

JOHN P. WHITEMAN

Ph.D. Candidate

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EDUCATION

- Ph.D. Current Ecology, University of Wyoming (Laramie, WY)
Dissertation: Polar bear (*Ursus maritimus*) ecophysiology during summer and the impacts of climate change
- M.Sc. 2008 Zoology and Physiology, University of Wyoming (Laramie, WY)
Thesis: Impacts of snow compaction from human recreation on the biota of snowy regions
- B.A. 2003 Biology, Honors program, University of St. Thomas (St. Paul, MN)
Summa cum laude (GPA 3.96/4.00)

PUBLICATIONS

- Ben-David M, Newsome SD, **Whiteman JP**. *In press*. Lipid and amino acid composition influence incorporation and discrimination of stable carbon and nitrogen isotopes in captive mink.
- Whiteman JP**, Greller KA, Harlow HJ, Felicetti LA, Rode KD, Ben-David M. *In press*. Carbon isotopes in exhaled breath track metabolic substrates in brown bears (*Ursus arctos*).
- Pauli JN, **Whiteman JP**, Marcot BG, McClean TM, Ben-David M. 2011. DNA-based approach to aging martens (*Martes americana* and *M. caurina*). *J of Mammalogy* 92:500-510.
- Durner GM, **Whiteman JP**, Harlow HJ, Amstrup SC, Regehr EV, Ben-David M. 2011. Consequences of long-distance swimming and travel over deep-water pack ice for a female polar bear during a year of extreme sea ice retreat. *Polar Biology* 34:975-984.
- Pauli JN, **Whiteman JP**, Riley MD, Middleton AD. 2010. Defining noninvasive for sampling vertebrates. *Conservation Biology* 24:349-352.
- Griscom H, **Whiteman J**, Keinath D. 2008. Surveys for sensitive vertebrates and riparian habitats on the Medicine Bow and Routt National Forests. Report for USDA Medicine Bow-Routt National Forest and Thunder Basin National Grassland. 16 pp.
- Verhoeven AS, Swanberg A, Thao M, **Whiteman J**. 2005. Seasonal changes in leaf antioxidant systems and xanthophyll cycle characteristics in *Taxus x media* growing in sun and shade environments. *Physiologia Plantarum* 123:428-434.

RESEARCH CONFERENCE PRESENTATIONS (presenters in bold)

Whiteman J, Harlow H, Ben-David M, Durner G. 2012. Oral: Polar bears may depress body temperature and metabolic rate during summer. *Society for Integrative and Comparative Biology, Annual Meeting (Charleston, South Carolina)*.

Whiteman J, Harlow H, Ben-David M, Durner G. 2011. Oral: Polar bears may adjust physiology and behavior to cope with climate change. *Ecological Society of America, Annual Meeting (Austin, Texas)*.

Whiteman J, Harlow H, Ben-David M. 2011. Oral: How are polar bears (*Ursus maritimus*) adjusting their physiology and behavior to cope with climate change? *International Conference on Bear Research and Management (Ottawa, Canada)*.

Whiteman J, Harlow H, Ben-David M. 2010. Poster: Can walking hibernation help polar bears (*Ursus maritimus*) cope with climate change? *American Physiological Society, Intersociety Meeting: Global Change and Global Science, Comparative Physiology in a Changing World (Westminster, Colorado)*.

Whiteman J, Harlow H, Ben-David M. 2010. Oral: Polar bear (*Ursus maritimus*) physiology in a warming Arctic. *American Society of Mammalogists, Annual Meeting (Laramie, Wyoming)*.

Durner G, **Whiteman J**, Harlow H, Amstrup S, Regehr E, Ben-David M. 2010. Poster: A long-distance swimming event by a female polar bear during an extreme summer sea ice melt season in the Beaufort Sea. *American Society of Mammalogists, Annual Meeting (Laramie, Wyoming)*.

Whiteman J, Buskirk S. 2010. Oral: Do animals follow compacted trails? *The Wildlife Society, Colorado Chapter Annual Meeting (Pueblo, Colorado)*. Invited.

Buskirk S, Whiteman J. 2010. Oral: Ecological effects of snow compaction: mechanisms and prognosis. *The Wildlife Society, Colorado Chapter Annual Meeting (Pueblo, Colorado)*. Invited.

Whiteman J, Harlow H, Ben-David M. 2009. Oral: Using stable isotopes to investigate diet effects on body condition of polar bears. *Defenders of Wildlife Carnivore Conference: Carnivore Conservation in a Changing World (Denver, Colorado)*.

Whiteman J, Buskirk S. 2006. Oral: Effects of snow compaction on the movement and distribution of mammals traveling on the snow surface. *The Wildlife Society, joint conference of Wyoming Chapter and Central Mountains and Plains Section (Laramie, Wyoming)*.

Verhoeven A, **Swanberg A**, **Whiteman J**. 2003. Oral: Cold weather acclimation of antioxidant pathways in *Taxis cuspidate*. *American Society of Plant Biologists, Midwest Conference Annual Meeting (Ames, Iowa)*.

OTHER PRESENTATIONS (presenter in bold)

Whiteman J, Harlow H, Ben-David M. 2010. Oral: Conservation physiology: polar bears in summer. *National University of La Plata, Faculty and Museum of Natural Sciences (La Plata, Argentina)*. Also presented at *Center for Applied Ecology, Neuquen Province (Junin de los Andes, Argentina)*. Invited.

Whiteman J, Harlow H, Ben-David M. 2009. Oral: How do polar bears cope with decreasing sea ice in the Arctic? *Alaska Eskimo Whaling Commission Meeting (Anchorage, Alaska)*.

Whiteman J, Buskirk S. 2008. Oral: Impacts of snow compaction from human recreation on the biota of snowy regions. *Forest Service Region 2 Headquarters (Denver, Colorado)*. Also presented at *Medicine Bow National Forest Headquarters (Laramie, Wyoming)*. Invited.

FELLOWSHIPS AND SCHOLARSHIPS

2011 – 2014 Science to Achieve Results (STAR) Fellowship, Environmental Protection Agency (\$126,000)
2009 – 2010 Wyoming Space Grant Consortium Fellowship, NASA (\$20,000)
2008 – 2009 Program in Ecology Fellowship, University of Wyoming (\$19,125)
2006 Department of Zoology and Physiology Reed W. Fautin Memorial Scholarship, University of Wyoming (\$1,000)
2006 School of Environment and Natural Resources Plummer Scholarship (\$300), University of Wyoming
2002 – 2003 Biology Paul J. Germann Scholarship, University of St. Thomas (\$2,000)
1999 – 2003 National Merit Commended and University of St. Thomas Scholarships (\$46,000)

AWARDS

2011 Best student speaker in Physiological Ecology Section (Billings Award), Ecological Society of America Annual Meeting (\$500)
2011 Travel Award, Physiological Ecology, Ecological Society of America (\$500)
2010 Travel Award, Research Recognition, American Physiological Society (\$250)
2006 Best student speaker, The Wildlife Society Joint Conference of Wyoming Chapter and Central Mountains and Plains Section (\$100)
2001 Membership, Delta Epsilon Sigma (National Academic Honor Society)
2001 Membership, Omicron Delta Kappa (National Leadership Honor Society)

RESEARCH POSITIONS

- 2005 – present Teaching assistant and graduate assistant, University of Wyoming.
- 2007 Field supervisor, Wyoming Natural Diversity Database. Surveys of plants and animals in meadows after snow compaction.
- 2006 Non-game temporary biologist, Wyoming Department of Game and Fish. Black-footed ferret population monitoring.
- 2006 Project assistant, University of Wyoming. American marten ecology in fragmented habitat.
- 2005 Wildlife technician, Idaho Department of Fish and Game. Northern Idaho Ground Squirrel population monitoring.
- 2004 – 2005 Intern, Yellowstone Ecological Research Center. Long-term investigation of coyote ecology.
- 2004 Biological technician, USDA Forest Service. Mexican Spotted Owl recovery plan.
- 2003 Intern, Syracuse University. Ecological dynamics in wetlands and oak savannah in central Minnesota.
- 2000 – 2003 Lab technician, University of St. Thomas. Photosynthesis and stress in evergreens in winter.

TEACHING POSITIONS AND STUDENT MENTORING

- 2011 Teaching assistant. Comparative Environmental Physiology lab sections, University of Wyoming. One semester.
- 2010 Guest lecturer. Environment 1200, Environment and Natural Resources, University of Wyoming. Polar bears and climate change, 1 lecture.
- 2010 Mentored Yolanda Paylor, undergraduate (Winston-Salem State University). Wyoming NASA Space Grant Summer Research Experience, University of Wyoming. Muscle physiology and techniques for stable isotope analysis. 3 weeks.
- 2007 Mentored Jessica Luhn, high school student. Summer Research Apprenticeship Program, University of Wyoming. Introduction to field biology. 1 week.
- 2006 Teaching assistant. General Biology lab sections, University of Wyoming. One semester.
- 2006 Instructor. Pre-biology, Upward Bound Summer Program. Designed curriculum and taught introductory biology for high school students, at University of Wyoming campus.
- 2000 – 2003 Writing consultant, University of St. Thomas. Conducted one-on-one sessions with undergraduate and graduate students on all aspects of the writing process. Two semesters per year.

MEMBERSHIPS

American Physiological Society
American Society of Naturalists
Association of Polar Early Career Scientists
Ecological Society of America
Society for Integrative and Comparative Biology

SERVICE

- 2011 – 2012 Student representative, Graduate Advisory Board, Department of Zoology and Physiology, University of Wyoming.
- 2010 – 2011 Co-president, Ecology Graduate Student Association, University of Wyoming.
2010 Local committee for 90th Annual Meeting of the American Society of Mammalogists, University of Wyoming.
- 2009 – 2010 Student representative, committee for the Distinguished Ecologist Seminar Series, Program in Ecology, University of Wyoming.

PUBLIC OUTREACH

- 2012 Science journalism internship, Charlotte Mangum Student Support Program, Society for Integrative and Comparative Biology (SICB) Annual Meeting. Competitive program to receive journalism instruction and publish a research story on the SICB website.
- 2011 Media coverage of Durner et al. (2011) on websites of BBC News, CBS News, and others.
- 2009 – 2010 Science correspondent for *Ice Stories*, a website devoted to research in polar areas, a project of the San Francisco Exploratorium Science Museum. Posted 23 stories online at <http://icestories.exploratorium.edu/dispatches/arctic-projects/the-bears-of-summer/>.
- 2009 – 2010 PolarTREC participant (Polar Teachers, Researchers, and Educators Collaborating). Partnered with a teacher from Impact Academy, a California charter school focused on personalized teaching in communities of need. Provided field and technical experience to generate science-based lesson plans and community presentations. Visited Impact Academy to provide student feedback and present lessons on animal physiology and climate change.
- 2009 Co-hosted meeting, with US Geological Survey, to discuss polar bear research with community members in Kaktovik, Alaska (Arctic National Wildlife Refuge).
- 2008 Interviewed on Wyoming Public Radio, discussing M.Sc. research regarding the effects of winter recreation trails on animal movement on the snow surface.