

Andrew Joesoef

Laboratory Manager: Department of Earth and Environment
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Education

MS, Chemical Oceanography, University of Delaware 2/2016
BS (Honors), Biology and Marine Science, University of Georgia 5/2013

Work Experience

Laboratory Manager, Florida International University 2018-present
Scientific research manager for the Department of Earth and Environment
Supervisors: Leonard Scinto, Rene Price

Staff Scientist, Consulting and Municipal Engineers Associates 2017-18
Evaluation of water and air pollution, waste management, and environmental remediation activities
Supervisor: Eric Snee

Environmental Field Technician, New Jersey Analytical Laboratories 2017
Environmental services for drinking water, groundwater, wastewater, and soils
Supervisor: Keith Mulligan

Junior Scientist, Apollo SciTech, LLC 2016-17
Experimentation and preparation of carbonate system instrumentation
Supervisor: Amy Chen

Masters Student Researcher, University of Delaware 2013-16
Spatial and seasonal variability of the inorganic carbon system in the Delaware Estuary
Advisor: Wei-Jun Cai

Laboratory Assistant, University of Georgia 2012-13
Carbonate chemistry analyses on coastal water samples
Supervisor: Wei-Jun Cai

Publications

Gonski, S.F., W. Ullman, **A. Joesoef**, C. R. Main, D. T. Pettay, and T. Martz. (2018). Assessment of the suitability of Durafet-based sensors for pH measurement in dynamic estuarine environments. *Estuarine, Coastal and Shelf Science*, 200, 152-168.

Joesoef, A., D.L. Kirchman, C.K. Sommerfield, and W.-J. Cai. (2017). Seasonal variability of the inorganic carbon system in a large coastal plain estuary. *Biogeosciences*, 14(21), 4949-4963.

Cai, W.-J., W.-J. Huang, G.W. Luther III, D. Pierrot, M. Li, J. Testa, M. Xue, **A. Joesoef**, R. Mann, J. Brodeur, Y.-Y. Xu, B. Chen, N. Hussain, G. G. Waldbusser, J. Cornwell, and W. M. Kemp. (2017). Redox reactions and weak buffering capacity lead to acidification in the Chesapeake Bay. *Nature Communications*, 8(369), 1-12.

Joesoef, A., W.-J. Huang, Y. Gao, and W.-J. Cai. (2015). Air-water fluxes and sources of carbon dioxide in the Delaware Estuary: spatial and seasonal variability. *Biogeosciences*, 12(20), 6085-6101.

Field Experience

R/V *Gordon Gunter*, East Coast Ocean Acidification Cruise (second leg, 17 days) 6/2015
R/V *Hugh R. Sharp*, Inorganic carbon parameters throughout the Delaware Estuary (quarterly) 2013-15
R/V *Ronald H. Brown*, Gulf of Mexico and East Coast Carbon Cruise (23 days) 6/2012

Conferences and Symposia

Joesoef, A., Huang, W.-J., Gao, Y., and Cai, W.-J.: Air water fluxes and sources of carbon dioxide in the Delaware Estuary: Spatial and seasonal variability. Chemical Oceanography Gordon Research Conference, Holderness, New Hampshire, 26-31 July 2015.

Joesoef, A., Hussain, N., Huang, W.-J., Culberson, C., and Cai, W.-J.: Impacts of Competing Processes on Spatial and Temporal Distributions of Inorganic Carbon Parameters and Coastal Acidification in the Delaware Estuary. Ocean Global Change Biology Gordon Research Conference, Waterville Valley, New Hampshire, 6-11 July 2014.

Joesoef, A.: Coastal Acidification in the Delaware Estuary: Exploring Historical and Modern pH Records over the Past 35 Years. College of Earth, Ocean, and Environment Graduate Student Symposium, University of Delaware, Lewes, Delaware 9-10 May 2014.

Skills and Certifications

Field Sampling

Potable sampling
Wastewater sampling, grabs and composite
Storm water and stream sampling
Groundwater well monitoring
Perimeter methane gas monitoring
Sediment core sampling

Instrumentation

Inorganic carbon analyzers
(pH, TA, DIC, pCO₂)
ISCO-type composite samplers
Low flow, variable control pumps
Soil gas probes and analyzers
YSI Instrumentation
Photoionization detectors

Technical Proficiency

Microsoft Word, Excel, PowerPoint
Ocean Data View

Certifications

40 Hr OSHA safety training
Effective environmental field sampling and data collection
SSI open-water diver