

Samuel E. Georgian

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Education	<i>Ph.D. in Biology</i> Temple University, Philadelphia, PA Advisor: Erik E. Cordes 'Environmental and Energetic Constraints on Cold-water Corals'	2016
	<i>B.S. in Biology and B.A. in Environmental Studies</i> Hobart College, Geneva, NY <i>Magna Cum Laude</i>	2010
Research Experience	<i>Marine Biogeographer, Marine Conservation Institute</i> Spatial conservation planning and ecological modeling	2016–Present
	<i>NSF Graduate Research Fellow, Temple University</i> Ecological modeling, deep-sea ecology, and oceanography	2012–2015
	<i>Research Assistant, Temple University</i> Physiology of deep-sea invertebrates	2010–2012
Teaching Experience	<i>Teaching Assistant, Temple University</i> Tropical Marine Biology (BIOL-3316) Experimental Marine Biology (BIOL-3196) Human Biology (BIOL-1001) Marine Ecology (BIOL-3245)	2015 2012 2011, 2012 2011
	<i>Guest Lecturer</i> Oceanography (ECBIO-319), Philadelphia University Tropical Marine Biology (BIOL-3316), Temple University Experimental Marine Biology (BIOL-3196), Temple University Marine Ecology (BIOL-3245), Temple University	2015 2011–2015 2012 2011
	<i>Students Mentored</i> M. Kajo (2016), H. Graham (2014-2015), D. Russell (2014-2015), M. Kurman (2013-2014), A. Butler (2013-2014), C. McNicholl (2012-2013), H. Fowle (2012)	
Grants and Fellowships	Temple University Dissertation Completion Grant (\$10,000) Student travel grant, <i>Temple University</i> (\$1,400) DeSSC New-Users Program travel grant (\$800) IMBER conference travel grant (\$500) NSF Graduate Research Opportunities Worldwide (\$13,500) SICB Grant in Aid of Research (\$1,000)	2016 2014, 2015 2014 2014 2013 2013

DeSSC Early Career Workshop travel grant (\$500)	2012
NSF Graduate Research Fellowship (\$132,000)	2012–2015
Cohen Leadership Fellowship (\$1,500)	2010

- Publications**
- Rowden A, Anderson O, Georgian S, Bowden D, Clark M, Miller A. 2017. High-resolution, seamount-scale habitat suitability models for the conservation and management of vulnerable marine ecosystems on the Louisville Seamount Chain, South Pacific Ocean. *Frontiers in Marine Science* 4:335 doi: 10.3389/fmars.2017.00335
- Etnoyer P, Wagner D, Fowle H, Poli M, Kinlan B, Georgian S, Cordes E. 2017. Distribution, habitat suitability and size-class structure of the black coral *Leiopathes glaberrima* in the Gulf of Mexico based upon visual observations collected by remotely operated vehicles. *Deep-Sea Research Part II* doi: 10.1016/j.dsr2.2017.10.008
- Kurman M, Gómez CE, Georgian SE, Lunden JJ, Cordes EE. 2017. Intra-specific variation may confer resistance to ocean acidification in a cold-water coral from the Gulf of Mexico. *Frontiers in Marine Science* 4:111 doi: 10.3389/fmars.2017.00111
- Papacostas KP, Rielly EW, Georgian SE, Long D, Princiotta SD, Quattrini AM, Reuter KE, Freestone AL. 2017. Biological characteristics of marine invasions. *Marine Ecology Progress Series* 565:251–268.
- Georgian SE, Dupont S, Kurman M, Butler A, Strömberg S, Larsson A, Cordes EE. 2016. Biogeographic variability in the physiological response of the cold-water coral *Lophelia pertusa* to ocean acidification. *Marine Ecology* 37(6): 1345–1359.
- Georgian SE, DeLeo D, Durkin A, Gomez C, Lunden J, Kurman M, Cordes EE. 2016. Oceanographic patterns and carbonate chemistry in the vicinity of cold-water coral reefs in the Gulf of Mexico: implications for resilience in a changing ocean. *Limnology and Oceanography* 61(2):648–665.
- Georgian SE, Shedd W, Cordes EE. 2014. High-resolution ecological niche modelling of the cold-water coral *Lophelia pertusa* in the Gulf of Mexico. *Marine Ecology Progress Series* 506:145–161.
- Bin Z, Georgian SE. 2014. Interactions between invasive Eurasian watermilfoil and native water stargrass in Cayuga Lake, NY, USA. *Journal of Plant Ecology* doi: 10.1093/jpe/rtt063
- Quattrini AM, Georgian SE, Byrnes L, Falco R, Stevens A, Cordes EE. 2013. Niche divergence by deep-sea octocorals in the genus *Callogorgia* across the upper continental slope of the Gulf of Mexico. *Molecular Ecology* 22:4123–4140.
- Lunden JJ, Georgian SE, Cordes EE. 2013. Aragonite saturation states at cold-water coral reefs structured by *Lophelia pertusa* in the northern Gulf of Mexico. *Limnology and Oceanography* 58:354–362.
- Manuscripts**
- Georgian SE, Saunders M, Fisher C, Kramer K, Shedd W, Roberts H, Lewis C, Cordes EE. In prep. Habitat suitability modeling to predict the spatial distribution of cold-water coral communities affected by the Deepwater Horizon oil spill.

Georgian SE, Anderson O, Rowden, A. In prep. Ensemble habitat suitability modeling of vulnerable deep-sea taxa in the South Pacific Ocean to inform fisheries management.

Reports

Guinotte JM, Georgian S, Kinlan BP, Poti M, Davies AJ (2017) Predictive Habitat Modeling for Deep-Sea Corals in U.S. Waters. In: Hourigan TF, Etnoyer PJ, Cairns SD (eds). The State of Deep-Sea Coral and Sponge Ecosystems of the United States. NOAA Technical Memorandum NMFS-OHC-4, Silver Spring, MD. 24 p. Available online: <http://deepseacoraldata.noaa.gov/library>

Cordes EE, Berlet SP, Cardman Z, Dannenberg R, Demopoulos AWJ, Georgian SE, King DC, McKean DL, Young DM, Ruiz Ramos D. 2014. Exploring deep-sea coral communities and the effects of oil and gas inputs to the Gulf of Mexico. *Oceanography* 27(supplement):28–30.

Conference Presentations

Georgian SE, Rowden AA, Anderson OF, Bowden DA, Clark MR, Pallentin A, Miller A. 2018. High-resolution habitat suitability modeling to inform fisheries management of vulnerable marine ecosystems in the South Pacific Ocean. Poster presentation. Ocean Sciences Meeting. Portland, OR.

Georgian SE. 2016. Resolving biogeographic patterns in the deep sea using species distribution modeling. Oral presentation, PICES Meeting. San Diego, CA.

Georgian SE, Kramer K, Lewis C, Shedd W, Cordes EE. 2016. Damage assessment of the Deepwater Horizon oil spill: using species distribution models to estimate the number of affected cold-water coral sites. Oral presentation. Ocean Sciences Meeting. New Orleans, LA.

Georgian SE, Dupont S, Kurman M, Cordes EE. 2015. Biogeographic variability in the physiological response of the cold-water coral *Lophelia pertusa* to ocean acidification. Oral presentation. Deep-Sea Biology Symposium. Aveiro, Portugal.

Georgian SE, Kurman M, Gomez C, DeLeo D, Durkin A, Lunden J, Cordes EE. 2015. Assessing the carbonate chemistry of cold-water reefs in the deep Gulf of Mexico: implications for resilience in acidified oceans. Oral Presentation. 44th Benthic Ecology Meeting. Quebec City, Canada.

Georgian SE, Dupont S, Kurman M, Cordes EE. 2015. Local adaptation alters physiological response to ocean acidification in separate biogeographic populations of cold-water corals. Oral Presentation. Aquatic Sciences Meeting. Granada, Spain.

Georgian SE, Lunden JJ, Cordes EE. 2014. Ocean acidification in the deep Gulf of Mexico: ongoing field and experimental investigation of the potential effects of acidified bottom water on cold-water corals. Oral Presentation. IMBER Open Science Conference. Bergen, Norway.

Georgian SE, Shedd W, Cordes EE. 2014. Resolving biogeographic patterns in the deep-sea: using remotely sensed data to predict the locations of spatially rare but ecologically vital corals. Poster Presentation. Ocean Sciences Meeting. Honolulu, HI.

- Georgian SE, Quattrini AM, Cordes EE. 2013. Evidence for ecological speciation in deep-water octocorals in the Gulf of Mexico. Oral presentation. 42nd Benthic Ecology Meeting. Savannah, Georgia.
- Georgian SE, Natasha R, Cordes EE. 2012. Environmental niche modeling of *Lophelia pertusa* in the Gulf of Mexico. Oral Presentation. 41st Benthic Ecology Meeting, Norfolk, VA.
- Georgian SE, Overdorf P, Deutschlander M. 2010. Determining the role of the insurance hypothesis in the stopover ecology of two kinglets and two flycatchers. Poster Presentation. Wilson Ornithological Society Annual Meeting, Geneva, NY.
- Georgian SE, Cushman SF. 2010. Restoration of normal stream functioning following wastewater treatment plant upgrades. Oral Presentation. Ecological Society of America Conference, Fredericksburg, VA.
- Georgian SE, Cushman SF. 2009. Environmental assessment of the Owasco Inlet. Oral Presentation. Finger Lakes Research Conference, Geneva, NY.

Field Experience

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| UNOLS Chief Scientist Training Cruise, North Atlantic. R/V Hugh R. Sharp. 6 days. | Nov. 2015 |
| Research cruise, Gulf of Mexico. NSF Ocean Acidification Program. R/V Atlantis, HOV Alvin. 18 days, 3 submersible dives. Chief Scientist: Erik Cordes. | April 2014 |
| Research cruise, Gulf of Mexico. GoMRI ECOGIG Consortium. E/V Nautilus, ROV Hercules. 19 days. Chief Scientist: Erik Cordes. | July 2013 |
| Research cruise, Gulf of Mexico. Lophelia II: Reefs, Wrecks, and Rigs. R/V Brooks McCall, ROV Kraken II. 11 days. Chief Scientist: Jay Lunden | July 2012 |
| Field course, Ambergris Caye, Belize. ‘Tropical Marine Biology’, Temple University. Instructor: Robert Sanders. | Jan. 2012 |
| Research cruise, Mediterranean Sea. E/V Nautilus, ROV Hercules. 14 days. Expedition leaders: Katy Croff Bell and Robert Ballard. | Nov. 2011 |
| Research cruise, Gulf of Mexico. Lophelia II: Reefs, Wrecks, and Rigs. R/V Ronald H. Brown, ROV Jason II. 10 days. Chief Scientist: Erik Cordes | Oct. 2010 |
| Research internship, Matinicus Rock, Maine. Project Puffin, National Audubon Society. | Summer 2010 |
| Field course, Heron Island and North Stradbroke Island, Australia. ‘The Marine Ecology of Australia’, University of Queensland. | Fall 2008 |
| Field course, Carnarvon National Park and Lamington National Park, Australia. ‘The Terrestrial Ecology of Australia’, University of Queensland. | Fall 2008 |
| Field course, New Zealand. ‘Geology of Australia and New Zealand’, Hobart and William Smith Colleges. | Fall 2008 |

Service	Reviewer for: <i>Diversity and Distributions</i> , <i>Deep-Sea Research I and II</i> , <i>Journal of Biogeography</i> , <i>Journal of Plant Ecology</i> , <i>Marine Ecology Progress Series</i> , <i>Marine Environmental Research</i>	2012–Present
	Invited speaker, <i>Hobart and William Smith Colleges</i>	April 2017
	Contributor, “On the Tide” blog	2016-2018
	Invited speaker, <i>Temple University Biology Society</i>	Nov. 2015
	Content creator for the Acid Horizon outreach website	May 2014
	Invited speaker, ‘Meet-the-Professors Night’, <i>Temple University</i>	April 2014
	Research presentation at Saul High School, Philadelphia, PA	Nov. 2013
	Mini-course leader, <i>Science Leadership Academy</i>	Sept. 2013
	City Year Mentor Program, <i>AmeriCorps</i>	2013
	Invited speaker, NSF GRFP Workshop, <i>Temple University</i>	May 2013
	Judge, <i>George Washington Carver Science Fair</i>	Mar. 2013
	Philly Eco Kids, <i>Temple University</i>	2011–2013
	Content creator for NOAA Ocean Explorer website	2010–2014
	Treasurer, Biology Graduate Student Society, <i>Temple University</i>	2013
	Tenure review committee, <i>Hobart and William Smith Colleges</i>	2010
Workshops (*facilitator)	“Navigating Coastal Squeeze”, Tulalip Reservation, WA	2016
	PICES Coral and Sponge Workshop, San Diego, CA*	2016
	Deep Ocean Stewardship Initiative Workshop, Aveiro, Portugal	2015
	IMBER Marine regime shifts around the globe, Bergen, Norway	2014
	DeSSC Early Career Workshop and Meeting, San Francisco, CA	2012, 2014