

Nicholas N. Dorian

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EDUCATION

Tufts University, Medford, MA 2017-2023

Dissertation: Bringing Population Ecology Back to Wild Bees: Phenology, Demography, and Movement of Solitary Bees in a Changing World
Ph.D. Biology, Advisor: Elizabeth Crone

Tufts University, Medford, MA 2012-2016
B.S. Biology and Environmental Studies
GPA: 3.95, *summa cum laude*, Phi Beta Kappa, Highest Thesis Honors

APPOINTMENTS

sCORE Postdoctoral Research Fellow, Chicago Botanic Garden, Glencoe, IL 2023-Present

Instructor, University College, Tufts University, Medford, MA 2023

Instructor, Experimental College, Tufts University, Medford, MA 2022

PEER-REVIEWED PUBLICATIONS

(*indicates undergraduate mentee co-author; +indicates co-first authors)

Dorian, N.N., Murphy, A.M., Iler, A.M & P. CaraDonna. Setting goals for pollinator gardens. *Conservation Biology*. Accepted.

Markovits, C.*+, **Dorian, N. N.**+ & Crone, E. E. 2025. Roads are partial barriers to foraging solitary bees in an urban landscape. *Oecologia*. 207: 1-11. <https://doi.org/10.1007/s00442-024-05652-6>.

Dorian, N.N., McCarthy, M.*, and E.E. Crone. 2024. Bringing population ecology back to wild bees. *Ecosphere*. 15: e4973. <http://doi.org/10.1002/ecs2.4973>

Dorian, N.N. 2024. Voltinism of a solitary bee was influenced by temperature but not provision size. *Oecologia*. Highlighted Student Paper. 205: 245-256. <http://doi.org/10.1007/s00442-024-05580-5>

Dorian, N.N., McCarthy, M.*, and E.E. Crone. 2022. Ecological traits predict phenological change in solitary bees. *J. Anim. Ecol.* <http://doi.org/10.1111/1365-2656.13778>

Dorian, N.N. and R.E. Bonoan. 2020. Stingless bees (Apidae: Meliponini) seek sodium at carrion baits in Costa Rica. *Ecol. Ent.* <https://doi.org/10.1111/een.12948>

Dorian, N. N., Lloyd-Evans, T., and J.M. Reed. 2020. Non-parallel changes in songbird migration timing are not explained by changes in stopover duration. *PeerJ*. 8, e8975.

Iles, D.T., Pugsek, G., Kerr, N., **Dorian, N.N.**, and E.E. Crone. 2019. Accounting for imperfect detection in species with sessile life cycle stages: a case study of bumble bee colonies. *J. Ins. Cons.* 20: 945-95

Rozen, J.G., Danforth, B.N., Smith, C.S., Decker, B.L., **Dorian, N.N.**, Dority, D., Kilpatrick, S.K., Krichilsky, E. Laws, A.N., and K.R. Urban-Mead. 2019. Early nesting biology of the bee *Caupolicana yarrowi* (Cresson)(Colletidae: Diphaglossinae) and its cleptoparasite *Triepeolus grandis* (Friese)(Apidae: Nomadinae). *Amer. Mus. Novit.* 2019: 1-20.

Dorian, N.N. and R.E. Bonoan 2016. Salt foraging of stingless bees at La Selva Biological Station, Costa Rica. *Bee World*, 93: 61-63.

MANUSCRIPTS

Dorian, N.N., Valdes, I.R. CaraDonna, P.J., Finch, J., Hawke, R., Iler, A.M., & K. Havens. Evaluating native cultivars for pollinator gardens using citizen science. *in prep.*

Dorian, N. N. & Crone, E. E. Solitary bees can disperse farther than they forage. *in prep.*

FELLOWSHIPS, HONORS & AWARDS (\$334,450 total received)

sCORE Fellowship, Negaunee Institute for Plant Conservation, Chicago Botanic Garden: \$146,000	2023
Switzer Environmental Fellowship: \$17,000	2022
American Society of Naturalists, Student Research Award: \$2,000	2022
The Explorer's Club, Exploration Fund Grant: \$4,000	2022
Tufts University Office of Sustainability Green Fund: \$11,000	2021
Robyn Gittleman Graduate Teaching Fellowship: \$5,000	2021
Tufts Institute of the Environment Fellowship: \$5,000	2021
Graduate Student Photo Contest, Tufts University: First Place	2018, 2021, 2022
Harry Bernheim Departmental Service Award	2021
Tufts University Office of Sustainability Green Fund: \$11,050	2019
Tufts Graduate Student Research Competition: \$1,000	2018
Tufts Graduate Student Travel Award: \$400	2018
City of Medford Green Award	2018
NSF Graduate Research Fellowship: \$102,000	2017
Student Conference on Conservation Science, NYC: Best Poster	2016
Phi Beta Kappa, Delta Chapter of Massachusetts	2016
Russell L. Carpenter Fund for Teaching and Research: \$5,000	2015
Barry Goldwater Scholarship, Honorable Mention	2015
Tufts Summer Scholars: \$5,500	

Undergraduate Support

Tufts Institute for the Environment (mentor to Chloé Markovits): \$5,000	2022
Tufts University Summer Scholar (mentor to Chloé Markovits): \$3,500	2021
Nelson Family Summer Scholar Fund (mentor to Max McCarthy): \$5,500	2019
Albert N. Votaw Memorial Summer Internship (mentor to Max McCarthy): \$5,500	2018

TEACHING & MENTORSHIP

Instructor of Record

Climate Resilience Institute (<i>Instructor of Record</i> , 47 students), Tufts University	2023
All About Bees (<i>Instructor of Record</i> , 22 students), Tufts University	2021

Co-instructor

Data Analysis and Visualization for Ecology (co-instructor, 22 students), Northwestern University	2024
Natural History of Native Bees (16 students), Eagle Hill Institute	2023-Present
Pollinator Ambassadors, Tufts University (12 students)	2023
Tropical Ecology & Conservation, Costa Rica (field instructor, 15 students)	2020
Biology of Hummingbird Cay, The Bahamas (field instructor, 15 students)	2018
	2023-2024

Teaching Assistant

Plants & Humanity (lecture TA, 150 students)	2019-2020, 2022
Organisms & Populations (Lab TA, 25 students)	2020
Organisms & Populations (Lecture TA, 400 students)	2018

Cells and Organisms (Lab TA, 25 students)	2017
Student Research Mentorship	
Jennifer Brown, NSF-REU Program, Chicago Botanic Garden, Glencoe, IL	2024
<ul style="list-style-type: none"> • <i>Floral traits are associated with pollinator visitation to Hydrangea arborescens</i> (poster), Chicago Botanic Garden REU Symposium 	
Ibrahim Ahmed, College First Program, Chicago Botanic Garden, Glencoe, IL	2024
<ul style="list-style-type: none"> • <i>Effects of floral abundance on pollinator visitation to Hydrangea arborescens</i> 	
Chloé Markovits, honors thesis student (current landscape designer in Seattle, WA)	2020-2023
<ul style="list-style-type: none"> • <i>Roads are partial barriers to foraging solitary bees (Agapostemon virescens) in an urban environment</i> (senior honors thesis), 2023 • <i>Site fidelity in a solitary bee depends on sex and nesting status</i> (poster) Northeast Natural History Conference, Albany, NY, 2022 • <i>Why did the bee cross the road? Examining the influence of roads on solitary bee foraging movements</i> (oral presentation), Ecology Society of America annual meeting, 2023 	
Kristina McEvoy, NSF-REU Program, Tufts University, Medford, MA	2022
<ul style="list-style-type: none"> • <i>Variation in flower visitors across a gradient of urban garden density</i> (oral presentation), Tufts University REU Symposium 	
Ben Shamgochian, NSF-REU Program, Tufts University, Medford, MA	2021
<ul style="list-style-type: none"> • <i>Site fidelity of Melissodes bimaculatus in urban gardens</i> (oral presentation) Tufts University REU Symposium 	
Maria Ostapovich, Master's project (current biology educator at Harvard University)	2020
<ul style="list-style-type: none"> • Patterns of pollinator visitation to ornamental and native gardens 	
Max McCarthy, honors thesis student (current Ph.D. student at Rutgers University)	2018-2020
<ul style="list-style-type: none"> • <i>Phenological change in solitary bees with diverse traits</i>, (senior honors thesis) • <i>Phenological shifts in bees with varying life history traits in the genus Colletes</i> (poster) Northeast Natural History Conference, Springfield, MA; First Place Student Poster, 2019 • <i>Phenological change in solitary bees with diverse traits</i> (oral presentation) Ecology Society of America annual meeting, 2019 	

CONFERENCE PRESENTATIONS

<i>Can solitary bees disperse farther than they forage?</i>	2024
Entomological Society of America, Phoenix, AZ; talk (invited symposium)	
<i>Somerville Pollinator Action Plan: integrating aesthetics, ecology, and community to support urban biodiversity</i>	2024
Boston Society of Landscape Architects Fieldday, Boston, MA; virtual talk	
<i>Motivating urban biodiversity conservation through pollinator gardening and community outreach</i>	2022
Ecological Society of America annual meeting, Montréal, Quebec, Canada; talk	
<i>Effects of temperature and nutrition on voltinism in a solitary bee Colletes validus</i>	2021
Ecological Society of America annual meeting, virtual; talk	

<i>Do cellophane bees bet-hedge against temporally variable environments?</i>	2020
Ecological Society of America annual meeting, virtual; talk	
<i>Nesting phenology and dynamics of two spring-emerging solitary bees</i>	2019
Ecological Society of America annual meeting, Louisville, KY; poster	
<i>Can changes in songbird stopover duration explain shifts in migration timing?</i>	2019
Graduate Student Research Symposium, Tufts University; poster, Second Place	
<i>Estimating dispersal of the endangered Karner Blue butterfly</i>	
Northeast Naturalist Conference, Springfield, MA; talk	2019
Entomological Society of America annual meeting, Vancouver, Canada; talk	2018
Graduate Student Research Symposium; 3-minute talk, Honorable Mention	2018
<i>God save the queens: effects of bumble bee queen body size on overwinter survival and colony establishment</i>	
Student Conference on Conservation Science, New York City, NY; poster, Best Poster	2016
Ecological Society of America annual meeting, Ft. Lauderdale, FL; talk	2016

INVITED ACADEMIC LECTURES

<i>Watching Wild Bees in the Anthropocene</i> , Center for Earth and Environmental Science, SUNY Plattsburgh, NY	2024
<i>Watching Wild Bees in the Anthropocene</i> (plenary), Northeast Natural History Conference, Albany, NY	2024
<i>Phenology of Solitary Bees in a Changing World</i> , Rowland Institute, Harvard University, MA	2023
<i>Do Solitary Bees Hedge Their Bets?</i> Boston University Biology Dept., Boston, MA	2023
<i>Do Solitary Bees Hedge Their Bets?</i> University of Massachusetts Dartmouth, Dartmouth, MA	2021
Invited Guest Lecturer, Various Locations	
<ul style="list-style-type: none"> • <i>Urban pollinator conservation</i>, Northeastern University, Boston, MA 2024 • <i>Pollination in agricultural systems</i>, Tufts University, Medford, MA 2017-2024 • <i>Motivating environmental change through community outreach</i>, Tufts University, Medford, MA 2022 • <i>Cities for people and pollinators</i>, Tufts University School of Medicine, Boston, MA 2022 • <i>Pollinators and food system resilience</i>, University College, Medford, MA 2021-2022 • <i>The birds and bees: from flower to fruit</i>, Tufts University, Medford, MA 2018-2021 • <i>Identifying common insect pollinators of New England</i>, Tufts University, MA 2021 • <i>Integrating movement into insect conservation</i>, University of Maine - Farmington, ME 2019 • <i>Crop pollination by native bees</i>, Lesley University, Cambridge, MA 2017 	

LEADERSHIP & SERVICE

Ecology of Pollinator Gardens Working Group (lead organizer) , Chicago Botanic Garden	2024
Co-founder and President, Tufts Pollinator Initiative , Tufts University (sites.tufts.edu/pollinators)	2019-2023
<ul style="list-style-type: none"> • Built capacity for urban pollinator conservation in greater Boston, Massachusetts via habitat creation, place-based environmental education, and ecological research. • Created 3500 sq. ft. of pollinator habitat, engaged and educated 6000 people from 38 organizations across 8 states, distributed 3000 student-grown native plants to local residents, developed 10 online plant and pollinator identification guides. • Certified Xerces Society Bee Campus USA and recognized in The Boston Globe. 	
Ecological Consultant	2022-Present
<ul style="list-style-type: none"> • Collaborated with city planners, landscape architects, and community members to develop Somerville Pollinator Action Plan and “Meet Your Pollinator Neighbor” video series (City of Somerville, Massachusetts & Offshoots Landscape Design) • Developed research protocols and training materials for monitoring of native bee biodiversity (National Park Service, Rutgers University, Tufts University) 	

- Advised landscape practitioners on plants to support at-risk plant-pollinator interactions (Crowley-Cottrell Landscape Design, Landscape Interactions)

Manuscript review

2018–Present

- Functional Ecology (1) | Global Change Biology (2) | Journal of Animal Ecology (1) | Ecosphere (1) | Journal of Insect Conservation (1) | The Auk (1) | Great Lakes Entomologist (1) | Journal of Pollination Ecology (1)

Secretary and Co-president, Biology Union of Graduate Students, Tufts University

2018–2021

Life science project judge, Massachusetts Science & Engineering Fair

2017–2021

Assistant bird bander, Mass Audubon, Wellfleet, MA

2016–2020

President, Tufts Student Garden, Tufts University

2014–2016

Volunteer herring counter, Mystic River Watershed Association, Medford, MA

2013–2016

SELECT OUTREACH (oral presentations except where indicated)

Fundamentals of Pollinator Gardening, various venues

- West Newbury Wild and Native, West Newbury, MA 2024
- Orleans Conservation Trust, Orleans, MA 2024

We're saving the wrong bees, *Tedx Tufts*, Tufts University 2022

Can Cities Save Bees?, Hoch Cunningham Lecture Series, Tufts University 2022

The Secret Lives of Wild Bees, various venues

- Garden Club of America annual meeting, Chicago, IL 2024
- Grow Native Massachusetts, Lexington, MA 2024
- West Newbury Wild and Native, West Newbury, MA 2024
- Beacon Hill Garden Club, Boston, MA 2024
- Bronx River Sound Shore Audubon, Scarsdale, NY 2024
- Hamilton-Wenham Garden Club, MA 2024
- Pollinator Pathway, Wilton, CT 2024
- Horticultural Alliance of the Hamptons, NY 2023
- Cary Memorial Library, Lexington, MA 2023
- Orleans Conservation Trust, Orleans, MA 2023
- Kestrel Land Trust, Amherst, MA 2023
- Harris Center for Conservation Education, Hancock, NH 2022
- New Hampshire Audubon (virtual) 2022
- Ecological Landscape Alliance, (virtual) 2023
- The Trustees of Reservation, Boston, MA 2021

Pollinator Safari (*creator and trip leader*)

- Lurie Gardens, Millennium Park, Chicago, IL 2024
- Skunk Cabbage Books, Chicago, IL 2024
- Boston Harbor Islands, National Park Service, Boston, MA 2024
- Rose Kennedy Greenway, Boston, MA 2023
- Mount Auburn Cemetery, Cambridge, MA 2023
- Wing and a Prayer Nursery, Cummington, MA 2023
- Freedom's Way National Heritage Area, MA 2023
- Tufts Pollinator Initiative (10 safaris at campus gardens) 2021–2023

I Heart Science Festival, Harvard Museum of Natural History 2023

Insect Photography (video), Insect Island 2021

The World of Native Bees (podcast), 2 Million Blossoms 2021

Farm Day, Waltham Fields Community Farm 2021

Know your pollinators: cellophane bees (video), Tufts Pollinator Initiative 2020

Where have all the insects gone? Boston Area Sustainability Group, Cambridge, MA	2019
Bees! (podcast) Jay Talking	2019
The Mick Jagers of Pollen (podcast) Animalia Podcast	2019
The City Lives of Bees, Arnold Arboretum of Harvard University, Jamaica Plain, MA	2019

POPULAR SCIENCE WRITING

Endangered bee discovered at the Garden , <i>Chicago Botanic Garden blog</i>	2024
Two-spotted longhorn bees love your vegetable garden, <i>Tufts Pollinator Initiative blog</i> .	2022
Ironweed: the best native plant you're not growing. <i>2 Million Blossoms</i> .	Autumn 2021
The right way to leave stems for native bees . <i>Tufts Pollinator Initiative blog</i> .	2021
Goldenrods deserve a place in your garden . <i>2 Million Blossoms</i> .	Autumn 2020
No, you didn't just find a murder hornet . <i>Tufts Pollinator Initiative blog</i> .	2020
Mystery of the missing hover fly migrants. <i>2 Million Blossoms</i> .	Summer 2020
The brief, wondrous lives of cellophane bees. <i>2 Million Blossoms</i> .	Spring 2020
Tropical "vulture bees" collect minerals from carrion. <i>2 Million Blossoms</i> .	Spring 2020
If you like pumpkins, thank squash bees . <i>Tufts Pollinator Initiative blog</i> .	2019
To support spring pollinators, think big . <i>Tufts Pollinator Initiative blog</i> .	2019
The not-so-secret life of bumble bees. <i>Somerville Garden Club Newsletter</i> .	2019
If you build it, bees will come. <i>Somerville Garden Club Newsletter</i> .	2018

PROFESSIONAL AFFILIATIONS

Honos Civicus | IUCN Wild Bee Specialist Group | Ecological Society of America | Entomological Society of America | Cambridge Entomological Club | Nuttall Ornithological Club | Bee Campus USA