

## RESUMÉ

**Richard G. Botzler**

Professor Emeritus, Department of Wildlife

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**Education**

B.S.	Biology	1963	Wayne State University (MI)
M.W.M.	Wildlife Management	1967	The University of Michigan
Ph.D.	Wildlife Management	1970	The University of Michigan

**Biographical Listing**American Men and Women of Science (14<sup>th</sup> ed., 1979)Who's Who in the West (25<sup>th</sup> ed., 1996)Directory of American Scholars (10<sup>th</sup> ed., 2002). Volume IV: Philosophy, Religion, & Law**Current Position:** Professor emeritus, Wildlife, Humboldt State University**Academic responsibilities as professor (1970-2007):**Courses taught at HSU included:

Principles of Wildlife Diseases	Principles of Wildlife Management
Ecology & Control of Wildlife Diseases	Wildlife Ecology and Management
Advanced Topics in Wildlife Diseases	Wildlife Management (Mammals)
Environmental Ethics	Inscape/Landscape
Wildlife Policy and Administration	Natural Resource Conservation
Graduate Seminar (Wildlife)	
Case Studies in Environmental Ethics	Senior Seminar (Wildlife)

## Teaching Philosophy

I focused on three primary goals in my teaching. One was to provide subject matter which reflected a comprehensive and current knowledge base in each field. Secondly, I worked to prepare students to function competently and confidently in their roles and responsibilities in society, and to support them in making wise and worthwhile contributions. My third goal was to offer learning opportunities that were enriching and satisfying to each participating student. I viewed each class as a shared learning opportunity for the students and me. While I assumed the major responsibility for designing each course, I valued each student's potential for making significant contributions to our shared educational experience. I always worked to include interdisciplinary perspectives for my students in order to provide them with a broad array of intellectual tools with which to consider challenging problems.

Most research and publications after my arrival at Humboldt State was in conjunction with graduate and undergraduate students. I also frequently used research as a cooperative learning tool in the classroom. This exposed students to the practical problems and the excitement of using the scientific method and direct experience as a means of learning. It also provided the educational benefits inherent to a cooperative learning strategy. Classroom projects by undergraduate students resulted in a number of peer-reviewed publications in international journals and several presentations at regional and national scientific conferences.

**Other Professional Experience**

1. Editor, *Journal of Wildlife Diseases*, 1991-1996. The *Journal of Wildlife Diseases* is an international journal with over 1400 subscribers world-wide. Responsibilities included receiving and handling manuscripts; supervising the review process among the assistant editors and referees; and making the final decisions on publication. In addition, I integrated Ethical Guidelines for the Journal of Wildlife Diseases, including responsibilities for the Editor, Assistant Editors, Reviewers, and Authors

2. Assistant Editor, *Journal of Wildlife Diseases*, 1990-1991. These responsibilities included identifying appropriate reviewers for submitted manuscripts assigned to me by the *Journal* editor; summarizing pertinent comments, criticisms, and recommendations of reviewers; recommending manuscript alterations; ensuring all manuscripts were returned to the editor in a timely fashion; and making a final recommendation to the editor on the suitability of each manuscript.

3. Fulbright Fellow, 1981-1982, Universität Hohenheim, Stuttgart, Federal Republic of Germany. Full-time professional teaching, lecturing, consultation, research and study at the Universität Hohenheim, Stuttgart, Federal Republic of Germany. Classes were offered in the German language on wildlife ecology and management, ecology and control of wildlife diseases, and environmental ethics. The role of soil as a reservoir for non-plague *Yersinia* spp. was assessed in my research study. I delivered a series of invited lectures at Çukurova University in Adana, Turkey, and at Justus Liebig Universität Gießen, Federal Republic of Germany. Established professional ties with key colleagues abroad.

4. Department Chair, Wildlife Department, 1977-1980, 1996-1998, Humboldt State University. Responsibilities included updating courses and curricula, scheduling classes, preparing personnel recommendations for departmental faculty, initiating and overseeing the hiring of permanent and temporary additions to the Wildlife faculty, overseeing student recruitment and services, managing the departmental budget of \$500,000+, representing departmental interests for budgetary and other needs in the College of Natural Resources and Sciences, and the University, and maintaining good public relations. Wrote the Wildlife Program Review, an extensive and detailed evaluation on the strengths and weaknesses of the Wildlife program; led the department in developing a Statement of the Mission and Goals of the Department.

### **Honors and Awards**

Outstanding Professor Award, Humboldt State University, 1991-92

Trustee Outstanding Professor Award for the 20-campus California State University system, May 1992.

Distinguished Service Award, Wildlife Disease Association, August 1997.

Professional of the Year, California North Coast Chapter of The Wildlife Society, May 2007

Resolution of Commendation of the Board of Supervisors, County of Humboldt, August 2008

Emeritus Award, Wildlife Disease Association, August 2011.

### **Research Experience**

I have greatly enjoyed continuous involvement in research activities throughout my professional life, both independently and in conjunction with colleagues and graduate students. My studies on *Listeria monocytogenes*, plague and non-plague *Yersinia*, and *Pasteurella multocida* are directly related to wildlife ecology, human health, and agricultural concerns.

Much of my research has been directed to understanding the ecology and natural history of wildlife diseases. However, my education and experience also are strongly grounded in basic biology and zoology, environmental ethics, general ecology, wildlife management, radiation biology, and tissue immunity. Thus, in addition to expertise in my field of specialization, these additional interests have

enabled me to integrate concepts from a variety of disciplines and to work comfortably in interdisciplinary environments.

#### Areas of Research and Writing

Determining the effects of X-irradiation on tissue immunity. 1964 to 1970.

Enzooology of zoonotic bacteria, *Listeria monocytogenes* and nonplague *Yersinia* spp. in natural ecosystems of Michigan and California (USA), and the Federal Republic of Germany. 1967 to 1987.

Enzooology of avian cholera (*Pasteurella multocida* infection) among wildfowl on the north coast of California (USA). 1971 to 2007.

Physical condition, reproductive performance and parasite burdens of black-tailed deer (*Odocoileus hemionus columbianus*), and American coots (*Fulica americana*). 1972 to 1992

Banding and migration patterns of tundra swans (*Cygnus columbianus*) and American coots in northern California (USA). 1979 to 1982.

Enzooology of bubonic plague (*Yersinia pestis* infection) in Redwood National Park, California (USA). 1983 to 1988.

Environmental ethics, 1983 to 2007.

Enzooology of *Batrachochytrium dendrobatidis* among amphibians of Mexico and Humboldt County, 2010 to 2016.

#### Peer-reviewed publications

Kahn, R. L., R. G. Botzler, and J. F. Eisses. 1965. Antitoxin-localizing method in determining antilocalization in X-irradiated areas of rabbits. *Radiation Research* 25: 713-714.

Kahn, R. L., R. G. Botzler, and N. S. Miller. 1967. Comparative localizing response of inflammatory and irradiated tissues to injected protein. *Proceedings of the Society for Experimental Biology and Medicine* 124: 153-154.

Kahn, R. L., R. G. Botzler, and N. S. Miller. 1967. Antilocalization following minimal focal X-irradiation. *Radiation Research* 30: 634-639.

Botzler, R. G., T. F. Wetzler, and A. B. Cowan. 1968. *Yersinia enterocolitica* and *Yersinia*-like organisms isolated from frogs and snails. *Bulletin of the Wildlife Disease Association* 4: 110-115.

Kahn, R. L., N. S. Miller, and R. G. Botzler. 1970. High roentgen exposures (2000-8000R) and antilocalization of skin-injected protein. *Radiation Research* 42: 188-194.

Botzler, R. G., T. F. Wetzler, and A. B. Cowan. 1973. *Listeria* in aquatic animals. *Journal of Wildlife Diseases* 9: 163-170.

Botzler, R. G., A. B. Cowan, and T. F. Wetzler. 1974. Survival of *Listeria monocytogenes* in soil and water. *Journal of Wildlife Diseases* 10: 204-212.

Botzler, R. G., A. B. Cowan, and T. F. Wetzler. 1975. Rate of *Listeria monocytogenes* shedding from frogs. *Journal of Wildlife Diseases* 11: 277-279.

\*Martyny, J. W., and R. G. Botzler. 1975. *Listeria monocytogenes* isolated from wapiti (*Cervus canadensis roosevelti*). *Journal of Wildlife Diseases* 11: 330-334.

\*Martyny, J. W., and R. G. Botzler. 1976. *Yersinia* isolated from wapiti (*Cervus canadensis roosevelti*). *Journal of Wildlife Diseases* 12: 386-389.

Botzler, R. G., T. F. Wetzler, A. B. Cowan, and T. J. Quan. 1976. *Yersinia* in pond water and snails. *Journal of Wildlife Diseases* 12: 492-496.

\*\*Hazlewood, R. M., A. F. Oddo, R. D. Pagan, and R. G. Botzler. 1978. The 1975-76 avian cholera outbreaks in Humboldt County, California. *Journal of Wildlife Diseases* 14: 229-232.

\*\*Oddo, A. F., R. D. Pagan, L. Worden, and R. G. Botzler. 1978. The January 1977 avian cholera epornitic in northwest California. *Journal of Wildlife Diseases* 14: 317-321.

Botzler, R. G. 1979. *Yersinia* in the soil of an infected wapiti range. *Journal of Wildlife Diseases* 15: 529-532.

Botzler, R. G., and R. L. Hurley. 1979. Mixed myiasis of *Lucilia illustris* and *Paralucilia wheeleri* (Diptera: Calliphoridae) in a raccoon from northwestern California. *Journal of Medical Entomology* 16: 550.

\*\*Botzler, R. G., J. Albrecht, and T. Schaefer. 1980. Tick paralysis in a western harvest mouse (*Reithrodontomys megalotis*). *Journal of Wildlife Diseases* 16: 223-224.

\*Botzler, R. G., T. Fanton, L. Simpfenderfer, and S. Barton. 1980. *Gongylonema pulchrum* in cervids of northwestern California. *Proceedings of the Helminthological Society of Washington* 47: 266-267.

Botzler, R. G., and A. B. Cowan. 1985. Transfer of *Listeria monocytogenes* between frogs. *Journal of Wildlife Diseases* 21: 173-174.

Botzler, R. G., and S. B. Armstrong-Buck. 1985. Ethical considerations in research on wildlife diseases. *Journal of Wildlife Diseases* 21: 341-345.

\*\*Miller, S. L., M. A. Gregg, M. K. Murdock, A. R. Kuritsubo, S. M. Combs, J. A. Nilsson, and R. G. Botzler. 1986. Probable drowning of tundra swans on the northern coast of California. *Journal of Wildlife Diseases* 22: 137-140.

\*Backstrand, J. M., and R. G. Botzler. 1986. Survival of *Pasteurella multocida* in soil and water in an area where avian cholera is enzootic. *Journal of Wildlife Diseases* 22: 257-259.

Botzler, R. G. 1987. Isolation of *Yersinia enterocolitica* and *Y. frederiksenii* from forest soil, Federal Republic of Germany. *Journal of Wildlife Diseases* 23: 311-313.

\*\*Miller, S. L., M. A. Gregg, A. R. Kuritsubo, S. M. Combs, M. K. Murdock, J. A. Nilsson, B. R. Noon, and R. G. Botzler. 1988. Morphometric variation in tundra swans: Relationships among sex and age classes. *The Condor* 90: 802-815.

\*Clover, J. R., T. D. Hofstra, B. G. Kuluris, M. T. Schroeder, B. C. Nelson, A. M. Barnes, and R. G. Botzler. 1989. Serologic evidence of *Yersinia pestis* infection in small mammals and bears from a temperate rainforest of north coastal California. *Journal of Wildlife Diseases* 25: 52-60.

\*Bredy, J. P., and R. G. Botzler. 1989. The effects of six environmental variables on the survival of *Pasteurella multocida* in water. *Journal of Wildlife Diseases* 25: 232-239.

\*Mensik, J. G., and R. G. Botzler. 1989. Epizootiological features of avian cholera on California's north coast. *Journal of Wildlife Diseases* 25: 240-245.

Botzler, R. G. 1991. Epizootiology of avian cholera in wildfowl. *Journal of Wildlife Diseases* 27: 367-395. (Invited review by JWD editor)

\*Combs, S. M., and R. G. Botzler. 1991. Correlations of daily activity with avian cholera mortality among wildfowl. *Journal of Wildlife Diseases* 27: 543-550.

\*Miller, S. L. Miller, and R. G. Botzler. 1995. Recovery of *Pasteurella multocida* from experimentally-exposed freshwater snails. *Journal of Wildlife Diseases* 31: 358-363.

Wildlife Disease Association (R. G. Botzler, editor). 1996. Ethical guidelines to publication in the *Journal of Wildlife Diseases*. *Journal of Wildlife Diseases* 32: 163-167.

\*\*Van Baren, D. C., E. P. Hoberg, and R. G. Botzler. 1996. Abomasal parasites in tule elk (*Cervus elaphus nannodes*) from Grizzly Island, California. *The Journal of the Helminthological Society of Washington* 63: 222-225.

\*\*VanBlankenstein, T., and R. G. Botzler. 1996. Effect of ectoparasite removal procedures on recapture of Microtus californicus. *Journal of Wildlife Diseases* 32: 714-715.

\*Ladd-Wilson, S., S. L. Buck, and R. G. Botzler. 2000. Abomasal parasites in southern mule deer (*Odocoileus hemionus fuliginatus*) from coastal San Diego County, California, U.S.A. *Comparative Parasitology* 67: 135-137.

\*\*Clemons, C., L. G. Rickard, J. E. Keirans, and R. G. Botzler. 2000. Evaluation of host preferences by helminths and ectoparasites among black-tailed jackrabbits from northern California. *Journal of Wildlife Diseases* 36(3): 555-558.

\* Shender, Lisa A., Richard G. Botzler, and T. Luke George. 2002. Analysis of serum and whole blood values in relation to helminth and ectoparasite infections of feral pigs in Texas. *Journal of Wildlife Diseases* 38: 385-394.

Botzler, R. G. 2002. Avian cholera on North Coast California: Distinctive epizootiological features. In: *The Domestic Animal/Wildlife Interface Issues for Disease Control, Conservation, Sustainable Food Production, and Emerging Diseases*. *Annals of the New York Academy of Sciences* 969: 224-228.

\*Lehr, M. A., R. G. Botzler, M. D. Samuel, and D. J. Shadduck. 2005. Associations between water quality, *Pasteurella multocida*, and avian cholera at the Sacramento National Wildlife Refuge. *Journal of Wildlife Diseases* 41: 291-297.

\*Steele, C. M., R. N. Brown, and R. G. Botzler. 2005. Prevalences of zoonotic bacteria among seabirds in rehabilitation centers along the Pacific coast of California and Washington, USA. *Journal of Wildlife Diseases* 41: 735-744.

\*Gabriel, M. W., R. N. Brown, J. E. Foley, J. M. Higley, and R. G. Botzler. 2009. Ecology of Anaplasma phagocytophilum infection in gray foxes (Urocyon cinereoargenteus) in northwestern California. *Journal of Wildlife Diseases* 45(2): 344-354.

\*\*Ecoclub Amphibian Group, K. L. Pope, G. M. Wengert, J. E. Foley, D. T. Ashton, and R. G. Botzler. 2016. Young citizen scientists monitor a deadly fungus threatening regional amphibian communities in northern coastal California. *Journal of Wildlife Diseases* 52 (3): 516-523.

\* Projects conducted with graduate students.

\*\* Projects conducted primarily or exclusively with undergraduate students.

### **Book chapters**

Botzler, Richard G. 1998. Successes and failures in teaching. *In Teaching Excellence: A Collection of Essays on College Education Written by Recipients of the California State University Trustees' Outstanding Professor Award*, Michael Flachmann (ed.). California State University Press, Long Beach, California, pp. 1-12 (ISBN # 0-9661857-0-6).

Samuel, M. D., R. G. Botzler, and G. Wobeser. 2007. Pasteurellosis. Chapter 12, in: *Infectious Diseases of Wild Birds*, N. Thomas, D. B. Hunter and C. Atkinson (eds.), Blackwell Scientific Press, Ames, Iowa

### **Books**

Armstrong, S. J., and R. G. Botzler (editors). 1993. *Environmental Ethics: Divergence and Convergence. A book of collected readings.* McGraw-Hill, Inc., New York, New York,  
 1993 1<sup>st</sup> ed. 570 pp. ISBN 0-07-002608-4  
 1998 2<sup>nd</sup> ed. 600 pp. ISBN: 0-07-006180-7. (Botzler & Armstrong)  
 2004 3<sup>rd</sup> ed. 609 pp. ISBN: 0-07-283845-0.

Armstrong, Susan J., and Richard G. Botzler (editors). 2003. *The Animal Ethics Reader.* Routledge. New York, New York,  
 2003 1<sup>st</sup> ed. 588 pp. ISBN: 0-415-27589.  
 2008 2<sup>nd</sup> ed. 646 pp. ISBN: 0-415-77539-6; 978-0-415-77539-7  
 2017 3<sup>rd</sup> ed. 719 pp. ISBN: 978-1-138-91800-9

Botzler, Richard G., and Richard N. Brown. 2014. *Fundamentals of Wildlife Diseases.* University of California Press, Berkeley, California, 449 pp., ISBN: 978-0-520-27609-3.

### **Encyclopedia entries**

Botzler, R. G. 1998. "Environmental Ethics." *In Natural Resources*, M. S. Coyne and C. W. Allin, consulting editors. Salem Press, Pasadena, California, pp. 246-249. ISBN 0-89356-912-7.

Botzler, R. G. 2000. "Environmental ethics." *In Encyclopedia of Environmental Issues* (C. W. Allin, editor. Salem Press, Pasadena, California, pp. 285-287. ISBN 0-89356-994-1.

Botzler, R. G. 2000. "Kaibab Plateau deer disaster." *In Encyclopedia of Environmental Issues* (C. W. Allin, editor. Salem Press, Pasadena, California, p. 427. ISBN 0-89356-994-1.

### **Graduate Students**

The following are the graduate students completing theses for whom I served as major advisor.

#Martynty, John W. 1974. Listeriae and yersiniae in Roosevelt elk (*Cervus canadensis roosevelti*).

Rice, Kenneth W. 1977. A survey of parasites in *Callospermophilus lateralis* in Lassen Volcanic National Park.

Thomas, Charles Lynn. 1978. Ecology of the California bighorn sheep (*Ovis canadensis californiana* Douglas) in Nevada.

Havelka, Michel A. 1979. Condition of the Hunter-Liggett Deer Herd, 1960-1974.

#Simpfenderfer, Larry J. 1979. Yersiniae, listeriae, and leptospores in Roosevelt wapiti (*Cervus elaphus roosevelti*) and black-tailed deer (*Odocoileus hemionus columbianus*) of Humboldt County, California.

#Oddo, Anthony F. 1979. A selective culture technic for isolating *Listeria monocytogenes* from soil at Prairie Creek State Park, Humboldt County, California.

Backstrand, James M. 1982. Survival and attempted isolation of *Pasteurella multocida* in soil and water at an enzootic avian cholera site.

Longfellow, Gary K. 1984. Tabanid vectors for *Elaeophora schneideri* (Nematoda) in the King Range National Conservation Area.

#Gordus, Andrew G. 1985. Lead concentrations in liver and kidneys of snow geese during an avian cholera epizootic at Delevan National Wildlife Refuge, California.

Mensik, John Gregory. 1986. Epizootiology of avian cholera on the Centerville Gun Club, Humboldt County, California.

Bredy, James P. 1987. The effects of proteins, temperature, pH, clays and sucrose on the survival and growth of *Pasteurella multocida* in water taken from a known avian cholera site.

Combs, Shawn M. 1988. Behavioral ecology of coots and waterfowl at an avian cholera epornitic site, Humboldt County, California.

Mensik-King, Karen E. 1988. Helminth parasites in bobcats (*Felis rufus*) of Jackson County, Oregon.

Miller, Sherri L. 1992. The role of freshwater snails as reservoirs of *Pasteurella multocida* infections for wildfowl in northern California.

Williams, Nancy. 1994. Seasonal abundance and small mammal infestation of *Ixodes pacificus* in Humboldt County, California.

Ladd-Wilson, Stephen. 1995. The relationship of abomasal parasite counts to variation in physical condition of southern mule deer (*Odocoileus hemionus fuliginatus*) at Camp Pendleton, California.

#Shender, Lisa. 1998. Biochemical analysis of blood and urine in relation to parasite loads of feral pigs (*Sus scrofa*).

Lehr, Margaret. 2000. Relationship between water quality parameters, avian cholera mortality, and presence of *Pasteurella multocida* in water, Sacramento National Wildlife Refuge.

Steele, Christine. 2003. Prevalences of zoonotic disease agents among seabirds in rehabilitation centers along the Pacific coast.

Halpin, Patricia. 2005. Morphometric symmetry, ectoparasites, hematozoa, and blood lead levels of turkey vultures, *Cathartes aura*, Humboldt County, California.

#Gabriel, Mourad W. 2006. Exposure of *Anaplasma phagocytophilum* and ticks in gray foxes (*Urocyon cinereoargenteus*) in northern Humboldt County, California.

Rogers, Krysta H. 2006. Prevalence of pathogenic enteric bacteria in wild birds associated with agriculture in Humboldt County, California.

Hernandez, Yvette. 2007. Relationship between water quality parameters and botulism at the Klamath Basin National Wildlife Refuge, California.

# Went on to complete a doctoral degree.

### Select University Committees and Advising Responsibilities

Interim Faculty Advisor (1989), Assistant Faculty Advisor (1990 to 1992), and Faculty Advisor (1993 to 2000) for Wildlife conclave team representing HSU at Annual Western Students Wildlife Conclaves, HSU,

1989	Las Cruces, NM	HSU took first place in the conclave bowl.
1990	Arcata, CA	HSU served as host for 26th annual conclave.
1991	Missoula, MT	HSU took second place in the conclave bowl.
1992		HSU took fourth place in the conclave bowl
1993	Fort Collins, CO	HSU took first place in the conclave bowl
1994	Lubbock, TX	HSU took second place in the conclave bowl
1995	Laramie, WY	HSU took first place in the conclave bowl
1996	Las Cruces, NM	HSU took first place in the conclave bowl
2000	Logan, UT	HSU took first place in the conclave bowl

Institutional Animal Care and Use Committee, HSU, 1989 to 2007. Responsibilities of committee include conducting a semi-annual review and evaluation of activities involving animals, investigating complaints received from employees or the public, and reviewing and approving proposed activities involving animals that are related to the care and use of animals and significant changes to those activities.

Invited participant to assist Chancellor-appointed team to review performance of President Alistair McCrone, HSU, May 1992, October 1995, January 2000.

HSU Faculty Awards Committee, September 1992 to May 1995. Chair, 1992 to 1993.

Scientific Integrity/Professional Ethics Ad Hoc Committee, Western Section, The Wildlife Society. 2019. The committee was charged with the review of both The Wildlife Society's and the Western Section's current policies to determine whether they adequately addressed Discrimination, Harassment, Sexual Harassment, and Bullying, using the American Geophysical Union's 2017 Scientific Integrity and Professional Ethics policies as a guideline.