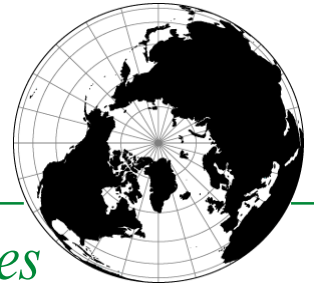


# ABResearch Notes



ABR, Inc., Environmental Research and Services

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## Wind-Turbines and Birds: Ornithologists Form New Review Panel

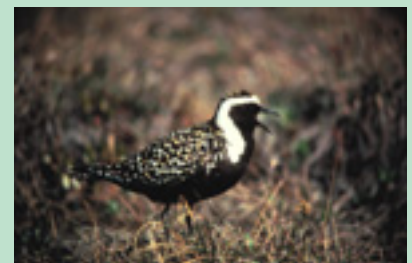


Windpower is generally considered a green alternative for power production and wind turbines are dotting ridge-lines world wide. Bird collisions can sometimes be an issue at windfarms, however. Bird mortality at existing wind turbines generally is low (2.19 birds/turbine/year, see Erickson et al. 2001. *Avian Collisions with Wind Turbines*. NWCC report), but numerous collisions have occurred in a few instances. Proper siting of turbines is critical to avoid impacts with species groups like raptors and waterfowl (if turbines are near water). With many more towers proposed, a group of wildlife organizations, including the Ornithological Council, the American Bird Conservancy, Defenders of Wildlife, and the Wildlife Management Institute, is concerned that the impact of wind turbines on bird populations is not fully understood (OSNA. Newsletter, Spring 2003; [www.ornith.cornell.edu/OSNA/ornnews1.htm](http://www.ornith.cornell.edu/OSNA/ornnews1.htm)). This ad hoc group will review existing data/studies (rarely published), monitor future studies, and discuss and assess the policies issued by USFWS and other federal agencies regarding bird issues. The group's goals are to be sure that the impact of wind power on "bird populations is understood and to encourage the implementation of practices and policies that will reduce these impacts."

ABR has provided resource agencies and wind producers information on bird passage and collision estimates since 1995. Using radar as a tool to more precisely measure routes and elevations of birds, we have been invaluable for permit development and siting assessments. In 2003, ABR headed east and conducted a number of windfield-related bird studies, including radar and visual studies of spring and fall bird migration at Jasper Energy's proposed Chautauqua wind energy facility in western New York; radar studies of spring and fall migration at Clipper Windpower's..... (Cont. on page 2)

## ABR Collaborates on Shorebird Studies

Oilfields have been hypothesized to attract several of the principal predators of ground-nesting birds in the arctic—Common Ravens, Glaucous Gulls, and Arctic Foxes—and create local concentration areas, which indirectly depress the productivity of ground-nesting birds in the vicinity of oilfields. However, no studies have conclusively demonstrated a link between development and reduced avian productivity. In 2002, ABR joined a large-scale collaborative study to evaluate the effects of oilfield development and predation on shorebird and passerine nesting success. The collaborators include ConocoPhillips Alaska, Inc. (contracting ABR), BP Exploration, Alaska (contracting LGL), the U.S. Fish and Wildlife Service, the Wildlife Conservation Society, and the Manomet Bird Observatory. Study sites include a range of development conditions and predator densities. The team intends to produce a peer-reviewed article on their findings following the final year of field work (2004). ([rjohnson@abrinc.com](mailto:rjohnson@abrinc.com))



Golden Plover, Northern Alaska

ABR's Business Profile 'Promoting Excellence and Sustainability' was printed in the March 2003 issue of the Alaska Business Monthly. (Check out [www.abrinc.com](http://www.abrinc.com))

## Wind-Turbines.....

(Cont. from page 1)...proposed Criterion Wind Project in the mountains of western Maryland; and fall studies of migration for Nedpower's Mt. Storm Project in the mountains of West Virginia. In the West, we continued radar and visual studies of birds during winter, spring, and summer at the proposed Tillamook wind facility along the Oregon Coast for Renewable Generation. In Alaska, we assessed eider passage near a site on St. Lawrence Island. We also conducted visual studies of bird use at Seawest's Scenic Vista project in northeastern Oregon and a fall migration study for the proposed Cotterel Mountain Project in south-central Idaho. (Contact Brian Cooper at [bcooper@abrinc.com](mailto:bcooper@abrinc.com)).

## New NPS Studies in Alaska

ABR is undertaking several new studies for the Inventory and Monitoring Program of the NPS in Alaska:

- Assessing landscape-level changes in the Southwestern Park Network by comparing historical photographs of landscapes with new photography.
- Conducting an ecological land survey of Wrangell-St. Elias NP including preparation of a land cover map and field work to ground-truth the map.
- Preparing bibliographies on the ecosystems of the Arctic, Central, and Southeastern Park Networks. References will be entered into the NPS's NatureBIB system, available to all NPS personnel nationwide on the Internet.

For more information contact Torre Jorgenson ([tjorgenson@abrinc.com](mailto:tjorgenson@abrinc.com)) or Betty Anderson ([banderson@abrinc.com](mailto:banderson@abrinc.com)).

## From the Cascades to Arctic Alaska: ABR's Growing Fisheries Program

In 1998, ABR embarked in a new direction to develop a fisheries and aquatic sciences program. Based primarily out of our Oregon office, the program has grown to include work from Alaska's North Slope to eastern Washington and southern Oregon. The program currently offers three principal areas of services: watershed assessment, fisheries research and surveys, and macroinvertebrate research and biomonitoring; additionally, we're presently working to develop stream restoration services.

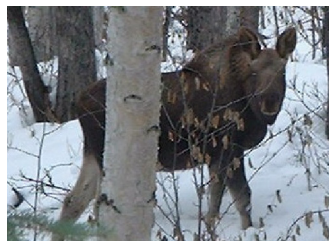


Mike Cole sampling near Teshekpuk Lake, Alaska

ABR is currently performing surveys of fish distribution and physical habitat in watersheds on the east slope of the Cascades to provide the data for these new models. As part of this study, ABR is field testing the use of GPS-integrated hand-held computers to assess the functionality of these units for navigation and field collection of spatial data. Our staff is also working with Washington's Instream Scientific Advisory Group to develop new water-typing models for eastern Washington. In Oregon, our work has included assessments of the South Fork of the John Day River in eastern Oregon and of the Molalla River in western Oregon to characterize existing watershed conditions and guide restoration efforts.

ABR's fisheries program reaches as far north as Alaska's North Slope. ABR, in conjunction with the North Slope Borough, Alaska DNR, and MJM Research, is assessing the importance of Teshekpuk Lake and its major tributaries to broad whitefish and other subsistence fish species. Teshekpuk Lake is the third largest lake in Alaska and occurs in an area where proposed oil development and increased subsistence fishing pressure in the area necessitate a better understanding of this system's importance in supporting local and regional fish populations.

## Urban Moose Studies



Moose in birch woods

ABR has joined DOWL Engineers' team in Anchorage on the Abbott Loop Extension project for the Alaska Department of Transportation & Public Facilities. Steve Murphy and Alex Prichard of ABR will be conducting baseline studies on moose that are focused on documenting high-use areas and movement corridors so that optimal mitigation can be designed should the project develop. Murphy states "We know this is an important area for moose and that it will be critical to incorporate design features that will allow free and safe passage of moose across the road corridor." This is ABR's second recent foray into urban wildlife issues in Anchorage (Coastal Trail Extension, 2000-2002), and we're quickly learning that there is a diversity of stakeholders and that passions run high, which makes these projects particularly challenging for biologists.

## Staff Notes

**Wendy Davis**, Research Biologist. Wendy will work in our Fairbanks office and will be involved in wetland, environmental assessment, and restoration projects. Her Master's degree developed practical experience in conducting ecological assessments of long-term vegetation recovery on oil pipeline related disturbed lands in Canada. She has six years experience in boreal forest environments. Wendy's main areas of expertise are plant ecology, climate station instrumentation, field project management, and data management.



**Jennifer Boisvert**, Research Biologist. Jennifer joined our Anchorage office in the spring of 2002. She has primarily been involved in wildlife and wildlife habitat studies, environmental assessments, and restoration projects. She received her M.S. degree from the University of Idaho where she studied the ecology of Sharp-tailed Grouse in Colorado. Her research has included studies of grouse habitat-use,

wildlife habitat and watershed restoration projects, and TES and raptor surveys. She has eight years of field experience in the intermountain west and two years of experience in Alaska. Jennifer's primary areas of expertise are in wildlife ecology and habitat restoration.

**Dr. Jonathan Plissner**, Research Scientist. Jon joined ABR in 2002 after 20 years of experience in ecological research. His diverse background includes work with a number of sensitive bird species (Piping Plover, Great Plains; Marbled Murrelet, PNW; Loggerhead Shrike, Channel Islands). His background and skills include bird censusing, metapopulation viability analyses, behavioral studies, statistical support, and passerine and shorebird ecology. Jon's work will provide ample opportunities to design and implement monitoring and impact assessment research.



**Chandra Heaton**, Research Biologist. Chandra recently joined our Anchorage office where she will be involved in wetland and vegetation studies, environmental assessments, and restoration projects. She received her M.S. degree from Texas A&M University on the effects of disturbance on landscape-scale patterns of vegetation. Her research also has included studies of riparian habitats in Utah, breeding

Black Oystercatchers in Prince William Sound, the mapping of distributions for species-of-concern in Alaska, and leading an interdisciplinary team in a landscape assessment of National Forest lands in Turnagain Arm, Alaska. She has four years of field experience in the intermountain west and two years of experience in Alaska. Chandra's primary areas of expertise are in vegetation and wetlands ecology, habitat restoration, and landscape-scale analysis.

## Recent Publications

**Cole, M. B., K. R. Russell, and T. J. Mabee.** 2003. Relation of headwater macroinvertebrate communities to instream and adjacent stand characteristics in managed second growth forests of the Oregon coast mountain range. *Canadian Journal of Forest Research* 33:1433-1443

**Cooper, B. A., and R. H. Day.** 2003. Movement of Hawaiian Petrels to inland breeding sites on Maui Island, Hawaii. *Waterbirds* 26:62-71.

**Day, R. H., B. A. Cooper, and T. C. Telfer.** 2003. Decline of Townsend's (Newell's) Shearwaters (*Puffinus auricularis newelli*) on Kauai, Hawaii. *Auk* 120:669-679.

**Day, R. H., S. M. Murphy, J. A. Wiens, and K. R. Parker.** 2003. Changing habitat use by birds after the *Exxon Valdez* oil spill. *International Oil Spill Conference 2003, Vancouver, BC, Canada.* 7 pp. (published electronically)

**Day, R. H., A. K. Prichard, and D. A. Nigro.** 2003. Ecological specialization and overlap of *Brachyramphus* murrelets in glaciated fjords of Prince William Sound, Alaska. *Auk* 120:680-699.

**Heaton, C.B., X.B. Wu, and J.R. Ansley.** 2003. Herbicide effects on vegetation spatial patterns in a mesquite savanna. *J. Range Manage.* 56:627-633.

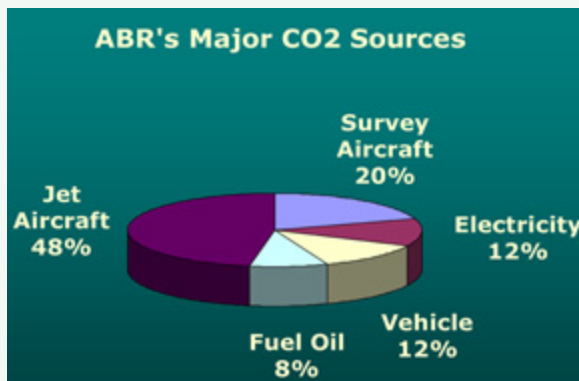
**Streever, W. J., J. McKendrick, L. Fanter, S. C. Anderson, J. G. Kidd, and K. M. Porter.** 2003. Evaluation of percent cover requirements for revegetation of disturbed sites on Alaska's North Slope. *Arctic* 56:234-248.

## Bioshare

*ABR's staff shares a sense of responsibility for the well-being of our local and global communities. We try to meet this responsibility by seeking out opportunities to assist worthwhile projects and programs by providing resources, biological expertise, and our time through a program we call **Bioshare**.*

In our last issue, we introduced our company's program to determine our CO<sub>2</sub> emissions and appropriate 'carbon tax', whereby we establish the cost of our carbon (i.e., 2001: \$30 per ton of CO<sub>2</sub> emitted X 288 metric tons = \$6800 tax). We expect that our tax this year will be about the same amount, so our tax will include a unique mitigation strategy: employees wanting to buy a hybrid vehicle in 2003 can draw ~\$1500 from this tax account and apply it to the purchase price of their new ULEV (ultra low emission vehicle). As of September 2003 we had one applicant. This vehicle will be the fourth hybrid in our offices. (check out [www.climatetrust.org](http://www.climatetrust.org) to determine your carbon footprint).

Steve Murphy, President at ABR, took advantage of ABR's new sabbatical program in spring 2003. Steve, accompanied by his wife, Judy, and daughter, Katie, worked with *Cross Cultural Solutions* in Costa Rica. Each team member helped in a local school. For more detail on this visit: [www.crossculturalsolutions.org](http://www.crossculturalsolutions.org).



ABR has hired Russell deForest as a 'green business intern' in the Fall of 2003. Russell's responsibilities include representing ABR at Greenstar meetings, helping design a six evening short course on green strategies for small business, and working with the school district to keep their paper recycling program working. Support for this internship also comes from our carbon tax account.

*ABR Newsletters can be accessed on our website*  
[www.abrinc.com](http://www.abrinc.com)



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