

Curriculum Vitae

**MARY ANNE BISHOP, Ph.D.**

Research Ecologist,  
Prince William Sound Science Center  
300 Breakwater, PO Box 705  
Cordova, Alaska 99574  
907-424-5800 x 228; [mbishop@pwssc.org](mailto:mbishop@pwssc.org)

---

**EDUCATION**

- Ph.D. Department of Wildlife and Range Sciences, University of Florida, Gainesville, 1988.
- M.S. Wildlife and Fisheries Sciences, Department of Wildlife and Fisheries Sciences, Texas A & M University, College Station, 1984.
- B.B.A. School of Business, University of Wisconsin, Madison, 1974.

**RECENT PROFESSIONAL EXPERIENCE**

Research Ecologist, Prince William Sound Science Center, Cordova, Alaska, Jun 1999-present  
Research Wildlife Biologist, Copper River Delta Institute, Pacific Northwest Research Station, U.S. Forest Service, Cordova, Alaska, 1990-1994 and 1997- May1999  
Research Wildlife Biologist, Center for Streamside Studies and Dept. Fisheries, University of Washington, assigned to Copper River Delta Institute, Cordova, Alaska, 1994-1997  
Acting Manager, Copper River Delta Institute, Pacific Northwest Research Station, U.S. Forest Service, Cordova, Alaska, 1992-1993.  
Wildlife Biologist, Forestry and Range Sciences Laboratory, Pacific Northwest Research Station, U.S. Forest Service, LaGrande, Oregon, 1989-1990.

**INTERNATIONAL EXPERIENCE**

Principal Investigator, Tibet Black-necked Crane Project, International Crane Foundation 1988-2009 in cooperation with:  
Tibet Plateau Institute of Biology, 1989-1993, 2002-2009  
Tibet Forestry Department, 1999-2001  
Tibet Agriculture Bureau, 1995-1996  
Visiting Researcher, Royal Society for the Protection of Nature, Kingdom of Bhutan, Feb 1989  
Visiting Scientist, Bombay Natural History Society, Bombay, India, Jan-Feb 1989  
Visiting Researcher, Northwest Plateau Institute of Biology, Academia Sinica, Xining, Qinghai, People's Republic of China, Jun 1987  
Undergraduate course work. Universidad Catolica de Chile, Santiago, Chile, 1972

**PUBLICATIONS**

*Organized by Themes*

**Fisheries & Estuarine Ecology**

- Bishop, M.A.** and J. Eiler. Migration patterns of spring-spawning Pacific Herring in Alaska's Prince William Sound. *Deep Sea Research II* (submitted).
- Lewandoski, S. and **M.A. Bishop**. Distribution of juvenile Pacific herring in relation to environmental and geospatial factors in Prince William Sound, Alaska. *Deep Sea Research II* (submitted).
- Eiler, J. and **M.A. Bishop**. 2016. Determining the post-spawning movements of Pacific herring, a small pelagic forage fish sensitive to handling, with acoustic telemetry. *Transactions of American Fisheries Society*. 145:2, 427-439, DOI: 10.1080/00028487.2015.1125948
- Bishop, M.A.**, B.F. Reynolds, and S.P. Powers. 2010. An *in situ*, individual-based approach to quantify connectivity of marine fish: ontogenetic movements and residency of lingcod. *PLoS ONE* 5(12): e14267

- Reynolds, B.F., S.P. Powers and **M.A. Bishop**. 2010. Application of Acoustic Biotelemetry to Assess Quality of Created Habitats for Rockfish and Lingcod in Prince William Sound, Alaska. *PLoS One* 5(8): e12130.
- Powers, S.P., **M.A. Bishop**, S. Moffitt and G.H. Reeves. 2007. Variability in Freshwater, Estuarine and Marine Residence of Sockeye Salmon (*Oncorhynchus nerka*) within the Copper and Bering River Deltas, Alaska. Pages 87-99 in C. A. Woody (ed) *Sockeye salmon evolution, ecology and management*. American Fisheries Society, Symposium 54, Bethesda, MD.
- Kline, T.K., C.A. Woody, **M.A. Bishop**, S.P. Powers and E.E. Knudsen. 2007. Preliminary Assessment Of Marine-Derived Nutrients In The Copper River Delta, Alaska Using Stable Isotope Analysis . Pages 51-72 in C. A. Woody (ed.) *Sockeye salmon evolution, ecology and management*. American Fisheries Society, Symposium 54, Bethesda, MD.
- Powers, S.P., **M.A. Bishop**, J. Grabowski and C.H. Peterson. 2006. Distribution of the invasive bivalve *Mya arenaria* L. on intertidal flats of southcentral Alaska. *Journal Sea Research* 55: 207-216.
- Thorne, R., G. Thomas and **M.A. Bishop**. 2006. Alternative Seafood Waste Disposal Procedures for Alaskan Waters. *Proc. Oceans 2006*, Boston, MA, Sept 18-21, 2006, IEEE Publications. 10.1109/OCEANS. 2006.306979.
- Powers, S.P., **M.A. Bishop**, J.H. Grabowski, and C.H. Peterson. 2002. Intertidal benthic resources of the Copper River Delta, Alaska, USA. *Journal Sea Research* 47: 13-23.
- Bishop, M.A.** and S.P. Green. 2001. Predation on Pacific herring (*Clupea pallasii*) spawn by birds in Prince William Sound, Alaska. *Fisheries Oceanography* 10 (1): 149-158.
- Cooney, R.T., J.R. Allen, **M.A. Bishop**, D.L. Eslinger, T. Kline, B.L. Norcross, *et al.* 2001. Ecosystem control of pink salmon (*Oncorhynchus gorbuscha*) and Pacific herring (*Clupea pallasii*) populations in Prince William Sound. *Fisheries Oceanography* 10(1): 1-13.

### Avian Ecology

- Bishop, M.A.**, J.B. Buchanan, B. McCaffery and J.A. Johnson. 2016. Spring stopover sites used by the Red Knot *Calidris canutus roselaari* in Alaska, USA: connectivity between Copper River Delta and Yukon-Kuskokwim River Delta. *Wader Study* 123(2): *in press*. doi:10.18194/ws.00035
- Weiser, E.L., R.B. Lanctot, S.C. Brown, J.A. Alves, P.F. Battley, R. Bentzen, J. Bêty, **M.A. Bishop**, *et al.* 2016. Effects of geolocators on hatching success, return rates, breeding movements, and *In* change in body mass in 16 species of Arctic-breeding shorebirds. *Movement Ecology* 4:12. DOI 10.1186/s40462-016-0077-6
- Bishop, M.A.**, J.T. Watson, K. Kuletz and T. Morgan. 2015. Pacific herring consumption by marine birds during winter in Prince William Sound, Alaska. *Fisheries Oceanography*. 24:1-13.
- Dawson, N.M., **M.A. Bishop**, K.J. Kuletz and A.F. Zuur. 2015. Using ships of opportunity to assess winter habitat associations of seabirds in subarctic coastal Alaska. *Northwest Science*. 89(2):111-128.
- Zuur, A.F., N. Dawson, **M.A. Bishop**, K. Kuletz, A.A Saveliev and E.N. Ieno. 2012. Two-stage GAMM applied on zero inflated Common Murre density data. Pages 155-188 *in* A.F. Zuur, A.A.Saveliev, E.N. Ieno (eds). *Zero Inflated and Generalized Linear Mixed Models with R*. Highland Statistics Ltd, Newburgh, United Kingdom.
- Wille M, G.J. Robertson, H. Whitney, **M.A. Bishop**, J.A. Runstadler, *et al.* 2011. Extensive Geographic Mosaicism in Avian Influenza Viruses from Gulls in the Northern Hemisphere. *PLoS ONE* 6(6): e20664. doi:10.1371/journal.pone.0020664.
- Taylor, A.R. and **M.A. Bishop**. 2008. Stopover site fidelity of a Western Sandpiper on the Copper River Delta, Alaska. *Waterbirds* 31: 294-297.
- Iverson, S.A., J.Y. Takekawa, S. Schwarzbach, C.J. Cardona, N. Warnock, **M.A. Bishop**, *et al.* 2008. Low prevalence of avian influenza virus in shorebirds on the Pacific Coast of North America. *Waterbirds* 31: 602-610.
- Takekawa, J.Y., S.A. Iverson, **M.A. Bishop**, A. McShea, M.J. Lodes and J.P. Dudley. 2007. Chapter 29: Use of Rapid Analysis Technologies for the Field Identification and On-Site Confirmation of Avian Influenza. Pages 519-529 in David Mello (ed.). *Biodetection Technologies* 4th Edition. Detection Knowledge Press. Brookline, Massachusetts.
- Williams, T.D., N. Warnock, J.Y. Takekawa and **M. A. Bishop**. 2007. Flyway Scale Variation in Plasma Triglyceride Levels as an Index of Refueling Rate in Spring-Migrating Western Sandpipers (*Calidris mauri*). *Auk* 124: 886-897.

- Bishop, M.A.**, N. Warnock and J.Y. Takekawa. 2006. Spring Migration Patterns in Western Sandpipers *Calidris mauri*. Pages 545-550 in G.C. Boere, C.A. Galbraith, and D.A. Stroud (eds.) *Waterbirds around the world*. The Stationery Office, Edinburgh, U.K.
- Bishop, M.A.**, N. Warnock and J. Takekawa. 2004. Differential spring migration of male and female Western Sandpipers at interior and coastal stopover sites. *Ardea* 92: 185-196.
- Warnock, N., J.Y. Takekawa and **M.A. Bishop**. 2004. Migration and stopover strategies of individual Dunlin along the Pacific Flyway. *Canadian Journal Zoology* 82: 1687-1697.
- Johnson, O.W., C.D. Adler, L.A. Ayres, **M.A. Bishop**, J.E. Doster, P.M. Johnson, *et al.*. 2004. Radio-tagged Pacific Golden-Plovers: Further insight concerning the Hawaii-Alaska migratory link. *Wilson Bulletin* 116: 158-162.
- Bishop, M.A.**, P. Meyers and P.F. McNeley. 2000. A method to estimate shorebird numbers on the Copper River Delta, Alaska. *Journal Field Ornithology* 71: 627-637.
- Butler, R.W., T.D. Williams, **M.A. Bishop** and N. Warnock. 1999. A reply to Hedenstrom and Weber. *Auk* 116: 563-564.
- Bishop, M.A.** and N. Warnock. 1998. Migration of Western Sandpipers: links between their Alaskan stopover areas and breeding grounds. *Wilson Bulletin* 110: 457-462.
- Warnock, N. and **M.A. Bishop**. 1998. Spring stopover ecology of migrant Western Sandpipers. *Condor* 100: 456-467.
- Butler, R.W., T.D. Williams, N. Warnock and **M.A. Bishop**. 1997. Wind assistance: a requirement for migration of shorebirds? *Auk* 114: 456-466.
- Johnson, O.W., N. Warnock, **M.A. Bishop**, A.J. Bennett, P.M. Johnson and R.J. Kienholz. 1997. Migration by radio-tagged Pacific Golden-Plovers from Hawaii to Alaska and their subsequent survival. *Auk* 114: 521-524.
- Iverson, G.C., S.E. Warnock, R.W. Butler, **M.A. Bishop** and N. Warnock. 1996. Spring migration of Western Sandpipers along the Pacific coast of North America: a telemetry study. *Condor* 98:10-21.
- Bishop, M.A.** 1992. Land use status and trends of potential whooping crane release sites in central Florida. Pages 131-144 in D. Wood, ed. *Proceedings 1988 Crane Workshop*. Florida Game Fresh Water Fish Commission, Tallahassee.
- McMillen, J.L., S.A. Nesbitt, **M.A. Bishop**, A.J. Bennett and L.A. Bennett. 1992. An evaluation of three areas for potential populations of whooping cranes in Eastern North America. Pages 285-294 in D. Wood, ed. *Proceedings 1988 Crane Workshop*. Florida Fresh Water Fish Commission, Tallahassee.
- Bishop, M.A.**, K.M. Portier, and M.W. Collopy. 1991. Sampling methods for aerial censuses of nesting Florida sandhill cranes in central Florida. Pages 235-239 in J. Harris, ed. *Proceedings 1987 International Crane Workshop*. International Crane Foundation, Baraboo, Wisconsin.
- Bishop, M.A.** 1991. Trapping cranes with alpha-chloralose (an oral tranquilizer). Pages 247-256 in J. Harris, ed. *Proceedings 1987 International Crane Workshop*. International Crane Foundation, Baraboo, Wisconsin.
- Bishop, M.A.** and M.W. Collopy. 1987. Productivity of Florida sandhill cranes on three sites in central Florida. Pages 257-263 in J.C. Lewis, ed. *Proceedings 1985 Crane Workshop*. Platte River Whooping Crane Habitat Maintenance Trust and U.S. Fish and Wildlife Service, Grand Island, Nebraska.
- Bishop, M.A.**, H.E. Hunt and R.D. Slack. 1987. Activity patterns of whooping cranes wintering on Aransas National Wildlife Refuge. Pages 167-171 in J.C. Lewis, ed. *Proceedings 1985 Crane Workshop*. Platte River Whooping Crane Habitat Maintenance Trust and U.S. Fish and Wildlife Service, Grand Island, Nebraska.
- Bishop, M.A.** and D.R. Blankinship. 1982. Dynamics of subadult flocks of whooping cranes at Aransas National Wildlife Refuge, Texas 1978-1981. Pages 180-189 in J.C. Lewis, ed. *Proceedings 1981 Crane Workshop*. National Audubon Society, Tavernier, Florida

### Tibetan Birds

- Bishop, M.A.**, D. Tsamchu and F. Li. 2012. Number and distribution of Black-necked Cranes wintering in Zhigatse Prefecture, Tibet Autonomous Region. *Chinese Birds* 3(3): 191-198.
- Lang, A., **M.A. Bishop** and A. LeSueur. 2007. An Annotated Checklist of the Wintering Birds of the Lhasa River Watershed and Yamzho Yumco, Tibet Autonomous Region. *Forktail* 23: 1-11.

- Bishop, M.A.** and D. Tsamchu. 2007. Tibet Autonomous Region January 2007 Survey for Black-necked Crane, Common Crane, and Bar-Headed Goose. *China Crane News* 11(1): 24-26.
- Bishop, M.A.** and D. Tsamchu. 2005. History and Influence of a Nature Reserve on a Local Population of Wintering Black-necked Cranes in Tibet. Pages 155-160 in Wang Qishan and Li Fengshan (eds.), *Crane Research in China*. Kunming: Yunnan Nationalities Publishing House.
- Tsamchu, D. and **M.A. Bishop**. 2005. Population and habitat use by Black-necked Cranes wintering in Tibet. Pages 44-48 in Wang Qishan and Li Fengshan (eds). *Crane Research in China*. Kunming: Yunnan Education Publishing House.
- Bishop, M.A.** and F. Li. 2002. Effects of farming practices in Tibet on wintering Black-necked Crane (*Grus nigricollis*) diet and food availability. *Biodiversity Science* 10: 393-398 (in Chinese).
- Bishop, M.A.**, J. Harris, and Z. Canjue. 2000. Agricultural management zones for Bar-headed Geese and Black-necked Cranes in Tibet. Pages 55-60 in, Wu Ning, D. Miller, Lu Zhi, and J. Springer, eds. *Tibet's Biodiversity Conservation and Management*. China Forestry Publishing House, Beijing.
- Li, F. and **M.A. Bishop**. 1999. Ecology and conservation of Black-necked Cranes (*Grus nigricollis*). Pages 2533-2543 in N.J. Adams, R.H. Slotow, eds. *Proc. XXII International Ornithological Congress*, Durban, South Africa. Johannesburg: Birdlife South Africa.
- Bishop, M.A.**, Z. Canjue, Y. Song, J. Harkness, and B. Gu. 1999. Winter habitat use by Black-necked Cranes *Grus nigricollis* in Tibet. *Wildfowl* 49: 228-241.
- Bishop, M.A.**, Y. Song, Z. Canjue, and B. Gu. 1997. Bar-headed Geese *Anser indicus* wintering in south-central Tibet. *Wildfowl* 48: 118-126.
- Bishop, M.A.** 1996. Black-necked Crane Species Account. Pages 184-193 in C.D. Meine and G.W. Archibald, eds. *The cranes: status survey and conservation action plan*. IUCN, Gland, Switzerland, and Cambridge, UK.
- Bishop, M.A.** 1996. Black-necked Crane. Pages 284-285 in D. Ellis, ed. *Cranes: their biology, husbandry and conservation*. Nat. Bio. Serv., Wash. DC & Int. Crane Found., Baraboo WI.
- Song, Y., **M.A. Bishop**, and Z. Canjue. 1994. The distribution and population sizes of Bar-headed Geese during winter in the area of the middle reaches of Yarlung Tsangpo River. *Journal Chinese Zoology* 29:27-30.
- Bishop, M.A.** 1994. People and black-necked cranes of the Tibetan Plateau. Pages 19-22 in H. Whitaker and C. Schimmel, eds. *Proc. Second Annual International Crane Symposium. People, Water and Wildlife: Human Population Impacts on Cranes*. National Audubon Society, Boulder, Colorado.
- Bishop, M.A.** 1993. The black-necked crane winter count 1991-1992. *Journal of the Ecological Society* 6:55-64.
- Dwyer, N., J. Harkness, **M.A. Bishop** and Z. Yaozhung. 1992. Black-necked cranes nesting in the Tibet Autonomous Region, P.R. China. *North American Crane Workshop* 6:75-80.

#### POPULAR SCIENCE ARTICLES

- Bishop, M.A.** 2002. Great possessions: Leopold's good oak. Pages 72-87 in R.L. Knight and S. Reidel, eds. *Aldo Leopold and the Ecological Conscience*. Oxford University Press, New York. (originally published *Wildlife Society Bulletin* 1998. 26: 732-740).
- Warnock, N., **M.A. Bishop** and J. Takekawa. 2005. Ecology of Western Sandpipers, Dunlins, and Dowitchers that Migrate through Western North America. *Birding* 37: 392-400
- Warnock, N. and **M.A. Bishop**. 1998. Northwest passages. *Natural History Magazine*. 107(4):50-53. (based on western sandpiper telemetry study).

#### RECENT TECHNICAL REPORTS

- Bishop, M.A.** 2015. Tracking Seasonal Movements of Adult Pacific Herring in Prince William Sound. Exxon Valdez Oil Spill Restoration Project Final Report (Project 14120111-B), Prince William Sound Science Center, Cordova, Alaska.
- Taylor, A. and **M.A. Bishop**. 2015. Black Turnstone: A Population Decline or Stopover Shifts in Prince William Sound? Final report to National Fish and Wildlife Foundation. 10 pp.
- Bishop, M.A.** 2014. Long-term monitoring of seabird abundance and habitat associations during late fall and winter in Prince William Sound. Pages 3:70-78 in T. Neher et al. Quantifying temporal and spatial variability across the Northern Gulf of Alaska to understand mechanisms of change. Science Synthesis Report of the Gulf Watch Alaska Program for Exxon Valdez Oil Spill Trustee Council.

- Bishop, M.A.** and K.J. Kuletz. 2013. Seasonal and Interannual trends in seabird predation on juvenile herring. Exxon Valdez Oil Spill Trustee Council Final Rept. Restoration project 10100132-H. 36pp.
- Bishop, M.A.** and S.P. Powers. 2013. Top-down regulation by predatory fish on juvenile herring in Prince William Sound. Exxon Valdez Oil Spill Trustee Council Final Rept. Restoration project 10100132-G. 61pp.
- Bishop, M.A.** 2011. Montague Island: A Crucial Stopover for Surfbirds and Black Turnstones Project 09–10–16. Final Report to the Prince William Sound Oil Spill Recovery Institute. 23pp.
- Bishop, M.A.** and K.J. Kuletz. 2011. Seabird Predation on Juvenile Herring in Prince William Sound. Exxon Valdez Oil Spill Restoration Project Final Report (Project 09081), Prince William Sound Science Center, Cordova, Alaska. 71pp.
- Morgan, T.C. and **M.A. Bishop**. 2011. Body condition of Marbled Murrelets: consequences for overwinter survival during a period of collapsed herring stocks. North Pacific Research Board Project Final Report 819. 27 pp.
- Suzuki, Y., and **M.A. Bishop**. 2011. Assessing The Caspian Tern Population & Diet At A Rapidly Expanding Colony On The Copper River Delta, Alaska. Final Report to US Fish & Wildlife Service Coastal Program. 7pp
- Bishop, M.A.**, T. Morgan and R. Federer. 2010. Marine Bird and Marine Mammal Surveys in the Prince William Sound Central Basin. Final report to Prince William Sound Oil Spill Recovery Institute. 17pp.
- Bishop, M.A.**, B.F. Reynolds and S.P. Powers. 2009. Tracking Movements of Lingcod *Ophiodon elongatus* in Prince William Sound Using Acoustic Tags and Arrays: Expanding PWSSC Partnerships, Infrastructure and Capacity. Final report to Prince William Sound Oil Spill Recovery Institute. 16pp.
- Reynolds, B.F., **M.A. Bishop**, and S.P. Powers. 2008. Residency and Movements of Copper Rockfish *Sebastes caurinus* and Lingcod *Ophiodon elongatus* in Nearshore Areas of Prince William Sound. North Pacific Research Board Project Final Report 0729. 20pp
- Powers, S.P. and **M.A. Bishop**. 2008. Intertidal Resources at Risk to Oil Spills: Copper River Delta, Alaska. Final report to Prince William Sound Oil Spill Recovery Institute. 117pp.
- Bishop, M.A.** 2007. Monitoring migrant and breeding shorebirds on barrier island beaches of the Copper River Delta, Alaska. Final Report to Alaska Dept. Fish and Game Nongame Program. 81pp
- Thorne, R.A., **M.A. Bishop**, R.E. Crawford, S. M. Gay, G.L. Thomas and K. George. 2007. Impacts of seafood waste discharge in Orca Inlet, Prince William Sound. Project G-040725 final report to Exxon Valdez Oil Spill Trustee Council. 120pp.
- Powers, S.P., **M.A. Bishop**, and G.H. Reeves. 2006. Estuaries as essential fish habitat for salmonids: Assessing residence time and habitat use of coho and sockeye salmon in Alaska estuaries. North Pacific Research Board Project Final Report 310. 63pp.
- Bishop, M.A.**, S.A. Iverson and S. Fritsch. 2006. Concept of operations: results and recommendations for use of rapid analysis technologies for the field identification and on-site confirmation of avian influenza: Copper River Delta, Alaska. Final Report. Prince William Sound Science Center. Cordova, AK 25 pp. +appendices
- Powers, S.P., **M.A. Bishop** and E. Clesceri. 2005. Characterization of energy and potential contaminant pathways in subarctic estuarine habitats: ecology of tidal flat communities of the Copper River Delta, Alaska. Final Report to Prince William Sound Regional Citizen's Advisory Council. 25pp.
- Warnock, N., **M.A. Bishop**, J.Y. Takekawa and T. Williams. 2004. Pacific Flyway Shorebird Migration Program: Spring Western Sandpiper migration – Northern Baja, California, Mexico to Alaska, 2004. Final Report. Pt. Reyes Bird Observatory, Stinson Beach, CA. 32pp.
- Bishop, M.A.** and S.P. Powers. 2003. Restoration of Razor Clam (*Siliqua patula*) Populations In Southeastern Prince William Sound, Alaska: Integrating Science, Management & Traditional Knowledge in the Development of a Restoration Strategy. Final Report to: Partners for Fish and Wildlife Coastal Program, Alaska Regional Office, U.S. Fish and Wildlife Service. 17pp.
- Warnock, N., **M.A. Bishop** and J.Y. Takekawa. 2002. Spring shorebird migration from Mexico to Alaska: Final Report 2002. Pt. Reyes Bird Observatory, Stinson Beach, CA. 22 pp.
- Warnock, N., **M.A. Bishop** and J.Y. Takekawa. 2001. Spring migration of Dunlin and Dowitchers along the Pacific Flyway 2001. Final Report. Pt. Reyes Bird Observatory, Stinson Beach, CA. 16pp.

## RESEARCH RECOGNITION AND AWARDS

- U.S. Forest Service 2001 Taking Wing Award, Capacity Building Partnerships Category. Awarded for "Spring migration of Dunlin & Dowitchers along the Pacific Flyway," 2002
- U.S. Forest Service 1997 Taking Wing Award, Investigations Category. Awarded for "Spring migration stopovers of Western Sandpipers on the Pacific Flyway," 1998
- Tibet Autonomous Regional Government, PR China, Development of Science and Technology in Tibet Award, Second Place. Awarded for "Black-necked Crane Winter Numbers and Habitats," 1994
- U.S. Forest Service 1993 Taking Wing Award, Investigations Category. Awarded for "Spring Migration Ecology of Western Sandpipers on the West Coast of North America," 1994
- Wildlife Conservation Society (formerly Wildlife Conservation International, New York Zoological Society). Research Fellow. Awarded for "Conservation of the endangered Black-necked Crane in Tibet Autonomous Region of China," 1993
- U.S. Forest Service. Certificate of Merit with cash award. For excellent performance as Acting Manager of the Copper River Delta Institute, 1993
- The Wildlife Society. Monograph Publication Award for "*A conservation strategy for the Northern Spotted Owl*," Interagency Scientific Committee (Team Member), 1992
- The Wildlife Society. Group Achievement Award. For participation as Team Member on Interagency Scientific Committee to Address the Conservation of the Northern Spotted Owl, 1991
- U.S. Forest Service. Certificate of Merit with cash award, U.S. Forest Service. For participation as Team Member on Interagency Scientific Committee to Address the Conservation of the Northern Spotted Owl, 1990
- Wildlife Fellow. Rob and Bessie Welder Wildlife Foundation, Sinton, Texas. While attending Texas A & M University, 1982

## RESEARCH PROGRAM PARTICIPATION

- Gulfwatch, Long-term Ecosystem Monitoring, *Exxon Valdez* Oil Spill Trustee Council, since 2012
- Prince William Sound Herring Research & Monitoring, *Exxon Valdez* Oil Spill Trustee Council, since 2012
- Prince William Sound Herring Survey, two projects, *Exxon Valdez* Oil Spill Trustee Council, 2009-2013
- Nearshore Vertebrate Predator Project, *Exxon Valdez* Oil Spill Trustee Council, 1996-1998
- Sound Ecosystem Assessment, *Exxon Valdez* Oil Spill Trustee Council, 1994-1999

## PROFESSIONAL SOCIETIES

- American Ornithologist's Union, since 1982
- Cooper Ornithological Society, since 1996
- North American Crane Working Group, since 1988
- The Wildlife Society, Certified Wildlife Biologist since 2000
- Wilson Ornithological Society, since 1980

## TEAM MEMBERSHIPS

- Crane Specialist Group, IUCN Species Survival Commission, since 1995
- Science Review Panel, Platte River Whooping Crane Maintenance Trust, 1999
- United States Shorebird Conservation Plan, Research and Monitoring Working Group, 1998-1999

## SERVICE

### Graduate Faculty & Teaching

- Graduate Faculty, University of South Alabama. Thesis Committee for B. Reynolds, 2007-2009
- Course Instructor. "Barrier Island Ecology Workshop". Jul 2006. Professional Development Course, University of Alaska Anchorage.

### Leadership

- Board of Directors, City of Cordova Library, 2009-present; Board President since 2013.
- President, Prince William Sound Audubon Society, 2010-present
- Vice President, Prince William Sound Audubon Society, 1999-2010

Board of Directors, Copper River Watershed Project, 1998-2004  
Board of Directors, North American Crane Working Group, 1991-2003  
Co-Chair Scientific Program, Copper River Delta Conference, Cordova Alaska, 1999  
Chair, Fifth Alaska Bird Conference and Workshop, Cordova, Alaska, 1994  
Co-Chair, Critical Forest Habitats and Long-term Planning in Greater Prince William Sound Workshop, Cordova, Alaska, 1992  
International Coordinator, Black-necked Crane Winter Count in China and Bhutan, 1988-1993  
Member, Chugach National Forest Leadership Team, 1992-1993  
Member, Interagency Scientific Committee to Address the Conservation of the Northern Spotted Owl, 1990

### **Editorship**

Referee: Bird Conservation International, Waterbirds, Wader Bulletin, Wader Study, Condor, Conservation Biology, Ecological Applications, Fish Bulletin, Forktail, Ibis, Journal of Field Ornithology, Journal of Fish and Wildlife Management, Journal of Wildlife Management, Mountain Research and Development, Wildlife Society Bulletin, Wilson Bulletin, North American Crane Workshop  
Associate Editor: Proceedings of Sixth North American Crane Workshop  
Translation Editor: *Cranes in East Asia*. Proceedings from a symposium held in Harbin, PR China, 1998  
Reviewer: United States and Canada Whooping Crane Recovery Plan, 2003; IUCN Red List Status Update for Black-necked Crane, 2016.