Dennis Joseph McGillicuddy, Jr.

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Education:

	1987	B.A., *cum laude*, Engineering Sciences, Harvard College
	1989	M.S., Applied Physics, Harvard University
	1993	Ph.D., Earth and Planetary Sciences, Harvard University

Professional Experience:

1987-1990	Graduate Fellowship, Office of Naval Research
1989	Visiting Scientist, Institut Für Meereskunde, Kiel, Germany
1990-1993	Research Assistant, Harvard University
1993-1995	Modeling Fellowship, University Corporation for Atmospheric Research
1993-1995	Postdoctoral Scholarship, Woods Hole Oceanographic Institution
1995-1999	Assistant Scientist, Woods Hole Oceanographic Institution
1999-2007	Associate Scientist (tenure in 2003), Woods Hole Oceanographic Institution
2007-present	Senior Scientist, Woods Hole Oceanographic Institution

Honors and Awards:

1987	Office of Naval Research Graduate Fellowship
1993	Woods Hole Oceanographic Institution Postdoctoral Scholarship
1993	UCAR Postdoctoral Fellowship in Ocean Modeling
1998	Office of Naval Research Young Investigator Award
2000	Lindeman Award, American Society of Limnology and Oceanography
2003	AGU Editors' Citation for Excellence in Refereeing

Research Interests:

Influence of physical forcing on planktonic ecosystems and elemental cycling; mesoscale ocean dynamics; primary production; coastal circulation; zooplankton population dynamics; harmful algal blooms; numerical modeling and data assimilation.

Ph.D. Advisors: Allan R. Robinson, Harvard University
James J. McCarthy, Harvard University

Postdoctoral Advisor: Kenneth H. Brink, Woods Hole Oceanographic Institution

Professional Activities:

1994-2002	Scientific Steering Committee, U.S. Joint Global Ocean Flux Study
1996-1999	NSCAT Science Team
1997-present	NASA Earth Observing System Interdisciplinary Science Working Group
1998	Participant and white paper author in NSF decadal planning activity for Biological Oceanography (OEUVRE)
1999-2001	Organizing Committee, Ecological Determinants of Ocean Carbon Cycling
1999-2002	National Ocean Partnership Program Committee on Oceanographic Information Technology Infrastructure
1999-2002	Organizing Committee, U.S. Surface Ocean - Lower Atmosphere Study
2000-present	Ocean Vector Winds Science Team

2000-2001	Editorial Advisory Board, Encyclopedia of Ocean Sciences
2001-2003	NSF Ocean Carbon Cycle Research Program Committee
2004-present	Deputy Director, Woods Hole Center for Oceans and Human Health
2004-present	Scientific Steering Committee, U.S. Global Ecosystem Dynamics (Globec)
2004-present	Editorial board, *Dynamics of Atmospheres and Oceans*

Relevant Publications:

1. McGillicuddy, D.J., Signell, R.P., Stock, C.A., Keafer, B.A., Keller, M.D., Hetland, R.D. and D.M. Anderson, 2003. A mechanism for offshore initiation of harmful algal blooms in the coastal Gulf of Maine. *Journal of Plankton Research*, 25(9), 1131-1138.
2. McGillicuddy, D.J., Anderson, D.M., Lynch, D.R. and D.W. Townsend, 2005. Mechanisms regulating the large-scale seasonal fluctuations in *Alexandrium fundyense* populations in the Gulf of Maine: results from a physical-biological model. *Deep-Sea Research II*, 52, 2698-2714.
3. Stock, C.A., McGillicuddy, D.J., Solow, A.R. and D.M. Anderson, 2005. Evaluating hypotheses for initiation and development of *Alexandrium fundyense* blooms in the western Gulf of Maine using a coupled physical-biological model. *Deep-Sea Research II,* 52, 2715-1744.
4. He, R., McGillicuddy, D.J., Lynch, D.R., Smith, K.W., Stock, C.A. and J.P. Manning, 2005. Data assimilative hindcast of the Gulf of Maine coastal circulation. *Journal of Geophysical Research*, 110, C10011, doi:10.1029/2004JC002807.
5. McGillicuddy, D.J., Anderson, D.M., Solow, A.R., and D.W. Townsend, 2005. Interannual variability of *Alexandrium fundyense* abundance and shellfish toxicity in the Gulf of Maine. *Deep-Sea Research II,* 52, 2843-2855.

Other Significant Publications:

6. McGillicuddy, D.J., Kosnyrev, V.K., Ryan, J.P. and J.A. Yoder, 2001a. Covariation of mesoscale ocean color and sea surface temperature patterns in the Sargasso Sea. *Deep-Sea Research II*, 48, 1823-1836.
7. McGillicuddy, D.J. and A. Bucklin, 2002. Intermingling of two *Pseudocalanus* species on Georges Bank. *Journal of Marine Research*, 60, 583-604.
8. McGillicuddy, D.J., Anderson, L.A., Doney, S.C., and M.E. Maltrud, 2003. Eddy-driven sources and sinks of nutrients in the upper ocean: results from a 0.1 degree resolution model of the North Atlantic. *Global Biogeochemical Cycles*, 17(2), 1035, doi:10.1029/2002GB001987.
9. Davis, C.S**.** and McGillicuddy, D.J.**,** 2006. Transatlantic Abundance of the N_2-Fixing Colonial Cyanobacterium *Trichodesmium*. *Science*, 312, 1517-1520.
10. McGillicuddy, D.J., Anderson, L.A., Bates, N.R., Bibby, T., Buesseler, K.O., Carlson, C.A., Davis, C.S., Ewart, C., Falkowski, P.G., Goldthwait, S.A., Hansell, D.A., Jenkins, W.J., Johnson, R., Kosnyrev, V.K., Ledwell, J.R., Li, Q.P., Siegel, D.A. and D.K. Steinberg, 2007. Eddy/Wind Interactions Stimulate Extraordinary Mid-Ocean Plankton Blooms. *Science*, 316, 1021-1026.