

# Robert Muscarella

5944 N Kerby  
Portland, OR 97217

mobile: 503.816.8613  
bob.muscarella@gmail.com

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## EDUCATION

- MS 2008. Department of Biology, University of Miami, Miami, Florida  
Advisor: Dr. Theodore H. Fleming  
Thesis: "Does wind affect genetic structure and gene flow of two species of phyllostomid bats in the Bahamas and Greater Antilles?"
- BA 2001. Lewis and Clark College, Portland, Oregon.  
Double majored in Biology and Environmental Studies

## RELEVANT EXPERIENCE

- 05/08-08/08 **Bird Point Count Surveyor**, Rocky Mountain Bird Observatory, Kaibab National Forest, Arizona. Worked independently to conduct point count surveys of birds in by sight and sound. Recorded associated vegetation data. Hiked over rough terrain and camped in isolated areas.
- 10/07-12/07 **Botany Research Assistant**, Lambir Forest National Park, Malaysia. Assisted in research project investigating ecological basis of species co-existence in a tropical rainforest. Collected data on plant physiology and environmental variables. Trained another assistant in field techniques. Worked extended hours in extreme field conditions.
- 8/07-10/07 **Field Biologist**, Krakatau Islands World Heritage Site, Indonesia. Surveyed existing permanent forest plots for recruitment, growth, mortality, phenology. Initiated 15 additional permanent plots on Anak Krakatau and conducted a seed bank study to investigate forest dynamics and succession. In addition, used mist-nets and point counts to survey bird population.
- 8/06-5/07 **Arboretum Curator**, the John C. Gifford Arboretum. Responsible for maintaining living collection in the arboretum, organizing workshops, meetings, tours and events. Managed web site other administrative tasks.
- 2/05-5/05 **Conservation Program Coordinator**, ATREE, Southern India. Designed and implemented a community-based conservation and monitoring program of the Indian flying fox (*Pteropus giganteus*) in rural India. Integrated children and community members into fieldwork.
- 4/03-9/03 **Field Biologist**, Geo-Marine Inc., Gila National Forest, NM.

Surveyed and monitored Mexican spotted owls for a study on reproductive success. Recorded vocalizations, analyzed noise data, hiked extensively over rough terrain at high elevation. Trained extensively in GPS, map-and-compass orienteering and wilderness first aid.

- 4/01-9/01 **Bat Research Assistant**, Oregon State University, Corvallis, OR.  
Captured, identified and tracked bats in western Oregon, utilized Trimble GPS, radio-telemetry and aerial photographs, analyzed vegetation plots, hiked extensively on rough terrain at high elevations. Participated in a workshop on conducting bat research.
- 8/00-12/00 **Volunteer Research Assistant**, James Cook University, Australia.  
Surveyed flora and fauna of tropical wetland ecosystem, used various trapping techniques and GPS, authored a technical report about the project, analyzed and presented data.
- 5/00-9/00 **Water Quality Research Internship**, Lewis and Clark College, Portland, OR. Designed and executed an assessment of water quality in a local watershed, wrote a scientific report on findings and analysis, spread information amongst residents, non-profits and government organizations.
- 8/98-5/01 **Student Group Leader**, SEED, Lewis and Clark College, Portland, OR.  
Coordinated student environmental group, organized volunteer activities, wrote and implemented the budget, designed and maintained an organic community garden, served as liaison between administration and the group.

#### **TEACHING EXPERIENCE**

- 6/06-8/06 **Graduate Facilitator**, University of Miami and Howard Hughes Medical Institute, Research in Ecology Program, summer 2006. Project title: "The effect of distance on genetic variation of South Florida Slash Pine"
- 8/05-5/06 **Teaching Assistant**, University of Miami. Courses: Introductory lab in Ecology, Introductory lab in Genetics and Evolution, Genetics.

#### **ADDITIONAL EXPERIENCE**

- 8/04-12/04 **Volunteer Coordinator**, 21<sup>st</sup> Century Democrats, Portland, OR.  
Actively recruited and trained volunteers, developed volunteer program focused on educating and mobilizing voters around environmental issues.
- 9/02-12/02 **Volunteer Coordinator**, Chellie Pingree for U.S. Senate, Portland, ME.  
Managed a full time staff of 16, actively recruited and trained volunteers, developed volunteer program, supervised a \$50,000 budget.
- 8/00-1/01 **Semester abroad**, James Cook University, Townsville, Australia.  
Focused studies on flying fox conservation issues in northern Queensland.

## **PUBLICATIONS**

Muscarella, R., K. L. Murray, D. Ortt and T. H. Fleming (*in review*). Does wind or demography affect genetic structure in two lineages of Greater Antillean bats?

Muscarella, R. and T. H. Fleming. 2007. The Role of Frugivorous Bats in Tropical Forest Succession. *Biological Reviews* 82(4): 573-590.

## **GRANTS RECEIVED**

- 2007            The Max and Peggy Kriloff Graduate Student Travel Scholarship, University of Miami
- 2005            Graduate Activity Fee Allocation Committee Award, University of Miami
- 2005            William H. Evoy Graduate Research Support Award, University of Miami

## **PRESENTATIONS**

- 2006            The role of frugivorous bats in tropical succession. North American Symposium on Bat Research. Wilmington, NC.
- 2006            The role of frugivorous bats in tropical succession. Coalition for Excellence in Tropical Biology. Miami, FL.

## **PROFESSIONAL MEMBERSHIPS, ADDITIONAL SKILLS AND INTERESTS**

I am a member of the North American Symposium on Bat Research and the Society for Conservation Biology. I am proficient with the following computer programs (Mac and PC): MS Office, ArcView, ArcGIS, Idrisi Kilimanjaro, Adobe Photoshop, Final Cut Pro, Internet. I have an excellent driving record including extensive experience with 4-wheel drive and ATV's on forest roads. I have been trained in Wilderness First Aid and CPR. I have been vaccinated against the Rabies virus (5/2005). I love to travel, canoe, playing guitar, and accordion, make piñatas and ride bicycles. I run a very small homemade ice cream business and create comic strip lessons in basic ecology.

## **REFERENCES**

Theodore H. Fleming, PhD (MS major advisor)  
Professor of Biology  
University of Miami  
1301 Memorial Dr.  
Coral Gables, FL 33124  
phone: (305) 284-6881  
email: [tfleming@fig.cox.miami.edu](mailto:tfleming@fig.cox.miami.edu)

Carol Horvitz (Supervisor during arboretum job)  
Professor of Biology  
University of Miami  
1301 Memorial Dr.  
Coral Gables, FL 33124  
phone: (305) 284-5364

email: carolhorvitz@miami.edu

Sabrina Russo, PhD (Malaysia research supervisor)  
Assistant Professor of Biology  
University of Nebraska  
208 Manter Hall  
Lincoln, NE 68588  
phone: (402) 472-8387  
email: srusso2@unlnotes.unl.edu

Alex Wilson, PhD (MS committee member)  
Assistant Professor of Biology  
University of Miami  
1301 Memorial Dr.  
Coral Gables, FL 33124  
phone: (305) 284-2003  
email: acwilson@bio.miami.edu

#### **ACADEMIC RECORD**

GPA at University of Miami:	4.0	
GPA at Lewis and Clark College:	3.3	
General GRE Score (12/04):	<u>Score</u>	<u>Percentile</u>
Verbal	600	84
Math	670	62
Analytical Writing	5.0	71
Biology GRE Score (11/04):	700	70
Cellular & Molecular	63	49
Organismal Biology	69	68
Ecology & Evolution	78	89