

CURRICULUM VITAE

October 4, 2012

Richard A. Feely

Senior Research Scientist

NOAA/Pacific Marine Environmental Laboratory

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Academic Training

Ph.D., Oceanography, 1974. Texas A&M University, College Station, TX

M.S., Oceanography, 1971. Texas A&M University, College Station, TX

B.A., Chemistry, 1969. University of St. Thomas, St. Paul, MN

Professional Experience

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| Senior Research Scientist, Pacific Marine Environmental Laboratory, NOAA | 2008-present |
| Supervisory Oceanographer, National Oceanic and Atmospheric Administration, Pacific Marine Environmental Laboratory | 1984–2008 |
| Affiliate Full Professor, University of Washington | 2002–present |
| Affiliate Associate Professor, University of Washington | 1986–2002 |
| Affiliate Assistant Professor, University of Washington | 1974–1985 |
| Oceanographer, National Oceanic and Atmospheric Administration, Pacific Marine Environmental Laboratory | 1974–1984 |
| Research Associate, Oceanography, Texas A&M University | 1973–1974 |
| Research Assistant, Oceanography, Texas A&M University | 1969–1973 |

Teaching Experience

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| Chemical Oceanography Laboratory, University of Washington | January 1979 |
| Stable Isotope Geochemistry, University of Washington | January 1976 |
| Introduction to Oceanography, Texas A&M University | June 1973 |

Research Activities

Responsible for development and implementation of chemical oceanographic research studies for several of NOAA's national research programs, including the NOAA Global Carbon Cycle Research Program, the NOAA Climate Observations Program, and the NOAA Ocean Acidification Program.

Responsible for preparing for publication, as author or coauthor, technical reports and scientific papers.

Committees

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| NOAA West Coast Ocean Acidification Task Force | 2010-present |
| IPCC AR5 Working Group I | 2010-present |
| U.S. Interagency Working Group on Ocean Acidification | 2009–present |
| International IMBER-SOLAS Ocean Acidification Group | 2009–present |
| European Ocean Acidification International Scientific Advisory Panel | 2008–present |
| U.S. Carbon and Biogeochemistry Steering Committee | 2006–present |
| PICES Section on Carbon and Climate | 2005–present |
| NSF/NOAA Repeat Hydrography Oversight Committee (Co-Chair) | 2002–present |

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| Joint Institute for the Study of the Oceans and Atmosphere | 1984–present |
| International IMBER-SOLAS Carbon Coordination Group | 2005–2009 |
| U.S. Ocean Carbon and Climate Change Steering Committee | 2004–2009 |
| International CLIVAR Pacific Coordination Panel | 2004–2009 |
| DOE Biological Environmental Studies Program Committee of Visitors | 2004 |
| U.S. CCSP Interagency Ocean Carbon Science Group | 2003–2009 |
| PICES Working Group 17 | 2002–2005 |
| NASA Carbon Cycle Initiative Science Advisory Committee | 2001–2002 |
| North American Carbon Program Advisory Committee | 2001–2002 |
| NSF/NOAA Repeat Hydrography Working Group | 2001–2002 |
| NOAA CO ₂ Measurements Advisory Committee | 2000–2001 |
| NSF/NOAA OCTET Working Group | 1999–2000 |
| PICES Working Group 13 on Carbon in the North Pacific (Co-Chair) | 1998–2002 |
| National Science Foundation, Committee of Visitors | 1998–1999 |
| Science Advisory Panel for Climate Change Data and Detection | 1992–2000 |
| U.S. JGOFS Steering Committee | 1991–1996 |
| DOE CO ₂ Survey Science Team | 1990–1998 |
| NOAA CO ₂ Science Advisory Panel (Co-Chair) | 1990–1997 |
| NOAA VENTS Council | 1987–1991 |
| EPA-WDOE Puget Sound Initiative Technical Advisory Committee | 1985–1987 |
| Scientific Committee on Ocean Research Working Group 75 | 1984–1988 |
| NOAA Quality Assurance Committee, NOAA | 1983–1984 |

Society Memberships

American Association for the Advancement of Science
 American Chemical Society
 American Geophysical Union, Secretary for Marine Geochemistry

Awards

Heinz Family Foundation Environmental Award, Ocean Acidification - 2010
 Nobel Peace Prize (co-shared with Al Gore and other members of IPCC) - 2007
 Explorer Club Lowell Thomas Award - 2007
 Elected American Geophysical Union Fellow - 2007
 Department of Commerce Gold Award - 2006
 NOAA Administrator's Award - 2002
 Special Achievement Award PMEL/NOAA - 1999, 2001, and 2002
 Sustained Superior Performance Award, PMEL/NOAA – 1977, 1982, 1996, 1997
 Special Act/Service Award, PMEL/NOAA - 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, and 2009
 Certificate of Recognition, PMEL/NOAA - 1995
 Performance Award, PMEL/NOAA - 1983, 1984, 1985, 1987, 1988, 1990, 1995, 1996, 1997, 2007, 2008, 2009, and 2010
 Certificate of Recognition, ERL/NOAA - 1982
 Distinguished Authorship Award, PMEL/NOAA - 1980, 1985, 1988, 1989, 1990, 1999, 2000, 2003, 2005, and 2009
 Distinguished Authorship Award, OAR/NOAA - 1980, 1985, 1990, 1999, 2001, 2004, 2006, and 2009
 Unit Citation for Juan de Fuca Report, NOAA - 1979
 Special Achievement Award, ERL/NOAA - 1977

Shipboard Experience

5 cruises in the Gulf of Mexico and Caribbean Sea (120 days at sea).
28 cruises in the North and South Pacific Ocean; 9 cruises as Chief Scientist (660 days at sea).
20 cruises in the estuarine and coastal waters of Washington, Oregon, California, and Alaska; 14
cruises as Chief Scientist (280 days at sea).

Publications in Progress

2012

- Alin, S.R., R.A. Feely, C.L. Sabine, A. Sutton, and others (2012): Puget Sound Marine Waters: 2011 Overview. *PSEMP Working Group*, S. Moore, R. Runcie, K. Stark, J. Newton and K. Dzinbal (Eds.). [Accepted]
- Bednaršek, N., G.A. Tarling, D.C.E. Bakker, S. Fielding, E.M. Jones, H.J. Venables, P. Ward, A. Kuzirian, B. Lézé, R.A. Feely, and E.J. Murphy (2012): Live pteropods are dissolving rapidly in the Southern Ocean. *Nature Geosci.* [In preparation]
- Easley, R.A., M.C. Patsavas, R.H. Byrne, X. Liu, R.A. Feely, and J.T. Mathis (2012): Spectrophotometric measurement of calcium carbonate saturation states in seawater. *Environ. Sci. Tech.* [In preparation]
- Feely, R.A., T. Klinger, J.A. Newton, and M. Chadsey (2012): Scientific Summary of Ocean Acidification in Washington State Marine Waters. NOAA OAR Special Report. [In preparation]
- Hu, X., W.-J. Cai, C.L. Sabine, T.-H. Peng, and R.A. Feely (2012): Sub-decadal changes in anthropogenic CO₂ invasion into the Caribbean Sea (1997–2003). *Global Biogeochem. Cycles.* [Submitted]
- Mathis, J.T., J.N. Cross, R. Foy, N. Monacci, P.J. Stabeno, and R.A. Feely (2012): New insights on the controls and implications of ocean acidification in the eastern Bering Sea from autonomous sensors. *Cont. Shelf Res.* [In preparation]
- Mathis, J.T., W. Evans, C.L. Sabine, L.W. Juranek, D.A. Stockwell, K.L. Shake, T.J. Wiengartner, and R.A. Feely (2012): The physical and biological controls on CO₂ fluxes and carbonate mineral saturation states in the northern Gulf of Alaska. *Cont. Shelf Res.* [In preparation]
- Mathis, J.T., R.A. Feely, S.R. Alin, C.L. Sabine, and D. Greeley (2012): Decadal changes in carbon dioxide and carbonate mineral saturation states in the Indian Ocean. *Global Biogeochem. Cycles.* [In preparation]
- Mathis, J.T., A.J. Sutton, C.L. Sabine, and R.A. Feely (2012): Constraining coastal CO₂ fluxes around the continental United States using moored platforms. *Cont. Shelf Res.* [In preparation]
- Palevsky, H.I., F. Ribalet, J.E. Swalwell, C. Cosca, E.D. Cokelet, E.V. Ambrust, R.A. Feely, and P.D. Quay (2012): The influence of net community production and phytoplankton community structure on CO₂ uptake in the Gulf of Alaska. *Global Biogeochem. Cycles.* [In preparation]
- Pfeil, B., A. Olsen, D.C.E. Bakker, S. Hankin, H. Koyuk, A. Kozyr, J. Malczyk, A. Manke, N. Metzl, C.L. Sabine, J. Akl, S.R. Alin, R.G.J. Bellerby, A. Borges, J. Boutin, P.J. Brown, W.-J. Cai, F.P. Chavez, A. Chen, C. Cosca, A.J. Fassbender, R.A. Feely, M. González-Dávila, C. Goyet, N. Hardman-Mountford, C. Heinze, M. Hood, M. Hoppema, C.W. Hunt, D. Hydes, M. Ishii, T. Johannessen, S.D. Jones, R.M. Key, A. Körtzinger, P. Landschützer, S.K. Lauvset, N. Lefèvre, A. Lenton, A. Lourantou, L. Merlivat, T. Midorikawa, L. Mintrop, C. Miyazaki, A. Murata, A. Nakadate, Y. Nakano, S. Nakaoka, Y. Nojiri, A.M. Omar, X.A. Padin, G.-H. Park, K. Paterson, F.F. Perez, D. Pierrot, A. Poisson, A.F. Ríos, J. Salisbury, J.M. Santana-Casiano, V.V.S.S. Sarma, R.

Schlitzer, B. Schneider, U. Schuster, R. Sieger, I. Skjelvan, T. Steinhoff, T. Suzuki, T. Takahashi, K. Tedesco, M. Telszewski, H. Thomas, B. Tilbrook, J. Tjiputra, D. Vandemark, T. Veness, R. Wanninkhof, A.J. Watson, R. Weiss, C.S. Wong, and H. Yoshikawa-Inoue (2012): A uniform, quality controlled surface ocean CO₂ atlas (SOCAT). *Earth Syst. Sci. Data*. [In review]

Sabine, C.L., S. Hankin, H. Koyuk, D.C.E. Bakker, B. Pfeil, A. Olsen, N. Metzl, A. Kozyr, A. Fassbender, A. Manke, J. Malczyk, J. Akl, S.R. Alin, R.G.J. Bellerby, A. Borges, J. Boutin, P.J. Brown, W.-J. Cai, F.P. Chavez, A. Chen, C. Cosca, R.A. Feely, M. González-Dávila, C. Goyet, N. Hardman-Mountford, C. Heinze, M. Hoppema, C.W. Hunt, D. Hydes, M. Ishii, T. Johannessen, R.M. Key, A. Körtzinger, P. Landschützer, S.K. Lauvset, N. Lefèvre, A. Lenton, A. Lourantou, L. Merlivat, T. Midorikawa, L. Mintrop, C. Miyazaki, A. Murata, A. Nakadate, Y. Nakano, S. Nakaoka, Y. Nojiri, A.M. Omar, X.A. Padin, G.-H. Park, K. Paterson, F.F. Perez, D. Pierrot, A. Poisson, A.F. Ríos, J. Salisbury, J.M. Santana-Casiano, V.V.S.S. Sarma, R. Schlitzer, B. Schneider, U. Schuster, R. Sieger, I. Skjelvan, T. Steinhoff, T. Suzuki, T. Takahashi, K. Tedesco, M. Telszewski, H. Thomas, B. Tilbrook, D. Vandemark, T. Veness, A.J. Watson, R. Weiss, C.S. Wong, and H. Yoshikawa-Inoue (2012): Surface ocean CO₂ atlas (SOCAT) gridded data products. *Earth Syst. Sci. Data*. [In review]

Shamberger, K.E.F., P.S. Drupp, R.A. Feely, C.L. Sabine, R.F. Solomon, E.H. DeCarlo, F.T. Mackenzie, and M.J. Atkinson (2012): Controls on diel and seasonal aragonite saturation state variability in a Hawaiian coral reef ecosystem. *J. Geophys. Res.* [Submitted]

Wanninkhof, R., R. Feely, A. Sutton, C. Sabine, K. Tedesco, N. Gruber, and S. Doney (2012): An integrated ocean carbon observing system (IOCOS). In *Proceedings of the IOOS Summit*, Interagency Ocean Observation Committee (IOOC), Herndon, Virginia, 13-16 November 2012. [Submitted]

Wanninkhof, R., G.-H. Park, T. Takahashi, R.A. Feely, J.L. Bullister, and S.C. Doney (2012): Changes in deep-water CO₂ concentrations over the last several decades determined from discrete pCO₂ measurements. *Deep-Sea Res. I*. [Submitted]

2010

Newton, J.A., A.H. Devol, M.H. Alford, C.L. Sabine, R.A. Feely, S.R. Alin, and B. Hales (2010): NANOOS contributions to understanding ocean acidification in the Pacific Northwest. In *Proceedings of the Oceans 2010 Conference*. [In preparation]

Publications

2012

Alin, S., S. Siedlecki, B. Hales, J. Mathis, W. Evans, M. Stukel, G. Gaxiola-Castro, J.M. Hernandez-Ayon, L. Juranek, M. Goñi, G. Turi, J. Needoba, E. Mayorga, Z. Lachkar, N. Gruber, J. Hartmann, N. Moosdorf, R. Feely, and F. Chavez (2012): Coastal carbon synthesis for the continental shelf of the North American Pacific Coast (NAPC): Preliminary results. *OCB (Ocean Carbon and Biogeochemistry)*.

Alin, S.R., R.A. Feely, A.G. Dickson, J.M. Hernández-Ayón, L.W. Juranek, M.D. Ohman, and R. Goericke (2012): Robust empirical relationships for estimating the carbonate system in the southern California Current System and application to CalCOFI hydrographic cruise data (2005-2011). *J. Geophys. Res.*, 117(C5), C05033, doi: 10.1029/2011JC007511.

Barton, A., B. Hales, G. Waldbusser, C. Langdon, and R.A. Feely (2012): The Pacific oyster, *Crassostrea gigas*, shows negative correlation to naturally elevated carbon dioxide levels: Implications for near-term ocean acidification impacts. *Limnol. Oceanogr.*, 57, doi: 10.4319/lo.2012.57.3.0698, 698–710.

- Feely, R.A., C.L. Sabine, R.H. Byrne, F.J. Millero, A.G. Dickson, R. Wanninkhof, A. Murata, L.A. Miller, and D. Greeley (2012): Decadal changes in the aragonite and calcite saturation state of the Pacific Ocean. *Global Biogeochem. Cycles*, 26, GB3001, doi: 10.1029/2011GB004157.
- Feely, R.A., R. Wanninkhof, J. Stein, M.F. Sigler, E. Jewett, F. Arzayus, D.K. Gledhill, and A.J. Sutton (2012): NOAA Ocean and Great Lakes Acidification Research Plan 2011: Research Plan Highlights. NOAA Ocean Acidification Steering Committee Special Publication.
- Hales, B., P.G. Strutton, M. Saraceno, R. Letelier, T. Takahashi, R. Feely, C. Sabine, and F. Chavez (2012): Satellite-based prediction of pCO₂ in coastal waters of the eastern North Pacific. *Prog. Oceanogr.*, 103, doi: 10.1016/j.pocean.2012.03.001, 1–15.
- Hauri, C., N. Gruber, M. Vogt, S.C. Doney, R.A. Feely, Z. Lachkar, A. Leinweber, A.M.P. McDonnell, M. Munnich, and G.-K. Plattner (2012): Spatiotemporal variability and long-term trends of ocean acidification in the California Current System. Currently in open discussion at <http://www.biogeosciences-discuss.net/9/10371/2012/bgd-9-10371-2012.html>, *Biogeosciences Discussions*, 9, doi: 10.5194/bgd-9-10371-2012, 10371-10428.
- Juranek, L.W., P.D. Quay, R.A. Feely, D. Lockwood, D.M. Karl, and M.J. Church (2012): Biological production in the NE Pacific and its influence on air-sea CO₂ flux: Evidence from dissolved oxygen isotopes and O₂/Ar. *J. Geophys. Res.*, 117(C5), C05022, doi: 10.1029/2011JC007450.
- Massaro, R.F.S., E.H. De Carlo, P.S. Drupp, F.T. Mackenzie, S. Maenner Jones, K.E. Shamberger, C.L. Sabine, and R.A. Feely (2012): Multiple factors driving variability of CO₂ exchange between the ocean and atmosphere in a tropical coral reef environment. *Aquat. Geochem.*, 18(4), doi: 10.1007/s10498-012-9170-7, 357–386.
- Mathis, J.T., R.S. Pickart, R.H. Byrne, C.L. McNeil, G.W.K. Moore, L.W. Juraneck, X. Liu, J. Ma, R.A. Easley, M.M. Elliot, J.N. Cross, S.C. Reisdorph, F. Bahr, J. Morison, T. Lichendorf, and R.A. Feely (2012): Storm-induced upwelling of high pCO₂ waters onto the continental shelf of the western Arctic Ocean and implications for carbonate mineral saturation states. *Geophys. Res. Lett.*, 39(7), L07606, doi: 10.1029/2012GL051574.
- Sabine, C.L., R.A. Feely, R. Wanninkhof, T. Takahashi, S. Khatiwala, and G.-H. Park (2012): The global ocean carbon cycle. In *State of the Climate in 2011*, Global Oceans. *Bull. Am. Meteorol. Soc.*, 93(7), S84–S89.
- Wanninkhof, R., G.-H. Park, T. Takahashi, C. Sweeney, R. Feely, Y. Nojiri, N. Gruber, S.C. Doney, G.A. McKinley, A. Lenton, C. Le Quéré, C. Heinze, J. Schwinger, H. Graven, and S. Khatiwala (2012): Global ocean carbon uptake: Magnitude, variability, and trends. Currently in open discussion at <http://www.biogeosciences-discuss.net/9/10961/2012/bgd-9-10961-2012.html>, *Biogeosciences Discussions*, 9, doi: 10.5194/bgd-9-10961-2012, 10961–11012.

2011

- Borges, A.V., S.R. Alin, F.P. Chavez, P. Vlahos, K.S. Johnson, J.T. Holt, W.M. Balch, N. Bates, R. Brainard, W.-J. Cai, C.T.A. Chen, K. Currie, M. Dai, M. Degrandpre, B. Delille, A. Dickson, W. Evans, R.A. Feely, G.E. Friederich, G.-C. Gong, B. Hales, N. Hardman-Mountford, J. Hendee, J.M. Hernandez-Ayon, M. Hood, E. Huertas, D. Hydes, D. Ianson, E. Krasakopoulou, E. Litt, A. Luchetta, J. Mathis, W.R. McGillis, A. Murata, J. Newton, J. Olafsson, A. Omar, F.F. Perez, C. Sabine, J.E. Salisbury, R. Salm, V.V.S.S. Sarma, B. Schneider, M. Sigler, H. Thomas, D. Turk, D. Vandemark, R. Wanninkhof, and B. Ward (2010): A global sea surface carbon observing system: inorganic and organic carbon dynamics in coastal oceans. In *Proceedings of the "OceanObs'09:*

Sustained Ocean Observations and Information for Society" Conference (Vol. 2), Venice, Italy, 21–25 September 2009, Hall, J., D.E. Harrison, and D. Stammer, Eds., ESA Publication WPP-306, doi: 10.5270/OceanObs09.cwp.07.

- Dugdale, R., F. Chai, R. Feely, C. Measures, A. Parker, and F. Wilkerson (2011): The regulation of equatorial Pacific new production and pCO₂ by silicate-limited diatoms. *Deep-Sea Res. II*, 58(3-4), doi: 10.1016/j.dsr2.2010.08.008, 477–492.
- Emerson, S., C. Sabine, M.F. Cronin, R. Feely, S. Cullison, and M. DeGrandpre (2011): Quantifying the flux of CaCO₃ and organic carbon from the surface ocean using in situ measurements of O₂, N₂, pCO₂ and pH. *Global Biogeochem. Cycles*, 25, GB3008, doi: 10.1029/2010GB003924, 12 pp.
- Fassbender, A.J., C.L. Sabine, R.A. Feely, C. Langdon, and C.W. Mordy (2011): Inorganic carbon dynamics during northern California coastal upwelling. *Cont. Shelf Res.*, 31(11), doi: 10.1016/j.csr.2011.04.006, 1180–1192.
- Feely, R. (2010): Acid and the Arctic Ocean, our chaotic chemistry experiment. *The Circle*, 4, 6-10.
- Feely, R.A., and S.C. Doney (2011): Ocean acidification: The other CO₂ problem. *Limnol. Oceanogr. e-Lectures*, http://aslo.org/lectures/11_005/11_005_rfeely_sdoney.html, doi: 10:4319/lol.2011.rfeely_sdoney.5.
- Feely, R.A., V.J. Fabry, A. Dickson, J.-P. Gattuso, J. Bijma, U. Riebesell, S. Doney, C. Turley, T. Saino, K. Lee, K. Anthony, and J. Kleypas (2010): An international observational network for ocean acidification. In *Proceedings of the "OceanObs'09: Sustained Ocean Observations and Information for Society" Conference (Vol. 2)*, Venice, Italy, 21–25 September 2009, Hall, J., D.E. Harrison, and D. Stammer, Eds., ESA Publication WPP-306, doi: 10.5270/OceanObs09.cwp.29.
- Feely, R.A., R. Wanninkhof, J. Stein, M.F. Sigler, E. Jewett, F. Arzayus, D.K. Gledhill, and A.J. Sutton (2011): NOAA Ocean and Great Lakes Acidification Research Plan 2011. NOAA Special Report, September 2011.
- Gruber, N., A. Körtzinger, C.L. Sabine, M. Hood, M. Ishii, P. Monteiro, R. Wanninkhof, R.A. Feely, Y. Nojiri, A. Kozyr, U. Schuster, D.W.R. Wallace, S.C. Doney, H. Claustre, and A. Borges (2010): Towards an integrated observing system for ocean carbon and biogeochemistry at a time of change. In *Proceedings of the "OceanObs'09: Sustained Ocean Observations and Information for Society" Conference (Vol. 1)*, Venice, Italy, 21–25 September 2009, Hall, J., D.E. Harrison, and D. Stammer, Eds., ESA Publication WPP-306, doi: 10.5270/OceanObs09.pp.18.
- Hunt, Jr., G.L., B.M. Allen, R.P. Angliss, T. Baker, N. Bond, G. Buck, G.V. Byrd, K.O. Coyle, A. Devol, D.M. Eggers, L. Eisner, R.A. Feely, S. Fitzgerald, L.W. Fritz, E.V. Gritsay, C. Ladd, W. Lewis, J. Mathis, C.W. Mordy, F. Mueter, J. Napp, E. Sherr, D. Shull, P. Stabeno, M.A. Stepanenko, S. Strom, and T.E. Whitledge (2010): Status and trends of the Bering Sea region, 2003-2008. In *Marine Ecosystems of the North Pacific Ocean, 2003-2008*, S. M. McKinnell and M. J. Dagg (eds.), PICES Special Publication 4, 196-267.
- Iglesias-Rodriguez, M.D., K.R.N. Anthony, J. Bijma, A.G. Dickson, S.C. Doney, V.J. Fabry, R.A. Feely, J.-P. Gattuso, K. Lee, U. Riebesell, T. Saino, and C. Turley (2010): Towards an integrated global ocean acidification observation network. In *Proceedings of the "OceanObs'09: Sustained Ocean Observations and Information for Society" Conference (Vol. 2)*, Venice, Italy, 21–25 September 2009, Hall, J., D.E. Harrison, and D. Stammer, Eds., ESA Publication WPP-306, doi: 10.5270/OceanObs09.pp.24.

- Jiang, L.-Q., W.-J. Cai, R.A. Feely, Y. Wang, X. Guo, D.K. Gledhill, X. Hu, F. Arzayus, F. Chen, J. Hartmann, and L. Zhang (2010): Carbonate mineral saturation states along the U.S. East Coast. *Limnol. Oceanogr.*, 55(6), doi: 10.4319/lo.2010.55.6.2424, 2424-2432.
- Juranek, L.W., R.A. Feely, D. Gilbert, H. Freeland, and L. Miller (2011): Real-time estimation of pH and aragonite saturation state from Argo profiling floats: Prospects for an autonomous carbon observing strategy. *Geophys. Res. Lett.*, 38, L17603, doi: 10.1029/2011GL048580.
- Kelly, R.P., M.M. Foley, W.S. Fisher, R.A. Feely, G. Waldbusser, and M.R. Caldwell (2011): Mitigating local causes of ocean acidification with existing laws. *Science*, 332(6033), doi: 10.1126/science.1203815, 1036–1037.
- Lee, K., C.L. Sabine, T. Tanhua, T.-W. Kim, R.A. Feely, and H.-C. Kim (2011): Roles of marginal seas in absorbing and storing fossil fuel CO₂. *Energy Environ. Sci.*, 4(4), doi: 10.1039/C0EE00663G, 1133–1146.
- Levine, N.M., S.C. Doney, I. Lima, R. Wanninkhof, N.R. Bates, and R.A. Feely (2011): The impact of the North Atlantic Oscillation on the uptake and accumulation of anthropogenic CO₂ by North Atlantic Ocean mode waters. *Global Biogeochem. Cycles*, 25(3), GB3022, doi: 10.1029/2010GB003892.
- Park, G.-H., R. Wanninkhof, S.C. Doney, T. Takahashi, K. Lee, R.A. Feely, C. Sabine, J. Triñanes, and I. Lima (2010): Variability of global net sea-air CO₂ fluxes over the last three decades using empirical relationships. *Tellus*, 62B(5), doi: 10.1111/j.1600-0889.2010.00498.x, 352–368.
- Robbins, L.L., K.K. Yates, R.A. Feely, and V.J. Fabry (2010): Monitoring and assessment of ocean acidification in the Arctic Ocean: A scoping paper. U.S. Geological Survey, Open-File Report 2010-1227, 4 pp.
- Sabine, C.L., R.A. Feely, R. Wanninkhof, T. Takahashi, S. Khatiwala, and G.-H. Park (2011): The global ocean carbon cycle. In *State of the Climate in 2010*, 3. Global Oceans. *Bull. Am. Meteorol. Soc.*, 92(6), S100–S108, doi:10.1175/1520-0477-92.6.S1.
- Send, U., R. Weller, D. Wallace, F. Chavez, R. Lampitt, T. Dickey, M. Honda, K. Nittis, R. Lukas, M. McPhaden, and R. Feely (2010): OceanSITES. In *Proceedings of the "OceanObs'09: Sustained Ocean Observations and Information for Society" Conference (Vol. 2)*, Venice, Italy, 21–25 September 2009, Hall, J., D.E. Harrison, and D. Stammer, Eds., ESA Publication WPP-306, doi: 10.5270/OceanObs09.cwp.79.

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