

Daniel Lauer

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Education

- 2018 - Expected 2023** *Ph.D. in Quantitative Biosciences*
Georgia Institute of Technology, Atlanta, GA
Dissertation title: TBD
- 2016 - 2017** *Bachelor of Science in Environmental Science and Policy: Biodiversity and Conservation Biology*
University of Maryland, College Park, MD
Cumulative GPA: 3.958
- 2013 - 2016** *Coursework in Biology and Environmental Studies*
Brandeis University, Waltham, MA
Cumulative GPA: 3.901
- 2012 - 2013** *Judaic studies gap year program*
Yeshivat Har Etzion, Alon Shvut, Israel
- 2012** *High school diploma*
Fuchs Mizrahi School, Beachwood, OH

Research Experience

- 2016 - Present** *Undergraduate Research Assistant*
Department of Biology, University of Maryland, College Park
- Conduct marine biological research and data analysis with Professor Marjorie Reaka
 - Manage and organize a data set of 12,921 marine species found in the Gulf of Mexico
 - Introduce and implement innovative strategies like logistic regression and other statistical tests to determine species ecological dynamics, using MATLAB, R, and Excel
 - Write five scientific papers for publication in the following areas of species ecology: depth range flexibility, horizontal range flexibility, endemism to different defined depth zones, habitat associations, and biotic interactions
 - Acknowledged by professor for taking an impressive leadership role
 - Contributed to professor's presentation at 2018 Gordon Research Conference
- 2016** *Summer Research Volunteer*
Tropical Marine Conservation Programme, Song Saa Foundation
- Volunteered for the Song Saa Foundation in Koh Rong, Cambodia, for two months
 - Collected coral reef species biomass data for use by the Cambodian government in implementing marine protected areas surrounding Koh Rong
 - Conducted data collection using underwater transects and other field equipment
 - Attained SCUBA diving, species recognition, and data-processing skills
 - Completed training in a coral reef ecology course and in advanced SCUBA diving
 - Facilitated intercultural connections by teaching English to local children

- 2015** ***Summer Laboratory Volunteer***
Bloomberg School of Public Health, Johns Hopkins University
- Volunteered in the Environmental Health Microbiology and Immunology Laboratory (EHMIL), run by Professor Christopher Heaney, for two months
 - Assisted in carrying out the laboratory's environmental health studies through wet laboratory procedures, data collection, and regular reports of findings
 - Conducted professional laboratory techniques like ELISA and PCR
- 2014** ***Summer Laboratory Volunteer***
School of Medicine, Johns Hopkins University
- Volunteered in the International STI, Respiratory Diseases, and Biothreat Research Laboratory, run by Dr. Charlotte Gaydos, for one month
 - Assisted in carrying out the laboratory's studies through wet laboratory procedures, including analysis of the accuracy of various STI detector kits

Teaching Experience

- 2018** ***Teaching Assistant, Marine Ecology***
Department of Biology, University of Maryland, College Park
- Prepared lecture focusing on how to properly deliver Powerpoint presentations to a class of 42 junior and senior-level undergraduate students
 - Graded course assignments and exams, and answered student questions via e-mail and office hours, to help ensure student success in the course

Abstract Publications

- 2018** Reaka, M.L., and **D.A. Lauer** (2018). Biodiversity and endemism of Crustacea in the Gulf of Mexico. *9th International Crustacean Conference, Abstract Book, p. 56*. Washington, D.C.

Conference Presentations

- 2018** Reaka, M.L., and **Lauer, D.** (2018, June). Patterns of biodiversity on Mesophotic reefs and their implications for conservation and management. Presented by Dr. Reaka at the Mesophotic Coral Reef Ecosystems Gordon Research Conference, Lewiston, Maine.
- 2018** Reaka, M.L., and **Lauer, D.** (2018, May). Biodiversity and endemism of Crustacea in the Gulf of Mexico. Presented by Dr. Reaka at the 9th International Crustacean Conference, Washington, D.C.
- 2016** **Lauer, D.** (2016, April). Citizen science research on the phenology of trees: seeing the bigger trends in the smaller picture. Poster session presented at the Brandeis University Experiential Learning Symposium, Waltham, Massachusetts.
- 2011** **Lauer, D.** (2011, March). The effect of motor oil treatment on the growth and appearance of sonoma brown oyster mushrooms (*Pleurotus ostreatus*). Poster session presented at the Northeast Ohio Science and Engineering Fair, Cleveland, Ohio.

Awards and Honors

- 2018** • Georgia Institute of Technology Herbert P. Haley Fellowship stipend
- 2017** • GLO-BUS (Global Business Simulation Strategy Game) Global Top-100 Performance
• Kol HaOlam (National Collegiate Jewish A Cappella Championship) Champion
• Tau Sigma National Honor Society induction
- 2016 - 2017** • University of Maryland, College Park Academic Honors
- 2013 - 2016** • Brandeis University Dean's List
• Brandeis University Lerman-Neubauer Fellowship program (for "students with exceptional scholastic records who possess the potential to make significant contributions to the academic field of their choice") membership
- 2014** • National Society of Collegiate Scholars induction
- 2012** • Fuchs Mizrahi School Valedictorian
- 2011** • Fuchs Mizrahi School Young Scholar Award ("awarded for exemplifying the pursuit and ideals of scholarship")
• National Honor Society induction
• NEOSEF (Northeast Ohio Science and Engineering Fair), awarded Third Prize, Biology, for the project entitled "The effect of motor oil treatment on the growth and appearance of sonoma brown oyster mushrooms (*Pleurotus ostreatus*)"
• In Vitro Society Award (for above project)
• American Museum of Natural History Young Naturalist Awards Finalist (for above project)
• AP Scholar Award
• Friendship Circle, co-recipient of the Donald J. Goodman Special Needs Fellowship Award (for volunteering with special needs children)
- 2010** • Fuchs Mizrahi School Matmid Award (for a student who is sincere and enthusiastic and seeks additional opportunities for learning)
• Ohio High School Athletic Association (OHSAA) Scholar-Athlete Award

Leadership Experience

- 2015 - 2016** *Music Director*
Manginah, Brandeis University
- Spearheaded musical efforts of Manginah (pronounced Mahn-gee-nah), the premiere co-educational Jewish a cappella group at Brandeis University
 - Managed musical arranging, group rehearsals, and musical performance quality
 - Revitalized strong group chemistry via communication and leadership

2014

Student Club Treasurer

Brandeis Orthodox Organization, Brandeis University

- Oversaw financial operations of the Brandeis Orthodox Organization, a student club at Brandeis University with close to 150 members
- Strengthened club success by means such as managing budget records, fundraising, allocating funds for club events, and collaborating with fellow students, university administrators, and off-campus vendors
- Assisted in running board meetings by coordinating discussion of relevant monetary topics

Professional Experience

2012 - 2015 *Summer Overnight Camp Counselor*

Camp Stone, Sugar Grove, PA

- Developed and ran educational and recreational activities for campers of ages 10 to 15
- Oversaw the health and wellbeing of campers through active supervision on a regular basis, including during meals, daily activities, field trips, and at nights

Other Extracurricular Activities

2016 - Present • Member, Rak Shalom (co-educational Jewish a cappella group), University of Maryland

2016 • Advanced Open Water Diver Certification, Professional Association of Diving Instructors, Koh Rong, Cambodia
• Open Water Diver Certification, Scuba Schools International, San Diego, CA

2015 - 2016 • Member, Brandeis Juggling Society, Brandeis University

2013 - 2015 • Member, Brandeis Orthodox Organization Eruv Committee, Brandeis University

2013 • Volunteer, Brandeis Volunteer Fest, Brandeis University

2012 • Intern, Wildlife Center, Penitentiary Glen Reservation, Cuyahoga Heights, OH

2010 - 2012 • Member and co-captain, varsity soccer and basketball teams, Fuchs Mizrachi School, Beachwood, OH
• Counselor, Bnei Akiva Cleveland, Beachwood, OH
• Volunteer, Friendship Circle of Cleveland, Beachwood, OH

Academic Organization Memberships

- Tau Sigma National Honor Society
- Brandeis University Lerman-Neubauer Fellowship program
- National Society of Collegiate Scholars
- National Honor Society

Technical Skills

- **Programming languages:** R, Python, MATLAB, SQL, and GIS
- **Laboratory techniques:** PCR, ELISA, IR and NMR spectroscopy, Micro BCA Protein Assay, making and processing agar plates, DNA extraction, autoclaving, gel electrophoresis, other wet laboratory techniques
- **Other:** Microsoft (including Power BI and Azure Machine Learning) and Google applications, Mac and PC platforms, various networking websites, SCUBA diving

Languages

- **English:** fluent
- **Hebrew:** proficient

References

Marjorie Reaka, PhD

Professor

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