

## Victoria J. Coles

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### EDUCATION

B.S., Physics with specialization in Earth Sciences. (minor specializations French Literature and Mathematics). University of California at San Diego. (1991)  
Ph.D., Physical Oceanography. University of Miami. Rosenstiel School of Marine and Atmospheric Science. (1998) Advisor: Dr. Donald B. Olson, Dissertation: *Abyssal Flow and Forcing: Observations and Numerical Models of the Argentine Basin.*

### PROFESSIONAL BACKGROUND

July 2001 – Present    Research Assistant Professor, Horn Point Laboratory, University of Maryland Center for Environmental Science, Horn Point Laboratory.  
1999 – July 2001      Visiting Scientist, University of Maryland Center for Environmental Science, Horn Point Laboratory.  
2000 - 2001            Research Associate, University of Maryland, Baltimore County, NASA Goddard Earth Science and Technology Center.  
1997 – 2000            Postdoctoral Fellow, Universities Space Research Association, Goddard Space Flight Center, NASA.  
1991-1997              Graduate Research Assistant, Division of Meteorology and Physical Oceanography, Rosenstiel School of Marine and Atmospheric Science, University of Miami.

### RESEARCH

Observation and modeling of ocean and estuarine circulation, variability, and interaction with climate  
Climate change impacts on regional and global scales  
Coupled physical - biogeochemical and ecosystem modeling  
Remote sensing of ocean physics and biology

### PEER REVIEWED PUBLICATIONS (last 3 years and 5 additional relevant publications)

**Coles, V.J.** and D. G. Kimmel (2008) Projected climate change impacts for the Chesapeake Bay (submitted to Climate Research).  
Cooley, S., **V. J. Coles**, A. Subramaniam and P. Yager (2007) Seasonal variations in the Amazon plume-related atmospheric carbon sink. *Global Biogeochemical Cycles*. **21**, GB3014, doi:10.1029/2006GB002831.

- Coles, V. J.** and R. R. Hood (2007) Modeling the impact of iron and phosphorus limitations on nitrogen fixation in the Atlantic Ocean. *Biogeosciences* **4**: 455-479.
- Wilson, C., **V. J. Coles** (2005) Global climatological relationships between satellite biological and physical observations and upper ocean properties. *Journal of Geophysical Research*, doi:10.1029/2004JC002724.
- Coles, V.J.**, C. Wilson and R. R. Hood (2004) Remote sensing of new production fuelled by nitrogen fixation. *Geophysical Research Letters*, **31**, L06301, doi: 10.1029/2003GL019018.
- Coles, V.J.**, R. R. Hood, M. Pascual and D. G. Capone (2004) Modeling the impact of *Trichodesmium* and nitrogen fixation in the Atlantic Ocean. *Journal of Geophysical Research*. **109**, C06006, doi:10.1029/2002JC001753.
- Hood, R.R., **V. J. Coles**, and D. G. Capone (2004) Modeling the distribution of *Trichodesmium* and nitrogen fixation in the Atlantic Ocean. *Journal of Geophysical Research*. **109**, C06007, doi:10.1029/2002JC001754.
- Coles, V.J.** and M. M. Rienecker (2001) North Pacific subtropical-tropical gyre exchanges in the thermocline: Simulations with two isopycnal OGCM's. *Journal of Physical Oceanography*, **31**: 2590-2611.
- Coles, V. J.**, M. S. McCartney, D. B. Olson, and W. M. Smethie, Jr. (1996) Changes in Antarctic Bottom Water properties in the western South Atlantic in the late 1980's. *Journal of Geophysical Research*, **101**: 8957—8970.

#### **OTHER PUBLICATIONS**

- Boesch, D. F., **V. J. Coles**, D. G. Kimmel, and W. D. Miller (2007), Ramifications of climate change to Chesapeake Bay hypoxia. Pew Environmental series.
- Boesch, D.F. (editor). (2008) Global Warming and the Free State: Comprehensive Assessment of Climate Change Impacts in Maryland. Report of the Scientific and Technical Working Group of the Maryland Commission on Climate Change, submitted to the Governor and General Assembly pursuant to Executive Order 01.10.2007.07. (**Primary author of Sections 3 and 4**)

#### **AWARDS AND HONORS**

University of Maryland Center for Environmental Science President's award for excellence in application of science, 2008

#### **TEACHING**

Physics of marine and estuarine environments  
Climate impacts on estuaries and oceans