

JOHN P. DUNNE

(a) Professional Preparation:

University of California at San Diego	Chemistry	B.S.	1993
University of Washington	Oceanography	M.S.	1996
University of Washington	Oceanography	Ph.D.	1999
University of Washington –Post-Doc	Oceanography		1999-2001
Princeton University—Post Doc	Oceanography		2001-2002

(b) Appointments:

Dec. 2002-present.	Research Oceanographer, National Oceanic and Atmospheric Administration / Geophysical Fluid Dynamics Laboratory, Princeton, NJ
Apr. 2001-Nov. 2002	Research Associate (Postdoctoral), Atmospheric and Oceanic Sciences, Princeton University, Princeton, NJ
Apr. 1999-Mar. 2001	Research Associate (Postdoctoral), Oceanography, University of Washington, Seattle, WA
Sept. 1993-Mar. 1999	Graduate Researcher, Oceanography, University of Washington, Seattle, WA
June 1992-June 1993	Research Assistant, Marine Physical Laboratory, Scripps Institution of Oceanography, La Jolla, CA.

(c-i) 5 Related Publications:

- Dunne, J. P.** et al., in preparation: GFDL's ESM2 global coupled climate-carbon Earth System Models Part I: Carbon system formulation and baseline simulation characteristics. *J. Climate*.
- Dunne, J. P.** et al., accepted: GFDL's ESM2 global coupled climate-carbon Earth System Models Part I: Physical formulation and baseline simulation characteristics. *J. Climate*.
- Stock, C. A., M. A. Alexander, N. A. Bond, K. Brander, W. W. L. Cheung, E. N. Curchitser, T. L. Delworth, **J. P. Dunne**, et al., 2011: On the use of IPCC-class models to assess the impact of climate on living marine resources. *Progress in Oceanography*, 88(1-4), <http://dx.doi.org/10.1016/j.pocean.2010.09.001>.
- Galbraith, E. D., A. Gnanadesikan, **J. P. Dunne**, and M. R. Hiscock, 2010: Regional impacts of iron-light colimitation in a global biogeochemical model. *Biogeosciences*, 7(3), 1043-1064, <http://dx.doi.org/10.5194/bg-7-1043-2010>
- Sarmiento, J. L., N. Gruber, M. Brzezinski, and **J. P. Dunne**, 2004: High-latitude controls of thermocline nutrients and low latitude biological productivity. *Nature*, 427, 56-60, <http://dx.doi.org/10.1038/nature10605> .

(c-ii) 5 Other Significant Publications:

- Rykaczewski, R., and J. P. Dunne, 2010: Enhanced nutrient supply to the California Current Ecosystem with global warming and increased stratification in an earth system model. *Geophysical Research Letters*, 37, L21606, <http://dx.doi.org/10.1029/2010GL045019>.
- Henson, S A., J. L. Sarmiento, **J. P. Dunne**, L. Bopp, I. Lima, S. C. Doney, J. John, and C. Beaulieu, 2010: Detection of anthropogenic climate change in satellite records of ocean chlorophyll and productivity. *Biogeosciences*, 7(2), 621-640, <http://dx.doi.org/10.5194/bg-7-621-2010>.
- Dunne, J. P.**, J. L. Sarmiento, and A. Gnanadesikan, 2007: A Synthesis of global particle export from the surface ocean and cycling through the ocean interior and on the sea floor, *Global Biogeochemical Cycles*, 21, <http://dx.doi.org/10.1029/2006BG002907>.
- Dunne, J. P.**, R. A. Armstrong, A. Gnanadesikan, and J. L. Sarmiento, 2005: Empirical and mechanistic models for the particle export ratio, *Global Biogeochemical Cycles*, 19, <http://dx.doi.org/10.1029/2004GB002390>.

Gnanadesikan, A., **J.P. Dunne**, R.M. Key, K. Matsumoto, J.L. Sarmiento, R.D. Slater and P.S. Swathi, 2004: Oceanic ventilation and biogeochemical cycling: Understanding the physical mechanisms that produce realistic distributions of tracers and productivity, *Global Biogeochemical Cycles*, **18**, <http://dx.doi.org/10.1029/2003GB002097>.

(d) Synergistic Activities:

- Earth system model development at GFDL
- Ocean biogeochemical model development at GFDL
- Participation in Marine Ecosystem Model Intercomparison Project (MAREMIP)
- Participation in development of IPCC AR5 ocean biogeochemical model comparison project
- Participation in NOAA's working group on Ocean Acidification

(e) Collaborators and Other Affiliations

Collaborators and Co-Editors: Adcroft, Alistair (Princeton U.), Ainsworth, Cameron (U. of South Florida), Barker, C. (NOAA ORR), Beaulieu, Claudie (Princeton U.), Bender, Michael (Princeton U.), Bianchi, Daniele (Princeton U.), Bopp, Laurent (Laboratoire des Sciences du Climat et de l'Environnement), Buitenhuis, Erik (U. of East Anglia), Busch, D. S. (NOAA NWFSC), Cassar, Nicolas (Duke U.), Cheung, William (U. of British Columbia), Christensen, Villy (U. of British Columbia), Cooke, William (HPTi), Curchitzer, Enrique (Rutgers U.), Delworth, Thomas (NOAA/GFDL), Doney, Scott (Woods Hole Oceanographic Institute), Donner, Simon (U. of British Columbia), Dunne, Krista (USGS), Eakin, Mark (NOAA NESDIS), Friedrichs, Marjorie (College of William & Mary), Galbraith, Eric (McGill U.), Galt, J (NOAA ORR), Gnanadesikan, Anand (Johns Hopkins U.), Griffes, Stephen (NOAA/GFDL), Hales, Burke (Oregon State U.), Hallberg, Robert (NOAA/GFDL), Haltuch, Melissa (NOAA NWFSC), Hansell, Dennis (U. of Miami), Harrison, Matthew (NOAA/GFDL), Hedin, Lars (Princeton U.), Henson, Stephanie (Southampton U.), Howell, Evan (NOAA PIFSC), Jacobson, Andrew (U. of Colorado-Boulder), John, Jasmin (NOAA/GFDL), Jonsson, Bror (Princeton U.), Kearney, Kelly (Princeton U.), Key, Robert (Princeton U.), Krasting, John (NOAA/GFDL), Kwon, Eun Young (Princeton U.), Levin, Simon (Princeton U.), Levy, Hiram (NOAA/GFDL), Lima, Ivan (Woods Hole Oceanographic Institute), Logan, Cheryl (Princeton U.), Maleshev, Sergey (Princeton U.), McQuatters-Gollop, Abigail (Sir Alistair Hardy Foundation for Ocean Science, Plymouth, UK), Milly, P. Christopher (USGS), Okey, Thomas A. (U. of Victoria), Pauly, Daniel (U. of British Columbia), Payton, D. (NOAA ORR), Peterson, William (NOAA NWFSC), Phillips, Peter (NOAA/GFDL), Polovina, Jeffrey (NOAA PIFSC), Raitzos, Dionysios (Hellenic Centre for Marine Research, Anavissos, Greece), Rodgers, Keith (Princeton U.), Rykaczewski, Ryan (Princeton U.), Saba, Vincent (Princeton U.), Samhuri, J F (NOAA NWFSC), Samuels, Bonita (NOAA/GFDL), Sarmiento, Jorge (Princeton U.), Schwing, Franklin (NOAA SWFSC), Sentman, Lori (NOAA/GFDL), Shevliakova, Elena (Princeton U.), Slater, Richard (Princeton U.), Spelman, Michael (HPTi), Stock, Charles (NOAA/GFDL), Stouffer, Ronald (NOAA/GFDL), Toggweiler, J Robert (NOAA/GFDL), Vecchi, Gabriel (NOAA/GFDL), Ward, Bess (Princeton U.), Werner, Francisco (NOAA SWFSC), Winton, Michael (NOAA/GFDL), Wittenberg, Andrew (NOAA/GFDL), Woodworth, Phoebe (NOAA PIFSC), Zadeh, Niki (HPTi)

Graduate Advisors and Postdoctoral Sponsors: Murray, James (U. of Washington), Devol, Allan (U. of Washington), Emerson, Steven (U. of Washington), Sarmiento, Jorge (Princeton U.)

Thesis Advisor and Postgraduate-Scholar Sponsor: (Total = 5) Brody, Sarah (Duke U.), Kilbourne, Byron (U. of WA), Logan, Cheryl (Prin. U.), Rykaczewski, Ryan (Prin. U.), Stock, Charles (GFDL).