBD Scholarship

2015

- Drexel University Office of Undergraduate Research SuperNova Fellow

2013

- Minor planet 28592 named "O'Leary" for being a finalist of the Intel Science Talent Search

2012

- Drexel University Tuition Scholarship at the Intel International Science and Engineering Fair

Skills

Field and Lab
Kinematic surveying using RTK/PPK and total station (TST) units, Barcode and laser level surveying, Water quality via YSI measurements, Marsh-McBirney flow meter, Backpack electrofishing, Seine net collecting, Tracking via radio-telemetry, Open channel hydraulic surveys, Scanning electron (SEM) and Petrographic microscopy

Computer
R, Python, SQL, FileMaker Pro, Git/GitHub, Bash scripting, GDAL/OGR, QGIS, ArcGIS, MaxEnt, Markdown (This CV is originally written in Markdown), LaTeX