Vincent O'Leary

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Professional History

Jun - Jul 2018 Truman Scholarship Summer Institute Intern (Reid Sherman, PhD.)

U.S. Global Change Research Program, White House Office of Science and Technology Policy, Washington, DC

- * Identify and rank data links in GCIS's web of provenance based on source material completeness
- * Support development of the Fourth National Climate Assessment (NCA4)

Dec 2013 - Dec 2017 Curatorial Assistant (Ted Daeschler, PhD.)

Vertebrate Paleontology, Academy of Natural Sciences (ANSP), Philadelphia, PA

* Designed and implemented a FileMaker Pro database of 20,000+ specimens and 3D images for ANSP

Jun - Aug 2017 NOAA Hollings Scholar Intern (Chris Amante, PhD.)

National Centers for Environmental Information (NCEI), NOAA, Boulder, CO.

* Developed a global model of elevation with public bathymetric and topographic datasets using ArcGIS and Bash, available as an update to NOAA's previous ETOPO1 model

Mar - Sep 2016 Biodiversity Informatics Research CO-OP (Steve Dilliplane)

Center for Systematic Biology and Evolution, Academy of Natural Sciences (ANSP), Philadelphia, PA

- * Migrated 8800+ records into FileMaker Pro using recognized metadata standards
- * Documented an 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 (ANSP), Philadelphia, PA

* Visualized biodiversity for 600+ sampled locations in Jamaica using ArcGIS, QGIS, and R

Jun - Aug 2014 STAR (Students Tackling Advanced Research) Scholar (Daniel Duran, PhD.)

Drexel University Office of Undergraduate Research (OUR), Philadelphia, PA

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

Teaching and Outreach

2018 English Second Language Teacher

* Assisted Aquinas Center with their "English for Speakers of Other Languages" courses

2017 - 2018 Society for Science and the Public Advocate

* Volunteered with Lindy Center for Civic Engagement and School District of Philadelphia as a teaching assistant in 9th and 10th grade science classrooms

2016 - 2017 Drexel Community Scholar

* Coordinated after-school STEM activities for 3rd and 4th grade students in the School District of Philadelphia

2014 - 2015 I co-developed a new community-based-learning course at Drexel University focused on climate change, urban ecology, and scientific communication along the Schuylkill River

2008 - 2013 I directed educational activities such as children's summer camps and special events at the Oglebay Good Zoo

Education

2013 - 2018 **Drexel University**, Pennoni Honors College, Philadelphia, PA GPA - 3.5 **BS Environmental Science**, minor in Geoscience

Relevant Courses: Biogeography, Biodiversity, Conservation Biology, Phylogenetic Analysis, Physical Geology, Earth System Processes, GIS & Environmental Modeling, Scientific Data Analysis, Statistics and Probability, Community Mobilization and Advocacy, American Political Thought, Systems Approach to Global Challenges

Other education

- 2018 Young Involved Philadelphia (YIP), Board Prep Program, Philadelphia, PA
- 2017 Native Nations Institute at University of Arizona, Rebuilding Native Nations, Tuscon, AZ
- 2015 The GREEN Program at Reykjavik University, Renewable Energy & Sustainability, Reykjavik, Iceland

Skills

Computer - ArcGIS, GDAL/OGR, QGIS, Python, R, OpenRefine, SQL, FileMaker Pro, Git/GitHub, Microsoft Office Suite (Word, Excel, PowerPoint, Access), Bash, Markdown (this resume written in Markdown), HTML, LaTeX

Field and Lab - Managing lab notebooks, Titration, Filtration, RTK/PPK and laser level surveying, Open channel hydraulic surveys, Backpack electrofishing, Radio-telemetry, Scanning electron (SEM) and petrographic microscopy

Awards and Grants

- 2018 James C. Gaither Junior Fellows program university nominee
- 2017 Harry S. Truman Scholarship
- 2017 Morris K. and Stewart L. Udall Scholarship
- 2017 Society for Science and the Public Advocacy Grant (\$3,000)
- 2017 Drexel University Arcadia Grant (\$3,000)
- 2016 National Oceanic and Atmospheric Administration (NOAA) Ernest F. Hollings Scholarship
- 2016 Drexel University ExCITe Center Seed Fund Research Grant (\$5,000)
- 2016 Drexel University Steinbright Corporate Partners Grant (\$4,000)
- 2013 Finalist of the Intel (now Regeneron) Science Talent Search by Society for Science and the Public

Oral Presentations

- 11 **O'Leary, V**. (2018), How to create a new map of the world. Presented at Week of Undergraduate Excellence, Drexel University, Philadelphia, PA, 14-18 May.
- 10 O'Leary, V., C. Amante (2018), GLOBATO: An enhanced global relief model at 30 arc-seconds resolution. Presented at Student Conference on Global Challenges, Drexel University, Philadelphia, PA, 1 Mar.
- 9 O'Leary, V., C. Amante (2017), GLOBATO: An enhanced global relief model at 30 arc-seconds resolution. Presented at Science and Education Symposium, NOAA, Silver Springs, MD, 1-3 Aug.
- 8 Shirey, V., V. O'Leary, S. Dilliplane (2017), More Than a Map: Adventures in Biodiversity Informatics Visualization. Presented at 2017 Annual Meeting, SPNHC, Denver, CO, 18-24, Jun.
- 7 **O'Leary**, **V** (2017), Digitization of the ANSP Vertebrate Paleontology collections. Presented at Week of Undergraduate Excellence, Drexel University, Philadelphia, PA, 1-5 May.
- 6 **O'Leary**, **V** (2017), Building Communities around a Shared River. Presented at Week of Undergraduate Excellence, Drexel University, Philadelphia, PA, 1-5 May.
- 5 **O'Leary**, **V** (2017), From Online to On the River: Opportunities for Data Storytelling. Presented at River Research Seminar, University of Pennsylvania, Philadelphia, PA, 28 Apr.
- 4 O'Leary, V., M. Sei, G. Rosenberg and J. Mead (2016), Modeling species distributions of landsnail biodiversity. Presented at National Conference on Undergraduate Research, University of North Carolina, Asheville, NC, 7-9, Apr.
- 3 O'Leary, V., M. Sei, G. Rosenberg and J. Mead (2016), Describing multivariate relationships and spatial distributions of snail biodiversity in Jamaica. Presented at BEES Research Day, Drexel University, Philadelphia, PA, 10 Mar.
- 2 **O'Leary, V**., T. Daeschler (2016), Building an urban ecology curriculum along the Schuylkill River walking trail. Presented at Student Conference on Global Challenges, Drexel University, Philadelphia, PA, 25 Feb.
- 1 **O'Leary, V** (2016), 1 Footpath, 100 Stories: Climate change and the importance of "talking science". Presented twice at Undergraduate Research Nerd Night, Drexel University.

Poster Presentations

- 8 O'Leary, V., C. Amante (2017), GLOBATO: An enhanced global relief model at 30 arc-seconds resolution. Abstract OS31C-1412 presented at 2017 Fall Meeting, AGU, New Orleans, LA, 11-15 Dec.
- 7 (declined) O'Leary, V., V. Shirey, and S. Dilliplane (2017), Connecting natural history collections to their historical context and telling those stories to a global online audience. Annual Meeting, ESA, Portland, OR, 6-11 Aug. 6 Shirey, V., V. O'Leary, and S. Dilliplane (2017), Big Data Opportunities in Ecological and Biodiversity Informatics: A Functional Trait Perspective. Presented at Digital Data in Biodiversity Research Conference, iDigBio, Ann Arbor, MI, 5-6 Jun.
- 5 **O'Leary, V.**, M. Sei, G. Rosenberg and J. Mead (2016), Describing multivariate relationships and spatial distributions of snail biodiversity in Jamaica. Presented at Stanford Research Conference, Stanford University, Stanford, CA, 15-17 Apr.
- 4 Raphelson, M., V. O'Leary, A. Adams, K. Luckenbill and T. Daeschler (2016), Student projects using digital imaging techniques in Vertebrate Paleontology to capture new details of Late Devonian-age fossils. Presented at BEES Research Day, Drexel University, Philadelphia, PA, 10 Mar.
- 3 O'Leary, V., M. Sei, G. Rosenberg and J. Mead (2016), Describing multivariate relationships and spatial distributions of snail biodiversity in Jamaica. Presented at National Collegiate Research Conference, Harvard University, Cambridge, MA, 21-23 Jan.
- 2 O'Leary, V., D. Duran (2014), Niche Modeling for Management of Invasive Crayfish. Presented at STAR Scholars Summer Showcase, Drexel University, Philadelphia, PA, 27 Aug.
- 1 **O'Leary, V.**, Z. Loughman (2014), A Multi-Year Analysis of Orconectid Crayfish Invasion Dynamics in West Virginia Utilizing Laboratory and Field Methodologies. Presented at COAS Research Days, Drexel University, Philadelphia, PA, 17-18 Feb.