

Curriculum Vitae

MIRAM R. GLEIBER

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EDUCATION

- Present** Ph.D., Integrative Biology, Oregon State University (OSU)
(*expected completion 2019*)
Advisor: Dr. Su Sponaugle
- 2014** M.S., Marine Science, Virginia Institute of Marine Science (VIMS)
Advisor: Dr. Deborah Steinberg
- 2010** B.S. with Honors, Biology & Environmental Science (*cum laude*),
The College of William & Mary

PUBLICATIONS

- Gleiber MR**, Steinberg DK, Stammerjohn SE, Schofield OME (*in prep*) Long-term change in the copepod community along the Western Antarctic Peninsula.
- Gleiber MR**, Steinberg DK, Schofield OME (2016) Copepod summer grazing impact and fecal pellet production along the Western Antarctic Peninsula. *Journal of Plankton Research* 28(3): 732-750.
- Steinberg DK, Ruck KE, **Gleiber MR**, Garzio LM, Cope JS, Bernard KS, Stammerjohn SE, Schofield OME, Quetin LB, Ross RM (2015) Long-term (1993-2013) changes in macrozooplankton off the Western Antarctic Peninsula. *Deep Sea Research I* 101: 54-70.
- Gleiber MR**, Steinberg DK, Ducklow HW (2012) Time series of vertical flux of zooplankton fecal pellets on the continental shelf of the Western Antarctic Peninsula. *Marine Ecology Progress Series* 471: 23-36.

PRESENTATIONS

Conference Presentations: (underline indicates presenter)

- Gleiber MR**, Sponaugle S, Robinson K, Cowen R. The influence of fine-scale processes on larval fish trophodynamics in the Straits of Florida. Oral presentation. *2015 OSU Marine Ecology Retreat*. Depoe Bay, Oregon. October 2015.
- Gleiber MR**, Steinberg DK, Schofield OME. Copepod grazing impact and fecal pellet production along the Western Antarctic Peninsula. Oral presentation. *2015 ASLO Aquatic Sciences Meeting*. Granada, Spain. February 2015.

Gleiber MR, Steinberg DK, Schofield OME. Copepod grazing impact and fecal pellet production along the Western Antarctic Peninsula. *2015 OSU Biology Graduate Student Symposium*. Newport, Oregon. February 2015.

Gleiber MR. Long-term change in copepod community structure in the Western Antarctic Peninsula: Linkage to climate and implications for trophic interactions and carbon cycling. Oral presentation. *2014 OSU Marine Ecology Retreat*. Depoe Bay, Oregon. October 2014.

Gleiber MR, Steinberg DK. Copepod community structure and climate warming along the Western Antarctic Peninsula. Poster presentation. *2014 Ocean Sciences Meeting*. Honolulu, Hawaii. February 2014.

Steinberg DK, **Gleiber MR**, Conroy BJ, Berelson WM. Contribution of zooplankton fecal pellets to carbon flux in the Amazon River plume and western tropical North Atlantic Ocean. Oral presentation. *2013 ASLO Aquatic Sciences Meeting*. New Orleans, Louisiana. February 2013.

Gleiber MR, Steinberg DK, Ducklow HW. Time series of vertical flux of zooplankton fecal pellets on the continental shelf of the Western Antarctic Peninsula. Poster presentation. *2012 Long-Term Ecological Research All Scientists Meeting*. Estes Park, Colorado. September 2012.

Elliott J, Patterson M, **Gleiber M**. Detecting 'Island Mass Effect' through remote sensing. *12th International Coral Reef Symposium*. Cairns, Queensland, Australia. July 2012.

Gleiber MR, Steinberg DK, Ducklow HW. Time series of vertical flux of zooplankton fecal pellets on the continental shelf of the Western Antarctic Peninsula. Oral presentation. *2012 Ocean Sciences Meeting*. Salt Lake City, Utah. February 2012.

Steinberg DK, Wilson SE, **Gleiber MR**, Ducklow HW, Buesseler K. Cross-system comparison of zooplankton effects on transport of organic matter to the deep sea. Oral presentation. *2010 Ocean Sciences Meeting*. Portland, Oregon. February 2010.

Steinberg DK, Ruck K, Price L, **Gleiber M**, Cope J, Ducklow H. Zooplankton export of organic matter in the Western Antarctic Peninsula. Poster presentation. *2009 Long-Term Ecological Research All Scientists Meeting*. Estes Park, Colorado. September 2009.

Academic Seminars:

Gleiber MR. Long-term change in copepod community structure in the Western Antarctic Peninsula. *Biological Oceanography Departmental Seminar Series*. VIMS, Gloucester Point, VA. April 2013.

Gleiber MR, Steinberg DK, Ducklow HW. Time series of vertical flux of zooplankton fecal pellets on the continental shelf of the Western Antarctic Peninsula. *Biological Oceanography Departmental Seminar Series*. VIMS, Gloucester Point, VA. April 2012.

HONORS AND AWARDS

2016 Best Poster, HMSC Markham Marine Science Research Symposium.

2016 Mamie Markham Research Award, HMSC.

- 2015 VIMS Best Student Paper Award, Master's category.
2012-2013 Kelley Watson Fellowship, VIMS Foundation.
2011-2013 Juliette B. and Carol W. Owens Sr. Fellowship, VIMS Foundation.
2009-2010 Ludwell Johnson Scholarship, Phi Beta Kappa, The College of William and Mary.

RESEARCH

Research Experience:

2014-Present. Dissertation Research. “Influence of fine-scale patchiness on larval fish trophodynamics and condition in the Straits of Florida.” HMSC, OSU.

Examining how larval fish trophodynamics, and their biological consequences, are influenced by spatial variability in the Straits of Florida. Mesozooplankton, larval fish, and phytoplankton sampling (MOCNESS, CTD rosette); plankton imagery with the *In Situ* Ichthyoplankton Imaging System (ISIIS). Larval fish identification and enumeration, gut contents, otolith microstructure, and lipid analysis.

2011-2014. Masters Research. “Long-term change in copepod community structure in the Western Antarctic Peninsula: Linkage to climate and implications for trophic interactions and carbon cycling.” Palmer Antarctica Long-Term Ecological Research program (LTER), VIMS.

Analyzed a 21-year time series of copepod abundance and community structure in the Western Antarctic Peninsula set in relation to climate drivers. Conducted copepod grazing and egestion experiments to examine the importance of copepods in carbon cycling. Meso- and macrozooplankton collection (oblique net tow, MOCNESS), identification, and enumeration. Copepod taxonomy. Plankton analysis using ZooScan. Copepod gut fluorometric analysis.

2010. Research Assistant. Amazon iNfluence on the Atlantic: CarbOn export from Nitrogen fixation by DiAtom Symbioses (ANACONDAS), VIMS.

Meso- and microzooplankton sampling (MOCNESS, ring net, niskin bottle). Mesozooplankton grazing experiments. Microzooplankton dilution experiments.

2009-2010. Honors Thesis Research. “Time series of vertical flux of zooplankton fecal pellets on the continental shelf of the western Antarctic Peninsula.” Palmer LTER, VIMS.

Identification, measurement, and enumeration of zooplankton fecal pellets from five years of sediment trap samples. Stereomicroscope imaging, and analysis with Image-Pro Plus software. Organic carbon and nitrogen quantification using combustion analysis.

2008. Undergraduate Volunteer. VIMS.

Assisted with studies of dissolved organic matter (DOM) cycling by meso- and microzooplankton. Prepared artificial seawater and nutrient media, cultured microzooplankton and phytoplankton, chlorophyll *a* analysis.

2007. Undergraduate Volunteer. Keck Environmental Lab, College of William and Mary.

Assisted with a field project monitoring and documenting the populations of *Lampetra aepyptera* (Least Brook Lamprey) in local Virginia streams.

2003-2006. Laboratory Assistant. Great Lakes Scientific, Inc., Stevensville, MI.

Experience at a private, independent laboratory offering microbiological, chemical, and nutritional analyses of food and water samples. Performed sample collection, preparation and microbiological analysis for Total Plate Count, Coliform/E. coli, Staphylococcus, Salmonella, Yeast/Mold, and Listeria. Conducted independent projects on microbial health hazards on fixtures in public restrooms, and lead contamination in drinking water.

Oceanographic Expeditions: (Total sea time: 32 weeks)

- June 2015** R.V. *Walton Smith*, cruise WS 1561. Straits of Florida, Observations on Subtropical TRophodynamics of ICHthyoplankton (OSTRICH).
- May 2015** R.V. *Pacific Storm*, cruise PS150401, N. California Current Ecosystem Survey.
- May 2014 - June 2014** R.V. *Walton Smith*. cruise WS 1406. Straits of Florida, Observations on Subtropical TRophodynamics of ICHthyoplankton (OSTRICH).
- Dec. 2013 - Feb. 2014** A.R.S.V. *Laurence M. Gould*, cruise LMG 14-01. Western Antarctic Peninsula, Palmer Antarctica Long-Term Ecological Field Research program.
- Dec. 2012 - Feb. 2013** A.R.S.V. *Laurence M. Gould*, cruise LMG 13-01. Western Antarctic Peninsula, Palmer Antarctica Long-Term Ecological Field Research program.
- Dec. 2011 - Feb. 2012** A.R.S.V. *Laurence M. Gould*, cruise LMG 12-01. Western Antarctic Peninsula, Palmer Antarctica Long-Term Ecological Field Research program.
- May 2010- June 2010** R.V. *Knorr*, cruise KN 197-08. Tropical South Atlantic, Amazon iNfluence on the Atlantic: CarbOn export from Nitrogen fixation by DiAtom Symbioses.
- Dec. 2008 - Feb. 2009** A.R.S.V. *Laurence M. Gould*, cruise LMG 09-01. Western Antarctic Peninsula, Palmer Antarctica Long-Term Ecological Field Research program.

TEACHING ACTIVITIES

Graduate Teaching Assistantships:

Spring 2015, 2016, 2017 (anticipated). **BI 450 Marine Biology.** Hatfield Marine Science Center, Oregon State University, Newport, OR.

3-week full time undergraduate field course sections on fishes and algae of the rocky intertidal. Assisted instructors with field/lab preparation and execution. Led class discussions, taught scientific report writing, basic data visualization and statistics in Microsoft Excel. Wrote algae lab practical, graded field notebooks, written reports, and exams. Assisted students with field and lab techniques including seine netting and beam trawl, physical profiles with CTD, local fishes and algae identification.

Fall 2014, Winter 2015. BI 211 & 212 Principles of Biology Laboratory. Oregon State University, Corvallis, OR.

Record instructor for an undergraduate 3-hr, 40-student weekly laboratory section, and assistant instructor for a laboratory section. Presented lecture material, led class discussion, guided lab activities, taught scientific report writing and basic statistics in Microsoft Excel. Wrote and graded quizzes, assignments and lab reports, and held office hours. Attended teaching development seminar.

Summer 2012, 2013. MSCI 331 Field Studies in Coastal Marine Environments. The College of William and Mary. VIMS Eastern Shore Lab, Wachapreague, VA.

14-day undergraduate field course on barrier island, salt marsh and estuarine ecology. Assisted instructors with field/lab preparation and execution. Taught a plankton ecology lecture, wrote and graded exam questions. Advised students on group research projects. Assisted students with field and lab techniques including seine and fike netting; benthic marine organisms collection and identification; organic carbon analysis for plants and invertebrates; chlorophyll analysis; zooplankton collection, identification and enumeration; nutrient analysis; zooplankton grazing experiments; physical profiles with ADCP, LI-COR, CTD.

Undergraduate Students Mentored

<u>Name</u>	<u>From-To</u>	<u>University/Program</u>
Matthew Rambo	June – August 2015	Brigham Young University, NSF REU

Interns/Volunteers Supervised

<u>Name</u>	<u>From-To</u>	<u>Institution</u>
Caitlin Hudecek,	Sept 2016 – Present	OSU
Phyllicia Burton	Sept 2016 – Present	OSU
Emma Miller	Sept 2016 – Present	OSU
Elizabeth Warren	Sept 2016 – Present	OSU
Shannon Riley	Sept 2016 – Present	OSU
Bryan Van Orman	Aug 2016 – Sept 2016	OSU
Brittney Bair	June 2016 – Sept 2016	OSU
Chaleen Begin	Jan 2016 – June 2016	OSU
Landon Falke	Jan 2016 – June 2016	OSU
Zachary Randall	Jan 2016 – June 2016	OSU
Melinda Meyers	Sept 2015 – June 2016	OSU
Katelyn Stanley	Jan 2015 – June 2016	OSU
Clare Hansen	Jan 2015 – July 2016	HMSC, OSU
Katrina Broadwater	Jan 2015 – Dec 2015	OSU
Max Butensky	Jan 2015 – Oct 2015	HMSC, OSU

Meghan Atkinson	Jan 2015 – Aug 2015	HMSC, OSU
Mackenzie Mason	Jan 2015 – June 2015	HMSC, OSU
Jeremy Chu	Nov 2014 – May 2015	OSU
Shannon Henris	Aug 2013 – May 2014	VIMS, The College of William and Mary
Paige Trivett	Aug 2013 – Dec 2013	VIMS, The College of William and Mary
Karine Brocco-French	June 2013 – Dec 2013	VIMS, The College of William and Mary

SCIENCE COMMUNICATION AND OUTREACH

2017	HMSC Careers in Science Investigations, Plankton workshop (<i>scheduled</i>)
2016	Monroe Middle School STEM Club, Marine research presentation
2016	HMSC Girls in Engineering and Marine Science, Plankton workshop
2016	HMSC Marine Investigations Camp, Plankton workshop
2016	HMSC Marine Science Day, Plankton Ecology Laboratory exhibit
2016	OSU Winter Wonderings, Plankton workshop
2015-Present	OSU Plankton Lab Social Media Liaison, http://twitter.com/osuplanktonlab
2015	Observations on Subtropical Trophodynamics of Ichthyoplankton (OSTRICH) research cruise blog, http://hmsc.oregonstate.edu/ostrich
2015	HMSC Marine Science Day, Plankton Ecology Laboratory exhibit
2014	VIMS Marine Science Day, Zooplankton Ecology Laboratory exhibit
2014	Yorktown Elementary School Math, Science, and Technology Night
2013, 2014	“Zooplankton on the Rocks”, Palmer LTER blog, http://zoopsontherocks.tumblr.com/
2013	Hampton Bay Days, VIMS public outreach event
2012	Poquoson Seafood Festival, VIMS public outreach event
2011 - 2014	VIMS Zooplankton Ecology Laboratory Tour (~2 tours/month)
2011	Guest career speaker, Lakeshore High School Honors Biology
2011	Guest career speaker, St. Joseph High School AP Biology
2009	VIMS Marine Science Day, Zooplankton Ecology Laboratory exhibit

SYNERGYSTIC ACTIVITIES AND LEADERSHIP

2016-Present	Program Committee and Student/Early Career Activities Organizer, 2018 Ocean Sciences Meeting
2016-Present	American Geophysical Union (AGU) Ocean Sciences Executive Committee Graduate Student Representative
2016-Present	Hatfield Marine Science Center (HMSC) Student Organization, President
2016	OSU Integrative Biology (IB) Professional Development Brown Bag Organizer

- 2015-2016 Hatfield Marine Science Center (HMSC) Student Organization, Vice-President
- 2015, 2016 Proposal reviewer for HMSC Student Travel Grant
- 2014-Present OSU Coalition of Graduate Employees, IB and HMSC Steward
- 2014-2016 OSU IB Graduate Student Association, Welcoming/Social Committee
- 2014-2015 OSU Biology Graduate Student Symposium, Organizing Committee
- 2012 Manuscript reviewer for *Limnology & Oceanography*
- 2012 Proposal reviewer for VIMS Student Travel Grants
- 2011-2014 VIMS Graduate Student Association, Social Events Coordinator

PROFESSIONAL SOCIETY MEMBERSHIPS

- American Fisheries Society (AFS)
- American Geophysical Union (AGU)
- Association for the Sciences of Limnology and Oceanography (ASLO)

CERTIFICATIONS

- 2015 SOLO Wilderness First Aid Afloat
- 2011 PADI Open Water Scuba Instructor (135 dives/95 hours logged)
- 2011 Emergency First Response Instructor
- 2011 PADI Dry Suit, Nitrox, Navigation, Deep, Peak Performance Buoyancy Specialties
- 2009 Scuba Diving International Rescue Diver
- 2004 CPR/First Aid

POPULAR MEDIA COMMUNICATIONS

- 2015 Guest, “Inspiration Dissemination” radio show on KBVR FM 88.7. 17 May 2015.
- 2015 Graduate Student, “Antarctic Edge: 70° South.” Documentary film, directed by Dena Seidel, produced by Rutgers University. Filmed 2013 Palmer LTER cruise.
- 2014 The College of William and Mary Alumni Association, “VIMS Surpassing Expectations.” Annual Giving Impact Stories.
- 2009 Ast, W., “From Stevensville to Antarctica.” *The Herald Palladium*. 18 Jan. 2009.