

MANETTE E SANDOR

Cary Institute of Ecosystem Studies
2801 Sharon Turnpike; PO Box AB
Millbrook NY 12545-0129
Telephone: (845) 677-5343 -- FAX: (845) 677-5976
E-mail: sandorm@ caryinstitute.org

EDUCATION

Ph.D., Ecology and Evolutionary Biology, 2018

University of Connecticut

Dissertation: Birds and berries: projecting the responses of seed dispersal networks to climate change

Advisors: Chris S. Elphick and Morgan Tingley

M.Sc., Plant Ecology, 2013

University of Connecticut

Thesis: Forest Regeneration on the Osa Peninsula, Costa Rica

Advisor: Robin L. Chazdon

Non-degree graduate student

University of Illinois at Chicago

Mentors: Henry F. Howe, Christopher J. Whelan, Joel S. Brown

A.B., Liberal Arts, 2004

Vassar College

Religion Concentration, Astronomy Correlate

PROFESSIONAL POSITIONS

Research Associate, 2022-present

Forest Futures Lab

Cary Institute of Ecosystem Studies

Visiting Scientist, 2019-2022

Center for Biodiversity and Conservation

American Museum of Natural History

Columbia Science Postdoctoral Fellow, 2019-2022

Department of Ecology, Evolution, and Environmental Biology

Columbia University

Postdoctoral Scholar, 2018-2019

Landscape Conservation Initiative and School of Earth Sciences and Environmental Sustainability

Northern Arizona University

HONORS

2018 Greg and Mona Anderson Best Dissertation Award, University of Connecticut Ecology and Evolutionary Biology

2016 SESYNC seed dispersal workshop (selected participant, NSF-sponsored workshop)

FELLOWSHIPS

- 2019-2022 Columbia Science Postdoctoral Fellowship (\$174,300)
2017-2018 Eliza Buffington Fellowship (\$5700)
2016 University of Connecticut Doctoral Dissertation Fellowship (\$2000)
2016 University of Connecticut, Ecology and Evolutionary Biology, Predoctoral Fellowship (\$6539)

RESEARCH GRANTS & AWARDS

- 2023 Department of Defense, Strategic Environmental Research and Development Program: “Using Population and Fire Models to Predict Interacting Responses Of Invasive and Threatened And Endangered Plants to Foundational Invader Removal” (co-PI) (\$1,176,613)
2017 NSF Doctoral Dissertation Improvement Grant (DDIG) (\$17,443)
2016 Ronald Bamford Fund to the Department of Ecology and Evolutionary Biology (\$1500)
2015 Lewis and Clark Fund for Exploration and Field Research (\$3200)
2015 University of California Valentine Eastern Sierra Reserve Graduate Student Research Award (\$2000)
2015 Center for Conservation and Biodiversity A.I. and A.N. Silander Award (\$1500)
2015 Ecology and Evolutionary Biology Zoology Award (\$1300)
2014 Audubon Connecticut IBA Small Matching Grants Program (\$1687)
2014 University of California Valentine Eastern Sierra Reserve Graduate Student Research Award (\$891)
2014 Center for Conservation and Biodiversity Award (\$750)
2013 Ronald Bamford Fund to the Department of Ecology and Evolutionary Biology (\$1000)
2013 Association of Tropical Biology and Conservation Student Travel Award (\$200 – Declined)
2011 Ecology and Evolutionary Biology/Museum of Natural History Award (\$900)

PEER-REVIEWED PUBLICATIONS

14. Souther SK, **Sandor ME**, Sample M, Gabrielson S, Aslan CE. North American pollinator diversity, declines, and knowledge gaps. *In review*.
13. **Sandor ME**, Tingley MW, Elphick CS. Spatial scaling of network diversity. *In review*.
12. **Sandor ME**, Elphick CS, Tingley MW. 2022. Extinction of biotic interactions due to habitat loss could accelerate the current biodiversity crisis. *Ecological Applications*. <https://doi.org/10.1002/eap.2608>.
11. Liang CT, Shields AB, Haines WP, **Sandor ME**, Aslan CE. 2021. Invasive predators affect community-wide pollinator visitation. *Ecological Applications*. <https://doi.org/10.1002/eap.2522>.
10. **Sandor ME**, Aslan CE, Pejchar L, Bronstein JL. 2021. A mechanistic framework for understanding the effects of climate change on the link between flowering and fruiting phenology. *Frontiers in Ecology and Evolution*. <https://doi.org/10.3389/fevo.2021.752110>.
9. Aslan CE, **Sandor ME**, Sample M, Stortz S, Souther S, Levine C, Samberg L, Gray M, Dickson B. 2021. Estimating social-ecological fire resilience across an arid region. *Ecological Applications*. DOI: [10.1002/eap.2303](https://doi.org/10.1002/eap.2303).
- Popular Press: Tucson Weekly**. Beal, M. 2021. [“Summer Invaders: Increased fire risk threatens all inhabitants of the Sonoran Desert”](https://www.tucsonweekly.com/news/summer-invaders-increased-fire-risk-threatens-all-inhabitants-of-the-sonoran-desert/)
8. Aslan CE, Souther S, Stortz S, Sample M, **Sandor ME**, Levine C, Samberg L, Gray M, Dickson B. 2020. Land management objectives and activities in the face of projected fire regime change in the Sonoran Desert. *Journal of Environmental Management*. DOI: [10.1016/j.jenvman.2020.111644](https://doi.org/10.1016/j.jenvman.2020.111644).
7. Tingley MW, Nadeau CP, **Sandor ME**. 2020. Multi-species occupancy models as robust estimators of community richness. *Methods in Ecology and Evolution*. DOI: [10.1111/2041-210X.13378](https://doi.org/10.1111/2041-210X.13378).
6. Schupp E, Zwolak R, Jones L, Snell R, Beckman N, Aslan C, Cavazos B, Effiom E, Fricke E, Montaña-Centellas F, Poulsen J, Razafindratsima O, **Sandor ME**, Shea K. 2019. Intrinsic and extrinsic drivers of intraspecific variation in seed dispersal are diverse and pervasive. *AoB Plants* DOI: [10.1093/aobpla/plz067](https://doi.org/10.1093/aobpla/plz067).
5. Rogers HR, Beckman NG, Hartig F, Johnson J, Pufal G, Shea K, Zurell D, Bullock JM, Loiselle BA, Pejchar L, Razafindratsima OH, **Sandor ME**, Schupp EW, Strickland C, Zambrano J. 2019. The total dispersal kernel: a review and future directions. *AoB Plants* DOI: [10.1093/aobpla/plz042](https://doi.org/10.1093/aobpla/plz042).

4. Beckman NG, Aslan CE, Rogers HR, Kogan O, Bronstein JL, Bullock JM, Hartig F, HilleRisLambers J, Zhou Y, Zurell D, Brodie JF, Bruna EM, Cantrell SR, Decker R, Effiom EO, Fricke EC, Gurski K, Hastings A, Johnson J, Loiselle BA, Miriti MN, Neubert MG, Pejchar L, Poulsen JR, Pufal G, Razafindratsima OH, **Sandor ME**, Shea K, Schreiber SJ, Schupp EW, Snell RS, Strickland C, Zambrano J. 2019. Advancing an interdisciplinary framework to study seed dispersal ecology. *AoB Plants* DOI: [10.1093/aobpla/plz048](https://doi.org/10.1093/aobpla/plz048).
3. Aslan CE, Beckman N, Rogers H, Bronstein J, Zurell D, Hartig F, Shea K, Pejchar L, Neubert M, Poulsen J, HilleRisLambers J, Miriti JM, Loiselle B, Effiom E, Zambrano J, Schupp E, Pufal G, Johnson J, Bullock J, Brodie J, Bruna E, Cantrell S, Decker R, Fricke E, Gurski K, Hastings A, Kogan O, Razafindratsima O, **Sandor ME**, Schreiber S, Snell R, Strickland C, Zhou Y. 2019. Employing plant functional groups to advance seed dispersal ecology and conservation. *AoB Plants*. 11: plz006, DOI: [10.1093/aobpla/plz006](https://doi.org/10.1093/aobpla/plz006).
2. Letcher SG, and 54 others including **Sandor ME**. 2015. Environmental gradients and the evolution of successional habitat specialization: a test case with 14 Neotropical forest sites. *Journal of Ecology* 103: 1276-90. DOI: [10.1111/1365-2745.12435](https://doi.org/10.1111/1365-2745.12435).
1. **Sandor ME** and Chazdon RL. 2014. Remnant trees affect species composition but not structure of tropical second-growth forest. *PLoS ONE*. DOI: [10.1371/journal.pone.0083284](https://doi.org/10.1371/journal.pone.0083284).
Popular Press: Mongabay.com. Barrett, N. 2014. [“Leftover trees enhance the biodiversity of new forests”](#)

PRESENTATIONS

- 2022 **Sandor ME**. Estimating socio-ecological fire resilience across an arid region. (Invited) Cary Institute of Ecosystem Studies, Millbrook, NY, USA.
- 2022 **Sandor ME**, Souther SK, Sample M, Gabrielson S, Aslan CE. North American pollinator diversity, declines, and knowledge gaps. (Invited) NY Species Distribution Modeling Group Meeting, New York, NY, USA.
- 2020 **Sandor ME**, Aslan CE, Shiels A, Haines W, Liang C. Invasive predators decrease the number and specialization level of pollinators for native and endangered Hawaiian plants. North American Congress for Conservation Biology (virtual).
- 2020 Aslan CE, **Sandor ME**, Sample M, Stortz S, Souther S, Levine C, Samberg L, Gray M, Dickson B. Estimating social-ecological fire resilience across an arid region. Ecological Society of America (virtual).
- 2020 Bilgin T, Karni-Schmidt O, **Sandor M**, Spagnolo F, Nikolic Hughes I. Teaching the virus: Lessons from the online age. Intelligent Systems for Molecular Biology (virtual).
- 2020 Tingley MW, Nadeau CP, **Sandor ME**. Multi-species occupancy models as robust estimators of community richness. International Statistical Ecology Conference (virtual).
- 2020 Pejchar L, **Sandor ME**, Aslan C, Bronstein JL. Predicting the effects of climate change on fruiting phenology. Frugivores and Seed Dispersal Conference, Corbett National Park, Ramnagar, India. (Last minute withdraw due to medical emergency)
- 2019 **Sandor ME**, Aslan CE, Souther S, Sample M, Stortz S, Levine C, Gray M. 2019. Climate change and socioecological fire resilience in the Sonoran Desert. (Invited) NY Species Distribution Modeling Group Meeting, New York, NY, USA.
- 2018 **Sandor ME**. 2018. Birds and berries: projecting the responses of seed dispersal networks to climate change. (Invited) Northern Arizona University School of Earth Sciences and Environmental Sustainability Department Seminar, Flagstaff, AZ, USA.
- 2017 **Sandor ME**, Tingley MW, and Elphick CS. 2017. Mapping birds for the greater good: Using models, citizen scientists, and network interactions to predict how shifting climate could alter shrub distributions. Great Basin Bird Observatory Conference, Reno, NV, USA.
- 2013 **Sandor ME** and Chazdon RL. 2013. Recovery of species diversity and reproductive trait diversity along a successional chronosequence. Association for Tropical Biology and Conservation, San Jose, Costa Rica. (Poster presentation)

- 2012 **Sandor ME** and Chazdon RL. 2012. The effects of remnant trees on tropical forest regeneration. Ecological Society of America, Portland, OR, USA.
- 2012 **Sandor ME** and Chazdon RL. 2012. The effects of remnant trees on tropical forest regeneration. Ecology and Evolutionary Biology Department Graduate Student Symposium, University of Connecticut, Storrs, CT, USA.
- 2012 Whelan CJ, **Sandor ME**, Barner AK. 2012. Assessing vulnerability of nesting songbirds along the Elgin Joliet & Eastern (EJ&E) rail corridor. Railroad Environmental Conference, University of Illinois at Urbana-Champaign, Urbana-Champaign, IL, USA.
- 2011 **Sandor ME** and Chazdon RL. 2011. The role of edge effects along a gradient of old-growth to secondary forest. Ecology and Evolutionary Biology Department Graduate Student Symposium, University of Connecticut, Storrs, CT, USA.
- 2010 **Sandor ME**, Whelan CJ, Heske EJ, Barner AK, Bui H. 2010. Applied ecology: Looking for ecological impacts along a train corridor. Tuesday Evening Seminar, University of Connecticut, Storrs, CT, USA.

WORKSHOPS AND WEBINARS

- 2021 **Sandor ME**, Galante P. Using QGIS for Species Conservation: Mapping Suitable Habitat and Connectivity. Student Conference on Conservation Science-New York (virtual).
- 2020 Galante P, Blair M, **Sandor ME**. Species Distribution Modeling for Conservation with Wallace. North American Congress for Conservation Biology (virtual).
- 2019 Liang C, Aslan C, Shiels A, Haines W, **Sandor ME**. Workshop on Plants-Pollinators-Predators. Pohakuloa Training Area, Hilo, HI, USA.
- 2019 Aslan C, **Sandor ME**, Souther S, Sample M, Stortz S, Levine C, Gray M. The Sonoran FireAdapt Project Stakeholder Workshop. Tucson, AZ, USA.
- 2019 Aslan C, **Sandor ME**, Souther S, Sample M, Stortz S, Levine C, Gray M. The Sonoran FireAdapt Project Stakeholder Webinar. Southwest Fire Science Consortium.

CONSERVATION WHITE PAPERS

- Liang CT, Aslan CE, Haines WP, Shiels AB, **Sandor ME** (contributor). 2019. User's Guide: The impact of non-native predators on pollinators and native plant reproduction in a Hawaiian dryland ecosystem.
- Whelan CJ, **Sandor ME**, and Barner AK. 2015. Birds and rails. Illinois Natural History Survey Reports 413:7-8.
- Whelan CJ, Leong LA, **Sandor ME**, Barner AK, Maddox JD. 2014. Composition and reproductive ecology of breeding bird assemblages at selected natural areas along the EJ&E rail corridor, 2009–2013. Pages 28 - 44 in Heske EJ and Ruffatto DM, editors, Impacts of the Elgin, Joliet, and Eastern Railway Line on Natural Areas in the Western Chicago Metropolitan Area, Volume 1.
- Whelan CJ, Leong LA, **Sandor ME**, Barner AK, Maddox JD. 2014. Composition and reproductive ecology of breeding bird assemblages at selected natural areas along the EJ&E rail corridor, 2009–2013. Pages 14 - 45 in Heske EJ and Ruffatto DM, editors, Impacts of the Elgin, Joliet, and Eastern Railway Line on Natural Areas in the Western Chicago Metropolitan Area, Volume 2.

MENTORING

Undergraduate Students

- Ian Christensen*, Sustainability and Development, Columbia University
Effects of socioeconomic indicators on the frequency of invasive grasses in the Sonoran Desert (AZ), Sept 2021-May 2022
- Evin Zhao*, Ecology and Evolutionary Biology, University of Connecticut
Insect consumption by partially frugivorous birds within the Sierra Nevada from fecal samples, Sept 2015-Sept 2016
- Kwasi Wrensford*, Ecology and Evolutionary Biology, University of Connecticut
Networks of avian frugivory of fleshy-fruited shrubs within the Sierra Nevada using camera trap data, Sept 2014-May 2015
Currently: PhD student in Integrative Biology, University of California, Berkeley

Aaron Mueller, Ecology and Evolutionary Biology, University of Connecticut

Fruit use by overwintering birds in Northwest Park, Sept 2014-May 2015

2015 Frontiers in Undergraduate Research (conference, University of Connecticut): Poster presentation

Illana Gibson, Environmental Studies, University of Connecticut

Fire history of and plant species distributions within the Sierra Nevada using ArcGIS, Sept 2014-May 2015

Graduate Students

Olivia Matisse, Columbia University Department of Ecology, Evolution, and Environmental Biology, Fall 2021 – Spring 2023.

M.A. Thesis: Tracking bee movement between urban green spaces in Manhattan: Infrequent movement across the Upper West Side observed using mark-and-release and community science.

Additional mentoring activities:

- Student Conference on Conservation Science-New York (SCCS-NY) Mentor, 2019-2022 (Selected abstracts and gave feedback on them, April 2021 & 2022; gave feedback on talks 2019-2022) and Poster Judge (2021, 2022)
- Women in Science at Columbia 2021 Graduate Research Symposium Judge
- ESA Buell/Braun Student Award Judge, 2020

TEACHING AWARDS

2015 University of Connecticut Outstanding Graduate Teaching Award

2014 University of Connecticut Ecology and Evolutionary Biology Outstanding TA Award

TEACHING

Columbia University

Frontiers of Science, *Instructor of Record* (SCNCC1100: Fall 2019-Spring 2022)

University of Connecticut

Principles of Biology II for Majors, *Lab Instructor* (BIOL 1108: Fall 2017, 2015, and 2010, Spring 2011)

Introduction to Biology for Non-Majors, *Lab Instructor* (BIOL 1102: Fall 2016)

Introduction to Conservation Biology, *Teaching Assistant* (EEB 2208: Spring 2017, 2016, 2015, 2014)

Methods of Ecology, *Teaching Assistant* (EEB 4230W: Fall 2014, 2013, 2012)

Ornithology Lecture, *Teaching Assistant* (EEB 4260: Spring 2013)

Ornithology Lab, *Teaching Assistant* (EEB 4261: Spring 2013)

Other Institutions

Northern Arizona University, *Guest Lecturer*

Conservation Biology, (ENV 440: Fall 2018)

City College of New York, *Guest Lecturer*

Symbiosis (BIO 45000: Spring 2017)

University of Connecticut, *Guest Lecturer*

Introduction to Conservation Biology (EEB 2208: Spring 2016, 2015)

PROFESSIONAL SERVICE

Grant Review Panel: USDA NIPA (Nov 2022) (withdrew due to medical issues)

Journal Peer Review: *Basic and Applied Ecology*, *Forest Ecology and Management*, *Global Ecology and Biogeography*, *Ibis*, *Oecologia*, *The Auk: Ornithological Advances*, *Urban Ecosystems*

Master's Degree Application Acceptance Committee, Columbia University E3B, Spring 2021

DEI ACTIVITIES

2021-2022 [Science Research Mentoring Program](#) Mentor, American Museum of Natural History
Mentored 3 New York City high school students that are new to science to develop scientific research skills

2021-2022 Columbia University Department of Ecology, Evolution, and Environmental Biology (E3B) Diversity, Equity, and Inclusion Committee
Working with graduate students and faculty members to increase undergraduate representation within Columbia E3B through outreach efforts

2011-2014 Graduate Student Representative to the Faculty, University of Connecticut Ecology and Evolutionary Biology (EEB)
Multiple duties, including attending faculty meetings and advocating for student concerns within these meetings, working with both the Ecology and Evolutionary Biology faculty and the University of Connecticut graduate student unionization effort to advocate for unionization

DEI TRAINING AND PROFESSIONAL DEVELOPMENT

- American Museum of Natural History Diversity, Equity, Inclusion, and Justice Training participant (run by the Center for Biodiversity and Conservation, March 2020-May 2022)
- Bystander Intervention Workplace Mini-Training participant (Right to Be, April 11, 2022)
- Teaching Inclusively from the Start participant (Columbia University Center for Teaching and Learning workshop, January 10, 2022)
- Columbia University Earth Institute and Climate School event attendee (“What comes next? Addressing racism in our workplace,” May 10, 2021)
- North American Congress for Conservation Biology 2020 Diversity, Equity, Inclusion, and Justice Workshop participant (“Learning to collaborate in and out of the classroom: A toolkit for more inclusive conservation,” July 31, 2020)
- Teaching for Diversity, Equity, and Inclusion Workshop participant (“Inclusive Teaching and Learning Through Discussion,” run by Columbia University Center for Teaching and Learning, August 22, 2019)