

Dr. Jennifer M. Burns (jburns@uaa.alaska.edu)
Associate Professor of Biology
Department of Biological Sciences, CPSB 202C
University of Alaska anchorage
Anchorage, AK 99508
Ph: 907-786-1527

Education and Training

University of California Berkeley	Zoology	B.S. 1990
University of Washington	Fisheries	M.Sc. 1992
University of Alaska Fairbanks	Marine Biology	Ph.D. 1997
University of California Santa Cruz	Physiological Ecology	1997-2000

Professional Experience

1. Associate Professor of Biological Science, University of Alaska Anchorage. 8/2006-Current. Evolutionary ecology of marine mammals, habitat use and foraging behavior, interactions with humans, comparative vertebrate physiology.
2. Assistant Professor of Biological Science, University of Alaska Anchorage. 8/2000-2006. Evolutionary ecology of marine mammals, comparative vertebrate physiology.
3. Research Associate, Institute of Marine Science, University of California Santa Cruz. 2000-present. Marine mammal developmental physiology and behavior.
4. Presidents Postdoctoral Fellow, Institute of Marine Science, University of California Santa Cruz. 1997-1999. IMS postdoctoral researcher 1999-2000. Marine mammal developmental physiology and behavior.
5. Research Assistant, University of Alaska Fairbanks, 1993-1997. Development of diving behavior, physiology, nutrition and health status of arctic pinnipeds.
6. Research Assistant, School of Fisheries and Ocean Sciences, University of Washington. 1990-1993. Marine mammal biology and ecology.
7. Wildlife Biologist, National Marine Mammal Laboratory, NOAA, Seattle, WA. 1991-1992. Population status and trends of harbor seals in Puget Sound.

Select Publications

1. **Burns, J.M.**, K.C. Lestyk, N. Skomp, N. Bishop, M.O. Hammill. (2010). Development of aerobic and anaerobic metabolism in cardiac and skeletal muscles from harp (*Pagophilus groenlandicus*) and hooded (*Cystophora cristata*) seals. *Journal of Experimental Biology* 213:740-748
2. Savarese, D., and **J.M. Burns** (2010). Harbor seal (*Phoca vitulina richardsii*) use of the Bering Glacier habitat: implications for management. In: *Interdisciplinary Studies of Earth's Largest Temperate Surging Glacier* **Eds:** E. Josberger and R. Shuchman, Geological Society of America, Special Paper 462: 181-192.
3. Lystek, K.C., L.P. Folkow, A.S. Blix, M.O. Hammill, **J.M. Burns** (2009). Development of myoglobin concentration and acid buffering capacity in harp (*Pagophilus groenlandicus*) and hooded (*Cystophora cristata*) seals from birth to maturity. *Journal of Comparative Physiology B* 179:985-996.
4. von Biela, V.R., V.A. Gill, J.L. Bodkin, and **J.M. Burns**. (2009). Phenotypic plasticity in the average age at first reproduction of female northern sea otters (*Enhydra lutris kenyoni*). *J. Mammalogy* 90:1224-1231.
5. **Burns, J.M.**, M.A. Hindell, C.J.A. Bradshaw, and D.P. Costa. (2008). Fine-scale habitat selection

by crabeater seals diving within Marguerite Bay, Antarctica. Deep Sea Research II 55: 500-514.

Synergistic Activities

1. *International and National Scientific Planning:* Member of the US GLOBEC Science Steering Committee, which oversees planning and development of US GLOBEC research programs and coordinates collaborations with the International GLOBEC effort. I have also participated in two NSF funded US GLOBEC projects on the foraging ecology of crabeater seals. Our team consists of 10 scientists from 3 countries and 6 institutions.
2. *Collaborations with other scientists and institutions:* I participate in cross-agency collaborations between UAA, Alaska Department of Fish and Game, National Marine Mammal Laboratory, US Fish and Wildlife Agency, and Bureau of Land Management. I also collaborate with researchers in Canada, Australia, Mexico and Norway. These collaborations train undergraduate and graduate students and support unique research opportunities to our students.
3. *Education outreach activities:* I supervise summer research experiences for Alaska Native high school students as part of an ongoing summer program at UAA sponsored by Alaska WWAMI. I have also given numerous talks and presentations to the public about my research (sponsored by National Park Service, Alaska Native Heritage Center, Bureau of Land Management, WhaleFest Kodiak, & Whalefest Sitka).
4. *Service to the scientific community:* I have served on a scientific review panel for NSF, and have served as an external grant reviewer for NSF, NPRB, NURP, and as a reviewer for a variety of scientific journals.
5. *Community Involvement:* I was a member of the Prince William Sound Citizen's Advisory Council, Scientific Advisory Committee for four years.

Collaborators

- Dr. Jim Bodkin, U.S. Geological Service
- Dr. Loren Buck, University of Alaska Anchorage
- Dr. Daniel Costa, University of California Santa Cruz
- Dr. Mike Fedak, Sea Mammal Research Unit, University of St Andrews
- Dr. Lars Folkow, Institute of Arctic Biology, University of Tromso, Norway
- Ms. Verena Gill, Marine Mammal Management, U.S. Fish and Wildlife Service
- Dr. Mike Hammill, Department of Fisheries and Oceans, Canada
- Dr. Mark Hindell, University of Tasmania, Australia
- Dr. Eileen Hofmann, Old Dominion University
- Dr. Shane Kanatous, Colorado State University
- Dr. Ward Testa, National Marine Mammal Laboratory
- Dr. Steve Trumble, Baylor University
- Dr. David Withrow, National Marine Mammal Laboratory
- Dr. Tania Zenteno-Savin, CIBNOR, Mexico

Graduate and Postdoctoral advisors

- Dr. Daniel Costa, Postdoctoral advisor, University of California Santa Cruz, 1997-2000
- Drs. Michael Castellini, Ph.D. advisor, University of Alaska Fairbanks, 1993-1997
- Dr. Robert Francis, M.Sc. advisor, University of Washington, 1990-1993

Advisees

- Current: Keri Lestyk (PhD), Linnea Pearson (PhD), George Esslinger (MS), Michelle Shero (MS)
- Past: Cheryl Clark (MSc 2004), : Jill Prewitt (MS 2008), Julie Richmond (MSc 2004), Danielle Savarese (MSc 2004), Michael Rehberg (MSc 2005), Vanessa von Biela (2008)