

## CURRICULUM VITA

Matthew P. Rowe  
Professor  
Department of Biological Sciences  
College of Arts & Sciences

### Degrees Earned

- Ph.D. in Ecology. University of California at Davis, CA. 1984.
- M.S. in Ecology. University of California at Davis, CA. 1979.
- B.S. in Psychology. University of California at Davis, CA. 1976.
- A.S. in Biology. Sierra Junior College, Rocklin, CA. 1974.

### Peer-Reviewed Publications

#### Articles:

- Clucas, B., D.H. Owings & M.P. Rowe. 2008. Donning your enemy's cloak: ground squirrels exploit rattlesnake scent to reduce predation risk. *Proceedings of the Royal Society of London, B* 275:847-852.
- Clucas, B., M.P. Rowe, D.H. Owings & P.C. Arrowood. 2008. Snake scent application in ground squirrels (*Spermophilus* spp.): a novel form of antipredator behavior? *Animal Behaviour* 75:299-307.
- Bulluck, J.F. & M.P. Rowe. 2006. The use of southern Appalachian wetlands by breeding birds, with a focus on neotropical migrant species. *The Wilson Journal of Ornithology* 118:399-410.
- Rowe, A.H. & M.P. Rowe. 2006. Risk assessment by grasshopper mice (*Onychomys* spp.) feeding on neurotoxic prey (*Centruroides* spp.). *Animal Behaviour* 71:725-734.
- Swaigood, R.R., M.P. Rowe, & D.H. Owings. 2003. Antipredator responses of California ground squirrels to rattlesnakes and rattling sounds: the roles of sex, reproductive parity, and offspring age in assessment and decision-making rules. *Behavioral Ecology and Sociobiology* 55:22-31.
- Owings, D.H., M.P. Rowe, & A.S. Rundus. 2002. The rattling sound of rattlesnakes (*Crotalus viridis*) as a communicative resource for ground squirrels (*Spermophilus beecheyi*) and burrowing owls (*Athene cunicularia*). *Journal of Comparative Psychology* 116:197-205.
- R.G. Coss, D. H.Owings, D. McKernon, M.P. Rowe, & P.C. Arrowood. 2001. Snake-directed antipredator behavior of rock squirrels (*Spermophilus variegatus*): population differences and snake-species discrimination. *Behaviour* 138:575-595.
- Swaigood, R.R., M.P. Rowe, & D.H. Owings. 1999. Assessment of rattlesnake dangerousness by California ground squirrels: information extraction from rattling sounds. *Animal Behaviour* 57:1301-1310.
- Swaigood, R.R., D.H. Owings, & M.P. Rowe. 1999. Conflict and assessment in a predator-prey system: ground squirrels versus rattlesnakes. *Animal Behaviour* 57:1033-1044.
- Rowe, M.P. & D.H. Owings. 1996. Probing, assessment, and management during interactions between ground squirrels and rattlesnakes. Part 2: Cues afforded by rattlesnake rattling. *Ethology* 102:856-874.
- Cook, P.M., M.P. Rowe, & R.W. Van Devender. 1994. Allometric scaling and interspecific differences in the rattling sounds of rattlesnakes. *Herpetologica*. 50(3): 358-368.
- Rowe, M.P. & D.H. Owings. 1990. Probing, assessment, and management during interactions between ground squirrels and rattlesnakes. Part 1: Risks related to rattlesnake size and body temperature. *Ethology* 86:237-249.
- Rowe, M.P., R.G. Coss, & D.H. Owings. 1986. Rattlesnake rattles and burrowing owl hisses: a case of acoustic Batesian mimicry. *Ethology* 72:53-71.

- Hennessy, D.F., D.H. Owings, M.P. Rowe, R.G. Coss, & D.W. Leger. 1981. The information afforded by a variable signal: constraints on snake-elicited tail flagging by California ground squirrels. *Behaviour* 78:188-226.
- Rowe, M.P. & D.H. Owings. 1978. The meaning of the sound of rattling by rattlesnakes to California ground squirrels. *Behaviour* 66:242-267.

### **Chapters:**

- Rowe, M.P. 2004. Mimicry. Pp. 767-772 in: *An Encyclopedia of Animal Behavior*. M. Bekoff, ed. Greenwood Press, Westport, CT.
- Rowe, M.P., T.M. Farrell, & P.G. May. 2002. Rattle loss in pygmy rattlesnakes (*Sistrurus miliarius*); causes, consequences, and implications for rattle function and evolution. Pp. 385-404 in *Biology of the Vipers*. G. W. Schuett, M. Höggren, M.E. Douglas, and H. W. Greene, eds. Eagle Mountain Publishing, Eagle Mountain, Utah.

### **Proceedings:**

- Wesemann, T. & M.P. Rowe. 1987. Factors influencing the distribution and abundance of burrowing owls in Cape Coral, Florida. Pp. 129-137 in: *Integrating Man and Nature in the Metropolitan Environment*. Proc. Natl. Symp. Urban Wildlife, Columbia, MD.

## **Research Monographs, Technical Reports, Lay Articles, and Reviews**

- Rowe, M.P. 1999. Book review of *Rattlesnake: Portrait of a Predator* by Manny Rubio, 1998, Smithsonian Institution Press. *Quarterly Review of Biology* 74:477.
- Milling, T.C., M.P. Rowe, B.L. Cockerel, T.A. Dellinger, J.B. Gailes, & C.E. Hill. 1997. Population densities of northern saw-whet owls in degraded boreal forests of the southern Appalachians. Pp. 272-285 in: *Biology and Conservation of Owls of the Northern Hemisphere*. J.R. Duncan, D.H. Johnson, and T.H. Nicholls, eds. USDA Forest Service, General Technical Report NC-190, St. Paul, MN.
- Rowe, M.P. 1989. The owl that traded a hoot for a hiss. *Natural History* 5:32-33.
- Rowe, M.P., T. Wesemann, & A. Sisson. 1987. Burrowing owls in Florida's urban underground. *Bird Watcher's Digest* 10:17-21.
- Rowe, M.P., R.W. Dehaven, & R.L. Hothem. 1982. Effectiveness of various kite-balloon components and their combinations for reducing bird damage in grape vineyards. Denver Wildlife Research Center, Bird Damage Research Report No. 207.

## **Funded External Grants**

- National Geographic Society, "Coevolution between bark scorpions and grasshopper mice: a geographical approach." 2001-2002. \$13,308.
- National Park Service/Blue Ridge Parkway, "Dens and rookeries; critical habitats of threatened timber rattlesnakes (*Crotalus horridus*)." 2001-2002. \$9,200.
- US Fish & Wildlife Service, "Endangered avian endemics of the southern Blue Ridge: a case study of the northern saw-whet owl (*Aegolius acadicus*)." 1999-2001. \$26,487.
- North Carolina Wildlife Resources Commission, "Conservation biology of the northern saw-whet owl in the southern Appalachians." 1992-94. \$6,500.
- North Carolina Wildlife Resources Commission, "Ecology of the pigmy rattlesnake (*Sistrurus miliarius*) in North Carolina" with R.W. van Devender. 1990-91. \$2,700.
- North Carolina Board of Science & Technology -- Science and Engineering Development Award, "Building a sound-analysis laboratory for undergraduate research in animal behavior." 1988-89. \$18,000.

## Peer-Review Presentations and Posters

- Medrano, P. and M.P. Rowe. "Thermal preferences of bark scorpions (*Centruroides vittatus*): the influences of gender and reproductive status." Presented by Medrano at the national Sigma Xi Annual Meeting and Student Research Conference, Detroit, Michigan, 3-4 November 2006
- Owings, D.H., A.S. Rundus, M.P. Rowe, and P.C. Arrowood. "The role of immediate feedback in communication: rock squirrels versus western diamondback rattlesnakes." Presented by Owings at the 43<sup>rd</sup> annual meeting of the Animal Behavior Society, Snowbird, Utah, 12-16 August 2006.
- Clucas, B., M.P. Rowe, and D.H. Owings. "Putting on Satan's cloak: snake scent application in ground squirrels" Presented by Clucas at the International Society of Behavioral Ecology meeting in Tours, France, 23-29 July 2006. Also presented by Clucas at the 43<sup>rd</sup> annual meeting of the Animal Behavior Society, Snowbird, Utah, 12-16 August 2006.
- Rowe, M.P. and J.B. Sealy. "Hibernaculum or bust: species preferences in the scent-trailing behavior of neonatal timber rattlesnakes (*Crotalus horridus*)." Presented by Rowe at the Biology of the Rattlesnakes Symposium, Loma Linda University, 15-18 January 2005.
- Clucas, B., M.P. Rowe, and D.H. Owings. "Sheep in wolves' clothing: snake scent application in ground squirrels." Presented by Clucas at the Biology of the Rattlesnakes Symposium, Loma Linda University, 15-18 January 2005.
- Rowe, M.P. and A.H. Rowe. "Risk assessment by grasshopper mice feeding on potentially lethal prey." Presented by M.P. Rowe at the annual meeting of the Society for Integrative and Comparative Biology, 4-8 January 2005, San Diego, CA.
- Rowe, M.P. and A.H. Rowe. "Coevolution between grasshopper mice (*Onychomys* spp.) and bark scorpions (*Centruroides* spp.)." Presented by A.H. Rowe at the annual meeting of the Society for Integrative and Comparative Biology, 4-8 January 2005, San Diego, CA.
- Clucas, B., M.P. Rowe, and D.H. Owings. "Snake scent application in ground squirrels: prey in a predator's clothing?" Poster presented by Clucas at the 41<sup>st</sup> annual meeting of the Animal Behavior Society, Oaxaca, Mexico, 12-16 June 2004. This poster was awarded an honorable mention in the Society's Founder's Award competition.
- Rowe, M.P., T.M. Farrell, and P.G. May. "Rattle loss in pigmy rattlesnakes (*Sistrurus miliarius*): a textbook example of regressive evolution?" Poster presented by Rowe at the national meeting of the Society for the Study of Evolution, California State University at Chico, California, 20-24 June 2003.
- Rowe, A.H., M.P. Rowe, and T. Ray. "Geographic variability in venom resistance and venom toxicity: a coevolutionary arms race between southern grasshopper mice (*Onychomys torridus*) and bark scorpions (*Centruroides exilicauda*)?" Poster presented by A.H. Rowe at the national meeting of the Society for the Study of Evolution, California State University at Chico, California, 20-24 June 2003.
- Riddle, J.D. and M.P. Rowe. "Short-term effects of wildfire on breeding bird guilds in southern Appalachian old-growth/pre-settlement forests." Presented by Riddle at the 29<sup>th</sup> annual Natural Areas Conference, Asheville, NC, 2-5 October 2002. Also presented by Riddle at the 63<sup>rd</sup> annual meeting of the Association of Southeastern Biologists, Appalachian State University, Boone, NC, 10-13 April 2002.
- Sealy, J.B. and M.P. Rowe. "Species preferences in scent-trailing by neonatal timber rattlesnakes (*Crotalus horridus*)." Presented by Sealy at the 2002 national meeting of the Society for the Study of Amphibians and Reptiles, Kansas City, MO, 3-8 July 2002. Also presented by Sealy at the 63<sup>rd</sup> annual meeting of the Association of Southeastern Biologists, Appalachian State University, Boone, NC, 10-13 April 2002.
- Bulluck, J. and M.P. Rowe. "The importance of southern Appalachian wetlands to breeding birds; the role of beaver." (Was to be) presented by Bulluck at the 120<sup>th</sup> annual meeting of the American Ornithologists' Union, New Orleans, LA, 25-28 September 2002 (flight cancelled)

- due to hurricane Isidore). Also presented by Bulluck at the 83<sup>rd</sup> annual meeting of the Wilson Ornithological Society, Florida Gulf Coast University, Fort Myers, FL, 11-14 April 2002.
- Mayrhofer, M., M.P. Rowe, and J.K. Shull. "Sexual selection in certain mutant stocks of *Drosophila melanogaster*." Presented by Mayrhofer at the 62<sup>nd</sup> annual meeting of the Association of Southeastern Biologists, Tulane and Loyola Universities, New Orleans, LA, 4-7 April 2001.
- Rowe, M.P. "Rattle loss in pigmy rattlesnakes (*Sistrurus miliarius*): allometric artifact or relaxed selection?" Poster presentation at the International Symposium on Biology of the Vipers, Uppsala, Sweden, 17-19 May 2000.
- Beck, M.L., M.P. Rowe, and R.W. Van Devender. "Defensive escalation in pitvipers: the effects of ecdysis and feeding." Presented by Beck at the 61st annual meeting of the Association of Southeastern Biologists, University of Tennessee at Chattanooga, Chattanooga, TN, 5-7 April 2000.
- Lindfors, H., S. Westmoreland, M.P. Rowe, and J. K. Shull. "Alteration of female mating preference in *Drosophila meloanogaster*." Presented by Lindfors at the 61st annual meeting of the Association of Southeastern Biologists, University of Tennessee at Chattanooga, Chattanooga, TN, 5-7 April 2000.
- Rowe, M.P. "The extinction crisis: should humanity care?" Keynote address presented at the 17th annual National Wildlife Rehabilitators' Association meeting, Greensboro Hilton, Greensboro, NC, 9-13 March 1999.
- Rowe, M.P. "Conservation of North Carolina's endemic birds: a case study of the northern saw-whet owl." Invited presentation at the 17th annual National Wildlife Rehabilitators' Association meeting, Greensboro Hilton, Greensboro, NC, 9-13 March 1999.
- Rundus, A., D.H. Owings, M.P. Rowe, and P. Arrowood. "Tail flagging: differences between rock and California ground squirrels." Presented by Owings at the 35th national meeting of the Animal Behavior Society, Southern Illinois University, Carbondale, IL, 18-22 July 1998.
- Rowe, M.P., T.C. Milling, B.L. Cockerel, P.C. Cooper, T.A. Dellinger, and J.B. Gailes. "Yankee owls in Dixie: conservation biology of northern saw-whet owls in the southern Appalachians." Presented by Rowe at the Second International Symposium on Biology & Conservation of Owls of the Northern Hemisphere, Winnipeg, Canada, 5-9 February 1997.
- Brinker, D.F., K.M. Dodge, & M.P. Rowe. "A boreal relict: implications of first-order habitat selection to the conservation of saw-whet owls in the southern Appalachians." Presented by Dodge at the Second International Symposium on Biology & Conservation of Owls of the Northern Hemisphere, Winnipeg, Canada, 5-9 February 1997.
- Cockerel, B.L., T.C. Milling, & M.P. Rowe. "Prey preferences of northern saw-whet owls (*Aegolius acadicus*) from the Mt. Mitchell, NC area." Presented by Cockerel at the joint national meeting of the American Ornithologists' Union and the Raptor Research Foundation, Boise State University, Boise, ID, 13-17 August 1996.
- Tamashiro, D.A., M.P. Rowe, & G.L. Walker. "Population genetics of a southern Appalachian disjunct: the northern saw-whet owl in the southeastern United States." Presented by Tamashiro at the 57th annual meeting of the Association of Southeastern Biologists, Georgia Southern University, Statesboro, GA, 10-13 April 1996. Also delivered by Tamashiro as a poster at the joint national meeting of the Ecological Society of America and the Society for Conservation Biology, Providence, RI, 11-14 August 1996.
- Rowe, M.P., P.M. Cook, & R.W. Van Devender. "Relaxed selection and rattle loss in pigmy rattlesnakes (*Sistrurus miliarius*)." Presented by Rowe at the 38th national meeting of the Society for the Study of Amphibians and Reptiles, Appalachian State University, Boone, NC, 8-13 August 1995.
- Owings, D.H., R.R. Swaisgood, & M.P. Rowe. "Risk assessment by California ground squirrels based on the size and location of rattlesnakes: mothers are more concerned and more

- discriminating." Presented by Owings at the 32nd national meeting of the Animal Behavior Society, University of Nebraska, Lincoln, NE, 9-13 July 1995.
- Dodge, K.M., D.F. Brinker, & M.P. Rowe. "A boreal relict: implications of first-order habitat selection to the conservation of saw-whet owls in the southern Appalachians." Presented by Brinker at the Appalachian Biogeography Symposium, Virginia Polytechnic Institute & State University, Blacksburg, VA, 25-29 June 1995.
- Milling, T.C., B.L. Cockerel, & M.P. Rowe. "A boreal relict: second and third order habitat selection by saw-whet owls in the southern Appalachians." Presented by Milling at the Appalachian Biogeography Symposium, Virginia Polytechnic Institute & State University, Blacksburg, VA, 25-29 June 1995.
- Brinker, D.F., K.M. Dodge & M.P. Rowe. "Conservation biology of saw-whet owls in the Eastern United States." Presented by Dodge at the national meeting of the Association of Field Ornithologists, Rosendale, NY, 23-25 September 1994.
- DeLay, S., W.K. Hayes, & M.P. Rowe. "Predatory versus defensive strikes by crotaline snakes: fang contact, risk assessment, and venom metering." Presented by DeLay at the Tennessee Academy of Science annual meeting, Nashville, TN, April 15-16, 1994.
- Rowe, M.P., D.H. Owings, & R.R. Swaisgood. "Exploitation of an aposematic signal: information 'leakage' in rattlesnake rattling." Invited presentation by Rowe at the Second World Congress of Herpetology, University of Adelaide, Australia, 29 December 1993 to 6 January 1994.
- Hayes, W.K., M.P. Rowe, & D. Duvall. "Predatory versus defensive strikes by North American crotaline snakes: risk assessment and venom metering." Invited presentation by Rowe at the Second World Congress of Herpetology, University of Adelaide, Australia, 29 December 1993 to 6 January 1994.
- Cockerel, B.L., T.C. Milling, & M.P. Rowe. "Ecology of the northern saw-whet owl (*Aegolius acadicus*) in the southern Appalachian Mountains." Poster presented by Cockerel at the national meeting of the Raptor Research Foundation, hosted by the Carolina Raptor Center, Raleigh, NC, 3-7 November 1993.
- Milling, T.C., B.L. Cockerel, & M.P. Rowe. "Habitat and prey preferences of the northern saw-whet owl (*Aegolius acadicus*) in the southern Appalachian Mountains." Presented by Milling at the Inland Bird Banders Association, Whitefish Point Bird Observatory, Paradise, MI, 1-3 October 1993.
- Owren, M.J., M.P. Rowe, & C.D. Linker. "Acoustical features of tonal 'grunt' calls in baboons." Presented by Owren at the Acoustical Society of America biannual meeting, University of Colorado at Denver, 4-8 October 1993.
- Owings, D.H., M.P. Rowe, & R.R. Swaisgood. "Risk assessment by California ground squirrels based on unritualized variation in the structure of the rattling sounds of northern Pacific rattlesnakes." Presented by Owings at the 30th national meeting of the Animal Behavior Society, University of California at Davis, 24-30 July 1993.
- Rowe, M.P. "The information afforded by rattlesnake rattles: a study of risk assessment by ground squirrels." 50th annual meeting of the Association of Southeastern Biologists, UNC Charlotte, NC, 5-7 April 1989. This paper was also presented by Rowe as: (1) an invited poster at the 5th International Conference on Event Perception and Action, Miami Univ., Oxford, Ohio, 24-28 July 1989, and; (2) as a poster at the Biology of Pitvipers Symposium, University of Texas at Arlington, 17-18 November 1989.
- Rowe, M.P., & J.K. Shull, Jr. "Mark-recapture using fruit flies: a lab exercise for ecology." Presented by Rowe at the 49th annual meeting of the Association of Southeastern Biologists, University of Southern Mississippi, Biloxi, MS, 13-15 April 1988.
- Wesemann, T., & M.P. Rowe. "Conservation of burrowing owls in Cape Coral, Florida: a multivariate approach." Presented by Wesemann at the National Symposium on Urban Wildlife, Chevy Chase, MD, 4-7 November 1986.

- Rowe, M.P. "Evolutionary origins of a mimetic signal." 19th International Ethological Conference, Toulouse, France, 24 August - 3 September 1985.
- Rowe, M.P. "The burrowing owl's mimetic hiss: adaptive or exaptive?" National meeting of the American Society of Naturalists and the Society for the Study of Evolution, Chicago Field Museum of Natural History, Chicago, IL, 23-26 June 1985.
- Rowe, M.P. "Rattlesnake rattles and burrowing owl hisses: a case of acoustic Batesian mimicry." 20th national meeting of the Animal Behavior Society, Bucknell University, Lewisburg, PA, 19-24 June 1983.
- Rowe, M.P., & D.H. Owings. "The meaning of the sound of rattling by rattlesnakes to California ground squirrels." Presented by Rowe at the 15th national meeting of the Animal Behavior Society, University of Washington, Seattle, WA, 19-23 June 1978.

## **Work or Professional Experiences**

### **Reviewer for:**

*American Midland Naturalist*  
*Animal Behaviour*  
 Association of Southeastern Biologists  
*Copeia*  
*Ethology*  
*Journal of Comparative Psychology*  
*Journal of Experimental Biology*  
*Journal of Herpetology*  
*Journal of Mammalogy*  
 National Science Foundation  
*Natural History*  
*Ranger Rick*  
 Sigma Xi (GIAR review panel)  
 Smithsonian Institution  
*Southeastern Naturalist* (guest editor)  
*Southwestern Naturalist*

## **Honors and Awards**

### **Teaching/Mentoring Awards:**

- Graduate Student Association Senate Award for Outstanding Advising & Mentoring (of graduate students and their research). April 2002.
- NC Board of Governors Excellence in Teaching Award. Spring 1999.
- Elected to the College of Arts & Sciences Academy of Outstanding Teachers. Spring 1997.
- College of Arts & Sciences Outstanding Teacher Award nominee: 1996-97; 1994-95; 1992-93; 1989-90.
- Student Government Association, Outstanding Teacher Award nominee, 1989-90.

### **Professional Honors & Awards:**

- Public media (including: NPR, Discovery News, Christian Science Monitor, UPI, Yahoo News, MSNBC, National Geographic News, Reuters, AAAS Science Shots, NY Times) coverage of the research Barbara Clucas, Don Owings, Pat Arrowood and I conducted exploring the functional significance of snake-scent anointing by ground squirrels. December 2007-January 2008.
- Partner's-In-Flight International Bird Conservation Award for the research my students and I conducted on bird conservation in the southern Appalachians. September 2001.

Cover story; ground squirrel exploitation of rattlesnake rattling (with collaborators Don Owings and Ron Swaisgood), *Science News* 156: 237-239 (October 1999). See also news summaries of this research in *NewScientist* 164: 34-37 (December 1999) and *Natural History* 108: 75-76 (December 1999).

Appointed member, State of North Carolina's Scientific Council on Birds. 1998-2004.

Appointed member, NC Audubon Society's Important Bird Area's Committee. 1998-2004.

College of Arts & Sciences Outstanding Scholar Award nominee, 1996-97.

Interviewed by BBC Natural History Radio; my research on how ground squirrels exploit cues in rattlesnake rattling was highlighted in a BBC program that aired in November 1996.

Wachovia Award for Achievement in Environmental Research. 1995.

Scientific Program Co-chair, 38th national meeting of the Society for the Study of Amphibians and Reptiles, Appalachian State University, Boone, NC, 8-13 August 1995.

Visiting Scientist, National Museum of Natural History and Smithsonian Institution. Summer 1994.

Interviewed and provided audio tapes for Television New Zealand's TV special entitled "Marvels of Animal Communication." 1992.

Visiting Research Fellow. Program in Animal Behavior. Univ. California at Davis. January - December 1991; June-September 1988 and 1989.

Interviewed by American Museum of Natural History for their radio series "Sounds of Natural History." My research on acoustic mimicry of rattlesnakes by burrowing owls was highlighted in one of their programs that aired on NPR in January 1990.

Appointed member of the Scientific Advisory Board for the Blue Ridge Parkway, National Park Service. 1985-1990.

Animal Behavior Society: Young Scholar Travel Grant. Stipend awarded to present a paper at the 19th International Ethological Conference, Toulouse, France, 1985.

W.C. Allee Award in Animal Behavior. Presented for the best student paper at the 1983 national meeting of the Animal Behavior Society, June 19-24, Bucknell University, Lewisburg, Pennsylvania.

Public Health Service, National Research Service Award: NIMH Dissertation Research Fellowship. 1981-84.

Wenner-Gren Foundation. Doctoral Dissertation Research Award. 1981.

University of California Regent's Fellow in Ecology. UC Davis. 1979-81.

Jastro-Shield Research Scholarship. UC Davis. 1980-81.

University of California William W. Stout Memorial Scholarship. UC Davis. 1977-78.

California State Fellowship in Science. UC Davis. 1976-79.

University of California Regents' Undergraduate Scholar. UC Davis. 1974-79.

Phi Kappa Phi Honor Society. 1976.

Graduation with Honors. UC Davis. 1976

Departmental Citation for Excellence in Psychology. UC Davis. 1976.

California State Undergraduate Scholarship. UC Davis. 1974-76.

Graduation with Highest Honors. Sierra College. 1974.

Bank of America Community College Award Winner in Science. Sierra College. 1974.

Raymond Underhill Award in Zoology. Sierra College. 1974.

#### ***Honors & Awards received by my students:***

Thesis Director for Mr. Jason Bulluck, who received first place in Appalachian State University's "Thesis of the Year" awards in 2004 for his project examining the importance of high-elevation wetlands to neotropical migratory birds. Jason's research was supported by a Dover Foundation Scholarship and by grants from the Explorers' Club, the AOU, and AFO.

Thesis Director for Mr. Mr. Jason Riddle, who won the prestigious Eugene Odom Award (presented by the southeastern chapter of the Ecological Society of America for the best paper in ecology) at the 2002 meeting of the Association of Southeastern Biologists for his research

on the impact of fire on breeding birds in the southern Appalachians. Mr. Riddle also received a Dover Foundation Scholarship and grants from the U.S. Forest Service.

Thesis Director for Ms. Dana Tamashiro, who received first place in Appalachian State University's "Thesis of the Year" awards in 1997 for her project examining the conservation genetics of saw-whet owls. Ms. Tamashiro is also the first and only student in ASU's history to receive an NSF graduate fellowship, bringing Dana and the University \$65700 in support. Dana's thesis work was also supported by a Frank M. Chapman Award from the American Museum of Natural History.

Thesis Director for Mr. Pat Cook, who received second place in Appalachian State University's "Thesis of the Year" awards in 1993, and was awarded "Best Student Paper in Herpetology" at the 1991 meeting of the Association of Southeastern Biologists for his research on allometric scaling in the rattling sounds of rattlesnakes.

Thesis Director for Mr. Ted Wesemann, who received third place in Appalachian State University's "Thesis of the Year" awards in 1987, and who also received the singular honor of "Best Thesis in Math & Science in the southeastern U.S., 1985-89" (presented in 1990) by University Microfilms International and the Southeastern Congress of Graduate Schools, for his research on the conservation biology of burrowing owls.

***Invited Seminars:***

Sam Houston State University, February 2005.

University of North Carolina-Charlotte, October 2002.

Keynote speaker, annual spring meeting of the Carolina Bird Club (joint ornithological society of NC and SC), Blowing Rock, NC, 5-7 May 2000.

Western Carolina University, Cullowhee, NC, March 2000.

Banquet speaker, Lee & Lois Herndon Chapter of the Tennessee Ornithological Society, Johnson City, TN, March 2000

California State University at Bakersfield, March 2000

Lees McCrae College, Banner Elk, NC, February 2000.

Grandfather Mountain, neotropical migratory bird symposium, Linville, NC, May 1999.

College of William & Mary, Williamsburg, VA, February 1999.

East Tennessee State University, Johnson City, TN, January 1999.

Bristol Bird Club, Bristol, TN, October 1998.

Resource expert on biological diversity and the extinction crisis, Ponderosa Workshop on Sustainability, Northern Arizona University, Flagstaff, AZ, 27-29 May 1998.

Keynote speaker, annual spring meeting of the Carolina Bird Club (joint ornithological society of NC and SC), Asheville, NC, 1-3 May 1998.

Tennessee Ornithological Society, Milligan College, Johnson City, TN, May 1998.

North Carolina Partners-in-Flight Research Symposium, Raleigh, NC, April 1998.

Western Carolina University, Cullowhee, NC, January 1998.

Appalachian State University's Social Forum Series, Boone, NC, March 1997.

Highlands Nature Center public lecture series, Highlands, NC, July 1996.

Keynote speaker, Southern Appalachian Highlands Conservancy, 14-16 June 1996.

Keynote speaker, 38th Annual Roan Mountain Naturalist Rally. 4-5 May 1996.

Panelist and Presenter, Appalachian State Special Forum on Forest Decline, October 1995.

East Tennessee State University, Johnson City, TN, March 1995.

Winthrop College, Rock Hill, SC, November 1994.

Highlands Biological Station, Highlands, NC, June 1994.

National Forest Service, Research Colloquium, Asheville, NC, March 1994.

Western Carolina University, Cullowhee, NC, February 1994.

Southern College, Collegedale, TN, September 1992.

Smithsonian Institution, Washington, DC, June 1992.

North Carolina State University, Raleigh, NC, April 1992.



Southern College, Collegedale, TN, April 1992.  
Northern California Herpetological Society, Davis, CA, April 1991.  
University of Nevada, Reno, NV, March 1991.  
Keynote speaker, Chula Vista Nature Interp. Center, Chula Vista, California, 7-8 December 1990.  
University of North Carolina-Charlotte, November 1990.  
North Carolina Herpetological Society, Raleigh, NC, November 1990.  
University of North Carolina-Wilmington, November 1990.  
Elon College, Elon, NC, November 1990.  
Arizona College of Medicine, University of Arizona, Tucson, AZ, August 1990.  
Belmont Abbey College, Belmont, NC, March 1990.  
University of Tennessee, Knoxville, TN, February 1990.  
University of North Carolina-Asheville, December 1988.  
Savannah River Ecology Laboratory, Aiken, SC, April 1988.  
Lenoir-Rhyne College, Hickory, NC, October 1988.  
North Carolina Herpetological Society, Raleigh, NC, November 1987.  
Gardner-Webb University, Boiling Springs, NC, September 1987.  
Mars Hill University, Mars Hill, NC, April 1986.  
University of Tennessee, Knoxville, TN, October 1985.  
World College West, San Rafael, CA, November 1983.