

Jessica Gorzo | Research Associate

Cellular Tracking Technologies, Erma, NJ

she/her • avianecologist.com • in gorzo • setophaga • dendroica

Recent Experience

Conservation Science Global, Inc.

Research associate

Remote

Mar. 2024 - Present

- Data wrangling and ecological analysis
- Working on a variety of projects to complete grant goals and produce deliverables

Cellular Tracking Technologies LLC

Data scientist

Rio Grande, NJ

Jul. 2020 - Present

- Develop methodology to estimate locations from radio and Bluetooth signals
- Manage data pipelines and processes that deliver and display data via web interfaces

Natural Resources Research Institute

Landscape Ecologist

Duluth, MN

Aug. 2016 - Jun. 2020

- Researcher 5 (University of Minnesota - NRRI internal job title designation)

Contractor

New Jersey Dept. of Environmental Protection

Marsh Bird Survey Technician

Tuckahoe, NJ

Summer 2021, 2024

- Worked as a contractor to survey sensitive and endangered nocturnal avian species via boat transects
- Solely by-ear bird identification required for night surveys

On the Wing Scientific Consulting LLC

Co-Founder

Remote

Jul. 2018 - Present

- Data science consulting projects including spatio-temporal modeling
- Create tools for improving workflows

Education

Virginia Tech

B.S. Biological Sciences

Blacksburg, VA

2004-08

- Minors: Physics, Astronomy

Clemson University

M.S. Wildlife & Fisheries Biology

Clemson, SC

2009-11

- Minor: Experimental Statistics

University of Wisconsin

Ph.D. Wildlife Ecology

Madison, WI

2012-16

- Minor: distributed (required)

Thesis & Dissertation

Gorzo, J. M. (2016). *Avian response to weather in the central US grasslands* [PhD thesis]. The University of Wisconsin-Madison.

Gorzo, J. M. (2012). *Avian communities and landscape characteristics of golf courses within the Beaufort County sea island complex* [Master's thesis]. Clemson University.

Peer-Reviewed Publications

Gorzo, J. M., Pidgeon, A. M., Thogmartin, W. E., Allstadt, A. J., Radeloff, V. C., Heglund, P. J., & Vavrus, S. J. (2016). Using the North American Breeding Bird Survey to assess broad-scale response of the continent's most imperiled avian community, grassland birds, to weather variability. *The Condor: Ornithological Applications*, 118(3), 502–512.

Schilke, P. R., Bartrons, M., Gorzo, J. M., Vander Zanden, M. J., Gratton, C., Howe, R. W., & Pidgeon, A. M. (2020). Modeling a cross-ecosystem subsidy: Forest songbird response to emergent aquatic insects.

Landscape Ecology, 35, 1587–1604.

- McIntyre, N., Liu, G., Gorzo, J. M., Wright, C. K., Guntenspergen, G. R., & Schwartz, F. (2019). Simulating the effects of climate variability on waterbodies and wetland-dependent birds in the Prairie Pothole Region. *Ecosphere*, 10(4), e02711.
- Hamilton, C. M., Bateman, B. L., Gorzo, J. M., Reid, B., Thogmartin, W. E., Peery, M. Z., Heglund, P. J., Radeloff, V. C., & Pidgeon, A. M. (2018). Slow and steady wins the race? Future climate and land use change leaves the imperiled Blanding's turtle (*Emydoidea blandingii*) behind. *Biological Conservation*, 222, 75–85.
- Latimer, C. E., Graves, R., Pidgeon, A. M., Gorzo, J. M., Henschell, M. M., Schilke, P. R., Hobi, M. L., Olah, A., Kennedy, C. M., Zuckerberg, B., et al. (2022). Rising novelty and homogenization of breeding bird communities in the US. *bioRxiv*, 2022–2009.
- Simonetti, J., Chou, A., Dowd, J., Gorzo, J., Grimm, C., Harold, M., Hubbard, R., Kuether, T., Loyd, R., Nipper, B., et al. (2008). Minor Planet Observations [841 Martin Observatory, Blacksburg]. *Minor Planet Circulars*, 62871, 9.

Conference Presentations

- Gorzo, J. M., & Burcher, S. (2024). Automated radio telemetry: Study design and data analysis. *Meeting of the American Ornithological Society*.
- Burcher, S., Blackshire, S., Gorzo, J., Lanzone, M., La Puma, D., & Mizrahi, D. (2024a). Tracking wildlife movements with networks of fixed radio receivers. *8th International Bio-Logging Science Symposium*.
- Burcher, S., Blackshire, S., Gorzo, J., Lanzone, M., La Puma, D., & Mizrahi, D. (2024b). Tracking wildlife movements with networks of fixed radio receivers. *Meeting of the American Ornithological Society*.
- Gorzo, J. M., & Wright, C. K. (2018). Mallard Distribution and Wetland Network Modularity in the Prairie Pothole Region (PPR). *IALE-NA, T02, Terrestrial–aquatic ecosystem interactions*.
- Gorzo, J. M. (2017). Waterfowl response to weather and land cover in the prairie potholes. *Proceedings of the Ninety-Eighth Annual Meeting*, 922. <https://doi.org/10.1676/1559-4491-129.4.911>
- Gorzo, J. M., Pidgeon, A., Allstadt, A., Thogmartin, W., Vavrus, S., & Heglund, P. (2016). Land cover and weather drivers of avian site fidelity. *Proceedings of the Society for Conservation Biology*.
- Wright, C. K., & Gorzo, J. M. (2018). For mallard ducks, the network is the habitat. *AGU Fall Meeting Abstracts*, 2018, H21L–1826.
- Gorzo, J. M., Pidgeon, A. M., Thogmartin, W., Allstadt, A., & Radeloff, V. (2015). Grassland bird response to weather in the badlands and prairies. *Meeting of the American Ornithologists' Union/Cooper Society*.
- Gorzo, J. M. (2014). Avian population response to extreme weather events. *Nelson Earth Day Conference*.
- Gorzo, J. M., & Jodice, P. G. R. (2011). The breeding bird community of coastal golf courses in Beaufort County, South Carolina. *Meeting of the American Ornithologists' Union*.
- Bateman, B., Gorzo, J. M., Pidgeon, A., Radeloff, V., Akcakaya, R., Flather, C., Albright, T., Vavrus, S., Thogmartin, W., & Heglund, P. (2013). Use of multiple data sources in identifying drivers of abundance in an irruptive species, the dickcissel. *Meeting of the American Ornithologists' Union/Cooper Ornithological Society*.
- Allstadt, A. J., Gorzo, J. M., Bateman, B. L., Heglund, P. J., Pidgeon, A. M., Thogmartin, W., Vavrus, S. J., & Radeloff, V. (2016). Effects of weather on the abundance and distribution on populations of 103 breeding bird species across the United States. *AGU Fall Meeting Abstracts*, 2016, GC11D–1181.

Technical Reports

- Noe, R., Locke, C., Host, G., Gorzo, J., Johnson, L., Lonsdorf, E., Grinde, A., Joyce, M., Bednar, J., Dumke, J., et al. (2021). *Measuring what matters: Assessing the full suite of benefits of OHF investments*.
- Johnson-Bice, S., Gorzo, J. M., Kovalenko, K., Brown, T., & Host, G. (2020). *Predicting Potential Beaver Dam Sites on Lake Superior's North Shore*. Natural Resources Research Institute.

Contributions

- StellaR: <http://www.r-gis.net/stellar/>
- Updated code for Supplement 1. R Script in 2016 for the publication: Jackson, M. M., Turner, M. G., Pearson, S. M., & Ives, A. R. (2012). Seeing the forest and the trees: multilevel models reveal both species and community patterns. *Ecosphere*, 3(9), 1–16. https://figshare.com/articles/dataset/Supplement_1_R_script_and_input_data_file_for_creating_multilevel_models_using_the_forest_herb_data_set_described_in_the_main_text_/3563784?file=5637069

- Contributed “Raptors and songbirds” (8.4.5.1) pp.565-566 in Jodice, P. G. R., Tavano, J., Mackin, W., & Michel, J. (2013). South Atlantic information resources: data search and literature synthesis. US Department of the Interior, Bureau of Ocean Energy Management, regulation, and enforcement, Gulf of Mexico OCS region, 475, 587

Teaching

Guest Lectures

DSSA 5102: Data Gathering & Warehousing
Career Perspective: From Wildlife to Data Science

Stockton University
 4/18/2024

Landscape Ecology
Networks and Connectivity in Landscape Ecology

University of Minnesota-Duluth
 2020

WLDL 450/650: Human Dimensions in Wildlife
Introduction to Birding and Community Science

University of Wisconsin-Stevens Point
 2016

Teaching Assistant

2012, 2014: Forestry Practicum (‘Summer Camp’). Kemp Natural Resource Station

2008: Introduction to Astronomy Lab (2 Sections). Virginia Tech

Short Course & Workshop Instructor

2013: BIOSC 730: Wolves and Society. Clemson University

Fall 2007: Introduction to Astronomy. Elderhostel

Outreach, Service & Fundraising

- Birding field guide (paid or volunteer) for various festivals
 - Cape May Fall Festival, Cape May Bird Observatory/NJ Audubon (2023-2024)
 - Cape May Spring Festival, Cape May Bird Observatory/NJ Audubon (2024)
 - Sax-Zim Bog Birding Festival (2014 - 2019)
- World Series of Birding: Participant in Carbon Footprint Challenge
 - 2015: tied for 1st
 - 2021: 2nd place in social/physical distance COVID-19 modified rules
- Great Wisconsin Birdathon Participant (2013, 2016)
- BRRRRDathon (Team Overall Winner, Record Setter Jan. 2013)

Television

Expeditions – air date Oct 17 2010

Guest appearance, season 4, Episode 7: “The ACE Basin – A Conservation Miracle”

Discussed painted bunting habitat requirements, threats and conservation needs

(Listing and TV show description:

http://www.clemson.edu/public/expeditions/episode_guide/season_4.html)

Radio

Your Day – air date Aug 30 2010

(Segment start 45:50 <http://cufan.clemson.edu/psaradiopod/YDPodcast/YD100830.mp3>)

Academic

Ad hoc reviewer: Journal of Arid Environments, Landscape & Urban Planning, Landscape Ecology, PLOS ONE, Wilson Ornithological Society, Biological Conservation, Avian Conservation & Ecology

Professional Memberships: Phi Kappa Phi Honors Society (inducted 2010), American Ornithological Society, US-International Association for Landscape Ecology

Awards & Honors

2015 Travel Award, American Ornithologist’s Union/Cooper Ornithological Society Conference

2011 Outstanding Service to the Clemson Experimental Forest

Dean’s List (undergraduate)