

Curriculum Vitae

WILLIAM I. BOARMAN

Current Address:

Conservation Science Research and Consulting
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Education:

Ph.D., Ecology, Rutgers University, New Jersey; 1992. Dissertation title: “The evolution of avian song: a study of the impact of sound propagation on animal communication.”
M.A., Biology, San Francisco State University; 1987. Thesis title: “Adaptations of avian vocalizations to sound transmission characteristics of central California vegetation.”
B.A., Biology, California State University, Northridge; 1980.

Research Interests:

General - behavioral ecology, conservation biology, evolution, ecology, ornithology.
Specific - predation on endangered species, ecology of threatened and endangered species, population fragmentation and preserve design, impacts of roads on wildlife, translocation of wildlife

Positions Held:

Academic, Research, and Teaching

Science Consultant, Proprietor, Conservation Science Research & Consulting; 2005 – present
Senior Manager/Senior Ecologist, AMEC Earth & Environment; 2005-2006.

Research Wildlife Biologist, U. S. Geological Survey, Biological Resources Division
(formerly National Biological Service), Desert Tortoise Research Project; 1993 - 2005.

Adjunct Professor of Biology, San Diego State University; 2005 – present.

Associate of Agricultural Extension, University of California, Riverside; 2005 – present.

Adjunct Assistant Professor of Biology, University of California, Riverside; 1997 - 2001.

Wildlife/Research Biologist (Raven Specialist), U. S. Bureau of Land Management, Desert Tortoise Research Group; 1990 - 1993.

Visiting Assistant Professor, Biology, Pacific Lutheran University; 1989 - 1990.
Teaching Assistant, Ornithology, Behavioral Biology, General Biology, Rutgers University; 1984 - 1988.
Seminar Organizer, Ecology Graduate Student Seminars, Rutgers University; 1985 - 1986.
Lecturer, Zoology, San Francisco State University; 1982 - 1983.
President & Seminar Coordinator, Avian Studies Group, San Francisco State University; 1981 - 1983.
Teaching Assistant, Animal Ecology, Vertebrate Biology, Ornithology, Human Biology, San Francisco State University and California State University, Northridge; 1976 - 1982.
Nature Interpreter, National Park Service and U. S. Forest Service; 1974, 1975, 1976, 1981

Research

Research projects in which I have participated include (in lead or support roles): translocation, movement patterns, fragmentation, reproductive output, and causes of mortality in desert tortoises; predatory behavior, demography, and ecology of common ravens; analysis of human threats to desert tortoise populations and effectiveness of recovery actions; restoration of Salton Sea; environmental components of selection on avian song; adaptive radiation, behavior and systematics of native Hawaiian birds; thermal physiology, behavior and habitat selection of pine snakes; sibling recognition of tern and herring gull chicks; survey of breeding birds of Alcatraz Island; functional significance of song dialects in white-crowned sparrows.

Proprietor and Founder, Conservation Science Research & Consulting; 2005 – present.
Research Wildlife Biologist, U. S. Geological Survey, Biological Resources Division (formerly National Biological Service), Desert Tortoise Research Project; 1993 - 2005.
Wildlife/Research Biologist (Raven Specialist), U. S. Bureau of Land Management, Desert Tortoise Research Group; 1990 - 1993.
Research Assistant, Joanna Burger, Director, Ecology Graduate Program, Rutgers University; 1985 - 1989.
Field Assistant, Lewis Petrinovich and Luis Baptista, California Academy of Sciences; 1983.
Field Associate, Birds and Mammals, California Academy of Sciences; 1982 - 1984.
Volunteer Researcher, National Park Service; 1981 - 1982.

Special Assignments

Author of draft Conservation Strategy for Burrowing Owls in California for California Department of Fish and Game; 2007 – present.
Work group member, Raven Management Work Group, Desert Managers' Group; 2004 – present. Provides advice to and coordination for development and implementation of U.S. Fish and Wildlife Service's raven management plan.
Committee member, Desert Tortoise Recovery Plan Assessment Committee, US Fish and Wildlife Service; 2003-2004. Evaluated current state of knowledge of the status of and threats to desert tortoise populations and made recommendations for future management for recovery of the species.

Team member, Tiger Team for Salton Sea Restoration. 1999. Developed a science plan for overseeing the restoration of the Salton Sea.

Team member, Planning Team for West Mojave Coordinated Management Plan, Bureau of Land Management; 1997- 2002. Providing technical expertise to ensure scientific rigor in large, multiagency (27 agencies) regional resource management plan. Primary activities include evaluating data on threats to desert tortoise populations, coordinating and editing reports (including threats, management recommendations, and detailed GIS-based range maps) on 98 animal and plant species of special concern, providing technical advice concerning management of desert tortoise populations.

Consultations

Scientist, U.S. Marine Corps, for raven population and nesting survey at the Palms Marine Corps Air Ground Combat Center, Twentynine Palms, CA; 2010 – present.

Chief Scientist and Management Team Leader, U.S. Army, Translocation of desert tortoises at National Training Center, Fort Irwin, CA; 2006 – present.

Science Consultant, California Department of Fish and Game, Development of Statewide Conservation Strategy for Burrowing Owls; 2006 – present.

Science Consultant, Earth Guardians, Analysis of desert tortoise population trends in Arizona; 2007-2008.

Science Consultant, USFWS, Development of a protocol for surveying landfills for their current management practices for reducing raven access to garbage; 2007-2008.

Science Consultant, U.S. Air Force, Small Business Innovative Research (SBIR) Grant to develop an concept for a new system for electronically tracking desert tortoises; 2006 – 2007.

Environmental Consultant, US Air Force (Edwards Air Force Base), Programmatic biological assessment; 2005-2006.

Science Consultant, USFWS, Analysis of 38-year trend in raven populations in the Mojave Desert; 2005.

Science Consultant, Hyundai of America, Evaluation of raven management program; 2005.

Senior Ecologist, AMEC Earth and Environment, endangered and sensitive species assessment in Mojave Desert; 2005.

Environmental Consultant, Endangered species survey and assessment, Washington, property owners' group; 1989 - 1991.

Assistant Consultant, Survey of avian use at Liberte' Point, New Jersey, Dresdner & Associates; 1985 - 1989.

Assistant Consultant, Survey of avian use at David's Island, New York, Dresdner & Associates; 1987 - 1988.

Assistant Consultant, Ornithological survey of Pohoiki powerline, Hawaii, Bishop Museum; 1986.

Assistant Consultant, Survey of avian Use at Harsimus Cove, New Jersey, Dresdner & Associates; 1986 - 1987.

Publications:

In Print or press

- Todd C. Esque, Ken E. Nussear, K. Kristina Drake, Andrew D. Walde, Kristin H. Berry, Roy C. Averill-Murray, A. Peter Woodman, William I. Boarman, Phil A. Medica, Jeremy Mack, Jill S. Heaton. 2010. Effects of subsidized predators, resource variability, and human population density on desert tortoise populations in the Mojave Desert, USA. *Endangered Species Research* 12:167-177.
- Brehme, Cheryl S., William I. Boarman, Stacie A. Hathaway, Anita Herring, Lisa Lyren, Mark Mendelsohn, Krista Pease, Matthew Rahn, Carlton Rochester, Drew Stokes, Greta Turschak, and Robert N. Fisher. In press. Spatial and temporal patterns across an ecological boundary: allochthonous effects of a young saltwater lake on a desert ecosystem. *Journal of Arid Environments*.
- Webb, W. C., W. I. Boarman, and J. T. Rottenberry. 2009. Movements of juvenile common ravens (*Corvus corax*) in an arid environment. *Journal of Wildlife Management* 73:72-81.
- Fleischer, Robert C., William I. Boarman, Elena G. Gonzalez, Alvaro Godinez, Kevin E. Omland, Sarah Young, Lauren Helgen, Gracia Syed, and Carl E. McIntosh. 2008. As the raven flies: using genetic data to infer the history of invasive common raven (*Corvus corax*) populations in the Mojave Desert. *Molecular Ecology* 17:464-474.
- William B. Kristan, III, and William I. Boarman. 2007. Effects of anthropogenic developments on common raven nesting biology in the west Mojave Desert. *Ecological Applications* 17(6):1703–1713.
- Boarman, William I., and Marc Sazaki. 2006. A highway's road-effect zone for desert tortoises (*Gopherus agassizii*). *Journal of Arid Environments* 65:94-101.
- Mendelsohn, M. B., W. I. Boarman, R. N. Fisher, and Hathaway, S. A. 2007. Diversity patterns in the terrestrial avifauna of the Salton Sea. *Journal of Arid Environments* 67:248-261.
- Alonso R., A. Bytnerowicz, and W. I. Boarman. 2005. Atmospheric dry deposition in the vicinity of the Salton Sea, California—I: Air pollution and deposition in a desert environment. *Atmospheric Environment* 39:4671-4679.
- Alonso R., A. Bytnerowicz, J. L. Yee, and W. I. Boarman. 2005. Atmospheric dry deposition in the vicinity of the Salton Sea, California—II: Measurement and effects of an enhanced evaporation system. *Atmospheric Environment* 39:4681-4689.
- Boarman, W. I., M. A. Patten, R. J. Camp, and S. J. Collis. 2006. Ecology of a population of subsidized predators: common ravens in the central Mojave Desert, California. *Journal of Arid Environments* 65:94-101..
- Mendelsohn, M. B., W. I. Boarman, and R. N. Fisher. 2006. Diversity patterns in the terrestrial avifauna of the Salton Sea. *Proceedings 2002 Partners in Flight National Symposium, Asilomar, CA. USDA Forest Service Gen. Tech. Rep. PSW-GTR-191.*
- Webb, W. C., W. I. Boarman, and J. T. Rotenberry. 2004. Common raven juvenile survivorship in a human augmented landscape. *Condor* 106:517-528.
- Kristan, W. B, III, W. I. Boarman, and J. Crayon. 2004. Diet composition of common ravens across the urban-wildland interface of the west Mojave desert. *Wildlife Society Bulletin* 32:244-253.
- Boarman, William I. 2003. Managing a subsidized predator population: reducing common raven predation on desert tortoises. *Environmental Management*. 32:205-217.

- Kristan, W. B, III, and W. I. Boarman. 2003. Spatial distribution of risk of desert tortoise (*Gopherus agassizii*) predation by common ravens (*Corvus corax*). *Ecology* 84:2432-2443.
- Boarman, W. I. and S. J. Coe. 2002. An evaluation of the distribution and abundance of common ravens at Joshua Tree National Park. *Bull. Southern California Acad. Sci.* 101:86-102.
- Omland, K. E., C. L. Tarr, W. I. Boarman, Marzluff, J. M., and R. C. Fleischer. 2000. Cryptic genetic variation and paraphyly in ravens. *Proc. Royal Society of London B* 267:2475-2482.
- Boarman, W. I. and S. Coe. 2000. Finding value in pre-existing datasets. *Conservation Biology in Practice* 1:32-34.
- Boarman, W. I. and B. Heinrich. 1999. Common Raven. *In* A. Poole and F. Gill, (eds.), *The Birds of North America*, No. 476. The Birds of North America, Inc., Philadelphia, PA.
- Knight, R. L., R. J. Camp, W. I. Boarman, and H. A. L. Knight. 1999. Predatory bird populations in the East Mojave Desert, California. *Great Basin Naturalist* 59:331-338.
- Boarman, W. I., M. L. Beigel, Glenn C. Goodlett, and M. Sazaki. 1998. A passive integrated transponder system for tracking animal movements. *Wildlife Society Bulletin* 26:886-891.
- Boarman, W. I., Goodlett, T., G. C. Goodlett. 1998. Review of radio transmitter attachment techniques for chelonian research and recommendations for improvement. *Herpet. Rev.* 29:26-33.
- W. I. Boarman, M. Sazaki, and W. B. Jennings. 1997. The effect of roads, barrier fences, and culverts on desert tortoise populations in California, USA. *In* J. Van Abbema (ed.), *Proceedings: Conservation, Restoration, and Management of Tortoises and Turtles-An International Conference*, pp. 54-58. New York Turtle and Tortoise Society, New York.
- W. I. Boarman. 1997. Predation on turtles and tortoises by a "subsidized predator." *In* J. Van Abbema (ed.), *Proceedings: Conservation, Restoration, and Management of Tortoises and Turtles-An International Conference*, pp. 103-104. New York Turtle and Tortoise Society, New York.
- Boarman, W. I. and M. Sazaki. 1996. Highway mortality in desert tortoises and small vertebrates: success of barrier fences and culverts. Pp. 169-173. *In*: G. Evink, D. Zeigler, P. Garrett, and J. Berry, *Trends in addressing transportation related wildlife mortality: Proceedings of the Transportation Related Wildlife Mortality Seminar*. Environmental Management Office, Department of Transportation, Tallahassee, FL.
- Boarman, W. I. and K. H. Berry. 1995. Common ravens in the southwestern U.S. Pp. 73-75. *in* *Our living resources: a report to the nation on the distribution, abundance, and health of U.S. plants, animals, and ecosystems*. National Biological Service, Washington, DC.
- Sazaki, M., W. I. Boarman, G. Goodlett, and T. Okamoto. 1995. Risk associated with long-distance movements by desert tortoises. *Proc. 1994 Desert Tort. Council Symp.* 1995:33-48.
- Boarman, W. I. and M. Sazaki. 1994. Methods for measuring the effectiveness of tortoise-proof fences and culverts along Highway 58, California. *Proc. 1987-1991 Desert Tort. Council Symp.* 1994:284-291.

- Boarman, William I. 1993. When a native predator becomes a pest: a case study. For: Conservation and resource management (S.K. Majumdar, et al., eds.), pp. 186-201. Penn. Acad. Sci. Easton, PA.
- Boarman, W.I., et al. 1993. Measuring the effectiveness of a tortoise-proof fence and culverts: status report from first field season. Proc. 1992 Desert Tort. Council Symp. 1993:126-142.
- Boarman, William I. 1993. The raven management program of the Bureau of Land Management: status as of 1992. Proc. 1992 Desert Tort. Council Symp. 1993:113-116.
- Boarman, W.I. 1992. Problems with management of a native predator on a threatened species: raven predation on desert tortoises. Proc. 15th Vertebrate Pest Conf. 15: 48-52.
- Boarman, W.I. 1992. The evolution of avian song: a study of the impact of sound propagation on animal communication. Ph.D. Dissertation. Rutgers University, Piscataway.
- Burger, J., W.I. Boarman, L. Kurzava and M. Gochfeld. 1991. Effect of experience with pine (*Pituophis melanoleucus*) and king (*Lampropeltis getulus*) snake odors on y-maze behavior of pine snake hatchlings. J. Chem. Ecol. 17:79-87.
- Boarman, W.I. 1989. The breeding birds of Alcatraz Island: life on the rock. West. Birds. 20: 19-24.
- Burger, J., M. Gochfeld, and W.I. Boarman. 1988. Experimental evidence for sibling recognition in Common Terns (*Sterna hirundo*). Auk 105: 142-148.
- Burger, J, R. T. Zappalorti, M. Gochfeld, W.I. Boarman, M. Caffrey, V. Doig, S.D. Garber, B. Lauro, M. Mikovsky, C. Safina, and J. Saliva. 1988. Hibernacula and summer den sites of pine snakes (*Pituophis melanoleucus*) in the New Jersey pine barrens. J. Herpet. 22:425-433.
- Boarman, W.I. 1985. Adaptations of avian vocalizations to sound transmission characteristics of central California vegetation. MA Thesis. San Francisco State University, San Francisco.
- Fleischer, R.C., W.I. Boarman, and M.L. Cody. 1985. Asynchrony of song series in the Bewick's Wren and Wrentit. Anim. Behav. 33: 674-676.
- Baptista, L.F., W.I. Boarman, and P. Kondianidis. 1983. Behavior and taxonomic status of Grayson's Dove. Auk 100: 907-919.
- Howell, J.A., D. LeClergue, S. Paris, W.I. Boarman, A.R. Degange, and L.C. Binford. 1983. First nests of Heerman's Gull in the United States. West. Birds 14:39-46.

Mini Book Reviews

- Boarman, W. I. 2004. Complete Guide to Antarctic Wildlife: Birds and Mammals of the Antarctic Continent and the Southern Ocean, by Hadoram Shirihai. Condor.
- Boarman, W. I. 2004. Handbook of Australian, New Zealand and Antarctic Birds. Volume 5 Tyrant-flycatchers to Chats, by P. J. Higgins, J. M. Peter, and W. K. Steele. Condor.
- Boarman, W. I. 2004. The Hand Guide to the Birds of New Zealand, by Hugh Robertson and Barrie Heather. Condor.
- Boarman, W. I. 2004. Birds of Australia , by Ken Simpson, Nicolas Day, and Peter Trusler. Condor.

- Boarman, W. I. 2003. A Photographic Guide to the Birds of India and the Indian Subcontinent, Including Pakistan, Nepal, Bhutan, Bangladesh, Sri Lanka and the Maldives, by Bikram Grewal, Bill Harvey, and Otto Pfister. Condor.
- Boarman, W. I. 2003. Birds of India, Pakistan, Nepal, Bangladesh, Bhutan, Sri Lanka and the Maldives and Birds of Nepal, by Richard Grimmett, Carol Inskipp, and Tim Inskipp. Condor.
- Boarman, W. I. 2003. A Field Guide to the Birds of Sri Lanka, by John Harrison. Condor.
- Boarman, W. I. 2003. A Field Guide to the Birds of Korea, by Woo-Shin Lee, Tae-Hoe Koo, and Jin-Young Park. Condor.
- Boarman, W. I. 2003. A Guide to the Birds of the Philippines, by Robert S. Kennedy, Pedro C. Gonzales, Edward C. Dickinson, Hector C. Miranda, Jr., and Timothy H. Fisher. Condor.
- Boarman, W. I. 2003. A Guide to the Birds of Southeast Asia, by Craig Robson. Condor.
- Boarman, W. I. 2003. Birds of Thailand, by Craig Robson. Condor.
- Boarman, W. I. 2003. A Field Guide to the Birds of China, by John MacKinnon. Condor.
- Boarman, W. I. 2003. A Field Guide to the Birds of West Malaysia and Singapore, by Allen Jeyarajasingam and Alan Pearson. Condor.
- Boarman, W. I. 2003. Field Guide to the Birds of Cuba, by Orlando H. Garrido and Arturo Kirkconnell. Condor.
- Boarman, W. I. 2003. The Birds of the Cayman Islands, by Patricia E. Bradley. Condor.
- Boarman, W. I. 2003. Where to Watch Birds in Central America, Mexico and the Caribbean, by Nigel Wheatley and David Brewer. Condor.
- Boarman, W. I. 2003. Review: Birds of Eastern Africa, by B. van Perlo. Condor.
- Boarman, W. I. 2003. Review: Birds of Southern Africa, by B. van Perlo. Condor.
- Boarman, W. I. 2003. Review: A Guide the Birds of Western Africa, by N. Borrow and R. Demey. Condor.
- Boarman, W. I. 2003. Review: The Birds of Angola, by W. R. J. Dean. Condor.
- Boarman, W. I. 2003. Review: The Birds of Africa, Vol. VI, by C. H. Fry et al. Condor.

Technical Reports

- Boarman, W. I. and W. B. Kristan. 2008. Status of Sonoran desert tortoise populations in Arizona: 1987-2006. Report to WildEarth Guardians, Santa Fe, NM.
- Boarman, W. I. and W. B. Kristan. 2006. Trends in Common Raven Populations in the Mojave and Sonoran Deserts: 1968-2004. Report to U.S. Fish and Wildlife Service, Ventura, CA. Contract No: 814405M055.
- Boarman, William I. and William B. Kristan. 2006. Evaluation of Evidence Supporting the Effectiveness of Desert Tortoise Recovery Actions. Report to the Desert Managers Group. US Geological Survey, Sacramento, CA.
- W. B. Kristan, W. I. Boarman, and W. C. Webb. 2005. Stage-structured Matrix Models of Common Ravens (*Corvus corax*) in the West Mojave Desert, CA. USGS-Western Ecological Research Center, Sacramento, Ca.

- Boarman, William I., William K. Kristan, William C. Webb, and H. Douglas Chamblin. 2005. Raven Ecology in the Mojave Desert at Edwards Air Force Base. U. S. Geological Survey. Western Ecological Research Center, Sacramento, CA.
- Chamblin, H. D. and W. I. Boarman. 2005. Ecology of Common Ravens at the Marine Corps Air Ground Combat Center, Twentynine Palms, California. U. S. Geological Survey. Western Ecological Research Center, Sacramento, CA.
- Chamblin, H. D. and W. I. Boarman. 2005. Using plastic markers to track common raven movement. U. S. Geological Survey. Western Ecological Research Center, Sacramento, CA.
- Tracy, C. R., R. Averill-Murray, W. I. Boarman, D. Delehanty, J. Heaton, E. McCoy, D. Morafka, K. Nussear, B. Hagerty, and P. Medica. 2004. Desert Tortoise Recovery Plan Assessment. 217 pp.
- Note: this is a substantial report of 7 chapters and 217 pages prepared over an 18 month period. The report was commissioned by the US Fish and Wildlife Service to address desert tortoise conservation and the renewal of a recovery plan for the threatened desert tortoise. Island Press is now considering the report for publication.*
- Boarman, W.I., Steven R. Beissinger, Robert Budd, and Richard L. Knight. 2004. Report from expert panel on management of ravens at Point Reyes National Seashore. U.S. Geological Survey, Western Ecological Research Center, Sacramento, CA.
- Boarman, W. I. 2002. Reducing predation by common ravens on desert tortoises in the Mojave and Colorado Deserts. U.S. Geological Survey, Western Ecological Research Center, Sacramento, CA.
- Boarman, W. I. 2002. Threats to desert tortoise populations: a critical review of the literature. U.S. Geological Survey, Western Ecological Research Center, Sacramento, CA.
- Boarman, W.I. 2002. Desert Tortoise (*Gopherus agassizii*). In: Boarman, W.I. and K. Beaman, editors. The sensitive plant and animal species of the Western Mojave Desert. U. S. Geological Survey, Western Ecological Research Center, Sacramento, CA.
- ShIPLEY, F.S., D.A. Barnum, G.F. Black, W.I. Boarman, W.G. Duffy, M.J. Mac, D.M. Miller, T.E. Roche, R.A. Schroeder, and R.G. Thiery. 1999. Science support for restoration of the Salton Sea. Recommendations of the USGS Tiger Team to the Salton Sea Science Subcommittee.
- Boarman, W.I. 1996. Effectiveness of fences and culverts for protecting desert tortoises along California Highway 58: 1995 report to U.S. Fish and Wildlife Service. Unpublished report to U.S. Fish and Wildlife Service, Portland, OR.
- Boarman, W.I. 1995. Effectiveness of Fences and Culverts for Protecting Desert Tortoises along California State Highway 58: 1991-1994. Rept. to Calif. Energy Commission.
- Boarman, W.I., R. J. Camp, M. Hagan, W. Deal. 1995. Raven abundance at anthropogenic resources in the western Mojave Desert, California. Report to Edwards Air Force Base, CA.
- Boarman, W.I. 1994. Effectiveness of Fences and Culverts for Protecting Desert Tortoises along California State Highway 58: 1994 Report to USFWS. Ann. Rept. to US Fish and Wildl. Serv. on Research Subpermit No. NBSDTR-1.
- Boarman, W.I. 1994. Effectiveness of fences and culverts for protecting desert tortoises along California Highway 58: summary of 1993 field season. Rept. to Calif. Energy Commission.

- Bureau of Land Management. 1994. Environmental Assessment for Experimental Program to Shoot Ravens. Riverside, CA. (authored by W.I. Boarman)
- Boarman, W.I. 1993. Effectiveness of Fences and Culverts for Protecting Desert Tortoises along California State Highway 58: Annual Report for USFWS Scientific Research Permit. Rept. to US Fish and Wildl. Serv.
- Bureau of Land Management. 1993. Environmental Assessment for Experimental Program to Shoot Ravens. Riverside, CA. (authored by W.I. Boarman)
- Boarman, W.I. 1993. Effectiveness of fences and culverts for protecting desert tortoises along California Highway 58: summary of 1992 field season. Rept. to Calif. Energy Commission.
- Boarman, W.I. 1992. Effectiveness of fences and culverts for protecting desert tortoises along California Highway 58: summary of initial field season. Rept. to Calif. Energy Commission.
- Boarman, W.I. 1991. Effectiveness of fences and culverts for protecting desert tortoises along California Highway 58: final report on study design. Rept. to Calif. Energy Commission.

Conference and Symposium Organization

- Co-chaired International Symposium of Raven Ecology, Conservation, and Management, Metelen, Germany, 2004.
- Organized and chaired symposium on Road Ecology at the 2004 Desert Tortoise Council Symposium; February 2004.
- Co-chair of Scientific Program for International Conference on Turtles and Tortoises, Dominguez Hills, CA, July 1998.
- Served on program committee for International Conf. on Conservation, Restoration, and Management of Turtles, Purchase, NY; July 1993.
- Organized and chaired symposium on Raven Predation on Desert Tortoises at the 1992 Desert Tortoise Council Symposium; March 1992.

Papers Presented by WIB or Co-author at the Following Meetings:

- Cooper Ornithological Society, Tempe, AZ (presented by coauthor), 1976, "Acoustical avoidance in insular birds".
- American Association for the Advancement of Science, Pacific Division, San Francisco, CA, 1983, "Environmental components of selection on avian vocal signals".
- Bureau of Biological Research, Rutgers University, NJ, 1985, "Environmental components of selection on avian vocal signals".
- New Jersey Academy of Sciences, Ryder College, NJ, 1985, "Environmental components of selection on avian vocal signals".
- International Ornithological Congress, Ottawa, Canada, 1986, "Evolution of complex avian vocal signals".
- Population Biologists of New England, Queens College, NY, 1987, "Evolution of complex avian vocal signals".

American Ornithologists' Union, San Francisco State University, CA, 1987, "Sibling recognition by calls in common terns", and "The evolution of vocal signals in complex habitats"

International Behavioral Ecology Congress, Vancouver, Canada, 1988, "Effect of sound degradation on vocal communication".

Desert Tortoise Council Symposium, Las Vegas, NV, 1991, "Measuring the effectiveness of fences and culverts for protecting tortoises along California State Highway 58".

Society for the Study of Evolution, Hilo, HI, 1991 "Effect of sound degradation on vocal communication" (publication # F.5), and "Measuring the effectiveness of fences and culverts for protecting tortoises".

Vertebrate Pest Conference, Newport Beach, CA, 1992, "Problems with management of a native predator on a threatened species: raven predation on desert tortoises".

Desert Tortoise Council Symposium, Las Vegas, NV, 1992, "Raven predation on desert tortoises".

Desert Tortoise Council Symposium, Las Vegas, NV, 1992, "Introduction to mini-symposium on raven predation on tortoises".

Desert Tortoise Council Symposium, Las Vegas, NV, 1992, "Measuring the effectiveness of a tortoise-proof fence and culverts: status report from first field season".

Briefing for BLM Deputy Director and Management Oversight Group for Management of Desert Tortoises, 1992, "Raven predation on desert tortoises," "Long-distance and home range movements by desert tortoises," and "Vehicle impacts on desert tortoises"

International Conference on Conservation, Restoration, and Management of Tortoises and Turtles, Purchase, NY, 1993, "Predation on turtles and tortoises by subsidized predators".

International Conference on Conservation, Restoration, and Management of Tortoises and Turtles, Purchase, NY, 1993, "The effect of roads, barrier fences, and culverts on desert tortoise populations in California, USA".

International Conference on Conservation, Restoration, and Management of Tortoises and Turtles, Purchase, NY, 1993, panel presentation and discussion on "Predation on turtles"(INVITED).

International Conference on Conservation, Restoration, and Management of Tortoises and Turtles, Purchase, NY, 1993, panel presentation and discussion on "Barrier fences and long-distance movements by turtles"

Center-wide meeting, Midcontinent Ecological Science Center, Ft. Collins, CO, 1993, "Research activities of the Desert Tortoise Research Project in California"

Desert Tortoise Council Symposium, Palm Springs, CA, 1993, "Tortoise behavior: highways, fences, and preserve design".

Desert Tortoise Council Symposium, Palm Springs, CA, 1993, "Status of the Bureau of Land Management's raven management and experimental removal program".

Cooper Ornithological Society, Sacramento, CA, 1993, "Raven predation on desert tortoises".

Desert Tortoise Council Symposium, Tucson, AZ (presented by coauthor), 1994, "Risks associated with long-distance movements by desert tortoises".

International Behavioral Ecology Congress, Nottingham, UK, 1994, "Risk associated with long-distance movements by desert tortoises"(PRESENTED).

Desert Tortoise Council Symposium, Las Vegas, NV, 1995, "Reduction in mortalities of desert tortoises and other vertebrates along a fenced highway".

Desert Tortoise Council Symposium, Las Vegas, NV, 1995, “Common raven use of anthropogenic resources at Edwards Air Force Base: Summer 1994”.

International Congress of Chelonian Conservation, Gonfarron, France, 1995, “Reduction in mortalities of desert tortoises and other vertebrates along a fenced highway/The ecology of common raven predation on threatened desert tortoise populations”.

Center-wide/Interagency meeting, Midcontinent Ecological Science Center, Ft. Collins, CO, 1995, “Risk associated with long-distance movements by desert tortoises”

Desert Tortoise Council Symposium, Las Vegas, NV, 1996 (4 Presented papers).

Mojave Research Symposium, Redlands, CA, 1996. “Highways and vertebrates”

Transportation Related Wildlife Mortality Seminar, Orlando, FL, 1996. “Highway mortality in desert tortoises and small vertebrates: success of barrier fences and culverts”

World Congress of Herpetology, Prague, Czech Republic, 1997. “Effect of highways on reptile and desert tortoise populations and a method to reduce mortality”

Desert Tortoise Council Symposium, Tucson, AZ, 1998. “Seasonal and annual variation in common raven abundance in a human-dominated landscape”

International Turtle and Tortoise Conference, Dominguez Hills, CA 1998. “Effect of highways on reptile and desert tortoise populations and a method to reduce mortality”

American Ornithologists’ Union, Ithaca, NY, 1999. “Movement patterns of common ravens in the Mojave Desert”

Mojave Desert Science Symposium, Las Vegas, NV, 1999. “Subsidized predators in the Mojave Desert”

The Wildlife Society, Western Regional Meeting, Riverside, CA, 2000. “Highway impacts on desert vertebrates and a way to reduce mortality and fragmentation”(3 papers)

Cooper Ornithological Society, Riverside, CA, 2000. “Ravens as subsidized predators”

Department of Defense Environmental Council, San Diego, CA, 2000. “Research on tortoise mortality in the Mojave Desert, California”

Society for Conservation Biology, Missoula, MT, 2000. “Highway impacts on desert vertebrates and a way to reduce mortality and fragmentation.””

Ecological Society of America, Snowbird, UT, 2000. “Preventing vertebrate mortality along highways”

Society for Conservation Biology, Hilo, Hawaii, 2001. “Raven juvenile survival in the western Mojave Desert”

Gopher Tortoise Council Symposium, Gainesville, FL, 2002, Banquet talk: “Connoisseurs Guide to Roadkill”

Gopher Tortoise Council Symposium, Gainesville, FL, 2002, “Subsidized predation: raven predation on desert tortoises”

National Ornithological Congress, New Orleans, LA, 2002. “The ecology of a subsidized predator: common raven”

Desert Tortoise Council Symposium, Las Vegas, NV, 2003. “Ravens as subsidized predators”

Corvid Pest Symposium at Wildlife Society-Western Section Meeting, Irvine, CA, 2003. “Ravens as subsidized predators”

Road Ecology Symposium at Desert Tortoise Council Symposium, Las Vegas, NV, 2004. “Road effect zone for desert tortoises: problems and solutions”

International Symposium on Raven Biology, Conservation, and Management, Metelen, Germany, 2004. (4 presented papers).

Salton Sea Science Symposium. San Diego, CA, 2005. (presented 1 paper, coauthored 3 papers).

Desert Tortoise Council Symposium, Tucson, AZ, 2005. Evaluation of effectiveness of desert tortoise recovery actions.

Desert Tortoise Council Symposium, Las Vegas, AZ, 2006. Demography of Ravens in the Mojave Desert: Recent Analyses.

Desert Tortoise Council Symposium, Las Vegas, AZ, 2008. Moving Day: Large-scale Translocation of Desert Tortoises at Fort Irwin, California and Neither Here Nor There: Current Status of Sonoran Desert Tortoise Populations in Arizona.

Desert Tortoise Council Symposium, Mesquite, NV, 2009. (submitted 4 papers (2 to present, 2 coauthored).

Society for Conservation Biology, Beijing, China, 2009. (submitted 2 papers).

External Funding (Grants, Awards, Contracts, Agreements):

Contract, U.S. Army, Fort Irwin; 2007-2011 (\$15,000,000)

Contract, WildEarth Guardians; 2007-2008 (\$15,000)

Contract, U.S. Fish and Wildlife Service; 2007 (\$2500).

Contract, California Department of Fish and Game; 2006-2009 (\$107,000)

Contract, Hyundai Corporation; 2006-2009 (\$95,000)

Contract, U.S. Fish and Wildlife Service; 2005 (\$2500).

Contract, U.S. Air Force; 2005-2006 (\$125,000)

Interagency Agreement, USDA, Wildlife Services; 2004 (\$15,000).

Interagency Agreements, National Park Service, US Fish & Wildlife Service, U.S. Marine Corps; 2003 (\$74,000).

Research Agreement, U. S. Marine Corps; 2002-2004 (\$90,000).

Interagency Agreements, Bureau of Land Management 1998-2002 (\$250,000).

Research Agreement, U. S. Air Force; 1999 (\$125,000).

Research Agreement, U. S. Air Force; 1998 (\$125,000).

Research Agreement, U. S. Army; 1997 (\$70,000).

Research Agreements, U. S. Air Force; 1996 (\$136,000).

Research Agreement, U. S. Army; 1995 (\$70,000).

Research Agreement, U. S. Air Force; 1995 (\$125,000).

Research Agreement, U. S. Air Force; 1994 (\$26,000).

Research Agreement, Federal Highways Administration and Nevada Dept. of Transportation; 1992 (\$57,000).

Research Contract, California Energy Commission; 1990 - 1993 (\$160,000).

Research Contract, Southern California Edison & L. A. Co. Museum of Natural History; 1990 (\$20,000).

Research Grant (PI was R.C. Fleischer), National Geographic Society; 1989 (\$20,000).

Excellence Fellowship, Graduate School, Rutgers University; 1989.

Grant-in-Aid of Research, Sigma Xi; 1987, 1988.

Frank M. Chapman Memorial Grant, American Museum of Natural History; 1988.

Summer Fellowship, Hutcheson Memorial Forest, Rutgers University; 1986, 1987, 1988.

Research Grant, Leathem Scholarship Fund, Rutgers University; 1985, 1986, 1988.

Travel Grant for annual meeting of American Ornithologists' Union, Graduate School, Rutgers University; 1987.
Research Grant, Hawaii Audubon Society; 1987.
Research Award, E.A. Bergstrom Memorial Fund, Association of Field Ornithologists; 1987.
Dissertation Research Support Grant, Graduate School, Rutgers University; 1987.
Travel Grant for 19th International Ornithological Congress, Graduate School, Rutgers University; 1986.
Rutgers Merit Scholars Award, Rutgers University; 1984, 1985.

Travel Experience:

Africa (4 countries), Central and South America (3 countries), Mexico, Europe (10 countries), Canada, United States (including Alaska and Hawaii)