



Statement of Qualifications

Wind, Hydro, and Utility Projects

ABR's multidisciplinary team of scientists are experienced in conducting impact assessments and other environmental studies for wind farms, small hydro projects, meteorological and communication towers, and transmission lines. Our lead scientists have been instrumental in developing rigorous field programs to assess the environmental impacts of these structures on birds, furbearers, fish and other aquatic organisms and their habitats.

With 35 years of Alaskan experience we offer a broad range of services to the energy and utility community including:

- NEPA, impact assessments, and permitting support
- Wildlife studies including fatal flaw analyses for wildlife
- Endangered, threatened, and sensitive species surveys
- Raptor surveys and nest monitoring
- Ecological land classification and habitat mapping
- Radar, visual, and acoustic monitoring for birds and bats
- Fisheries and aquatic sciences
- Macroinvertebrate bioassessment, processing, and identification
- Wetland mapping and identification
- Soil, snow, water, and vegetation studies
- Watershed assessment and analysis
- Ecological restoration and land rehabilitation
- Development mitigation strategies
- GIS and remote sensing mapping and analyses
- Project Design, Data Analysis, and Quality Control Plan Development

Some of Our Clients

Chugach Electric Association • Alaska Village Electric Cooperative (AVEC) • Golden Valley Electric Association (GVEA) • Iberdrola Renewables • Hatch Acres • Sealaska Corporation • North Slope Borough • Shell Wind Energy • UPC Wind Partners • Renewable Generation • Everpower • First Wind • Florida Power and Light • Northern Power Systems, Inc. • RES • WEST • CH2M Hill • Tetra Tech • ConocoPhillips Alaska Inc. (CPAI) • Ecology and Environment • Electric Power Research Institute (EPRI) • U.S. Air Force National Renewable Energy Lab (NREL) • U.S. Forest Service • U.S. Fish and Wildlife Service

Research Team

Robert Burgess, MS, Senior Ecologist, Alaska. Over 30 years of experience in environmental impact assessment, wildlife monitoring, and landscape ecology.

Charles T. ("Terry") Schick, PhD, Senior Scientist, Alaska. Over 25 years of experience studying birds, plants, and landscape ecology, with emphasis on landscape approaches to habitat-use studies and environmental impact assessments.

Michael B. Cole, PhD, Senior Aquatic Scientist (NABS-certified taxonomist), Massachusetts. Over 15 years of experience in salmonid ecology, macroinvertebrate ecology and taxonomy, bioassessment of rivers and streams, watershed assessments, and restoration.

John C. Seigle, MS, Fisheries Biologist, Alaska. Over 12 years of experience in fresh and saltwater fisheries science. Specializes in estuarine and stream ecology, fisheries biology, and fish age and growth.

Janet G. Kidd, MS, Wetlands Scientist (certified Professional Wetland Scientist), Alaska. Over 18 years of experience in restoration ecology and wetland, plant, and soil science.

Robert H. Day, PhD, Senior Scientist, Ornithologist, Alaska. Over 30 years experience in endangered species, seabirds, migration, collision assessment studies, and mitigation strategies.

Cris D. Hein, PhD, Wildlife Biologist, Bat Ecologist, Oregon. Over 10 years experience in bat acoustic monitoring, telemetry, and behavioral monitoring.

John E. Shook, MS, Raptor Biologist, Alaska. Over 10 years of experience with design and implementation of raptor studies, assistance with Eagle Act permit needs, and monitoring eagle nests during development.





Aquatic Studies

Willamette Model Watershed Monitoring Plan, 2010 ABR worked with BEF and 7 watershed councils to develop a 10-year restoration monitoring and implementation plan for 11 watersheds. Larger-scale status and trends monitoring will complement a series of Before-After/Control-Impact studies measure the success of restoration. *Bonneville Environmental Foundation*

Snow Surveys at Proposed Pebble Mine, southwestern Alaska, 2007–2009 This study was designed to complement concurrent surface water hydrology studies by characterizing the distribution, snow-water equivalent, and ablation rates of late-season snow. We produced maps from field surveys, airborne LIDAR, and aerial and MODIS satellite imagery. *Pebble Partnership, Ltd.*

Electrofishing, Macroinvertebrate, and Habitat Assessment, Hatcher Pass, AK, 2008–2009 ABR conducted field studies in 6 high gradient streams to assess fish presence and stream usage. We also performed habitat and macroinvertebrate surveys in support of baseline studies for a proposed ski development project. *Matanuska Susitna Borough, DOWL HKM*

Fisheries Investigations at Teshekpuk Lake, Northern Alaska, 2005–2006
North Slope Borough



Representative Projects

Wildlife Surveys

Study of Avian Collision Vulnerabilities Near Proposed Windfarm Sites in Western Alaska, 2007 ABR identified and assessed the value of resource data for a multilayered GIS database that summarized key physical, biological, and cultural resources near numerous windfarm sites. *Alaska Dept. of Fish and Game, Alaska Energy Authority*

Northern Goshawk and Bald Eagle Surveys, Southeast Alaska, 2000–2010
Coeur Alaska, Inc., U.S. Fish & Wildlife Service

Bald Eagle Nest Monitoring, Fire Island, Alaska, 2009 *URS for Wind Energy Alaska*

Preconstruction Monitoring and Permit Assistance

Biological Resource Studies for Allison Lake Hydro Project, Valdez, AK, 2009–2010 Ground and aerial field surveys were employed to study raptors, murrelets, land-birds, and shorebirds, wetlands/vegetation, and fish and macroinvertebrate resources. Analyses included a quantitative assessment of project impacts on wildlife habitats and terrestrial mammals, birds, fish, and species of conservation concern in support of the FERC permitting process. *Hatch Acres for Copper Valley Electric Association*



Phase I Windpower Assessment at Dutch Harbor, Alaska, 2004 ABR provided a preliminary assessment of avian issues for a proposed windpower development. We conducted an assessment of potential bird interactions at each of 5 possible windfarm sites. *Northern Power Systems*

Study of Bird Migration, Fire Island, Southcentral Alaska, 2004
Alaska Chugach Electric



Threatened and Endangered Species Research



Radar and Visual Studies of Marbled Murrelets, California, 2006–2007 ABR used surveys to assess Marbled Murrelet activity and determine their exposure to wind turbines at the proposed Bear River wind-energy project. *Shell Wind*

Threatened Species Surveys, Alaska, 2006–2009 *AVEC, USFWS, USAF*

Radar and Visual Study for Endangered Eiders, St. Lawrence Island, Alaska, 2002 *Alaska Energy Authority*

Wetlands

Wetlands Delineation for Proposed Gas Line Project, 2008–present ABR prepared wetland field determinations for the proposed gas pipeline between Prudhoe Bay and Canada. *Denali–The Alaska Gas Pipeline, LLC*

Wetlands Determination and Functional Assessment for Barter Island Airport Improvements, Kaktovik, Alaska, 2008–2009 *North Slope Borough, Hattenburg Dilley & Linnell, LLC*

Impact Assessment

EIS for the Backcountry Management Plan and Plan Amendment, Denali National Park and Preserve, 1999–2002
National Park Service, Cash Barner Architects

Biological Assessment for the Alpine Oilfield Development, 2003–2004
ABR evaluated the impacts on eiders from 6 alternatives, as well as cumulative effects, and prepared a Biological Assessment as part of the Section 7 consultation process under the Endangered Species Act. *ConocoPhillips Alaska Inc.*

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ABR, Inc. — Environmental Research & Services, is a professional consulting firm specializing in fish and wildlife studies, aquatic sciences, ecological restoration, wetland sciences, impact assessment, ecological support for risk assessment, and GIS mapping and analyses. ABR provides practical solutions for our clients' needs—within the framework of company resource stewardship, community support, and economic viability. For more information visit our website www.abrinc.com or contact us directly. ABR is a GSA-approved contractor.

