

Chandler J. Olson

Education

Bachelor of Science in Biological Sciences
Concentration: Ecology/Evolution/Genomics

March 2021 | Drexel University
Suma Cum Laude

Experience

PhD Student | University of Alabama, Kocot Lab | August 2021 - Present

- Evaluating the systematics and taxonomy of Icelandic solenogasters using molecular and morphological techniques.
 - B.S. of Biological Sciences | Drexel University
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 - Concentration: Ecology/Evolution/Genomics
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- Suma Cum Laude

Curatorial Assistant | Academy of Natural Science, Dept. of Malacology | Apr-Sep 2020, Apr-July 2021

- Developed new interface for collection database, transformed collection data to comply with Darwin Core standards, and began integration of general invertebrate collection to database using Python and FileMaker.
- Created python program to parse out agent information of over 28,000 individuals from the "2400 Years of Malacology" document to augment the standing agent dictionary database.
- Imaged collection specimens with digital photography and SEM imaging as part of the Pacific Island Land Snail Digitization Project and for other research projects.
- Accessioned donated collections into the main malacology collection.

Undergraduate Researcher | Drexel University, Russel Lab | Sept 2019 - March 2020

- Performed precision dissections of turtle ants removing components of head and abdomen for analysis of the bacterial communities and their role in the fixation of inorganic nitrogen to produce amino acids.
- Husbandry of ant colonies and management of various experimental dietary conditions.

Content Intern | AdMed Inc. | Apr - Sept 2019

- Worked in collaboration with PhD. and PharmD. medical writers to develop training materials on diseases and drug mechanism of actions for pharmaceutical companies (ex. Merck & Co., AbbVie Inc.).
- Developed new content (fact sheets, assessment tests) and ensured content accuracy of materials including video storyboards, podcasts, virtual classrooms.

iSTAR Undergraduate Researcher | Drexel University, Ward Lab | Jun 2018 - Jan 2019

- Conducted a variety of experiments in the field including a morphological survey of *Melipona beecheii* bee castes that suggests they may utilize rare morphological caste differentiation.
- Presented results on morphological differentiation as a poster at the STAR Summer Showcase at Drexel University in August and the Second International Scientific Conference in Cienfuegos, Cuba in October.

SEA-PHAGES Undergraduate Researcher | Drexel University | Sept 2017 - June 2018

- Isolated a *Mycobacterium smegmatis* bacteriophage and submitted annotated genome to GenBank.
- Contributed to work resulting in publication in *Microbiology Resource Announcements*.

Skills

- Molecular techniques: bacterial transformation, DNA extraction, DNA annotation, gel electrophoresis, micro-pipetting, PCR, shotgun cloning, viral plaque assays
- Photography Skills: macrophotography, focus stacking, SEM imaging
- Computer Skills: Python, R, Filemaker Pro, Adobe Photoshop, ImageJ, Microsoft Office
- PADI Advanced Open Water Scuba Certified

Honors

- Graduate Council Fellowship, 2021-2022
- Wents Co-op Fellowship Award, 2020
- NWCA Academic All-American 2021
- Dean's List, Drexel University: Fall 2017 - 2021
- Dean's Scholarship, Drexel University, 2017 - 2021
- Drexel Legacy Scholarship, Drexel University, 2017 - 2021
- Gary & Marla Colton Endowment Scholarship, Drexel University, 2017 - 2021
- TriBeta Biological Honor Society, Drexel University, Inducted 2018, Recruitment committee-2019

Publications

2019 Kristofer A. Apellido, [et al, including **Chandler J Olson**] (2019) Complete Genome Sequences of 12 B1 Cluster Mycobacteriophages, Gareth, JangoPhett, Kailash, MichaelPhcott, PhenghisKhan, Phleuron, Phergie, PhrankReynolds, PhrodoBaggins, Phunky, Vaticameos, and Virapocalypse, *Microbiology Resource Announcements*, 8(8): 1-3. DOI: 10.1128/MRA.01387-18

Presentations (+international conference, *presenter)

Jan 2023 ***Olson C**, McLaughlin E, Cobo MC, Kocot K. *Diversity of Solenogasters (Mollusca, Aplacophora) in Deep Icelandic Waters*. Society for Integrative and Comparative Biology 2023, Austin, TX.

Oct 2018† ***Olson C**, McCurdy M, Smith Z, Joury S, Schneider S, Thomas R, Márquez S, Barrett M, Machado JAM, Ward DC. *Variation in worker caste morphology of *Melipona beecheii beecheii* bees in Cuba*. II Conferencia Científica Internacional de la Universidad de Cienfuegos, Cienfuegos, Cuba.

Oct 2018† *Joury S, **Olson C**, McCurdy M, Smith Z, Thomas R, Márquez S, Barrett M, Machado JAM, Ward DC. *Conditioning Bees in Cuba: assessing the cognitive behavior and color preferences of *Melipona beecheii* through visual associative learning assays*. II Conferencia Científica Internacional de la Universidad de Cienfuegos, Cienfuegos, Cuba.

Oct 2018† *Smith Z, Joury S, **Olson C**, McCurdy M, Thomas R, Márquez S, Barrett M, Machado JAM, Ward DC. *Microhabitat and introduced species' effects on native bee community structure in Cienfuegos, Cuba*. II Conferencia Científica Internacional de la Universidad de Cienfuegos, Cienfuegos, Cuba.

Aug 2018 McCurdy M, Smith Z, Joury S, **Olson C**, Thomas R, Márquez S, Barrett M, Machado JAM, Ward DC. *Limited thermoregulatory mechanisms in foraging *Melipona beecheii* bees*. STAR Scholars Summer Showcase, Philadelphia, PA.

Aug 2018 ***Olson C**, McCurdy M, Smith Z, Joury S, Schneider S, Thomas R, Márquez S, Barrett M, Machado JAM, Ward DC. *Variation in worker caste morphology of *Melipona beecheii beecheii* bees in Cuba*. STAR Scholars Summer Showcase, Philadelphia, PA.

Aug 2018 *Joury S, **Olson C**, McCurdy M, Smith Z, Thomas R, Márquez S, Barrett M, Machado JAM, Ward DC. *Conditioning Bees in Cuba: assessing the cognitive behavior and color preferences of *Melipona beecheii* through visual associative learning assays*. STAR Scholars Summer Showcase, Philadelphia, PA.

Aug 2018 *Smith Z, Joury S, **Olson C**, McCurdy M, Thomas R, Márquez S, Barrett M, Machado JAM, Ward DC. *Microhabitat and introduced species' effects on native bee community structure in Cienfuegos, Cuba*. STAR Scholars Summer Showcase, Philadelphia, PA.

June 2018 ***Olson C**, *Truxon A, *Johnson H, *Gandhi R. *A study of phage isolation using varied phage host and soil types*. SEA-PHAGES Poster Showcase, Philadelphia, PA.

Field Experience

Antarctica	Meiofauna survey aboard U.S. Nathaniel B. Palmer
Oman	ARMS Collection and Biodiversity Survey
Dauphin Island, AL	September 2022: Meiofauna BioBlitz
Friday Harbor, WA	July-August 2022: Biodiversity and Integrative Taxonomy of Invertebrates Course
Cienfuegos, Cuba	June-July 2018: University of Cienfuegos, urban beekeeping, private farmland in surrounding area

Public Outreach

www.seahorseandco.com	Free seashell identification guides for 18 states of the US Eastern Seaboard and Gulf of Mexico, currently including 467 species (~1,000 monthly visits, average 7.5 minutes per visit) 10 Educational videos related to malacology (~25,000 views) Awards: Levitetz Innovation Seed Grant (\$1000)
UA Homecoming Tent	2023: Received funding for the creation and execution of a seashell identification activity used during the University of Alabama Football Homecoming tailgate. Awards: Homecoming Tent Competition Awardee (\$250)
UA ArBOOretum	2023: Created and executed a “Spooky Snails” activity at the University of Alabama ArBOOretum event.

Extracurricular Activities

- Member, Drexel Varsity Wrestling Team, Drexel University, 2017 – 2021
- Representative, Drexel Student-Athlete Advisory Committee, Drexel University, 2017 – 2019
- Drexel Leadership Academy Graduate, Drexel University, 2018 – 2019