

Meade B. Krosby

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PROFESSIONAL MISSION

To promote effective biodiversity conservation under climate change by collaboratively conducting innovative, rigorous, and useful assessments of climate impacts and adaptation responses for species and ecosystems.

PROFESSIONAL POSITIONS

2017-present Senior Research Scientist, Climate Impacts Group, University of Washington

2017-present University Deputy Director, DOI Northwest Climate Science Center

2013-2017 Research Scientist, Climate Impacts Group, University of Washington

2012-2013 Research Scientist, Department of Biology, University of Washington

2009-2012 Postdoctoral Research Associate, Department of Biology, University of Washington

EDUCATION

2009 Ph.D. Biology, University of Washington

1999 B.S. Biology, Cornell University

LEADERSHIP & SERVICE

Core Team member and Climate Change Subgroup chair (2009-present) – Washington Wildlife Habitat Connectivity Working Group.

Member, Connectivity Conservation Specialist Group (2016-present) – IUCN World Commission on Protected Areas.

Member, North America Policy Committee (2014-present) – Society for Conservation Biology.

Member, Governance Committee (2016-2017) – Society for Conservation Biology.

Mentor, 1000 Girls, 1000 Futures (2015-2016) – Global STEM Alliance, New York Academy of Sciences.

Member, Expert Council on Climate and Environmental Change (2014-2016) – Washington Department of Natural Resources.

Member, Connectivity Conservation Technical Advisory Team (2014-2016) – Great Northern Landscape Conservation Cooperative.

Member, Science Advisory Team (2015) – Shared Priority Areas for Riverine Systems in the Columbia Plateau, Arid Lands Initiative.

Participant, Climate Science Day on Capitol Hill (2015) – Congressional outreach visits, organized by the Climate Science Working Group and Society for Conservation Biology.

Member, Climate Change Task Force (2013-2014) – Central Puget Sound Regional Open Space Strategy.

Member, Steering Committee (2012-2014) – Conserving the Stage: Identifying a Resilient Network of Conservation Lands in the Northwest United States. The Nature Conservancy.

Lead, Climate Change Workgroup (2010-2011) – Western Governors’ Association Pilot Project for the Arid Lands of Washington, Oregon, and Idaho.

Member, Science Advisory Panel (2011) – British Columbia Adaptation and Carbon Conservation Priorities Mapping Project.

Member, Topic Advisory Group for Ecosystems, Species, and Habitats (2010) – Washington State Climate Change Response Strategy.

HONORS & AWARDS

- 2015 Wilburforce Fellowship in Conservation Science
- 2014 University of Washington Green Award
(awarded to the instructors of Conservation Biology)
- 2011 Federal Highway Administration Environmental Excellence Award
(awarded to the Washington Connected Landscapes Project)
- 2009 Kathryn Hahn Writing Fellowship, University of Washington
- 2006 Best Student Presentation, North American Ornithological Conference
- 2006 Marcia Brady Tucker Travel Award, American Ornithologists’ Union
- 2006 Best Student Presentation, EVO-WIBO
- 2004 National Science Foundation Graduate Research Fellowship
- 2003 ARCS Fellowship (UW recruitment fellowship)

GRANTS

- 2018 Skagit Environmental Endowment Commission (\$20,000): Assessing potential climate impacts on grizzly bear carrying capacity in the North Cascades Ecosystem. PI, with A. Lyons and J. Ransom.
- 2017 US Department of Interior (\$4,500,000): “Northwest Climate Science Center: University Host.” Co-PI, with A. Snover, J. Rybsyck, T. DeLuca, A. Flores, and S. Hampton.
- 2017 Charlotte Martin Foundation (\$25,000): Spatial priorities for Cascadia under climate change. PI, with Andrew Shirk (Co-PI).
- 2017 Confederated Tribes of the Colville Reservation (\$104,000): “Assessing the climate vulnerability of key species and habitats for the Colville Tribes.” PI.
- 2017 Wilburforce Foundation (\$40,000): “Habitat connectivity for a changing climate.” PI.
- 2017 Nooksack Indian Tribe (\$25,000): “Assessing the climate vulnerability of key non-freshwater treaty resources for the Nooksack Tribe.” PI.

- 2016 National Park Service (\$50,000): “Natural resources condition assessment and climate change vulnerability assessment for Oregon Caves National Monument and Preserve.” PI, with J. Halofksy (Co-PI).
- 2016 Shoshone-Bannock Tribes (\$115,000): “Climate change vulnerability assessment and adaptation plan for the Shoshone-Bannock Tribes.” Co-PI, with A. Petersen and P. Mote.
- 2016 DOI Northwest Climate Science Center and Great Basin Landscape Conservation Cooperative (\$243,000): “Building tribal capacity for climate change vulnerability assessment.” PI.
- 2016 Charlotte Martin Foundation (\$25,000): “Online resources for incorporating climate change and connectivity into conservation planning” PI.
- 2015 Upper Snake River Tribes (\$88,000): “Climate change vulnerability assessment for the aquatic, terrestrial, and tribal enterprise resources in the Upper Snake River watershed of Idaho, Nevada, Oregon, and Wyoming.” Co-PI, with A. Petersen and P. Mote.
- 2015 Wilburforce Foundation (\$45,000): “Habitat connectivity for a changing climate.” PI.
- 2015 Cascadia Partner Forum (\$6,500): “Synthesizing methods for identifying Cascadia conservation priorities under climate change.” PI.
- 2015 Stillaguamish Tribe of Indians (\$117,000): “Stillaguamish Tribe natural resources climate change vulnerability assessment and adaptation plan.” PI.
- 2014 DOI Northwest Climate Science Center (\$198,000): “Creating practitioner-driven, science-based plans for connectivity conservation in a changing climate: A collaborative assessment of climate-connectivity needs in the Washington-British Columbia transboundary region.” PI.
- 2014 Wilburforce Foundation (\$71,700): “Riparian Climate Corridors: Western Montana Extension and Transboundary Pilot.” PI, with D. Theobald (co-PI).
- 2014 Great Northern Landscape Conservation Cooperative (\$53,000): “Informing connectivity conservation decisions in the transboundary Okanagan-Kettle subregion.” Co-PI, with T. Stevens, J. Watkins, P. Singleton, A. Shirk, L. Parrott, R. Holt, L. Robb, G. Kehm.
- 2013 North Pacific Landscape Conservation Cooperative (\$17,000): “Transboundary Climate-Connectivity Assessment: Integrating products of the Pacific Northwest Vulnerability Assessment.” PI.
- 2013 Great Northern Landscape Conservation Cooperative (\$147,000): “Informing connectivity conservation decisions in the British Columbia–Washington transboundary region and the Columbia Plateau ecoregion.” Co-PI, with J. Schuett-Hames, T. Stevens, J. Watkins, R. Holt, G. Kehm, L. Robb, S. Spear, B. Gaines, B. Cosentino, H. Ferguson, R. Finger, M.A. Schroeder, P. Singleton.
- 2013 Wilburforce Foundation (\$45,000): “Habitat connectivity in a changing climate.” PI.

- 2012 Bureau of Land Management (\$32,000): “Integrating climate change into habitat connectivity modeling for the Columbia Plateau.” PI.
- 2012 North Pacific Landscape Conservation Cooperative (\$10,000): “Transboundary climate-connectivity assessment.” PI.
- 2012 Great Northern and North Pacific Landscape Conservation Cooperatives; Washington Department of Fish & Wildlife; Idaho Department of Fish & Game (\$78,000): “Mapping riparian climate corridors: A pilot for the Western Governors’ Association’s Crucial Habitats Assessment Tool.” PI.
- 2012 Wilburforce Foundation (\$40,000): “Climate-smart connectivity for the Pacific Northwest.” PI.
- 2011 North Pacific Landscape Conservation Cooperative (\$76,000): “The Washington Connected Landscapes Project: Providing analysis tools for regional connectivity and climate adaptation planning.” Co-PI, with B. McRae.
- 2011 Great Northern Landscape Conservation Cooperative (\$185,000): “The Washington Connected Landscapes Project.” Co-PI, with J. Tewksbury, J. Schuett-Hames, K. McAllister, B. McRae, B. Cosentino, and S. Hall.
- 2011 Wilburforce Foundation (\$25,000): Climate-smart connectivity for the Pacific Northwest. Co-PI, with J.J. Tewksbury.
- 2010 Great Northern Landscape Conservation Cooperative (\$304,000): “The Washington Connected Landscapes Project.” Co-PI, with J. Tewksbury, J. Schuett-Hames, K. McAllister, B. McRae, B. Cosentino, and S. Hall.
- 2010 Wilburforce Foundation (\$25,000): Climate-smart connectivity for the Pacific Northwest. Co-PI, with J.J. Tewksbury.
- 2010 Western Governors’ Association; Washington Department of Fish & Wildlife; Idaho Department of Fish & Game (\$20,000): “Integrating climate change into the development of crucial wildlife habitats and an Integrated Decision Support System for the arid lands of Washington, Oregon, and Idaho.” Co-PI, with J.J. Tewksbury.
- 2009 Wilburforce Foundation (\$25,000): “Climate-smart connectivity for the Pacific Northwest.” Co-PI, with J.J. Tewksbury.
- 2009 Brainerd Foundation; Wilburforce Foundation (\$10,000): “Climate and connectivity in the Pacific Northwest - Bringing theory and management together.” Co-PI, with J.J. Tewksbury.

PUBLICATIONS

Krosby, M., Norheim, R., Theobald, D., and B. McRae. In press. Riparian climate-corridors: Priority areas for conservation in a changing climate. *PLOS ONE*.

Littlefield, C., **Krosby, M.**, Michalak, J., and J. Lawler. In press. Climate-connectivity: Getting species from here to there in a warming world. *Frontiers in Ecology and the Environment*.

Petersen, S., Nasser, E., Stone, D., **Krosby, M.**, Morgan, H., Rupp, D., Sharp, D., Dello, K., and L. Whitley Binder. 2017. Shoshone-Bannock Tribes climate change vulnerability assessment and adaptation plan. Shoshone-Bannock Tribes.

Whitely Binder, L., Morgan, H., **Krosby, M.**, Sevigny, J., Summers, A., and T. Neuffer. 2017. Stillaguamish Tribe of Indians natural resources climate change adaptation plan. A collaboration of the Stillaguamish Natural Resources Department and the University of Washington Climate Impacts Group. Seattle, WA.

Krosby, M., Michalak, J., Robbins, T.O., Morgan, H., Norheim, R., Mauger, G., and T. Murdock. 2016. The Washington-British Columbia Transboundary Climate-Connectivity Project: Identifying climate impacts and adaptation actions for wildlife habitat connectivity in the transboundary region of Washington and British Columbia. Climate Impacts Group, University of Washington.

Krosby, M., Morgan, H., Case, M., Whitely Binder, L. 2016. Stillaguamish Tribe natural resources climate change vulnerability assessment. Climate Impacts Group, University of Washington.

Krosby, M., Wilsey, C., Duggan, J., Heinrichs, J., McGuire, J., Nogeire, T., Lawler, J., and J. Tewksbury. 2015. Climate-induced range overlap among closely related species. *Nature Climate Change* 5:883–886. doi:10.1038/nclimate2699

Mauger, G.S., Casola, J.H., Morgan, H.A., Strauch, R.L., Jones, B., Curry, B., BuschIsaksen, T.M., Whitely Binder, L., **Krosby, M.**, and A.K. Snover, 2015. State of knowledge: Climate change in Puget Sound. Report prepared for the Puget Sound Partnership and the National Oceanic and Atmospheric Administration. Climate Impacts Group, University of Washington, Seattle. doi:10.7915/CIG93777D

Krosby, M., Breckheimer, I., Cosentino, B., Gaines, B., Hall, S., Halupka, K., Long, R., McRae, B., Pierce, J., Schuett-Hames, J., and P. Singleton. 2015. Focal species and landscape “naturalness” corridor models offer complementary approaches for connectivity conservation planning. *Landscape Ecology* 30:2121–2132.

Krosby, M., Norheim, R., and D. M. Theobald, D. M. 2015. Riparian Climate-Corridors: Analysis Extension, Improvements, and Validation. Climate Impacts Group, University of Washington, Seattle.

Washington Wildlife Habitat Connectivity Working Group (WHCWG). 2014. Columbia Plateau climate-gradient corridor analysis addendum: Pinch-points and barriers and restoration opportunities. Washington’s Department of Fish and Wildlife, and Department of Transportation, Olympia, WA. ***lead author**

Krosby, M., Norheim, R., Theobald, D. M., and B. H. McRae. 2014. Riparian climate-corridors: Identifying priority areas for conservation in a changing climate. Climate Impacts Group, University of Washington.

Snover, A.K, Mauger, G.S., Whitely Binder, L.C., **Krosby, M.**, and I. Tohver. 2013. Climate change impacts and adaptation in Washington State: Technical summaries for decision makers. State of Knowledge Report prepared for the Washington State Department of Ecology. Climate Impacts Group, University of Washington, Seattle.

Núñez, T., Lawler, J. J., McRae, B. H., Pierce, J., **Krosby, M.**, and J. Tewksbury. 2013. Connecting landscapes to address climate change. *Conservation Biology* 27: 407–416.

Washington Wildlife Connectivity Working Group. 2013. An evaluation of the utility of fine scale, downscaled climate projections for connectivity conservation planning in Washington State. Washington Departments of Fish and Wildlife, and Transportation, Olympia, WA. *contributing author

Washington Wildlife Habitat Connectivity Working Group. 2013. Washington Connected Landscapes Project: Columbia Plateau climate-gradient corridors analysis. Washington's Department of Fish and Wildlife, and Department of Transportation, Olympia, WA. ***lead author**

Krosby, M., Hoffman, J., Lawler, J., and B. McRae. 2012. Integrating climate change into conservation planning in Washington State, USA. In: *Climate and Conservation: Landscape and Seascape Science, Planning and Action*. C.C. Chester, J.A. Hilty and M.S. Cross, eds. Island Press.

Washington Wildlife Habitat Connectivity Working Group. 2012. Washington Connected Landscapes Project: Analysis of the Columbia Plateau Ecoregion. Washington's Department of Fish and Wildlife, and Department of Transportation, Olympia, WA. *contributing author

Washington Wildlife Habitat Connectivity Working Group. 2011. Washington Connected Landscapes Project: Climate gradient corridors report. Washington Departments of Fish and Wildlife, and Transportation. Olympia, WA. ***lead author**

Krosby, M., Tewksbury, J. J., Haddad, N., and J. Hoekstra. 2010. Ecological connectivity for a changing climate. *Conservation Biology* 24:1686-1689.

Washington Wildlife Habitat Connectivity Working Group. 2010. Washington Connected Landscapes Project: Statewide Analysis. Washington Departments of Fish and Wildlife, and Transportation. Olympia, WA. *contributing author

Krosby, M., and S. Rohwer. 2010. Ongoing movement of the hermit warbler x Townsend's warbler hybrid zone. *PLoS ONE* 5(11): e14164. doi: 10.1371/journal.pone.0014164.

Krosby, M., and S. Rohwer. 2009. A 2,000 km genetic wake yields evidence for northern glacial refugia and hybrid zone movement in a pair of songbirds. *Proceedings of the Royal Society B* 276:615-621.

Manuscripts In Preparation

Wilsey, C.B., **Krosby, M.**, Lawler, J.L., and N.S. Schumaker. Mechanistic models predict idiosyncratic responses of meso-carnivore populations to future climate change. Target journal: *Global Change Biology*.

Krosby, M., Michalak, J., Robbins, T.O., Morgan, H., Mauger, G., and T. Murdock. Adapting connectivity conservation to climate change: A case study from the Pacific Northwest. Target journal: *Frontiers in Ecology and the Environment*.

PROFESSIONAL PRESENTATIONS

Selected Contributed Presentations

- 2018 North American Congress for Conservation Biology, Toronto, CA
- 2017 Northwest Climate Conference, Tacoma, WA
The Wildlife Society, Albuquerque, NM
National Adaptation Forum, St. Paul, MN
- 2016 North American Congress of Conservation Biology, Madison, WI
Northwest Climate Conference, Stevenson, WA
Wild Links Conference, Seattle, WA
- 2015 National Adaptation Forum, St. Louis, MO
Northwest Climate Conference, Coeur D'Alene, ID
International Congress for Conservation Biology, Montpellier, FR
- 2014 North America Congress for Conservation Biology, Missoula, MT
Northwest Climate Science Conference, Seattle, WA
Wild Links Conference, North Cascades, WA
- 2013 International Congress for Conservation Biology, Baltimore, MD
Wild Links Conference, North Cascades, BC
- 2012 Society for Conservation Biology, Oakland, CA
The Wildlife Society, Portland, OR
Wild Links Conference, North Cascades, WA
- 2011 International Association of Landscape Ecology, Portland, OR
Wild Links Conference, Vancouver, BC
- 2010 The Wildlife Society, Snowbird, UT
Ecological Society of America, Pittsburgh, PA
Wild Links Conference, Seattle, WA
Society for Conservation Biology, Edmonton, AB
- 2009 Wild Links Conference, Osoyoos, BC
- 2008 American Ornithologists' Union, Portland, OR
Evo-WIBO, Port Townsend, WA
- 2007 American Ornithologists' Union, Laramie, WY
- 2006 Evolution, Stony Brook, NY
North American Ornithological Conference, Veracruz, Mexico
Evo-WIBO, Port Townsend, WA

Selected Invited Talks and Panels

- 2018 Tribal Water Summit, Seattle, WA
Tribes and First Nations Climate Summit, Tulalip, WA
- 2017 Pacific Science Center, Seattle, WA
Washington Department of Fish & Wildlife, Olympia, WA
Woodland Park Zoo, Seattle, WA
- 2016 IUCN World Conservation Congress, Honolulu, HI
Oregon State University, Department of Fish and Wildlife, Corvallis, OR
British Columbia Ecosystems Program Meeting, Victoria, BC
- 2015 DOI Northwest Climate Science Center, Climate Bootcamp, Pack Forest, WA

- 2014 Osoyoos Lake Water Science Forum, Osoyoos, BC
Pacific Science Center, Seattle, WA
Wenatchee River Institute, Leavenworth, WA
Mercer Slough Environmental Education Center, Bellevue, WA
- 2013 Sky Islands Alliance, Tucson, AZ
Washington Department of Fish & Wildlife, Olympia, WA
- 2012 Pacific Islands Climate Change Cooperative, Honolulu, HI
The Nature Conservancy, Portland, OR
North Cascades Adaptation Partnership, Seattle, WA
Arid Lands Initiative, Ellensburg, WA
- 2011 Climate Change and Wildlife Workshop, Portland, OR
BC Biodiversity Adaptation and Carbon Conservation Workshop, Vancouver, BC
- 2010 School of Forest Resources, University of Washington, Seattle, WA
- 2009 Pacific Lutheran University, Tacoma, WA
- 2006 Washington Ornithological Society, Seattle, WA
- 2006 Museum of Vertebrate Zoology, University of California, Berkeley, CA

Workshops and Symposia Organized

- 2018 Workshop: *Building Tribal Capacity for Climate Change Vulnerability Assessment*. Pendleton, OR; Olympia, WA; Carson City, NV. Organizer and facilitator.
- 2016 Workshop: *Adaptation Speed Dating: Connecting Climate Scientists and Practitioners*. Northwest Climate Conference, Skamania Lodge, WA. Organizer and facilitator.
- 2016 Symposium: *Beyond science communication: How managers, policy-makers, and scientists can co-produce actionable science for better conservation outcomes*. North American Congress of Conservation Biology, Madison, WI. Co-Organizer (with J. Montambault and P. Beier) and speaker.
- 2016 Symposium: *Connectivity, corridors, and communication*. North American Congress of Conservation Biology. Madison, WI. Co-Organizer, with N. Haddad.
- 2015 Workshop: *Adaptation Speed Dating: Connecting Climate Scientists and Practitioners*. Northwest Climate Conference, Coeur D'Alene, ID. Organizer and facilitator.
- 2015 Workshop: *Society for Conservation Biology and the UW Climate Impacts Group Climate Change Adaptation Workshop: Promoting Effective Engagement between Science and Practice*. University of Washington, Seattle, WA. Co-Organizer (with D. Parsons), speaker, and facilitator.
- 2015 Symposium: *Supporting Climate-Informed Decision-Making in Natural Resource Management: Innovative New Tools and Approaches from Western North America*. National Adaptation Forum, St. Louis, MO. Organizer and speaker.
- 2014 Symposium: *Conservation planning under climate change: Emerging adaptation approaches to bridge ecological and political boundaries*. Society for

- Conservation Biology, Missoula, MT. Co-Organizer (with D. Theobald) and speaker.
- 2014 Workshop: *Puget Sound Connectivity*. Wilburforce Foundation, Seattle, WA. Organizer (with J. Watkins and K. Penrod) and speaker.
- 2012 Symposium: *Connectivity Conservation Planning Across Political Borders*. The Wildlife Society, Portland, OR. Organizer (with J. Watkins) and speaker.
- 2010 Symposium: *Landscape Planning, Species Ranges, and Climate Change*. Ecological Society of America, Pittsburgh, PA. Organizer (with J. Tewksbury and N. Haddad) and speaker.
- 2009 Workshop: *Connectivity and Climate Change Adaptation - Moving from principle to practice*. University of Washington, Seattle, WA. Organizer (with J. Tewksbury) and facilitator.

TEACHING

Lecturer (University of Washington)

- 2017 Climate Science Seminar: The Theory and Practice of Linking Knowledge with Action to Address Modern Environmental Challenges
- 2013-2015 Conservation Biology
- 2009 Natural History of Birds

Guest Lecturer (University of Washington)

- 2018 *Climate Impacts on the Pacific Northwest*. Global Warming: Understanding the Issues
- 2011 *Integrating Climate Change into Conservation Planning in Washington and the Northwest*. Climate Impacts on the Pacific Northwest
- 2010 *Adapting to Climate Change*. The Ecology of Climate Change
- 2007-2010 *Conservation Genetics*. Conservation Biology
- 2006 *Evolutionary Genetics of Biological Invasions*. Foundations in Evolution and Systematics

MANUSCRIPT REVIEWS

Auk, Biological Conservation, Conservation Biology, Conservation Letters, Global Change Biology, Journal of Applied Ecology, Journal of Biogeography, Journal of Evolutionary Biology, Landscape Ecology, Methods in Ecology and Evolution, Molecular Ecology

PROFESSIONAL SOCIETY MEMBERSHIPS

American Association for the Advancement of Science, Ecological Society of America, Society for Conservation Biology, The Wildlife Society

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