

**Robert C. Beardsley**

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**Education:** B.S., Massachusetts Institute of Technology, 1964 (Nuclear Physics); Ph.D., Massachusetts Institute of Technology, 1968 (Physical Oceanography).

**Positions:** Scientist Emeritus, 2004 to present; Senior Scientist, 1981-2004; Awarded Walter A. and Hope Noyes Smith Chair for Excellence in Coastal Research, 1996–2001; Director, Coastal Research Center, 1992–1995; Chairman, Department of Physical Oceanography, 1985–1990; Tenure Awarded, 1979; Associate Scientist, 1975–1981; Student Fellow, Geophysical Fluid Dynamics Summer Program, 1966; Woods Hole Oceanographic Institution. Lecturer, 1975–1977, Department of Meteorology; Associate Professor of Oceanography, 1972–1975; Assistant Professor of Oceanography, 1967–1972; Massachusetts Institute of Technology. Adjunct Professor, Department of Fisheries Oceanography, School of Marine Science and Technology, U. Mass.-Dartmouth, 2006 – present.

**Recent Publications:**

- Beardsley, R. C., S. J. Lentz, R. A. Weller, R. Limeburner, J. D. Irish, and J. B. Edson, 2003. Surface forcing on the southern flank of Georges Bank February–August 1995. *J. Geophys. Res.*, **108**(C11), 8007, doi: 10.1029/2002JC001359.
- Chen, C., H. Liu, and R. Beardsley, 2003. An unstructured grid, finite-volume, three-dimensional, primitive equations ocean model: Application to coastal ocean and estuaries. *Journal of Atmospheric and Ocean Technology*, **20** (1), 159–186.
- Chen, C., R. C. Beardsley, S. Hu, Q. Xu, and H. Lin, 2005. Using MM5 to hindcast the ocean surface forcing fields over the Gulf of Maine and Georges Bank region. *Journal of Atmospheric and Ocean Technology*, **22**(2), 131–145.
- Ji, R., C. Chen, P. Franks, D. Townsend, A. Durbin, R. Beardsley, R. Lough, and R. Houghton, 2006. Spring bloom and associated lower trophic level food web dynamics on Georges Bank: 1-D and 2-D model studies. *Deep Sea Research II*, **53**, 2656-2683.
- Scotti, A., R. Beardsley, and B. Butman, 2006. On the interpretation of energy and energy fluxes of nonlinear internal waves: An example from Massachusetts Bay. *Journal of Fluid Mechanics*, **561**, 103-112.
- Ji, R., C.S. Davis, C. Chen, D.W. Townsend, D.G. Mountain, and R.C. Beardsley, 2007. Influence of ocean freshening on shelf phytoplankton dynamics. *Geophysical Research Letters*, **34**, L24607, doi:10.1029/2007GL032010
- Scotti, A., R. C. Beardsley, and B. Butman, 2007. Generation and propagation of nonlinear internal waves in Massachusetts Bay. *Journal of Geophysical Research*, **112**, C10001, doi:10.1029/2007JC004313.
- Scotti, A., R. C. Beardsley, B. Butman, and J. Pineda, 2008. Shoaling of nonlinear internal waves in Massachusetts Bay. *Journal of Geophysical Research*, **113**, C08031, doi:10.1029/2008JC004726.
- Chen, C., Q. Xu, R. Houghton, and R. Beardsley, 2008. A model-dye comparison experiment in the tidal mixing front zone on the southern flank of Georges Bank. *Journal of Geophysical Research*, **113**, C02005, doi:10.1029/2007jc004106.

Cowles, G.W., S.J. Lentz, C. Chen, Q. Xu, and R.C. Beardsley, 2008. Comparison of Observed and Model-Computed Low Frequency Circulation and Hydrography on the New England Shelf. *Journal of Geophysical Research*, **113**, C09015, doi:10.1029/2007/JC004394.

**Synergistic Activities:** My research has focused on understanding physical processes in the coastal ocean, and more recently, on how physical processes can influence biological patterns and processes. In addition to working with graduate students and postdocs to help train the next generation of coastal physical oceanographers, I am presently serving on the U.S. GLOBEC Georges Bank and Southern Ocean executive committees, the Palmer LTER science steering committee, and since 1992, the EPA/MWRA Outfall Monitoring Science Advisory Panel.

**Associates and Collaborators in the Last Five Years:** C. Ashjian (WHOI), K. Brink (WHOI), B. Butman (USGS), M. Caruso (WHOI/UMiami), C. Chen (UMass-Dartmouth), J. Churchill (WHOI), G. Cowles (UMass-Dartmouth), C. Davis (WHOI), J. Edson (UConn), C. Flagg (SUNY-SB), G. Flierl (MIT), S. Gallagher (WHOI), G. Gawarkiewicz (WHOI), E. Hofmann (ODU), J. Irish (WHOI), J. Klinck (ODU), C. Lee (UW/APL), S. Lentz (WHOI), J. Lerczak (OSU), R. Limeburner (WHOI), J. Lynch (WHOI), J. Manning (NMFS), D. Mountain (NMFS), B. Owens (WHOI), P. Rizzoli (MIT), B. Rothschild (UMass-Dartmouth), R. Schlitz (NMFS), A. Scotti (UNC), R. Signell (USGS), P. Smith (BIO), J. Trowbridge (WHOI), P. Wiebe (WHOI).

**Graduate Advisors:** H. Greenspan (MIT) and J. Pedlosky (WHOI)

**Graduate Students Advised or Co-Advised:** Kim Saunders (Ph.D., 1971); John Festa (M.S., 1972); Chi Yuan Lee (Ph.D., 1972); Terrence Joyce (Sc.D., 1972); Vesh Manshan-Mahoney (M.S., 1973); Peter Smith (Ph.D., 1974); John Vermersch (M.S., 1975); Bradford Butman (Ph.D., 1975); Dale Haidvogel (Ph.D., 1976); Charles Flagg (Ph.D., 1977); Hsien-Wang Ou (Ph.D., 1979); Richard Limeburner (M.S., 1979); Peter Daifuku (M.S., 1982); William Burke (Civil Engrg., 1983); Leslie Rosenfeld (Ph.D., 1987); Richard Signell (M.S., 1985/Ph.D., 1989); Changsheng Chen (M.S., 1989/Ph.D., 1992); Ari Epstein (Ph.D., 1994); William Williams (M.S., 1997); Sandra Werner (M.S., 1996/Ph.D., 1999); Jason Hyatt (Ph.D., 2006), and Carlos Moffat (PhD., 2007). Total Students Advised: 15 Ph.D., 1 Eng. D., 6 M.S.

**Postdoctoral Investigators Sponsored or Co-Sponsored:** B. Butman, 1975 (USGS); D. Chapman, 1985–1987 (WHOI); S. Lentz, 1985–1987 (WHOI); J. Candela, 1990–1992 (CICESE); C. Ashjian, 1995–1996 (WHOI); A. Scotti, 1997–1999 (UNC); S. Werner, 1999–2000 (Exxon); J. Lerczak, 2001–2003 (OSU); R. He, 2003–2004 (NCSU); H. Sepulveda, 2004-2005 (U. Concepcion); R. Ji, 2004-2006 (WHOI); C. Moffat, 2007- 2009 (WHOI/U. Concepcion).