

James W. Cain III

Assistant Unit Leader-Wildlife
New Mexico Cooperative Fish and Wildlife Research Unit
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Education

Ph.D. Wildlife and Fisheries Science – University of Arizona, School of Natural Resources, Tucson, Arizona, May 2006

M.S. Biological Conservation – California State University, Department of Biological Sciences, Sacramento, California, May 2001

B.S. Biological Science – Colorado State University, Department of Biology, Fort Collins, Colorado, May 1997

Academic and Research Positions

Assistant Unit Leader-Wildlife (2010 – present) – U.S. Geological Survey, New Mexico Cooperative Fish and Wildlife Research Unit, Las Cruces, New Mexico.

- **Graduate Courses**

Wildlife-habitat Relationships (FWCE 540) Fall 2011, 2013, 2015

Large Mammal Ecology, Conservation, and Management (FWCE 530) Fall 2012, 2014, 2016

Adjunct Associate Professor (2015 – present). – Department of Fish, Wildlife and Conservation Ecology, New Mexico State University, Las Cruces, New Mexico.

Adjunct Associate Professor (2015 – present). – Department of Biology, New Mexico State University, Las Cruces, New Mexico.

Adjunct Associate Professor (2015 – present). – Department of Natural Resources Management, Texas Tech University, Lubbock, Texas.

Adjunct Assistant Professor (2010 – 2015). – Department of Fish, Wildlife and Conservation Ecology, New Mexico State University, Las Cruces, New Mexico.

Adjunct Assistant Professor (2011 – 2015). – Department of Biology, New Mexico State University, Las Cruces, New Mexico.

Adjunct Assistant Professor (2010 – 2015). – Department of Natural Resources Management, Texas Tech University, Lubbock, Texas.

Adjunct Assistant Professor (2010 – 2014). – Department of Biological and Environmental Sciences, Texas A&M University-Commerce, Commerce, Texas.

Assistant Professor (2008 – 2010) – Wildlife and Conservation Science, Department of Biological and Environmental Sciences, Texas A&M University-Commerce, Commerce, Texas.

- **Undergraduate Courses**

Quantitative Biology (BSc 412)

Wildlife Management I (AG/BSc 335)

Geospatial Mapping (BSc 417)

Field Methods for Wildlife and Conservation (BSc 337)

Semester

Fall 2008, Spring 2009, Fall 2009, Spring 2010

Fall 2008

Fall 2009

Spring 2010

- **Graduate Courses**

Wildlife-habitat Relationships (BSc 597)

Graduate Quantitative Biology (BSc 504)

Spring 2009

Fall 2009

- Faculty advisor for Texas A&M University-Commerce Student Chapter of The Wildlife Society
- Organize and supervise undergraduate internships in wildlife management and conservation with outside universities, state and federal agencies and non-governmental organizations.

Honorary Research Fellow (2008 – present) – Center for African Ecology, School of Animal, Plant, & Environmental Sciences, University of the Witwatersrand, Johannesburg, South Africa.

- Influence of ecosystem heterogeneity and predation risk on habitat selection, resource use, and movements of formerly migratory wildebeest (*Connochaetes taurinus*) and zebra (*Equus quagga*) in Kruger National Park, South Africa.
- Competition and multi-scale habitat partitioning between tall grass grazers: sable antelope (*Hippotragus niger*), zebra (*Equus quagga*) and buffalo (*Syncerus caffer*).

Postdoctoral Fellow (2006 – 2008) – Center for African Ecology, School of Animal, Plant, & Environmental Sciences, University of the Witwatersrand, Johannesburg, South Africa.

- Synthesize the information gathered on spatial and temporal variation in forage and water resources and on the distribution, movement, and habitat selection of sable antelope, buffalo, and zebra.
- Generate landscape-scale model of spatial and temporal heterogeneity in forage quality using remote sensing data.
- Develop an model to guide management actions with regard to the provision of surface water and fire policy as it affects these species
- Prepare grant proposals, publications and reports.

Adjunct Professor (2007 – 2010) – Wildlife Conservation and Management, School of Renewable Natural Resources, University of Arizona, 325 Biological Sciences East, Tucson, Arizona

Lecturer (2008) – Post-graduate Project Office, University of the Witwatersrand, Johannesburg, South Africa

- Developed and taught a workshop on Quantitative Methods for Science Masters Students
- Workshop covered principles of research/experimental design, development and testing of research hypotheses, use of the hypothetico-deductive method, and statistical approaches, with an emphasis on the relationships between research hypotheses and experimental design

Lecturer (2007) – School of Animal, Plant, & Environmental Sciences, University of the Witwatersrand, Johannesburg, South Africa

- Taught lectures and laboratories for APES 3038: *Populations and Resources*. Course covered population dynamics, demographic processes, behavioral ecology of resource use, predator-prey and plant-herbivore interactions, competition, parasites and pathogens, food chains and webs, metapopulation dynamics, and population viability analysis.
- Co-taught APES Honors Course: *Approaches to Science*. Presented lectures on study design, statistical inference, and modeling.
- Prepared grant proposals, publications and reports.

Lecturer (2004 – 2005, part-time) – School of Natural Resources, University of Arizona, Tucson, Arizona.

- Assisted with Wildlife and Fisheries Science 444: *Wildlife Management - Mammalian Species*
- Prepared and presented lectures on the history and evolution of wildlife management in North America, basic concepts of population dynamics, the role of hunting in wildlife management.

Graduate Students

Current

- Arthur Anaya, M.S. student. Thesis: Cougar (*Puma concolor*) kill rates and habitat selection in the Jemez Mountains, New Mexico. Department of Natural Resources Management, New Mexico Highlands University, Las Vegas.
- Susan M. Bard, M.S. student. Thesis: Resource selection of black bears in north-central New Mexico. Department of Fish, Wildlife and Conservation Ecology, New Mexico State University, Las Cruces.
- Jose Etchart, M.S. Student. Thesis: Interactions of desert bighorn sheep and aoudad in the Trans-Pecos region of Texas. Department of Natural Resources Management, Sul Ross State University, Alpine, Texas. (Co-supervised with Dr. Ryan O'Shaughnessy from Sul Ross)
- Matthew J. Gould, Ph.D. student. Dissertation: Estimation of black bear abundance, density and genetic structure in New Mexico and the Southwest using noninvasive genetic analyses. Department of Biology, New Mexico State University, Las Cruces.
- Talesha Karish, M.S. student. Thesis: Ecology of feral burros on the National Training Center Fort Irwin, California. Department of Fish, Wildlife and Conservation Ecology, New Mexico State University, Las Cruces.
- Jacob Kay, M.S. student. Thesis: Top-down and bottom up influences on mule deer in central New Mexico. Department of Fish, Wildlife and Conservation Ecology, New Mexico State University, Las Cruces.
- Charles H. Prude, M.S. student. Thesis: Predation rates and habitat selection of desert puma: effects of anthropogenic water sources in arid environments. Department of Fish, Wildlife and Conservation Ecology, New Mexico State University, Las Cruces.
- Craig D. Reddell, M.S. student. Thesis: Resources use and disease patterns of coyotes (*Canis latrans*) at the National Training Center Fort Irwin, California. Department of Fish, Wildlife and Conservation Ecology, New Mexico State University, Las Cruces.
- Tanya Roerick, M.S. student. Thesis: Multi-scale habitat selection of female mule deer in the Jemez Mountains, New Mexico. Department of Fish, Wildlife and Conservation Ecology, New Mexico State University, Las Cruces.
- Tricia Rossettie, M.S. student. Thesis: Spatial density estimations of *Puma concolor* by remote cameras and a novel hair sampling method. Department of Fish, Wildlife and Conservation Ecology, New Mexico State University, Las Cruces.
- Caitlin Ruhl, M.S. student. Thesis: Improving desert bighorn population estimates using a hybrid model for aerial surveys. Department of Fish, Wildlife and Conservation Ecology, New Mexico State University, Las Cruces.
- Sharon Smythe, Ph.D. student. Dissertation: Influence of wildfires and landscape scale forest restoration on resource selection and foraging ecology of elk. Department of Natural Resources Management, Texas Tech University, Lubbock. (Co-supervised with Dr. W. Conway from TTU)

Completed

- Humagain, K. 2016. Ecological variation among vegetation cover types and forest stand dynamics in the south-west Jemez Mountains, New Mexico. Ph.D. Dissertation, Texas Tech University, Lubbock. 145 pp. (Co-supervised with Dr. R. Cox from TTU)
- Ashling, J.B. 2015. Survival, cause-specific mortality, and habitat selection of translocated mule deer in southern New Mexico. Department of Fish, Wildlife and Conservation Ecology, New Mexico State University, Las Cruces. 134 pp.

- Kindschuh, S.R. 2015. Efficacy of GPS cluster analysis for predicting black bear carnivory sites. M.S. Thesis. Department of Fish, Wildlife and Conservation Ecology, New Mexico State University. Las Cruces. 73 pp.
- Roberts, C. 2015. Seasonal and diel elk habitat selection in the Jemez Mountains of New Mexico. M.S. Thesis. Department of Natural Resources Management, Texas Tech University, Lubbock. 133 pp. (Co-supervised with Dr. R. Cox from TTU)
- Garrison, K.R. 2014. Influence of livestock grazing on desert bighorn sheep (*Ovis canadensis mexicana*) forage resources and foraging behavior. M.S. Thesis. Department of Fish, Wildlife and Conservation Ecology, New Mexico State University. Las Cruces. 83 pp.
- Karsch, R.C. 2014. Desert bighorn sheep adult female and lamb survival, cause-specific mortality, and parturient female habitat selection in the Peloncillo Mountains, New Mexico, USA. M.S. Thesis. Department of Fish, Wildlife and Conservation Ecology, New Mexico State University, Las Cruces. 121 pp.
- Overstreet, M.W. 2014. Body condition and survival of desert bighorn sheep in relation to habitat and precipitation on the Kofa National Wildlife Refuge, Arizona. M.S. Thesis. Department of Fish, Wildlife and Conservation Ecology, New Mexico State University, Las Cruces. 69 pp.
- Pitman, J.W. 2013. Microhabitat selection and mortality site characteristics of elk (*Cervus canadensis*) calves and adult elk calf-rearing habitat selection in areas of differing predation influences in southern and northern New Mexico. M.S. Thesis. Department of Fish, Wildlife and Conservation Ecology, New Mexico State University, Las Cruces. 160 pp
- Lewis, J.D. 2012. Population status and habitat selection of an inland alligator (*Alligator mississippiensis*) population at the Fort Worth Nature Center and Refuge. M.S. Thesis. Department of Biological and Environmental Science, Texas A&M University-Commerce. 117 pp.
- Smith, K.N. 2011. Nesting ecology and multi-scale habitat use of the black-capped vireo. M.S. Thesis. Department of Biological and Environmental Science, Texas A&M University-Commerce. 80 pp.
- O'Shaughnessy, R. 2010. Comparative diet and habitat selection of puku (*Kobus vardonii*) and lechwe (*Kobus leche*) on the Chobe River Floodplain, Botswana. M.Sc. Thesis School of Animal, Plant, and Environmental Sciences, University of the Witwatersrand, Johannesburg, South Africa. 159 pp.
- Dabengwa, A.N. 2009. Assessing the role of woody cover in resource selection by sable antelope (*Hippotragus niger*) in northern Kruger National Park. M.Sc. Thesis, School of Animal, Plant, and Environmental Sciences, University of the Witwatersrand, Johannesburg, South Africa. 83 pp.

Publications and presentations

Publications

- Cain, J.W., III**, J.V. Gedir, P.R. Krausman, J.P. Marshal, J.D. Allen, G.C. Duff, B.D. Jansen and J.R. Morgart. In Press. Extreme precipitation variability, forage quality and large herbivore diet selection in arid environments. *Oikos*.
- Cain, J.W. III**, M.M. Avery, C.C. Caldwell, L.B. Abbot, and J.L. Holechek. In Press. Diet composition, quality, and overlap of sympatric American pronghorn and gemsbok. *Wildlife Biology*.
- Roberts, C.P., **J.W. Cain III**, and R.D. Cox. 2016. Application of activity sensors for estimating behavioral patterns. *Wildlife Society Bulletin* 40:764–771.
- Kindschuh, S.R., **J.W. Cain III**, D. Daniel and M.A. Peyton. 2016. Efficacy of GPS cluster analysis for predicting carnivory sites of a wide-ranging omnivore: the American black bear. *Ecosphere* 7: art e01513.

- Doyle, J.M. T.E. Katzner, G.W. Roemer, **J.W. Cain III**, B. Millsap, C. McIntyre, S.A. Sonsthagen, N. Fernandez, M. Wheeler, Z. Bulut, P. Bloom, and J.A. DeWoody. 2016. Genetic structure and viability selection in the Golden Eagle (*Aquila chrysaetos*), a vagile raptor with a holarctic distribution. *Conservation Genetics* 17:1307–1322.
- Karsch, R.K., **J.W. Cain III**, E.M. Rominger, and E.J. Goldstein. 2016. Desert bighorn lambing habitat: Parturition, lamb nursery, and predation sites. *Journal of Wildlife Management* 80:1069-1080.
- Gedir, J.V., **J.W. Cain III**, P.R. Krausman, J.D. Allen, G.C. Duff, and J.R. Morgart. 2016. Potential foraging decisions by a desert ungulate to balance water and nutrient intake in a water-stressed environment. *PLoS ONE* 11(2):e0148795.doi:10.1371/journal.pone.0148795
- Garrison, K.R., **J.W. Cain III**, E.M. Rominger, and E.J. Goldstein. 2016. Sympatric cattle grazing and desert bighorn sheep foraging. *Journal of Wildlife Management* 80:197-207.
- Gedir, J.V., **J.W. Cain III**, G. Harris, and T.T. Turnbull. 2015. Effects of climate change on long-term population growth of pronghorn in an arid environment. *Ecosphere* 6: art 189.
- Kramer, D.W., G.E. Sorensen, C.A. Taylor R.D. Cox, P.S. Gibson, and **J.W. Cain III**. 2015. Ungulate exclusion, conifer thinning and mule deer forage in northeastern New Mexico. *Journal of Arid Environments* 113:29-34.
- Pitman, J.W., **J.W. Cain III**, S.G. Liley, W.R. Gould, N.T. Quintana, and W. B. Ballard. 2014. Post-parturition habitat selection by elk calves and adult female elk in New Mexico. *Journal of Wildlife Management* 78:1216-1227.
- O’Shaughnessy, R., **J.W. Cain III**, and N. Owen-Smith. 2014. Comparative diet and habitat selection of puku and lechwe in northern Botswana. *Journal of Mammalogy* 95:933-942.
- Lewis, J.D., **J.W. Cain, III**, and R. Denkhaus. 2014. Home range and habitat selection of an inland alligator (*Alligator mississippiensis*) population at the northwestern edge of the distribution range. *Southeastern Naturalist* 13:261-279.
- Smith, J.B., D.P. Walsh, E.J. Goldstein, Z.D. Parsons, R.C. Karsch, J.R. Stiver, **J.W. Cain III**, K.J. Raedeke, and J.A. Jenks. 2014. Techniques for capturing bighorn sheep lambs. *Wildlife Society Bulletin* 38:165-174.
- Turnbull, T.T., **J.W. Cain III**, and G.W. Roemer. 2013. Anthropogenic impacts to the recovery of the Mexican wolf with a focus on trapping-related incidents. *Wildlife Society Bulletin* 37:311-318.
- Pepper, M.B., L.D. Howery, P.R. Krausman, G.B. Ruyle, **J.W. Cain III**, and D.W. Schafer. 2013. Adaptive grazing management for cattle and elk forage use in central Arizona. *Southwestern Naturalist* 58:20-27.
- Cain, J.W., III**, N. Owen-Smith, and V.A. Macandza. 2012. The costs of drinking: comparative water dependency of sable antelope and zebra. *Journal of Zoology* 286:58-67.
- Conkling, T.J., T.L. Pope, K.N. Smith, H.A. Mathewson, M.L. Morrison, R.N. Wilkins, and **J.W. Cain III**. 2012. Black-capped vireo nest predator assemblage and predictors for nest predation. *Journal of Wildlife Management* 76:1401-1411.
- Macandza, V.A., N. Owen-Smith, and **J.W. Cain III**. 2012. Habitat and resource partitioning between abundant and relatively rare grazing ungulates. *Journal of Zoology* 287:175-185.
- Smith, K.N., **J.W. Cain III**, M.L. Morrison, and R.N. Wilkins. 2012. Nesting ecology of the black-capped vireo in southwest Texas. *Wilson Journal of Ornithology* 124:277-285.
- Macandza, V.A., N. Owen-Smith, and **J.W. Cain III**. 2012. Dynamic spatial partitioning and coexistence among tall grass grazers in an African savanna. *Oikos* 121:891-898.
- Smith, K.N., **J.W. Cain III**, M.L. Morrison, and R.N. Wilkins. 2012. A novel songbird nest predator: the Greater Arid-land Katydid. *American Midland Naturalist* 167:210-212.
- Justice-Allen, A.E., C.J. Luedtke, M.W. Overstreet, **J.W. Cain III**, and T.R. Stephenson. 2011. Prevalence of *Mycoplasma ovipneumoniae* in desert bighorn sheep in Arizona. *Desert Bighorn Council Transactions* 51:1-10.

- Cain, J.W., III**, B.D. Jansen, R.S. Felger, and P.R. Krausman. 2010. Scallop leaf sage (*Salvia vaseyi*, Lamiaceae) discovered in Arizona. *Journal of the Botanical Research Institute of Texas* 4:755-760.
- Flesch, A.D., C.W. Epps, **J.W. Cain III**, M. Clark, P.R. Krausman, and J.R. Morgart. 2010. Potential effects of the United States-Mexico Border fence on wildlife. *Conservation Biology* 24:171-181.
- Marshall, J.P., **J.W. Cain III**, V.C. Bleich, and S.S. Rosenstock. 2009. Intrinsic and extrinsic sources of variation in the dynamics of large herbivore populations. *Canadian Journal of Zoology* 87:103-111.
- Parrini, F., **J.W. Cain III**, and P.R. Krausman. 2009. *Capra ibex*. *Mammalian Species* 830:1-12.
- Smith, S.M. and **J.W. Cain III**. 2009. Foraging efficiency and vigilance behaviour of impala: the influence of herd size and neighbor density. *African Journal of Ecology* 47:109-118.
- Cain, J.W., III**, P.R. Krausman, J.R. Morgart, B.D. Jansen, and M.B. Pepper. 2008. Responses of desert bighorn sheep to the removal of water sources. *Wildlife Monographs* 171.
- Cain, J.W., III**, B.D. Jansen, R.R. Wilson, and P.R. Krausman. 2008. Potential thermoregulatory advantages of shade use by desert bighorn sheep. *Journal of Arid Environments* 72:1518-1525.
- Magome, H., **J.W. Cain III**, N. Owen-Smith, and S.R. Henley. 2008. Forage selection of sable antelope in Pilanesberg Game Reserve, South Africa. *South African Journal of Wildlife Research* 38:35-41.
- Krausman, P.R., L.K. Harris, R.R. Wilson, **J.W. Cain III**, K.K.G. Koenen. 2007. Bombing and Sonoran pronghorn: a clear and present danger? *Journal of Wildlife Management* 71:2820-2823.
- Owen-Smith, N. and **J.W. Cain III**. 2007. Indicators of adaptive responses in home range utilization and movement patterns by a large mammalian herbivore. *Israel Journal of Ecology & Evolution* 53:423-438.
- Cain, J.W., III**, P.R. Krausman, S.S. Rosenstock, and J.C. Turner. 2006. Mechanisms of thermoregulation and water balance in desert ungulates. *Wildlife Society Bulletin* 34:570-581.
- Cain, J.W., III**, K.S. Smallwood, H.L. Loffland, and M.L. Morrison. 2006. Influence of mammal activity on nesting success of passerines. *Journal of Wildlife Management* 70:522-531.
- Krausman, P.R., J. Avey, P.K. Devers, J. Tull, B.D. Jansen, and **J.W. Cain III**. 2006. Distances moved by desert mule deer when startled. *Southwestern Naturalist* 51:436-439.
- Krausman, P.R., S.S. Rosenstock, and **J.W. Cain III**. 2006. Introduction: Developed waters for wildlife: Science, perception, values and controversy. *Wildlife Society Bulletin* 34:563-569.
- Cain, J.W., III**, and B.D. Jansen. 2005. Tree swallow entangled on teddy bear cholla spines. *Southwestern Naturalist* 50:272-273.
- Cain, J.W., III**, H.E. Johnson, and P.R. Krausman. 2005. Wildfire and desert bighorn sheep habitat, Santa Catalina Mountains, Arizona. *Southwestern Naturalist* 50:506-513.
- Cain, J.W., III**, P.R. Krausman, B.D. Jansen, and J.R. Morgart. 2005. Influence of topography and GPS fix interval on GPS collar performance. *Wildlife Society Bulletin* 33:926-934.
- Krausman, P.R., J.R. Morgart, L.K. Harris, C.S. O'Brien, **J.W. Cain III**, S. S. Rosenstock. 2005. Introduction: Management for the survival of Sonoran pronghorn in the United States. *Wildlife Society Bulletin* 33:5-7.
- Pepper, M.B., P.R. Krausman, B.D. Jansen, and **J.W. Cain III**. 2005. Desert bighorn sheep osteology. *Desert Bighorn Council Transactions* 48:23-27.
- Cain, J.W., III**, P.R. Krausman, and H.L. Germaine. 2004. *Antidorcas marsupialis*. *Mammalian Species* 753:1-7.
- Cain, J.W., III**, D.M. Queheillalt, M.L. Morrison, and K. Christopherson. 2004. Bird habitat use and bird-aircraft strikes at Beale Air Force Base, California. *Transactions of the Western Section of the Wildlife Society* 40:90-100.
- Krausman, P.R., V.C. Bleich, **J.W. Cain III**, T.R. Stephenson, D.W. DeYoung, P.W. McGrath, P.K. Swift, B.M. Pierce, and B.D. Jansen. 2004. Neck lesions in ungulates from collars incorporating satellite technology. *Wildlife Society Bulletin* 32:987-991.

- Cain, J.W., III**, and M.L. Morrison. 2003. Reproductive ecology of dusky flycatchers in montane meadows of the central Sierra Nevada. *Western North American Naturalist* 63:507-512.
- Cain, J.W., III**, M.L. Morrison, and H.L. Bombay. 2003. Influence of predator activity on the nest success of willow flycatchers and yellow warblers. *Journal of Wildlife Management* 67:600-610.
- Cain, J.W., III**, P.R. Krausman, J.R. Morgart, and J.J. Hervert. 2002. Use of GPS/Satellite telemetry systems in mountain sheep research. *Desert Bighorn Council Transactions* 46:10-17.
- Queheillalt, D.M., **J.W. Cain III**, D.E. Taylor, M.L. Morrison, S.L. Hoover, N. Tuatoo-Bartley, L. Ruge, K. Christopherson, M.D. Hulst, M.R. Harris, and H.L. Keough. 2002. The exclusion of rare species from community level analyses. *Wildlife Society Bulletin* 30:756-759.
- Wilson, T.G., and **J.W. Cain**. 1997. Resistance to the insecticides Lufenuron and Propoxur in natural populations of *Drosophila melanogaster*. *Journal of Economic Entomology* 90:1131-1136.

Book Chapters

- Cain, J.W., III**, P.R. Krausman, and S.S. Rosenstock. 2013. Water and Other Welfare Factors, Pages 174-194 in P.R. Krausman and J.W. Cain III, Editors. *Wildlife Management: Contemporary Principles and Practices*. The Wildlife Society and Johns Hopkins University Press.

Government Publications and Agency Reports

- Roemer, G.W., and **J.W. Cain III**. 2016. An assessment of the landscape genetic structure of the western continental golden eagle population. Project Status Report to U.S. Fish and Wildlife Service.
- Reddell, C.D., T.K. Karish, G.W. Roemer, and **J.W. Cain III**. 2016. Investigations into the control of coyote and feral burro populations on the National Training Center Fort Irwin, California. Annual Progress Report to U.S. Army Construction and Engineering Research Laboratory and Fort Irwin National Training Center.
- Roemer, G.W., and **J.W. Cain III**. 2016. An assessment of the genetic structure of an urban Cooper's hawk population. Project Status Report to U.S. Fish and Wildlife Service.
- Gould, M.J., **J.W. Cain III**, G.W. Roemer, and W.R. Gould. 2016. Estimating abundance and density of American black bears (*Ursus americanus*) in New Mexico using noninvasive genetic sampling coupled with spatially explicit capture-recapture methods. Report provided by the Cooperative Fish and Wildlife Research Unit Program. U.S. Department of Interior, Fish and Wildlife Service, Cooperator Science Series FWS/CSS-120-2016, National Conservation Training Center.
- Roemer, G.W., and **J.W. Cain III**. 2015. An assessment of the landscape genetic structure of the western continental golden eagle population. Project Status Report to U.S. Fish and Wildlife Service.
- Cain, J.W., III**, G.W. Roemer, and C. Britt. 2015. Distribution and Habitat Selection/Space Use of Migratory and Resident Golden Eagles (*Aquila chrysaetos*) in Areas with High Potential for Wind Energy Development in New Mexico. Project Status Report to Bureau of Land Management.
- Cain III, J.W.**, C.W. Epps, M.R. Buchalski, and L.M. Thompson. 2015. Evaluating Adaptive Capacity of Desert Bighorn Sheep to Climate Change: Identifying Genetic Links to Climate Adaptations in Native and Reintroduced Populations. Annual progress report to USGS Climate Change and Wildlife Science Center.
- Cain III, J.W.**, C.A. Caldwell, and S.A. Carleton. 2015. Assessment of drought impacts on selected fish and wildlife species in the southwestern U.S. 2014 Annual Progress Report to USGS Climate Change and Wildlife Science Center.
- Gould, M.J., **J.W. Cain III**, G.W. Roemer, and W.R. Gould. 2015. Estimating abundance and density of American black bears (*Ursus americanus*) in New Mexico using noninvasive genetic sampling-based capture-recapture methods: Report on 2013 data collection and analysis for the southern Sangre de Cristo Mountains and an updated analysis for the northern Sangre de Cristo Mountains. Annual project report to New Mexico Department of Game and Fish.

- Cain III, J.W.**, C.A. Caldwell, and S.A. Carleton. 2014. Assessment of drought impacts on selected fish and wildlife species in the southwestern U.S. 2014 Annual Progress Report to USGS Climate Change and Wildlife Science Center.
- Gould, M.J., **J.W. Cain III**, G.W. Roemer, and W.R. Gould. 2014. Estimating abundance and density of American black bears (*Ursus americanus*) in New Mexico using noninvasive genetic sampling-based capture-recapture methods: Report on 2012 data collection in the northern Sangre de Cristo Mountains. Annual project report to New Mexico Department of Game and Fish.
- Overstreet, M.W., **J.W. Cain III**, and C.A. Caldwell. 2014. Adult survival, apparent lamb survival, and body condition of desert bighorn sheep in relation to habitat and precipitation on the Kofa National Wildlife Refuge, Arizona. Final Project Report to USFWS-Kofa National Wildlife Refuge.
- Cain, J.W., III**, G.W. Roemer, and C. Britt. 2014. Distribution and Habitat Selection/Space Use of Migratory and Resident Golden Eagles (*Aquila chrysaetos*) in Areas with High Potential for Wind Energy Development in New Mexico. Project Status Report to Bureau of Land Management.
- Cain III, J.W.**, C. Caldwell, and S.A. Carleton. 2013. Assessment of drought impacts on selected fish and wildlife species in the southwestern U.S. 2013 Annual Progress Report to USGS Climate Change and Wildlife Science Center.
- Munro, K.J., **J.W. Cain III**, and G.W. Roemer, and. 2013. Distribution and Habitat Selection/Space Use of Migratory and Resident Golden Eagles (*Aquila chrysaetos*) in Areas with High Potential for Wind Energy Development in New Mexico. Project Status Report to Bureau of Land Management.
- Cain, J.W., III**, G.W. Roemer, and K.J. Munro. 2012. Distribution and Habitat Selection/Space Use of Migratory and Resident Golden Eagles (*Aquila chrysaetos*) in Areas with High Potential for Wind Energy Development in New Mexico. Project Status Report to Bureau of Land Management.
- Overstreet, M.W., and **J.W. Cain III**. 2012. Survival, recruitment, and body condition of desert bighorn sheep in relation to forage conditions and precipitation on the Kofa National Wildlife Refuge, Arizona. Preliminary Project Report to USFWS-Kofa National Wildlife Refuge.
- Cain, J.W., III**, G.W. Roemer, and J.G. Barnes. 2011. Distribution and Habitat Selection/Space Use of Migratory and Resident Golden Eagles (*Aquila chrysaetos*) in Areas with High Potential for Wind Energy Development in New Mexico. Project Status Report to Bureau of Land Management.
- Turnbull, T.T., **J.W. Cain III**, and G.W. Roemer. 2011. Evaluating trapping techniques to reduce potential for injury to Mexican wolves. U.S. Geological Survey Open-file Report 2011-1190.
- Smith, K.N., M.L. Morrison, T. McFarland, and **J.W. Cain III**. 2010. Black-capped vireo monitoring at Devils River State Natural Area: Methods and Results. Annual Report to Texas Parks and Wildlife Department.
- Smith, K.N., M.L. Morrison, T. McFarland, and **J.W. Cain III**. 2010. Black-capped vireo monitoring at Dolan Falls Preserve: Methods and Results. Annual Report to The Nature Conservancy
- Cain, J.W., III**, N. Owen-Smith and M.C. Vance. Influence of ecosystem heterogeneity and predation risk on habitat selection, resource use, and movements of buffalo, wildebeest, and zebra. Annual progress report to South African National Parks.
- Smith, K.N., M.L. Morrison, and **J.W. Cain III**. 2009. Black-capped vireo monitoring at Devils River State Natural Area. Annual Report to Texas Parks and Wildlife Department.
- Smith, K.N., M.L. Morrison, and **J.W. Cain III**. 2009. Black-capped vireo monitoring at Dolan falls Preserve. Annual Report to The Nature Conservancy.
- Cain, J.W., III** and N. Owen-Smith. 2008. Diel patterns of habitat use by sable antelope, zebra, and buffalo in northern Kruger National Park. Research Progress Report. South African National Parks, Kruger National Park Scientific Services, Skukuza, South Africa.
- Cain, J.W., III**, P.R. Krausman, S.S. Rosenstock, and J.C. Turner. 2005. Literature review and annotated bibliography: Water requirements of desert ungulates. U.S. Geological Survey Open-file Report 2005-1141.

- Krausman, P.R., J.R. Morgart, L.K. Harris, C.S. O'Brien, **J.W. Cain III**, and S.S. Rosenstock. 2004. Sonoran pronghorn literature: An annotated bibliography. U.S. Geological Survey Open-file Report 2005-1265.
- Krausman, P.R., **J.W. Cain III**, and H.E. Johnson. 2004. Impact of the Bullock and Aspen fires on desert bighorn sheep habitat in the Pusch Ridge Wilderness Area, Arizona. Final report in fulfillment of contract #41-8197-3-0107. United States Forest Service, Coronado National Forest.
- Stitt, E.W., **J.W. Cain III**, C.R. Schwalbe, and D.E. Swann. 2003. Using infrared cameras to monitor burrow associates of desert tortoises at Saguaro National Park. Final report to Western National Parks Association.
- Cain, J.W.**, M.L. Morrison, and W.E. Avery. 2001. Avian behavior and winter habitat use at Beale Air force Base, California (November 2000–February 2001). Final Report to Beale Air Force Base, United States Air Force.
- Bombay, H.L., M.L. Morrison, D.E. Taylor, and **J.W. Cain**. 2001. Annual report and preliminary demographic analysis for willow flycatcher monitoring in the Central Sierra Nevada. U.S. Forest Service, Tahoe National Forest.
- Morrison, M.L., H.L. Bombay, **J.W. Cain**, and D.E. Taylor. 2000. Annual report and preliminary demographic analysis for willow flycatcher monitoring in the central Sierra Nevada. U.S. Forest Service, Tahoe National Forest.
- Bombay, H.L., **J.W. Cain**, M.L. Morrison, and L.S. Hall. 1999. Annual report for the challenge cost-share agreement between California State University, Sacramento and U.S.D.A. Forest Service, Tahoe National Forest regarding willow flycatcher monitoring.
- Morrison, M.L., L.S. Hall, H.L. Bombay, and **J.W. Cain**. 1999. Annual report for the memorandum of understanding between California State University, Sacramento and California Department of Fish and Game regarding willow flycatcher.

Presentations and Posters (*presenter)

Invited seminars:

- ***Cain, J.W., III**. 2017. Coping with water and heat stress: Behavioral and physiological adaptations of desert ungulates. 42nd Annual Meeting and Symposium of the Desert Tortoise Council, Las Vegas Nevada.
- ***Cain, J.W., III**. 2016. Habitat selection by desert bighorn sheep: Past, present and future directions. 41st Annual Meeting and Symposium of the Desert Tortoise Council, Las Vegas Nevada.
- ***Cain, J.W., III**. 2013. Habitat and resource partitioning among tall-grass grazers: sable antelope, zebra, and buffalo in Kruger National Park, South Africa. Department of Biology, New Mexico State University.
- ***Cain, J.W., III**. 2012. Habitat management for large mammals in arid and semi-arid ecosystems: consequences of providing water sources for wildlife. School of Forestry, Northern Arizona University, Flagstaff, USA.
- *O'Shaughnessy, R., **J.W. Cain III**, and N. Owen-Smith. 2012. Feeding ecology of puku and lechwe on the Chobe River floodplains, Botswana. Caracal Biodiversity and Environmental Research Center, Kasane, Botswana.
- ***Cain, J.W., III**. 2011. Influence of interspecific competition and predation risk on multi-scale habitat use of sable antelope. Department of Natural Resource Management, Sul Ross State University, Alpine, Texas, USA.
- ***Cain, J.W., III**, and N. Owen-Smith. 2008. Habitat management for large mammals in arid and semi-arid ecosystems: consequences of providing water sources for wildlife. Invited Seminar. Harry Oppenheimer Okavango Research Centre, University of Botswana, Maun, Botswana.

***Cain, J.W., III.** 2007. Responses of desert bighorn sheep to the removal of anthropogenic water sources. School of Animal, Plant & Environmental Science, University of the Witwatersrand, Johannesburg, South Africa.

*Contributed presentations and posters (*presenter):*

- *Karish, T., G.W. Roemer, and **J.W. Cain III.** 2017. Resource selection and movements of feral burros on the Fort Irwin National Training Center. 24th Annual Conference of the Wildlife Society, Albuquerque, New Mexico, USA. (POSTER)
- *Prude, C.H., **J.W. Cain III,** and G. Harris. 2017. The influence of anthropogenic water on puma habitat use and prey selection in arid ecosystems. 24th Annual Conference of the Wildlife Society, Albuquerque, New Mexico, USA. (POSTER)
- *Bard, S.M. and **J.W. Cain III.** 2017. Influence of natural and anthropogenic disturbances on multi-scale black bear habitat selection. 24th Annual Conference of the Wildlife Society, Albuquerque, New Mexico, USA. (POSTER)
- *Anaya, A.J., **J.W. Cain III,** J.R. Biggs, and M. Peyton. 2017. Mountain lion (*Puma concolor*) Kill rates and competition with black bears (*Ursus americanus*) in New Mexico. 24th Annual Conference of the Wildlife Society, Albuquerque, New Mexico, USA.
- *Smythe, S.E., **J.W. Cain III,** W.C. Conway, M.A. Peyton, and R.R. Parmenter. 2017. Influence of movement and resource use on reproductive success of elk in a restored landscape. 24th Annual Conference of the Wildlife Society, Albuquerque, New Mexico, USA. (POSTER)
- *Reddell, C.D., G.W. Roemer, and **J.W. Cain III.** 2017. The adaptability and disease patterns of an urban coyote population in the Mojave Desert. 24th Annual Conference of the Wildlife Society, Albuquerque, New Mexico, USA. (POSTER)
- *Kay, J.H., and **J.W. Cain III.** 2017. Effects of sampling time on bone marrow fat estimates. 24th Annual Conference of the Wildlife Society, Albuquerque, New Mexico, USA.
- *Gedir, J.V., **J.W. Cain III,** J.K. Oakleaf, S.W. Breck, and E.S. Rubin. 2017. Can sustainable populations of reintroduced large carnivores exist beyond large protected areas without ongoing conservation management? 24th Annual Conference of the Wildlife Society, Albuquerque, New Mexico, USA.
- *Buchalski, M., C. Epps, W. Boyce, M. Matocq, R. Crowhurst, B. Holton, L. Thompson, E. Rubin, and **J.W. Cain III.** 2017. Environmental adaptation in desert bighorn sheep throughout their North American range. 2017 Biennial Meeting of the Desert Bighorn Council, St. George, Utah, USA.
- *Kay, J.H., and **J.W. Cain III.** 2017. New insight into utilizing bone marrow to assess the health of mountain lion prey. 12th Mountain Lion Workshop, Estes Park, Colorado, USA.
- *Prude, C.H., **J.W. Cain III,** and G. Harris. 2017. The influence of anthropogenic water on puma habitat use and prey selection in arid ecosystems. 12th Mountain Lion Workshop, Estes Park, Colorado, USA. (Poster)
- *Murphy, S.M., **J.W. Cain III,** D. Wilckens, G. Roemer, R. Lonsinger, and M. Peyton. 2017. Developing novel spatial capture-recapture survey designs for estimating management-scale cougar density in New Mexico, USA. 12th Mountain Lion Workshop, Estes Park, Colorado, USA.
- *Kay, J.H., and **J.W. Cain III.** 2017. New insight into utilizing bone marrow to assess ungulate health. 12th Western States and Provinces Deer and Elk Workshop, Sun Valley, Idaho, USA.
- Gedir, J.V., ***J.W. Cain III,** P.R. Krausman, J.D. Allen, G.C. Duff, and J.R. Morgart. 2017. Potential foraging decisions by desert bighorn sheep to balance water and nutrient intake. 2017 Biennial Meeting of the Desert Bighorn Council, St. George, Utah, USA.
- *Rossettie, T., T. Perry, **J.W. Cain III,** and R. Alonso. 2017. Spatial density estimations of *Puma concolor* by remote cameras and a novel hair sampling method. 12th Mountain Lion Workshop, Estes Park, Colorado, USA. (Poster)

- *Tatman-Quintana, N., S. Liley, J.W. Cain III, and J.W. Pitman. 2017. Evaluating effects of nutrition and predation on an elk population in New Mexico. 12th Western States and Provinces Deer and Elk Workshop, Sun Valley, Idaho, USA.
- *Kay, J.H., and J.W. Cain III. 2017. New insight into utilizing bone marrow to assess ungulate health. 50th Joint Annual Meeting of the Arizona/New Mexico Chapters of The Wildlife Society, Farmington, New Mexico, USA.
- *Anaya, A.J., J.W. Cain III, J.R. Biggs, and M. Peyton. 2017. Mountain Lion (*Puma concolor*) Resource Selection, Kill Rates and Competition with Black Bears (*Ursus americanus*) in the Jemez Mountains, New Mexico. 50th Joint Annual Meeting of the Arizona/New Mexico Chapters of The Wildlife Society, Farmington, New Mexico, USA. (POSTER)
- *Smythe, S.E., **J.W. Cain III**, W.C. Conway, M.A. Peyton, and R.R. Parmenter. 2017. Movement, resource use, and reproductive success of elk in response to competition, predation risk, and landscape restoration. 50th Joint Annual Meeting of the Arizona/New Mexico Chapters of The Wildlife Society, Farmington, New Mexico, USA. (POSTER)
- *Threadgill, C.L., W.C. Conway, R.D. Cox, R.D. Bailey, and J.W. Cain III. 2017. Pronghorn fawn survival and recruitment in a localized pronghorn population in southeast New Mexico. 50th Joint Annual Meeting of the Arizona/New Mexico Chapters of The Wildlife Society, Farmington, New Mexico, USA. (POSTER)
- *Smythe, S.E., **J.W. Cain III**, W.C. Conway, M.A. Peyton, and R.R. Parmenter. 2017. Movement, resource use, and reproductive success of elk in response to competition, predation risk, and landscape restoration. Annual Meeting of the Texas Chapter of The Wildlife Society, San Antonio, Texas, USA. (POSTER)
- *Threadgill, C.L., W.C. Conway, R.D. Cox, R.D. Bailey, and J.W. Cain III. 2017. Pronghorn fawn survival and recruitment in a localized pronghorn population in southeast New Mexico. Annual Meeting of the Texas Chapter of The Wildlife Society, San Antonio, Texas, USA. (POSTER)
- Gedir, J.V., ***J.W. Cain III**, P.R. Krausman, J.D. Allen, G.C. Duff, and J.R. Morgart. 2016. Potential foraging decisions by desert bighorn sheep to balance water and nutrient intake in a water-stressed environment. 23rd Annual Conference of the Wildlife Society, Raleigh, North Carolina, USA.
- *Gedir, J.V., **J.W. Cain III**, G. Harris, and T.T. Turnbull. 2016. Predicting long-term pronghorn population dynamics in the Southwest in response to climate change. 27th Biennial Western States and Provinces Pronghorn Workshop, Anaconda, Montana, USA.
- *Bard, S.M., and **J.W. Cain III**. 2016. Influence of natural and anthropogenic disturbance on multi-scale black bear habitat selection. 49th Joint Annual Meeting of the Arizona/New Mexico Chapters of The Wildlife Society, Flagstaff, Arizona, USA.
- *Kay, J. H., and **J. W. Cain III**. 2016. Top-Down and bottom-up forces on central New Mexico mule deer. 49th Joint Annual Meeting of the Arizona/New Mexico Chapters of The Wildlife Society, Flagstaff, Arizona, USA.
- *Roberts, C., R. Cox, and **J.W. Cain III**. 2016. Fine-scale temporal modeling of elk (*Cervus canadensis*) habitat selection. 68th Annual Meeting of the Society for Range Management, Sacramento, California.
- *Humagain, K. C. Portillo, R. Cox, and **J.W. Cain III**. 2016. Mapping structural diversity of trees in the southwest Jemez Mountains of New Mexico using Landsat-8 data. 68th Annual Meeting of the Society for Range Management, Sacramento, California. (POSTER)
- *Gould, M.J., **J.W. Cain III**, G.W. Roemer, W.R. Gould, and S.G. Liley. 2015. Estimating density of American black bears in New Mexico, United States of America. 5th International Wildlife Management Congress, Sapporo, Japan.

- *Gedir, J.V., **J.W. Cain III**, G. Harris, and T.T Turnbull. 2015. Predicting long-term population dynamics of an ungulate in an arid environment in response to climate change. 5th International Wildlife Management Congress, Sapporo, Japan.
- ***Cain, J.W., III**, J. V. Gedir, P.R. Krausman, J.D. Allen, and G.C. Duff. 2015. Extreme precipitation variability, forage quality and large herbivore diet selection in arid environments. 5th International Wildlife Management Congress, Sapporo, Japan.
- *Kindschuh, S.R., and **J.W. Cain III**. 2015. Black bear carnivory of ungulates: global positioning system cluster analysis as a tool for estimation. 12th Western Black Bear Workshop, Canmore, Alberta, Canada.
- Karsch, R.C., ***J.W. Cain III**, E.M. Rominger, E.J. Goldstein. 2015. Desert bighorn lambing habitat revisited: environmental characteristics at female parturition sites, and lamb nursery and predation sites. 2015 Biennial Meeting of the Desert Bighorn Council, Borrego Springs, California, USA.
- *Ashling, J.B., J.W. Cain III, S.G. Liley. 2015. Survival, cause-specific mortality, and habitat selection of mule deer in southern New Mexico. 48th Joint Annual Meeting of the Arizona/New Mexico Chapters of The Wildlife Society, Las Cruces, New Mexico, USA.
- *Gedir, J.V., **J.W. Cain III**, G. Harris, and T.T Turnbull. 2015. Predicting long-term pronghorn population dynamics in the southwest U.S.A. in response to climate change. 48th Joint Annual Meeting of the Arizona/New Mexico Chapters of The Wildlife Society, Las Cruces, New Mexico, USA.
- *Gould, M.J., **J.W. Cain III**, G.W. Roemer, and W.R. Gould. 2015. Estimating abundance and density of American black bears (*Ursus americanus*) in New Mexico using noninvasive genetic sampling-based capture-recapture methods. 48th Joint Annual Meeting of the Arizona/New Mexico Chapters of The Wildlife Society, Las Cruces, New Mexico, USA.
- *Karsch, R.C., **J.W. Cain III**, E.M. Rominger, E.J. Goldstein. 2015. Parturient desert bighorn sheep survival strategies: environmental characteristics at female parturition sites and lamb nursery and predation sites. 48th Joint Annual Meeting of the Arizona/New Mexico Chapters of The Wildlife Society, Las Cruces, New Mexico, USA.
- *Kindschuh, S.R., and **J.W. Cain III**. 2015. Modeling black bear predation and scavenging using GPS cluster analysis. 48th Joint Annual Meeting of the Arizona/New Mexico Chapters of The Wildlife Society, Las Cruces, New Mexico, USA.
- ***Cain, J.W., III**, J. V. Gedir, P.R. Krausman, J.D. Allen, and G.C. Duff. 2014. Forage nutritional content and diet selection by desert bighorn sheep across widely varying climatic conditions. 21st Annual Conference of The Wildlife Society, Pittsburgh, Pennsylvania, USA.
- *Gould, M.J., **J.W. Cain III**, G.W. Roemer, and W.R. Gould. 2014. Estimating abundance and density of American black bears in New Mexico using noninvasive genetic sampling-based capture-recapture methods. 21st Annual Conference of The Wildlife Society, Pittsburgh, Pennsylvania, USA.
- *O'Shaugnessy, R., J. French, N. Owen-Smith, L.A. Harveson, **J.W. Cain III**, and S.S Gray. 2014. Towards a universal method for estimating ruminant diet from feces. 26th Biennial Pronghorn Workshop, Alpine, Texas, USA.
- *Karsch, R., **J.W. Cain III**, E. Goldstein, and R. Rominger. 2014. Desert bighorn sheep lamb survival and cause-specific mortality in the Peloncillo Mountains, New Mexico. 47th Joint Annual Meeting of the Arizona/New Mexico Chapters of The Wildlife Society, Pinetop, Arizona, USA.
- *Gould, M.J., **J.W. Cain III**, G.W. Roemer, W.R. Gould, and S.G. Liley. 2014. Estimating the abundance and density of American black bears (*Ursus americanus*) in New Mexico using non-invasive genetic analysis. 47th Joint Annual Meeting of the Arizona/New Mexico Chapters of The Wildlife Society, Pinetop, Arizona, USA.
- *Garrison, K., **J.W. Cain III**, E. Goldstein, and R. Rominger. 2014. Influence of sympatric livestock grazing on desert bighorn sheep forage resources and foraging behavior. 47th

Joint Annual Meeting of the Arizona/New Mexico Chapters of The Wildlife Society, Pinetop, Arizona, USA.

- *Kindschuh, S.R., **J.W. Cain III**, and M.A. Peyton. 2014. Evaluating the use of GPS cluster analysis to locate black bear predation and scavenging sites. 47th Joint Annual Meeting of the Arizona/New Mexico Chapters of The Wildlife Society, Pinetop, Arizona, USA.
- *Munro, K.J., **J.W. Cain**, and G.W. Roemer 2013. Movements and space-use of golden eagles (*Aquila chrysaetos*) from Southern New Mexico. New Mexico Ornithological Society, Silver City, New Mexico.
- *Kramer, D. C. Taylor, G. Sorenson, R. Cox, P. Gipson, and **J. Cain**. 2013. The effects of thinning and ungulate exclusion on conifer understory vegetation and key mule deer forage species in northeastern New Mexico, USA. 98th Annual Meeting of the Ecological Society of America, Minneapolis, Minnesota.
- ***Cain, J.W., III**, P.R. Krausman, J.D. Allen, and G.C. Duff. 2013. Climatic variability and nutritional content of desert bighorn sheep forage in southwestern Arizona. Desert Bighorn Council Meeting, Las Cruces, New Mexico, USA.
- *Karsch, R., **J.W. Cain III**, E.M. Rominger, and E.J. Goldstein. 2013. Desert bighorn sheep lamb survival and cause-specific mortality in the Peloncillo Mountains, New Mexico. Desert Bighorn Council Meeting, Las Cruces, New Mexico, USA.
- *Garrison, K.R., **J.W. Cain III**, E.M. Rominger, and E.J. Goldstein. 2013. Influence of livestock grazing on forage biomass, activity budgets and foraging efficiency of desert bighorn sheep (*Ovis canadensis mexicana*) in southern New Mexico. Desert Bighorn Council Meeting, Las Cruces, New Mexico, USA.
- ***Cain, J.W., III**, R. Parmenter, S.R. Kindschuh, and M.A. Peyton. 2013. Wildfire, Forest Restoration, and Mammal Monitoring in the Southwest Jemez Mountains, New Mexico. 46th Joint Annual Meeting of the Arizona/New Mexico Chapters of The Wildlife Society, Albuquerque, New Mexico, USA
- *Kindschuh, S.R., **J.W. Cain III**, and M.A. Peyton. 2013. Evaluating the use of GPS cluster analysis to locate black bear predation and scavenging sites. 46th Joint Annual Meeting of the Arizona/New Mexico Chapters of The Wildlife Society, Albuquerque, New Mexico, USA (POSTER)
- *Munro, K.M., **J.W. Cain III**, and G.W. Roemer. 2013. Movements and habitat/space use of Golden Eagles (*Aquila chrysaetos*) from southern New Mexico. 46th Joint Annual Meeting of the Arizona/New Mexico Chapters of The Wildlife Society, Albuquerque, New Mexico, USA.
- *Gould, M. J., **J.W. Cain III**, G.W. Roemer, W.R. Gould, and S.G. Liley. 2013. Estimating the abundance and density of American black bears (*Ursus Americanus*) in New Mexico using non-invasive genetic analysis. 46th Joint Annual Meeting of the Arizona/New Mexico Chapters of The Wildlife Society, Albuquerque, New Mexico, USA.
- *Garrison, K.R., and **J.W. Cain III**. 2013. Influence of livestock grazing on forage biomass, activity budgets and foraging efficiency of desert bighorn sheep (*Ovis canadensis mexicana*) in southern New Mexico. 46th Joint Annual Meeting of the Arizona/New Mexico Chapters of The Wildlife Society, Albuquerque, New Mexico, USA.
- *Pitman, J.W., **J.W. Cain III**, S.G. Liley, W.R. Gould, and N.M. Quintana. 2013. Microhabitat selection and mortality site characteristics of elk calves in areas of differing predator composition in New Mexico. 46th Joint Annual Meeting of the Arizona/New Mexico Chapters of The Wildlife Society, Albuquerque, New Mexico, USA.
- *Pitman, J.W., **J.W. Cain III**, S.G. Liley, W.R. Gould, and N.M. Quintana. 2012. Micro-habitat selection and mortality site characteristics of elk calves in the Blue Range Wolf Recovery Area of west-central New Mexico. 19th Annual Conference of The Wildlife Society, Portland, Oregon, USA. (POSTER)
- *Quintana, N.T., W.B. Ballard, S. Liley, P. Gibson, S. Breck, **J. Cain**, J. Oakleaf, D.L. Bergman, and J.W. Pitman. 2012. Elk calf mortality patterns in the blue range wolf recovery area, New

Mexico. 48th Annual Meeting of the Texas Chapter of The Wildlife Society, Fort Worth, Texas, USA.

- *Sorensen, G.E., W.B. Ballard, P. Gibson, R. Cox, **J. Cain**, S. Liley, and W. Armacost. 2012. Adult female mule deer habitat selection and survival following habitat enhancements in north-central New Mexico. 48th Annual Meeting of the Texas Chapter of The Wildlife Society, Fort Worth, Texas, USA.
- *Pitman, J.W., **J.W. Cain III**, S. Liley, W.R. Gould, W. Ballard, and N.T. Quintana. 2012. Cause-specific mortality and microhabitat selection of elk calves in the Blue Range Wolf Recovery Area. 45th Joint Annual Meeting of the Arizona/New Mexico Chapters of The Wildlife Society, Phoenix, Arizona, USA.
- *Lewis, J.D., **J.W. Cain III**, and R. Denkhaus. 2012. Habitat selection of an American alligator (*Alligator mississippiensis*) population at the edge of their distribution range. 48th Annual Meeting of the Texas Chapter of The Wildlife Society, Fort Worth, Texas, USA.
- V.A. Macandza, N. Owen-Smith, and ***J.W. Cain III**. 2011. Habitat and resource partitioning among tall-grass grazers: sable antelope, zebra and buffalo in Kruger National Park, South Africa. 18th Annual Conference of The Wildlife Society, Waikoloa, Hawaii, USA. (Poster)
- *Lewis, J.D., **J.W. Cain III**, and R. Denkhaus. 2011. Habitat selection of an American alligator (*Alligator mississippiensis*) population at the edge of their distribution range. Urban Wildlife Management and Planning Conference, Austin, Texas, USA.
- *Luedtke, C.J., M. Overstreet, **J.W. Cain III**, T. Stephenson, A.E. Justice-Allen. 2011. Prevalence of *Mycoplasma ovipneumoniae* in 6 geographically distinct populations of desert bighorn sheep in Arizona. 51st Desert Bighorn Council, Laughlin, Nevada, USA.
- *Lewis, J.D., **J.W. Cain III**, and R. Denkhaus. 2011. Habitat selection of an American alligator (*Alligator mississippiensis*) population at the edge of their distribution range. 47th Annual Meeting of the Texas Chapter of The Wildlife Society, San Antonio, Texas, USA.
- *Overstreet, M.W., T.R. Stephenson, and **J.W. Cain III**. 2011. Survival and recruitment of desert bighorn sheep in relation to maternal body condition on the Kofa National Wildlife Refuge, Arizona. Annual Meeting of the Arizona/New Mexico Chapter of The Wildlife Society, Pinetop, Arizona, USA. (Poster)
- *Smith, K.N., **J.W. Cain III**, M.L. Morrison, and R.N. Wilkins. 2010. Habitat and nest outcome of black-capped vireos in the Devil's River area of Texas. Black-capped Vireo Symposium, Austin, Texas, USA.
- ***Cain, J.W., III**, N. Owen-Smith, and V. Macandza. 2010. Comparative water dependency of sable antelope and zebra in Kruger National Park. 8th Annual Kruger National Park Science Networking Meeting, Skukuza, South Africa.
- ***Cain, J.W., III**, N. Owen-Smith, and V. Macandza. 2010. Comparative water dependency of sable antelope and zebra in Kruger National Park, South Africa. 46th Annual Meeting of the Texas Chapter of The Wildlife Society, Galveston, Texas, USA.
- ***Cain, J.W., III**, N. Owen-Smith, and V. Macandza. 2009. The costs of drinking: comparative water dependency of sable antelope and zebra in Kruger National Park, South Africa. 16th Annual Conference of The Wildlife Society, Monterey, California, USA.
- *Smith, S.M. and **J.W. Cain III**. 2008. Foraging efficiency and vigilance behavior of impala. 15th Annual Conference of the Wildlife Society, Miami, Florida, USA.
- Cain, J.W., III**, *B.D. Jansen, R.R. Wilson, and P.R. Krausman. 2008. Thermoregulatory advantages of shade use by desert bighorn sheep. 88th Annual Meeting of the American Society of Mammalogists, Brookings, South Dakota, USA.
- *Macandza, V., N. Owen-Smith, B.F. Erasmus, and **J.W. Cain III**. 2008. Spatial separation between low density and high density grazers: sable antelope, buffalo, and zebra in the Kruger National Park. 6th Annual Kruger National Park Science Networking Meeting, Skukuza, South Africa.

- *Smith, S.M. and **J.W. Cain III**. 2008. Foraging efficiency and vigilance behavior of impala: the influence of herd size and distribution. Annual Meeting of the Arizona/New Mexico Chapter of The Wildlife Society, Prescott, Arizona, USA
- ***Cain, J.W., III**, P.R. Krausman, J.R. Morgart, B.D. Jansen, and M.B. Pepper. 2007. Effects of removing man-made water sources on desert bighorn sheep. 14th Annual Conference of The Wildlife Society, Tucson, Arizona, USA.
- *Smith, S.M. and **J.W. Cain III**. 2007. Group foraging and vigilance behavior of impala. 14th Annual Conference of The Wildlife Society, Tucson, Arizona, USA. (Poster).
- ***Cain, J.W., III**, P.R. Krausman, J.R. Morgart, B.D. Jansen, and M.B. Pepper. 2007. Effects of removing man-made water sources on desert bighorn sheep. 21st Annual Meeting of the Society for Conservation Biology, Port Elizabeth, South Africa. (Poster).
- ***Cain, J.W., III**, and N. Owen-Smith. 2007. Water dependency and movements of sable antelope. 5th Annual Kruger National Park Science Networking Meeting, Skukuza, South Africa.
- ***Cain, J.W., III**, P.R. Krausman, and J.R. Morgart. 2006. Effects of removing man-made water sources on adult mortality and juvenile recruitment of desert bighorn sheep. Annual Meeting of the Arizona/New Mexico Chapter of The Wildlife Society, Flagstaff, Arizona, USA.
- ***Cain, J.W., III**, H.E. Johnson, and P.R. Krausman. 2005. Effects of wildfires on desert bighorn sheep habitat in the Santa Catalina Mountains, Arizona. 48th Annual Meeting of the Desert Bighorn Council, Alpine, Texas, USA.
- ***Cain, J.W., III**, P.R. Krausman, J.R. Morgart, and B.D. Jansen. 2004. Influence of topography and fix interval on GPS collar performance. 11th Annual Conference of The Wildlife Society, Calgary, Alberta, Canada.
- Cain, J.W., III**, *P.R. Krausman, and J.R. Morgart. 2004. Response of desert bighorn sheep to the removal of man-made water sources. Wildlife Water Development Workshop: a review of the science, policy, and human dimensions. Tempe, Arizona, USA.
- *Bombay, H.L., M.L. Morrison, **J.W. Cain**, and D.E. Taylor. 2003. Demographics for willow flycatchers in the central Sierra Nevada, California: 1997-2002. 10th Annual Conference of The Wildlife Society, Burlington, Vermont, USA.
- ***Cain, J.W., III**, P.R. Krausman, J.R. Morgart, and J.J. Hervert. 2003. Distribution of desert bighorn sheep in relation to forage conditions. 3rd International Wildlife Management Congress, Christchurch, New Zealand.
- ***Cain, J.W., III**, P.R. Krausman, J.R. Morgart, and J.J. Hervert. 2002. Benefits of using GPS/Satellite telemetry systems in wildlife research. Annual Meeting of the Arizona/New Mexico Chapter of The Wildlife Society, Safford, Arizona, USA.
- ***Cain, J.W., III**, P.R. Krausman, J.R. Morgart, and J.J. Hervert. 2002. Use of GPS/Satellite telemetry systems in desert bighorn sheep research. 46th Annual Meeting of the Desert Bighorn Council, Palm Springs, California, USA.
- ***Cain, J.W., III**, and M.L. Morrison. 2001. Nest success of willow flycatchers and yellow warblers in relation to predator activity in the central Sierra Nevada, California. Annual Conference of the Western Section of The Wildlife Society, Sacramento, California, USA.
- ***Cain, J.W., III**, and M.L. Morrison. 2000. Nest success of willow flycatchers and yellow warblers in relation to predator activity in the central Sierra Nevada, California. Annual Conference of the Western Section of The Wildlife Society, Riverside, California, USA.
- *Bombay, H.L., M.L. Morrison, **J. W. Cain**, and D.E. Taylor. 2000. Preliminary demographics for willow flycatchers in the central Sierra Nevada, California: 1997-2000. Conference for the Ecology and Conservation of the Willow Flycatcher, Tempe, Arizona, USA.

Research Grants and Contracts (PI or Co-PI)

- 2015 – 2019. New Mexico Department of Game and Fish. Estimation of mountain lion density in New Mexico. \$879,335 (PI).
- 2015 – 2016 U.S. Fish and Wildlife Service. Population trajectories and extinction probabilities for populations of large ungulates. \$66,478 (PI)
- 2015-2018 U.S. Fish and Wildlife Service. Predation rates and use of habitat and wildlife drinkers by mountain lions. \$107,101 (PI)
- 2015 New Mexico Chapter of the Rocky Mountain Elk Foundation. Influence of large-scale forest restoration treatments on forage resources and habitat selection of elk in north-central New Mexico \$8,600 (PI)
- 2014 – 2018 New Mexico Department of Game and Fish (NMDGF) and New Mexico Agricultural Experiment Station (NMAES). Top-down and bottom-up influences on mule deer in central New Mexico. \$71,932 (NMDGF), \$40,000 (NMAES)(PI)
- 2014 – 2016 U.S. Army Construction Engineering Research Laboratory. The ecological web contributing to a sarcoptes mange epizootic in coyotes of the Mojave Desert, Fort Irwin, California. \$75,000 (Co-PI)
- 2014 – 2016 U.S. Army Construction Engineering Research Laboratory. An estimate of abundance and an assessment of the efficacy of sterilization techniques for the control of wild burro populations. \$168,944 (Co-PI)
- 2014 – 2016 U.S. Geological Survey, National Climate Change & Wildlife Science Center. Evaluating adaptive capacity of desert bighorn sheep to climate change. \$200,212 (Co-PI)
- 2014 – 2016 U.S. Fish and Wildlife Service. An assessment of the landscape genetic structure of the western continental golden eagle population. \$120,041.77 (Co-PI)
- 2014 New Mexico Chapter of the Rocky Mountain Elk Foundation. Influence of large-scale forest restoration treatments on forage resources and habitat selection of elk in north-central \$8,600 (PI)
- 2014 – 2016 U.S. Fish and Wildlife Service. Quantifying habitat selection and predicting habitat use by Whooping Crane. \$85,709 (PI)
- 2013 – 2017 Pueblo of Jemez. Resource selection and movements of mule deer and elk on the Jemez Pueblo. \$161,053 (PI)
- 2013 – 2015 U.S. Fish and Wildlife Service. Population trends and predicted trajectories of American Pronghorn (*Antilocapra americana*) in the American Southwest \$39,291 (PI)
- 2013 – 2016 U.S. Geological Survey, National Climate Change & Wildlife Science Center. Assessment of drought impacts on selected fish and wildlife species in the southwestern U.S. \$260,000 (Co-PI)
- 2013 New Mexico Chapter of the Rocky Mountain Elk Foundation. Influence of large-scale forest restoration treatments on forage resources and habitat selection of elk in north-central \$8,600 (PI)
- 2013 Dallas Safari Club. Responses of elk, mule deer, black bear and mountain lions to large-scale forest restoration in New Mexico. \$5,000 (PI)
- 2012 – 15 New Mexico Department of Game and Fish. Research Cooperative Agreement. Habitat selection, survival and cause-specific mortality of translocated mule deer in southern New Mexico. \$98,614 (PI)
- 2011 – 2020 USDA Forest Service/Valles Caldera National Trust. Research Cooperative Agreement. Large mammal monitoring for the southwest Jemez Mountains collaborative forest landscape restoration project. \$876,074 (PI)
- 2012 – 2014 New Mexico Department of Game and Fish. Research Cooperative Agreement.

- Influence of livestock grazing on activity budgets, foraging efficiency, and forage resources of desert bighorn sheep. \$94,028 (PI)
- 2011 – 2015 U.S. Geological Survey, Science Support Partnerships. Population dynamics and reintroduction characteristics of Mexican wolves in Arizona and New Mexico's Blue Range Wolf Recovery Area. \$89,088 (Co-PI)
- 2013 T & E, Inc. Influence of Livestock Grazing on Desert Bighorn Sheep. \$2,500 (Co-PI)
- 2013 T & E, Inc. Cause specific mortality of neonatal desert bighorn sheep in the Peloncillo Mountains, New Mexico. \$2,500 (Co-PI)
- 2013 T & E, Inc. Use of noninvasive genetic analysis to estimate the abundance and density of black bears in New Mexico. \$2,000 (Co-PI)
- 2013 T & E, Inc. Distribution and Habitat Selection of Golden Eagles (*Aquila chrysaetos*) in Areas with High Potential for Wind Energy Development. \$2,500 (Co-PI)
- 2013 T & E, Inc. Black bear feeding on ungulate prey in a multi-predator system: Using GPS cluster analysis to locate feeding sites. \$1,875 (Co-PI).
- 2012 T & E, Inc. Microhabitat selection and survival of elk calves in the Blue Range Wolf Recovery Area. \$2,000 (Co-PI)
- 2012 Dallas Safari Club. Microhabitat selection and survival of elk calves in the Blue Range Wolf Recovery Area. \$5,000 (Co-PI)
- 2011 Arthur A. Seeligson, Jr. Conservation Fund. Research Grant. Population status and habitat selection of an inland alligator (*Alligator mississippiensis*) at the Fort Worth Nature Center and Refuge. \$3,842 (PI)
- 2011 – 2014 New Mexico Department of Game and Fish. Research Cooperative Agreement. Survival and cause-specific mortality of neonatal desert bighorn sheep in New Mexico. \$109,866 (PI)
- 2011 – 16 New Mexico Department of Game and Fish. Research Cooperative Agreement. Estimation of black bear abundance and densities in New Mexico using noninvasive genetic analysis. \$423,672 (Co-PI)
- 2011 Dallas-Fort Worth Herpetological Society. Research Grant. Population status and habitat selection of an inland alligator (*Alligator mississippiensis*) at the Fort Worth Nature Center and Refuge. \$600 (PI)
- 2011 – 2015 Bureau of Land Management. Research Cooperative Agreement. Distribution and Habitat Selection/Space Use of Migratory and Resident Golden Eagles (*Aquila chrysaetos*) in Areas with High Potential for Wind Energy Development in New Mexico. \$292,854 (Co-PI)
- 2010 Safari Club International Foundation. Research Grant. Influence of predation risk by lions (*Panthera leo*) on habitat selection, resource use, movements, and conservation of formerly migratory wildebeest (*Connochaetes taurinus*) and resident zebra (*Equus burchelli*) in South Africa. \$4,876 (PI)
- 2010 Dallas-Fort Worth Herpetological Society. Research Grant. Population status and habitat selection of an inland alligator (*Alligator mississippiensis*) at the Fort Worth Nature Center and Refuge. \$500 (PI)
- 2009 Office of Graduate Studies and Research, Texas A&M University-Commerce, Faculty Mini-grant. Population status and habitat selection of an inland alligator (*Alligator mississippiensis*) at the Fort Worth Nature Center and Refuge \$600 (PI)
- 2009 Dallas Chapter of the Safari Club. Research Grant. Habitat selection, movements, and conservation of formerly migratory wildebeest (*Connochaetes taurinus*) in southern Africa. \$6,732 (PI)
- 2008 Office of Graduate Studies and Research, Texas A&M University-Commerce. Faculty Research Enhancement Grant. Influence of ecosystem heterogeneity

- and predation on habitat selection, resource use, and movements of non-migratory wildebeest. \$13,875 (PI)
- 2008 Faculty Development Committee, Texas A&M University-Commerce. International Studies Grant. Habitat selection, movements, and conservation of formerly migratory wildebeest (*Connochaetes taurinus*) in South Africa. \$1,700 (PI)
- 2008 Office of Graduate Studies and Research, Texas A&M University-Commerce, Faculty Mini-grant. Habitat selection, movements, and conservation of formerly migratory wildebeest (*Connochaetes taurinus*) in South Africa. \$600 (PI)
- 2006 Arizona Desert Bighorn Sheep Society, Phoenix, Arizona, Research Grant. Impact of drought on desert bighorn sheep forage. \$5,000 (Co-PI)
- 2006 Foundation for North American Wild Sheep, Cody Wyoming, Grant in Aid of Research. Impact of drought on desert bighorn sheep forage. \$5,000 (Co-PI)
- 2005 Foundation for North American Wild Sheep, Cody Wyoming, Grant in Aid of Research. Influence of man-made water sources on desert bighorn sheep. \$20,000 (Co-PI)
- 2004 Foundation for North American Wild Sheep Cody, Wyoming, Grant in Aid of Research. Influence of man-made water sources on desert bighorn sheep. \$5,000 (Co-PI)
- 2004 United States Forest Service, Coronado National Forest. Impact of the Bullock and Aspen fires on desert bighorn sheep habitat in the Pusch Ridge Wilderness Area, Arizona. \$5,000 (Co-PI)
- 2003 Arizona Game and Fish Department. Literature review and annotated bibliography on water requirements of desert ungulates. \$9,900 (Co-PI)
- 2003 Boone and Crockett Club, Missoula, Montana, Grant in Aid of Wildlife Research. Influence of man-made water sources on desert bighorn sheep. \$7,250 (Co-PI)
- 2003 Foundation for North American Wild Sheep, Cody, Wyoming, Grant in Aid of Research. Influence of man-made water sources on desert bighorn sheep. \$10,000 (Co-PI)
- 2002 Boone and Crockett Club, Missoula, Montana, Grant in Aid of Wildlife Research. Influence of man-made water sources on desert bighorn sheep. \$10,000 (Co-PI)
- 2002 – 2006 Arizona Agricultural Experiment Station Project Grant, University of Arizona. Manipulating water sources of desert bighorn sheep in the Cabeza Prieta National Wildlife Refuge, Arizona. \$35,000 (Co-PI).

Awards, Scholarships, and Fellowships

- 2010 – Outstanding Scientific Publication Award – Wildlife Monograph. The Wildlife Society.
- 2010 – Outstanding Scientific Publication Award. Texas Chapter of The Wildlife Society.
- 2007 – Postdoctoral Research Fellowship. National Research Foundation, South Africa.
- 2007 – Postdoctoral Research Fellowship. School of Animal, Plant, & Environmental Sciences, University of the Witwatersrand, South Africa.
- 2006 – Postdoctoral Research Fellowship. School of Animal, Plant, & Environmental Sciences, University of the Witwatersrand, South Africa.
- 2006 – Doug Morrison Award, Arizona Chapter of The Wildlife Society
- 2005 – Rick F. Seegmiller Memorial Scholarship.
- 2005 – Hansen-Welles Memorial Scholarship, Desert Bighorn Council.
- 2004 – Arizona Desert Bighorn Sheep Society Scholarship.
- 2003 – Hansen-Welles Memorial Scholarship, Desert Bighorn Council.
- 2003 – Arizona Desert Bighorn Sheep Society Scholarship.
- 2002 – National Fish and Wildlife Foundation Budweiser Conservation Scholarship.
- 2002 – Hansen-Welles Memorial Scholarship, Desert Bighorn Council.

- 2001 – Biological Conservation Scholarship. Department of Biological Sciences, California State University, Sacramento.
- 2001 – Graduate Research Award. Biological Sciences Alumni Chapter, Department of Biological Sciences, California State University, Sacramento.
- 2000 – Biological Conservation Scholarship. Department of Biological Sciences, California State University, Sacramento.

Professional Affiliations

- American Society of Mammalogists
- Association of Field Ornithologists
- Cooper Ornithological Society
- Desert Bighorn Council
- South African Wildlife Management Association
- The Wildlife Society
 - Certified Wildlife Biologist

Professional Service

Editorial Service

- Editor: J.W. Cain, III and J.P. Marshal, editors. 2013. Proceedings of the IV International Wildlife Management Congress, 2012, Durban South Africa.
- Editor: Krausman, P.R., and Cain, J.W. III, editors. 2013. Wildlife Management: Contemporary Principles and Practices. The Wildlife Society and John Hopkins University Press.
- Editor: Cain, J.W., III, and P.R. Krausman, editors. 2006. Proceedings of the 2005 Conference of the Southwest Section of The Wildlife Society. Managing Wildlife in the Southwest: New Challenges for the 21st Century. Southwest Section of The Wildlife Society, Tucson, Arizona, USA.
- Associate Editor (2014 – present): *The Wildlife Society Bulletin*
- Subject Editor (2012 – 2014): *Journal of Fish and Wildlife Management*
- Associate Editor (2005): Special Section of *The Wildlife Society Bulletin*
- Technical editor (2004 – 2007): *Wildlife Monographs*

Reviewer

- *African Journal of Ecology*
- *Animal Behaviour*
- *Canadian Field Naturalist*
- *Canadian Journal of Animal Science*
- *Desert Bighorn Council Transactions*
- *Ecosphere*
- *European Journal of Wildlife Research*
- *International Journal of Biodiversity and Conservation*
- *Journal of Applied Ecology*
- *Journal of Arid Environments*
- *Journal of Mammalogy*
- *Journal of Tropical Ecology*
- *Journal of Wildlife Management*
- *Southwestern Naturalist*
- *Studies in Avian Biology*

- *Western North American Naturalist*
- *Wildlife Society Bulletin*
- *Wilson Bulletin*

Professional Organization and Conference Service

- Subcommittee Chair (2014 – 2015). Contributed Papers Subcommittee. 5th International Wildlife Management Congress, Sapporo, Japan.
- Committee Chair. (2014). Conference Planning Committee. 2015 Annual Meeting of the Arizona/New Mexico Chapter of The Wildlife Society, Las Cruces, New Mexico, USA
- President-elect (2013), President (2014), Past President (2015). New Mexico Chapter of The Wildlife Society.
- Session chair. (2013). Annual Meeting of the Arizona/New Mexico Chapter of The Wildlife Society, Albuquerque, New Mexico, USA.
- Subcommittee Chair (2011 – 2012). Contributed Papers Subcommittee. 4th International Wildlife Management Congress, Durban, South Africa.
- Project Advisory Committee (2011 – present). New Mexico Chapter of the Rocky Mountain Elk Foundation
- Committee Chair (2010). Conservation Affairs Committee, Texas Chapter of The Wildlife Society.
- Faculty Advisor (2008 – 2010). Student Chapter of The Wildlife Society, Texas A&M University-Commerce
- Board Member (2004 – 2005). Corresponding Secretary, Arizona Chapter of The Wildlife Society.
- Committee Member. (2005). Conference Planning Committee. 2006. Annual Meeting of the Arizona/New Mexico Chapter of The Wildlife Society, Flagstaff, Arizona, USA
- Committee Member (2005). Conference Planning and Program Committees. Conference of the Southwest Section of The Wildlife Society: Managing Wildlife in the Southwest: New Challenges for the 21st Century, Alpine, Texas, USA.
- Committee chair. (2005). Proceedings Committee. Conference of the Southwest Section of The Wildlife Society: Managing Wildlife in the Southwest: New Challenges for the 21st Century, Alpine, Texas, USA
- Session chair. (2006). Annual Meeting of the Arizona/New Mexico Chapter of The Wildlife Society, Flagstaff, Arizona, USA.
- Session chair. (2004). Annual Meeting of the Arizona/New Mexico Chapter of The Wildlife Society, Safford, Arizona, USA.
- Session chair. (2003). Third International Wildlife Management Congress, Christchurch, New Zealand.