Alissa Ganley

PhD Candidate
Old Dominion University Norfolk, Virginia 23507 United States
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Areas of specialization: Comparative Biomechanics, Cephalopods, and Science Education

EDUCATION

Old Dominion University July 2017-Present
Doctorate in Ecological Sciences
Dissertation Advisor: Dr. Ian Bartol

University of California, Santa Cruz August 2013-March 2016
Bachelor's Degree in Marine Biology
Dean's List & Honors Program, Summa Cum Laude

PUBLICATIONS

Ganley, A.M., Krueger, P.S., and I.K. Bartol. (in preparation). Cuttlefish hatchling turning abilities. Target journal: *Journal of Experimental Biology*.

Bartol, I.K., **Ganley, A.M.**, and P.S. Krueger. (in preparation). Turning of squid hatchlings in intermediate flow regimes: importance of pulsed vortical flows. Target journal: *Journal of Experimental Biology*.

Ganley, A.M., Krueger, P.S., and I.K. Bartol. (2023). Faster is not always better: Turning performance trade-offs in the inshore squids *Doryteuthis pealeii* and *Illex illecebrosus*. *Journal of Experimental Marine Biology and Ecology*. 29 May 2023; 565: 10.1016/j.jembe.2023.151913

Bartol, I.K., **Ganley**, **A.M.**, Tumminelli, A.N., Bartol, S.M., Thompson, J.T., and Paul S. Krueger. (2023). Turning performance and wake dynamics of neritic squids. *Marine Biology*. 12 April 2023; 170 (73): 10.1007/s00227-023-04214-3.

Bartol, I.K., **Ganley**, **A.M.**, Tumminelli, A.N., Krueger, P.S., and Joseph T. Thompson. (2022). Vectored jets power arms-first and tail-first turns differently in brief squid with assistance from fins and keeled arms. *Journal of Experimental Biology*. 1 August 2022; 225 (15): 10.1242/jeb.24415.

RESEARCH EXPERIENCE

Old Dominion University, Norfolk, Virginia March 2020-Present
Lab Coordinator, Dr. Ian Bartol

- Manages research laboratory including personnel, live animals, multiple data collection requirements, and supplies to maintain a productive aquatic facility
- Coordinates care of animals and use of laboratory equipment

RESEARCH EXPERIENCE (continued)

Old Dominion University, Norfolk, Virginia July 2017-Present
Dissertation Research
- Investigates cephalopod biomechanics using cutting-edge Defocusing Digital Particle Tracking Velocimetry and advanced kinematic tracking
- Cares for cephalopods in research lab

Old Dominion University, Norfolk, Virginia July 2017-Present
Research Assistant, Dr. Ian Bartol
- Collects and processes data for NSF Grant #1115110
- Maintains tanks for live individuals for research and teaching

Old Dominion University, Norfolk, Virginia July 2017-Present
Research Assistant, Dr. John Whiteman
- Maintains and coordinates care for Atlantic Stingrays
- Draws blood monthly from Atlantic Stingrays for isotopic analysis
- Prepares tissue and blood samples for stable isotope analysis

Tulane University June 2016-September 2016
Field Research Assistant, Dr. Michael Blum
- Performed field-based data collection on stream fish ecology and aquatic biota
- Conducted snorkel surveys and sampled water chemistry in streams in Oahu, Hawaii
- Completed mark and recapture study on native fishes using VIE tagging

National Oceanic and Atmospheric Administration July 2015-March 2016
Student Research Assistant, Dr. Cynthia Kern and Dr. Ann-Marie Osterback
- Collected, processed, and analyzed salmonid stomach samples
- Prepared and analyzed stable isotopes from fin clips and invertebrate samples
- Supervised interns processing benthic samples from lagoon
- Participated in fieldwork: seining, e-fishing, and snorkel surveying

University of Queensland, Moreton Bay, Australia November 2014
Research Assistant, Chris Henderson
- Collected and preserved sea grass cores for biological control studies
- Deployed underwater cameras for remote observation of different environments

University of Queensland, Moreton Bay, Australia November 2014
Research Assistant, Emily Bell
- Deployed baited underwater cameras to record population of organisms in mangroves
- Completed transects for population studies in mangroves

University of Queensland, Heron Island, Australia October 2014-November 2014
Independent Researcher
- Conducted primary research on the dynamics of attendance feeding in reef systems
- Performed ethograms, ran experiments, and observed systems

University of Queensland, Moreton Bay, Australia September 2014
Independent Researcher
- Ran experiments on chemosensory cues of baits for rabbitfish for use in baited underwater cameras
- Performed y-tube experiments, collected organisms by seine net

TEACHING & MENTORSHIP EXPERIENCE

Old Dominion University January 2023- Present
Teaching Assistant, Dr. Ian Bartol
- Taught Comparative Animal Physiology Lab and assisted teaching introduction to Marine Biology
- Developed new lab activities and lecture assignments for students

Old Dominion University May 2022- Present
Research Project Mentor, for an undergraduate student
- Planned, coordinated, and supervised field work for undergraduate project
- Facilitated lab work and data analysis for presentation at undergraduate symposium

Old Dominion University October 2021- Present
M-MARC Program Rotation Supervisor
- Trained and Supervised participant of NSF-funded MARC program for underrepresented students with interest in pursuing graduate degrees in science

Old Dominion University August 2020- Present
Teaching Assistant, Dr. Brian Olenchnowski
- Taught Environmental Science for non-majors and Environment and Humanity courses
- Lectured on topics including scientific method, ecological tools, and climate change
- Reorganized and restructured a lab course to be completed online during COVID

Old Dominion University July 2017- Present
Mentor
- Mentor multiple undergraduates in school, career, and research skills
- Number of mentees as of November 2023: 14

University of California, Santa Cruz January 2015-April 2015
Teaching Assistant, Dr. David Bernick
- Taught in Extreme Environment Virology, honors course
- Supervised of students during fieldwork and ran lab component of the class

COMMUNITY ENGAGED SERVICE

Safe Space LGBTQIA+ Trained, Old Dominion University, December 2022-present
Member of the Graduate Student Advisory Board to the Dean of Sciences, Old Dominion University, March 2019-present
Member of the Graduate School Advisory Board to the Dean of Graduates, Old Dominion University, March 2019-present
Mentoring Young Sciences Program Participant, Old Dominion University and the Virginia Aquarium, July 2018- August 2018
Aquatics Facility Tour Guide, Old Dominion University, July 2017-present
Docent, Seymour Center at the Longs Marine Lab, University of California, Santa Cruz, March 2014-April 2016
Exhibit Guide, Seymour Center at the Longs Marine Lab, University of California, Santa Cruz, August 2010-March 2014

CONFERENCES AND PRESENTATIONS

Society for Integrative and Comparative Biology Conference, Austin, TX, January 2023
- Talk entitled: "Turning abilities of *Sepia officinalis* and *Sepia bandensis* hatchlings"

Biology Graduate Student Organization Symposium, Old Dominion University, April 2022
- Talk entitled "Kinematics of Turning Squid: *Doryteuthis pealeii* and *Illex illecebrosus*"
- Runner up for best PhD Presentation, "Fan Favorite" winner

Society for Integrative and Comparative Biology Conference, Virtual, January 2022
- Talk entitled: "Turning kinematics of inshore squid"

Society for Integrative and Comparative Biology Conference, Virtual, January 2021
- Talk entitled: "Maneuverability of hatchling *Sepia officinalis*"

Biology Graduate Student Organization Symposium, Old Dominion University, March 2020
- Talk entitled: "Maneuverability of the common cuttlefish *Sepia officinalis* throughout ontogeny: an integrated kinematic/hydrodynamic analysis" cancelled due to COVID

Society for Integrative and Comparative Biology Conference, Tampa FL, January 2019
- Poster Entitled: "Maneuvering performance of squid: coupling kinematics with 3D velocimetry"

FELLOWSHIPS, GRANTS, AND CERTIFICATES

Senior Dominion Scholarship, Old Dominion University, 2022, $20,000
Charlotte Magnum Award, Society for Integrative and Comparative Biology, 2022, $600
Biology Graduate Student Organization Travel Award, Old Dominion University, 2022, $500
SEES Graduate Travel Award, Old Dominion University, 2022, $550
Graduate Summer Award Program, Old Dominion University, 2022, $3,000
Biology Graduate Student Organization Grant in Aid of Research, Old Dominion University, 2022, $1,000
Lerner Gray Research Grant, American Museum of Natural History, 2020, $1,700
Charlotte Magnum Travel Award, Society for Integrative and Comparative Biology, 2018, $600
Biology Graduate Student Organization Travel Award, Old Dominion University, 2018, $545
Dominion Scholarship, Old Dominion University, 2017-2021, $80,000

TRAININGS AND CERTIFICATIONS

Field Skills: Electric Fishing, Trawling, VIE Tagging, Transect Surveys, Water Quality Testing, Velocity Measurements, Stomach Content Analysis, Seining, Seagrass Coring, Baited Underwater Camera Operation, Behavior Ethograms
Lab Skills: Stable Isotope Preparation, Level 4 Laser Operation and Alignment, Particle Image Velocimetry, Animal Husbandry, Defocusing Digital Particle Tracking Velocimetry, High Speed Camera Operation, Coreview Image Collection Data
Technical Skills: ARC GIS Proficiency Certificate, R programming, Python programming, ImageJ, MatLab, Microsoft Office suite