

Charles B. van Rees

200 College Avenue, Medford, MA 02155

www.vanreesconservation.com

EDUCATION

Ph.D., Biology (Ecology, Evolution, and Behavior), Tufts University – Defended January 2018

B.A., Biology, *summa cum laude*, Connecticut College – 2010

Majors: Ecology, Environmental Science; **Minor:** Spanish; **Certificate** in Conservation Biology

PROFESSIONAL SKILLS SUMMARY

Software: ENVI, ArcGIS, Program MARK, SPSS, Microsoft Office Suite

Programming: R, Python, JAGS/OpenBUGS, MATLAB

Language: English (Native speaker), Spanish (Professional working proficiency)

Field Skills: Avian point counts, mistnetting and banding, spatial data collection (GPS and digitization), radio telemetry, radio transmitter harness deployment (birds), data organization and management

PROFESSIONAL AFFILIATIONS

Sigma Xi, Phi Beta Kappa, American Association for the Advancement of Science, Wilson Ornithological Society, American Ornithological Society, Association of Tropical Ecology and Conservation, The Wildlife Society, The Waterbird Society, Nuttall Ornithological Society

GRANTS, AWARDS, AND FELLOWSHIPS

National

William J. Fulbright Scholar Program

- Fulbright Early Career Scholar Award (Spain), January 2018

American Association for the Advancement of Science (AAAS)

- AAAS/Science Magazine Excellence in Science Program, September 2014

National Science Foundation

- NSF IGERT Research Fellowship, September 2012

The Phi Beta Kappa Society

- Inducted May 2010

State of Hawaii

State of Hawaii House of Representatives

- Certificate of Commendation for Dedication and Service to Hawaiian Conservation, 2017

Tufts University

Graduate School of Arts and Sciences

- Undergraduate Mentoring and Teaching award, March 2016
- 1st Place Presentation in Graduate Student Research Symposium, February 2016
- Graduate Student Research Competition Prize, November 2014, October 2015

Tufts Institute of the Environment (TIE)

- TIE Interdisciplinary Research Grant, April 2016
- TIE Graduate Research Grant, April 2015
- TIE Graduate Research Fellowship, January 2014

Private

Hawaii Conservation Alliance

- HCA Student Scholarship Program Recipient, June 2017

The Walt Disney Company

- Disney Conservation Fund Annual Conservation Grant, September 2016

North American Ornithological Congress

- Honorable Mention – Best Student Presentation Competition, August 2016

Wilson Ornithological Society

- Paul A. Stewart Research Grant, May 2016

Sigma Xi

- Sigma Xi Grants-in-Aid of Research, May 2016

Nuttall Ornithological Society

- Nuttall-Blake Fund Research Grant, November 2014, September 2015

Pacific-Coast Joint Venture (PCJV)

- PCJV Invited Speaker Travel Support, October 2013

Connecticut College

- Dean's High Honors 2006 – 2010
- Winthrop Scholar, April 2010
- Helen F. Mathieson Prize for Excellence in the Goodwin-Niering Center for Conservation Biology and Environmental Studies, April 2010
- Undergraduate Research Fellowship, Goodwin-Niering Center for Conservation Biology and Environmental Studies, December 2008

Biology & Environmental Studies Departments

- Mellen Environmental Studies Research Grant, May 2010
- Barbara Shattuck Kohn Prize for Excellence in Environmental Studies, April 2010
- Sibyl A. Houseman Prize for Excellence in Biology, April 2009

RESEARCH AND PROFESSIONAL EXPERIENCE

Department of Biology, Tufts University

Medford, MA

Ph.D Candidate

Fall 2012 – Present

Studied the effects of wetland loss, climate change and movement behavior on extinction risk in the Hawaiian gallinule

Cross-Realm Conservation Team, Center for Large Landscape Conservation

Bozeman, MT

Facilitator & Aquatic Ecosystems Specialist

Spring 2017

Investigated synergistic conservation interventions for protecting biodiversity of fresh water & terrestrial ecosystems in the Missouri Headwaters Basin.

Convened scientists and stakeholders for a multidisciplinary workshop to guide future conservation decision-making in the basin.

Dragonfruit Agroecology Project, Hanoi University of Science

Hanoi, Vietnam

Graduate Researcher

December 2012

Worked with an interdisciplinary team to quantify avian diversity in Vietnamese Dragonfruit Farms

Conducted bird counts at local farms, interviewed farmers on ecological history of their properties

Shorebird Monitoring Program, Trustees of Reservations

Spring – Fall 2012

Wildlife Technician

Monitored populations and nesting behavior of two threatened shorebird species

Performed active predator management and nest protection based on published research

Koenig Lab, Cornell Laboratory of Ornithology

Carmel Valley, CA

Field Technician

Fall 2011 – Spring 2012

Collected behavioral data for long-term research on cooperative breeding woodpeckers

Studied oak mast phenology and nesting of dependent bird species

Avian Ecology Lab, Archbold Biological Station

Venus, FL

Avian Ecology Intern

Winter 2010 -Summer 2011

Conducted extensive field surveys, observations, and monitoring of a threatened bird species
Trapped, banded, and collected blood samples from birds for ongoing conservation research

Shrubland Bird Team, Audubon Center at Bent of the River Southbury, CT
Field Research Assistant Summer 2010

Captured, banded, and counted declining shrubland birds to inform habitat management
Surveyed and collated habitat data and reviewed literature on rates of cowbird parasitism

Research Assistant, WIDECAS^T Costa Rica Summer 2009

Tagged, measured, and monitored nesting female leatherback Sea Turtles on a critical nesting beach
Led nightly patrols to protect endangered nesting turtles
Translated between local staff, volunteers, and the public

PEER-REVIEWED PUBLICATIONS

van Rees, C.B. and J.M. Reed. *in review*. The potential effects of habitat connectivity, management and sea level rise on the extinction risk of an endangered waterbird in a fragmented island landscape.

van Rees, C.B., Rozek, J.C., Garcia, G., and J.M. Reed *in review*. Identifying and Prioritizing Ecological Stakeholder Surrogates: An approach for considering the Environment in Water Resources Management. *Journal of Water Resources Research*.

van Rees, C.B., Reed, J.M., Wilson, R.E., Underwood, J.G., and S.A. Sonsthagen *accepted*. Landscape genetics implicates stream and drainage infrastructure as corridors in the dispersal of an endangered wetland bird. *Ecology and Evolution*.

van Rees, C.B., et al. 2018. Estimation of vital rates for the Hawaiian gallinule, a cryptic, endangered waterbird. *Journal of Fish and Wildlife Management*. DOI: <https://doi.org/10.3996/102017-JFWM-084>

van Rees, C.B., Reed, J.M., Wilson, R.S., Underwood J.G., and S.A. Sonsthagen. 2017. Small-scale genetic structure in an endangered wetland specialist: possible effects of landscape change and population recovery. *Conservation Genetics*. DOI: 10.1007/s10592-017-1020-0.

Burgio, K.R., **van Rees, C.B.**, Block, K.E., Pyle, P., Patten, M.A., Spreyer, M.F. and E.H. Bucher 2016. Monk Parakeet (*Myiopsitta monachus*), In: *The Birds of North America* (P.G. Rodewald, Ed.). Ithaca: Cornell Lab of Ornithology.

van Rees, C.B. and J.M. Reed 2015. Water Diplomacy from a Duck's Perspective: Wildlife and Ecosystems as stakeholders in Water Management. *Journal of Contemporary Water Research and Education* 155:28-42.

van Rees, C.B. and J.M. Reed 2014. Wetland Loss in Hawai'i since human settlement. *Wetlands* 32:335-350.

INVITED TALKS

van Rees, C.B. 2017. Tracking the Fire Thief: A Case Study in American Connectivity Conservation. British Trust for Ornithology Seminar, Thetford, UK.

Creech, T. and **C.B. van Rees** 2017. Wilderness to Waikiki: Case Studies in American Connectivity Conservation. Cambridge Conservation Forum Lecture, David Attenborough Building, Cambridge, UK

van Rees, C.B. 2016. The Movement Ecology of the Hawaiian gallinule. Pacific Coast Joint Venture Hawaiian Wetlands and Waterbirds Workshop, Kaneohe, Hawaii.

van Rees, C.B. 2015. The Movement Mystery of the Hawaiian gallinule. University of New Hampshire, Department of Biology, Durham, NH.

van Rees, C.B. 2014. Wetlands in the Environment and Society. Department of Political Science, Tufts University, Medford, MA.

van Rees, C.B. 2014. Tracking the Trickster: Quantifying Dispersal of the Endangered Hawaiian Gallinule. Department of Biology, University of New Hampshire, Durham, NH.

van Rees, C.B. 2013. Hawaiian Wetlands—A Historical Perspective. Pacific Coast Joint Venture Hawaiian Wetlands and Waterbird Workshop, Kailua, HI.

Ellmore, G. and **C.B. van Rees**. 2012. Vietnam on the Biodiversity stage: Biodiversity Hotspots and Conservation Biology. Hanoi University of Science, Hanoi, Vietnam.

CONFERENCE PRESENTATIONS

van Rees, C.B., Reed, J.M., Wilson, R.E., Underwood, J., Nadig, A., and S.A. Sonsthagen. 2018. Landscape genetics of endangered Hawaiian waterbirds. Student Conference on Conservation Science, University of Cambridge, Cambridge, UK.

van Rees, C.B., Reed, J.M., Wilson, R.E., Underwood, J., Nadig, A., and S.A. Sonsthagen. 2017. Marsh birds in urban lands: Do stream corridors explain population connectivity? Student Conference on Conservation Science, American Museum of Natural History, New York City.

Muñoz, M.A., **van Rees, C.B.**, Miller, A.E., and Reed, J.M. 2017. Quantifying Habitat Suitability of an Endangered Hawaiian Waterbird for Management and Restoration. Student Conference on Conservation Science, American Museum of Natural History, New York City. (Poster).

van Rees, C.B., Reed, J.M., Wilson, R.E., Underwood, J., Nadig, A., and Sonsthagen, S.A. 2016. Tracking the Fire Thief: The movement ecology of the Hawaiian gallinule. Student Conference on Conservation Science, New York, NY.

van Rees, C.B. 2016. Tracking the Fire Thief. *1st Place in 15-min talks*. 2016 Graduate Student Research Symposium, Tufts University, Medford, MA.

van Rees, C.B., Kawasaki, M.T., Underwood, J., Sonsthagen, S.A., Paxton, E.H., and J.M. Reed 2016. Ke lele manu o ka wai: Movement Ecology and Conservation of Hawaiian Waterbirds. IUCN World Conservation Congress 2016, Honolulu, Hawaii.

van Rees, C.B., Reed, J.M., Wilson, R.E., Underwood, J., Nadig, A., and S.A. Sonsthagen 2016. The movement ecology of an endangered rallid: The Hawaiian gallinule. North American Ornithological Congress VI, Washington, D.C.

van Rees, C.B. 2015. Testing Movement Hypotheses of the Hawaiian gallinule (*Gallinula galeata sandvicensis*). Boston Bird Meeting, Harvard University, Cambridge, MA.

van Rees, C.B. and J.M. Reed. 2013. Inferring Site Selection Behavior from Historical Occupancy Data. Tufts university Graduate Student Seminar, Medford, MA

van Rees, C.B. and J.M. Reed. 2013. Hawaiian Wetlands—A Historical Perspective. Hawaiian Wetlands and Waterbird Workshop, Kailua, HI.

van Rees, C.B. 2011. Causes and Consequences of Yearling Dispersal in the Florida Scrub Jay. American Ornithologists' Union. Jacksonville, FL

OUTREACH TALKS

van Rees, C.B. 2017. World Wetlands Day Hawaii: Waterbird conservation and the way forward. World Wetlands Day Opening Ceremonies, Hawaii Kai, HI.

van Rees, C.B. 2016. Wetlands, Waterbirds, and Conservation in Hawaii. *Invited Speaker*. League of Women Voters Monson Memorial Lecture, Honolulu, Hawaii

van Rees, C.B. and Kawasaki, M.T. 2016. Tracking Hawaiian Waterbirds - The role of Birdwatcher Citizen Scientists. Hawaii Audubon Society, Kailua, Hawaii.

van Rees, C.B. 2015. The `alae `ula, and what it can tell us about 21st century conservation. *Invited Speaker*. The Livable Hawaii Kai Hui Annual Trustees Meeting. Hawaii Kai, HI.

van Rees, C.B. 2014. The `Alae `ula bird, it's disappearing home, and how you can *kokua*. The Livable Hawaii Kai Hui Summer Lecture Series, Hawaii Kai, HI.

VOLUNTEERING, SERVICE & LEADERSHIP

`Alae `Ula Conservation Project, Livable Hawaii Kai Hui Oahu, Hawaii
Project Leader and Advisory Ecologist Fall 2015 - Present
 Created network of grassroots NGO's, state and federal government agencies, and academic researchers with interest in preserving a species and its habitat
 Won \$25,000 in support from the Disney Conservation Fund
 Spearheaded the creation of a [volunteer network](#) of citizen-scientists for collecting information on the movements of endangered birds in Hawai'i

Land Bird Migration Study, Manomet Center for Conservation Plymouth, MA
Volunteer Bander Fall 2014 - 2016
 Banded and collected physiological data on migrating passerine birds as part of a long-term dataset
 Received training in bird handling and identification in the field

State of Hawaii Environmental Council Annual Report, HI Department of Health Honolulu, HI
Wetland Ecologist Fall 2014
 Provided expertise on Hawaiian wetlands and their ecology for a broad-ranging environmental report
 Wrote report on major invasive species for wetland ecosystems in the state

Volunteer Naturalist, Trustees of Reservations Ipswich, MA
 Guided small groups on ecological tours of sand dune ecosystem Fall 2012 and 2013
 Educated public about importance of migratory stopover sites for shorebirds

Native Forest Rehabilitation, Waimea Valley Park Hale`iwa, HI
Restoration Technician Summer 2014
 Carried out invasive plant removal and native outplantings for forest restoration
 Set traps for control of invasive wild pigs

MEDIA COVERAGE

Guest Scientist, SciComm Mondays Science [Livestream](#) with Nicole Wood
 Explained research on gallinule movement ecology and answered audience questions on ornithology and conservation. March 2017.

Guest Biologist, Eating Wisely Podcast with Leland Stillman
 Discussed synergies and conflicts between biodiversity conservation and agriculture for an educational podcast for a general audience. [Podcast](#) November 2017.

Featured Guest, Maunalua: East Oahu Communities Working Together
 Discussed wetland conservation and answered questions for 30-minute episode of popular community access television program. Episodes aired [September](#) 2014, [August](#) and [September](#) 2015, [June](#) 2016.

Featured in "[Students in Focus](#)" Tufts Graduate School of Arts and Sciences Newsletter,
November 2014 edition by Ariana Hajmiragha

Featured in "[Campbell's Coup](#)", Hawaii Magazine, September/October 2014 edition by Mary Vorsino

Science Storyteller, [The Story Collider](#)

Authored and performed science story about field work in ecology & conservation. Recorded live at the Oberon theatre in Cambridge, MA and [podcast](#) in March 2014.

CONSULTING & NON-PROFIT WORK

Visiting Scientist, The Center for Large Landscape Conservation Bozeman, MT
Joined team of ecologists designing conservation research proposals Spring 2017
Contributed expertise in ornithology and wetland ecology to ongoing research
Strengthened collaborations with other wildlife non-profits through international visits

Advisory Ecologist, Livable Hawaii Kai Hui Honolulu, HI
Drafted conservation plan for biodiversity on managed properties Summer 2015 - Present
Spearheaded and organized applications for wildlife conservation grants
Directed research programs for on-property conservation

Spatial Analyst, The Trustees of Reservations Ipswich, MA
Helped resident biologists manage spatial datasets and ArcMAP Spring 2014
Collated and organized long-term survey data for a state listed species.

WORKSHOPS & PROFESSIONAL DEVELOPMENT

Using Conservation Evidence to answer conservation questions Cambridge, UK
Training in evidence-based approaches to applied conservation research. April 2018

Hawaii Bird Banding Workshop Honolulu, HI
Ethics and methods of bird capture, banding, and resighting for research. February 2018

Spatial Analysis in R New York, NY
Handling and analyzing spatial datasets using statistical analysis software. October 2017

Making Conservation Politically Effective New York, NY
Training in representing conservation interests to lawmakers. October 2017

Occupancy modeling for Ecology in R New York, NY
Statistical theory and programming for occupancy-based ecological models. October 2016

Moist-soil Management for Managers and Biologists Puxico, MO
Training in hydrology and ecology of lentic wetland systems. August 2013

REFERENCES

J. Michael Reed

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