

# *Mary E. Manjerovic*

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## CURRENT POSITION

**PhD Student in Conservation Biology**  
UNIVERSITY OF CENTRAL FLORIDA

## EDUCATION

- 2004 Masters of Science in Wildlife and Fisheries Resource Management**  
WEST VIRGINIA UNIVERSITY  
**THESIS:** Demographics and genetic structure of an Allegheny woodrat population in northcentral West Virginia
- 2000 Bachelors of Science in Zoology**  
UNIVERSITY OF MAINE  
**THESIS:** The internal clockwork of circadian rhythms

## CURRENT RESEARCH INTERESTS

Applied ecology and conservation genetics of the Cape ground squirrel (*Xerus inauris*) including **Behavioral ecology** – influence of sexual selection (mate choice, male mating strategies and competition) on reproductive success and **Population genetics** – distribution and gene flow. Additional interests include development of molecular markers and application in population and conservation ecology and mammalian behavior.

## MANUSCRIPTS IN PREP

- M. E. Manjerovic**, P. Bohall Wood, and J. W. Edwards. Influences on the population dynamics of a species of concern: the Allegheny woodrat. *for American Midland Naturalist*.
- M. E. Manjerovic**, P. Bohall Wood, and R. J. McPherson. Microsatellite DNA analysis of population structure and assignment, parentage, and kinship in an Allegheny woodrat (*Neotoma magister*) population in West Virginia. *for Molecular Ecology*.
- M. E. Manjerovic**, J. M. Waterman, A.A. Kinahan, N.C. Bennett & P.W. Bateman. Structure and allometry of genitalia in males and females of a social African ground squirrel with high promiscuity. *for Journal of Mammalogy*.

## PRESENTATIONS

- 2006 “Extreme physiological adaptations in the genitalia of a social African ground squirrel.” **M. E. Manjerovic** and J. M. Waterman. Southeastern Ecology and Evolution Conference in Tuscaloosa, Alabama (*oral presentation*).
- “Reproductive morphology of the Cape ground squirrel *Xerus inauris*.” **M. E. Manjerovic** and J. M. Waterman. University of Central Florida Graduate Research Forum in Orlando, Florida (*poster presentation*).
- 2005 “Demography and genetic variability of the Allegheny woodrat.” **M. E. Manjerovic**, P. Bohall Wood, and J. W. Edwards. Southeastern Ecology and Evolution Conference in Athens, Georgia (*poster presentation*).
- “Fire in the urban fabric: a case study at UCF.” Quigley, M., E. Boughton, J. Brown, C. Listopad, and **M. E. Manjerovic**. Wildlife Resources and Ecological Restoration: A Joint Meeting in Tarpon Springs, Florida (*poster presentation*).
- 2004 “Geographic and genetic distances of the Allegheny woodrat.” **M. E. Manjerovic**, P. Bohall Wood, and J. W. Edwards. Davis College of Agriculture, Forestry & Consumer Science 8<sup>th</sup> Annual Graduate Student Research Conference in Morgantown, West Virginia (*oral presentation*).
- 2003 “Movement and reproductive patterns of the Allegheny woodrat in northcentral West Virginia: Insights gained from combining field and genetic data.” **M. E. Manjerovic**, P. Bohall Wood, and J. W. Edwards. Annual Meeting of The Wildlife Society in Burlington, Vermont (*oral presentation*).
- “Movement and reproductive patterns of the Allegheny woodrat in northcentral West Virginia: Insights gained from combining field and genetic data.” **M. E. Manjerovic**, P. Bohall Wood, and J. W. Edwards. Davis College of Agriculture, Forestry & Consumer Science 7<sup>th</sup> Annual Graduate Student Research Conference in Morgantown, West Virginia (*poster presentation*).
- “Demographic characteristics and movement patterns of the Allegheny woodrat in northcentral West Virginia.” **M. E. Manjerovic**, P. Bohall Wood, and J. W. Edwards. USGS Cooperative Fish and Wildlife Research Unit Extension Annual Meeting in Morgantown, West Virginia (*oral presentation*).

## INVITED LECTURES

- 2006 “Kin Selection and Social Behavior.” Population Ecology, University of Central Florida.
- 2003 “Competitive Species Interactions” Conservation Biology, West Virginia University.
- “Movement and reproductive patterns of the Allegheny woodrat in northcentral West Virginia.” Graduate Student Seminar, West Virginia University.
- 2002 “Identification, Life History, and Behavior of North American Mammals” Mammalogy, West Virginia University.
- “Movement and reproductive patterns of the Allegheny woodrat in northcentral West Virginia.” Graduate Student Seminar, West Virginia University.

“Influence of habitat use on diet and reproduction of the Fisher in northcentral Maine.” Ecology and Management of Upland Wildlife, West Virginia University.

#### **PUBLISHED ABSTRACTS / SUMMARIES**

- 2003 **M. E. Manjerovic**, P. Bohall Wood, and J. W. Edwards. Demographic Characteristics and Movement Patterns of the Allegheny woodrat in Northcentral West Virginia. West Virginia Cooperative Fish and Wildlife Research Unit Annual Report.
- 2002 **M. E. Manjerovic**, P. Bohall Wood, and J. W. Edwards. Demographic Characteristics and Movement Patterns of the Allegheny woodrat in Northcentral West Virginia. West Virginia Cooperative Fish and Wildlife Research Unit Annual Report.
- 2001 **M. E. Manjerovic**, P. Bohall Wood, and J. W. Edwards. Demographic Characteristics and Movement Patterns of the Allegheny woodrat in Northcentral West Virginia. West Virginia Cooperative Fish and Wildlife Research Unit Annual Report.

#### **UNPUBLISHED REPORTS**

- 2004 **M. E. Manjerovic**. 2004. Demography and genetic structure of an Allegheny woodrat population in northcentral West Virginia. M.S. Thesis, West Virginia University, Morgantown, West Virginia. 96 pp.
- 2001 Bosworth, S., S. Copen, J. Gillian, **M. E. Manjerovic**. 2001. A functional evaluation for management of the Botanic Garden Wetland Site in Monongalia County, West Virginia. West Virginia University, Morgantown, West Virginia. 96 pp.

#### **RESEARCH EXPERIENCE**

##### Biology Research Assistantship, May 2005 – present

Jane M. Waterman, Assistant Professor, University of Central Florida

- Currently addressing various questions involving the Cape ground squirrel (*Xerus inauris*) of southern Africa
- The primary focus of my research is on male mating strategies, paternity, sperm competition, and dispersal
- Additional work in overall population genetics and structure

##### Wildlife Research Assistantship, August 2001 – 2004

Petra Bohall Wood, Adjunct Assistant Professor of Wildlife, West Virginia Cooperative Fish and Wildlife Research Unit, BRD/USGS, West Virginia University  
Wildlife and Fisheries Resources

- Analyzed microsatellite markers for the Allegheny woodrat
- Directly responsible for field data collection, entry and analysis of trapping records, habitat variables and genetic data
- Gained experience with: mammal trapping, tagging and taxonomic identification, vegetation sampling, statistical data analysis, technical writing, GPS and GIS data collection and processing, genetic laboratory techniques, and genetic software.

Neurobehavioral Research Assistantship, September 2000 – July 2001

Bertha K. Madras, Professor of Psychobiology and Chair of the Division of Neurochemistry  
New England Regional Primate Research Center, Harvard University, Southborough, MA

- Assisted in research on Squirrel monkeys (*Saimiri sciureus*) focusing on neurochemical mechanisms of dopamine-related brain disorders and cocaine addiction
- Developed and implemented handedness activities and training for paralysis study
- Responsible for behavioral data collection and statistical analysis

Neurology Laboratory Research Assistant, September 1999 – May 2000

Alan Rossenwasser, Professor of Psychology  
Department of Psychology, University of Maine, Orono, Maine

- Assisted in circadian rhythm research on the intergeniculate leaflet of the thalamus for completion of undergraduate Honor's Thesis
- Aided in care of research animals including handling, anesthesia, and surgery

## **TEACHING EXPERIENCE**

Biology Teaching Assistantship, August 2004 – May 2005

Department of Biology, University of Central Florida

- Taught comparative anatomy and introductory biodiversity laboratories
- Responsible for dissection, field and classroom based biology labs

Teaching Assistant Seminar, August 2004

K. L. Smith Faculty Center for Teaching & Learning Graduate

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

Biology Teaching Assistantship, August 2003 – May 2004

Department of Biology, West Virginia University

- Taught introductory physiology and cell/molecular biology laboratory
- Responsible for laboratory lectures, experiments and grading
- Tutored and advised undergraduate biology students

Wildlife and Fisheries Teaching Assistantship, August 2001 – May 2003

Division of Forestry, West Virginia University

- Assisted with undergraduate and graduate wildlife and fisheries lectures and laboratories including Mammalogy, Ornithology, Wildlife Habitat Techniques, Forest Management, Wildlife Ecology, Conservation Biology, Limnology, Fisheries Management, Fisheries Techniques, Fish Ecology
- Responsibilities included assistance with lectures, proctoring and grading exams, coordinating field trips, experimental design and set up

Chemistry Teaching Assistantship, August 1999 – May 2000

Bruce Jensen, Associate Professor of Chemistry

Department of Chemistry, University of Maine, Orono, Maine

- Taught and assisted organic chemistry laboratory
- Tutored and advised undergraduates in organic chemistry lecture

## **FUNDING and AWARDS**

UCF Graduate Student Travel Grant: Southeast Ecology and Evolution Conference (2005; \$300)  
UCF Merit Fellowship (2004-2005; \$5000)  
2<sup>nd</sup> place Best Oral Presentation – 3<sup>rd</sup> Annual Southeastern Ecology and Evolution Conference,  
Tuscaloosa, Alabama  
Magna cum laude (University of Maine 1996-2000)  
Dean's List (1998-2000)  
Presidential Academic Achievement

## **PROFESSIONAL SOCIETIES**

American Genetics Association  
The Wildlife Society  
Xi Sigma Pi Forestry Society  
Graduate Student Association (Vice President 2002-2003)  
Biology Graduate  
Phi Beta Kappa Honor Society  
Beta Beta Beta Biological Honors Society  
Alpha Zeta Honors Fraternity (Scribe 1999-2000)  
Golden Key National Honors Society  
National Honors Society

## **ADDITIONAL SKILLS and QUALIFICATIONS**

Microsoft Office Suite: Word, Excel, and Powerpoint  
Laboratory Equipment: ABI 310 Genetic Analyzer, MJ DNA Engine, Gel  
electrophoresis  
Genetic Software: GENESCAN, GENOTYPER, Genepop, Fstat, PAPA, Cervus 2.0,  
Kinship, Relatedness, Arlequin  
Statistical Software: SAS, JMP, Systat  
Modeling Software: Mark  
GIS: ArcView, ArcMap  
Field Experience: GPS, Electroshocking, ATV training, First Aid and CPR  
Certification.