



Meghan S. Martin
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EDUCATION

Reed College
Bachelor of Arts Degree, Biology Major May 2003
Portland State University
Masters of Science in Biology March 2009
Portland State University
Ph. D., Doctor of Philosophy Program in Biology December 2014

RESEARCH & WORK EXPERIENCE

San Diego Zoo Global, Dr. Ron Swaisgood April 2015-present
Developed and managed international giant panda program studying social cues for mate preference, the effects of domestication on reproductive success in captivity, and improving reintroduction training methods. Analyzed and interpreted 20 years of past giant panda research data and prepared journal articles for publication. Hired and managed 20 interns and collaborated successfully with Chinese, English, and Scottish researchers.

PDXWildlife 2011-present
Director of non-profit that focuses on conserving species and habitats by producing innovative, high-quality research and educating communities about their natural resources. Have developed a menu-marking program in Portland that recruits restaurants to mark sustainable seafood items and researches the effectiveness of menu marking on consumer choice. Managed and developed international giant panda program studying mate preference and reproductive success.

USFW Intern April 2014-April 2015
Developed and launched a "mussel academy" for middle and high school students in the greater Portland area to teach students about the biology of freshwater mussels and the significance of their role in the ecosystem. Developed and drafted the Oregon conservation strategy plan for freshwater mussels. Required networking with other environmental educators, teachers and natural resource managers such as federal agencies, state agencies, local government, non-government organizations, tribes and project stakeholders involved in freshwater mussel conservation in Oregon.

Oregon Zoo & San Diego Zoo Giant Panda Behavioral Research 2011-April 2014
Conducted mate preference studies in Ya'an, China on giant pandas. Included hormonal, acoustic, and behavioral analysis.

Oregon Zoo Radioimmunoassay Technician, Dr. Mitch Finnegan 2006-2010
Conducted weekly progesterone and testosterone hormone assay runs to predict ovulation in female Asian elephants for breeding introductions. United States Forest Service Wildlife

Biological Technician, Sharon Hernandez

2006

Conducted wildlife habitat surveys and rare bird population surveys in the Mt. Hood National Forest.

Oregon Zoo Research Associate, Dr. David Shepherdson 2005- present
Designed and implemented research projects that investigated how to predict successful mating introductions in endangered pygmy rabbits. Designed and implemented project on

longitudinal progesterone monitoring on female Asian elephants for 20 years of progesterone data assays. Performed research on variance in individual stereotypic behaviors in polar bears. Participated in the western pond turtle capture and release study and conservation efforts.

- Smithsonian Institution/National Zoological Park Intern, Dr. Aitkens-Palmer** 2005
Conducted research at the Chengdu Panda Breeding and Research Center in Chengdu, China. Worked on project investigating physiological and behavioral changes in male giant pandas from prepubescence to postpubescence.
- Primate Research Assistant II, Dr. Judy Cameron** 2003-2004
Worked at the Oregon National Primate Research Center on projects that focused on calorie restriction and aging, food intake manipulation through experimental drugs, and genetically linked anxiety and alcoholism in a controlled population.
- Reed College Senior Research Thesis, Dr. Stephen Yezerinac** 2002-2003
Focused on investigating color-producing structures in the Western Scrub Jay and analyzing ultra-violet sexual dimorphism (*Aphelocoma californica californica*).
- Organization of Tropical Studies Field Research, Dr. Erika Deinert** 2002
Performed field studies in rain forests of Costa Rica which focused on animal behavior field research on *Dendrobates pumilio* and *Uca beebei* as well as tropical ecology surveys.
- Reed College Cellular Biology Intern, Dr. Maryanne McClellan** 2001
Focused on developing a non-toxic green fluorescent protein tagged to an estrogen receptor for use in mammalian cells for cancer research.

TEACHING EXPERIENCE

- Adjunct Professor and Lab Instructor, Portland Community College** 2009-present
BAMZA 250 Conservation Biology for Zoos
Developed and lectured the BMZA 250 Conservation Biology course at Rock Creek which explores the challenges of declining biodiversity and examines the role of zoos in contributing to population and habitat conservation. Provides field experience with species conservation programs.
- BIO 231 & 100L/231L/232L/233L, Survey of Biology & Human Anatomy and Physiology*
Lectured Human Anatomy and Physiology 231 course and taught the lab section of BIO 231, 232, 233 at all PCC campuses. Taught all three terms for human anatomy and physiology lab at Sylvania Campus. Included grading papers, creating and administering quizzes & exams, preparing and delivering lab and course lectures, and teaching open lab periods.
- Adjunct Professor and Lab Instructor, Clark Community College** 2008-present
BIO 100 & 100L/251L/252L/253L, Survey of Biology & Human Anatomy and Physiology
Responsible for lecturing introductory Biology 100 course and teaching the lab sections associated with the class. Taught lab and ensured student understanding in Human Anatomy and Physiology I.
- Teaching Assistant, Portland State University** 2006-2011
BIO 301/302/303L, Human Anatomy and Physiology
Responsible for teaching undergraduate college level human anatomy lab twice a week and ensuring student understanding.
- Teaching Assistant, Reed College** 2001-2002
CHEM 101L/102L/103L, Introduction to Chemistry
CHEM 201L/202L, Organic Chemistry

Aided professors in tutoring and instructing undergraduate students in laboratory techniques. Graded and administered Organic Chemistry I and II tests and tutored during open lab hours to ensure comprehension of organic chemistry concepts.

Science Center Tutor, Reed College

2001-2003

Introductory Biology and Chemistry, Organic Chemistry I and II, and Developmental Biology.

PUBLICATIONS

Meghan S. Martin-Wintle, Shepherdson, D., Wintle, N., Zhang, G. Q., Huang, Y., Li, D., Zhou, X.P., Swaisgood, R.R. 2016. Do opposites attract? Effects of personality matching in breeding pairs of captive giant pandas on reproductive success. 2016. *Animal Behavior*. In preparation.

Nathan J.P. Wintle, **Meghan S. Martin-Wintle**, Xiaoping Zhou and Chunxiang Tang. 2016. Total Mercury and Methylmercury in Captive Giant Pandas. *Ecotoxicology*. In review.

Simon C. Griffith, Ondi L. Crino, **Meghan S. Martin-Wintle** & 50 others. 2016. Variation in reproductive success across captive populations: methodological differences, potential biases and opportunities. *Animal Behavior*. Submitted.

Martin-Wintle, M.S., Shepherdson, D., Li, D.S., Zhang, G.Q., Zhou, X.P., Li, R., Swaisgood, R. R. 2015. Free mate choice enhances conservation breeding in the endangered giant panda. *Nature Communications*, 6.

Martin, M.S. 2013. Annotations for Panda: The Journey Home. *National Geographic and Skyline*.

Martin M.S. & D. Shepherdson. 2012. The role of familiarity and preference on reproductive success in ex-situ conservation breeding programs. *Conservation Biology* 26(4): 649-56.

Martin, M.S., Gleaser, S.S., Finnegan, M., Hunt, K., & J.L. Brown 2011. Investigation of animal variability, synchronicity, and impact of life events on reproductive cycle dynamics through longitudinal serum progesterone monitoring of female asian elephants (*Elephas maximus*) at the Oregon Zoo. *Theriogenology* 8, 285–296.

Martin, M.S., Gleaser, S.S., Finnegan, M., Brown, & J.L. 2007. Characterization of female Asian elephant (*Elephas maximus*) estrous cycles through longitudinal serum progesterone monitoring at Oregon Zoo. In: International Elephant Foundation Meeting; 2007 Nov; Orlando, FL.

Koegler, F.H., P.J. Enriori, S.K. Billes, D.L. Takahashi, **M.S. Martin**, R.L. Clark, A.E. Evans, K.L. Grove, & J.L. Cameron. 2005. Peptide YY inhibits morning, but not evening, food intake and decreases body weight in Rhesus Macaques. *Diabetes* 54: 3198-3204.

Koegler F.H., **M.S. Martin**, et al. 2004. Effects of PYY(3-36) on meal intake and body weight in rhesus macaques. In: Society for Neuroscience Annual Meeting; 2004 Oct; San Diego, CA: Society of Neuroscience Abstract Viewer 2004. Online.

Martin, M.S. 2003. Plumage Color and Feather Structure of Western Scrub Jays (*Aphelocoma californica californica*). Senior Thesis, Reed College.

PRESENTATIONS

Do Opposites Attract? The effects of personality on reproductive success in captive breeding giant pandas

OMSI Science Pub at the Hollywood Theater, Portland, Oregon; 29th, July 2015

Panda Speed Dating: Helping an endangered species through captive breeding

OMSI Science Pub at the Hollywood Theater, Portland, Oregon; 8, September 2014

Mate preference and familiarity increases reproductive success in the endangered lagomorph *Brachylagus idahoensis*.

The Wildlife Society Annual Conference. Bend, Oregon; 14, February 2014

Mate choice and reproductive success in captive breeding of giant pandas

Invited guest lecture for BIO 431 Vertebrate Zoology, Pacific University; 14, November 2014

Invited guest lecture for BIO 412/512 Animal Behavior, Portland State University; 21, April 2014

Mate familiarity and preference increases reproductive success in captive breeding of endangered Columbia Basin pygmy rabbits.

Chinese Conservation and Research Center for the Giant Panda; 22, March 2012

San Diego Zoo Conservation and Research Center; 23 August, 2011

Society for Northwestern Vertebrate Biology, Stevenson, Washington; 19, February 2009

Portland State University Masters Thesis Defense, Portland, Oregon; 14, November 2008

Portland State University Alumni Event Presentations, Portland, Oregon; 18, October 2008

Oregon Zoo Brown Bag, Portland, Oregon; 15, September 2008

Investigation of animal variability on reproductive cycle dynamics through longitudinal serum progesterone monitoring of female asian elephants (*Elephas maximus*) at the Oregon Zoo.

International Elephant Foundation, Pataya, Thailand; 22, November 2008

A review of mortality and breeding in the endangered Columbia Basin pygmy rabbit (*Brachylagus idahoensis*) since inception of the captive breeding program.

Washington Department of Fish and Wildlife, Olympia, WA; 13, January 2007

The effect of anti-predator training on post-release survival of endangered Columbia Basin pygmy rabbits.

Oregon Zoo Brown Bag, Portland, OR; 13, November 2007

Breeding like bunnies – or not! Mate choice in an endangered species of lagomorph.

Oregon Zoo Brown Bag, Portland, OR; 13, November 2007

AWARDS

CCRCGP Giant Panda Club grant (45,000 RMB)	2015
David Tuber Applied Animal Behavior award (\$1,300)	2014
Top Student Presenter at The Wildlife Society Annual Conference	2014

Forbes Lea Grant (\$1,150)	2012
Oregon Zoo's Future for Wildlife Grant (\$2,900)	2011
Outstanding Graduate Teaching Award	2010
Oregon Zoo's Future for Wildlife Grant (\$2,474)	2009
Oregon Zoo's Future for Wildlife Grant (\$2,000)	2008
Honorable Mention NSF Graduate Fellowship	2007
Commendation for Excellence on Senior Thesis Reed College	2003
Commendations on Junior Qualifying Exam Reed College	2003
Commendation for Academic Excellence Reed College	2002 & 2003
National Academy of Sciences Summer Research Award	2001

SYNERGISTIC ACTIVITIES

2011-present

Director of PDXWildlife a non-profit that focuses on local and international conservation of wildlife. Spearheaded a menu-marking program for sustainable seafood in Portland, OR.

2015

Developing the Oregon Freshwater Mussel Conservation Strategy plan for the USFWS and the curriculum for a Freshwater Mussel Academy that will recruit middle school and high school students for citizen science research on freshwater mussels.

2015-present

Member of the Research Advisory Committee for Biology & Management of Zoo Animals, Portland Community College

2008

Volunteer Western Painted Turtle Monitoring Team

2006-2009

Member of the WDFW/USFWS Columbia Basin Pygmy Rabbit Science Team conservation working group