

# William W. Deacy

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## EDUCATION

College of Forestry and Conservation, University of Montana, Missoula, MT  
PhD in Systems Ecology (2016)      GPA: 4.0

Vanderbilt University, Nashville, TN  
B.A. in Psychology, minor in Biology (2008)

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## PROFESSIONAL EXPERIENCE

Postdoctoral Research Fellow    2016-present  
Oregon State University, Corvallis, OR  
Project: Modeling the effects of altered salmon phenologies and human activities on the landscape-level foraging opportunities of Kodiak brown bears  
Mentor: Dr. Jonathan Armstrong

Wild Salmon Fellow    2019-present  
Wild Salmon Center, Portland, OR  
Project: Quantifying the effect of reductions in Spring Chinook salmon on Southern Resident Killer Whales  
Mentor: Dr. Matthew Sloat

Graduate Researcher/ Field Crew Leader    2012-2016  
University of Montana-Flathead Lake Biological Station, Missoula, MT  
Kodiak National Wildlife Refuge, Kodiak, AK  
Project: Quantifying brown bear predation on salmon portfolios  
Mentor: Dr. Jack Stanford

Aerial Observer    2015  
Kodiak National Wildlife Refuge, Kodiak, AK  
Project: Population estimation of mountain goats  
Principle Investigator: Dr. McCrea Cobb

Field Technician    2011  
Grand Teton National Park, Moose, WY  
Project: Pika distribution, abundance, and ecology

Principle Investigator: Sue Wolff

Field Technician 2011

University of California, Davis, CA

Project: Sierra Nevada Red Fox distribution

Principle Investigator: Dr. Jocelyn Akins

Volunteer Field Technician 2010-2011

Grand Teton National Park, Moose, WY

Project: Predator-prey dynamics of wolves in a multi-ungulate ecosystem

Principle Investigator: Mike Jimenez

Volunteer Field Technician 2010

Kodiak National Wildlife Refuge, Kodiak, AK

Project: Chinook Salmon fry rearing ecology & Seabird abundance/ avian influenza detection

Principle Investigators: Kevin Van Hatten, Dr. Robin Corcoran

Field Technician 2009

Great Basin Institute, Reno, NV

Project: Desert Tortoise Distribution and Abundance

Principle Investigator: Terry Christopher

NSF Research Experience for Undergraduates (REU) technician 2008

Vanderbilt University, Nashville, TN

Project: Ecological speciation in timema stick insects

Principle Investigator: Dr. Daniel J Funk

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## PUBLICATIONS

**Deacy, W.,** Leacock, W., Stanford, J.A., and Armstrong, J. B. (2019) Variation in spawning phenology within salmon populations influences landscape-level patterns of brown bear activity. *Ecosphere*.

**Deacy, W.,** Erlenbach, J.A, Leacock, W., Robbins, C.T., Stanford, J.A., and Armstrong, J. B. (2018) Phenological tracking associated with increased salmon consumption by brown bears. *Scientific Reports*.

**Deacy, W.,** Armstrong, J. B, Leacock, W., Robbins, C.T., Gustine, D., Ward, E.J., Erlenbach, J.A., and Stanford, J. A. (2017) Phenological synchronization disrupts trophic interactions

between Kodiak brown bears and salmon. *Proceedings of the National Academy of Sciences*. Featured on the cover.

**Deacy, W.**, Leacock, W., Armstrong, J. B. and Stanford, J. A. (2016) Kodiak brown bears surf the salmon red wave: direct evidence from GPS collared individuals. *Ecology*. Featured on the cover.

**Deacy, W.**, Leacock, W., Eby, L. and Stanford, J. A. (2016) A time-lapse photography method for monitoring salmon (*Oncorhynchus* spp.) passage and abundance in streams. *PeerJ*.

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## MANUSCRIPTS IN REVIEW

**Deacy, W.**, Leacock, W., Armstrong, J. Aerial surveys in Kodiak, Alaska cause large, but brief, declines in bear occupancy of salmon spawning streams. In review at *PLOS ONE*.

Armstrong, J., Schindler, D., Cunningham, C., **Deacy, W.**, Walsh, P. Watershed complexity increases the capacity for salmon-wildlife interactions in coastal ecosystems. In review at *Conservation Letters*.

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## MANUSCRIPTS IN PREPARATION

**Deacy, W.**, Leacock, W., Armstrong, J. The effect of spawning habitat on Kodiak brown bear salmon catch rates. For submission to *Ecosphere*.

**Deacy, W.**, Leacock, W., Armstrong, J. Using an Individual Based Model (IBM) to understand the consequences of changing salmon management regimes on salmon consumers. For submission to *Journal of Applied Ecology*.

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## SELECTED ORAL PRESENTATIONS

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| 2019 | Science on Tap with the Flathead Lake Biological Station.                                  |
| 2018 | Invited symposium talk: Western Division America Fisheries Society Meeting. Anchorage, AK. |
| 2018 | Invited symposium talk: Northwest Science Association Meeting. Olympia, WA.                |
| 2018 | Invited webinar: US Fish and Wildlife Service Conservation Science Webinar Series.         |
| 2017 | Invited webinar: OneNOAA Science Seminar Series.   |
| 2017 | Ecological Society of America Annual Meeting. Portland, OR.                                |

- 2017 Invited symposium talk: Idaho TWS/AFS annual meeting. Boise, ID.
- 2016 International Bear Association Meeting. Anchorage, AK.
- 2016 Invited seminar: Fish and Wildlife Service Alaska Region Seminar Series. Anchorage, AK
- 2016 Invited public talk: Kodiak National Wildlife Refuge Seminar Series. Kodiak, AK
- 2016 Society for Freshwater Sciences Annual Meeting. Sacramento, CA.
- 2016 The Wildlife Society Montana Chapter Annual Meeting. Missoula, MT.
- 2015 Invited seminar: AFS Montana chapter meeting. Missoula, MT.
- 2014 Flathead Lake Biological Station Brown Bag Lunch Seminar Series, Polson, MT.
- 2014 Invited talk: Large Carnivore Workshop, Gardiner, MT.
- 2013 Flathead Lake Biological Station Brown Bag Lunch Seminar Series, Polson, MT.

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## GRANTS, FELLOWSHIPS, AWARDS, AND HONORS

- 2019 Postdoctoral research funding. Wild Salmon Center: *Quantifying the effect of reductions in Spring Chinook salmon on Southern Resident Killer Whales*. PIs: Dr. Jonathan Armstrong, Dr. Matthew Sloat. Co-author: Dr. William Deacy. \$100,000
- 2017 Research funding. US Forest Service: *Describing bear use of salmon resource waves in the Copper River Delta, Alaska*. PIs: Dr. Jonathan Armstrong, OSU; Dr. Gordon Reeves, USFS. Co-author: Dr. William Deacy. \$15,000
- 2016-2018 Postdoctoral research funding. US Fish and Wildlife Service: *Modeling the effects of altered salmon phenologies and alternative salmon management on the landscape-level foraging opportunities of brown bears*. PI: Dr. Jonathan Armstrong, Co-authors: Dr. William Deacy, William Leacock, FWS. \$104,000
- 2016 Society for Freshwater Sciences National Meeting – Best Applied Student Oral Presentation
- 2015-2016 Charles Levitan Scholarship, University of Montana, \$14,100
- 2015 American Fisheries Society - Alaska Chapter Meeting - Best Student Oral Presentation

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## EDUCATIONAL OUTREACH

- 2017 Guest speaker: St. Andrew Learning Center (3-5 years old). Portland, OR.
- 2017 Guest speaker: The Berkeley School (2-5 years old). Kansas City, MO.
- 2016 Guest speaker: The Berkeley School (2-5 years old). Kansas City, MO.

- 2016 Winter meso-carnivore station monitor
- 2015 Invited public seminar: Naturalist Nights at the Aspen Center for Environmental Studies. Aspen, CO.
- 2015 Invited public seminar: Wilderness Workshop. Carbondale, CO.
- 2015 Invited public talk: Rotary Club. Polson, MT.
- 2015 Invited public talk: Montana State Philanthropic Educational Organization. Polson, MT.
- 2014 Public seminar: Kodiak National Wildlife Refuge Brown Bag Series. Kodiak, AK.
- 2013-2015 Volunteer lecturer and field instructor, Youth Conservation Corps, Kodiak, AK.
- 2012 Public seminar: Kodiak National Wildlife Refuge Brown Bag Series. Kodiak, AK.

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## TEACHING AND MENTORSHIP

- 2015 Guest lecture: University of Montana Lifelong Learning Course. Missoula, MT.
- 2015 Guest lecture: Undergraduate American Fisheries Society Chapter Meeting. Missoula, MT.
- 2015-2017 Mentored Louisa Pless, now in graduate school in Copenhagen, Denmark
- 2014-2017 Mentored Marie McCann, now a research technician with Grant Teton National Park
- 2013-2015 Volunteer lecturer and field instructor, Youth Conservation Corps, Kodiak, AK.
- 2012-2015 Mentored Tyler Tran, who has completed his MS and has a permanent research position.
- 2009 Outdoor educator: Aspen Center for Environmental Studies. Aspen, CO.
- 2009 Outdoor educator: High Trails Outdoor Education Center (6<sup>th</sup> grade). Florissant, CO.

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## SELECTED RESEARCH IN THE MEDIA

- 2019 *Cool Green Science*, “For Brown Bears and Salmon, It’s Not Just About Numbers”
- 2017 *The Atlantic*, “How Climate Change Canceled the Grizzly Salmon Run”
- 2017 *Canadian TV News*: “Grizzly appetite for berries” [live interview]
- 2017 *The Conversation*: “As a warming climate changes Kodiak bears’ diets, impacts could ripple through ecosystems” [author penned popular science article]
- 2017 *NBC Anchorage TV*: “Why are Kodiak bears letting salmon slip away?” [recorded interview]

- 2017 *Inside Climate News*, “Alaska Grizzly Bears Drop Salmon for Berries as Climate Changes”
- 2017 *Carbon Brief*, “Climate change is shifting Kodiak bear feeding habits”
- 2016 *Science Newsline*, “Kodiak Bears Track Salmon Runs in Alaska”
- 2012 *Ocean Mysteries with Jeff Corwin*: “The Great Return” [film appearance]
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## **PROFESSIONAL TRAINING**

- 2017 Avalanche training 1, American Institute for Avalanche Research and Education
- 2014 Water ditching and survival training, US Fish and Wildlife Service
- 2010-2015 Firearm safety, US Fish and Wildlife Service
- 2013 Motorboat Operator Training Course (MOTC), 3-day course.
- 2012 Wildlife Capture and Chemical Immobilization, Global Wildlife Resources Inc.
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## **PROFESSIONAL AFFILIATIONS**

The Wildlife Society  
International Bear Association  
American Fisheries Society

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## **PROFESSIONAL REFERENCES**

Dr. Jonny Armstrong, Assistant Professor, Oregon State University, Corvallis, OR; 541-840-6017; jonathan.armstrong@oregonstate.edu.

Dr. Jack Stanford, Director of Flathead Lake Biological Station and Bierman Professor (retired), University of Montana, Missoula, MT; 406-250-1006; jack.stanford@umontana.edu

William Leacock, Bear Biologist, Kodiak National Wildlife Refuge, Kodiak, AK; 907-456-0519 or 907-512-6226; william\_leacock@fws.gov