

Stuart P. Bishop

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RESEARCH INTERESTS My research interest foci are on the roles of ocean turbulence in the Earth's climate system and global climate change. I study mesoscale and submesoscale processes in the coastal environments to large scale circulation with a particular interest in the Kuroshio Extension, Southern Ocean, and California Current System. I use a combination of observations, theory, and numerical modeling to best understand these systems with the goals of better representing them in climate models.

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

Ph.D., Oceanography, 2012

- Thesis: *The Role of Eddy Fluxes in the Kuroshio Extension at 144°–148° E*
- Advisor: D. Randolph Watts, Ph.D

Clemson University, Clemson, SC

B.S., Physics with a Concentration in Mechanical Engineering, May 2006

- Calhoun Honors College Scholar
- *Magna Cum Laude*

PROFESSIONAL EXPERIENCE **Assistant Professor** November 2015 to Present
Department of Marine, Earth, & Atmospheric Sciences
North Carolina State University

Postdoctoral Scholar September 2014 to September 2015
Environmental Science and Engineering
Division of Geological and Planetary Sciences
California Institute of Technology
Supervisor: Andrew F. Thompson, Ph.D

Advanced Study Program Postdoctoral Fellow September 2012 to September 2014
National Center for Atmospheric Research
Supervisor: Frank O. Bryan, Ph.D

CRUISE EXPERIENCE

R/V Pt. Sur

4 days, October 1–4 2014
UNOLS Chief Scientist Training Cruise
Observations of the California Undercurrent off Point Sur

R/V Pelican

13 days, November 2011
Dynloop Recovery Cruise
PI Jim Singer (SAIC)
PIES and mooring recovery operations in the Gulf of Mexico

R/V Melville

35 days, June-July 2006
KESS Recovery Cruise
PIs D. Randolph Watts (URI) and Kathleen A. Donohue (URI)
CPIES recovery and CTD sections of the Kuroshio Extension

REFEREED
JOURNAL
PUBLICATIONS

1. **Bishop, S.P.**, F. O. Bryan, and R. Justin Small. "Bjerknes-like compensation in the wintertime North Pacific." *J. Phys. Oceanogr.*, 45: 1339-1355, 2015.
2. Small R.J., J. Bacmeister J., D. Bailey, A. Baker, **S.P. Bishop**, F.O. Bryan, J.M. Caron, J. Dennis, P. Gent, H.-M. Hsu, M. Jochum, D. Lawrence, E. Munoz, P. diNezio, T. Scheitlin, B. Tomas, J. Tribbia, Y-H Tseng, and M. Vertenstein. "A new synoptic scale resolving global climate simulation using Community Atmosphere Model." *J. Adv. Model. Earth Syst.*, 6: 1065-1094.
3. **Bishop, S.P.** and D.R. Watts. "Rapid eddy-induced modification of Subtropical Mode Water during the Kuroshio Extension System Study." *J. Phys. Oceanogr.*, 44: 1941-1953, 2014.
4. **Bishop, S.P.** and F.O. Bryan. "A comparison of mesoscale eddy heat fluxes from observations and a high-resolution ocean model simulation of the Kuroshio Extension." *J. Phys. Oceanogr.*, 43: 2563-2570, 2013.
5. **Bishop, S.P.** "Divergent eddy heat fluxes in the Kuroshio Extension at 144°-148°E. Part 2: Spatiotemporal variability." *J. Phys. Oceanogr.*, 43: 2416-2431, 2013.
6. **Bishop, S.P.**, D.R. Watts, and K.A. Donohue. "Divergent eddy heat fluxes in the Kuroshio Extension at 144°-148°E. Part 1: Mean structure." *J. Phys. Oceanogr.*, 43: 1533-1550, 2013.
7. **Bishop, S.P.**, D.R. Watts, J.-H. Park, and N.G. Hogg. "Evidence of bottom-trapped currents in the Kuroshio Extension region." *J. Phys. Oceanogr.*, 42: 321-328, 2012.

SUBMITTED
JOURNAL
PUBLICATIONS

1. **Bishop, S.P.**, P.R. Gent, F.O. Bryan, A.F. Thompson, M.C. Long, and R.P. Abernathey, 2015. "Southern Ocean overturning compensation in an eddy-resolving climate simulation." *J. Phys. Oceanogr.*, in revision.

AWARDS

UNOLS Chief Scientist Training Cruise

- *R/V Point Sur*, September 29-October 4 2014

Travel Awards

- Ocean Turbulence Conference, Santa Fe, NM June 2013
- Physical Oceanography Dissertation Symposium (PODS), Lihue, Kauai, HI October 2012

Student Awards — University of Rhode Island, Graduate School of Oceanography

- Robert H. and Marjorie Fillmore Memorial Oceanography Scholarship May 2008

Student Awards — Clemson University

- Henry E. and Barbara G. Vogal Physics Scholarship 2004-2006
- 1st Place Poster, College of Engineering and Science, Research Forum 2005