

Jenelle L. Dowling, Ph.D.
Bozeman, MT

Qualifications

Established leader with 17 years of experience managing projects grounded in science, advocacy, communication, and impact. I guide mission-driven teams to meet goals in conservation through research, engaging science communication, and community action. I've built a diverse toolkit, including foundational knowledge as a career scientist, project management, skills in public policy, and talent in fundraising, coalition building, and compassionate team leadership.

Education

Ph.D. Cornell University, Behavioral Ecology
B.A., B.S. University of MD, Baltimore County, Biology (Ecology and Evolution), Psychology

Professional Positions

Head of Programs, The Biomimicry Institute. Remote from Bozeman, MT, 2025-present. Lead the program team and develop, oversee, scale, and evaluate the Biomimicry Institute's programs (Ray of Hope Accelerator, AskNature, AskNature Hive, Co-labs, events and learning, and emerging programs). Key part of the Institute's leadership team, helping to create and maintain an inclusive, transparent and collaborative culture.

Strategy and Systems Lead, Nature in Plain Sight. Bozeman, MT, 2024-present (part-time). Led start-up planning for strategy, mission and vision for organization focused on rebuilding connections with nature. Oversee systems, creative use of technology, and strategy evaluation.

Climate Science AI trainer, Outlier.ai. Bozeman, MT, 2024-present (part-time). Train and improve generative AI models for accurate scientific information and thorough, logical reasoning.

Managing Director, National Science Policy Network. Remote from Bozeman, MT, 2021-2024

- Leadership*
 - Served as the start-up org's first full-time leader. Grew the organization from a nearly all volunteer effort to a professional team of over 22 staff and fellows, more than doubled the revenue and budget in 3 years, secured a funding surplus, hired our first executive director and handed over a thriving organization
 - Developed, refined, implemented, and evaluated governance, vision, strategy, structure and culture from a foundation of equity and justice
 - Supervised a team of 4 senior staff (directors), 4 part-time coordinators, 14 fellows. Provided leadership, connection, growth and support.
 - Led and managed the organization's board and senior advisors
- Program*
 - Oversaw all programmatic strategy, implementation, and evaluation – NSPN runs 10+ programs that train, skill and empower scientists so they can create local and national level policy change in conservation, health, global climate change, etc.
 - Created and managed partnerships with universities, government agencies, NGOs, corporations, and philanthropic entities
- Development and communications*
 - Led fundraising and operations, raised/managed \$1.3M org budget
 - Represented the organization in all earned and owned media and with external stakeholders, members, partners, funders, and the public
 - Excelled in communicating complex scientific topics to policy and decision makers, and trained others to communicate their own science in a succinct and impactful way
 - Oversaw our communication strategy, managed sensitive communications
- Equity and Justice*
 - Co-created initiative to build dedicated resources and programs to engage non-scientist community members, tribal members, tribal and community colleges and other minority-serving institutions in science policy
 - Maintained a working and learning environment where equity, inclusion, and cultural humility are reflected in our practices, culture, and all of our actions; we make mistakes, we take responsibility, we repair, we grow
 - Consistently practiced full-team DEIB growth, reflection, accountability and learning through quarterly DEIB trainings, discussion and exercises
 - Engaged all senior staff as stakeholders in our DEIB work through regular conversations focused on the 'state of the org in DEIB', proactively fostering small group conversations and creating accountability through team covenant agreements

Scientific Director, Adventure Scientists. Bozeman, MT, 2019-2021

Program

- Designed community science research projects that address climate change and other global environmental issues. Managed budgeting, staffing, risk, permitting, reporting, storytelling, etc.
- Maintained scientific integrity, data quality, and alignment with org goals
- Built and managed partnerships with scientists within academia, industry, NGOs, and worked directly with indigenous communities, and tribal, state and federal government

Leadership

- Led project management department (supervised 6 permanent staff, 1-4 contractors)
- Guided organizational strategy as a member of the senior leadership team
- Managed our scientific advisory board
- Sought extensive training and served as the organization's expert on the 'science of team science'

Development and communications

- Wrote and reviewed grant proposals, regularly engaged with donors
- Supported earned and owned media communications about projects and/or science
- Promoted the organization through conferences, donor events, and scientific and informal publications.
- Regularly presented scientific topics and data on climate and other environmental topics to advocacy groups, coalitions, and other decision-makers to build support and contribute to conservation action/policy change for environmental health
- Communicated conservation project science to volunteers, the public, and other non-scientist audiences

Equity and Justice

- Founded and chaired the organization's first equity, inclusion & justice committee
- Served as the go-to equity and diversity liaison for staff and partners; engaged external experts and coaches, and supported everyone involved through conflict, accountability and repair
- Created and lived by a guide for equitable and inclusive conservation collaborations; trained the team on this approach

Staff Scientist, Montana Natural History Center. Missoula, MT, 2016-2019

Program

- Co-founded and built an international program on Osprey; highlighted osprey as a compelling story that involves not only ecology, but also satellites, aerodynamics, and construction
- Created and maintained long-term partnerships with industry, universities, tribal community members and schools, and NGOs
- Led program evaluation across the organization; managed and analyzed the organization's data

Leadership

- Served as head of conservation research for the organization and provided scientific oversight for programs, exhibits, and outreach
- Supervised program staff (1 employee, 3-7 seasonal staff)

Development and communications

- Fundraised through extensive grant writing and building donor relationships
- Completed interviews, wrote communications for non-scientist audiences, and promoted the organization and our science, conservation, climate, and nature programs at events and conferences

Equity and Justice

- Worked with tribal communities to include indigenous perspectives from start to finish as we designed and implemented programs; aligned curricula with Indian Education for All essential understandings
- Created diverse program advisory boards that brought indigenous perspectives into decision-making
- Completed trainings on Indigenous Ways of Knowing, and Indigenous Science, incorporated into programs and trained staff

Post-doctoral Researcher, Cornell Lab of Ornithology. Ithaca, NY, 2015-2016

- Program* - Ran ecological research projects focused on animal behavior; built vibrant collaborations across disciplines and worldwide
- Leadership* - Developed and taught two advanced ecology courses; trained and mentored students to design and manage research studies, test hypotheses, and collect and analyze conservation field data
- Development* - Prepared grant proposals for large and small federal agencies, foundations, international fellowships, local advocacy groups, and more
- Equity and Justice* - Worked with department-wide STEM diversity committee and university leadership to build faculty understanding and support for diversity initiatives and policy changes

Project manager, Red-backed Fairy-wren project, Cornell University. Queensland, Australia, 2009-2014

- Program* - Ran long-term field research program while also conducting PhD research
 - Developed methods and project plans, led data collection, maintained large database
 - Independently managed all project logistics, solved problems, and managed risk in dangerous field setting (fires, floods, venomous everything)
- Leadership* - Hired, trained, supervised a crew leader and 4-6 field staff each year
 - Supported early-career professionals through important career pivot points, and maintained long-term mentorship relationships
- Development* - Wrote, received, and reported on grants from large and small federal agencies, foundations, conservation groups, etc.
- Equity and Justice* - Co-founded a student-led cross-departmental STEM diversity committee, the first ever in Cornell's College of Arts and Sciences.

Research Technician, Smithsonian Conservation Institute, Washington, DC, 2007-2010

- Designed and managed conservation projects focused on climate change impacts in birds' wintering grounds. Led projects independently, promoted the organization through informal public sessions, and formal reports and publications. Supervised field research in remote areas of Jamaica and Santa Cruz Island, California.

Volunteer roles, service and free time/fun!

Bozeman Tenants United, Volunteer

- Support multi-generational housing initiative - provide advice for leadership, strategy and systems, host house meetings to engage Bozeman homeowners in housing advocacy

Montana Outdoor Science School, Board of Directors

- Served on the fundraising and governance committees, supported Executive Director hire

Permaculture, We own/operate a small permaculture farm designed to support and coexist with nature

Woodworking and carpentry, I design and build small-scale wood structures, interior/exterior finishes, and fine pieces. I use biomimicry and human/non-human animal behavior to inform design.

Selected awards and grants

2023 **Gordan and Betty Moore Foundation** Curiosity-Driven Science Award: **\$1.1M**

2021-2023 **Various awards to National Science Policy Network** from National Science Foundation, Rita Allen foundation, Sloan foundation, Chan Zuckerberg Initiative, Packard Foundation, Schmidt Futures, and others: **Over \$1M**

2019 **NAAEE/UL** Innovative STEM and Environment Education Award Winner: **\$25,000**

2018 **Montana Environmental Education Association** Sense of Wonder Recognition

2018 **Institute of Museum and Library Services** Museums Empowered Award: **\$8,500**

2016 **NASA Montana Space Grant Consortium** Education Enhancement Award: **\$50,000**

2010 **National Science Foundation** Graduate Research Fellowship: **\$180,000**

Selected publications

- Odom, K.J., Cain, K.E., Hall, M.L., Langmore, N.E., Mulder, R.A., Kleindorfer, S., Karubian, J., Brouwer, L., Enbody, E.D., Jones, J.A., **Dowling, J.L.**, Leitão, A.V., Greig, E.I., Evans, C., Johnson, A.E., Meyers, K.K., Araya-Salas, M., & Webster, M. S. 2021. Sex role similarity and sexual selection predict male and female song elaboration and dimorphism in fairy-wrens. *Ecology and Evolution*, 00: 1–19.
- Cronn, R., Finch, K., Hauck, L., Parker, M., Milligan, B., Erickson D., **Dowling J.** 2021. Range-wide assessment of a SNP panel for individualization and geolocalization of bigleaf maple (*Acer macrophyllum* Pursh). *Forensic Science International: Animals and Environments*, 100033
- De Jong, A., **Dowling, J.**, Greene, E. and Miles, S. 2020. Wings over water: museums, scientists, & teachers collaborate to spark student interest in science through study of ospreys. *Connected Science Learning*, 2(1).
- Mathers-Winn, C.A., **Dowling, J.**, & Webster, M.S. 2018. Forest fire reduces dawn singing effort in a passerine bird. *Australian Field Ornithology*, 35: 75–82.
- Dowling, J.L.** & Webster, M.S. 2017. Working with what you've got: unattractive males show greater mate-guarding effort in a duetting songbird. *Biology Letters*, 13.
- Dowling J.L.**, Colombelli-Négrel, D., Webster M.S. 2016. Kin Signatures Learned in the Egg? Fairy-Wren Songs Similar to Mother's In-Nest Calls. *Frontiers in Ecology & Evolution*, 4 (48).
- Potticary, A.L., **Dowling, J.L.**, et al. 2016. Subtle benefits of cooperation to breeding males of the Red-backed Fairy-wren. *Auk*, 133. *Student mentee first author
- Colombelli-Négrel, D., Webster, M.S., **Dowling, J.L.**, et al. 2016. Vocal imitation of mother's calls by begging red-backed fairy wren nestlings increases parental provisioning. *Auk*, 133.
- Dowling, J.L.**, & Webster, M.S. 2015. An experimental test of duet function in a fairy-wren (*Malurus*) with moderate cuckoldry rates. *Behavioral Ecology*, 27(1): 228–236.
- Schwabl, H., **Dowling, J.L.**, et al. 2015. Variation in song system anatomy and androgen levels does not correspond to song characteristics in a tropical songbird. *Animal Behaviour*, 104: 39-50.
- Dowling, J.L.**, Webster, M.S. 2013. The form and function of duets and choruses in Red-backed Fairy-wrens. *Emu: Austral Ornithology*, 113: 282-293.
- Dowling, J.L.**, Luther, D.A., Marra, P.P. 2012. Comparative effects of urban development and anthropogenic noise on bird songs. *Behavioral Ecology*, 23(1): 201-209.
- Dowling, J.L.**, Omland, K.E. 2009. Low return rates in two temperate breeding Orioles. *Wilson Journal of Ornithology*, 121(1).

Selected presentations

- Dowling, J.L., Rayburn, S., Wancour, L., February 2024. National Science Policy Network's experiential learning programs to bridge science and policy. American Association for the Advancement of Science Annual Conference. Denver, CO.
- Dowling, J.L., November 2021. Opening Address. National Science Policy Symposium. Virtual.
- Dowling, J.L. May 2021. Collaborative Assessment of Wild and Scenic Rivers. National Water Monitoring Conference. Virtual.
- Dowling, J.L. March 2020. Global scale volunteer management. Public Lands Alliance convention. Washington, DC.
- Dowling, J.L. August 2018. Wings Over Water, a STEM research program. Western Montana August Institute. Missoula, MT.
- Dowling, J.L., Webster, M.S. June 2015. Male mating strategies vary with attractiveness and predict paternity in a songbird. Invited talk, Allee Competition. Animal Behavior Society Conference. Anchorage, AK.
- Dowling, J.L., Webster, M.S. July 2012. Acoustic mate guarding varies between attractive and unattractive red-backed fairy-wren male morphs. Behavioral Ecology Congress, Lund, Sweden.
- Dowling, J.L., Luther, D.A., Marra, P.P. November 2010. Comparative effects of anthropogenic noise and urban development on bird songs. Oral presentation. International Behavioral Ecology Congress, Perth, WA, AU.