

Allison Bailey

allison.bailey@npolar.no

+47 777 505 08

Education

PhD Candidate: Arctic Marine Ecology	Norwegian Polar Institute University of Tromsø “Effects of ocean acidification on Arctic copepods”	2013-2016
Master of Science: Arctic Biology	University of Tromsø and UNIS, Norway “Seasonal lipids and diapause in <i>Calanus</i> in a high-Arctic fjord”	2008-2010
Fulbright Scholar	University Center on Svalbard (UNIS) “Natural Seedbank and Vegetation Diversity on Nordaustlandet, Svalbard”	2007-2008
Bachelor of Arts: Biology	Pomona College, Claremont, California “Climate Fluctuations and Little Auk Ecology in Svalbard, Norway” (Vaile Prize)	2003-2007
Study Abroad	University of Cape Town, South Africa “Phytoplankton adaptations and nutrient limitation in the Atlantic gyres”	2006

Scientific Research Experience

Master’s Thesis , Arctic Marine Ecology <i>Seasonal lipids and diapause in Calanus in a high-Arctic fjord</i>	Svalbard, Norway, 2008-2010 Dr. Øystein Varpe Dr. Scient. Janne Søreide Dr. Nigel Yoccoz
American-Scandinavian Foundation Fellow Arctic Field Grant Recipient	

I investigated the overwintering strategies of two key Arctic marine zooplankton species and their relation to sea ice, taking individual measurements of lipid content and evaluating seasonal and individual variation in condition.

Fulbright Scholar , Arctic Botany <i>Natural Seedbank and Vegetation Diversity in Nordaustlandet</i>	Svalbard, Norway, 2007-2008 Dr. Elisabeth Cooper
--	---

I conducted plant surveys and collected seedbank samples on Nordaustlandet, 80°N, germinating and identifying the plants in lab. Aided fieldwork studying the effect of climate change on tundra CO₂ emissions.

Bachelor Thesis , Seabird Ecology <i>Climate Fluctuations and Alle alle Ecology in Svalbard and Greenland</i>	Svalbard, Norway, 2006-2007 Dr. Nina Karnovsky
---	---

I spent two months at the Polish Hornsund Station researching the effects of climate and ocean currents on the foraging ecology of little auks. For my thesis, I used **ArcGIS** to map the relationships between sea temperature, zooplankton abundance, and distributions of foraging little auks in Svalbard and Greenland.

Pomona Undergraduate Research Grantee	Eastern Sierras, California, Summer 2005
--	--

At the high altitude Sierra Nevada Aquatic Research Laboratory, I spent a summer studying the reproductive behavior of a small songbird, the house wren, for a project on latitudinally divergent evolution by Dr. Rachel Levin.

Publications

Bailey A, Thor P, Browman HI, Fields DM, Runge J, Vermont A, Bjelland R, Thompson C, Shema S, Durif CMF, Hop H (2016) Early life stages of the Arctic copepod *Calanus glacialis* are unaffected by increased seawater pCO₂. ICES J Mar Sci J du Cons

Gabrielsen TM, Merkel B, Søreide JE, Johansson-Karlsson E, Bailey A, Vogedes D, Nygård H, Varpe Ø, Berge J (2012) Potential misidentifications of two climate indicator species of the marine arctic ecosystem: *Calanus glacialis* and *C. finmarchicus*. Polar Biol 35:1621–1628

Harvey B, Al-Janabi B, Broszeit S, Cioffi R, Kumar A, Aranguren-Gassis M, Bailey A, Green L, Gsottbauer C, Hall E, Lechler M, Mancuso F, Pereira C, Ricevuto E, Schram J, Stapp L, Stenberg S, Rosa L (2014) Evolution of Marine Organisms under Climate Change at Different Levels of Biological Organisation. *Water* 6:3545–3574

Karnovsky N, Harding A, Walkusz W, Kwaśniewski S, Goszczko I, Wiktor J, Routti H, Bailey A, McFadden L, Brown Z, Beaugrand G, Grémillet D (2010) Foraging distributions of little auks *Alle alle* across the Greenland Sea: Implications of present and future Arctic climate change. *Mar Ecol Prog Ser* 415:283–293

Conferences and Talks

4th International Symposium on the Ocean in a High-CO₂ World	Hobart, Tasmania	May 2016
Talk: <i>Gene expression responses to increased pCO₂ in the Arctic copepod Calanus glacialis</i>		
Co-authored talk: <i>Evolutionary rescue from ocean acidification?</i>		
ASLO Conference	Granada, Spain	February 2015
Talk: <i>Effects of projected ocean acidification on the early development of a key arctic copepod, Calanus glacialis</i>		
Arctic Change	Ottawa, Canada	December 2014
Talk: <i>Effects of projected ocean acidification on the early development of a key arctic copepod, Calanus glacialis</i>		
Arctic Frontiers Conference	Tromsø, Norway	February 2010
Talk: <i>Overwintering ecology of two key zooplankton species in a high-Arctic fjord</i>		
ARCTOS Plankton Colloquium	Tromsø, Norway	May 2010
Talk: <i>Overwintering ecology of two key zooplankton species in a high-Arctic fjord</i>		
Arctic Change Conference	Quebec, Canada	December 2008
Poster: <i>Diel Vertical Migration (DVM) of Calanus in two high-Arctic fjords in Autumn</i>		
Pacific Seabird Group Conference	Monterey, California	February 2007
Talk: <i>Climate Fluctuations and Alle alle Ecology in Svalbard and Greenland</i> (Honorable Mention)		

Honors

Best Student Poster Award, Fram Science Days, Tromsø (Fall 2015)
American Scandinavian Foundation Fellowship Grant (2009-2010)
Arctic Field Grant, Norwegian Polar Institute (2009)
Fulbright Scholar (2007-2008)
Vaile Prize for the top ecology senior thesis, Pomona College (2007)
Pomona College Undergraduate Research Grant Recipient (2005 and 2006)
US National Merit Scholarship Finalist (2003)

Work Experience

Mountain Backcountry Bird Surveyor US Forest Service, Lake Tahoe, California, *May 2011-present*
Learned to identify 74 bird species by song to conduct solo surveys in the high-altitude Sierras for a project investigating logging, wildfires, and development. Post-season data entry using Microsoft Access and Excel.

Arctic Expedition Guide Spitsbergen Travel, Svalbard, *summers 2009, 2010*
Interpretive naturalist, lecturer, Zodiac driver, backcountry hike leader, and polar bear guard on an expedition-style cruise ship. Worked on an international team in challenging conditions, for international guests.

Arctic Marine Biology Course Instructor University Center on Svalbard, MS *Jan Mayen, summer 2009*
Collected Arctic zooplankton and fish in drift ice above 80°N and taught students in the undergraduate course.

Seabird Restoration Technician California Institute of Environmental Studies, *summer 2008*
Worked censusing the endangered Xantus' murrelet in the seacaves of Anacapa Island, in the Channel Islands.

Skills and Certifications

Computer program proficiency: R, Microsoft Office Excel, Access, Powerpoint, Word, ArcGIS, GPS and MapSource, MATLAB, Photoshop, Mendeley, EndNote

Data handling/ analysis skills:

- Extensive experience with large datasets and analyses (incl. spatial and temporal) in Excel, R, Access, ArcGIS
- Conference-level presentations and posters with Powerpoint
- Statistics courses: *Ecological methodology* University of Tromsø, 2009
Biostatistics Pomona College, 2006
GIS/Remote Sensing Pomona College, 2007
- Ability to master new software capabilities independently

Biological knowledge: identification and ecology of Svalbard flora, birds, mammals, marine zooplankton and fish

Field skills: Fieldwork in challenging conditions (Arctic, high Sierra), remote research bases, international teams, backcountry hiking and camping, 4x4 vehicles/snowmobiles/small boats, polar bear protection, rifle safety, VHF radio, sea-ice safety, avalanche rescue, GPS

Arctic Survival and Safety course, University Center on Svalbard (2008)

Wilderness First-Aid/CPR Certified (2011, 2005)

Languages: English (native), Norwegian (fluent), German (intermediate)