Nicholas J. Russo

Postdoctoral Researcher
Organismic and Evolutionary Biology
Harvard University

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EDUCATION

University of California, Los Angeles — Los Angeles, CA
Ph.D., Ecology & Evolutionary Biology — 2024
Advisor: Dr. Thomas Smith

University of Connecticut — Storrs, CT
Bachelor of Science, Ecology & Evolutionary Biology — 2018
University Scholar, STEM Scholar, Honors Program

PROFESSIONAL APPOINTMENTS

Harvard University — Cambridge, MA
Postdoctoral Researcher — 2024-present

PUBLICATIONS

11. Tinsman, J., A. Woodward, S. Su, D.H. Skinner, L.V. Kemp, A.D. Abeh, K.M. Afiadenmanyo, N. Arcilla, K. Brouwer, A.S Chaffra, F. Forzi, F. Guetse, L.H. Holbech, D. Ikome, A.M. Koutchoro, S.G.K. Odoukpe, R. Orenstein, D. Nshom, N.J. Russo, T.B. Smith, R.S. Terrill, P.W. Trail, and J.A.O. Terrill. 2024. Intense international exploitation of African hornbills necessitates urgent conservation measures, including CITES listing. 2025. **Biological Conservation** 308:111105.

10. Russo, N.J., J.M. Takuo, V. Tegebong, M. LeBreton, M. Dean, A. Ferraz, N. Barbier, M. Wikelski, E.M. Ordway, S. Saatchi, and T. Smith. Spaceborne LiDAR reveals hammer-headed bat preference for intermediate canopy height and diverse structure in a Central African rainforest. 2025. **Movement Ecology** 13:30.

9. Russo, N.J., D.L. Nshom, A. Ferraz, N. Barbier, M. Wikelski, E.M. Ordway, S. Saatchi and T.B. Smith. Three-dimensional vegetation structure drives patterns of seed dispersal by African hornbills. **Journal of Animal Ecology** 93:1935-1946.

8. Dehaudt, B., T. Bruce, V. Deblauwe, A. Ferraz, B. Gardner, T.G. Bibila, M. LeBreton, G. Mempong, K. Njabo, S.N. Nkengbeza, E.M. Ordway, L. Pavan, N.J. Russo, T.B. Smith, and M.S. Luskin. 2024. Seed traits interact with ruminant digestion and forest structure to create divergent seed dispersal outcomes. **Ecology** 105:e4409.
    - Featured by *UCLA IoES Magazine*, Sep 12, 2024

7. Russo, N.J., K.M. Holbrook, T.V. Dietsch, F.A. Forzi, A.S.A. Tekam, and T.B. Smith. A maneuverable canopy net for capturing large tropical birds. 2024. **Journal of Field Ornithology** 95:13.

6. Russo, N.J., A.B. Davies, R.V. Blakey, E.M. Ordway, and T.B. Smith. 2023. Feedback loops between 3D vegetation structure and ecological roles of animals. **Ecology Letters** 26:1597-1613.

5. Valenti, V.L., E.C. Carcelen, K. Lange, N.J. Russo, and B. Chapman. 2020. Leveraging Google Earth Engine user interface for semi-automated wetland classification in the Great Lakes Basin at 10 m with optical and radar geospatial datasets. **IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing** 13:6008-6018.

4. Robertson, M.W.*, N.J. Russo*, S.J. McInnes, B. Goffinet, and J.E. Jiménez. 2020. Potential dispersal of tardigrades by birds through endozoochory: evidence from sub-Antarctic White-bellied Seedsnipe (*Attagis malouinus*). **Polar Biology** 43:899–902. *Shared first authorship

3. Russo, N.J., M. Robertson, R. MacKenzie, B. Goffinet, and J.E. Jiménez. 2020. Evidence of targeted consumption of mosses by birds in sub-Antarctic South America. **Austral Ecology** 45:399-403.

2. Russo, N.J., C.S. Elphick, N.P. Havill, and M.W. Tingley. 2019. Spring bird migration as a dispersal mechanism for the hemlock woolly adelgid. **Biological Invasions** 5:1585-1599.
    - Featured by *Audubon*, Feb 20, 2019

1. Russo, N.J., C.A.S.-J. Cheah, and M.W. Tingley. 2016. Experimental evidence for branch-to-bird transfer as a mechanism for avian dispersal of the hemlock woolly adelgid (Hemiptera: Adelgidae). **Environmental Entomology** 45:1107-1114.
    - Featured by *Entomology Today*, Aug 1, 2016

In Review

Russo, N.J., K. Gahm, M. Zuercher, K. Hernandez, R. Blakey, C. Niesner, and E. Abelson. Monitoring animal movement diversity as a component of biodiversity. *EcoEvoRxiv*.

INVITED SEMINARS AND SYMPOSIA

Yale-Myers Forest Summer Seminar Series, Eastford, CT, USA. 2025. *Bird migration as a hitchhiking opportunity for hemlock woolly adelgid infestation.* Oral presentation.

Ecological Society of America Meeting, Long Beach, CA, USA. 2024. *It takes a hornbill to build a village: Seed dispersal in a changing Afrotropical landscape.* Oral presentation using NASA Hyperwall.

NASA Biological Diversity and Ecological Conservation Meeting, Silver Spring, MD, USA. 2024. *Understanding seed dispersers' movements and their consequences across rainforest gradients of structural and phenological diversity.* Oral presentation.

Internet of Animals Symposium, Yale University, New Haven, CT, USA. 2022. *Movements of Congo Basin seed dispersers in relation to vegetation structure, phenology, and forest degradation.* Poster presentation.

All-Biology Undergraduate Symposium, University of Connecticut, Storrs, CT, USA. 2018. *Spring bird migration as a dispersal mechanism for a forest insect invasion.* Oral presentation.

Yale-Myers Forest Summer Seminar Series, Eastford, CT, USA. 2017. *Spring bird migration as a dispersal mechanism for an invasive insect pest.* Oral presentation.

Northeast Natural History Conference, Cromwell, CT, USA. 2017. *Spring bird migration as a dispersal mechanism for an invasive insect pest.* Oral presentation.

Holster Scholar Project Summer Research Presentations, University of Connecticut, Storrs, CT, USA. 2015. *Avian dispersal of the hemlock woolly adelgid.* Oral presentation.

CONTRIBUTED PRESENTATIONS

Wilson Ornithological Society Meeting, Los Angeles, CA, USA. 2025. *Long-distance movements and behavioral variation of African hornbills diversify seed dispersal patterns.* Oral presentation.

NASA Biological Diversity and Ecological Conservation Meeting, Washington, DC, USA. 2025. *Understanding seed dispersers' movements and their consequences across rainforest gradients of structural and phenological diversity.* Poster presentation.

Savanna Science Network Meeting, Skukuza, ZA. 2025. *Seed dispersal to canopy gaps in the Congo Basin and implications for grassy ecosystems*. Oral presentation.

Ecological Society of America Meeting, Long Beach, CA, USA. 2024. *Effects of 3D canopy structure on seed dispersal by hornbills in Cameroon.* Poster presentation.

Wilson Ornithological Society Meeting, Peoria, IL, USA. 2024. *Three-dimensional vegetation structure drives patterns of seed dispersal by African hornbills.* Oral presentation.

AniMove Summer School, Vancouver, BC, CA. 2023. *Movement ecology of hornbills in Cameroon.* Oral presentation.

American Geophysical Union Meeting, Chicago, IL, USA. 2022. *Effects of 3D canopy structure on seed dispersal by hornbills in Cameroon.* Oral presentation.

Wilson Ornithological Society Meeting, Remote. 2021. *Movement ecology of hornbills and spatial patterns of seed dispersal in Cameroon*. Oral presentation.

Wilson Ornithological Society Meeting, Cape May, NJ, USA. 2019. *Spring bird migration as a dispersal mechanism for a forest insect invasion.* Oral presentation.

International Ornithological Congress, Vancouver, BC, CA. 2018. *Consumption of bryophytes by montane, sub-Antarctic birds.* Oral presentation and e-Poster.

American Ornithological Society Meeting, Tucson, AZ, USA. 2018. *Spring bird migration as a dispersal mechanism for a forest insect invasion.* Oral presentation.

Connecticut Entomological Society Meeting, Storrs, CT, USA. 2017. *Avian spring migration as a dispersal mechanism for the hemlock woolly adelgid.* Oral presentation.

Wilson Ornithological Society Meeting, Ft. Myers, FL, USA. 2017. *Avian spring migration as a dispersal mechanism for an invasive insect pest.* Oral presentation.

Fall Frontiers Undergraduate Research Exhibition, University of Connecticut, Storrs, CT, USA. 2016. *Temporal differences in avian dispersal of Adelgidae crawlers.* Poster.

Fall Frontiers Undergraduate Research Exhibition, University of Connecticut, Storrs, CT, USA. 2015. *Avian dispersal of the hemlock woolly adelgid.* Poster.

FELLOWSHIPS

2020-23 NSF Graduate Research Fellowship

2020 Fulbright-Hays Doctoral Dissertation Fellowship (Declined for NSF award)

- Featured by *UCLA Newsroom*, Aug 27, 2020

2018 Alumni Fellowship, UCLA

2018 Lida Scott Brown Fellowship, UCLA
Awarded to outstanding applicant in avian biology

RESEARCH FUNDING

2025-28 NASA ROSES Program Element A.7, Biodiversity and Ecological Conservation: "Quantifying relationships and feedback between vegetation structural complexity and biodiversity in the Congo Basin" ($562,146)
PI: Andrew Davies
Collaborators: **N.J. Russo**, Gwili Gibbon, Evan Hockridge

2024 Greenville Zoo Conservation Continuing Grant ($3500)

2024-25 David Geffen School of Medicine Global Health Seed Grant
"Forest conservation & human health at the intersection of community based participatory research & ethnography" ($50,000)
PI: L. Buchbinder
Faculty advisor: E. Ordway
Co-Is, **N.J. Russo**, T. Atti

2023 Dept. of Ecology and Evolutionary Biology Award, UCLA ($1200)

2023 Lewis and Clark Fund ($2300)

2022 Greenville Zoo Conservation Continuing Grant ($3000)

2022 Explorers Club Exploration Fund ($4000)

2021 Sigma Xi Grant-in-Aid of Research ($965)

2021 Dept. of Ecology and Evolutionary Biology Award, UCLA ($1000)

2021-23 NASA ROSES Program Element A.7: Biodiversity, "Understanding seed disperser movements and their consequences across rainforest gradients of structural and phenological diversity" ($619,840)

PI and Co-PI:	T.B. Smith, S. Saatchi
Co-Is:	A. Ferraz, E. Ordway, M. Crofoot
Collaborators:	**N.J. Russo**, M. Luskin, M. Wikelski, V. Deblauwe, V. Zaunbrecher, M. Lebreton, N. Barbier

2020 IDEA Wild ($1000)

2020 Greenville Zoo Conservation Grant ($865)

2020 Association for Tropical Biology Seed Grant ($1000)

2020 Sigma Xi Grant-in-Aid of Research ($916)

2020 Hesse Award, American Ornithological Society ($2500)

2020 Animal Behavior Society ($1000)

2019 GoFundMe campaign: "Rainforest Bird Research in Cameroon" ($1650)

2019 Dept. of Ecology and Evolutionary Biology Award, UCLA ($2500)
2019 Lida Scott Brown Research Stipend, UCLA ($1000)
2018 Katie Bu Memorial Fund Botany Award, UConn ($1480; returned)
2017 Office of Undergraduate Research Supply Award, UConn ($500)
2017 Jed Burtt Mentoring Grant, Wilson Ornithological Society ($1000)
Advisor: Dr. Morgan Tingley
2017 Great Hollow Ecological Research Center Grant ($1000)
2017 DeMaio Family Summer Undergraduate Research Fund Award, UConn ($4000)
2016 IDEA Grant, UConn ($4000)
2015 Holster Scholar, UConn ($4000)

CONSERVATION FUNDING

2017 Connecticut Ornithological Society Mini-grant, UConn Birding Club ($400)
Wrote grant proposal and oversaw project to plant native plant species and construct an interpretive panel for the birds of the UConn EcoGarden

AWARDS AND HONORS

2025 Alexander Wilson Prize, Best Student Oral Paper, Wilson Ornith. Soc.
2018 Phi Beta Kappa
2018 Margaret F. Ertman Award for Excellence in Biology, UConn
Highest honors given to one graduating student for achievement in undergraduate biological research
2018 Fulbright U.S. Student Program Alternate
2018 NSF Graduate Research Fellowship Honorable Mention
2017 Nancy Klamm Best Undergraduate Student Oral Paper, Wilson Ornith. Soc.
2017 Connecticut Entomological Society Best 5-minute Talk
2017-18 University Scholar, University of Connecticut
Award given annually to 30 UConn students for exceptional engagement in research
2017 Barry Goldwater Scholarship Honorable Mention
2016 Morris K. and Stewart L. Udall Foundation Environmental Scholar
- Covered by *UConn Today* May 10, 2016

2016 American Ornithologists' Union Student Membership Award
2014-18 UConn STEM Scholarship for Academic Excellence

TEACHING EXPERIENCE

Teaching Assistant, Biology of the Bats (UCLA) 2024

Teaching Assistant, Tropical Ecology (UCLA) 2019, 2023

Invited Workshop Leader, Google Earth Engine, National Climate Change Observatory of Cameroon 2021

Teaching Assistant, Intro to Ecology and Behavior (UCLA) 2019, 2020

Invited Workshop Leader, Bird Identification, Yale-Myers Forest 2018

Guest Lecturer, Bryophyte Ecology, 2018
Sub-Antarctic Biocultural Conservation Program

PROFESSIONAL EXPERIENCE

Graduate Student Researcher	University of California, Los Angeles, CA, USA	Apr-Sep 2024
GIS Technician Partnership for Forests	Remote Work	Feb-Aug 2021
Applied Earth Science Intern, NASA DEVELOP Program	Jet Propulsion Laboratory Pasadena, CA, USA	Jan-Apr 2020
Research Technician, Great Hollow Research Center	New Fairfield, CT, USA	May-Jun 2018
Student Researcher, Sub-Antarctic Biocultural Conservation Program	Navarino Island, Chile	Dec 2017-Jan 2018

PROFESSIONAL SERVICE AND MEMBERSHIPS

Ad hoc reviewer: *Agricultural and Forest Entomology, Biological Invasions, Ecology and Evolution, Frontiers in Ecology and the Environment, Wilson Journal of Ornithology* 2019-present

Nominations Committee Chair 2024-present
Elected Councilor 2022-2024
Student/Early Professionals Committee Co-chair 2020-2024
Wilson Ornithological Society

Vice President, Bruin Audubon Society and Birding Club, UCLA 2018-2020

Environmental Literacy Task Force, UConn 2018
Designed implementation plan for UConn general education requirement in Environmental Literacy

Member, UConn ECOalition 2016-18
Alliance of environment-focused student organizations, petitioned for general education requirement in Environmental Literacy

Co-founder and president, UConn Birding Club 2015-18

OUTREACH AND VOLUNTEER ACTIVITIES

2025	Science communication workshop, Wilson Ornithological Society
2023	Bird handling workshop in Dja Faunal Reserve, Cameroon
2022	Invited guest speaker: Congo Basin Institute Student Association, UCLA
2022	Invited guest speaker: School for Indigenous and Local Knowledge, Cameroon
2022	Science Education and Sensitization in the "Boucle" Region of Cameroon
2021	Invited guest speaker: Tropical Ecology course, UCLA
2020	National Audubon Society Birding Buddies: *Mentored university student virtually in bird identification*
2019-20	GreenShorts Environmental Film Contest, UCLA: *Mentored two high school students in the creation of an environment-focused short film and judged entries*
2019	Invited guest speaker: Advanced Business Communication course, Johnson & Wales University, Providence, RI, USA
2019	Public presentation on radio-tracking birds to community members of Bifolone, Cameroon

SOFTWARE AND PROGRAMMING PROFICIENCY

R; QGIS; Google Earth Engine JavaScript API; Adobe Illustrator

LANGUAGES

English (Native); French (Advanced)