

JOSH T. KOHUT

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EDUCATION

2002 Ph.D. Physical Oceanography, Rutgers University, New Brunswick, New Jersey, USA

1997 B.S. with honors in Physics, College of Charleston, Charleston, South Carolina, USA (Cum Laude)

1997 Minor in Mathematics, College of Charleston, Charleston, South Carolina, USA

OTHER PROFESSIONAL APPOINTMENTS

1997-2002 Graduate Assistant, Rutgers University, New Brunswick, New Jersey

2002-2007 Director: COOL Operations Center, Rutgers University, New Brunswick, New Jersey

2008-Pres Assistant Professor, Rutgers, The State University of New Jersey, New Brunswick, NJ

EXTENSION ACTIVITIES

Presentations

Kohut, J. 2008. Dawn in a new age of ocean science: A data management perspective. New Jersey Department of Environmental Protection. Trenton, NJ.

Kohut, J. 2008. The view from the COOLRoom: 15 years in the Coastal Ocean Observation Lab. Long Beach Island Foundation of Arts and Sciences. Loveladies, NJ.

Kohut, J. 2009. Monitoring our Ocean Planet. Science Saturdays Long Beach Island Foundation of Arts and Sciences. Loveladies, NJ.

Kohut, J. 2009. Monitoring our Ocean Planet. US Coast Guard Auxiliary Flotilla 04-09. Paoli, PA.

Kohut, J. 2009. Monitoring our Ocean Planet. Johnson and Johnson Clinical Research Team. New Brunswick, NJ.

Education and Outreach

2003-2008: MARE Professional Development Workshops, JCNEER, Tuckerton, NJ.

2005-2006: "On The Hudson", Professional Development Workshops, Liberty Science Center, Jersey City, NJ.

2007: Liberty Science Center Re-opening, Liberty Science Center, Jersey City, NJ.

2008: Lecture for the Teachers as Scholars Program. New Brunswick, NJ. (29 Teachers attended)

2009: IOOS/MACOORA Booth, Annual Weekend and Lobster Trade Show, Massachusetts Lobstermen Association

2009: Rutgers Day – Trenton, NJ. May 14.

2009: Future Scholars Program Facility Tour – June 5.

2009: Invited Panelist National Water Quality Monitoring Council Meeting. Salt Lake City, UT.

Interviews

Including CNN, NJN, WHYY, WCTC-AM, TVE (Spain), The Philadelphia Enquirer, The Asbury Park Press, Daily Targum, Press of Atlantic City, and the Associated Press.

March 2009 – Interview with Wired Magazine about the Atlantic Crossing Glider Mission

Incident Response (data analysis and interpretation)

2006-2008: Monmouth County Health Department.

2007-2008: New Jersey Department of Environmental Protection

2008: Long Beach Township Police Department

2009: Bunker distributions on the shelf, impacts of upwelling on the shelf, Monmouth County Health Department

2009: USCG Search and Rescue Case, 65 Miles SE of Cape May

2009: Clam worms and mussel beach washups, Atlantic County Health Department

TEACHING EXPERIENCE

Primary Advisor for Ph.D. and Masters

Laura Palamara, Rutgers, The State University of New Jersey (Masters, Ongoing)

Thesis Committee Member

Brian Dzwonkowski, College of Marine and Earth Studies, University of Delaware (Ph.D. awarded in 2008).
Scott Haag, Ecology, Evolution and Natural Resources, Rutgers University (Ph.D. ongoing).
Eric Geiger, College of Marine and Earth Studies, University of Delaware (Masters, ongoing)

Undergraduate Advisor

2008-2009 Evan Randall-Goodwin, Independent Study
2009 Taha Saeed, Work Study
2009 David Golon, Independent Study

Undergraduate Summer Internships

Evan Randall-Goodwin, 2008, Summer Internship at Puertos Del Estados and Qualitas Remos (Madrid Spain).

Guest Lectures

Spring 2001: (16:712:552/11:670:451), Remote Sensing of the Ocean and Atmosphere
Spring 2006: (16:712:592/11:628:307), Communicating Ocean Science
Fall 2008: (16:712:552/11:670:451), Remote Sensing of the Ocean and Atmosphere
Fall 2008: (11:090:101), Byrne Seminar: "Climate Change and Water Resources"

Year: Courses Taught

Spring 2008: Topics in Marine Science, "Atlantic Crossing" (11:628:308)
Fall 2008: Topics in Marine and Coastal Science (11:628:211)
Spring 2009: Problems in Marine and Coastal Science (11:628:498)

Development of New Teaching Programs

2008: New Undergraduate Topics Course on Crossing the Atlantic based on student interest,
with Scott Glenn.
2008: Invited by Lawrence Hall of Science to join NOAA team (with Janice McDonnell and Scott Glenn)
to develop the GEM Ocean Science Sequence modules for grades 3-5 and grades 6-8.

PROFESSIONAL SERVICE

2006-Pres, Integrated Ocean Observing System (IOOS) DMAC Education Caucus (Chair)
2004-Pres, Radiowave Operators Working Group (Chair)
2007-Pres, Planning Committee for National HF Radar Network [Jack Harlan (NOAA), Art
Alan (Coast Guard), Scott Glenn & Josh Kohut (Rutgers) and Josie Quintrell (NFRA)]
2008, European Glider Organization (EGO) Annual Workshop Steering Team
2006-2008: Member of the Institute of Marine and Coastal Sciences Computing Committee
Ongoing: Review grants for NSF and NOAA SeaGrant
Ongoing: Review manuscripts for J. of Geophysical Research, J. of Geophysical Research Letters,
J. of Atmospheric and Oceanic Technology, and IEEE J. of Oceanic Engineering, and The MTS Journal.

SOCIETY MEMBERSHIPS

American Geophysical Union

PUBLICATIONS

Kohut, J.T., S.M. Glenn and D.E. Barrick, 1999. SeaSonde is integral to coastal flow model development.
Hydro International, 3, 32-35.
Schofield, O., T. Bergmann, J. Kohut, S. Glenn, 2001. A coastal ocean observatory for studying nearshore coastal
processes. Backscatter, 12, 34-37.
Blackwell, S.M., Case, J., Glenn, S., Kohut, J., Moline, M., Purcell, M., Schofield, O. and C VonAlt. VA 2002. New
AUV Platform for Studying Near Shore Bioluminescence Structure In: Stanley, P. E. and Kricka, L. J.
editors. Bioluminescence & Chemiluminescence Progress and Current Applications. Singapore:
World Scientific, 197-200.
Schofield, O., T. Bergmann, W.P. Bissett, F. Grassle, D. Haidvogel, J. Kohut, M. Moline and S. Glenn, 2002. The
Long-term Ecosystem Observatory: An integrated coastal observatory, Journal of Oceanic Engineering,
27(2). 146-154.

- Kohut, J. T. and S. M. Glenn, 2003. Calibration of HF radar surface current measurements using measured antenna beam patterns. *J. Atmos. Ocean. Tech.*, 1303-1316.
- Schofield, O., Chant, R., Kohut, J. T., Glenn, S. M. 2003. The evolution of a nearshore coastal observatory and the establishment of the New Jersey Shelf Observing System. *Sea Technology* 44(11): 52-58.
- Chant, R. J.; Glenn, Scott; Kohut, Josh 2004, Flow reversals during upwelling conditions on the New Jersey inner shelf *J. Geophys. Res.*, Vol. 109, No. C12, C12S03. 10.1029/2003JC001941
- Glenn, S., R. Arnone, T. Bergmann, W. P. Bissett, M. Crowley, J. Cullen, J. Gryzmski, D. Haidvogel, J. Kohut, M. Moline, M. Oliver, C. Orrico, R. Sherrell, T. Song, A. Weidemann, R. Chant, and O. Schofield. 2004. Biogeochemical impact of summertime coastal upwelling on the New Jersey Shelf. *JGR*, Vol. 109, C12S02, doi:10.1029/2003JC002265.
- Glenn, S., O. Schofield, T. Dickey, R. Chant, J. Kohut, J. Bosch, L. Bowers, L. Creed, C. Haldemann, E., Hunter, J. Kerfoot, C. Mudgal, M. Oliver, H. Roarty, E. Romana, M. Crowley, D. Barrick, and C. Jones, 2004. The Expanding Role of Ocean Color & Optics in the Changing Field of Operational Oceanography. *Oceanography*. 107:86-95.
- Kohut, J. T., Glenn, S. M., Chant, R. J. 2004. Seasonal current variability on the New Jersey inner shelf. *Journal of Geophysical Research*. 109, C07S07, doi: 10.1029/2003JC001963.
- Oliver, M., Kohut, J., Irwin, A., Schofield, O., Glenn, S.M., Moline, M. A. and Bissett, W.P. 2004. Bioinformatic Approaches for Objective detection of water masses. *Journal Geophysical Research – NEOS Special Section*. Vol 109 C07S04 doi: 10.1029/2003JC002072.
- Schofield, O., Kohut, J., Glenn S. M. 2005. The New Jersey shelf Observing System (NJ SOS): Tracking plumes, particulates, and people in the coastal ocean. *Sea Technology* 46(9): 15-23.
- Kohut, J. T., S. M. Glenn, and J. D. Paduan. 2006, Inner shelf response to Tropical Storm Floyd, *J. Geophys. Res.*, 111, C09S91, doi:10.1029/2003JC002173
- Ullman, D. S., J. O'Donnell, J. Kohut, T. Fake, and A. Allen 2006, Trajectory prediction using HF radar surface currents: Monte Carlo simulations of prediction uncertainties, *J. Geophys. Res.*, 111, C12005, doi:10.1029/2006JC003715
- Kohut, J., H. Roarty, and S. Glenn. 2006. Characterizing observed environmental variability with HF Doppler radar surface current mappers and acoustic Doppler current profilers. *IEEE Journal of Oceanic Engineering*. 31(4), doi: 10.1109/JOE.2006.886095.
- Hunter, E., R. Chant, L. Bowers, S. Glenn, and J. Kohut. 2007. Spatial and temporal variability of diurnal wind forcing in the coastal ocean, *Geophysical Research Letters*, 34, L03607, doi:10.1029/2006GL028945.
- Schofield, O., Kohut, J., Aragon, D., Creed, L., Graver, J., Haldeman, C., Kerfoot, J., Roarty, H., Jones, C., Webb, D., Glenn, S. M. 2007. Slocum Gliders: Robust and ready. *Journal of Field Robotics*. 24(6): 1-14. DOI: 10.1009/rob.20200
- Schofield, O., Kohut, J., Glenn, S. M. 2008. Evolution of coastal observing networks. *Sea Technology*. 49: 31-36.
- Chant, R. J., S. M. Glenn, E. Hunter, J. Kohut, R. F. Chen, R. W. Houghton, J. Bosch, and O. Schofield 2008. Bulge Formation of a Buoyant River Outflow. *Journal Geophysical Research* 113, C01017, doi:10.1029/2007JC004100.
- Castelao, R., Glenn, S., Schofield, O., Chant, R., Wilkin, J., Kohut 2008. Seasonal evolution of hydrographic fields in the central Middle Atlantic Bight from glider observations. *Geophysical Research Letters* doi:10.1029/2007GL032335
- Castelao, R., O. Schofield, S. Glenn, R. Chant, and J. Kohut (2008), Cross-shelf transport of freshwater on the New Jersey shelf, *J. Geophys. Res.*, 113, C07017, doi:10.1029/2007JC004241.
- Glenn, S. M., Jones, C., Twardowski, M., Bowers, L., Kerfoot, J., Kohut, J., Webb, D., Schofield, O. 2008. Glider observations of sediment resuspension in a Middle Atlantic Bight Fall Transition Storm. *Limnology and Oceanography* 53(5, Part 2): 2180-2196.
- Lipa, B., B. Nyden, D. Barrick, and J. Kohut. 2008. HF radar sea-echo from shallow water. *Sensors*, 8, 4582-4599, DOI: 10.3390/s8084582.
- Schofield, O., Chant, R., Cahill, B., Castelao, R., Gong, D., Kahl, A., Kohut, J., Montes-Hugo, M., Ramadurai, R., Ramey, P., Xu, Y., Glenn, S. M. 2008. Seasonal forcing of primary productivity on broad continental shelves. *Oceanography* 21(4): 104-117.
- Chant, R. C., Wilkin J., Zhang W., Choi B. J., Hunter E., Castelao R., Glenn S., Jurisa J., Schofield O., Houghton R., Kohut J., Frazer T., Moline M. A. 2008. Dispersal of the Hudson River Plume on the New York Bight: Integrating observational and numerical studies during LaTTE. *Oceanography* 21(4): 90-103.
- Lipa, B., Nyden, B., Barrick, D. and J. Kohut. 2008. HF Radar Sea-echo from Shallow Water. *Sensors* 2008, 8, 4611-4635 DOI: 10.3390/s8084611

FIELD EXPERIENCE

Cruises

1997-2001: R/V Caleta, Coastal Predictive Skill Experiments (1997-2001).
2001: R/V Endeavor, Bistatic CODAR tests, buoy deployment (2001).
2003: R/V Connecticut, Bistatic CODAR buoy deployment.
2005: R/V Prince Madog, Liverpool Coastal Ocean Observatory.
2009: R/V Hugh R. Sharp, Mooring deployments in the MAB

CODAR Installations and Site Surveys

1998-2006: New Jersey
2001: Fedje, Norway
2003: North Carolina
2003-2006: Massachusetts
2003: Alaska
2004-2006: Rhode Island
2004-2006: Florida
2005: South Carolina
2005: Georgia

Glider deployments

Over 100 missions flown in seas and oceans around the world, including the Pacific and Atlantic Oceans and the Mediterranean, Baltic and Irish Seas.

RECENT RELATED PRESENTATIONS

Invited Seminars

Kohut, J. 2006. Implementing an new paradigm in ocean observing: a view from the COOLRoom. College of Charleston. Charleston SC.
Kohut, J., S. Glenn, O. Schofield, R. Chant, and J. McDonnell. 2006. Implementing an new paradigm in ocean observing: a view from the COOLRoom. Coastal Ocean Observing and Modeling. Liverpool, UNITED KINGDOM.
Kohut, J., S. Glenn, O. Schofield, R. Chant, and J. McDonnell. 2007. Transition to operational oceanography in the COOLRoom. US Embassy to Spain Talk Series. Madrid, SPAIN.
Kohut, J., S. Glenn, O. Schofield, R. Chant, and J. McDonnell. 2007. Transition to operational oceanography in the COOLRoom. ESEEO Final Meeting. Santiago Del Compostela, SPAIN.
Kohut, J., S. Glenn, O. Schofield, R. Chant, and J. McDonnell. 2007. Transport pathways of the New York Bight. Oregon State University Seminar. Corvallis, OR.
Kohut, J. 2008. Application of an ocean observatory to coastal water quality. Rutgers University Department of Environmental Sciences Seminar. New Brunswick, NJ.

Contributed Presentations

Kohut, J. 2007., Unveiling transport pathways in the New York Bight and its importance for shelf biogeochemistry, human economy, and health and safety. Rutgers Seminar. New Brunswick, NJ.
Kohut, J., D. Ullman, H. Roarty. 2008. Rapid Response of the Mid-Shelf Front to the passing coastal storm: Application of sustained glider AUV missions off the coast of New Jersey. Ocean Sciences Meeting, Orlando FL.
Kohut, J. W. Simmons, B. Connell, V. Loftin, and S. Glenn. 2008. Water quality monitoring along the New Jersey Shore: Linking a sustained ocean observatory with state and local monitoring programs. National Water Quality Meeting. Atlantic City, NJ.
Kohut, J., S. Glenn, O. Schofield, and D. Aragon. 2008. Rapid response of the mid-shelf front to a passing storm. EGO Workshop and glider school. La Spezia, ITALY.
Kohut, J. 2009. Mid-Atlantic Regional Coastal Ocean Observing System. IOOS Wind Energy Workshop, New Brunswick, NJ.