

CHRISTOPHER P. NADEAU

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EDUCATION

2020	Ph.D.	University of Connecticut	Ecology and Evolutionary Biology
2014	M.S.	Cornell University	Natural Resources
2009	B.S.	University of Arizona	Natural Resources
2000	Cert.	Sir Sandford Fleming College	Fish and Wildlife Technician

PROFESSIONAL EMPLOYMENT

2020 – 2022	Postdoctoral Fellow	Northeastern University
2014 – 2020	Graduate Assistant	University of Connecticut
2011 – 2014	Graduate Assistant	NY Cooperative Fish and Wildlife Research Unit
2002 – 2011	Wildlife Biologist	AZ Cooperative Fish and Wildlife Research Unit
2001	Field Technician	ON Ministry of Natural Resources, Rabies Research
2000 – 2001	License Clerk	ON Ministry of Natural Resources, Wildlife Section
2000	Field Technician	Canadian Cooperative Wildlife Health Center
2000	Field Technician	Ducks Unlimited Canada
1997 – 1999	Information Officer	ON Ministry of Natural Resources

HONORS, AWARDS, AND FELLOWSHIPS

2019	E4 Award Finalist	Ecography
2018, 19	Headship Fellowship for Merit	University of Connecticut
2018	Student Travel Award	University of Connecticut
2014	Next Generation CT	University of Connecticut
2013	Student Travel Award	International Ass. of Landscape Ecologists
2009	Outstanding Graduating Senior	University of AZ
2009	Undergraduate Scholarship	AZ Bighorn Sheep Society
2009	Excellence in GIS Award	AZ Geospatial Information and Tech. Ass.
2008	Undergraduate Scholarship	Ben Meadows
2007	Undergraduate Scholarship	AZ Ass. of Environmental Professionals
2007	Student Travel Award	American Ornithological Union
2006	Outstanding Presentation Award	Cooper Ornithological Society
2000	Academic Achievement Award	Sir Sandford Fleming College
1999	Academic Achievement Award	Sir Sandford Fleming College

PEER-REVIEWED PUBLICATIONS

- Nadeau C. P.** and M. C. Urban. *In review*. Macroecological predictors of evolutionary and plastic potential do not apply at microgeographic scales for a freshwater Cladoceran. **Invited paper for a special issue on Evolution and Climate Change*.
- Garcia, V., **C. P. Nadeau**, C. J. Conway. *In review*. Experimental changes in food and ectoparasites affect dispersal timing in juvenile owls.
- Evans, A. E., M. Zimova, S. T. Giery, H. E. Golden, A. L. Pastore, **C. P. Nadeau**, and M. C. Urban. 2022. An eco-evolutionary perspective on the Humpty-Dumpty effect and community restoration. *Oikos: In press*.
- Nadeau C. P.**, A. Giacomazzo, and M. C. Urban. 2022. Cool microrefugia accumulate and conserve biodiversity under climate change. *Global Change Biology: In press*.
- Nadeau, C. P.**, T. E. Farkas, A. M. Makkay, R. T. Papke, & M. C. Urban. 2021. Adaptation reduces competitive dominance to alter community assembly. *Proceedings of the Royal Society, B: Biological Sciences* 288: 1-8.
- Conway, C. J., **C. P. Nadeau**, and M. Conway. 2020. Broadcasting regional call dialects has little influence on the effectiveness of call-broadcast surveys for marsh birds. *Wetlands* 40: 2055 – 2059.
- Tingley, M. W, **C. P. Nadeau**, and M. E. Sandor. 2020. Multi-species occupancy models as robust estimators of community richness. *Methods in Ecology and Evolution* 11: 633 – 642.
- Nadeau C. P.** and M. C. Urban. 2019. Eco-evolution on the edge during climate change. *Ecography* 42: 1280 - 1297. **Finalist for the E4 Award*
- Nadeau C. P.**, M. C. Urban, and J. R. Bridle. 2017. Climates past, present, and yet-to-come shape climate change vulnerabilities. *Trends in Ecology and Evolution* 32: 786-800.
- Nadeau C. P.**, M. C. Urban, and J. R. Bridle. 2017. Coarse climate change projections for species living in a fine-scaled world. *Global Change Biology* 23: 12-24.
- Glisson, W. J., C.J. Conway, **C. P. Nadeau**, and K. L. Borgmann. 2017. Habitat models to predict wetland bird occupancy influenced by scale, anthropogenic disturbance, and imperfect detection. *Ecosphere* 8.
- Nadeau C. P.** and A. K. Fuller. 2016. Combining landscape variables and species traits can improve the utility of climate change vulnerability assessments. *Biological Conservation* 202: 30-38.
- Nadeau C. P.**, N. Rathbun, and C. J. Conway. 2015. Depth of artificial burrowing owl burrows affects thermal suitability and occupancy. *Journal of Field Ornithology* 86: 288-297.
- Nadeau C. P.** and A. K. Fuller. 2015. Climate-smart management of biodiversity. *Ecosphere* 6: 91.
- Nadeau C. P.** and A. K. Fuller. 2015. Accounting for multiple climate components in estimates of the magnitude and velocity of climate change. *Methods in Ecology and Evolution* 6: 697-705. **Selected for republication in a biogeography special issue*.
- Glisson, W. J., C.J. Conway, **C. P. Nadeau**, and K. L. Borgmann. 2015. Range-wide wetland associations of the king rail: a multi-scale approach. *Wetlands* 35: 577-587.
- Nadeau, C. P.** and C. J. Conway. 2015. Optimizing water depth for wetland-dependent wildlife could increase wetland restoration success, water efficiency, and water security. *Restoration Ecology* 23: 292-300.

- Nadeau, C. P.**, C. J. Conway, L. Piest, O. Hinojosa-Huerta, and B. Burger. 2013. Multi-species call-broadcast improved detection of endangered Yuma clapper rail compared to single-species call-broadcast. *Wetlands* 33: 699-706.
- Conway, M. A., **C. P. Nadeau**, and C. J. Conway. 2012. Intraspecific variation in reproductive traits of burrowing owls. *Ethology* 30: 395-402.
- Nadeau, C. P.** and C. J. Conway. 2012. Field evaluation of distance-estimation error during wetland-dependent bird surveys. *Wildlife Research* 39: 311-320.
- Conway, C. J. and **C. P. Nadeau**. 2010. Effects of broadcasting conspecific and heterospecific calls on detection of marsh birds in North America. *Wetlands* 30: 358-368.
- Conway, C. J., **C. P. Nadeau**, and L. Piest. 2010. Fire helps restore natural disturbance regime to benefit rare and endangered marsh birds endemic to Colorado River. *Ecological Applications* 20: 2024-2035.
- Nadeau, C. P.**, C. J. Conway, B. S. Smith, and T. E. Lewis. 2008. Maximizing detection probability of wetland-dependent birds in northwestern Florida. *Wilson Journal of Ornithology* 120: 513-518.

TECHNICAL REPORTS

- Nadeau, C. P.** and A. K. Fuller. 2014. Managing species of conservation need in the face of climate change: a landscape and trait based approach, Interim report. U.S. Geological Survey, New York Cooperative Fish and Wildlife Research Unit, Department of Natural Resources, Cornell University, Ithaca, NY, USA.
- Satistiban, L., **C. P. Nadeau**, and C. J. Conway. 2012. Evaluating Population Trends, Breeding Density, and the Effect of Habitat Management and Environmental Variables for 14 Species of Secretive Marsh Birds in North America. Wildlife Research Report #2012-01. USGS Arizona Cooperative Fish and Wildlife Research Unit, Tucson, AZ.
- Conway, C. J. and **C. P. Nadeau**. 2011. Managing rails with fire. Wildlife Research Report #2011-05. USGS Arizona Cooperative Fish and Wildlife Research Unit, Tucson, AZ.
- Conway, M. A., **C. P. Nadeau**, C. J. Conway, B.S. Smith and J. P. Reinman. 2011. Evaluating the efficacy of night surveys for eastern black rails. Wildlife Research Report # 2011-02. USGS Arizona Cooperative Fish and Wildlife Research Unit, Tucson, AZ.
- Nadeau, C. P.**, C. J. Conway, M. A. Conway, and M. Ogonowski. 2011. Habitat requirements of Yuma clapper rail, California black rail, and western least bittern: an adaptive management approach, Final Report. Wildlife Research Report #2011-06, USGS Arizona Cooperative Fish and Wildlife Research Unit, Tucson, AZ, USA.
- Nadeau, C. P.**, C. J. Conway, M. A. Conway, and M. Ogonowski. 2011. Restoration of managed marsh units to benefit California black rails and other marsh birds: an adaptive management approach, Final Report. Wildlife Research Report #2011-01, USGS Arizona Cooperative Fish and Wildlife Research Unit, Tucson, AZ, USA.
- Conway, M. A., **C. P. Nadeau**, and C. J. Conway. 2010. Optimal seasonal timing of marsh bird surveys and the effect of water quality on marsh bird relative abundance in south Florida. Wildlife Report # 2010-4. USGS Arizona Cooperative Fish and Wildlife Research Unit, Tucson, Arizona.

- Nadeau, C. P.**, C. J. Conway, M. A. Conway, and J. Reinmen. 2010. Variation in the detection probability of clapper rails and least bitterns on the northern coast of the Gulf of Mexico. Wildlife Research Report # 2010-01. USGS Arizona Cooperative Fish and Wildlife Research Unit, Tucson, Arizona.
- Satistiban, L., **C. P. Nadeau**, C. J. Conway, and M. A. Conway. 2010. Evaluating Habitat Use and Effects of Regional Call Dialects on the Effectiveness of Call-broadcast Surveys for Secretive Marsh Birds at St. Marks and St. Vincent National Wildlife Refuges. Wildlife Research Report #2010-3, USGS Arizona Cooperative Fish and Wildlife Research Unit, Tucson, AZ, USA.
- Conway, C. J., **C. P. Nadeau**, and M. S. Ogonowski. 2009. Relative abundance of Yuma clapper rails and California black rails within a proposed geothermal power plant site in Imperial Valley, California. Wildlife Research Report #2009-04, U.S. Geological Survey, Arizona Cooperative Fish and Wildlife Research Unit, Tucson, AZ.
- Conway, C. J., **C. P. Nadeau**, R. J. Steidl, and A. Litt. 2008. Relative Abundance, Detection Probability, and Power to Detect Population Trends of Marsh Birds in North America. Wildlife Research Report #2008-02. U.S. Geological Survey, Arizona Cooperative Fish and Wildlife Research Unit, Tucson, AZ.
- Conway, C. J., and **C. P. Nadeau**. 2006. Development and field testing of survey methods for a continental marsh bird monitoring program in North America. Wildlife Research Report # 2005-11. USGS Arizona Cooperative Fish and Wildlife Research Unit, Tucson, AZ.
- Conway, C. J., and **C. P. Nadeau**. 2006. Relative abundance of Yuma clapper rails, California black rails, and burrowing owls within a proposed geothermal power plant site in Imperial Valley California. Wildlife Research Report # 05-10. Arizona Cooperative Fish and Wildlife Research Unit, Tucson, AZ.
- Nadeau, C. P.**, B. S. Smith, C. J. Conway, and T. Lewis. 2006. Effects of survey method on observer bias and detection probability of marsh birds on St. Vincent NWR. Wildlife Research Report No. 2006-04. USGS Arizona Cooperative Fish and Wildlife Research Unit, Tucson, AZ.
- Conway, C. J., and **C. P. Nadeau**. 2005. Relative abundance of Yuma clapper rails, California black rails, and burrowing owls within a proposed geothermal power plant site in Imperial Valley California. Wildlife Research Report # 05-10. Arizona Cooperative Fish and Wildlife Research Unit, Tucson, AZ.
- Conway, C. J., and **C. P. Nadeau**. 2005. Effects of Fire on Yuma Clapper Rails and California Black Rails, 2004 Annual Report. Wildlife Research Report Number 2005-01. Arizona Cooperative Fish and Wildlife Research Unit, Tucson, AZ.
- Conway, C. J., and **C. P. Nadeau**. 2004. Relative abundance of Yuma clapper rails, California black rails, and burrowing owls within a proposed geothermal power plant site in Imperial Valley California. Arizona Cooperative Fish and Wildlife Research Unit, Tucson, AZ.

ORGANIZED SYMPOSIA AND WORKSHOPS

- 2022 *Identifying Novel Approaches to Improve the Resilience of Eelgrass to Warming Temperatures*. A Facilitated Workshop. (in collaboration with The Nature Conservancy).

- 2018 *Identifying Research Priorities to Improve Climate Change Adaptation Planning*. Ecological Society of America Annual Meeting (with Abe Miller-Rushing).
- 2018 *Puddles of Knowledge: A Workshop to Understand Biodiversity in a Model System for Climate Change Research and Science Communication*. Acadia National Park.
- 2017 *Connecting Ideas Across K-12 Science Education to Prepare Students to Think About Biodiversity and Climate Change*, RISE, Maine Center for Research in Stem Education 2017 Summer Conference (with B. Zoellick and H. Webber).
- 2013 *Spatial Tools to Address Climate Change Impacts*, 69th Annual Meeting of the Northeast Association of Fish and Wildlife Agencies (with C. Hilke, and A. Kane.)

GRANT AND FELLOWSHIP ACTIVITY

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| 2022 – 2025 | National Science Foundation, Postdoctoral Research Fellowship
<i>Does Genomic Recombination Stabilize Populations and Enhance Ecosystems?</i> - \$207,000 |
| 2020 – 2022 | David H. Smith Conservation Research Fellowship
<i>Is Genetic Management Critical to the Success of Climate Change Adaptation or a Costly Distraction?</i> - \$156,500 |
| 2019 – 2020 | University of CT, Department of Ecology and Evolutionary Biology
<i>Testing Multiple Predictions of Species Responses to Climate Change Using Whole-Ecosystem Warming Experiments</i> - \$1500 |
| 2017 – 2019 | Second Century Stewardship, American Association for the Advancement of Science, Acadia National Park, Schoodic Institute
<i>Biodiversity and climate change in a globally relevant model system</i> - \$20,000 |
| 2016 – 2017 | University of CT, Department of Ecology and Evolutionary Biology
<i>Evaluating the efficacy of a commonly recommended conservation strategy under climate change</i> - \$1500 |
| 2016 – 2017 | Schoodic Institute at Acadia National Park
<i>Evaluating the resilience of populations to climate change in protected areas: a generalizable framework and a specific application in Acadia National Park</i> - \$1500 |
| 2015 – 2016 | University of CT, Center of Conservation and Biodiversity
<i>Resurrecting historical populations to evaluate evolution under climate change</i> - \$750 |
| 2015 – 2016 | University of CT, Department of Ecology and Evolutionary Biology
<i>Resurrecting historical populations to evaluate evolution under climate change</i> - \$1000 |
| 2014 – 2017 | National Science Foundation, Graduate Research Fellowship
\$129,000 |
| 2009 – 2011 | AZ Game and Fish Department, Wildlife Conservation Grant Program
<i>A spatial modeling approach to determine the habitat preferences of imperiled wetland-dependent birds on the lower Colorado River</i> – \$58,926 (with C. J. Conway) |
| 2008 – 2010 | Arizona Game and Fish Department, Heritage Grant Program |

	<i>Managing rail habitat with prescribed fire in AZ. - \$63,754 (with C. J. Conway)</i>
2008 – 2010	U.S. Fish and Wildlife Service, Webless Migratory Game Bird Research <i>Estimating population trends, relative abundance, and effects of management actions on 7 species of webless migratory game birds – \$57,500 (with C. J. Conway)</i>
2008	U.S. Geological Survey, Research Partnership Program <i>Evaluating the efficacy of night surveys for eastern black rails - \$10,000 (with C. J. Conway)</i>
2007	U.S. Geological Survey, Research Partnership Program <i>Effects of tide stage on detection probability of secretive marsh birds in coastal wetlands: providing guidance for implementing the National Marsh Bird Monitoring Program on coastal National Wildlife Refuges - \$10,000 (with C. J. Conway)</i>
2006	University of AZ, Undergraduate Research Program <i>An evaluation of the use of distance sampling for estimating population change of secretive marsh birds in North America - \$1,500</i>

TEACHING

2018	Freshwater Ecology (Teaching Assistant)	Undergraduate
2017	Ecological Modeling (Teaching Assistant)	Graduate
2016	Detectability, Occurrence, and Abundance Seminar	Graduate
2012	Decision Analysis for Climate Change	Professional
2004 – 2012	North American Marsh Bird Monitoring Workshop	Professional
2000 – 2001	Radio and Ultrasonic Telemetry	Undergraduate

INVITED PRESENTATIONS

- Nadeau, C. P.** 2021. Habitat restorations as experiments to inform the future of climate change biology. Northeastern Marine Science Center, Science Café. Virtual.
- Nadeau, C. P.** 2019. Is climatic variation key to understanding climate change vulnerability? Departmental Seminar, School of Biology and Ecology, University of Maine, Orono, ME.
- Nadeau, C. P.** 2018. Why are you starring in that puddle? Identifying and testing climate change conservation strategies in an underappreciated model system. Acadia Science Symposium, Bar Harbor, ME.
- Nadeau, C. P.** 2018. Why are you starring in that puddle? Climate change communication in Acadia National Park. Research and Outreach in National Parks, A Special Session at the Ecological Society of America Annual Meeting, New Orleans, LA.
- Nadeau, C. P.** 2017. Are we accurately predicting species responses to climate change? Insights from model systems. Acadia National Park, Bar Harbor, ME.
- Nadeau, C. P., and A. K. Fuller.** 2014. Managing species of conservation need under climate change: a landscape and trait-based approach. Northeast Fish and Wildlife Diversity Technical Committee, Blue Mountain Lake, NY

- Nadeau, C. P.**, and A. K. Fuller. 2014. Managing species of conservation need under climate change: a landscape and trait-based approach. New York State Wildlife Action Plan Advisory Committee Meeting, Albany, NY.
- Nadeau, C. P.**, and A. K. Fuller. 2012. A climate change vulnerability assessment to aid in the management of New York Species of Greatest Conservation Need. Annual Coordinating Committee Meeting of the New York Cooperative Fish and Wildlife Research Unit, Albany, NY.
- Nadeau, C. P.**, and C. J. Conway. 2011. A spatial modeling and adaptive management approach to determine the habitat preferences of California black rails. U.S. Bureau of Reclamation, Boulder City, NV.
- Nadeau, C. P.**, and C. J. Conway. 2010. Marsh bird research on Imperial National Wildlife Refuge and the Lower Colorado River: adaptive management in practice. Lower Colorado River MSCP Terrestrial Biology Conference, Laughlin, NV.
- Nadeau, C. P.**, and C. J. Conway. Restoration of managed marsh units to benefit California black rails and other marsh birds: an adaptive management approach. 2009. USFWS Lower Colorado River Refuge Complex, Yuma, AZ.
- Nadeau, C. P.**, and C. J. Conway. Developing a standardized protocol for marsh bird monitoring. 2008. USFWS Rail and Snipe Management Strategy Expert Workshop, Denver, CO.
- Nadeau, C.P.**, and C. J. Conway. Improving the management of secretive marsh birds through the North American Marsh Bird Monitoring Program. 2007. Arizona Cooperative Fish and Wildlife Research Unit, Annual Co-operator Meeting, Tucson, AZ.
- Nadeau, C. P.**, and C. J. Conway. The North American Marsh Bird Monitoring Protocol: a summary of the protocol and its use on the lower Colorado River. 2006. Lower Colorado River MSCP Terrestrial Biology Conference, Laughlin, NV.