

JOANNA W. GREENWOOD

Graduate Program in Ecology and Evolution
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EDUCATION

- 2021–present **Ph.D. Candidate**, Graduate Program in Ecology & Evolution, Rutgers University
Advisor: Dr. Rachael Winfree
Dissertation: Forest bees of the northeastern United States: roles in crop pollination and responses to forest management
- 2017–2021 **B.S.**, Ecology and Field Biology, George Fox University
George Fox Honors Program
GPA: 4.00, *summa cum laude*

PUBLICATIONS

- Greenwood, J.W.**, K.J. Turo, K.R. Urban-Mead, N.K. Joshi, H. Grab, D.J. Biddinger, R. Winfree. 2026. Wild bee phenology leads to different species pollinating spring- and summer-blooming crops. *Basic and Applied Ecology* 93:33–42. doi.org/10.1016/j.baae.2026.04.006
- Winfree, R., J. Reilly, D.T. Simpson, **J.W. Greenwood**, I. Bartomeus, F. Benjamin, D. Cariveau, M. Genung, T. Harrison, M. MacLeod, M. Roswell, C. Smith, K.J. Turo. Bee abundance and pollinator visit observations of crops and wild plants in New Jersey, USA. *Ecology* (in revision).
- Greenwood, J.W.**, K.J. Turo, M.C. Duguid, M.S. Ashton, R. Pasquale, K. Odanaka, R. Winfree. Wild bee responses to forest regrowth after timber harvests depend on species' habitat associations. *Journal of Applied Ecology* (in review).
- Ulyshen, M., **J.W. Greenwood**, K.L.J. Hung, C. Mathis, J.W. Rivers, C. Rutledge, K.L. Sullivan, K.J. Turo, K.R. Urban-Mead, T. Zarillo. Basal area and vertical position drive the richness and abundance of cavity-nesting wasps and bees in temperate forests. *Forest Ecology & Management* (submitted).

ACADEMIC PRESENTATIONS (*invited)

- Greenwood, J.W.**, T. Harrison, K.J. Turo, J.D. Gardner, & R. Winfree (2026, November). *Bees are not a monolith: Variation in species-specific responses to forest management*. Entomological Society of America Annual Meeting, Columbus, OH. Oral presentation.
- Greenwood, J.W.** & R. Winfree (2026, June). *Wild bee diversity improves apple pollination but is unrelated to surrounding forest composition*. International Conference on Pollinator Biology, Health, and Policy, Bozeman, MT. Flash talk and poster presentation.

Greenwood, J.W., K.J. Turo, and R. Winfree (2025, November). *Wild bee responses to timber harvests depend on species habitat associations*. Entomological Society of America Annual Meeting, Portland, OR. Oral presentation.

*Ashton, M.S., M.C. Duguid, S. Austin, **J.W. Greenwood,** and L. Green. (2025, October). *A Century of Research on the Dynamics of Native Mixed Hardwood Forests*. Society of American Foresters National Convention, Hartford, CT. Field tour.

Greenwood, J.W., K.J. Turo, M.C. Duguid, and R. Winfree (2025, October). *Wild bee community responses to clearcut and shelterwood treatments and subsequent forest stand development*. Society of American Foresters National Convention, Hartford, CT. Oral presentation.

Greenwood, J.W., K.J. Turo, and R. Winfree (2025, August). *Wild bee responses to timber harvests depend on species habitat associations*. Ecological Society of America Annual Meeting, Baltimore, ME. Oral presentation.

Greenwood, J.W., K.J. Turo, and R. Winfree (2024, October). *Bee communities in a 32-year timber harvest chronosequence*. EcoSpatial Summit, State College, PA. Flash talk.

Greenwood, J.W., K.J. Turo, K.R. Urban-Mead, N.K. Joshi, H. Grab, D.J. Biddinger, R. Winfree (2024, October). *Traits and species composition of wild bee communities visiting crops shift with time of year*. Meeting of the National Renewable Energy Laboratory's InSPIRE project. Oral presentation.

***Greenwood, J.W.,** K.J. Turo, and R. Winfree. (2024, June). *Old and young hardwood forests support different bee species*. North American Forest Ecology Workshop, Ashville, NC. Invited oral presentation.

Greenwood, J.W., K.J. Turo, K.R. Urban-Mead, and R. Winfree. (2023, August). *Spring and summer crop pollinators use different habitats*. Ecological Society of America Annual Meeting, Portland, OR. Poster presentation.

Greenwood, J.W., K.J. Turo, K.R. Urban-Mead, and R. Winfree. (2023, June). *Spring and summer crop pollinators use different habitats*. International Conference on Pollinator Biology, Health, and Policy, State College, PA. Poster presentation.

Greenwood, J.W., Smith, C., & Winfree, R. (2022, August) *Trees for bees: The effect of tree species composition on forest bee communities*. Joint Meeting of the Ecological Society of America and Canadian Society for Ecology and Evolution, Montréal, Canada. Oral presentation.

Gunther, J.W. & Copenhaver-Parry, P.E. (2020, August) *The hierarchy of light availability: A cascade of influences on seedling recruitment*. Ecological Society of America Annual Meeting, virtual. Poster presentation.

Gunther, J.W. & Copenhaver-Parry, P.E. (2019, August) *Into the understory: Can forest canopies protect seedlings from drought-induced mortality?* Ecological Society of America Annual Meeting, Louisville, KY. Poster presentation.

OUTREACH PRESENTATIONS (*invited)

***Greenwood, J.W.,** K.J. Turo, M.C. Duguid, and R. Winfree (2025, July). *Forest bees and their responses to forest management*. Yale School of the Environment, Yale-Myers Forest Summer

Seminar Series, Eastford, CT. Seminar presentation.

***Greenwood, J.W.** (2024, June). *Bee communities in a 32-year timber harvest chronosequence*. Yale School of the Environment Field Research Day, Eastford, CT. Field tour and presentation.

GRANTS AND FELLOWSHIPS

2024–27	United States Department of Agriculture, NIFA Predoctoral Fellowship Program . Effects of forest age on pollinators and yield in adjacent apple orchards: Linking forest management and crop production. J.W. Greenwood (PI).	\$173,538
2022	Ecology & Evolution Small Grant , Rutgers University, Graduate Program in Ecology & Evolution	\$1,500
2022	Ted Stiles Memorial Award for Ecological Research & Conservation , Rutgers University, Ecology & Evolution Graduate Program	\$500
2021	Excellence Fellowship , Rutgers University, School of Environmental and Biological Sciences	\$32,000
2019	Richter Undergraduate Research Fellowship , George Fox University	\$4,600

AWARDS

2025	First Place 10-minute Talk in Forestry , 2025 Entomological Society of America Meeting
2020	Murdock Poster Prize in Ecology/Evolution/Biodiversity , Murdock College Science Research Conference

TEACHING EXPERIENCE

2022–2023	Teaching Assistant Department of Ecology, Evolution, and Natural Resources, Rutgers University Primary lab instructor for <i>Invertebrate Zoology</i> and <i>Principles of Ecology</i>
2018–2021	Teaching Assistant Department of Biology and Chemistry, George Fox University <i>General Biology, Environmental Science, General Chemistry, Organic Chemistry</i>

MENTEES

2026	Ava-Amerie Ren; undergraduate researcher; literature review and data analysis
2025–26	Bella Cueto; undergraduate work study student; collections management
2025	Sneha Bhat; undergraduate volunteer; data analysis in R
2025	Khushi Bora; undergraduate volunteer; GIS landscape analysis
2024	Maya Lee; undergraduate researcher; GIS analysis for study site selection

2024 Erika Schnetzer; undergraduate researcher; specimen curation

ACADEMIC SERVICE

Peer reviewing: *Global Change Biology, Current Forestry Reports, Journal of Forestry, Forest Science, Forest Ecology and Management*

OUTREACH AND SERVICE

2022–2026 Student representative; Ecology & Evolution Graduate Student Association, Rutgers University

2023–2025 Treasurer; Ecology & Evolution Graduate Student Association, Rutgers University

2022–2023 Committee Member, Diversity, Equity, & Inclusion Committee, Graduate Program in Ecology and Evolution, Rutgers University

2022–2023 Girl Scout Gold Award Project Advisor, *Encouraging mason bee populations*, Knowlton Township Troop 95627

2020–2021 Administrative Assistant; Science Outreach Program, George Fox University

2018 Teacher; Science Outreach Program, George Fox University