

# Megan L. Vahsen

## Curriculum Vitae

### A. Academic History

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**A.1. Name:** Megan Vahsen

**A.2. Present Rank:** Assistant Professor     **Recommended Rank:** Assistant Professor  
**Department:** Odum School of Ecology

**A.3. Allocation of Effort (1.00 EFT):** Instruction: 0.33; Research: 0.60; Service: 0.07

**A.4. Tenure Status:** On tenure track

**A.5. Graduate Faculty Status:** Active, first appointed January 2025

**A.6. Highest Degree:** PhD in Biological Sciences, University of Notre Dame, 2023

#### A.7. List of Academic Positions

01/25–	Assistant Professor, Odum School of Ecology, University of Georgia
04/23–12/24	Postdoctoral Associate, Department of Wildland Resources and the Ecology Center, Utah State University
08/23–12/23	Adjunct Faculty, Department of Biology, Appalachian State University

#### A.8. Post-graduate Awards

2024	Ecological Society of America George Mercer Award
2023	Ecological Society of America Early Career Ecologists Outstanding Publication Award (2nd place)
2023	Shaheen Graduate Student Award in the College of Science, University of Notre Dame
2023	Exemplary Graduate Career in the Dept. of Biological Sciences, University of Notre Dame
2017–2022	Notebaert Premier Fellowship, University of Notre Dame
2016	Louis G. Davis Scholarship, Colorado State University
2016	William M. Brown Professional Development Award, Colorado State University
2015	Ynez Morey and Chuck Reagin Memorial Entomology Scholarship, Colorado State University
2014	1st Place Student Poster, EMAPI International Conference, Kona, Hawaii
2014	Programs for Research and Scholarly Excellence Fellowship, Colorado State University

## B. Instruction

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### B.1. Courses Taught

Table 1: Courses taught as instructor-of-record.

Course	Institution	% Effort	Title	Term	Enrollment	Credits
ECOL 3500	University of Georgia	50	Ecology	F 2025	115	3
ECOL 3500H	University of Georgia	50	Ecology (Honors)	F 2025	18	3
BIO 3302L	Appalachian State University	100	Ecology (Lab)	F 2023	20	1
BIOS 40411	University of Notre Dame	50	Biostatistics	F 2021	117	4

### B.2. Development of New Courses

None

### B.3. Supervision of Graduate Student Research

None

### B.4. Supervision of Undergraduate Research

- (i) 2025: Victoria Cone, paid research assistant. University of Georgia.
- (ii) 2025: Erin Brown, paid research assistant. University of Georgia.
- (iii) 2024: Anthony Villalobos, senior capstone project. Utah State University.
- (iv) 2023–2024: Charlotte Steinhorst, honors thesis. Appalachian State University.
- (v) 2021–2022: Clayton Glasgow, paid research assistant. University of Notre Dame.
- (vi) 2021: Julia Jones, paid research assistant. University of Notre Dame.
- (vii) 2021: Camille Patton, paid research assistnat. University of Notre Dame.
- (viii) 2020–2021: Casey Samagalsky, paid research assistant. University of Notre Dame.
- (ix) 2017–2020: Brady Stiller, paid research assistant. University of Notre Dame.
- (x) 2017–2019: Aleah Appling, paid research assistant. University of Notre Dame.
- (xi) 2016–2017: Valerie Doebley, paid research assistant. Colorado State University.

### B.5. Recognitions and Outstanding Achievements in Teaching and Mentoring:

- (i) 2021: Kaneb Center Award for Outstanding Graduate Student Instructor

### B.6. Professional Development

- (i) 2024: RIOS Institute Open Science & Social Justice Learning Community
- (ii) 2022: Evolution and Long-Term Ecology Working Group
- (iii) 2021: Quantitative Undergrad Biology Education and Synthesis Faculty Network
- (iv) 2021: Microaggression Intervention at Notre Dame Workshop
- (v) 2018: Near-term Ecological Forecasting Initiative Short Course
- (vi) 2018: Coastal Carbon Research Coordination Network Working Group

## C. Scholarly Activities & Creative Work

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### C.1. Publications

I have authored 14 peer-reviewed publications, all of which are journal articles. Of these, three have been published since my arrival at UGA in January 2025. Co-authorship is common in ecology. First and last authorship reflect substantial contributions to a work, with the last author generally being the supervisor of a project. Middle author order can reflect relative contributions or, in the case of equal contributions, can be chosen alphabetically or otherwise. Exceptions to these norms occur when authorship is equally shared between me and another first author of a paper (*i.e.* co-first authors); these cases are denoted with a \* next to the names of the shared authors and represent equal effort from both first authors. Student and postdoc mentee authors are denoted with a †.

#### (a) Journal Articles

- i. Gamba D, **Vahsen ML**, Maxwell TM, Pirtel N, Romero S, Van Ee JJ, Penn A, Das A, Ben-Zeev R, Baughman O, Blaney CS, Bodkins R, Budha-Magar S, Copeland SM, Davis-Foust SL, Diamond A, Donnelly RC, Dunwiddie PW, Ensing DJ, Everest TA, Hoitink H, Holdrege MC, Hufbauer RA, Juzénas S, Kalwij JM, Kashirina E, Kim S, Klisz M, Klyueva A, Langeveld M, Lutfy S, Martin D, Merkord CL, Morgan JW, Nagy DU, Ott JP, Puchalka R, Pyle LA, Rasran L, Rector BG, Rosche C, Sadykova M, Shriver RK, Stanislavski A, Starzomski BM, Stone RL, Turner KG, Urza AK, VanWallendael A, Wegenschimmel C, Zweck J, Brown CS, Leger EA, Blumenthal DM, Germino MJ, Porensky LM, Hooten MB, Adler PB, & Lasky JR (2025). Local adaptation to climate facilitates a global invasion. *Nature Communications* 16: 10203.
- ii. Van Ee JJ, Gamba D, Lasky JR, **Vahsen ML** & Hooten MB (2025). Spatial Knockoff Bayesian Variable Selection in Genome-Wide Association Studies. *Bayesian Anal. Advance Publication*: 1 - 32.
- iii. **Vahsen ML**, Maxwell TM, Blumenthal DM, Gamba D, Germino MJ, Hooten MB, Lasky JR, Leger EA, Pirtel N, Porensky LM, Romero S, Van Ee J, Copeland SM, Ensing DJ & Adler PA (2025). Phenological sensitivity of *Bromus tectorum* genotypes depends on current and source environments. *Ecology* 106: e70025.
- iv. Cocciardi JM, Hoffman AM, Alvarado-Serrano DF, Anderson J, Blumstein M, Boehm E, Bolin LG, Borokini IT, Bradburd D, Branch HA, Brudvig LA, Chen Y, Collins SL, Des Marais DL, Gamba D, Hanan NP, Howard MM, Jaros J, Juenger TE, Kooyers NJ, Kottler EJ, Lau JA, Menon M, Moeller DA, Mozdzer T, Sheth S, Smith M, Toll K, Ungerer MC, **Vahsen ML**, Wadgymar SM, Waananen A, Whitney KD & Avolio ML (2024). The value of long-term ecological research for evolutionary insights. *Nature Ecology & Evolution* 8: 1584-1592.
- v. **Vahsen ML**, Todd-Brown KEO, Hicks J, Pilyugin SS, Morris JT & Holmquist JR (2024). The Cohort Marsh Equilibrium Model (CMEM): History, mathematics, and implementation. *JGR: Biogeosciences* 129: e2023JG007823.

- vi. Holmquist JR, Klinges DH, Lonneman M, Wolfe J, Boyd B, Eagle M, Sanderman J, Todd-Brown K, Belshe EF, Chapman S, Corstanje R, Janousek C, Morris JT, Noe G, Rovai A, Spivak A, **Vahsen ML**, Windham-Myers L, Kroeger K & Megonigal JP (2024). The Coastal Carbon Library and Atlas: Open source soil data and tools supporting blue carbon research and policy. *Global Change Biology* 30: 17098.
- vii. **Vahsen ML**, Kleiner HS, Kodak H, Summers JL, Vahsen WL, Blum MJ, Megonigal JP & McLachlan JS (2023). Complex eco-evolutionary responses of a foundational coastal marsh plant to global change. *New Phytologist* 240: 2121-2136.
- viii. **Vahsen ML**, Blum MJ, Megonigal JP, Emrich SJ, Holmquist JR, Stiller BS†, Todd-Brown KEO, & McLachlan JS (2023). Rapid plant trait evolution can alter coastal wetland resilience to sea level rise. *Science* 379:393-398.
- ix. **Vahsen ML**, Gentile RM, Summers JL, Kleiner HS, Foster B, McCormack R, James E, Koch RA, Metts D, Saunders CJ, Megonigal JP, Blum MJ & McLachlan JS (2021). Accounting for variability when resurrecting dormant propagules substantiates their use in eco-evolutionary studies. *Evolutionary Applications* 14: 2831-2847.
- x. Endriss SB\*, **Vahsen ML\***, Bitume EV, Monroe JG, Turner KG & Hufbauer RA (2019). The importance of growing up: juvenile environment influences dispersal of individuals and their neighbours. *Ecology Letters* 22: 45-55. doi:10.1111/ele.13166
- xi. Woodward B, Evangelista P, Young N, Vorster A, West A, Carroll S, Girma R, Hatcher E, Anderson R, **Vahsen ML**, Vashisht A, Mayer T, Carver D & Jarnevich C (2018). CO-RIP: A riparian vegetation and corridor extent dataset for Colorado River Basin streams and rivers. *ISPRS International Journal of Geo-Information* 7: 397-416.
- xii. Monroe JG, Markman DM, Beck WS, Felton AJ, **Vahsen ML** & Pressler Y (2018). Ecoevolutionary dynamics of carbon cycling in the Anthropocene. *Trends in Ecology & Evolution* 33: 213-225.
- xiii. **Vahsen ML**, Shea K, Hovis CL, Teller BJ & Hufbauer RA (2018). Prior adaptation, diversity, and introduction frequency mediate the positive relationship between propagule pressure and the initial success of founding populations. *Biological Invasions* 20: 2451-2459.
- xiv. Szűcs M\*, **Vahsen ML\***, Melbourne BA, Hoover C, Weiss-Lehman C & Hufbauer RA (2017). Rapid adaptive evolution in novel environments acts as an architect of populations range expansion. *Proceedings of the National Academy of Sciences* 114: 13501-13506.

#### (b) Non-peer Reviewed Publications

- i. Brook T, Millington-Drake M, Garbutt A, McGarrigle A, Rodriguez K, du Plessis N (2025). The State of the Worlds Saltmarshes 2025: A Global Call to Action for Coastal Resilience and Adaptation. **Vahsen** is listed as a contributor.

- ii. McDonough CM, Barak R, Bayer S, Bletz M, Brunson M, Dudney J, Gaoue O, Gill J, Harris A, Kuebbing S, McGill B, Nocco M, Tonietto R, **Vahsen ML** & Waring E (2020). Plant Love Stories: Share your story and grow a movement. *Bulletin of the Ecological Society of America* 101:e01663.
- iii. Carroll S, Butler K, Hilte A, **Vahsen ML**, West A, Woodward B & Evangelista P (2017). Mapping aspen in the Laramie Mountain Range, Wyoming. *IEEE Earthzine*.

### (c) Software Development

- i. Holmquist JR, Todd-Brown KEO, Morris JT, **Vahsen ML** & Hicks J. rCMEM: R package for the Cohort Marsh Equilibrium Model (CMEM). doi: 10.5281/zenodo.6629447.

## C.2. Grants and Fellowships Received

2025	Ecology Faculty Seed Grant. “Building a comparative resurrection ecology framework using Project Baseline archives”. Co-principal Investigator. Total award: \$4,660. Award shared with Vahsen and Co-principal Investigator Jill Anderson (UGA Ecology & Genetics).
2025	National Science Foundation Division of Environmental Biology. Collaborative Research: Rules of Life. “ <i>Using reaction norms to link genomic and phenotypic variation with regional-scale population responses to environmental change.</i> ” Principal Investigator on Subaward. Subaward to Vahsen: \$17,749. Main Principal Investigator: Peter Adler (Utah State University). Total award amount: \$1,096,023. Co-principal Investigator: Matthew Germino (USGS).
2020-2022	United States Coastal Research Program. Army Corps of Engineers. “ <i>Quantifying and reducing uncertainty of marsh accretion through data-model integration of aboveground plant productivity</i> ”. Principal Investigator. Total award: \$89,524. Award to Vahsen: \$89,524.

## C.3. Recognitions and Outstanding Achievements

2025	Utah Public Radio segment on Vahsen <i>et al.</i> , (2025), <i>Ecology</i>
2024	Chesapeake Bay Journal article on Vahsen <i>et al.</i> , (2023), <i>Science</i> .
2024	Utah Public Radio segment on Vahsen <i>et al.</i> , (2023), <i>Science</i> .
2023	Published highlight on Vahsen <i>et al.</i> , (2023), <i>Science</i> . Turner M (2023). Heritable trait variation for climate resilience. <i>Nature Ecology &amp; Evolution</i> 7: 492.
2023	Published commentary on Vahsen <i>et al.</i> , (2023), <i>New Phytologist</i> . Kottler E (2023). Seed resurrection study unearths evolution of phenotypic plasticity. <i>New Phytologist</i> 240: 1714-1716.

#### C.4. Supervision of Student Research

- (a) **Grants and Other Accolades Awarded to Graduate Mentees**  
None
- (b) **Grants and Other Accolades Awarded to Undergraduate Mentees**  
None

#### C.5. Presentations

##### (a) Invited Seminars

- i. 2025: Regional Invasive Species and Climate Change Network, Webinar
- ii. 2025: University of Georgia, Athens, GA, “Ecology, Diversity, Genetics, Evolution (EDGE)” seminar.
- iii. 2025: University of Wyoming, Laramie, WY, Department seminar.
- iv. 2024: California State University, Chico, Virtual. Department seminar.
- v. 2024: University of Utah, Salt Lake City, UT, Department seminar.
- vi. 2024: Washington State University, Pullman, WA, Department seminar.
- vii. 2023: The Cary Institute, Millbrook, NY. Research seminar.
- viii. 2023: University of Tennessee, Knoxville, TN. Department seminar.
- ix. 2023: University of Georgia, Athens, GA. Department seminar.
- x. 2023: University of Maryland, College Park, MD. Department seminar.
- xi. 2023: Appalachian State University, Boone, NC. Department seminar.
- xii. 2023: East Carolina University, Wanchese, NC. Department seminar.
- xiii. 2023: Lees-McRae College, Banner Elk, NC. Department seminar.
- xiv. 2023: Duke University, Beaufort, NC. Department seminar.

##### (b) Conference Talks (first-author only)

- i. 2025: *Integrating trait evolution and plasticity into marsh accretion models: Implications for wetland resilience*. Coastal and Estuarine Research Federation Biennial Conference. Richmond, VA.
- ii. 2025: *Environment alone cannot predict a global plant invader’s success*. Ecological Society of America Annual Meeting. Baltimore, MD.
- iii. 2024: *Plastic and evolutionary responses of plants to sea level rise alter predictions of marsh ecosystem processes*. Global Change Research Wetland Annual Symposium. Edgewater, MD.
- iv. 2023: *Accelerating research synthesis in predictive ecology*. Gordon Research Conference. Easton, MA.
- v. 2021: *Accounting for genetic variation and diversity in plant functional traits alters predictions of marsh accretion and carbon sequestration*. American Geophysical Union Fall Meeting. New Orleans, LA.
- vi. 2021: *Quantifying and reducing uncertainty of marsh accretion through data-model integration of aboveground plant productivity*. Global Change Research Wetland Annual Symposium. Virtual.

- vii. 2021: *Blue Genes: Eco-evolutionary responses of S. americanus to global change and implications for ecosystem function*. Global Change Research Wetland Annual Symposium. Virtual.
- viii. 2020: *Quantifying and incorporating uncertainty in predictions of coastal wetland stability*. Ecological Society of America Annual Meeting. Virtual.
- ix. 2019: *Data-model integration for forecasting carbon sequestration in coastal wetland soils*. Coastal and Estuarine Research Federation Biennial Conference. Mobile, AL.
- x. 2019: *Resurrecting my happiness while working with sedges*. Ecological Society of America Annual Meeting. Louisville, KY.
- xi. 2019: *Intraspecific variation in productivity of a dominant marsh sedge and implications for ecosystem function*. Ecological Society of America Annual Meeting. Louisville, KY.
- xii. 2017: *Rapid adaptive and spatial evolution drive range expansions of colonizing populations*. Ecological Society of America Annual Meeting. Portland, OR.
- xiii. 2016: *The role of evolution in the growth and spread of colonizing populations*. Guild of Rocky Mountain Ecologists and Evolutionary Biologists Annual Meeting. Gothic, CO.

**(c) Poster Presentations** (first-author only)

- i. 2023: *Plastic and evolutionary responses of plants to sea level rise impacts predictions of marsh ecosystem processes*. Ecological Society of America Annual Meeting. Portland, OR.
- ii. 2022: *Rapid evolution of coastal marsh plants alters ecosystem response to climate change*. Evolution and Long-Term Ecology Working Group. La Joya, NM.
- iii. 2015: *The roles of multiple components of propagule pressure in predicting invasion success*. Ecology and Management of Alien Plant Invasions. Kona, HI.

**(d) Select Presentations by Mentees** (mentees designated with †)

- i. 2021: Samagalsky CL†, Vahsen ML, Draper A† & McLachlan JS. Marsh species classification using remote sensing. College of Science Joint Annual Meeting, University of Notre Dame. Virtual.
- ii. 2018: Appling AA†, Vahsen ML & McLachlan JS. Inquiry-based laboratory course: Current status and future improvements. College of Science Joint Annual Meeting, University of Notre Dame. Notre Dame, IN.
- iii. 2017: Doebley V†, Vahsen ML, Morales L & Brown C. The effects of maternal environment on cheatgrass diaspore morphology. Celebrate Undergraduate Research and Creativity. Colorado State University. Fort Collins, CO.

## D. Public Service

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### D.1. Extension

None

### D.2. International Programs

None

### D.3. Local Community Services (Public Outreach)

- i. 2021: Intrinsic Schools Career Networking Night, Virtual.
- ii. 2015–2017: Guest speaker for “Biodiversity IGNITE” Annual Event. Fort Collins, CO.
- iii. 2016–2017: Colorado Middle School Science Bowl, Moderator. Fort Collins, CO.

### D.4. Governmental and Non-governmental Agencies

None

## E. Professional Service

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### E.1. Service to Professional Societies, Organizations, or Agencies

- i. 2025: Session organizer and convener. Coastal and Estuarine Research Federation. Richmond, VA.
- ii. 2025: *Bromecast* meeting organizer and administrator. Fort Collins, CO.
- iii. 2024: *Bromecast* meeting organizer and administrator. Denver, CO.
- iv. Coastal and Estuarine Research Federation (member since 2025)
- v. Ecological Society of America (member since 2017)

### E.2. Editorships or Editorial Board Memberships for Journals

None

### E.3. Ad-hoc Manuscript Reviews

- Biological Invasions (1)
- Ecology (4)
- Ecological Monographs (1)
- Ecology and Evolution (1)
- Ecosphere (3)
- Ecosystems (1)
- Estuaries and Coasts (1)
- Journal of Ecology (1)
- Limnology & Oceanography (1)

- New Phytologist (3)
- Oecologia (1)
- Oikos (2)
- Plant and Soil (2)
- **Total by year since start at UGA: 2025: 10**

**E.4. Grant Review Panel Member**

None

**E.5. Ad-hoc Grant Reviews**

None

**E.6. Service on Departmental, College, or University Committees**

- i. 2025–present: Graduate Program Committee
- ii. 2025–present: Strategic Planning Subcommittee: Leading in Ecological Research

**E.7. Service to Student Groups and Organizations**

None since start at UGA