



Todd J. Mabee, *Senior Ecologist*

PROFESSIONAL EXPERIENCE

- 2018-Present *Senior Ecologist, International Practice Group Lead, Western EcoSystems Technology (WEST), Inc., Portland, Oregon*
- 2016-2017 *Senior Ecologist, Environmental & Permitting Services, DNV GL, Portland, Oregon*
- 1998-2016 *Senior Scientists/Research Coordinator, ABR, Inc. – Environmental Research & Services, Forest Grove, Oregon*
- 1998-1998 *Biologist, Colorado State University, Fort Collins, Colorado*
- 1997-1998 *Biologist, USGS Forest & Rangeland Ecosystem Science Center, Corvallis, Oregon*
- 1992-1993 *Fish and Wildlife Biologist, U.S. Fish and Wildlife Service, Midcontinent Ecological Science Center, Fort Collins, Colorado*
- 1991-1991 *Biologist, Commonwealth Scientific and Industrial Research Organization (CRISO), Kapalga Research Station, Northern Territory, Australia*
- 1988-1991 *Biologist, U.S. Fish and Wildlife Service, Bethel, Alaska, ABR, Inc., Fairbanks, Alaska*

SPECIALTY AREAS

Todd Mabee is a Senior Ecologist and the International Practice Group Lead at WEST with over 30 years of experience as a terrestrial ecologist conducting field studies for a variety of industry sectors including renewable energy, oil and gas, and timber in the U.S. and Mexico. His experience with a diverse suite of taxa ranges from breeding and overwintering studies on waterfowl, shorebirds, and landbirds in the arctic, Western U.S., and Mexico; endangered seabird surveys in the Pacific Northwest, aerial surveys for waterfowl, shorebirds, and caribou, telemetry studies for shorebirds, sea otter surveys in Alaska, small mammal tracking and trapping in the U.S. and Australia, amphibian surveys in Alaska and the Pacific Northwest, venomous snake studies in Guam, to marine radar surveys of bird migration in Alaska, Hawaii, and throughout the U.S. During his long career in renewable energy consulting, he has been involved with wind energy and wildlife issues for 20 years and has worked extensively on avian and bat issues at renewable energy projects in the US and Mexico. His work has focused on strategic planning, client and agency interactions, study design and analysis, project management, quality control, technical writing for management documents such as Eagle Conservation Plans and Bird and Bat Conservation Strategies for wind and solar energy projects, and due diligence reviews of renewable energy projects.

RENEWABLE ENERGY EXPERTISE

Site Characterization Studies (SCS): 2010-2019

16 wind and 12 solar energy projects in Alaska (2 studies), Western U.S. (WA, OR, CA, CO, AZ, TX; 23 studies), Midwest (IL, MI; 2 studies) and Mexico (1 study). Identified key habitat and wildlife species of concern, including eagles, at proposed projects.

Baseline Avian Use Studies: 1998-2019

PI/co-PI or data analyst on 42 pre-construction wind energy studies in AK (2 studies), the Western U.S. (WA, OR, CA, NM, TX, CO; 39 studies) and NY (1 study) that characterized baseline avian use. Conducted point counts and mapped locations of sensitive bird species (including eagles). Participated in agency meetings discussing biological issues, particularly Golden Eagles.

Raptor Nest Surveys: 2004-2019

PI/co-PI/author on 16 pre-construction wind energy studies in WA (3 studies), CA (4 studies), OR (3 studies), CO (1 study) and Midwest (IA, MO, 5 studies) that conducted aerial and/or ground nest surveys of eagles and other raptors. Participated in agency meetings discussing status, distribution, and sensitivity of eagle and other raptor nests.

Bat Acoustic Monitoring: 2007-2019

PI/co-PI on 33 renewable energy (wind, energy-kite, hydropower) studies in AK (1 study), Western U.S. (WA, OR, ID, CA, TX; 21 studies), MI (1 study), NY (3 studies), and HI (6 studies) and 1 wetland restoration study in OR. Conducted acoustic monitoring of bats (including the endangered Hawaiian Hoary bat) using Anabat or Wildlife Acoustics detectors. Documented nightly and seasonal activity patterns to characterize site use.

EDUCATION

M.S. Zoology
Colorado State University
Fort Collins, Colorado
1996

B.A. Population and Organismic
Biology
University of Colorado
Boulder, Colorado
1987

SCIENTIFIC ORGANIZATION MEMBERSHIPS

American Ornithological Society

Association of Field Ornithologist

Raptor Research Foundation

The Wildlife Society

Wilson Ornithological Society



Radar studies: 1998–2019

PI/co-PI or data analyst on 59 renewable energy (wind, energy-kite, hydropower) studies in AK (1 study), Western US (WA, OR, ID, CA, TX; 22 studies), Eastern US (NY, PA, MD, WV, VA; 27 studies), HI (8 studies), and Mexico (1 study) that used radar and/or night-vision optics to document flight directions, flight altitudes, and passage rates of Marbled Murrelets, diurnal migratory birds, and nocturnally-migrating birds and bats to assess exposure to collisions. Participated in agency meetings.

Post-Construction Fatality Monitoring Studies: 2008, 2015-2019

PI or surveyor on post-construction fatality monitoring study at wind energy projects in OR (1 study) and Mexico (2 studies). Estimated fatality rates of birds and bats.

INTERNATIONAL WORK EXPERIENCE

- 2018-present Senior Ecologist, International Practice Group Lead, WEST, Inc. Developed strategic plan for renewable energy market in Latin American. Managed post-construction mortality (PCM) monitoring project in Coahuila, Mexico.
- 2007-present Senior Ecologist, WEST, Inc./Senior Scientist, ABR and Instituto de Ecologia (INECOL), Jalapa, Veracruz, Mexico. Developed a long-term, collaborative relationship with Mexican scientists, including hosting scientists in Oregon and serving on graduate committee. Trained staff to use mobile radar to study nocturnal bird migration and studied large-scale movements of raptors at wind energy projects. Provided input on study design of avian point counts, migration monitoring, and PCM studies.
- 1998-1998 Biologist, Colorado State University, Fort Collins, Colorado. Surveyed for Mountain Plovers in shortgrass prairie grasslands of Coahuila, Zacatecas, and San Luis Potosi, Mexico.
- 1997-1998 Biologist, USGS Forest & Rangeland Ecosystem Science Center, Corvallis, Oregon. Lead a team of Canadian, U.S., and Mexican biologists to survey the remote Laguna Madre of Texas and Tamaulipas successfully for Piping Plovers and other shorebirds. Conducted aerial surveys of the Laguna Madre of Tamaulipas for shorebirds.
- 1992-1993 Fish and Wildlife Biologist, U.S. Fish and Wildlife Service, Midcontinent Ecological Science Center, Fort Collins, Colorado. Tested bait efficacy, collected morphometrics, and injected PIT tags in brown tree snakes on Guam to determine movements. Conducted nocturnal surveys for snakes and geckos and used traps and tracking tiles to obtain abundance indices for snakes, skinks, and rodents.
- 1991-1991 Biologist, Commonwealth Scientific and Industrial Research Organization (CRISO), Kapalga Research Station, Northern Territory, Australia. Studied effects of fire regimes on savanna flora and fauna as part of a large-scale, long-term fire ecology experiment. Fire crew member, trapped small mammals and quail, monitored frill-neck lizards, collected insects.

SELECTED PROFESSIONAL PUBLICATIONS

- Cabrera-Cruz, S. A., **T. J. Mabee**, and R. Villegas Patraca. 2017. Patterns of nocturnal bird migration in southern Mexico. *Revista Mexicana de Biodiversidad* 88: 867–879.
- Schwab, N. A, and **T. J. Mabee**. 2014 Winter acoustic activity of bats in Montana. *Northwestern Naturalist* 95: 13–27.
- Cabrera-Cruz, S. A., **T. J. Mabee**, and R. Villegas Patraca. 2013. Nocturnal bird migration in Mexico: first records from marine radar. *Ornithologia Neotropical* 24: 299–309.
- Kunz, T. H., E. B. Arnett, B. A. Cooper, W. P. Erickson, R. P. Larkin, **T. J. Mabee**, M. L. Morrison, M. D. Strickland, and J. M. Szewzak. 2007. Assessing impacts of wind-energy development on nocturnally active birds and bats: a guidance document. *Journal of Wildlife Management* 71: 2449–2486.
- Mabee, T. J.**, B. A. Cooper, J. H. Plissner, and D. P. Young. 2006. Nocturnal bird migration over an Appalachian Ridge at a proposed wind power project. *Wildlife Society Bulletin* 34: 682–690.
- Mabee, T. J.**, and B. A. Cooper. 2004. Nocturnal bird migration in Northeastern Oregon and Southeastern Washington. *Northwestern Naturalist*. 85: 39–47.