

David S. DeLaMater III

Graduate Student, University Program in Ecology
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I. EDUCATION

- Exp. 2023 **Ph.D., Ecology**, *Duke University*.
 Advisors: Dr. Brian R. Silliman & Dr. Justin P. Wright
 Thesis: Quantifying effects of environmental change through traits.
- 2018 **M.S., Biology**, *The College of William & Mary*.
 Advisor: Dr. Harmony J. Dalglish
 Thesis: Range-wide intraspecific variation in plant traits; effect on plant-herbivore interactions.
- 2016 **B.S., Ecology magna cum laude**, *State University of New York at Plattsburgh*.
 Advisor: Dr. Jacob N. Straub
 Thesis: Quantifying habitat preference in American Black Ducks and Mallards
- 2014 **A.S., Liberal Arts: Math & Science**, *Adirondack Community College*.

II. HONORS, AWARDS, & SCHOLARSHIPS

- 2019 **Ton Damman Award Finalist** (\$200), *Ecological Society of America Vegetation Section, Ecological Society of America 2019 Annual Meeting* in Louisville, KY.
- 2018 **Best Graduate Student Presentation** (\$800), *Mid-Atlantic Chapter of the Ecological Society of America 2018 Annual Meeting* at Rutgers University.
- 2018 **Interdisciplinary Award for Excellence in Research** (\$2,000), *College of William & Mary*.
- 2017 **Graduate Research Fellowship** (\$132,000), *National Science Foundation*.
- 2017 **Associate Member**, *Sigma Xi*.
- 2016 **LCRI Outstanding Presentation Award**, *Lake Champlain Research Institute*.
- 2015 **Casella Waste Systems Inc. Scholarship** (\$500), *SUNY-Plattsburgh*.
- 2014 **Outstanding Biology Student Award**, *Adirondack Community College*.

III. RESEARCH GRANTS

- 2020 **Duke Biology Grant-in-Aid** (\$1000), *Duke Biology Kever Fund*
- 2019 **Shinn Grant** (\$1,000), *The North Carolina Native Plant Society*
- 2019 **Coastal Wetlands Studies Scholarship** (\$5,000), *The Garden Club of America*
- 2019 **Duke Biology Grant-in-Aid** (\$989), *Duke Biology Kever Fund*
- 2019 **Research Grant** (\$750), *Society of Wetlands Scientists South Atlantic Chapter*
- 2017 **Exploration and Field Research Grant** (\$3,200), *The Explorer's Club*
- 2017 **Arts & Sciences Graduate Research Grant** (\$700), *College of William & Mary*
- 2016 **Arts & Sciences Graduate Research Grant** (\$300), *College of William & Mary*

IV. PUBLICATIONS

Wright, J., DeLaMater, D., Simha, A., Ury, E., and Ficken, C. 2020. Changes in Prescribed Fire Frequency Alter Ecosystem Carbon Dynamics. *Ecosystems*.

DOI: 10.1007/s10021-020-00540-5

DeLaMater D.S., Couture J.J., Puzey J.R., and Dalglish H.J. Accepted. Range-wide variations in common milkweed traits and their effect on monarch larvae. *American Journal of Botany*.

V. PROFESSIONAL POSITIONS

Graduate Teaching Assistant, *Duke University*, August 2020 – Present. *Field Ecology*.

Helped teach and lead students in a hands-on field-based course while navigating Covid-19 limitations. Developed students' skills in critical reading and synthesis of scientific literature, research design, data collection, analyses & statistics, and scientific writing & editing. Designed and graded reading assignments, and edited and graded lab reports. Mentored and aided students in independent research projects.

NSF Graduate Research Fellow, *Duke University*, August 2018 – August 2020. Designed and implemented PhD research projects. Wrote and applied for grants (*total granted*: \$8,739). Engaged in professional service through peer-review of publications (2 reviews; *J. Ecol., Mar. Ecol. Prog. Ser.*). Wrote manuscripts for publication (1 article published; *Ecosystems*). Participated in multidisciplinary collaborative syntheses of conservation literature with Duke social scientists and World Wildlife Fund employees.

NSF Graduate Research Fellow, *The College of William & Mary*, August 2017 – August 2018. Designed and implemented research projects. Wrote and applied for grants (*total granted*: \$3,900). Wrote manuscripts for publication (1 article published; *Am. J. Bot.*). Engaged in research communication and public outreach. Presented at local, regional, and national conferences. Mentored 2 undergraduate research assistants (Theodore Noll; Ian Wilenzik).

Graduate Teaching Assistant, *The College of William & Mary*, January 2017 – August 2017. *Fire Ecology*. Graded lecture quizzes and exams. Supervised students in a weeks-long out-of-state travel course. Mentored and aided students in independent research projects.

Graduate Teaching Assistant, *The College of William & Mary*, August 2016 – January 2017. *Intro to Organisms, Ecology, and Evolution; Intro to Molecules, Cells, and Development*. Taught and led two lab sections per week. Designed, administered, and graded weekly lab quizzes. Graded lecture quizzes, exams, and lab module reports.

Undergraduate Teaching Assistant, *Plattsburgh State University Center for Earth and Environmental Science (CEES)*, August 2015 – January 2016. *Ecology*. Aided lab instructor in teaching and leading labs. Prepared lab materials before each lab. Managed data entry and processing.

Military Police, *U.S. Active Army*, Wiesbaden, Germany; Ramadi, Iraq. July 2008 – January 2012. Granted a Secret level security clearance. Supervised teams of Military Police in both garrison and forward deployed environments. Regularly conducted weeks-long expeditions in remote locations. Gained proficiency with trained others in land navigation (hard-map and GPS), radio communications (SINCGARS VHF-FM), and the safe operation and maintenance of millions of dollars' worth of heavy machinery, firearms, oversized vehicles, and sensitive equipment. Routinely used basic level German and Modern Standard Arabic to communicate with foreign nationals.

VI. PRESENTATIONS

- DeLaMater DS, Couture JJ, Puzey JR, and Dalgleish HJ. Range-wide variation in common milkweed traits and its effect on larvae of the monarch butterfly. *Ecological Society of America 2019 Annual Meeting*. Louisville, KY. 2019 Aug 15.
- DeLaMater DS. Environmental variation and trait plasticity drive range-wide biogeographic patterns in common milkweed. *Duke University Program in Ecology Annual Symposium*. Blowing Rock Conference Center, NC. 2018 Nov 03.
- DeLaMater DS, Couture JJ, Puzey JR, and Dalgleish HJ. Range-wide variation in common milkweed traits. *Mid-Atlantic Chapter of the Ecological Society of America 2018 Annual Meeting*. Rutgers University, NJ. 2018 Apr 07.
- DeLaMater DS. Range-wide variation in common milkweed traits and its effect on larvae of the monarch butterfly. *17th Annual Graduate Student Research Symposium, Section for Awards in Excellence in Scholarship*. College of William & Mary, VA. 2018 Mar 16.
- DeLaMater DS, Couture JJ, Puzey JR, and Dalgleish HJ. Biogeographic variation in common milkweed (*Asclepias syriaca*) functional and defensive traits, and their effect on monarch (*Danaus plexippus*) growth, performance, and survival. *Ecological Society of America Annual Meeting*. Portland, OR. 2017 Aug 10.
- DeLaMater DS. American black duck (*Anas rubripes*) and mallard (*Anas platyrhynchos*) habitat preferences in the Adirondacks – a GIS landscape perspective. *Center for Earth and Environmental Science Student Poster Presentation*. SUNY-Plattsburgh, NY. 2016 May 05.
- DeLaMater DS and Hammer CF. Vegetation characteristics of a unique floodplain forest in the northeastern US. *Exploration & Observation: Undergraduate Student Research & Creative Activities Forum*. Legislative Office Building, Albany, NY. 2016 Feb 24. (Invited).
- DeLaMater DS and Hammer CF. Vegetation characteristics of a unique floodplain forest in the northeastern US. *New York Waterfowl and Wetlands Collaborative Network*. Rice Creek Field Station, SUNY-Oswego, NY. 2015 July 28.

VII. RESEARCH EXPERIENCE

- PhD research**, *Duke University, Durham, NC. August 2018 – Present.*
Advised by Drs. Brian R. Silliman & Justin P. Wright. Using salt marshes as a model System; using a combination of broad-scale observation, small-scale experiments, trait-based measurements, and modeling to make mechanistically based predictions about how environmental change will impact species form, interactions, and functions.
- M.S. research**, *The College of William & Mary, Williamsburg, VA. July 2016 – July 2018.*
Advised by Dr. Harmony J. Dalgleish. Determined range-wide plant trait variation in *Asclepias syriaca*. Used the milkweed-monarch interaction to study how intraspecific variation in plant traits affects specialist herbivore fitness. Mentoring 1 undergraduate research assistant.
- Undergraduate research**, *SUNY-Plattsburgh, Plattsburgh, NY. January 2016 – May 2016.*
Advised by Dr. Jacob N. Straub. Analyzed American black duck (*Anas rubripes*) and mallard (*Anas platyrhynchos*) habitat preferences, using open source habitat maps and occupancy data provided by the NY Department of Environmental Conservation.
- Field Technician**, *SUNY-Plattsburgh Center for Earth and Environmental Science (CEES), Plattsburgh, NY. May 2015 – January 2016.*

Determined habitat availability for cavity nesting waterfowl. Conducted forest surveys at Missisquoi National Wildlife Refuge for the U.S. Fish & Wildlife Service.

Field / Lab Technician, *Lake Champlain Research Institute (LCRI), Plattsburgh, NY. May 2015 – January 2016.*

Studied impact of invasive spiny water flea (*Bythotrephes longimanus*) on plankton community. Collected water, sediment, plankton, and fish samples on Lake Champlain, NY. Analyzed samples in lab – identified plankton and quantified *Mysid* reproduction.

VIII. PROFESSIONAL SERVICE & OUTREACH

Peer Review: *Journal of Ecology* (1); *Marine Ecology Progress Series* (1).

Organizing Member, Graduate Recruitment Organizing Committee for University Program in Ecology and Department of Biology. *Duke University*. January 2019.

Co-Organizer, BioBlitz. *College of William & Mary, VA*. May 2018.

Research Communication Organizer, The Butterfly Society of Virginia 25th Anniversary Meeting. *Virginia Beach, VA*. October 2017. **(Invited)**.

Research Communication, Monarch Festival. *College of William & Mary*, April 2017.

Student Panelist, Global Climate Change Panel. *SUNY-Plattsburgh, NY*. April 2016.

Student Co-Organizer, BioBlitz. *SUNY-Plattsburgh, NY*. May 2015.

Member, Wildlife Club. *SUNY-Plattsburgh, NY*. 2014–2016.

Member, Environmental Action Committee. *SUNY-Plattsburgh, NY*. 2014–2016.

IX. PROFESSIONAL REFERENCES

Dr. Brian R. Silliman (brian.silliman@duke.edu)

Rachel Carson Professor of Marine Conservation Biology, Duke University.

Tel.: 252.504.7635

Dr. Justin P. Wright (justin.wright@duke.edu)

Associate Professor of Biology and Director of Graduate Studies for University Program in Ecology, Duke University.

Tel.: 919.613.8096

Dr. Harmony J. Dalglish (hjdalglish@wm.edu)

Assistant Professor of Biology, College of William & Mary.

Tel.: 757.221.2238

Dr. Joshua R. Puzey (jrpuzey@wm.edu)

Assistant Professor of Biology, College of William & Mary.

Tel.: 757.221.1608

Dr. Jacob N. Straub (jacob.straub@uwsp.edu)

Assistant Professor and Kennedy-Grohne Chair in Waterfowl and Wetlands Conservation, College of Natural Resources, University of Wisconsin Stevens Point.

Tel.: 715.346.3323

Dr. Timothy B. Mihuc (timothy.mihuc@plattsburgh.edu)

Director, Lake Champlain Research Institute.

Professor, Center for Earth & Environmental Science, SUNY-Plattsburgh.

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