

BRIAN S. ARBOGAST

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EDUCATION

PhD 1999. Wake Forest University (Biology). Advisor, Peter D. Weigl
MS 1996. Louisiana State University (Zoology). Advisor: Mark S. Hafner
BS 1992. Wake Forest University (Biology, cum laude)

POSITIONS HELD

2011-present: Associate Professor, Dept. of Biology & Marine Biology, UNC Wilmington, Wilmington, NC (effective 8/1/2011)
2011-present: Assistant Director, Wildsumaco Biological Station, Ecuador
2008-2011: Assistant Professor, Dept. of Biology & Marine Biology, UNC Wilmington, Wilmington, NC
2008-present: Adjunct Associate Professor, Humboldt State University, Arcata, CA
2006-2008: Associate Professor & Curator of Mammals, Dept. of Biological Sciences, Humboldt State University, Arcata, CA
2001-2006: Assistant Professor & Curator of Mammals, Dept. of Biological Sciences, Humboldt State University, Arcata, CA
1999-2001: Post-Doctoral Research Associate, Burke Museum and Dept. of Zoology, U. of Washington, Seattle, WA

RESEARCH INTERESTS

Conservation biology, conservation genetics, biogeography and systematics of vertebrates, especially mammals. Current research focuses on: (1) conservation and cryptic speciation in the New World flying squirrels (*Glaucomys spp.*) and the largest gliding marsupial, the greater glider (*Petauroides volans*) of Australia; and (2) using multiple field and genetic approaches to document biodiversity in the Sumaco Region of Ecuador, a biodiversity hotspot on the east slope of the tropical Andes. This work includes traditional surveys methods and the use of camera traps. A long-term camera-trap study was initiated in 2008 with the goal of documenting elusive large mammals in the area. Colleagues and I are currently using these methods to examining intraguild competition among the diverse assemblage of sympatric carnivores at Sumaco.

MUSEM & CURATORIAL EXPERIENCE

2010-present Assistant Curator of Mammals, UNC Wilmington
2001-2008 Curator of Mammals, Vertebrate Museum, Humboldt State University
2003-2005 Board of Directors, Humboldt State Museum of Natural History
1999-2001 Post-doctoral Fellow, Mammalogy Program, Burke Museum, U. Washington, Seattle, WA
1994-1996 Curatorial Assistant, Genetic Resources, LSU Museum of Natural Science
1992-1993 Curatorial Assistant, Mammal Collection, LSU Museum of Natural Science

PUBLICATIONS

- Kerhoulas, NJ* and **BS Arbogast**. 2010. Molecular Systematics and Pleistocene Biogeography of Mesoamerican Flying Squirrels. *Journal of Mammalogy* 91: 654-667.
- Arbogast, BS**. 2007. A brief history of the New World flying squirrels: Phylogeny, biogeography and conservation genetics. Special Feature Article, *Journal of Mammalogy* 88: 840-849.
- Arbogast, BS**, SV Drovetski, RL Curry, P Boag, P Grant, R Grant, G Seutin and D. J. Anderson. 2006. Origin and diversification of Galápagos mockingbirds. *Evolution* 60:370-382. (Cover article for *Evolution*; Editor's Choice in Science)
- Blois, JL* and **BS Arbogast**. 2006. Conservation genetics of the Sonoma Tree Vole (*Arborimus pumo*) based on mitochondrial and AFLP markers. *Journal of Mammalogy* 87:950-960.
- Arbogast, BS**, JP Dumbacher and SJ Steppan. 2006. Evaluation of scientific information regarding the Preble's meadow jumping mouse. A Scientific Report prepared by Sustainable Ecosystems Institute for the US Fish and Wildlife Service. 82 pp. (Featured in Nature Article: Linnaeus at 300)
- Arbogast, BS**. 2006. The geography of life. Book Review of *Biogeography*, by M Lomolino, B Riddle and J Brown. *Trends in Ecology and Evolution* 21:14-15.
- Arbogast, BS**, RA Browne, PD Weigl and GJ Kenagy. 2005. Conservation genetics of endangered flying squirrels from the Appalachian mountains of eastern North America. *Animal Conservation* 8:123-133.
- Zheng X*, **BS Arbogast** and GJ Kenagy. 2003. Historical demography and genetic structure of sister species: deer mice (*Peromyscus spp.*) in the North American temperate rainforest. *Molecular Ecology* 12:711-724.
- Arbogast BS**, SV Edwards, J Wakeley, P Beerli and JB Slowinski (2002) Estimating Divergence Times from Molecular Data on Phylogenetic and Population Genetic Timescales. *Annual Review of Ecology & Systematics* 33:707-740.
- Arbogast, BS**, and GJ. Kenagy. 2001. Comparative phylogeography as an integrative approach to historical biogeography. *Journal of Biogeography* 28:819-825.
- Arbogast, BS**. 2001. *Phylogeography*, by JC Avise. Book Review, *Amer. Zoologist* 41:134-135.
- Arbogast, BS**, RA Browne and PD Weigl. 2001. Evolutionary genetics and Pleistocene biogeography of North American tree squirrels (*Tamiasciurus*). *Journal of Mammalogy* 82:302-319.
- Arbogast, BS**. 1999. Mitochondrial DNA phylogeography of the New World flying squirrels (*Glaucomys*): implications for Pleistocene biogeography. *Journal of Mammalogy* 80:42-155. (
- Slowinski, JB, and **BS Arbogast**. 1999. Is there an inverse relationship between body size and the rate of molecular evolution? *Systematic Biology* 48:396-399.
- Arbogast, BS**, and JB Slowinski. 1998. Pleistocene speciation and the mitochondrial DNA clock. *Science* 282:1955a.

Manuscripts Submitted/ In Review

- Hodge, AMC, and **BS Arbogast**. Current Conservation Status And Population Trends Of The World's Canid Species. Submitted.
- Vanderhoff, EN; AMC Hodge*, **BS Arbogast**, J Nilsson and TK Knowles. Preliminary camera-trap survey of margays (*Leopardus wiedii*) in the eastern Andean foothills of Ecuador. Submitted.
- Lovette, IJ, **BS Arbogast**, RL Curry, RM Zink, CA Botero, JP Sullivan, AL Talaba, RB Harris, DR Rubenstein, RE Ricklefs and E Bermingham. Phylogenetic relationships among mockingbirds and thrashers (Aves: Mimidae). In Revision, *Molecular Phylogenetics and Evolution*.
- Van tuinen, M, C Anderson and **BS Arbogast**. Effective population size: time for a genetic recount. In prep.
- Callahan, CM* and **BS Arbogast**. Molecular Systematics and Biogeography of whale lice living on gray whale islands. In prep.

Arbogast, BS, A Bidlack, J Cook, GJ. Kenagy and KI Schumacher. Genetic evidence reveals a cryptic species of flying squirrel along the Pacific Coast of North America. In prep.

Knowles, TK, **BS Arbogast**, EN Vanderhoff, AMC Hodge*, J. Camper, R. Burger, J Nilsson and S. Bruneo. Mammalian Biodiversity Documented at the Wildsumaco Wildlife Sanctuary, a mid-elevation site on the east slope of the Andes in Ecuador. In prep.

Lawlor, TE, and **BS Arbogast**. Mammals of the Great Basin Revisited: Genetic Insights into the Fundamental Nature of Biogeography in a Model Sky Island System. In prep.

Other Publications Since Coming to UNCW (Reports/ Reviews etc.)

Arbogast, BS. 2010. Review of Chambers, S.M., S.R. Fain, B. Fazio and M. Amaral "An Account of the Taxonomy of North American Wolves from Current Morphological and Genetic Analyses." Sustainable Ecosystems Institute Panel Review for the U.S. Fish and Wildlife Service.

Webster, W. D., **Arbogast, BS.**, Clark, M. K., Gatens, L., Kalcounis-Rueppell, M. C., McGrath, C., Rabon, D. R. (2010). *Reevaluation of Status Listings for Jeopardized Mammals in North Carolina. Report of the Scientific Council on Mammals*. North Carolina Natural Heritage Program/ Natural Resources Commission.

Arbogast, BS., and KI Schumacher*. 2010. Conservation Genetics of the Northern Flying Squirrel (*Glaucomys sabrinus coloratus*) in North Carolina and Virginia. A Report on the Results of Research Conducted Under Cooperative Agreement Between North Carolina Wildlife Resources Commission. 26 pp.

Arbogast, BS, and WD Webster. 2009. Conservation Status Report for the eastern spotted skunk (*Spilogale putorius*) in North Carolina. North Carolina Wildlife Resources Commission.

Arbogast, BS, and WD Webster. 2009. Conservation Status Report for the southeastern fox squirrel (*Sciurus niger*) in North Carolina. North Carolina Wildlife Resources Commission.

RECENT GRANT SUPPORT

2010-2012. Conservation genetics of an endemic and threatened species of West Virginia snail: the flat-spined three-toothed land snail, *Triodopsis platysayoides*. West Virginia Department of Natural Resources. Funded: \$21,750. Co-PI's: BS Arbogast and M van Tuinen

2010-2011. Cracking the Gliding Code: Applying modern genomic approaches to identify new species, understand phenotypic variation, and unravel the great mystery of how gliding mammals are "built". UNCW Faculty Min-grant Program. Funded: \$9,300. PI: BS Arbogast

2010-2012. Use of Stable Isotope Analysis to Elucidate Differences in Prey Selection by Red Wolves and Coyotes. Red Wolf Recovery Program, U.S. Fish and Wildlife Service and the Bailey Foundation. \$5,000. Lead PI: BS Arbogast; Co -PI: Anne-Marie C. Hodge.

2009-2011. Conservation Genetics of the northern flying squirrel and Allegheny woodrat. West Virginia Department of Natural Resources. Funded: 15,250. PI: BS Arbogast

2010-2011. Conservation Genetics of the northern flying squirrel (*Glaucomys sabrinus*) in North Carolina and Virginia. North Carolina Wildlife Resources Commission. Funded: \$1,000. PI: BS Arbogast

2009-2010. Conservation Genetics of the northern flying squirrel (*Glaucomys sabrinus*) in North Carolina and Virginia. North Carolina Wildlife Resources Commission. Funded: \$3,750. P.I. BS Arbogast

2010. Cryptic and undocumented diversity in the mammals of Australasia: Symposium Proposal for the 2011 joint meetings of the American and Australian Mammal Societies, Portland, OR. Funded: \$4,300. Co-PI's: BS Arbogast and K Armstrong.

2009. Conservation of Rainforest Mammals in the Tropical Andes of Ecuador: a Scientific and Educational Approach. UNCW Charles M. Cahill Award. Funded: \$3,000. PI: BS Arbogast

2010. Funding for furnishings the Wildsumaco Biological Station in Ecuador. Friends of UNCW Grant. Funded: \$1,000. Co- PI's: BS Arbogast and B Chapman (contributed equally)

2009. UNCW Special Tenure-Track Faculty Travel Award. \$1,000. Travel to Sumaco, Ecuador.

2009. UNCW International Programs Faculty Travel Award. \$600. Travel to Sumaco, Ecuador.

GRANT SUPPORT (CONTINUED)

While at Humboldt State University:

A. Funded Proposals as Principle Investigator

2006. Genetic and Bioacoustic Studies of Mesoamerican Flying Squirrels. HSU Research Scholarship and Creative Activities Grant. Funded: \$3,500. PI: Brian Arbogast

2005. Comparative molecular evolution of whale ectoparasites. CSUPERB Faculty Research Grant. Funded: \$10,000. PI: Brian Arbogast

2004. Origin and Diversification of Galápagos mockingbirds. HSU Foundation Grant. Funded: \$1100. PI: Brian Arbogast

2004. Whales as Islands: Biogeography and Co-evolution of Whales and their Ectoparasites. HSU Research and Creative Activities Grant. \$4,300. PI: BS Arbogast

2003. Developing a Web-Based Searchable Database for the HSU Mammal Collection. HSU Foundation Small Grant Competition. \$1200. PI: BS Arbogast

2002. The Effects of Habitat Fragmentation on the Demographic and Genetic Structure of a Temperate Rainforest Endemic, the Sonoma Red Tree Vole (*Arborimus pomos*). HSU Research Scholarship and Creative Activities Grant. \$5,000. PI: BS Arbogast

2002. Articulating the Complete Skeleton of a Beaked Whale. HSU Foundation Grant. \$1200. PI: BS Arbogast

2001. Reconstructing the Ice-Age History of Pacific Northwest Mammals. HSU Foundation Grant. \$1200. PI: BS Arbogast

B. Funded Proposals as Part of Collaborative Group (Not Principle Investigator)

2008-2011. National Science Foundation REU Site in Ecological and Evolutionary Research at Humboldt State University (Renewal). Funded: \$186,664. PI's Sean Craig and Matt Johnson. I was a "Senior Personnel" member and faculty mentor on this grant before coming to UNCW.

2005-2008. Systematics and Evolutionary Ecology of New and Old World Avian Sister Radiations [Aves: Mimidae and Sturnidae]. NSF, Systematic Biology. Funded: \$145,816. PI: Irby Lovette, Cornell University. I was one of nine researchers included on this project focused on constructing molecular phylogenies of two diverse families of birds, and using these phylogenies to examine the evolution of song mimicry and cooperative breeding.

2004-2007. NSF REU Site in Ecological and Evolutionary Research at Humboldt State University. NSF REU. Funded: \$255,390. PI's Sean Craig and Matt Johnson, Humboldt State University. I was a "Senior Personnel" member/faculty mentor on this grant.

TEACHING AT UNCW

Advanced Conservation Biology and Lab (Biology 585)

Conservation Biology (Biology 466)

Advanced Ecology and Lab (Graduate Course)

Mammalogy and Mammalogy Lab (Biology 452)

Biology 495 Seminar Courses: Conservation Biology in the 21st Century, Biology of Marsupials,

Conservation Biology of Carnivores

STUDENT MENTORING AT UNCW

Graduate, Primary Mentor:

- Anne-Marie Hodge. M.S. Ecological interactions among Andean forest carnivores.
- Katelyn Schumacher. M.S. Conservation genetics of the northern flying squirrel.
- Kai-Curry Lindahl. M.S. Alpha and beta diversity of mammals along an extreme elevational gradient in the tropical Andes of Ecuador.

Graduate, secondary mentor

- Lisa Ogawa. M.S. 2010. Conservation genetics of the eared-grebe.
- Brit Garner. M.S. Conservation genetics of the Cheat three-tooth lands snail.

Undergraduate Honors, Primary Mentor

- Brian Manly, Thesis: Conservation genetics of the black-capped petrel.
- Anna Taylor-Smith, Thesis: Assessing urban stream quality.
- Cristina Goldchain, Thesis: Comparative feeding morphology in marine carnivores.

Undergraduate, Honors, Committee Member

- Mathew Yeager, Thesis: Herpetological survey of the longleaf pine forest on the UNCW campus.
- Emily Probst, Honors: Egg size and development rates in American lobsters (*Homarus americanus*): relationship to female size (2010).
- Anna Tommerdahl, Honors: Blood biochemistry of loggerhead sea turtles (*Caretta caretta*) entangled in longline fishing gear in the western Mediterranean (2010).
- Brian Reuhland, Honors: Reconstruction of the Evolutionary History of Parrots (Aves: Psittaciformes) from Retroelement Insertion Events (2010).
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Graduate, committee member

- Lara Jarvis. M.S. Sperm preference and hybridization in blue mussels, *Mytilus* spp.
- Bryan McClean. M.S. Stable isotope analysis of enamel in fossil and modern mammals.
- Brit Garner. M.S. Conservation genetics of the Cheat three-tooth lands snail.
- Amy-Cherry Millis. M.S. Systematics of bats.
- Sarah Hutchinson. M.S. 2010. Phylogeography of *Cryptotis parva*.
- Lisa Ogawa. M.S. 2010. Conservation genetics of the eared-grebe.
- Samantha Schmitt. M.S. 2010. Genetic and morphological variation in the family Udoteaceae.

STUDENT MENTORING AT HUMBOLDT STATE UNIVERSITY

Graduate Students Supervised (Major Advisor)

Jessica L. Blois. M.A. 2005. Conservation genetics of the Sonoma tree vole, *Arborimus pomo*. PhD, Dept. of Biology, Stanford University, 2009 (Advisor, Liz Hadly). Present position: Post-Doctoral Fellow, University of Wisconsin, Madison.

Christopher M. Callahan. M.A. 2008. Systematics and biogeography of ectoparasites living on "gray whale islands." Present position: Instructor at Humboldt State University, Arcata, CA.

Nick Kerhoulis. M.A. 2008. Molecular systematics and biogeography of Mesoamerican flying squirrels. Present position: PhD student at the University of Alaska, Fairbanks.

Graduate Student Committees

Member of 15 total graduate student committees at Humboldt State University

Undergraduate Students Supervised

I supervised directed study or senior research for approximately 25 students at Humboldt State University (many for multiple semesters).

Undergraduate Projects Supervised in my Molecular Lab

Martha Cardona: Mitochondrial DNA phylogeography of the ringtail cat (*Bassariscus astutus*)

Jenny-Lynn Hutchinson: Microsatellite analysis of a hybrid zone between distinct mitochondrial lineages of the northern flying squirrel, *Glaucomys sabrinus*.

Leslie Avalos & Lindsay Holme: Genetic analysis of mammals of the sky islands of the Great Basin.

Elina Britz: Analysis of DNA variation of Hubb's beaked whale from museum specimens.

Christopher Callahan: Analysis of genetic variation in northern flying squirrels from the northern Sierra Nevada.

Lisa Kentfield: Using DNA data to assess natal beaches of sea turtles in the HSU Vertebrate Museum's Herpetology Collection.

Undergraduate Projects Supervised in the HSU Vertebrate Museum

Jennylyn Eberle, John Tonda and Christopher Callahan: Rearticulation of the complete skeleton of a Hubb's Beaked whale.

John Morris , Joy Brownlee: Rearticulation of the skeleton of a green sea turtle.

Jaya Smith , Lisa Kentfield: Rearticulation of the skeleton of a mountain lion.

Cynthia Christman, Nathan Hall: Rearticulation of the skeleton of an elephant seal.

Judy Wu, Amy Young: Directed study in museum specimen preparation.

Julie Bryant, Deb Cook: Small mammal surveys.

Thea McGaffey: Comparisons of head ornamentations in Cetariodactyla.

SCIENTIFIC PRESENTATIONS

A. Invited Talks Since Arriving at UNCW:

Arbogast, B. Invited Seminar, The Field Museum of Natural History, Chicago, IL. Cryptic Diversity and Speciation in Gliding Mammals" (April 5, 2011).

Arbogast, B. S. Invited seminar, College of Natural Resources, University of Nevada, Reno. The Conservation Challenges of Documenting Cryptic and Elusive Species: Examples from Gliding Mammals and Tropical Andean Carnivores. October, 2010.

Arbogast, B. S. Adaptive Radiation in the Galapagos and Beyond. Invited speaker for the UNCW Evolution Learning Community's Symposium "Darwin and the Origin of Species: A Twenty-First Century Perspective." November 17, 2009. UNC Wilmington.

B. Selected Talks at Scientific Meetings

Hodge, AMC, BS. Arbogast, EN Vanderhoff, J. Camper, JR Burger, and TW Knowles. Inventory of a mid-elevation assemblage of mammals in Ecuador's eastern Tropical Andes hotspot. Society for Integrative and Comparative Biology. Seattle, WA, January 2010.

Knowles, TW, BS Arbogast, EN Vanderhoff, JD Camper, JR Burger and L Soetens. 2009. Mammal inventory of a new wildlife sanctuary in Ecuador's tropical Andes hotspot. 89th Annual Meeting of the American Society of Mammalogists, University of Alaska, Fairbanks, June 2009.

Vanderhoff, EN, AMC Hodge, BS Arbogast, JR Burger, JD Camper, and TW Knowles. The margay (*Leopardus wiedii*) as a flagship species for conservation in the foothills of the Andes. Association of Southeastern Biologists. Asheville, North Carolina, April 2010.

Callahan, CM and BS. Arbogast. Molecular Systematics and Historical Demography of Gray Whale Lice: What Can They Tell Us About Gray Whales? 88th Annual Meeting of the American Society of Mammalogists, Brookings, South Dakota (2008).

Kerhoulas, NK and BS Arbogast. Molecular Systematics and Biogeography of Mesoamerican Flying Squirrels. 88th Annual Meeting of the American Society of Mammalogists, Brookings, South Dakota (2008).

Cardona, MA, and BS Arbogast. Phylogeography of Ringtails: A Comparison between populations from Texas and northern California. SACNAS (Society for Advancement of Chicanos/Latinos and Native Americans in Science National Conference, University of Utah, Salt Lake City, Utah. (2008).

Arbogast, BS, SV Drovetski, RL Curry, PT Boag, G Seutin, PR Grant, BR Grant and DJ Anderson. The origin and diversification of Galápagos mockingbirds. North American Ornithological Congress, Veracruz, Mexico (2006).

Arbogast, BS. Evolutionary and biogeographic history of the New World flying squirrels (*Glaucomys*). Invited symposium presentation in the northern flying squirrel: a biological portrait of a forest specialist in post-European North America. 86th Annual Meetings of the American Society of Mammalogists, Amherst, MA (2006).

Callahan, CM and BS Arbogast. Phylogeography of whale lice living on gray whale islands. 86th Annual Meetings of the American Society of Mammalogists, Amherst, MA (2006).

Callahan, CM, BS Arbogast, PD Goley, JW Demastes. Biogeography of Whale Lice (Amphipoda: Cyamidae) Living on Gray Whale Islands. 16th Biennial Conference on the Biology of Marine Mammals, San Diego, CA (2005).

Blois, JL and BS Arbogast. Patterns of genetic variation within an endemic arboreal vole, *Arborimus pomo*, in northern California. Meetings of the International Biogeography Society, Shepherdstown, West Virginia (2005).

Blois, JL and BS Arbogast. A multilocus assessment of the genetic structure and diversity within an endemic, arboreal vole, *Arborimus pomo*, in northern California. 7th Annual Bay Area Conservation Biology Symposium, Stanford University (2005).

Arbogast, BS, SV Drovetski, RL Curry, PT Boag, G Seutin, PR Grant, BR Grant and DJ Anderson. Origin and diversification of Galápagos mockingbirds. Meetings of the Society for the Study of Evolution, University of Alaska, Fairbanks, AK (2005).

Kenagy, GJ, X Zheng, BS Arbogast, J Booth, J Bradley, M Linders and K Warheit. Genetic Structure and Historical Biogeography of Disjunct and Declining Populations of Western Gray Squirrels In Washington. 84th Annual Meeting of the American Society of Mammalogists, Humboldt State University (2004).

Callahan, CM, BS Arbogast, PD Goley and JW Demastes. Whales as Islands: Biogeography of the Epibiotic Fauna of Gray Whales. 84th Annual Meeting of the American Society of Mammalogists, Humboldt State University (2004).

Browne, RA, BS Arbogast and PD Weigl. Pleistocene Forest Dynamics and the Genetic Diversity of Flying Squirrels. 16th Annual Meeting of the Society for Conservation Biology, Canterbury, UK (2002).

Arbogast, BS. Presentation to Host the 84th Annual Meetings of the American Society of Mammalogists. 82nd Annual Meetings of the ASM. Lake Charles, LA (2002).

Arbogast, BS. Comparative phylogeography of mammals and birds. **Invited Seminar, Cornell University** (2001).

Arbogast, BS. Using comparative phylogeography to reconstruct the mammalian faunal history of the Pacific Northwest. **Invited Seminar, University of Washington** (2000).

Arbogast, BS. Estimating rates of molecular evolution and dates of divergence using likelihood. **Invited Seminar, University of Virginia** (1999).

Arbogast, BS. Is there an inverse relationship between body size and the rate of molecular evolution in vertebrates? Meetings of the American Society of Mammalogists, Seattle (1999).

Arbogast, BS. Recalibrating the mitochondrial DNA clock: implications for Pleistocene vicariance biogeography. Invited Presentation, Wilks Award Competition, Meetings of the Southwestern Association of Naturalists, Albuquerque, NM (1998).

Arbogast, BS. Pleistocene speciation and the mitochondrial DNA clock. Meetings of the American Society of Mammalogists, Blacksburg, VA (1998).

Arbogast, BS. Comparative phylogeography of codistributed boreal mammals. Meetings of the American Society of Mammalogists, Stillwater, OK (1997).

Arbogast, BS. Zoogeography of the northern flying squirrel (*Glaucomys sabrinus*) based on analysis of mitochondrial DNA. Meetings of the Society for the Study of Evolution and Society of Systematic Biologists, St. Louis, MO (1996).

Arbogast, BS. Have the giant (*Ratufa*) and pigmy (*Exilisciurus*) squirrels of Borneo stopped being squirrels? (with PD Weigl and TW Knowles). Meetings of the American Society of Mammalogists, Grand Forks, ND (1996).

Arbogast, BS. Pleistocene biogeography of the New World flying squirrels. **Invited Seminar, University Science Colloquium, Francis Marion University** (1996).

Arbogast, BS. Zoogeography of the northern flying squirrel (*Glaucomys sabrinus*) based on analysis of mitochondrial DNA. Meetings of the Southwestern Association of Naturalists, Shreveport, LA (1995).

Arbogast, BS. Zoogeography of the northern flying squirrel (*Glaucomys sabrinus*) based on analysis of mitochondrial DNA. Meetings of the American Society of Mammalogists, Burlington, VT (1995).

OTHER MAJOR INITIATIVES AT UNCW

Establishment of the Wildsumaco Biological Station at Sumaco, Ecuador.

I continue to work with colleagues at Francis Marion Univ. (FMU), Catolica Univ., Ecuador and the Wildsumaco Wildlife Sanctuary (WWS) to conduct biodiversity surveys at the sanctuary which is adjacent to the Sumaco World Biosphere Reserve. The biggest development in this area of my research is the multi-institutional construction of the Wildsumaco Field Station. The station will house up to 18 people at a time and consist of two-three buildings.

Establishment of the Terrestrial and Freshwater Conservation Option at UNCW

Lead development of new Terrestrial Conservation Biology Option at UNCW & worked with the Department Chair and UNCW web office to design website template.

HOST OF NATIONAL MEETINGS

Host of the 84th Annual Meetings of the American Society of Mammalogists, Humboldt State University (2004).

OTHER PROFESSIONAL SERVICES RENDERED/ SCIENTIFIC SOCIETY MEMBERSHIP

Nominated to be Associate Editor, *Journal of Mammalogy*, American Society of Mammalogists. (March 2011). Accepted Nomination.

Member of the North Carolina Nongame Wildlife Advisory Committee Scientific Council on Mammals. Performed Status Reviews and wrote reports for two species of mammals.

Selected as one of 5 international scientist to review the taxonomy of North American wolves for the U.S. Fish and Wildlife Service (USFWS)

American Society of Mammalogists- Regular Member & Member of Conservation Committee

Society for Conservation Biology- Regular Member

Society for the Study of Evolution- Regular Member

SELECTED AWARDS & HONORS

Course Development Award, UNCW-International Programs, Global Citizenship Grants (March 2011).

President McCrone Promising Faculty Scholar Award. Humboldt State University (2004)

American Society of Mammalogists. First Runner-Up for the Albert R. and Alma Shadle Fellowship in Mammalogy (highest award given by ASM; 1998).

American Museum of Natural History, Frank M. Chapman Memorial Fund Grant. Phylogeography of the Galápagos mockingbirds: a test of the prevailing-wind hypothesis of dispersal (1998).

American Museum of Natural History, Theodore Roosevelt Memorial Fund Grant. The evolution of boreal mammal communities in North America: a comparative phylogeographic approach (1998).

Southwestern Association of Naturalists, Wilks Award Finalist. Student Paper Competition: Recalibrating the mitochondrial DNA clock: implications for Pleistocene vicariance biogeography (1998).

American Society of Mammalogists, Grant-in-aid of Research. The evolution of boreal mammal communities in North America: a comparative phylogeographic approach (1997).

American Society of Mammalogists, Elizabeth Horner Award. Outstanding Graduate Student Research Proposal (1997).

Wake Forest University Department of Biology, Graduate Student of the Year (1997).

National Sigma Xi Competition. Phylogeography of the Galápagos mockingbirds (1996).

Marine Biological Lab, Woodshole, MA. Workshop on Molecular Evolution Scholarship (1996).

American Society of Mammalogists, Grant-in-aid of Research. Mitochondrial DNA variation and biogeography of the New World flying squirrels (*Glaucomys*) (1995).

Louisiana State University (four research and travel grants--1993-1995).

National Sigma Xi Competition. Mitochondrial DNA variation and biogeography of the New World flying squirrels (*Glaucomys*) (1993)

Wake Forest University, Howard Hughes Undergraduate Travel Grant. Field-course in mainland Ecuador and the Galápagos Islands (1992).

Derieux Award Winner (best student paper), Meeting of the North Carolina Academy of Science (1992).

Wake Forest University, Howard Hughes Undergraduate Research Fellowship (1991)