

Marisa L. Guarinello

Spatial Analyst

1510 E Fort Lowell Rd
Tucson, AZ
(520) 545-0188
mguarinello@tnc.org



EDUCATION

Master of Science, Oceanography, 2009

Graduate School of Oceanography, University of Rhode Island Narragansett, RI

Bachelor of Science, Biology and Environmental Science, 2002

The College of William and Mary in Virginia Williamsburg, VA

EXPERIENCE

Mar 2013 –
present

Spatial Analyst

The Nature Conservancy, Tucson, AZ

Serve as GIS Coordinator for the Arizona Chapter providing support for ArcGIS software, data management, training, and map projects. Use spatial analysis and tools, such as Marxan, to advance TNC's mission in Arizona. Manage Center for Science and Public Policy website, www.azconservation.org.

Jan 2012 –
Feb 2013

GIS Analyst

Ocean Associates Inc.,

On contract to National Oceanic and Atmospheric Administration, Honolulu, HI

Responsible for development of a publically available web mapping service for marine spatial planning, specifically site-selection and evaluation for off-shore aquaculture in the Main Hawaiian Islands. Compiled data for service, created site-selection model, worked with ESRI developers to design website and application, and consulted with stakeholders throughout the development and implementation process.

Jan 2011 –
present

Associate, Marine Environmental Consulting

On sub-contract to:

CoastalVision LLC, Newport, RI (Sept 2012 - present)

Germano & Associates, Inc., Bellevue, WA (Jan 2011 - present, by project)

SRGII, Kailua, HI (July 2011 - Jan 2012)

Review of marine habitat classification, characterization, and modeling activities in the Northeast U.S. for the Northeast Regional Ocean Council to inform regional marine spatial planning. Analysis of Sediment Profile Images from multiple coastal and marine assessment projects. Ecosystem-based management review of proposed Western Pacific Region fisheries management actions and geodata gap analysis for coastal and marine spatial planning in the Pacific Islands Region.

Jan 2009 –
Jan 2011

Faculty Research Assistant II

Chesapeake Biological Lab, University of Maryland Center for Environmental Science, Solomons, MD

Lead technician and GIS analyst for the Arctic Ecology Lab (<http://arctic.cbl.umces.edu/>) of Principal Investigators Jackie Grebmeier and Lee Cooper. Primary responsibilities included GIS and statistical analysis for habitat characterization; analysis of underwater video footage and sediment and faunal samples; data management; and field collection on research cruises to the Bering and Chukchi Seas.

Aug 1993 –
Dec 2001

Graduate Research Assistant

Graduate School of Oceanography, University of Rhode Island Narragansett, RI

Thesis research focused on an investigation of benthic habitat patterns in relation to circulation and episodic hypoxia in a Rhode Island coastal lagoon. Additional projects focused on improving marine habitat classification conceptual theories and approaches and on developing a shallow water mapping protocol. Analytical techniques used included multivariate statistics, GIS, time series analysis, and spectral analysis. Field research techniques include sidescan sonar, benthic grab samples and taxonomic identification, Sediment Profile Imagery, in situ water quality monitoring, in situ current meters, and Acoustic Doppler Current Profiler surveys.

Oct 2003 –
Dec 2008

Environmental Protection Specialist, Superfund Program

U.S. Environmental Protection Agency, Washington, DC and Boston, MA

Provide policy, technical, and programmatic support to project managers for Superfund sites in EPA Regions 2, 6 and 1. Became an expert on the application of institutional controls (e.g., land use, easements) at cleanup sites: led national workgroups, wrote policy guidance, organized conferences, and conducted training sessions.

PUBLICATIONS

- Yost, DM, Guarinello, M, Gates RD (2013) High diversity of corals persists in backreef pools of Ofu Island, American Samoa despite a history of frequent high and widely fluctuating water temperatures. *Coral Reefs* (submitted)
- Cooper LW, M. Janout, K.E. Frey, R. Pirtle-Levy, M.L. Guarinello, J.M. Grebmeier and J.R. Lovvorn. 2012. The relationship between sea ice break-up, water mass variation, chlorophyll biomass, and sedimentation in the northern Bering Sea. *Deep-Sea Research II*. <http://dx.doi.org/10.1016/j.dsr2.2012.02.002>
- Stolt M, M.Bradley, J. Turenne, M. Payne, E. Scherer, G. Cicchetti, E. Shumchenia, M. Guarinello, J. King, J. Boothroyd, B. Oakley, C. Thornber, and P. August. 2011. Mapping Shallow Coastal Ecosystems: A Case Study of a Rhode Island Lagoon. *Journal of Coastal Research*. DOI: 10.2112/JCOASTRES-D-11-00002.1
- Guarinello ML, E.J. Shumchenia, and J.W. King. 2010. Marine habitat classification for ecosystem-based management: A proposed hierarchical framework. *Environmental Management* 45: 793-806. DOI 10.1007/s00267-010-9430-5