

Irene J. Abbene
Hydrologist
U.S. Geological Survey, New York Water Science Center
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EDUCATION

M.S. in Geology (Coastal Geology), 2004

East Carolina University, Greenville, NC

Thesis: Reconstruction of the recent paleoenvironment of Pamlico Sound, North Carolina, using foraminifera, stable isotopes ($\delta^{13}\text{C}$ & $\delta^{15}\text{N}$), and radionuclide data

B.A. in Geological Sciences, 2001

State University of New York

College at Geneseo, Geneseo, NY

RESEARCH INTERESTS

coastal/estuarine geology, geochemistry, and hydrology

PROFESSIONAL EXPERIENCE

2004–present: Hydrologist, U.S. Geological Survey, Coram, NY

2002-2004: Research Assistant, East Carolina University

2002-2003: Graduate Teaching Assistant, East Carolina University

2001-2002: Hydrologist (SCEP), U.S. Geological Survey, Coram, NY

2000-2001: Undergraduate Teaching Assistant, SUNY Geneseo, NY

FIELD WORK AREA EXPERIENCE

2004–present: U.S. Geological Survey, Coram, NY

Training Course Completed July 2006: USGS Field Water-Quality Methods for Ground Water and Surface Water
Ground- and surface water quality sampling (submersible and peristaltic pumps, churn samplers, and grab/dip samples), Sediment (core) sampling, Groundwater level collection, Well-head surveying

2003-2004: Coastal Waters Sampling, Gulf of Mexico

Two four-day research cruises on the R/V Pelican: Water-quality sampling (radon and helium gas sampling) and bed sediment analysis (Ponar grab sampler, box and Kasten cores)

2002-2004: North Carolina Coastal Geology Cooperative (ECU, USGS, and NCGS)

Sediment sampling (Vibercore, push core, pore water), field mapping, and seismic data collection (sidescan sonar, CHiRP, GPR, and gamma logging) Lab work: foraminiferal sample prep and analysis (identification); organic carbon sediment analysis; sediment geochronology prep and analysis (^{210}Pb , ^{137}Cs , $\delta^{13}\text{C}$, $\delta^{15}\text{N}$, C:N)

January 2001: New Zealand, South Island, Field Camp

USGS COMPLETED COURSE WORK

Aquatic Chemistry QW2032: January 2010

Work Zone Safety: January 2010

Statistical Methods for Environmental Data Analysis: March 2007

Field Water-Quality Methods for Groundwater and Surface Water QW1028TC: July 2006

QW Data Toolbox for NWIS Users: January 2006

Ground-Water Flow System Analysis & Modeling GW2192: July 2005

Water-Quality Principles QW1022: April 2005

MEMBERSHIPS

American Geophysical Union (AGU): 2008-present

Sigma Gamma Epsilon, Epsilon Phi Chapter: inducted September 2002

The Geological Society of America (GSA): 2001-present

PUBLICATIONS (includes abstracts)

- Abbene, I.J.**, 2010, Shallow groundwater quality in the Village of Patchogue, Suffolk County, New York: U.S. Geological Survey Scientific Investigations Report 2010, in review
- Abbene, I.J.**, 2010, Shallow groundwater quality in the Village of Patchogue, Suffolk County, New York (abstr.) *in* Seventeenth Conference on Geology of Long Island and Metropolitan New York, N.Y., Long Island Geologists Meeting, April 10, 2010.
- Bohlke, J.K., Hatzinger, P.B., Sturchio, N.C., Gu, B., **Abbene, I.**, and Mroczowski, S., 2009, Atacama perchlorate as an agricultural contaminant in groundwater: Isotopic and chronic evidence from Long Island, New York: *Environmental Science and Technology*, 43, 5619-5625.
- Abbene, I.J.**, Culver, S.J., Corbett, D.R., Buzas, M.A., and Tully, L.S., 2006, Distribution of foraminifera in Pamlico Sound, North Carolina, over the past century: *Journal of Foraminiferal Research*, 36, 135-151.
- Abbene, I.J.**, Identifying sources of perchlorate in groundwater, Suffolk County, NY; Project plans and some preliminary research (abstr.) *in* Thirteenth Conference on Geology of Long Island and Metropolitan New York, N.Y., Long Island Geologists Meeting, April 22, 2006.
- Abbene, I.J.**, Fisher, S.C., and Terracciano, S.A., 2005, Concentration of insecticides in selected surface water bodies in Suffolk County, New York, before and after mosquito spraying, 2002-04: U.S. Geological Survey Open-File Report 2005-1384, 14p., online only.
- Abbene, I.J.**, Culver, S.J., Corbett, D.R., 2004, Reconstruction of recent environmental change in Pamlico Sound, North Carolina, using radionuclide and foraminiferal data (abstr.) *in* Abstracts with Programs, Northeast/Southeast Sectional Geological Society of America Meeting, Washington, D.C.