

# WILLIAM G. ELLIS, JR.

School of Marine Sciences  
University of Maine  
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## EDUCATION

**Doctor of Philosophy**, Chemical Oceanography, University of Rhode Island, 1992.

**Bachelor of Arts**, Chemistry/Biology (minor), Bowdoin College, 1986.

## PROFESSIONAL APPOINTMENTS

**University of Maine**, Orono, Maine, 2004 to date.

- Associate Director, School of Marine Sciences.
- Associate Professor of Oceanography.
  - ◇ Manage the administrative office of the School of Marine Sciences - The School has over 50 affiliated faculty members and an annual budget of approximately \$500,000. The research budget of the School is approximately \$10 million.
  - ◇ Supervise four full-time staff members.
  - ◇ Serve as the undergraduate coordinator - Responsible for the annual recruitment and advising of first-year Marine Science majors at the University of Maine, and serve as the Chair of the Curriculum Committee. Coordinate the annual undergraduate research symposium. Develop and oversee undergraduate outcome and assessment vision for the School. Coordinate NEASC requirements with the Associate Dean.
  - ◇ Teach courses (marine science and chemistry) and serve as a member of the faculty in the School of Marine Sciences.
  - ◇ Associate Member of the Graduate Faculty, University of Maine.

**University of Maine**, Orono, Maine, 2000 to 2004.

- Assistant Director, Upward Bound Regional Math/Science Center.
- Cooperating Assistant Professor of Marine Sciences.
  - ◇ Managed an annual budget of \$300,000.
  - ◇ Supervised three year-round staff members.
  - ◇ Responsible for the annual recruitment, retention and tracking of 50 secondary school students from New England.
  - ◇ Counseled low-income/first-generation high school students to succeed in high school and on their transition to higher education. Provided guidance for the college selection/application process and financial aid. Counseled students on developmental, social and personal issues as part of a six-week, residential summer program.
  - ◇ Facilitated 50 individual research projects between UMaine faculty and secondary school students each summer. Coordinated the annual summer science fair.
  - ◇ Designed and implemented an integrated math/science curriculum each year.

- ◇ Appointed five professors and ten graduate students each summer.
- ◇ Wrote grants and performed fund raising to support the program.
- ◇ Taught courses (marine sciences and chemistry) and served as a member of the faculty in the School of Marine Sciences.

**Maine Maritime Academy**, Castine, Maine, 1996 to 2000.

- Assistant Professor of Ocean Studies.
- International Student Advisor.
  - ◇ Taught courses, conducted research, advised students, and served on college committees.
  - ◇ Coordinated all services for international students on campus.
  - ◇ Organized a campus-wide symposium on Diversity.

**University of Rhode Island**, Narragansett, Rhode Island, 1994 to 1996.

- Postdoctoral Researcher.
  - ◇ Conducted research in atmospheric chemistry, oceanography and meteorology with an emphasis on instrumental neutron activation analysis (INAA), computer modeling and climate change.

**University of Maryland**, College Park, Maryland, 1992 to 1994.

- Research Associate.
- First-Year Advisor.
  - ◇ Conducted research in atmospheric chemistry and meteorology with an emphasis on ozone production in the troposphere using computer models. Collaborated with scientists at NASA/GSFC.
  - ◇ Served as an advisor for five freshmen each year as part of the "Advise Five" program, and as a summer staff member for the freshmen and transfer student orientation program through the Division of Letters and Sciences.

## COURSES TAUGHT

SMS450	Field Experience in Marine Science (UMaine)
SMS404	Capstone Research Seminar (UMaine)
SMS400	Capstone Research (UMaine)
SMS302	Oceanography (UMaine)
CHY101	Chemistry for Everyday Living (UMaine)
SMS110	Concepts in Oceanography (UMaine)
NFA117	Issues and Opportunities (UMaine)
Os-499	Independent Study (MMA)
Os-410	Geographic Information Systems (MMA)
Os-211	Marine Geology (MMA)
Os-212	Marine Geochemistry (MMA)
Os-350	Chemical Distributions and Tracers in the Ocean (MMA)
Os-004	Ocean Studies Seminar (MMA)
Oc-210	Physical Oceanography (MMA)
Oc-101	Introduction to Ocean Science (MMA and UMaine @ Augusta/ITV)
Ch-301	Chemical Principles (MMA)
Ch-310	Introduction to Organic Chemistry (MMA)
Cr-110/210/310	Ocean Studies Cruise (MMA)
OCG401	General Oceanography (URI)

## PROFESSIONAL ACTIVITIES AND RECOGNITION

- Over 30 presentations internationally, nationally and regionally.
- Inducted into Phi Kappa Phi, 2010.
- Reviewer, OCEANOGRAPHY AND MARINE BIOLOGY, Sinauer, First Edition, 2012.
- Selected by the Assoc. Provost of UMaine to chair the University-wide Curriculum Committee (UPCC), 2012-2015.
- Selected by the Assoc. Provost of UMaine to co-chair the University General Education Outcomes and Assessment Committee, 2011-2012.
- Selected by the Assoc. Provost of UMaine to attend the AAC&U summer Institute on General Education and Assessment at the University of Vermont, 2010.
- Selected by the Assoc. Dean of the College of NSFA to chair the College Curriculum Committee and serve on the University Curriculum Committee, 2008-2011.
- Selected by the Dean of the College of NSFA to attend leadership training, 2005-2006.
- Advisory Board, The Mitchell Institute, 2003 to 2006.
- Leadership Institute Graduate, New England Educational Opportunity Association, 2001-2002.
- Secretary, Maine Educational Opportunity Association Board, 2001 to 2004.
- Maine Committee for Global Education, Appointed by the Speaker of the House, 1998-2001.
- Reviewer, CHEMISTRY IN CONTEXT, WCB/McGraw-Hill, Third Edition, 2000.
- Reviewer, AN INTRO. TO THE WORLD'S OCEANS, WCB/McGraw-Hill, Ninth Edition, 2004.
- Outstanding Student Paper, American Geophysical Union (AGU), 1991.
- Dean's List, Bowdoin College.
- Valedictorian, Kents Hill School, 1982.

## ATHLETIC EXPERIENCE

**Head Coach**, Men's and Women's Varsity Cross Country Teams, NCAA Division III, Maine Maritime Academy, 1999 to 2000.

**Assistant Coach**, Men's and Women's Varsity Cross Country, MMA, 1997 to 1999.

**Coach**, Ice Hockey Club Team, Maine Maritime Academy, 1996 to 2000.

## PUBLICATIONS

### **Refereed**

Townsend, D. W., and W. G. Ellis, Primary Production and Nitrogen Cycling on the Northwest Atlantic Continental Shelf in Carbon and Nutrient Fluxes in Continental Margins: A Global Synthesis, Lui, K. K., L. Atkinson, R. Quinones, and L. Talaue-McManus (eds). Springer-Verlag New York, 2010.

King, T. A., and W. G. Ellis, Jr., Development of a high quality natural gamma data set from the Ceara Rise: Critical groundwork for core and log data integration, Proc. ODP, Sci. Results, 154: College Station TX (Ocean Drilling Program), 117-134, 1997.

King, T. A., W. G. Ellis, Jr., D. W. Murray, N. J. Shackleton, and S. Harris, Miocene evolution of carbonate sedimentation at the Ceara Rise: A multivariate data/proxy approach, Proc. ODP, Sci. Results, 154: College Station TX (Ocean Drilling Program), 349-365, 1997.

Ellis, W. G., Jr., A. M. Thompson, S. Kondragunta, K. E. Pickering, G. Stenchikov, R. R. Dickerson, and W.-K. Tao, Potential ozone production following convection based on future emission scenarios, Atmos. Environ., **30**, 667-672, 1996.

Stenchikov, G., R. Dickerson, K. Pickering, W. Ellis, B. Doddridge, S. Kondragunta, O. Poulida, J. Scala, and W.-K. Tao, Troposphere-stratosphere exchange in a mid latitude mesoscale convective complex: Part 2, numerical simulations, J. Geophys. Res., **101**, 6837-6851, 1996.

Ellis, W. G., Jr., and J. T. Merrill, Trajectories for Saharan dust transported to Barbados using Stokes's Law to describe gravitational settling, J. Appl. Meteor., **34**, 1716-1726, 1995.

Arimoto, R., R. A. Duce, B. J. Ray, W. G. Ellis, Jr., J. D. Cullen, and J. T. Merrill, Trace elements in the atmosphere over the North Atlantic, J. of Geophys. Res., **100**, 1199-1213, 1995.

Thompson, A. M., K. E. Pickering, R. R. Dickerson, W. G. Ellis, Jr., D. J. Jacob, J. R. Scala, W.-K. Tao, D. P. McNamara, and J. Simpson, Convective transport over the central United States and its role in the regional CO and ozone budgets, J. of Geophys. Res., **99**, 18,703-18,711, 1994.

Ellis, W. G., Jr., R. Arimoto, D. L. Savoie, J. T. Merrill, R. A. Duce, and J. M. Prospero, Aerosol selenium at Bermuda and Barbados, J. Geophys. Res., **98**, 12,673-12,685, 1993.

Galloway, J. N., J. E. Penner, C. S. Atherton, J. M. Prospero, H. Rodhe, R. S. Artz, Y. J. Balkanski, H. G. Bingemer, R. A. Brost, S. Burgermeister, G. R. Carmichael, J. S. Chang, R. J. Charlson, S. Cober, W. G. Ellis, Jr., C. J. Fischer, J. M. Hales, D. R. Hastie, T. Iversen, D. J. Jacob, K. John, J. E. Johnson, P. S. Kasibhatla, J. Langner, J. Lelieveld, H. Levy, II, F. Lipschultz, J. T. Merrill, A. F. Michaels, J. M. Miller, J. L. Moody, J. Pinto, A. A. P. Pszenny, P. A. Spiro, L. Tarrason, S. M. Turner, and D. M. Whelpdale, Sulfur and nitrogen levels in the North Atlantic Ocean's atmosphere: A Synthesis of field and modeling results, Global Biogeochemical Cycles, **6**, 77-100, 1992.

Duce, R. A., P. S. Liss, J. T. Merrill, E. L. Atlas, P. Baut-Menard, B. B. Hicks, J. M. Miller, J. M. Prospero, R. Arimoto, T. M. Church, W. G. Ellis, J. N. Galloway, L. Hansen, T. D. Jickells, A. H. Knap, K. H. Reinhardt, B. Schneider, A. Soudine, J. J. Tokos, S. Tsunogai, R. Wollast, and M. Zhou, The Atmospheric Input of Trace Species to the World Ocean, Global Biogeochemical Cycles, **5**, 193-259, 1991.

Gilfillan, E. S., D. S. Page, A. E. Bass, P. M. Fickett, J. C. Foster, W. G. Ellis, S. Rusk, and C. Brown, Petroleum Effects on Osmoregulation in the Marine Halophytes Spartina alterniflora and Rhizophora mangle. In: J. Kuiper and W. J. van den Brink (eds.). Oil Pollution: Fate and Effects of Oil in Marine Ecosystems. Martinus Nijhoff and Dr. W. Junk Publishers, Dordrecht, Netherlands, 1987.

### **Published Abstracts**

Ellis, W. G., Jr., J. T. Merrill, W. C. Graustein, D. M. Koch, and K. K. Turekian, Comparison of Be-7 observations at AEROCE sites to values calculated from isentropic trajectories, Eos, **76**, 71, 1995.

Hagelberg, T. K., and W. G. Ellis, Jr., Modes of oceanic and climatic variability on 10<sup>4</sup>-10<sup>6</sup> year scales: Revisiting the 100-kyr Ice Age oscillations, The Oceanographic Society 1995 Annual Meeting, 1995.

Hagelberg, T. K., W. G. Ellis, Jr., and L. Mayer, Equatorial Pacific carbonate burial: latitudinal, longitudinal, and bathymetric patterns, 0-6 Ma, Eos, 75, 367, 1994.

Ellis, W., Jr., G. Stenchikov, R. Dickerson, S. Kondragunta, A. Thompson, K. Pickering, J. Scala, and W.-K. Tao, Convective enhancement of ozone production based on emissions from the year 2050, Eos, 75, 87, 1994.

Stenchikov, G., R. R. Dickerson, W. G. Ellis, S. Kondragunta, A. Heymsfield, J. Scala, and W.-K. Tao, Trace gas transport in a severe storm over North Dakota: Model simulations, Eos, 75, 87, 1994.

Dickerson, R. R., B. G. Doddridge, W. G. Ellis, Jr., O. Poulida, K. E. Pickering, A. M. Thompson, J. Scala, J. Simpson, W.-K. Tao, and A. J. Heymsfield, Stratosphere/tropospheric exchange in mid latitude convection: Measurements and models, Eos, 74, 159, 1993.

Arimoto, R., R. A. Duce, B. J. Ray, J. D. Cullen, J. T. Merrill, and W. G. Ellis, Jr., Continental Materials in the Atmosphere Over the North Atlantic, Eos, 74, 146, 1993.

Ellis, W. G., Jr., and J. T. Merrill, Trajectories for Saharan dust transported to Barbados using Stokes's law to describe gravitational settling, Eos, 72, 108, 1991.

Arimoto, R., R. A. Duce, B. J. Ray, J. D. Cullen, J. T. Merrill, and W. G. Ellis, Jr., Trace elements in the atmosphere over the North Atlantic Ocean, Eos, 72, 108, 1991.

Ellis, W. G., Jr., J. T. Merrill, R. Arimoto, and R. A. Duce, The use of isentropic trajectories to determine the sources of aerosol species over the western North Atlantic Ocean, CHEMRAWN, VII, 42, 1991.

Arimoto, R., R. A. Duce, B. J. Ray, J. D. Cullen, N. Tindale, and W. G. Ellis, Trace Element Concentrations in Aerosol Particles from the AEROCE Stations, Eos, 70, 1038, 1989.

### **Technical Reports and Others**

Kincaid, C. R., W. G. Ellis, Jr., and W. DeLeo, Acoustic Doppler Current Profiler study of Coasters Harbor, Newport, Rhode Island, URI Graduate School of Oceanography Tech. Report for the United States Navy, 1996.

Kincaid, C. R., W. G. Ellis, Jr., and W. DeLeo, Acoustic Doppler Current Profiler study of Coddington Cove, Newport, Rhode Island, URI Graduate School of Oceanography Tech. Report for the United States Navy, 1996.

Ellis, W. G., Jr., J. Stein, C. R. Kincaid, and P. C. Patton, A field and modeling study of nitrogen in the Housatonic River Estuary and fluxes to Long Island Sound, Report submitted to the State of Connecticut Department of Environmental Protection, 1996.

Crutzen, P. J. (Lecturer), and W. G. Ellis, Jr. (Notes), Introduction to atmospheric chemistry, In: Colloquium on Clouds and Climate, National Center for Atmospheric Research, Boulder, Colorado, 1993.

Galloway, J. N., J. M. Prospero, H. Rodhe, R. S. Artz, C. S. Atherton, Y. J. Balkanski, H. G. Bingemer, R. A. Brost, S. Burgermeister, G. R. Carmichael, J. S. Chang, R. J. Charlson, S. Cober, W. G. Ellis, Jr., C. J. Fischer, J. M. Hales, D. R. Hastie, T. Iversen, D. J. Jacob, K. John, J. E. Johnson, P. S. Kasibhatla, J. Langner, J. Lelieveld, H. Levy, II, F. Lipschultz, J. T. Merrill, A. F. Michaels, J. M. Miller, J. L. Moody, J. E. Penner, J. Pinto, A. A. P. Pszenny, P. A. Spiro, L. Tarrason, S. M. Turner, and D. M. Whelpdale. Sulfur and nitrogen cycling in the North Atlantic Ocean's atmosphere: A Synthesis of field and modeling results, NOAA Tech. Memo, Air Resour. Lab., Environ. Res. Lab., Silver Spring, Md., 1992.

Duce, R. A., P. S. Liss, J. T. Merrill, E. L. Atlas, P. Baut-Menard, B. B. Hicks, J. M. Miller, J. M. Prospero, R. Arimoto, T. M. Church, W. G. Ellis, J. N. Galloway, L. Hansen, T. D. Jickells, A. H. Knap, K. H. Reinhardt, B. Schneider, A. Soudine, J. J. Tokos, S. Tsunogai, R. Wollast, and M. Zhou, The Atmospheric Input of Trace Species to the World Ocean, World Meteorological Organization, Reports and Studies (GESAMP) No. 38, 1989.

McPherson, R. (Lecturer), and W. G. Ellis (Notes), On the use of optimum interpolation in operational data assimilation, In: Colloquium on Synoptic Meteorology, National Center for Atmospheric Research, Boulder, Colorado, 307-313, 1988.

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