

# A Tribute to Warren Baxter Ballard, 1947–2012

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Warren Baxter Ballard, professor and Bricker Chair in Wildlife Management, Department of Natural Resources Management, Texas Tech University, Lubbock, Texas, lost a battle with pancreatic cancer on 12 January 2012.

He had gained broad research experience in wildlife biology in the boreal forest of Alaska in the northwest and New Brunswick in the east and very different habitats in the southwestern United States. In addition, he had been to New Zealand, Poland, Sweden, and Russia. His extensive publication record spanning 1971 to 2013 included 27 contributions to *The Canadian Field-Naturalist* covering a variety of vertebrate taxa, including ducks, turkeys, deer, caribou, foxes, wolves, and bears and usually coauthored with students and colleagues. His editorial contributions to journals and other publications were also extensive. As associate editor of *The Canadian Field-Naturalist* for mammals 1994–2001, 2007–2011, and before and between these periods as an occasional reviewer, he contributed over 280 individual reviews himself or assigned them to graduate students as part of their training.

Warren was born on 28 April 1947, in Boston, Massachusetts. His family moved to Albuquerque, New Mexico, in the early 1950s and Warren attended St. Pius X High School there and, subsequently, enrolled at New Mexico State University. He held numerous summer positions with the New Mexico Department of Game & Fish, the United States Army Corps of Engineers, the Bureau of Land Management, and the Department of Animal, Range and Wildlife Sciences, New Mexico State University. He obtained a bachelor of science degree in fish and wildlife management in 1969 and a master's in environmental biology from Kansas State University, Manhattan, Kansas, in 1971. His thesis for the latter was entitled, "Importance of social aggression in booming ground hierarchy of greater prairie chickens (*Tympanuchus cupido pinnatus*)"; his supervisor was Dr. Robert J. Robel.

From 1 August 1971 to 31 July 1973, Warren was a wildlife biologist with the U.S. Fish and Wildlife Service, Tulsa, Oklahoma. From 1 August 1973 to 1 November 1990, he was a research biologist with the Alaska Department of Fish and Game, in Juneau, Homer, Glennallen, Palmer, Anchorage, and Nome, Alaska, but resigned when his application for educational leave was rejected. From 11 January 1990 to 1 January 1992, he



FIGURE 1: Warren Baxter Ballard, about 2004, at Texas Tech University. Photographer Artie Limmer.

was a research associate at the School of Renewable Natural Resources, University of Arizona, Tucson He received a Ph.D. in Wildlife Science, University of Arizona, in 1993; his dissertation was "Demographics, movements, and predation rates of wolves in northwest Alaska" (supervisor: Dr. Paul R. Krausman).

Briefly, 1–10 January 1992, he was a wildlife research biologist with the U.S. National Park Service, Anchorage, Alaska. From 10 January 1992 to 1 July 1993, he was a senior wildlife ecologist with LGL Alaska Research Associates, Inc., Anchorage, Alaska. This was followed by a position as director and associate professor in the Cooperative Fish and Wildlife Research Unit, University of New Brunswick, Fredericton, New Brunswick, where he stayed until August 1996.



FIGURE 2. Warren Baxter Ballard and Heather Whitlaw on a visit to editor's residence in 2002. Photograph by Francis Cook.

Moving southwest, he spent 1 September 1996 to 1 February 1998 working as research supervisor, Arizona Game and Fish Department, Phoenix, Arizona. In a final move, from 7 January 1998 to 31 August 2003, he was an associate professor in the Department of Natural Resources Management at Texas Tech University, where he became associate chair on 2 July 2002 and was elevated to professor on 1 September 2003. On 13 April 2006, he was appointed to the prestigious Bricker Chair in Wildlife Management, a position he held until his death. In addition, he held appointments as adjunct professor, Faculty of Biology, University of New Brunswick (9 January 1993) adjunct associate professor, School of Renewable Natural Resources, University of Arizona, Tucson (1 October 1996), an adjunct to faculty, Division of Biology, Kansas State University, Manhattan (1 September 1998).

A highly regarded teacher, Warren taught seven courses over 39 terms achieving a 4.5 out of 5 rating in student response. He supervised 44 graduate students (30 at the M.Sc. level and 14 Ph.D.s) as well as two postdoctoral students.

A prolific writer and supervisor, Warren wrote or co-wrote an ever-increasing multitude of journal papers, monographs, contributions to books and conference proceedings, and miscellaneous publications, as well as invited presentations and progress reports which were not published.

His editorial contributions were numerous: in addition to his long service as associate editor of *The Canadian Field-Naturalist* mentioned above, he served as editor in-chief of *The Wildlife Society Bulletin* (2002–2005). He was co-editor of *Alces* (1998–2001); *The Moose Call*, the newsletter of the North American Moose Conference and Workshop, Canada (1994–1996); and the Third International Moose Symposium, Soviet Union (1991–1992). He was consulting editor for the University of Alberta Press (1992) and associate editor for *Wildlife Monographs* (2007, 2004, 1995–1996, and 1989), *The Wildlife Society Bulletin* (1998–2001), and *Alces* (1996–1997). He carried out peer reviews for the *Canadian Journal of Zoology*, the *Journal of Mammalogy*, the *Journal of Wildlife Diseases*, *The Journal of Wildlife Management*, *Alces*, the *Proceedings of Desert Bighorn Sheep Council*, the *Proceedings of the Second International Wolf Symposium*, International Bear Conference, *Ecoscience*, the *Journal of Range Management*, Texas Tech University Press, *Biological Conservation*, *Science of the Total Environment*, the *Texas Journal of Science*, and the *European Journal of Wildlife Research*.

Diverse awards have recognized Warren's many contributions: Distinguished Moose Biologist Award from the North American Moose Conference at St. John's, Newfoundland (1989); an Award for Excellence from the School of Renewable Natural Resources, Uni-



FIGURE 3. Warren Baxter Ballard on a hunting trip in Texas, October 2003. Photograph courtesy Heather Whitlaw.

versity of Arizona, for an outstanding dissertation (1994); the Order of Alces at the 31st North American Moose Conference for service to *Alces* (1995); a Special Service Award from the University of New Brunswick for contributions to the New Brunswick Cooperative Fish and Wildlife Research Unit from 1993 to 1996 (1996); admission to Sigma Xi honorary research fraternity (1999); the Big 12 Faculty Fellowship from Kansas State University (1999); a Teacher of the Year award from the Range, Wildlife, and Fisheries Club, Texas Tech University (1999); an Outstanding Researcher Award from the College of Agricultural Sciences and Natural Resources, Texas Tech University (2002); Best Article for 2002 from The Wildlife Society in Bismarck, North Dakota, for his paper entitled “Deer–predator relationships: a review of recent North American studies with emphasis on mule and black-tailed deer” (2002); a Special Service Recognition Award from The Wildlife Society, Bismarck, North Dakota (2002); a Chancellors Council Distinguished Research Award from Texas Tech University (2002); the life-time title of TWS Fellow from The Wildlife Society, Madison, Wisconsin (2005); an Outstanding Achievement Award from the Texas Chapter of the Wildlife Society, Beaumont, Texas (2006); and a Best Monograph award from The Wildlife Society for a manuscript entitled “Pathogens, nutritional deficien-

cy, and climate influences on a declining moose population” authored by Dennis L. Murray, Eric W. Cox, Warren B. Ballard, Heather A. Whitlaw, Mark S. Lenarz, Thomas W. Custer, Terri Barnett, and Todd K. Fuller, Tucson, Arizona (2007).

Warren was exceptionally active in the science community and professional societies. He held professional membership in The Wildlife Society, the Texas chapter of The Wildlife Society, the American Society of Mammalogists, the Canadian Field-Naturalist, Sigma Xi, and the Southwestern Association of Naturalists. He held numerous positions on committees and served as a consultant to the University of Minnesota, the British Columbia provincial government, LGL Alaska Research Associates, Inc., Entrix Inc., and Revett Silver Mine concerning grizzly bear issues.

Warren had definite views on wildlife research and education, which he put into practice in his teaching, editing, and society involvement, as well as his own research. In his curriculum vitae, he stated,

The purpose of wildlife research is to test hypotheses, develop better techniques, and build a sound database for the management and conservation of wildlife throughout the world. Wildlife research should always use and follow the scientific method. Research should be oriented both towards testing theory and solving technical problems. Dissemination of research results through

publication is essential to a successful and productive research program.

Education in wildlife and biological sciences should provide students with basic concepts and theories, and equip them with the necessary tools of the trade to be productive biologists. Knowledge of ecological concepts, effective communication skills, statistical expertise, and critical thinking should be stressed at all levels of college education. In addition, recent and current research, as well as management findings and problems should be incorporated into the education process.

On Warren's death, Texas Tech president, Guy Bailey, wrote, "Dr. Ballard was a Texas Tech Horn Professor and the Bricker Chair in Wildlife Management. A Horn professorship is the highest honor a faculty member can receive from the university. Horn professors are a testament to the quality of our academics because they represent the very best of our faculty."

"His legacy lives on in the students, faculty and research projects he touched," said Michael Galyean, interim dean of the College of Agricultural Sciences and Natural Resources.

"Warren was my friend since graduate school, an internationally-recognized research scientist, a major figure in this wildlife program, and an irreplaceable part of our department," said Mark Wallace, chairman of Tech's Department of Natural Resources Management.

On 18 January 2012, Canadian colleague, Graham Forbes, posted a note on a "tribute wall" (Lake Ridge Chapel and Memorial Designers postings): "Warren was very well-liked here at the University of New Brunswick during his time as director of the Wildlife Coop Unit. He initiated some great projects and was valued by all who worked with him. We missed him when he left UNB and it's hard to acknowledge he has passed. I presently occupy his old office and just had a large shot of whisky, in his memory, and his honour. Our thoughts are with Heather."

Dwayne Sabine also posted a message in January: "I was Warren's first grad student. I led one of two deer studies he initiated here in New Brunswick, Canada, and he hired Heather to run the other.... Warren was certainly a positive influence on my career and life. I have fond memories of time spent in the field and at camp with Warren and Heather. He always had great stories at hand, and (unfortunately, perhaps) I may have given him one or two more during his time here (the blindfolded deer that 'got away' comes to mind...)."

Graham Forbes recalled an additional anecdote from Warren's time at the University of New Brunswick (personal communication 18 February 2013): "Warren became 'known' to campus security one autumn when he took his Wildlife Investigation Techniques class on to the rugby field on the edge of campus for some drug immobilization training. The class was target practising

with some Cap-Chur rifles (CO<sub>2</sub>-powered for tranquilizing projectiles); in hindsight, it would have been prudent to inform security first!"

Personally, I will miss our many exchanges on manuscript evaluation and on life over 30 years. Our last conversation was shortly before he died — a comparison of our success with walkers. Warren, who had worked efficiently and productively with little interruption over several health setbacks, was ever upbeat and proud of his dexterity with his walker and encouraged me to improve with mine.

Warren was predeceased by his father, Warren Baxter Ballard. He was survived by his mother LaVerne Rosemary Ballard (née Bernat) and his wife, Heather Whitlaw, as well as children Cynthia Bergamo (husband Greg Bergamo), Warren B. Ballard, III (mother Ms. Sheila Sturtz), Laurina Wittig (husband Thomas Wittig), and Raymond Ballard (mother Ms. Tina Cunningham); grandchildren Ezra Bergamo, and Blair and Brandon Ballard; mother-in-law, Nan McGhee, father-in-law, David Whitlaw, sister-in-law, Patricia Whitlaw; and nieces, Elizabeth and Paige Jones. He is fondly remembered by graduate students from the several universities where he had been a staff member as well as by research colleagues and friends from around the world.

### Acknowledgements

Warren's wife and frequent coauthor, Heather Whitlaw, provided Warren's 2007 comprehensive curriculum vitae, an updated 2012 list of Warren's publications, and a photograph. Roger Applegate searched for the full citation for many incomplete references to publications that appeared after Warren's death. At Texas Tech University, Kristina Woods Butler, Research and Academic Communications, Office of the Vice President for Research, and Norman Martin, College of Agricultural Sciences and Natural Resources, traced the source of Figure 1 and approved its credit and use, respectively. The notice in *The Lubbock Avalanche-Journal*, 13 January 2012, and online comments posted on the Internet guest book of Lake Ridge Chapel and Memorial Designers, 6025 82nd Street, Lubbock, Texas were drawn upon for additional information. Also accessed was the article by Roger D. Applegate and Paul R. Krausman. 2012. Warren B. Ballard, Jr. 1947–2012: A personal tribute. *The Wildlife Society* 36(1): 4–5. Roger Applegate, Graham J. Forbes, and Heather Whitlaw read earlier drafts of this article and made many appreciated corrections and additions.

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