

AARON N. SEXTON

Assistant Professor

Cornell University

School of Integrative Plant Sciences, Horticulture Section

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EDUCATION

- 2022 **Ph.D. University of Louisville**, United States, Biology.
Dissertation: “*Plant-pollinator communities responsive to local and landscape level factors in grassland restorations*”
Advisor: Sarah Emery
- 2017 **B.A. University of Denver**, United States, Ecology & Biodiversity,
Advisor: Robin Tinghitella

PROFESSIONAL POSITIONS

- 2025 – present **Assistant Professor**, Cornell University
School of Integrative Plant Sciences, Horticulture Section
- 2024 – 2025 **Postdoc**, Technical University of Munich (TUM)
Advisor: Monika Egerer
- 2022 – 2024 **Postdoc**, Fondation pour la recherche sur la biodiversité (FRB)
Advisor: Alienor Jeliaskov
- 2022 – 2024 **Adjunct Faculty**, University of Strasbourg
- 2020 – 2021 **Adjunct Faculty**, Spalding University
- 2018 – 2022 **Instructor**, Idlewild Insectarium
- 2013 – 2017 **Research Technician**, University of Denver
- 2016 **Research Technician**, Alaska Bonanza Creek LTER

PEER-REVIEW PUBLICATIONS

- Sexton, A. N.**, & Egerer, M. (2026). Re-Thinking the Urban Biotic Homogenization Hypothesis. *Ecology Letters*, 29(2), e70342.
- Sexton, A. N.**, & Emery, S. M. (2026). Plant diversity mediates soil microbe influence on floral phenology and production. *Plant Ecology*, 227(3), 28.
- Karlebowski, S., Egerer, M., Neumann, A. E., Schmack, J. M., **Sexton, A. N.**, & Sturm, U. (2026). Citizen science provides insights on pollination services in urban community gardens. *BMC Ecology and Evolution*, 26(1), 26.
- Casanelles-Abella, J., Badini, J., Baldock, K., Calviño, A., Fenoglio, M. S., Leonhardt, S. D., **Sexton, A.N.**, ... & Egerer, M. (2025). Examining honeybee (*Apis mellifera*) dominance patterns within urban bee communities worldwide. *Ecology and Evolution*, 15(8), e71979.
- Sexton, A. N.**, Conitz, F., Sturm, U., & Egerer, M. (2025). Wild plants drive biotic differentiation across urban gardens. *Ecology and Evolution*, 15(6), e71527.

- Aaron N. Sexton**; Kane Lawhorn. (2025) Best practices for designing resilient urban ecosystems through native species restoration. *Urban Forestry & Urban Greening*
<https://doi.org/10.1016/j.ufug.2024.128657>
- Aaron N. Sexton**, Felix Conitz, Susan Karlebowski, Astrid E. Neumann, Julia Marion Schmack, Ulrike Sturm, Monika Egerer. (2025) Urban pollinator communities are structured by local-scale garden features, not landscape context. *Landscape Ecology*
<https://doi.org/10.1007/s10980-025-02062-8>
- Talmot, Victor; Hardion, Laurent; **Aaron N. Sexton**; Jumeau, Jonathan; Jugieau, Enzo; Staentzel, Cybill. (2025) Environmental conditions affect the allelopathic potential of three invasive alien plants species in NE France. *Journal of Ecology*
<https://doi.org/10.1111/1365-2745.14447>
- Aaron N. Sexton**, Jean-Nicolas Beisel, Cybill Staentzel, Christian Wolter, Evelyne Tales, Jérôme Belliard, Anthonie D.Buijse, Vanesa Martínez Fernández, Karl M. Wantzen, Sonja C. Jähnig, Carlos Garcia de Leaniz, Astrid Schmidt-Kloiber, Peter Haase, Marie Anne Eurie Forio, Gait Archambaud, Jean-François Fruget, Alain Dohet, Vesela Evtimova, Zoltán Csabai, Mathieu Floury, Peter Goethals, Várbiró Gábor, Miguel Cañedo-Argüelles, Aitor Larrañaga, Anthony Maire, Ralf B. Schäfer, James S. Sinclair, Rudy Vannevel, Ellen Welti & Alienor Jeliaskov. (2024) Inland navigation and land use interact to impact European freshwater biodiversity. *Nature Ecology & Evolution*
<https://doi.org/10.1038/s41559-024-02414-8>
- Kylea R. Garces, **Aaron N. Sexton**, Abigail Hazelwood*, Nate Steffens, Linda Fuselier, Natalie Christian. (2024) It takes two: Online and in-person discussions offer complementary learning opportunities for students. *CBE-Life Science Education*
<https://doi.org/10.1187/cbe.23-04-0062>
- Aurore Receveur†, Jonathan Bonfanti†, Stephanie D’Agata†, Andrew J. Helmstetter†, Nikki A. Moore†, Brunno F. Oliveira†, Cathleen Petit-Cailleux†, Erica Rievers Borges†, Marieke Schultz†, **Aaron N. Sexton**†, Devi Veytia†. (2024) David vs Goliath: Early career researchers in an unethical publishing system. *Ecology Letters*
<https://doi.org/10.1111/ele.14395>
- Jeliaskov, Alienor; Martínez-Fernández, Vanesa; Altanov, Vassil; Beisel, Jean-Nicolas; Buijse, Anthonie; Consuegra del Olmo, Sofia; Felin, Swann; Garcia de Leaniz, Carlos; Graf, Wolfram; He, Fengzhi; Jähnig, Sonja; Leitner, Patrick; Schmidt-Kloiber, Astrid; **Aaron N. Sexton**, Staentzel, Cybill; Tales, Evelyne; Wantzen, Karl; Wolter, Christian. (2024) A global knowledge map of inland commercial navigation effects on freshwater ecosystems. *Journal of Environmental Management*
<https://doi.org/10.1016/j.jenvman.2024.122474>
- Aaron N. Sexton**, Benton S. F.*, and Emery, S. M. (2023) Urbanization and plant diversity influence different parameters of floral phenology. *Urban Ecosystems*.
<https://doi.org/10.1007/s11252-022-01326-4>
- Aaron N. Sexton.**, Garces, K. R., Huber, M.R.*, and Emery, S.M. (2023) Urban grassland restorations have reduced plant fitness but not pollinator limitation. *Acta Oecologica*.
<https://doi.org/10.1016/j.actao.2023.103898>

Aaron N. Sexton, Benton S. F.*, Browning, A. B.*, and Emery S. M. (2021) Reproductive patterns of solitary cavity-nesting bees responsive to both local and landscape factors. *Urban Ecosystems*.

<https://doi.org/10.1007/s11252-021-01116-4>

Aaron N. Sexton and Emery S. M. (2020) Grassland restorations improve pollinator communities: a meta-analysis. *Journal of Insect Conservation*.

<https://doi.org/10.1007/s10841-020-00247-x>

Jenck, C. S., Lehto W. R., Ketterman B. T., Sloan L. F.*, **Aaron N. Sexton***, and R. M. Tinghitella. (2019) Phenotypic divergence among threespine stickleback that differ in nuptial coloration. *Ecology & Evolution*.

<https://doi.org/10.1002/ece3.6105>

* Indicates an undergraduate researcher at time of publication.

† Indicates co-authors contributed equally to the work.

MEDIA

Should New York City Burn Its Parks? This Scientist Thinks So

New York Times, March 2026. Not authored by me but featured in the story.

Bernheim forest and Bell Bowl Prairie are warnings of increasing seizure of wild lands.

Courier Journal, March 2023. Aaron Sexton

Why historically redlined South and West Louisville need more green space.

Courier Journal, October 2021. Aaron Sexton

GRANTS AND AWARDS

2025	Cornell Center for Social Sciences (PI) – Perceptions of prescribed burns in urban natural areas	\$8,000
2025	Atkinson’s Center Rapid Response Fund (PI) – <i>Reducing Risks from a Novel Threat: Urban Wildfires</i>	\$9,500
2023-24	SYNERGY Extension – (Co-PI with Alienor Jeliaskov) – <i>10-month extension of working group & Establishment of formal collaborations with a partner working group.</i>	€30,000
2022	National Science Foundation Postdoc Fellowship (PI) – <i>“Highly Meritorious”, but not funded</i>	
2021	Cornett Entomological Research Grant (PI).	\$500
2021	Furnish Teaching Award – <i>Top Graduate Student Teacher in Univ. Louisville Biology Department</i>	
2020	Joan Ehrenfeld Award – <i>Top Student Presentation in Urban Ecology at the Ecological Society of America</i>	
2020	Kentucky Native Plant Society Research Grant (PI)	\$500
2020	Beechmont Garden Club Research Grant (PI)	\$1,000
2018 & 19	Univ. Louisville Graduate School Research Grant (PI)	\$500

2019	National Science Foundation, Graduate Research Fellowship (PI) – <i>Honorable Mention</i>	
2018	Kentucky Academy of Sciences, Marcia Botany Research Fund (PI)	\$1,565
2018	Kentucky Natural History Society Research Grant (PI)	\$800
2018	Univ. Louisville College of Arts & Sciences Research Grant (PI)	\$500
2018	Univ. Louisville Biology Graduate Student Association Research Grant (PI)	\$175
2017-21	Univ. Louisville, Graduate Student Research Fellowship	\$44,000
2016	Univ. Denver, Dean’s Scholarship	\$500
2015 & 16	Univ. Denver, H&B Agnew Scholarship	\$500

TEACHING ROLES

Instructor-of-Record

2025	<i>Advanced Concepts & Methods in Urban Ecosystems</i> , University of Munich (28 students, 1 semester)
2022-24	<i>Scientific English</i> , University of Strasbourg (40 students – 4 semesters)
2019-20	<i>Environmental Biology</i> (BIOL 263), University of Louisville (24 Students – 2 semesters)
2020-21	<i>Environmental Science</i> (ENVS-101), Spalding University (22 students – 3 semesters)

Teaching Assistant

2025	<i>Urban Agriculture</i> , Technical University of Munich (16 students)
2021	<i>Diversity of Life</i> (BIOL 242), University of Louisville (40 students)
2020-21	<i>Quantitative Biology</i> (BIOL 244), University of Louisville (60 students)
2017-18	<i>Laboratory for Biology: Current Issues and Applications</i> (BIOL 104), University of Louisville. (80 students/semester)

PhD/MS/BS Research Mentoring

2025-pres	Brendan Cramphorn (PhD) – Serving on his committee
2025-pres	Katie Debbas (PhD) – Serving on her committee
2025-pres	Matthew Sprague (MLA) – Serving on his committee <i>Received a \$7,949 research grant to conduct work in my lab.</i>
2025-pres	Victoria Broughton (BS) – Research credits <i>Received a \$2,000 research grant to conduct work in my lab.</i>
2024-25	Lucia Linke (MS) – Drought tolerances of pollinator seed mixes
2024-25	Astrid Neumann (PhD) – Functional ecology of plant-pollinator communities
2024-25	Aanchal Thapa (BS) – Quantifying urbanization in global datasets
2023-24	Naomi Fournier (MS) – Quantifying river restoration strategies
2023-24	Victor Gabor (MS) – Modeling plant responses to climate & land use
2020-21	Ally Michels (BS) – Effects of soil microbes on above and belowground biomass

- 2020-21 Marissa Huber (BS) – Effects of urbanization and pollinator limitation
 2019-20 Adam Browning (BS) – Can bee pollen usage protect solitary bees against parasitism? Awarded two research grants during my mentorship totaling **\$3,500**
 2018-22 Lisa Heng (BS) – How does land management affect urban tick abundances?
 2018-19 Sarah Fosnight (BS) – Reproductive patterns of solitary cavity-nesting bees responsive to both local and landscape factors
 Awarded Summer Research Opportunity grant **\$3,000**
 2018-19 Heather Griffith (BS) – Field work, soil processing and experimental design
 2018 Kristen Ehringer (BS) – Pollen storage and identification
 2016-17 Tutor, University of Denver (Ecology courses)

PROFESSIONAL PRESENTATIONS

Invited Talks

- 2026 Torrey Botanical Society, Annual Banquet, *New York, US*
 2026 Technical University of Munich, *Munich, Germany*
 2026 Strasbourg University, *Strasbourg, France*
 2026 University of Toronto, EEB Seminar Series, *Toronto, Canada*
 2025 Cornell University, Plant Biology Seminar Series, *New York, US*
 2025 Cornell Agriculture In-Service Conference, *New York, US*
 2025 Cornell University, Soil & Crop Seminar Series, *New York, US*
 2025 Cary Institute of Ecosystem Studies, Seminar Series, *New York, US*
 2025 New York Botanical Garden, *New York, US*
 2025 Fondation pour la recherche sur la biodiversité, *Virtual*
 2024 Cornell University, *New York, US*
 2024 University of Washington, *Washington, US*
 2024 Technical University of Munich, *Bavaria, Germany*
 2023 & 24 Institut national de la recherche Agronomique (INRAE), *Antony, France*
 2022 University of Strasbourg, *Strasbourg, France*
 2018-20 Kentucky Science Center STEMinar Series, *Kentucky, US*

Conference Presentations

- 2024 *Urbanization increases heterogeneity of wild plant communities in urban gardens*
 British Ecological Society Annual Meeting
 2023 *Inland navigation is a driver of freshwater biodiversity declines in Europe.*
 British Ecological Society Annual Meeting
 2022 *Impact of freshwater shipping on biodiversity is context dependent.*
 SFE-GFO-EEF Joint International Conference on Ecological Sciences
 2021 *Urbanization and plant diversity influence different aspects of floral phenology.*
 Ecological Society of America Annual Meeting
 2020 *Urbanization and native plants: How local and landscape level factors influence solitary bee communities.*
 Ecological Society of America Annual Meeting
 2020 *Urbanization influences floral reproductive output but not floral phenology.*
 Louisville Graduate Network of Arts & Sciences Symposium

- 2019 *Floral phenology influenced by soil moisture, not urbanization.*
Kentucky Academy of Sciences Annual Meeting
- 2019 *Floral phenology influenced by soil moisture, not urbanization.*
Ecological Society of America Annual Meeting
- 2018 *Can urban prairie restorations support stable solitary bee communities?*
Louisville Graduate Network of Arts & Sciences Symposium

COMMUNITY ENGAGEMENT

- 2025 **Ecologist** - Gave a two-hour talk to NYC Parks Department and Natural Resources Group updating them on my field research and establishing new collaborations. Roughly 15 audience members.
- 2025 **Entomologist** - Gave a two-hour workshop on solitary bee diversity and how to build nests for them. Included members of the community with ages ranging from 8-80. Roughly 30 audience members.
- 2023 **Biologist** – Lycée Jean Rostand, presentation on endangered species
- 2023 **Ecologist** – “*LG&E vs. Berheim*” a documentary discussing a land dispute between a power company and forest reserve that I have previously written about
- 2021 **Invited speaker** – Yew Dell Botanical Gardens “*Botany of Christmas*”
- 2021 **Invited speaker** – Yew Dell Botanical Gardens “*Other Pollinators*”
- 2021 **Ecologist** – FirstBuild Video Series, “*Prototyping A Solitary Bee Bath House For Home Conservation, Gardening, And Pollination*”
- 2021 **Radio interview** – Kentucky Conservations Conversations
- 2021 **Invited speaker** – Jefferson County Master Gardener Conference, “*Whats the buzz? Natural history, ecology and maintenance of solitary bees*”
- 2020 **Radio interview** – Forward Radio
- 2020 **Invited speaker** – Kentucky Master Gardener Conference, “*Whats the buzz? Natural history, ecology and maintenance of solitary bees*”
- 2020 **Lead organizer & Speaker** – Beer with a Scientist, *Urbanization and native plants: impacts on solitary bee communities*
- 2019-20 **Panelist** – TriBeta Association, Entering Graduate School Panel
- 2018-20 **Judge** – Manual High School Science Fair
- 2019 **Radio Interview** – WCHQ Community Spotlight
- 2019 **Educator** – Louisville Metro Parks Department, Outdoor Education Day, event teaching students about plants and insects in the parks
- 2019 **Invited speaker** – Chance Elementary, Earth Day Event, discussing pollinators
- 2019 **Mentor** – Manual High School, for STEM research and careers
- 2018-19 **Mentor** – Central High School, for science fair projects
- 2018-20 **Educator** – Moore Middle School, Day of Science. Students visiting the University of Louisville, engaging them in the scientific process, and experimentation

ACADEMIC SERVICE

2025-pres **SIPS Curriculum Committee Member**
2022 **Organizer**, Functional Traits in Ecology Conference, Montpellier France
2020 **Lead organizer**, University of Louisville Biology Dept. Fall Seminar Series
2020-21 **President**, University of Louisville Biology Dept. Graduate Student Association
Peer review Multiple journals including (*Ecological Monographs*, *Landscape Ecology*,
Journal of Applied Ecology, *Urban Ecosystems*, *Scientific Reports*, and more).

MEMBERSHIPS

British Ecological Society (2023-pres)
Société Française d'Écologie et d'Évolution (2022-2024)
Ecological Society of America (2019-2023)
University of Louisville Biology Graduate Student Association (2018-2022)
 President 2020-2021
 Outreach Chair 2019-2020