### **CURRICULUM VITAE**

#### PERSONAL INFORMATION

Name:	Grace Kathleen Saba, PhD
Position:	Assistant Research Professor
Office Address:	Institute of Marine and Coastal Sciences
	Rutgers University
	71 Dudley Rd.
	New Brunswick, NJ 08901
	Office phone: (848) 932-3466; Email: saba@marine.rutgers.edu

## **EDUCATION**

Aug 2003 – Jan 2010	<i>PhD</i> in Marine Science
-	College of William & Mary
	Virginia Institute of Marine Science, Department of Biological Sciences

Sept 2000 – June 2002 *B.S.* in Aquatic Biology University of California, Santa Barbara

#### **RESEARCH/PROFESSIONAL EXPERIENCE**

Feb 2010 – present	Plankton ecology, physiology, biogeochemistry, ocean acidification, and impacts of climate change in the West Antarctic Peninsula. ( <i>RV Laurence M. Gould</i> cruises and laboratory research as part of the Palmer Long Term Ecological Research program) Rutgers University
Aug 2003 – Jan 2010	The Role of Copepods and Heterotrophic Dinoflagellates in the Production of Dissolved Organic Matter and Inorganic Nutrients Ph.D. Dissertation Research College of William & Mary, Virginia Institute of Marine Science
June 2001 – Dec 2002	<ol> <li>Dissolved organic carbon composition in marine snow particles (<i>RV Point Sur</i> cruise sample collection and post-cruise processing)</li> <li>Transparent Exopolymer Particle (TEP) excretion by <i>Calanus pacificus</i></li> <li>Physiology and metabolism of hydrothermal vent clams, mussels, and worms (<i>RV New Horizon</i> cruises with data collection and processing)</li> <li>Bacterial degradation of TEP</li> <li>Undergraduate Research</li> <li>University of California, Santa Barbara with Drs. Alice Alldredge and Jim Childress</li> </ol>

#### **PUBLICATIONS (Current and in press)**

- Saba, G.K., Schofield, O., Torres, J.J., Ombres, E.H., and D.K. Steinberg. Increased feeding and nutrient excretion of adult Antarctic krill, *Euphausia superba*, exposed to enhanced carbon dioxide (CO<sub>2</sub>). PLoS ONE: doi:10.1371/journal.pone.0052224.
- Schofield, O., Kohut, J., **Saba, G.**, Yi, X., Wilkin, J., and S. Glenn. Ocean observing and prediction. In: Y.Q. Wang, ed., Encyclopedia of Natural Resources. Taylor Francis, New York City (in press).
- Saba, G.K., and D.K. Steinberg. 2012. Abundance, composition, and sinking rates of fish fecal pellets in the Santa Barbara Channel. Scientific Reports 2: doi:10.1038/srep00716.

- Saba, G.K., Steinberg, D.K., and D.A. Bronk. 2011. The relative importance of sloppy feeding, excretion, and fecal pellet leaching in the release of dissolved carbon and nitrogen by *Acartia tonsa* copepods. Journal of Experimental Marine Biology and Ecology 404: 47-56.
- Saba, G.K., Steinberg, D.K., Bronk, D.A., and A.R. Place. 2011. The effects of harmful algal species and food concentration on zooplankton grazer production of dissolved organic matter and inorganic nutrients. Harmful Algae 10: 291-303.
- Saba, G.K., Steinberg, D.K., and D.A. Bronk. 2009. Effects of diet on release of dissolved organic and inorganic nutrients by the copepod *Acartia tonsa*. Marine Ecology Progress Series 386: 147-161.
- Steinberg, D.K. and G.K. Saba. 2008. Nitrogen consumption and metabolism in marine zooplankton. In: Capone, D.G., Bronk, D.A., Mulholland, M.R., and E.J. Carpenter, eds., Nitrogen in the Marine Environment, 2nd Edition. Academic Press, Boston. p 1135-1196.
- Goldthwait, S.A., Carlson, C.A., **Henderson, G.K.**, and A.L. Alldredge. 2005. Effects of physical fragmentation on remineralization of marine snow. Marine Ecology Progress Series 305: 59-65.

## **TEACHING/MENTORING EXPERIENCE**

May 2012 – present	Mentor for undergraduate student research (Amanda Williams, Rutgers University) "Functional genomic analysis of the Antarctic cryptophyte, <i>Geminigera cryophila</i> , under variable salinity, light, and nutrient regimes" Institution: Rutgers University
Oct 2010 – April 2012	Mentor for undergraduate student research (Emily Pirl, Rutgers University) "The Effects of Increased CO <sub>2</sub> on the Optical Properties of <i>Emiliania huxleyi</i> " Institution: Rutgers University
Oct 2010 – April 2012	Mentor for undergraduate student research (Amelia Snow, Rutgers University) "The Effects of Ocean Acidification on the Physiology of Dominant Antarctic Algal Species" Institution: Rutgers University
Feb 2010 – May 2010	Guest Lecturer in undergraduate/graduate course "Biological Oceanography" Institution: Rutgers University, Instructor: Dr. Oscar Schofield
Aug 2009 – Dec 2009	Teaching assistant and guest lecturer in graduate course "Biological Oceanography" Institution: Virginia Institute of Marine Science, Instructor: Dr. Deborah Steinberg
Jan 2008 – July 2008	Co-mentor for undergraduate student research (Miram Gleiber, currently a graduate student in marine science) "Time series of vertical flux of zooplankton fecal pellets on the continental shelf of the Western Antarctic Peninsula" Institution: Virginia Institute of Marine Science
June 2007 – Aug 2007	Mentor for undergraduate student research (Lori Price, received a Masters degree in marine science August 2012 from College of William & Mary, VIMS) "Zooplankton grazing on two ecologically important harmful algal species in the Chesapeake Bay" Institution: Virginia Institute of Marine Science

## **GRANTS RECEIVED**

2012	Functional genomic analysis of the Antarctic cryptophyte, <i>Geminigera cryophila</i> ,
	under variable salinity, light, and nutrient regimes. NJAES Competitive Intramural
	Research Awards Program. Amount awarded: \$8000.
2006	EPA STAR Graduate Fellowship
	\$1000 Student Research Grant

	\$500 VIMS Travel Grant
2005	\$1000 VIMS Equipment Grant
	\$100 VIMS GSA Conference Fund
2003	Virginia Institute of Marine Science/School of Marine Science Funded Fellowship

## **EDUCATION AND OUTREACH**

2012	Invited speaker for Princeton Harmony Schools science fair, Toddler-Kindergarten
2012	Invited speaker for Stony Brook University outreach program entitled "Polar Climate
	Change Research: A Workshop for Educators"
2012	Participant in COSEE NOW outreach program "Gear Professional Development
	Series"
2012	Participant in COSEE NOW outreach program "Science Stories 2012"
2003-2010	Marine Science Day, Virginia Institute of Marine Science (VIMS)

# SYNERGISTIC ACTIVITIES

July 2012-present	Editorial Board Member of Scientific Reports journal
2012	Keynote speaker at the XXXII Scientific Committee on Antarctic Research (SCAR)
	meeting (Portland, OR)
2012	Invited talk at Ocean Acidification Town Hall Meeting at the XXXII SCAR meeting
	(Portland, OR)
2011	Invited speaker: Graduate School of Oceanography, University of Rhode Island
2011	Invited speaker: Atmospheric and Ocean Sciences, Princeton University
2010-present	Review proposals for the National Science Foundation
2010-present	Review manuscripts for Geophysical Research Letters, Marine Biology, Limnology &
	Oceanography, Polar Biology, Functional Ecology, Biogeosciences, Aquatic Microbial
	Ecology, Biogeochemistry
2010	Co-Chair of "Biological Oceanography General Contributions" session at Ocean
	Sciences Meeting (Portland, OR)
2005	Invited speaker: Dissolved Organic Matter IN the Ocean (DOMINO) workshop,
	Virginia Institute of Marine Science

# HONORS AND AWARDS

2005	"Top 50" student presenters from the Estuarine Research Federation (Norfolk)
2004	Craig L. Smith Memorial Educational Scholarship Award
2003, 2005	NSF Graduate Fellowship Honorable Mention
2002	Beatrice M. Sweeney Award
2002	Highest Honors
2002	Distinction in the major
2002	Department of Biological Sciences Senior Honors Research Program, UCSB
2001, 2002	Dean's Honors