

WESTERN ECOSYSTEMS TECHNOLOGY, INC.

GREGORY D. JOHNSON, *Senior Ecologist/Senior Manager*



EDUCATION

1987	M.S.	University of Wyoming, Laramie, Wyoming	<i>Zoology and Physiology</i>
1983	B.S.	University of Wyoming, Laramie, Wyoming	<i>Wildlife Conservation and Management</i>

CURRENT POSITION

1991-Present *Senior Ecologist/Senior Manager*, Western EcoSystems Technology, Inc., Cheyenne, WY.

PREVIOUS POSITIONS

1987-1991	<i>Study Director/Project Manager</i> , Wildlife International, Easton, MD. Conducted large-scale field studies to assess pesticide impacts to fish and wildlife throughout U.S. for EPA Federal Insecticide, Fungicide, and Rodenticide (FIFRA) registration of pesticides.
1985-1987	<i>Research Assistant</i> , University of Wyoming, Laramie, WY. Conducted M.S. research to assess indirect effects of grasshopper control insecticides on sage grouse in Wyoming.
1984-1986	<i>Teaching Assistant</i> , University of Wyoming, Laramie, WY. Taught three semesters of General Biology labs and two semesters of Game Biology labs at University of Wyoming.
1984	<i>Wildlife Technician</i> , U.S. Forest Service, Laramie, WY. Evaluated elk habitat use and requirements in proposed coal mining area in Carbon County, Wyoming through relocations of radiomarked elk and vegetation analysis.
1983	<i>Wildlife Technician</i> , University of Wyoming, Laramie, WY. Evaluated composition, distribution, movements, and habitat use of bighorn sheep through observations and radiotelemetry.
1979-1982	<i>Biological Aid</i> , USDA Agricultural Research Service, Cheyenne, WY. Assisted with collection of vegetation data on reclaimed mined lands associated with mining reclamation research projects on coal and uranium mines in Wyoming and analyzed soil and plant samples in lab.

CERTIFICATIONS

Senior Ecologist, Ecological Society of America, June 2003
Certified Wildlife Biologist, The Wildlife Society, October 1993
Professional Wetland Scientist, Society of Wetland Scientists, October 1997

PROFESSIONAL SUMMARY

Wind Power Studies: Mr. Johnson has 15 years of experience conducting avian, bat and other wildlife research associated with windpower developments in 16 U.S. states and Alberta, Canada. Research experience includes baseline avian and bat surveys, threatened and endangered species assessments, avian and bat mortality studies, rare plant surveys, and assessing indirect effects to birds and other wildlife. He is currently project manager for the first large-scale greater sage-grouse telemetry research study to quantify impacts of wind energy development on sage-grouse. He has prepared several risk assessments for proposed wind farms, prepared an EA for a proposed wind development on F.E. Warren Air Force Base in Wyoming, contributed to several other NEPA documents for wind power developments, and has served as an expert witness during hearings related to wind project permitting. He has extensive experience with bat/wind power interactions and has been invited to

present several talks on this subject at national wind power workshops and conferences. He was Project Manager for avian research associated with a proposed off-shore windpower development off Long Island, NY. He is a member of the National Wind Coordinating Committee Wildlife Working Group and is the author/coauthor of 27 publications and 30 presentations at scientific meetings on wind power interactions with birds and bats.

Wildlife Research and Management: Mr. Johnson is a Certified Wildlife Biologist and has over 23 years experience surveying birds throughout the U.S. using circular plot, line transect and spot-mapping techniques; capturing birds in mist nets and funnel traps; and conducting avian patagial tag and radiotelemetry studies. He has prepared a habitat suitability model for Northern Great Plains mule deer; evaluated helicopter and ground surveys of mule deer populations for estimating sex and age composition; prepared a compendium on research and management of mountain lions; evaluated elk and bighorn sheep habitat use through observations and radiotelemetry and evaluated indirect effects of grasshopper control insecticides on sage-grouse.

Endangered Species: Mr. Johnson is formally trained and certified in black-footed ferret, Mexican spotted owl, pygmy rabbit, Ute's ladies-tresses and Colorado butterfly plant inventory techniques. He is also trained in Habitat Conservation Plans for endangered species. He has conducted numerous searches for T&E plants, diurnal and nocturnal spotlighting searches for ferrets, aerial surveys for bald eagles, and live-trapping surveys for the threatened Preble's meadow jumping mouse. He has assessed effects of construction activities on endangered, threatened, candidate and other sensitive wildlife species and provided mitigation measures to protect sensitive species for over 50 construction projects for Biological Assessment, Environmental Assessment, and Environmental Impact Statement purposes. Mr. Johnson was an invited participant in a discussion group to assist in the design and future development of the Wyoming Natural Diversity Database to track status of rare plant and animal species in Wyoming.

NEPA Studies: Mr. Johnson has extensive experience conducting NEPA compliance studies for construction projects. He assisted preparation of an Environmental Impact Statement for an off-channel reservoir in the Greybull River Valley, WY. He has prepared environmental assessments for a wind farm, a new water treatment plant, the Klamath Tribes Casino in OR, a new U.S. Forest Service campground, expansion of a fish hatchery, a new water storage tank and pipeline, several highway construction projects, and for reclamation of abandoned mines. He is currently preparing the greater sage-grouse portions of EISs for the Chokeycherry/Sierra Madre wind energy project in Carbon County, Wyoming and the Mountain States Transmission Intertie (MSTI) transmission line project in Montana and Idaho.

Wetlands: Mr. Johnson is certified as a Professional Wetland Scientist. He is formally trained in wetland delineations and has delineated over 4,500 acres of jurisdictional wetland using the Corps of Engineers 1987 manual throughout WY, CO and ID on over 60 project sites. He was selected by the Corps of Engineers to peer review the Great Plains Region and Western Mountains, Valleys and Coast Region supplements to the 1987 Corps of Engineers wetland delineation manual. He is formally trained in wetland construction and has selected wetland mitigation sites and assisted engineers with numerous designs of created wetlands for mitigation purposes. He has also applied habitat models to 28 ponds on abandoned bentonite mines in Wyoming to determine waterfowl habitat values prior to reclamation and designed reclamation plans to improve habitat values. He has assessed wetland functions and values, monitored success of numerous created wetlands, and applied for numerous Section 404 permits.

Vegetation Studies: Mr. Johnson has extensive experience sampling vegetation. He prepared a weed management plan and collected quantitative data on weed cover to establish baseline conditions prior to implementing the plan. He collected transect data on willows and alders along 7.5 miles of stream south of Rawlins, WY to establish baseline conditions of woody riparian habitats used for mitigation purposes. He has collected quantitative plot and transect data on over 30 created and restored wetlands. In 1995 and 1996, he monitored success of reclamation of the 41-mile Wahsatch Sour Gas Gathering System pipeline on the Utah/Wyoming border through quantifying vegetation species composition and % cover. He has identified wetland plants on over 60 project sites while conducting wetland delineations. In the summer of 1984, he collected quantitative vegetation data on an elk winter range in southern WY. In the summers of 1979-82, he was employed by the USDA Agricultural Research Service, where he collected extensive vegetation data on reclaimed mined lands in southeast WY. He has mapped vegetation, described vegetation types, and prepared the vegetation portion of numerous EIS's, EA's, and BA's. He has also conducted numerous searches for rare and sensitive plant species prior to construction activities in Wyoming, Idaho, Colorado, Oregon and Washington.

Toxicological Studies: Mr. Johnson has extensive experience determining effects of pesticides and other contaminants on terrestrial and aquatic systems for FIFRA and NRDA studies. Field activities include avian surveys; small mammal livetrapping; wildlife mortality searches; radiotelemetry studies on birds; and collecting biological samples for residue analysis. He has supervised 17 field studies to assess effects on terrestrial and aquatic wildlife of pesticides in NY, WA, TX, IA, MD, NJ, PA, LA and FL, and was principal investigator for a NRDA field study to assess effects of heavy metal contamination on songbirds in ID. He evaluated avian exposure to selenium downstream of an oil field in WY by collecting aquatic invertebrates and fish for selenium analyses. He prepared a protocol and report for estimating level of avian mortality from organochlorine exposure on the Rocky Mountain Arsenal in CO. He authored avian death and behavior sections for a NOAA injury determination NRDA guidance document for incidents involving oil. He has reviewed literature on hazards of the rodenticide zinc phosphide to non-target wildlife and provided recommendations for re-registration. He has also served as Study Director for studies conducted to determine pesticide residue levels in pears, apples, citrus and processed apple and citrus products in WA, CA, and FL, and as field principal investigator to measure pesticide residues in potato processing waste used as livestock feed in ID.

Water Quality: Mr. Johnson conducted a 10-year study to monitor water quality along the North Fork of the Shoshone River and associated tributaries for the Cody-Yellowstone Highway construction project. He has monitored water quality and macroinvertebrate composition and abundance using standard monitoring techniques as well as by applying EPA's rapid bioassessment protocol (RBP). He used RBP to assess effects of an oil spill in Little Goose Creek, Sheridan, WY. He collected water quality data at two lakes in Cheyenne and provided recommendations to improve the lakes for fisheries. He analyzed data collected on 2 streams by the Lake DeSmet Conservation District and assessed stream condition in light of TMDL standards, and performed field studies to assess effects on aquatic communities of high concentrations of chloride and selenium in a stream downstream of an oil field. He also has extensive experience monitoring effects of pesticides on fish and aquatic invertebrates in IA, MD, and LA, and has conducted fish kill investigations in MD.

SCIENTIFIC ORGANIZATION MEMBERSHIPS

National Wind Coordinating Collaborative Wildlife Working Group
 Ecological Society of America
 The Wildlife Society - TWS Wildlife Toxicology Working Group, TWS Wyoming Chapter
 Society of Wetland Scientists
 Bat Conservation International
 Wyoming Bird Records Committee
 North American Grouse Partnership

ADDITIONAL TRAINING

Habitat Conservation Planning for Endangered Species, U.S. Fish & Wildlife Service, National Conservation Training Center, Shepherdstown, WV, June 2010
 Arid West Supplement to Wetland Delineation Manual, Wetland Training Institute, Cheyenne, WY, July 2007
 Pygmy rabbit identification and survey techniques, Bureau of Land Management, Kemmerer, WY, January 2006
 Effective Application for Individual Permits. U.S. Army Corps of Engineers, Denver, CO, February 2005
 Bat Conservation and Management Workshop, Bat Conservation International, Portal, AZ, June 2004
 Wetland plant identification, Wetland Training Institute, Laramie, WY, August 2002
 Wetland construction and restoration, Wetland Training Institute, Orlando, FL, January 2002.
 Identification and survey techniques for the threatened Ute ladies'-tresses and Colorado butterfly plant, Natural Diversity Database, University of Wyoming, Laramie & Goshen Counties, WY, August 2000.
 Preparing environmental reports for USDA Rural Utilities Service water projects, Casper, WY, July 2000.
 Introduction to Global Positioning Systems (GPS), Trimble Navigation, Cheyenne, WY, September 1995.
 Mexican spotted owl inventory and monitoring Procedures, U.S. Forest Service, Payson, Arizona, May 1994.
 Basic wetland delineation, Wetland Training Institute, San Diego, CA, February 1993.
 Statistical design for studies of resource selection by animals, WEST, Inc., Denver, CO, January 1993.
 Black-footed ferret survey techniques, U.S. Fish and Wildlife Service, Laramie, WY, May 1992.
 FIFRA Good Laboratory Practices (GLPs), Garndal Associates, Cheyenne, WY, January 1992.
 Supervisory development, Life Dynamics, Easton, MD, January 1991.
 Biotelemetry workshop, Telonics, Inc., Laramie, WY, March 1986.

Manuscript reviewer for the *Journal of Wildlife Management*, *Wildlife Society Bulletin*, *Environmental Toxicology and Chemistry*, *Journal of Applied Ecology*, *Ecological Applications*, and the *Journal of Agricultural and Food Chemistry*.

PROFESSIONAL PUBLICATIONS

- Johnson, G.D.** and S.E. Stephens. 2010. Wind Power and Bio Fuels: A Green Dilemma for Wildlife Conservation. Chapter 8 *In: Energy Development and Wildlife Conservation in Western North America*. D. E. Naugle, Ed., Island Press, Washington, D.C. In Press.
- Strickland, M. D., E. B. Arnett, W. P. Erickson, D. H. Johnson, **G. D. Johnson**, M. L., Morrison, J.A. Shaffer, and W. Warren-Hicks. 2010. Studying wind energy/wildlife interactions: a guidance document. National Wind Coordinating Collaborative, Washington, D.C., USA. In Press.
- Johnson, G.D.** and M.J. Holloran. 2010. Greater Sage-Grouse and Wind Energy Development: A Review of the Issues. Renewable Northwest Project, Portland, Oregon.
- Arnett, E.B., W.K. Brown, W.P. Erickson, J.K. Fiedler, B.L. Hamilton, T.H. Henry, A. Jain, **G.D. Johnson**, J. Kerns, R.R. Koford, C.P. Nicholson, T. O'Connell, M.D. Piorkowski, and R.D Tankersley, Jr. 2008. Patterns of bat fatalities at wind energy facilities in North America. *Journal of Wildlife Management* 72: 61-78.
- Erickson, W., D. Strickland, D. Young, and **G. Johnson**. 2009. A Summary of Avian and Bat Fatality at Wind Facilities in the U.S. Pages 14-18 in Proceedings of the National Wind Coordinating Collaborative Wind Wildlife Research Meeting VII, October 28-29, 2008, Milwaukee, WI. S. S. Schwartz, ed. RESOLVE, Inc., Washington, D.C.
- Johnson, G.D.**, M.D. Strickland, W.P. Erickson, and D.P. Young, Jr. 2007. Use of data to develop mitigation measures for wind power development impacts to birds. Pages 241-257 *In Birds and Wind Farms, Risk Assessment and Mitigation*. M. de Lucas, G.F.E. Janss, and M. Ferrer, (eds.). Quercus Press, Madrid, Spain.
- Strickland, M.D., W.P. Erickson, D.P. Young, Jr., and **G.D. Johnson**. 2007. Selecting study designs to evaluate the effect of windpower on birds. Pages 117-136 *In Birds and Wind Farms, Risk Assessment and Mitigation*. M. de Lucas, G.F.E. Janss, and M. Ferrer, (eds.). Quercus Press, Madrid, Spain.
- Kunz, T.H., E.B. Arnett, W.P. Erickson, A.R. Hoar, **G.D. Johnson**, R.P. Larkin, M.D. Strickland, R.W. Thresher, and M.D. Tuttle. 2007. Ecological impacts of wind energy development on bats: questions, research needs and hypotheses. *Frontiers in Ecology and the Environment* 5:315-324.
- Erickson, W.P., **G.D. Johnson**, and D.P. Young, Jr. 2005. A summary and comparison of bird mortality from anthropogenic causes with an emphasis on collisions. Page 1029-1042 *in Bird Conservation Implementation and Integration in the Americas: Proceedings of the Third International Partners in Flight Conference*, Volume 2. U.S Forest Service General Technical Report PSW-GTR-191.
- Johnson, G.D.** 2005. A review of bat mortality at wind-energy developments in the United States. *Bat Research News* 46:45-49.
- Johnson, G.D.** 2005. A review of bat collision mortality at wind farms. Proceedings of the Windpower 2005 Conference and Exhibition. American Wind Energy Association, Washington, D.C.
- Johnson, G.D.** 2005. Overview of available bat mortality studies at wind farms. Pages 9-11 *in Proceedings of the Onshore Wildlife Interactions with Wind Developments: Research Meeting V*. November 3-4, 2004, Lansdowne, VA. S. S. Schwartz, ed. RESOLVE, Inc., Washington, D.C.
- Johnson, G.D.**, M.K. Perlik, W.P. Erickson, and M.D. Strickland. 2004. Bat activity, composition and collision mortality at a large wind plant in Minnesota. *Wildlife Society Bulletin* 32:1278-1288.
- Johnson, G.D.** and E.B. Arnett. 2004. A bibliography of bat interactions with wind turbines. Bat Conservation International, Austin, Texas.
- Johnson, G.D.** 2004. A review of bat impacts at wind farms in the U.S. Pages 46-50 *in Proceedings of the Wind Energy and Birds/Bats Workshop: Understanding and Resolving Bird and Bat Impacts*. Washington, D.C., May 18-19, 2004. S. S. Schwartz, ed. RESOLVE, Inc. Washington, D.C.
- Johnson, G.D.**, W.P. Erickson, M.D. Strickland, M.F. Shepherd, D.A. Shepherd, and S.A. Sarappo. 2003. Mortality of bats at a large-scale wind power development at Buffalo Ridge, Minnesota. *The American Midland Naturalist* 150:332-342.
- Johnson, G.D.**, M.K. Perlik, W.P. Erickson, M.D. Strickland, D.A. Shepherd, and P. Sutherland, Jr. 2003. Bat interactions with wind turbines at the Buffalo Ridge, Minnesota Wind Resource Area: An assessment of

- bat activity, species composition, and collision mortality. Electric Power Research Institute, Palo Alto, California, and Xcel Energy, Minneapolis, Minnesota. EPRI report # 1009178.
- Johnson, G.D.**, W.P. Erickson, M.D. Strickland, M.F. Shepherd, D.A. Shepherd, and S.A. Sarappo. 2002. Collision mortality of local and migrant birds at a large-scale wind power development on Buffalo Ridge, Minnesota. *Wildlife Society Bulletin* 30:879-887.
- Erickson, W.P., **G. D. Johnson**, D. P. Young, Jr., M. D. Strickland, R.E. Good, M. Bourassa, K. Bay. 2002. Synthesis and comparison of baseline avian and bat use, raptor nesting and mortality information from proposed and existing wind developments. Bonneville Power Administration, Portland, Oregon.
- Johnson, G.D.**, S.G. Harsy, J. Geronimo, and J.M. Wise. 2001. Orthophenylphenol and Phenylhydroquinone residues in citrus fruit and processed citrus products after post-harvest fungicidal treatments with sodium orthophenylphenate in California and Florida. *Journal of Agricultural and Food Chemistry* 49:2497-2502.
- Erickson, W.P., **G.D. Johnson**, M.D. Strickland, D.P. Young, Jr., K.J. Sernka and R.E. Good. 2001. Avian collisions with wind turbines: A summary of existing studies and comparisons to other sources of avian collision mortality in the United States. National Wind Coordinating Committee (NWCC) Resource Document. August 2001. NWCC, Washington, D.C. 62pp.
- Strickland, M.D., W.P. Erickson, **G.D. Johnson**, D. Young and R. Good. 2001. Risk reduction avian studies at the Foote Creek Rim Wind Plant in Wyoming. Pages 107-114 in Proceedings of the National Avian-Wind Power Planning Meeting IV. National Wind Coordinating Committee/RESOLVE. Washington, D.C.
- Strickland, M.D., **G.D. Johnson**, W.P. Erickson, and K. Kronner. 2001. Avian studies at wind plants located at Buffalo Ridge, Minnesota and Vansycle Ridge, Oregon. Pages 38-52 in Proceedings of the National Avian-Wind Power Planning Meeting IV. National Wind Coordinating Committee/RESOLVE. Washington, D.C.
- Erickson, W.P., M.D. Strickland, **G.D. Johnson**, and J.W. Kern. 2000. Examples of statistical methods to assess risk of impacts to birds from windplants. Pages 172-182 in Proceedings of the National Avian-Wind Power Planning Meeting III. National Wind Coordinating Committee/RESOLVE. Washington, D.C.
- Strickland, M.D., **G.D. Johnson**, W.P. Erickson, S.A. Sarappo and R.M. Halet. 2000. Avian use, flight behavior and mortality on the Buffalo Ridge, Minnesota Wind Resource Area. Pages 70-79 in Proceedings of the National Avian-Wind Power Planning Meeting III. National Wind Coordinating Committee/RESOLVE. Washington, D.C.
- Strickland, M.D., D.P. Young, Jr., **G.D. Johnson**, W.P. Erickson, and C.E. Derby. 2000. Wildlife monitoring studies for the SeaWest Wind Power development, Carbon County, Wyoming. Pages 55-63 in Proceedings of the National Avian-Wind Power Planning Meeting III. National Wind Coordinating Committee/RESOLVE. Washington, D.C.
- Johnson, G.D.**, D.J. Audet, J.W. Kern, L.J. LeCaptain, M.D. Strickland, D.J. Hoffman and L.L. McDonald. 1999. Lead exposure in passerines inhabiting lead contaminated floodplains in the Coeur d'Alene River Basin, Idaho, USA. *Environmental Toxicology and Chemistry* 18:1190-1194.
- Johnson, G.D.**, M.D. Strickland, J.P. Buyok, C.E. Derby, and D.P. Young, Jr. 1999. Quantifying impacts to riparian wetlands associated with reduced flows along the Greybull River, Wyoming. *Wetlands* 19:71-77.
- Erickson, W. P., **G.D. Johnson**, M.D. Strickland, K. Kronner, P.S. Becker, and S. Orloff. 1999. Baseline avian use and behavior at the CARES wind plant site, Klickitat County, Washington. NREL Publication No. SR-500-26902, National Renewable Energy Laboratory, Golden, CO. 75pp.
- Johnson, G.D.**, J. Geronimo, and D.L. Hughes. 1997. Diphenylamine residues in apples (*Malus domestica* Borkh.), cider, and pomace following commercial controlled atmosphere storage. *Journal of Agricultural and Food Chemistry* 45:976-979.
- Strickland, M.D., **G. D. Johnson**, W.P. Erickson, S. Sarappo and R. Halet. 1997. Assessing impacts to birds from the Buffalo Ridge, Minnesota windplant development. Pages 281-290 in Proceedings of the 1997 American Wind Energy Association Annual Meeting. American Wind Energy Association, Washington, D.C.
- Johnson, G.D.**, D.P. Young, Jr., W.P. Erickson, M.D. Strickland, and L.L. McDonald. 1996. Assessing river habitat selection by waterfowl wintering in the South Platte River, Colorado. *Wetlands* 16:542-547.
- Johnson, G.D.** and K.A. Fagerstone. 1994. Primary and secondary hazards of zinc phosphide to nontarget wildlife - a review of the literature. U.S. Department of Agriculture Animal and Plant Health Inspection Service DWRC Research Report No. 11-55-005. 26pp.

- Johnson, G.D.**, H.O. Krueger, and R.T. Balcomb. 1993. Effects on wildlife of Brace 10G applications to corn in south-central Iowa. *Environmental Toxicology and Chemistry* 12:1733-1739.
- Johnson, G.D.**, D.A. Palmer, H.O. Krueger, and D.L. Fischer. 1993. Stability of residues and brain cholinesterase activity in carcasses of northern bobwhite exposed to three organophosphate insecticides. *Environmental Toxicology and Chemistry* 12:673-676.
- Johnson, G.D.**, J.L. Pebworth, and H.O. Krueger. 1991. Retention of transmitters attached to passerines using a glue-on technique. *Journal of Field Ornithology* 62:486-491.
- Johnson, G.D.** and M.S. Boyce. 1991. Survival, growth, and reproduction of captive-reared sage grouse. *Wildlife Society Bulletin* 19:88-93.
- Johnson, G.D.** and M.S. Boyce. 1990. Feeding trials with insects in the diet of sage grouse chicks. *Journal of Wildlife Management* 54:89-91.
- Johnson, G.D.** 1989. First record of a purple gallinule in Wyoming. *Western Birds* 20:136.

POPULAR ARTICLES

- R. Kepple and **G. Johnson**. 2010. Leaves of Grass. *Wyoming Wildlife* 74:13-19.
- Johnson, G.** 2010. Simpson Ridge Greater Sage-Grouse Telemetry Study. *Grouse Partnership News*: In Press.
- Johnson, G.** and R. Kepple. 2009. Butterflies of the Bird World. *Wyoming Wildlife* 73:20-27.
- Johnson, G.**, R. Dorn and J. Dorn. 2005. Checklist of the birds of Cheyenne, Wyoming and vicinity. Cheyenne-High Plains Audubon Society, Cheyenne, Wyoming.
- Johnson, G.D.** 1987. The grouse and the grasshopper. *Wyoming Wildlife* 51:4-11.

PAPERS PRESENTED AT REGIONAL AND NATIONAL MEETINGS

- Johnson, G.**, W. Erickson, D. Solick, C. Nations, J. Ritzert, M. Sonnenberg, and K. Bay. 2010. Relationships between bat fatality and weather, marine radar, Anabat, and night vision data at a wind energy facility in Illinois. Accepted for presentation at the National Wind Coordinating Collaborative Wind Wildlife Research Meeting VIII, October 2010, Lakewood, CO.
- Johnson, G.**, C. LeBeau and M. Holloran. 2010. Greater Sage-Grouse Habitat Use and Population Demographics at the Simpson Ridge Wind Resource Area, Carbon County, Wyoming. Accepted for presentation at the National Wind Coordinating Collaborative Wind Wildlife Research Meeting VIII, October 2010, Lakewood, CO.
- Johnson, G.** 2010. Sage-grouse and wind energy development: A review of the issues. Invited presentation to the Renewable Northwest Project Board of Directors and Quarterly Member Meeting, June 2010, Portland, OR.
- Johnson, G.**, C. LeBeau, and J. Beck. 2010. Evaluation of Greater Sage-Grouse Reproductive Habitat Response to Wind Energy Development in South-Central Wyoming. Invited presentation to the Bureau of Land Management Sage-Grouse Research Meeting, March 2010, Rawlins, WY.
- Strickland, D. and **G. Johnson**. 2010. Renewable Northwest Project Sage-Grouse White Paper. Invited presentation to the American Wind Energy Association Wind Power Project Siting Workshop, February 2010, Denver, CO.
- Johnson, G.** 2010. Greater sage-grouse telemetry study for the Simpson Ridge Wind Energy Project, Carbon County, Wyoming. Invited presentation to the Medicine Bow Conservation District Board of Directors meeting, February 2010, Medicine Bow, WY.
- Rollins, K.E., D.K. Meyerholz, **G.D. Johnson**, A.P. Capparella and S.S. Loew. 2010. Cause of Bat Mortality at Wind Farms: Barotrauma vs. Collision. Presented at the 11th Annual Illinois State University Chapter of Phi Sigma Research Symposium, April 2010, Bloomington, IL.
- Johnson, G.** and M. Holloran. 2009. Greater Sage-Grouse Telemetry Study to Assess Response to Wind Energy Development in Carbon County, Wyoming. Presented at the 28th Meeting of the Prairie Grouse Technical Council, October 2009, Portales, NM.
- Johnson, G.**, R.E. Good, M. Carder, D. Tidhar and K. Bay. 2009. American Golden Plover Response to Wind Turbines in Benton County, Indiana. Presented at the Midwest Wildlife Society Conference, December 2009, Springfield, IL.
- Erickson, W.E., M.D. Strickland, D.P. Young, Jr., and **G.D. Johnson**. 2008. Avian Collisions with Wind Turbines: A Summary of Avian and Bat Fatality at Wind Facilities in the United States. Presented at the National Wind Coordinating Collaborative Wind Wildlife Research Meeting VII, October 2008, Milwaukee, WI.

- Kunz, T.H., E.B. Arnett, W.P. Erickson, **G.D. Johnson**, R.P. Larkin, M.D. Strickland, R.W. Thresher, and M.D. Tuttle. 2006. Ecological impacts of wind energy development on bats: questions, research needs and hypotheses. Presented at the 36th Annual North American Symposium on Bat Research, October 2006, Wilmington, NC.
- Glendinning, S., **G. Johnson**, K. Vainstein, and S. Geoghegan. 2006. Avian use studies at two proposed wind resource areas in southern Alberta. Presented at the Alberta Chapter of The Wildlife Society annual meeting, March 2006, Lethbridge, AB.
- Johnson, G.D.** 2005. A review of bat collision mortality at wind farms. Presented at the Windpower 2005 Conference and Exhibition, May 2005, Denver, CO.
- Johnson, G.D.** 2004. Overview of available bat mortality studies at wind farms. Invited presentation to the National Wind Coordinating Committee Onshore Wildlife Interactions with Wind Developments: Research Meeting V. November 2004, Washington, D.C.
- Johnson, G.D.** and J.D. Jeffrey. 2004. Bat interactions with wind turbines in the West. Invited presentation to the Wind Project Siting: Emerging Issues and Technologies Meeting. October 2004, Portland, OR.
- Erickson, W.P., M.D. Strickland, **G. Johnson**, and D. Young. 2004. Update on bird and bat mortality at wind projects. Invited presentation to The Wildlife Society 11th Annual Meeting, Sept. 2004, Calgary, Alberta.
- Johnson, G.D.** 2004. Bat impacts at wind turbine projects. Invited presentation to the Wind Energy and Birds/Bats Workshop: Understanding and Resolving Bird and Bat Impacts. May 2004, Washington, D.C.
- Strickland, M.D., W.P. Erickson and **G.D. Johnson**. 2004. Non-fatality impacts to birds from wind plants. Invited presentation to the Wind Energy and Birds/Bats Workshop: Understanding and Resolving Bird and Bat Impacts. May 2004, Washington, D.C.
- Bach, L., **G. Johnson** and B. Keeley. 2004. Bat interactions with wind turbines. Presented at the 13th International Bat Research Conference, August 2004, Mikolajki, Poland.
- Johnson, G.D.** 2003. Bat activity and mortality at the Buffalo Ridge, Minnesota Wind Resource Area. Invited presentation to the Electric Power Research Institute Water and Ecosystems Summer Advisory Council Meeting, July 2003, Missoula, MT.
- Perlik, M.K., B.R. McMillan, **G.D. Johnson**, and J.D. Krenz. 2003. Species composition of bat mortalities caused by wind-energy turbines at Buffalo Ridge, Minnesota. Presented at the Society of Conservation Biology annual meeting, June 2003, Duluth, MN.
- Johnson, G.D.** and J.D. Jeffrey. 2003. Bat collision mortality at windplants. Invited presentation to the Washington Chapter of The Wildlife Society annual meeting, April 2003, Fort Worden, WA.
- Johnson, G.D.** 2002. What is known and not known about bat collision mortality at windplants? Invited presentation to the Avian Interactions With Wind Power Structures Workshop, October 2002, Jackson, WY.
- Erickson, W.P., **G.D. Johnson**, M.D. Strickland, and D.P. Young, Jr. 2002. Comparing wind to other developments - how does wind measure up? Invited presentation to the Avian Interactions with Wind Power Structures Workshop, October 2002, Jackson, WY.
- Strickland, M.D., **G.D. Johnson**, and W.P. Erickson. 2002. Application of methods and metrics at the Buffalo Ridge, Minnesota windplant. Invited presentation to the Avian Interactions with Wind Power Structures Workshop, October 2002, Jackson, WY.
- Johnson, G.D.** and W.P. Erickson. 2001. Use of scavenger removal and searcher efficiency data to estimate total numbers of wildlife fatalities. Presented at the Society of Environmental Toxicology and Chemistry 22nd Annual Meeting, November 2001, Baltimore, MD.
- Johnson, G.D.**, W.P. Erickson, M.D. Strickland, S.A. Sarappo and R.M. Halet. 2001. Avian collision mortality at the Buffalo Ridge, Minnesota windpower development area. Invited presentation at the Edison Electric Institute Natural Resources Workshop, May 2001, Palm Springs, CA.
- Young, D.P., Jr., W.P. Erickson, **G.D. Johnson**, M.D. Strickland, and C.E. Derby. 1999. Raptor risk assessment: results associated with windpower development. Presented at The Wildlife Society 6th Annual Meeting, September 1999, Austin, TX.
- Johnson, G.D.**, T.L. McDonald, M.D. Strickland, and L.L. McDonald. 1998. Quantifying avian mortality due to organochlorine exposure on the Rocky Mountain Arsenal National Wildlife Refuge, Colorado. Presented at the Society of Environmental Toxicology and Chemistry 19th Annual Meeting, November 1998, Charlotte, NC.

- Erickson, W.P., M.D. Strickland, **G.D. Johnson**, and J.W. Kern. 1998. Examples of statistical methods to assess risk of impacts to birds from windplants. Invited presentation at the National Avian - Wind Power Planning Meeting III, May 1998, San Diego, CA.
- Strickland, M.D, **G. D. Johnson**, and W.P. Erickson. 1998. Avian use, flight behavior and mortality on the Buffalo Ridge, Minnesota Wind Resource Area. Invited presentation at the National Avian - Wind Power Planning Meeting III, May 1998, San Diego, CA.
- Strickland, M.D, D.P. Young, Jr., **G.D. Johnson**, W.P. Erickson, and C.E. Derby. 1998. Wildlife monitoring studies for the SeaWest Windpower Plant, Carbon County, Wyoming. Invited presentation at the National Avian - Wind Power Planning Meeting III, May 1998, San Diego, CA.
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