

Beth Ann Pettitt

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Education

University of Central Florida (Aug 2003 – Present) Orlando, FL
M.Sc. Biology candidate. In progress. (GPA = 4.0)

College of St. Benedict (Sept 1991 – May 1995) St. Joseph, MN
B.A. Department of Natural Science, Pre-Veterinary, Mathematics minor (GPA = 3.7)
Honors thesis: The influence of a bamboo diet on the evolutionary adaptations of the
Giant Panda.

Southwest China Normal University (Sept – Dec 1994) Beibei, Sichuan, China
Foreign exchange student. Studies included Chinese language and history. Researched
the evolutionary adaptations of China's Giant Panda (*Ailuropoda melanoleuca*) in
response to their bamboo diet. Performed quantitative analyses on dried bamboo for the
presence of secondary metabolites (cyanide).

Comparative Ecology Training Program (Jan – Feb 1994) Galapagos Islands, Ecuador
Analyzed and documented the contrasting characteristics found in various ecological
habitats and their associated flora and fauna within three distinct locales: alpine tundra of
the Andes mountains, lowland rain forests of central Ecuador and the Galapagos Islands.

Submitted Manuscripts

B. A. Pettitt, C.J. Wheaton and J. M. Waterman. Effects of storage treatment on fecal
steroid hormone Concentrations of a rodent, the Cape ground squirrel (*Xerus inauris*).”
Submitted to General and Comparative Endocrinology.

Manuscripts in Prep

Pettitt, Beth A. & Jane M. Waterman. Predation, habitat structure and evolution of
sociality in ground-dwelling sciurids (tribe Marmotini): A comparative analysis. For
Behavioral Ecology

Pettitt, Beth A. & Jane M. Waterman. Reproductive suppression in female Cape ground
squirrels, *Xerus inauris*. For *Behavioral Ecology*

Non-refereed Publications

Pettitt, Beth A. (in press) Social effects on reproduction in female Cape ground squirrels (*Xerus inauris*): an update. Roan News, Wildlife Society of Namibia.

Pettitt, Beth A. & Jane M. Waterman. 2004. Environmental influences on the social structure of the Cape ground squirrel (*Xerus inauris*). Roan News, Wildlife Society of Namibia. 1:12-14.

Presentations/Published Abstracts

“Reproductive delay in female Cape ground squirrels: suppression, inbreeding avoidance and skew.” **B. A. Pettitt** and J. M. Waterman. Southeastern Ecology and Evolution Conference in Tuscaloosa, AL. March 3-5, 2006

“Reproductive suppression in female Cape ground squirrels, *Xerus inauris*.” **B. A. Pettitt** and J. M. Waterman. Society for Integrative and Comparative Biology 2006 Annual Conference in Orlando, FL. January 4-8, 2006

“Influence of predation and habitat structure on social evolution in ground-dwelling sciurids: a comparative analysis.” **B. A. Pettitt** and J. Waterman. Animal Behavior Society 2005 Annual Meeting in Snowbird, UT. August 6-10, 2005

“Comparison of effects of different storage methods on fecal progesterone concentrations: implications for fecal transport.” **B. A. Pettitt** and J. Waterman. Southeastern Ecology and Evolution Conference in Athens, GA. March 11-13, 2005.

“Predation, Habitat Structure and Evolution of Sociality in Ground-dwelling Sciurids (Tribe Marmotini): A Comparative Analysis.” **B. A. Pettitt** and J. Waterman. Florida Academy of Sciences in Orlando, FL. March 19-20, 2004.

“Social Evolution, Predation Pressure and Habitat Structure: A Comparative Analysis Within Tribe Marmotini.” **B. A. Pettitt** and J. Waterman. Southeastern Ecology and Evolution Conference in Atlanta, GA. March 5-7, 2004.

Research Experience

Polar Bear Vocalizations, Social Complexity Study Field Leader (Oct – Nov 2005)
Churchill, Manitoba, Canada

Research focused on play behavior of males and the impact of human activities on energy expenditure and behavior of polar bears. Responsibilities included leading 4 different teams of 6-10 Earthwatch volunteers in video, audio and digital photography of polar bear interactions. Follow-up analysis of vocalizations.

Cape Ground Squirrel Reproductive Suppression Study Field Leader

(May – Nov 2004) Bloemhof, South Africa; Farm Christirina, Namibia
Research focused on the determination of a delay in reproductive maturation of sub-adult female Cape ground squirrels (*Xerus inauris*). Developed and trained field assistants in sample collection techniques. Conducted behavior observations, trapped, marked squirrels. Led a crew of 2 field technicians.

Endangered Mount Graham Red Squirrel Study Research Assistant

(Sept – Dec 2002) Mount Graham, University of Arizona, Tucson, Arizona
Research focused on pattern of habitat/space utilization of the Endangered Mount Graham red squirrel (*Tamiasciurus hudsonicus grahamensis*). Personal responsibilities included: radio-telemetry, behavioral observation and documentation, GPS, habitat analysis, data management and entry.

Antelope Island Wildlife and Recreationist Study Research Assistant

(April–July 2001) Antelope Island State Park, Syracuse, Utah
Research focused on effects of hikers, mountain bikers and horse-back riders on the behavior of pronghorn, mule deer and bison. Personal responsibilities included: behavioral observation, coding, documentation and GPS. Surveyed public opinion on the presumed effects of recreationists on the behavior of wildlife.

Endangered Delmarva Fox Squirrel Study Field Research Assistant

(Sept–Nov 2001) Patuxent Wildlife Research Center, Delmarva Peninsula, Maryland
Research focused on the impacts of selective tree harvesting on the movement patterns and dispersal of the squirrels through analysis of capture-recapture data. Personal responsibilities included: running trap lines, handling and radio-collaring the endangered Delmarva fox squirrel (*Sciurus niger sincereus*).

Endangered Utah Prairie Dogs Study Field Research Assistant

(March-June 1999, April-June 2003) Bryce Canyon National Park, Bryce, Utah
Research focused on a variety of behavioral patterns, including: mate selection, inbreeding avoidance behaviors, infanticide, communal nursing, aggression, alarm calling and other social interactions. Personal responsibilities included: behavioral observation, documentation and coding of behaviors, and live trapping. Assisted in handling, marking and tagging the endangered Utah prairie dog.
(*Cynomys pavridens*).

Elephant Sanctuary Internship (June-August 1998)

The Elephant Sanctuary, Hohenwald, Tennessee
Assisted in the care and maintenance of three female Asian elephants. Assembled meals, documented changes in diet/behavior, assisted with barn construction.

Teaching Experience

University of Central Florida, Department of Biology

Orlando, FL

General Biology Laboratory, Teaching Assistant (August 2003 – April 2006)
Lectured and assisted students in general biology laboratory techniques and laboratory report writing. Developed teaching materials, composed quizzes and administered all grades. Supervised senior undergraduate teaching assistants.

Ecology & Behavior of Small Mammals in Southern Africa,
Field Course Teaching Assistant (June 2004)

Assisted with instructing students on proper field research techniques, including behavioral observations and trapping skills.

Animal Behavior, Teaching Assistant (August – December 2003)

Graded homework and exams. Assisted in composing exams. Addressed individual students' questions and needs. Developed, administered and graded laboratory portion of class.

K. L. Smith Faculty Center for Teaching & Learning Graduate Teaching Assistant
Seminar (August 2003)

Developed new teaching strategies, course design methodologies, assessment tools and feedback solicitation techniques.

Minnesota Zoo

Apple Valley, MN

Teaching Assistant (June – August 1994)

Taught environmental education, including: entomology, conservation, vertebrate identification, and behavior. Certified in handling various zoo animals.

Awards and Funding

UCF Biology Graduate Student Research Enhancement Award (2005; \$1000)

UCF Graduate Student Travel Grant: Animal Behavior Society Conference (2005; \$550)

American Association for the Advancement of Science Award Nominee
(2004, 2005, 2006)

UCF Graduate Student Travel Grant: Southeast Ecology and Evolution Conference
(2004, \$300; 2005, Group Leader \$900)

Astronaut Scholarship Foundation Scholarship Finalist (2004)

Merit Fellowship (2003-2004; \$5000)

President's Scholarship (1991-1995; \$5000)

CSB Scholarship (1991-1995; \$7500)

Professional Memberships

American Association for the Advancement of Science	(May 2004 – Present)
Animal Behavior Society	(September 2003 – Present)
International Society for Behavioral Ecology.	(September 2003 – Present)
The Wildlife Society of Namibia	(January 2004 – Present)