

CURRICULUM VITAE
(updated November 17th, 2011)

SCOTT C. DONEY

Senior Scientist

Department of Marine Chemistry and Geochemistry MS 25
Woods Hole Oceanographic Institution
266 Woods Hole Road
Woods Hole, MA 02543

EDUCATION

Ph.D. Chemical Oceanography, September 1991, Massachusetts Institute of Technology-Woods Hole Oceanographic Institution Joint Program, Woods Hole, MA 02543
Thesis titled: “*A Study of North Atlantic Ventilation Using Transient Tracers*” (Dr. William J. Jenkins, advisor)
B.A. Chemistry (*magna cum laude*), 1986, Revelle College, University of California at San Diego, La Jolla, CA 92093

PROFESSIONAL EXPERIENCE

Woods Hole Oceanographic Institution, Dept. of Marine Chemistry and Geochemistry, Woods Hole, MA: Associate Scientist with tenure (2002-2005); Senior Scientist (2005-present).
National Center for Atmospheric Research, Climate and Global Dynamics Division, Boulder, CO: Scientist I (1993-1997); Scientist II (1997-1999); Scientist III (tenured) (1999-2002); Advanced Study Program Postdoctoral Fellow (1991-1993).
Massachusetts Institute of Technology/Woods Hole Oceanographic Institution Joint Program, Cambridge and Woods Hole, MA: NSF Graduate Fellow (1987-1990); Graduate Research Assistant WHOI and MIT (1986-1987; 1990-1991).
Friday Harbor Laboratories, Student Participant in Ocean Circulation and Biogeochemical Cycles, summer short-course, instructors J. Sarmiento and P. Rhines, (1990).
University of California at San Diego, Chemistry Department, La Jolla, CA: Grader (1984-1985); Teaching Assistant, Organic Chemistry (1985-1986).
Goddard Institute for Space Studies, NASA, New York, NY: Summer Intern (1985).
Sea Education Association, Woods Hole, MA: Student Class W-76 (1984).

PROFESSIONAL AFFILIATIONS

- American Geophysical Union (AGU)
- The Oceanography Society (TOS)
- American Meteorological Society (AMS)
- Association for the Sciences of Limnology and Oceanography (ASLO)
- American Association for the Advancement of Science (AAAS)
- Sigma Xi

RESEARCH INTERESTS

- Marine biogeochemistry and ecosystem dynamics
- Ocean acidification
- Global carbon cycle
- Climate change

ACADEMIC HONORS:

Fellow, American Association for the Advancement of Science (AAAS), 2010
W. Van Alan Clark Sr. Chair, Woods Hole Oceanographic Institution, 2007
American Geophysical Union, Editor's Citation for Excellence in Refereeing, *Global Biogeochemical Cycles*, 2005
Fellow, Aldo Leopold Leadership Program, 2004
Ocean and Climate Change Institute (OCCI) Fellow, Woods Hole Oceanographic Institution 2003-2006
James B. Macelwane Medal, American Geophysical Union, (for significant contributions to the geophysical sciences by an outstanding young scientist), 2000
Fellow, American Geophysical Union, 2000
Outstanding Student Poster Award, American Geophysical Union, 1990
National Science Foundation Graduate Fellowship, 1987-1990
Urey Award, Dept. of Chemistry, University of California at San Diego, 1986
Phi Beta Kappa, 1986
University of California at San Diego Alumni Scholarship, 1983-1984

EXTERNAL PROFESSIONAL ACTIVITIES

National and International Science Program Leadership

Ocean Carbon and Biogeochemistry (OCB) Program (NSF, NASA & NOAA):
Scientific Steering Committee, Chair (inaugural), 2006-2011
PI OCB Project Office, 2006-present
Community Climate System Model (CCSM) (NSF & DOE):
Co-Chair Biogeochemistry Working Group, 1998-2007
Scientific Steering Committee, 2002-2010
U.S. Carbon Cycle Science Program (U.S. GCRP & Interagency Working Group):
Scientific Steering Group, 2002-2011
Chair of Ocean Carbon and Climate Change (OCCC) Scientific Steering Group, 2005-2011
Chair of Ocean Implementation Group, 2002-2004
C-MORE, Center for Microbial Oceanography, Research, and Education (NSF Science and Technology Center):
Science Team Member, 2006-present
Theme IV (Modeling) Team Leader, 2006-present
Executive Committee, 2006-present
CLIVAR/CO₂ Repeat Hydrography Scientific Steering Committee (NOAA & NSF), 2002-present
National Center for Ecological Analysis and Synthesis (NCEAS) Working Group, A framework to assess ecosystem health in support of ecosystem-based management of coastal-marine systems, leads K. McLeod, L. Crowder, A. Rosenberg, and M. Fogarty, 2010-present
Ocean Acidification Task Force (OATF) formed by the Ocean Research and Resources Advisory

Panel (ORRAP) (a United State Federal Advisory Committee), taskforce member, 2010-2011

World Ocean Circulation Experiment (WOCE) (NSF & NOAA), U.S. Scientific Steering Committee, 1997-2002

Joint Global Ocean Flux Study (JGOFS) (NSF, NOAA & NASA):

U.S. Synthesis and Modeling Project, Co-coordinator, 1997-2005

U.S. Scientific Steering Committee, 1993-2003

U.S. and International North Atlantic Planning Groups, 1994-1996

U.S. Time-Series Oversight Committee, 1996

Editorial Service

American Institute of Physics *Physics Today*, Advisory Committee Member, 2009-2012

EGU *Ocean Science*, Editorial Advisory Board, 2009-present

Faculty of 1000, Member Ecology Section, www.facultyof1000.com, 2004-present

AAAS *Science* magazine, Board of Reviewing Editors, 2007-2011

Journal Editor:

Journal of Geophysical Research, Biogeosciences, Associate Editor, 2004-present

Global Biogeochemical Cycles, Associate Editor, 2002-2004

Reviews of Geophysics, Associate Editor, 1997-2001

Guest Editor for Special Issues:

The Future of Ocean Biogeochemistry in a High CO₂ World, *Oceanography*, **22**(4), 2009

Surface Ocean CO₂ Variability and Vulnerabilities, *Deep-Sea Res. II*, **56**(8-10), 2009

U.S. JGOFS Synthesis and Modeling III, *Deep-Sea Res. II*, **53**(5-7), 2006

U.S. JGOFS Synthesis and Modeling II, *Deep-Sea Res. II*, **50**(22-26), 2003

U.S. JGOFS Synthesis and Modeling, *Deep-Sea Res. II*, **49**(1-3), 2002

National Science Foundation

Palmer Long-Term Ecological Research (PAL-LTER) team, 2008-present

Geosciences Directorate, GEO Vision working group, 2006-2008

Geosciences Directorate Assistant Director Search Committee, 2007

Ocean Information Technology Initiative working group, 2003-2004

Ocean Carbon Cycle Research (OCCR) planning group, 2001-2003

Ocean Carbon Transport, Exchanges and Transformations planning group, 1999-2000

National Oceanic and Atmospheric Administration

Climate Process Team, *Southern Ocean Water Mass Transformation and the Carbon Cycle*, 2007-2012

Pacific Marine Environmental Laboratory (PMEL), external reviewer 2008

Office of Global Programs, Global Carbon Cycle program advisory panel, 1999-2002 & 2006-2008

Carbon Observations Planning Group, 1999-2001

CIMAS Visiting Scholar, University of Miami and NOAA/AOML, 1996

National Aeronautics and Space Administration

Orbiting Carbon Observatory (OCO) Mission Science Team, 2002-2009 & Atmospheric CO₂ from Space (ACOS) team, 2009-present

SeaWiFS Science Team and Ocean Color Research Team, 1997-present

Aerosol-Cloud-Ocean Mission Concept Study Science Working Group, 2007

National Research Council

Committee Member, “*Development of an Integrated Science Strategy for Ocean Acidification Monitoring, Research, and Impacts Assessment*”, National Research Council Ocean Studies Board, 2009-2010

Committee Member, “*Stabilization Targets for Atmospheric Greenhouse Gas Concentrations*” National Research Council Board of Atmospheric Sciences & Climate, 2009-2010

Reviewer, “*Verifying Greenhouse Gas Emissions: Methods to Support International Climate Agreements*”, National Research Council, 2010.

Reviewer, “*Exploration of the Seas: Interim Report*”, National Research Council, 2003.

Congressional Testimony

U.S. Senate Testimony, Committee on Commerce, Science and Transportation, *Nomination Hearing*, Scott Doney to be Chief Scientist, National Oceanic and Atmospheric Administration, U.S. Department of Commerce (Nov. 30th, 2010)

(Nominated by President Obama for Presidential Appointment with Senate Confirmation position August 4th, 2010 in 111th Congress; renominated January 26th, 2011 in 112th Congress)

U.S. House of Representatives Testimony, Committee on Science and Technology, Subcommittee on Energy and Environment, hearing on “*The Federal Ocean Acidification Research and Monitoring Act: H.R. 4174*” (June, 2008)

U.S. Senate Testimony, Committee on Commerce, Science and Transportation, Subcommittee on Oceans, Atmosphere, Fisheries and Coast Guard, hearing on “*Effects of Climate Change and Ocean Acidification on Living Marine Resources*” (May, 2007)

American Geophysical Union

Search Committee, James B. Macelwane Medal, 2007 and 2008

Search Committee, Editor for *Global Biogeochemical Cycles*, 2004

The Oceanography Society

Council Member (at-large representative), 2009-2012

Non-profit Organizations

Communication Partnership for Science and the Sea (COMPASS), Science Advisor,

<http://www.compassonline.org/>, 2009-present

COMPASS Climate Initiative, Co-chair, 2009-present

Sea Education Association (SEA), Corporation overseer, 2006-present; Trustee, 2009-present

Other

H. Burr Steinbach Visiting Scholar, Woods Hole Oceanographic Institution, 2000

NCAR Biogeosciences Initiative, Project Lead, 2001-2002

Ecosystems Center, External Review Committee Member, the Marine Biological Laboratory, Woods Hole, 2009

WHOI INSTITUTIONAL ACTIVITIES:

MIT/WHOI Joint Committee on Chemical Oceanography (JCCO), 2003-2007

WHOI Director and President Search Committee, 2006-2007

WHOI Information Technology Advisory Committee (ITAC), 2002-2006

WHOI Marine Chemistry and Geochemistry Dept. Faculty Hiring Committees: Chair, 2003; Member Carbon-cycle Search (2009-2010)

WHOI Ocean and Climate Change Institute (OCCI), Institute Advisory Committee, 2003-2006

WHOI Marine Chemistry and Geochemistry Dept., Faculty Mentorship Committees: Mak Saito,

chair; Dierdre Toole; Karen Casciotti; Rachel Stanley; Aleck Wang, chair

FIELD EXPERIENCE:

Undergraduate student on Sea Education Association research cruise on SSV *Westward* (W-76), Sargasso Sea and western North Atlantic, Chief Scientist Mary Farmer; May and June, 1984.
At sea analysis of perfluorodecaline and SF₆ on Santa Monica Basin Purposeful Tracer Release Experiment, R/V *New Horizon* and R/V *Robert Gordon Sproul*, Chief Scientist Jim Ledwell; Sept. 1985.
Deployment and retrieval of *in-situ* particle pumping system and sediment trap array from R/V *Weatherbird*, Bermuda, Chief Scientist Robert Sherrell; Sept. 1987
Collection and analysis of chlorofluorocarbon, tritium, and ³He samples on Oceanus Cruise 202, a hydrographic section from Iceland to equator along 20°W, R/V *Oceanus*, Chief Scientist Mike McCartney; July and August, 1988.
Collection of tritium and ³He samples for Leg 6 of South Atlantic Ventilation Experiment, R/V *Melville*, Chief Scientist Lynne Talley; March and April, 1989.
Co-chief Scientist, NOAA 1993 North Atlantic CO₂ Cruise, R/V *Malcolm Baldrige*, Chief Scientist Rik Wanninkhof; July, 1993.
Co-chief Scientist, World Ocean Circulation Experiment leg I7N in western Indian Ocean, R/V *Knorr*, Chief Scientist Don Olson; July and August, 1995.
Collection of *Trichodesmium* samples for physiological and genomic analysis, NSF N₂ Fixation Biocomplexity Cruise (MANTRA), North Pacific, R/V *Revelle*, Chief Scientist Doug Capone, August, 2003.
Chief Scientist, A16S, CLIVAR/CO₂ Repeat Hydrography Program, R/V *Ronald H Brown*, South Atlantic, (joint Chief Scientist w/ Rik Wanninkhof), Jan. and Feb. 2005.

TEACHING AND MENTORING

Graduate Student Advisor, MIT/WHOI Joint Program:

Pre-generals advisor: Andrew McDonnell (Chemistry, 2005-2007), Holly Moeller (Biology, 2008-2009)

Thesis advisor: Annette Hynes (Biology, Ph.D., 2009); Naomi Levine (Chemistry, Ph.D., 2009);

Postdoctoral Advisor/co-advisor:

NCAR: Julia Lee (1996-1997), Montse Fuentes (1998), J. Keith Moore (1999-2002), Ivan Lima (1999-2002), Roger Dargaville (2000-2002), David Baker (2000-2002)

WHOI: Dierdre Toole (2003-2005), Irina Marinov (2007-2008), Nathalie Goodkin (2007-2008), Sarah Cooley (2007-2010), Annette Hynes (2009-2010), Paulo Calil (2009-2010), David Nicholson (2009-2011), Ya-wei (Wayne) Luo (2009-present), Sevrine Saille (2009-present).

Thesis Committee Member (other than as advisor/co-advisor):

MIT/WHOI Joint Program: Rachel Stanley (Ph.D., 2007), Nathalie Goodkin (Ph.D., 2007), Louie Wurch (Ph.D., 2011)

Other: Nan Rosenbloom (Ph.D., U Colorado, Boulder, 1997), Sarah Zedler (M.S., UC Santa Barbara, 1999).

Visiting Graduate Student Advisor:

NCAR: Camilla Geels (U. Copenhagen, Denmark, 2000-2001)

WHOI: David Nicholson (U. Washington, 2009), Priya Sharma and Sri Nandini (U. South

Pacific, Fiji, 2011)
Overseas External Examiner, Carolyn Walker (Ph.D., 2009), U. Otago, Dunedin, New Zealand
External Thesis Supervisor, Claudine Hauri, ETH Zurich, Zurich Switzerland
MIT/WHOI Joint Program Thesis Defense Chair: Phoebe Dreux Chappell (Ph.D., 2009)
Undergraduate Summer Student Advisor:
 UCAR-SOARS program: Kiesha Stevens (1996) and Sharon Perez (1998)
 WHOI Summer Student Fellows: Allis Wallis (2004), Nora Xu (2009), Grant Jiang (2011)
 Other: Nicole Benoit (Co-op student, U. Pittsburgh, 3 semesters, 2007-2008), Hannah Lee
 (NOAA Hollings Scholar, 2008)
Graduate teaching, U. Colorado, Boulder:
 ATOC 5225 Thermodynamics of Atmospheres and Oceans, Fall, 1998
 GEOL/EPOB 5700-2 Carbon, Climate and Society: Spring, 2001; Fall, 2001; Spring, 2002
Graduate teaching, MIT/WHOI Joint Program:
 12.747 Modeling, Data Analysis, and Numerical Techniques for Geochemistry, Fall 2002,
 Fall 2004; Fall 2006; Fall 2008; Fall 2010
 12.759 Special Topics in Marine Chemistry Seminar: Spring 2004
 12.742 Marine Chemistry: annually Fall 2004-2010
 (published Open Course Ware notes for Marine Chemistry:
 <http://ocw2.mit.edu/OcwWeb/Earth--Atmospheric--and-Planetary-Sciences/12-742Fall-2006/CourseHome/index.htm>)
 7.430 Topics in Quantitative Marine Science: Ocean Biological-Physical Interaction, Spring
 2006
Graduate Student Workshops: MSRI-NCAR Summer Workshop on Carbon Data Assimilation,
 Organizer with I. Fung and D. Schimel, Berkeley CA, July 2006.
Undergraduate Teaching, Sea Education Association (SEA), Woods Hole MA:
 Distinguished Lecturer, SEA *Oceans and Climate Program*: Fall 2006, Fall 2007, Fall 2009,
 Fall 2010, Fall 2011
 Lecturer on carbon cycle, ocean modeling and ocean acidification, Spring 2008, Fall 2008,
 Spring 2009. Fall 2009
Undergraduate Teaching, Distinguished Scientist visitor for MBL Semester in Environmental
 Science (SES) Sept. 2011, Woods Hole MA
Adjunct faculty, University of Colorado, Boulder: Geology (1997-2002), Aerospace Engineering
 (1998-2002), Environmental Sciences (2000-2002).

SCIENTIFIC AND TECHNICAL BOOKS

Glover, D.M., W.J. Jenkins, and S.C. Doney, 2011: *Modeling Methods for Marine Science*,
 Cambridge University Press, Cambridge, UK, 592 pp., www.cambridge.org/glover ISBN-13:
 9780521867832
 (reviewed by: V. Rayband, 2011: *Limnol. Oceanogr. Bull.*, **20**(3) September, 64-66.)

PUBLICATIONS FOR GENERAL PUBLIC (Total of 11)

(papers denoted by * first authored by supervised graduate student or postdoctoral researcher)

Doney, S.C., 2006: The dangers of ocean acidification. *Scientific American*, **294**(3), March 2006,
 58-65. (republished in German as “Das Meer wird sauer” in *Spektrum der Wissenschaft*, June
 2006).

- Doney, S.C. and N.M. Levine, 2006: How long can the ocean slow global warming? *Oceanus*, Woods Hole Oceanographic Institution, (<http://www.whoi.edu/oceanus/index.do>).
- * Goodkin, N. and S. Doney, 2007: Global calcification after ocean acidification, *Meridian*, Bermuda Institute of Ocean Sciences, **2**(2), 12-13.
- Buesseler, K., S. Doney, and H. Kite-Powell, 2008: To fertilize, or not to fertilize, *Oceanus*, **46**(1), Jan. 2008, 3.
(<http://www.whoi.edu/oceanus/viewPrintedIssue.do?archives=true&sortBy=printed&o=read&id=181>)
- Buesseler, K., S. Doney, and H. Kite-Powell (ed.), 2008: Should we fertilize the ocean to reduce greenhouse gases? *Oceanus*, **46**(1), Jan. 2008, 27pp.
- Pidgeon, E. and S.C. Doney, 2008: The role of the oceans, Chapter 8 (pp 246-276), in *A Climate for Life, Meeting the Global Challenge*, R.A. Mittermeier et al., CEMEX Conservation Book Series, with Conservation International and the International League of Conservation Photographers, ISBN 978-0-9818321.
- Doney, S.C., 2008: Ocean acidification, essay in *Ocean: An Illustrated Atlas (National Geographic Atlas)* by S.A. Earle and L.K. Glover, National Geographic, Washington D.C., p. 39, ISBN 978-1426203190.
- Doney, S.C., 2009: Ocean acidification, *Flotsam & Jetsam*, Massachusetts Marine Educators, **38**, Issue 1 (Summer 2009), 1-15, www.massmarineeducators.org.
- Doney, S.C., 2010: Solutions to environmental threats: ocean acidification. *Scientific American*, **302**(4), April 2010, 60.
- Avery, S., A. Magnan, B. Garnaud, and S.C. Doney, 2011: Changing climate, changing ocean, changing planet, in “*Oceans: the New Frontier*”, part of *Planet for Life* (2011) series, ed. P. Jacquet, L. Tubiana, and R. Pachauri and assoc. ed. J. Rochette, R. Jozan, and S. Sundar, TERI Press, New Dehli, 225-237 pp., ISBN: 9788179934029
French version: Avery, S., A. Magnan, B. Garnaud, and S.C. Doney, 2011: Climat: l'enjeu pour les océans, in “*Océans: la frontière*”, part of *Regards sur la Terre* (2011) series, ed. P. Jacquet, R. Pachauri, and L. Tubiana, Armand Colin publisher, pp 337-349, ISBN: 978-2-200-27150-3
- Ducklow, H. and S. Doney, 2011: What's for dinner? *MBL Catalyst*, **6**(1), Spring 2011, p. 16.

REFEREED ELECTRONIC LECTURE (Total of 1)

- Feely, R.A., and S.C. Doney, 2011, Ocean acidification: the other CO₂ problem, *Limnol. Oceanogr. e-Lectures*, doi:10.4319/lol.2011.rfeely_sdoney.5*,
http://aslo.org/lectures/11_005/11_005_rfeely_sdoney.html

PUBLICATIONS IN REFEREED JOURNALS, BOOKS & REPORTS (Total of 189)

ISI ResearcherID: F-9247-2010; <http://www.researcherid.com/rid/F-9247-2010>

ISI Web of Science total citations 9049; h-index 46 (accessed Nov. 16th, 2011)

(papers denoted by * first authored by supervised graduate student or postdoctoral researcher)

- Doney, S.C. and W.J. Jenkins, 1988. The effect of boundary conditions on tracer estimates of thermocline ventilation rates. *J. Mar. Res.*, **46**, 947-965.
- Doney, S.C., D.M. Glover, and W.J. Jenkins, 1992. A model function of the global bomb-tritium distribution in precipitation, 1960-1986. *J. Geophys. Res., Oceans*, **97**, 5481-5492.
- Doney, S.C. and J.L. Bullister, 1992. A chlorofluorocarbon section in the eastern North Atlantic.

- Deep-Sea Res.*, **39**, 1857-1883.
- Doney, S.C., 1992. Bomb tritium in the deep North Atlantic. *Oceanography*, **5**, 169-170.
- Doney, S.C., W.J. Jenkins, and H.G. Östlund, 1993. A tritium budget for the North Atlantic, observations and model results. *J. Geophys. Res., Oceans*, **98**, 18,069-18,081.
- Doney, S.C. and W.J. Jenkins, 1994. Ventilation of the deep western boundary current and the abyssal western North Atlantic: estimates from tritium and ³He distributions. *J. Phys. Oceanogr.*, **24**, 638-659.
- Doney, S.C., 1994. Irreversible thermodynamic coupling between heat and mass fluxes across a gas/liquid interface. *J. Chem. Society, Faraday Trans.*, **90**, 1865-1874.
- Large, W.G., J.C. McWilliams, and S.C. Doney, 1994. Oceanic vertical mixing: A review and a model with a nonlocal boundary layer parameterization. *Rev. Geophys.*, **32**, 363-403.
- Doney, S.C., R.G. Najjar, and S. Stewart, 1995. Photochemistry, mixing, and diurnal cycles in the upper ocean. *J. Mar. Res.*, **53**, 341-369.
- Doney, S.C., 1995. Irreversible thermodynamics and air-sea exchange. *J. Geophys. Res., Oceans*, **100**, 8541-8553.
- Doney, S.C., 1995. Comment on "Experimental demonstration of coupling of heat and matter fluxes at a gas-water interface" by Leon F. Phillips. *J. Geophys. Res., Atmospheres*, **100**, 14,347-14,350.
- Doney, S.C., D.M. Glover, and R.G. Najjar, 1996. A new coupled, one-dimensional biological-physical model for the upper ocean: applications to the JGOFS Bermuda Atlantic Time Series (BATS) site. *Deep-Sea Res. II*, **43**, 591-624.
- Ayotte, K.W., P.P. Sullivan, A. Andren, S.C. Doney, A.A.M. Holtslag, W.G. Large, J.C. McWilliams, C.-H. Moeng, M.J. Otte, J.J. Tribbia, and J.C. Wyngaard, 1996. An evaluation of neutral and convective planetary boundary-layer parameterizations relative to large eddy simulations. *Bound. Layer Meteorol.*, **79**, 131-175.
- Doney, S.C., 1996. A synoptic atmospheric surface forcing data set and physical upper ocean model for the U.S. JGOFS Bermuda Atlantic Time-Series Study (BATS) site. *J. Geophys. Res., Oceans*, **101**, 25,615-25,634.
- Doney, S.C., 1997: The ocean's productive deserts, *Nature*, **389**, 905-906.
- Doney, S.C., W.J. Jenkins, and J.L. Bullister, 1997. A comparison of ocean tracer dating techniques on a meridional section in the eastern North Atlantic. *Deep-Sea Res. I*, **44**, 603-626.
- Large, W.G., G. Danabasoglu, S.C. Doney, and J.C. McWilliams, 1997: Sensitivity to surface forcing and boundary layer mixing in a global ocean model: annual-mean climatology. *J. Phys. Oceanogr.*, **27**, 2418-2447.
- * Howell, E.A., S.C. Doney, R.A. Fine, D.B. Olson, 1997: Geochemical estimates of denitrification rates for the Arabian Sea and Bay of Bengal during WOCE. *Geophys. Res. Lett.*, **24**, 2549-2552.
- Keeling, R.F., B.B. Stephens, R.G. Najjar, S.C. Doney, D. Archer, M. Heimann, 1998: Seasonal variations in the atmospheric O₂/N₂ ratio in relation to the kinetics of air-sea gas exchange, *Global Biogeochem. Cycles*, **12**, 141-163.
- Doney, S.C., J.L. Bullister, and R. Wanninkhof, 1998: Climatic variability in upper ocean ventilation diagnosed using chlorofluorocarbons, *Geophys. Res. Lett.*, **25**, 1399-1402.
- Gent, P.R., F.O. Bryan, G. Danabasoglu, S.C. Doney, W.R. Holland, W.G. Large, J.C. McWilliams, 1998: The NCAR Climate System Model global ocean component, *J. Climate*, **11**, 1287-1306.

- Doney, S.C., W.G. Large, and F.O. Bryan, 1998: Surface ocean fluxes and water-mass transformation rates in the coupled NCAR Climate System Model, *J. Climate*, **11**, 1420-1441.
- * Lee-Taylor, J.M., S.C. Doney, G. Brasseur, and J.-F. Muller, 1998: A global three-dimensional atmosphere-ocean model of methyl bromide distributions, *J. Geophys. Res.*, **103**, 16,039-16,059.
- Lee, K., R. Wanninkhof, T. Takahashi, S.C. Doney, and R.A. Feely, 1998: Low interannual variability in recent oceanic uptake of atmospheric carbon dioxide, *Nature*, **396**, 155-159.
- Wanninkhof, R., S.C. Doney, T.-H. Peng, J. Bullister, K. Lee, and R.A. Feely, 1999: Comparison of methods to determine the anthropogenic CO₂ invasion into the Atlantic Ocean, *Tellus*, **51B**, 511-530.
- Doney, S.C., 1999: Major challenges confronting marine biogeochemical modeling, *Global Biogeochem. Cycles*, **13**, 705-714.
- Doney, S.C., D.W.R. Wallace, H.W. Ducklow, 2000: The North Atlantic Carbon Cycle: New Perspectives from JGOFS and WOCE. in *The Changing Ocean Carbon Cycle: A Midterm Synthesis of the Joint Global Ocean Flux Study*, ed. R.B. Hanson, H.W. Ducklow, and J.G. Field, Cambridge University Press, 373-391.
- Saravanan, R., G. Danabasoglu, S.C. Doney, and J.C. McWilliams, 2000: Decadal variability and predictability in the midlatitude ocean-atmosphere system, *J. Climate*, **13**, 1073-1097.
- Fung, I.Y., S.K. Meyn, I. Tegen, S.C. Doney, J.G. John, and J.K.B. Bishop, 2000: Iron supply and demand in the upper ocean. *Global Biogeochem. Cycles*, **14**, 281-295.
- * Fuentes, M., S.C. Doney, D.M. Glover, and S.J. McCue, 2000: Spatial structure of the SeaWiFS ocean color data for the North Atlantic Ocean, *Studies in the Atmospheric Sciences (Lecture notes in Statistics Vol. 144)*, ed. M. Berliner, D. Nychka, and T. Hoar, Springer-Verlag, New York, 153-171.
- * Bailey, B.A., and S. Doney, 2000: Quantifying the effects of noise on biogeochemical models, *Computing Science and Statistics*, **32**, 447-453.
- Dickey, T., S. Zedler, X. Yu, S.C. Doney, D. Frye, H. Jannasch, D. Manov, D. Sigurdson, J.D. McNeil, L. Dobeck, T. Gilboy, C. Bravo, D.A. Siegel, and N. Nelson, 2001: Physical and biogeochemical variability from hours to years at the Bermuda testbed mooring: June 1994--March 1998, *Deep-Sea Res. II*, **48**, 2105-2140.
- * Rosenbloom, N.A., S.C. Doney, and D.S. Schimel, 2001: Geomorphic evolution of soil texture and organic matter in eroding landscapes, *Global Biogeochem. Cycles*, **15**, 365-381.
- Garcon, V.C., A. Oschlies, S.C. Doney, D. McGillicuddy, J. Waniek, 2001: The role of mesoscale variability on plankton dynamics in the North Atlantic, *Deep-Sea Res. II*, **48**, 2199-2226.
- Fasham, M.J.R., B.M. Balino, M.C. Bowles, R. Anderson, D. Archer, U. Bathmann, P. Boyd, K. Buesseler, P. Burkill, A. Bychkov, C. Carlson, C.T.A. Chen, S. Doney, H. Ducklow, S. Emerson, R. Feely, G. Feldman, V. Garcon, D. Hansell, R. Hanson, P. Harrison, S. Honjo, C. Jeandel, D. Karl, R. Le Borgne, K.K. Liu, K. Lochte, F. Louanchi, R. Lowry, A. Michaels, P. Monfray, J. Murray, A. Oschlies, T. Platt, J. Priddle, R. Quinones, D. Ruiz-Pino, T. Saino, E. Sakshaug, G. Shimmiel, S. Smith, W. Smith, T. Takahashi, P. Treguer, D. Wallace, R. Wanninkhof, A. Watson, J. Willebrand, C.S. Wong, 2001: A new vision of ocean biogeochemistry after a decade of the Joint Global Ocean Flux Study (JGOFS), *AMBIO, Sp. Iss. 10*, 4-31.
- Doney, S.C. and D.M. Glover, 2001: Modelling the ocean carbon system, in *Encyclopedia of*

- Ocean Sciences*, Vol. 4, 1929-1935, ed. J. Steele, S.A. Thorpe, and K.K. Turekian, Academic Press, London, UK.
- Wanninkhof, R., S.C. Doney, T. Takahashi, and W.R. McGillis, 2001: The effect of using time-averaged winds on regional air-sea CO₂ fluxes, in *Gas Transfer at Water Surfaces*, ed. M. Donelan, W. Drennan, E. Saltzman, and R. Wanninkhof, pp. 351-357, AGU, Geophysical Monograph 127, Washington, DC.
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