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Anderson, Donald

Biology Department, Woods Hole Oceanographic Institution

U.S. Program in Marine Biotoxins and Harmful Algae

Presentations

D.M. Anderson, “Use of molecular probe technologies detection and enumeration of HAB species”, ICES Working Group on HAB Dynamics, Bermuda, March 2002.

D.M. Anderson, “The EU-US Programme on Harmful Algal Blooms: A Joint Initiative by the European Commission – Environment and Sustainable Development Programme and the US National Science Foundation”, Aberdeen, Scotland, April 2003.

D.M. Anderson, “The Expanding Problems of Harmful Algal Blooms”, *International Seminars on Planetary Emergencies*, Erice, Italy, August 2002.

D. M. Anderson, “Coastal Nutrient Pollution and Harmful Algal Blooms”, briefing before the House Science Committee, September 24, 2003.

D. M. Anderson, “GEOHAB Science Plan”, briefing to Ocean Sciences Program at NSF and to NOAA NOS Administrators, Washington, DC.

D. M. Anderson, “ECOHAB Modeling and Forecasting”, briefing to House Science Committee, Washington, DC.

D.M. Anderson. Testimony before the Committee on Science, Subcommittee on Environment, Technology and Standards, U.S. House of Representatives Hearing on the “Harmful Algal Bloom and Hypoxia Research Amendments Act of 2003”.

D.M. Anderson. Testimony before the Subcommittee on Fisheries Conservation, Wildlife and Oceans, U.S. House of Representatives Hearing on H.R. 1856, the Harmful Algal Bloom and Hypoxia Research Amendments Act of 2003, February 26, 2004.

Publications

Anderson, D. M. 2003. The expanding global problem of harmful algal blooms. pp. 372-393, in: Ragaini, R. (ed.), *International Seminar on Nuclear War and Planetary Emergencies*, 27th Session, Erice, Italy, 18-26 August 2002. World Scientific Publishing Co., Pte. Ltd., Singapore.

Anderson, D.M. 2004. Prevention, control and mitigation of harmful algal blooms: Multiple approaches to HAB management, pp. 123-130, in: *Proceedings of the Second International Conference on Harmful Algae Management and Mitigation*, M. Hall, S., Etheridge, S., Anderson, D., Kleindinst, J., Zhu, M., and Zou, Y. (Eds.), Asia-Pacific Economic Cooperation (Singapore): APEC Publication #204-MR-04.2.

- Anderson, D. M. Guest Editor. 2004. Second Symposium on Harmful Marine Algae in the US, Woods Hole, MA, 9-13, December 2003. *Harmful Algae* 3 (3): 1-271.
- Anderson, D.M., P. Andersen, V.M. Bricelj, J.J. Cullen, and J.E. Rensel. 2001. Monitoring and Management Strategies for Harmful Algal Blooms in Coastal Waters. Asia Pacific Economic Program, Singapore, and Intergovernmental Oceanographic Commission, Paris. 268 pp.
- Cammen, L., D.M. Anderson, and Q. Dortch. 2001. Prevention, Control and Mitigation of Harmful Algal Blooms: A Research Plan. Report for Congress, National Sea Grant College Program, National Oceanic and Atmospheric Administration, Silver Spring, MD. 24 pp.
- Hall, S., Etheridge, S., Anderson, D., Kleindinst, J., Zhu, M., and Zou, Y. (Eds.). 2004. *Harmful Algae Management and Mitigation*. Asia-Pacific Economic Cooperation (Singapore): APEC Publication #204-MR-04.2, 255 pp.
- Kleindinst, J. L. and D. M. Anderson. 2003. Communication and networking for harmful algal bloom (HAB) research and monitoring in the U.S. pp. 239-247, in: *Recent Advances in the Prevention and Management of Harmful Algal Blooms in the South China Sea*, Ho, K.C., Lu, S., Yu, T.-S., and Wong, K.-F. (eds.), The Association on Harmful Algal Blooms in the South China Sea, The Open University of Hong Kong, Kowloon, Hong Kong.
- Kleindinst, J.L. and D.M. Anderson. 2004. Internet-based communication tools for dissemination of information on harmful algal blooms (HABs), pp. 97-101, in: *Proceedings of the Second International Conference on Harmful Algae Management and Mitigation*, M. Hall, S., Etheridge, S., Anderson, D., Kleindinst, J., Zhu, M., and Zou, Y. (Eds.), Asia-Pacific Economic Cooperation (Singapore): APEC Publication #204-MR-04.2.
- Ramsdell, J.S., D.M. Anderson and P.M. Glibert (Eds.). 2005. HARRNESS. Harmful Algal Research and Response: A National Environmental Science Strategy 2005-2015. Ecological Society of America, Washington DC, 82 pp. (in press.)

Summary of Interactions with NOAA

The National Office works extensively with the NOS Center for Sponsored Coastal Ocean Research (CSCOR) program in Silver Spring, Maryland at many levels, including communicating to the US HAB community about funding possibilities; coordinating national conferences workshops and symposia; producing assessments and other reports as required by Congress, and so forth. We also work with this program in administering rapid response funds for HAB events throughout the country.

The National Office has been working with the Center for Coastal Environmental Health and Biomolecular Research (CCEHBR), Charleston Laboratory, on a revision of the National Plan, "HARRNESS. *Harmful Algal Research and Response: A National Environmental Science Strategy 2005-2015*".

Baco Taylor, Amy

Post-Doctoral Scholar (2002-2003)

Biology Department, Woods Hole Oceanographic Institution

Submitted Publications:

Baco, A.R. and C.R. Smith. In Press. High biodiversity levels on a deep-sea whale skeleton. *Marine Ecology Progress Series*.

Baco, A.R. and T.M. Shank. Population Genetic Structure of the Hawaiian Precious Coral *Corallium lauense* Using Microsatellites. In prep for special volume *Hydrobiologia*.

Smith C.R. and A.R. Baco. 2003. Ecology of whale falls at the deep-sea floor. *Oceanography and Marine Biology Annual Review* 41: 311-354.

Beardsley, Robert

Physical Oceanography Department, Woods Hole Oceanographic Institution

Analysis of the 1999 Georges Bank Tidal Mixing Front Moored Array Data

Summary of Oral Presentations

Lerczak, J., R. Schlitz, S. Lentz, and R. Beardsley. 2003. Sub-Tidal Circulation at the Tidal Mixing Front: Analysis of the Moored Instrument Array. Presentation at the U.S. Globec Georges Bank Science Meeting. 18-20 November 2003, Rhode Island.

Lerczak, J. A., R. J. Schlitz, R. C. Beardsley. 2003. The seasonally-varying, sub-tidal structure of the tidal mixing front on the southern flank of Georges Bank. *Eos Trans. AGU*, 84(52), Ocean Sci. Meet. Suppl., Abstract OS51J-09.

Lerczak, J. A., R. C. Beardsley, and R. J. Schlitz. 2004. The dynamics and cross-frontal circulation at a tidal mixing front under well-mixed and stratified conditions. *Eos Trans. AGU*, 85(47), Fall Meet. Suppl., Abstract OS33D-04.

Interactions with NOAA

The tidal mixing front mooring array was collected by Dr. Ronald Schlitz (NOAA/NMFS/NEFSC). Data processing, analysis and interpretation were conducted in collaboration with Dr. Schlitz. In addition, this work was presented at the NOAA sponsored U.S. Globec Georges Bank Science Meeting held in November 2003 at the Whispering Pines Conference Center, Rhode Island.

Chu, Dezhang

Applied Ocean Physics and Engineering Department, Woods Hole Oceanographic Institution

Processing and Visualization of Multi-beam Sonar Data

Publications

Foote, K.G., D. Chu, T.R. Hammar, K.C. Baldwin, L.A. Mayer, L. C. Hufnagle, Jr., and M.J. Jech. "Protocols for calibrating multibeam sonar by standard-target method", *J. Acoust. Soc. Am.*, in press.

Hufnagle, L.C. Jr., D. Chu, K.G. Foote, T.R. Hammar, J. M. Jech. Calibrating a 90-kHz multibeam sonar: illustrating protocols. *Proc. MTS/IEEE Oceans' 2004*, Kobe, Japan, pp. 438-442.

Chu D., L.C. Hufnagle, Jr., J.M. Jech, Quantitative acoustic measurements with multibeam sonars (abstract). To be presented at the ICES-Working Group on Fisheries Acoustics Science and Technology, 2005 meeting (WGFAST), April 19-22, Rome, Italy.

Colbo, Keir

Physical Oceanography Department, Woods Hole Oceanographic Institution

Stratus Deck Regions

Publications

Colbo, K. and R. A. Weller 2005a: The variability and heat budget of the upper ocean under the Chile-Peru stratus. *Journal of Marine Research*, submitted.

Colbo, K. and R. A. Weller 2005b: The accuracy of the IMET sensor package. *Journal of Atmospheric and Oceanic Technology*, almost submitted.

Weller, R. A. and K. Colbo 2005: Surface Meteorology and Air-Sea Fluxes Under the Stratus Clouds off Northern Chile. In preparation.

Conference Seminars and Presentations (K. Colbo):

"What Maintains the Cold Ocean off of Peru": VOCALS Science and Implementation Workshop, Corvallis, 2004 (talk)

"Climate Observations from the Peru-Chile Stratus Deck": International CLIVAR Science Conference, Baltimore, 2004 (poster)

"How Accurate are Surface Meteorology Measurements from a Buoy?": International CLIVAR Science Conference, Baltimore, 2004 (poster)

"Observations from the subtropical Pacific Ocean: What sets SST under the clouds?": AGU Ocean Sciences, Portland, 2004 (poster)

"Moored Observations from Under the Stratus Deck": EPIC-PACS meeting, Boulder, 2003 (poster)

Recent Individual Seminars (K. Colbo):

“Upper Ocean variability in the Chile-Peru Stratus”

University of New South Wales @ Australian Defense Force Academy --- March 2005

Woods Hole Oceanographic Institution --- April 2005

“What maintains the cool SST under the Chile-Peru Stratus Deck”

Oregon State University; University of Washington; University of British Columbia; University of Victoria; Institute of Ocean Sciences --- October 2004

Interactions with NOAA

- Attend and present at the NOAA sponsored EPIC/PACS meeting, Boulder 2003
- Attend and present at the NOAA sponsored VOCALS Planning Meeting, Corvallis, 2004
- Discussions with NOAA scientists outside of NOAA sponsored meetings, including: Meghan Cronin, Mike McPhaden, Gregory Johnson, and Chris Fairall.

Farrar, J. Thomas

Joint Program Student (2002 – present)

Physical Oceanography Department, Woods Hole Oceanographic Institution

Publications

Farrar, J. T., 2003. The evolution of upper ocean thermal structure at 10°N, 125°W during 1997-1998. Master's Thesis, MIT-WHOI Joint Program in Physical Oceanography, Massachusetts Institute of Technology, Cambridge, MA, 191 pages.

Farrar, J.T. and Weller, R.A. 2003. The Evolution of Upper Ocean Thermal Structure at 10°N, 125°W During 1997-98. U.S. CLIVAR EPIC2001/Pan American Workshop, Boulder, CO.

Farrar, J.T. and Weller, R.A. 2004a. The Evolution of Upper Ocean Thermal Structure at 10°N, 125°W During 1997-98. *Eos Trans. AGU*, 84(52), Ocean Sci. Meet. Suppl., Abstract OS22E-12.

Farrar, J.T., Weller, R.A., and Huang, K. Comparison of NWP Model/Reanalysis Air-Sea Fluxes of Heat and Momentum to in situ Observations at several sites in the Tropical Pacific. 1st International CLIVAR Science Conference. Baltimore, MD. 2004.

Farrar, J.T. and Weller, R.A. 2004. Intraseasonal variability near 10°N in the eastern tropical Pacific Ocean. Manuscript submitted to *J. Geophys. Res.*

NOAA “In the Spotlight” features:

- CTIC: http://www.oar.noaa.gov/spotlite/archive/spot_pacs.html
- TAS: http://www.oar.noaa.gov/spotlite/archive/spot_tas.html

- STRATUS: http://www.oar.noaa.gov/spotlite/archive/spot_stratus.html

Giosan, Liviu

Post-Doctoral Scholar (2001-2002)

Geology and Geophysics Department, Woods Hole Oceanographic Institution

References

- Giosan, L., Flood, R.D., Grützner, J., Franz, S.-O., Poli, M.-S., Hagen, S., 2001. High-resolution carbonate content estimated from diffuse spectral reflectance for Leg 172 sites. In: Keigwin, L.D., Rio, D., Acton, G.D., Arnold, E. (Eds.), Proc. ODP Sci. Results 172.
- Giosan, L., Flood, R.D., Aller, R., 2002a. Paleooceanographic significance of sediment color on western North Atlantic drifts: I. Origin of color. Mar. Geol.
- Giosan, L., Flood, R.D., Aller, R., 2002b. Paleooceanographic significance of sediment color on western North Atlantic drifts: II. Late Pliocene-Pleistocene sedimentation. Mar. Geol.
- Grützner et al., 2002. Grützner, J., Giosan, L., Franz, S.-O., Tiedemann, R., Cortijo, E., Chaisson, W.P., Flood, R.D., Hagen, S., Keigwin, L.D., Poli, M.-S., Rio, D., Williams, T., 2002. Astronomical age models for Pleistocene drift sediments from the western North Atlantic (ODP sites 1055 to 1063). Mar. Geol.
- Flood, R.D., Giosan, L., 2002. Migration History of an Abyssal Mud Wave on the Bahama Outer Ridge. Mar. Geol.
- Bhattacharya J. and Giosan, L., in revision. Geomorphology of wave influenced deltas: Implications for facies interpretation, Sedimentology,
- Giosan, L., Vespremeanu, E., Buonaiuto, F., in preparation. Wave-influenced asymmetrical deltas: The typical example of Danube's St. George Lobe

Goetz, Scott

Woods Hole Research Center

Carbon Dynamics of North American Boreal Forest Regrowth Using AVHRR

Publications

- Fiske G., Goetz S. J. & Bunn A. (submitted). Using satellite time series data sets to analyze fire disturbance and recovery in the Canadian boreal forest. *Journal of Geophysical Research - Biogeosciences*.
- Goetz S. J., Steinberg D., Fiske G. & Houghton R. A. (submitted) Satellite observed photosynthetic trends across boreal North America associated with climate and fire disturbance. *Science*.

Hyer, E., and S. J. Goetz. 2004. Comparison and sensitivity analysis of instruments and radiometric methods for LAI estimation: assessments from a boreal forest site. *Agricultural and Forest Meteorology* 122 (3/4):157-174.

Kasischke, E. S., S. J. Goetz, M. Hansen, M. Ozdogan, J. Rogan, S. L. Ustin, and C. E. Woodcock. 2004. Temperate and Boreal Forests. Pages 147-238 in S. L. Ustin, editor. *Remote Sensing for Natural Resource Management and Environmental Monitoring*. co-published by John Wiley & Sons and American Society of Photogrammetry and Remote Sensing, Hoboken, NJ.

Steinberg D. C., Goetz S. J. & Hyer E. (in press) Validation of MODIS Fpar products in boreal forests of Alaska. *IEEE Transactions on Geoscience and Remote Sensing*.

Presentations

Remote Sensing and Modeling of Boreal Forest Regrowth Dynamics (May 2004), IBFRA Conference - Climate-Disturbance Interactions in Boreal Forest Ecosystems, Fairbanks, Alaska.

Mapping and Monitoring Boreal Forest Regrowth Dynamics using Satellite Data Products (Dec 2004), AGU Fall Conference, San Francisco.

He, Ruoying

Post-Doctoral Scholar (2003-2004)

Applied Ocean Physics and Engineering Department, Woods Hole Oceanographic Institution

Journal Publication

He, R., D. J. McGillicuddy, K. W. Smith, D. R. Lynch, C. A. Stock, and J. P. Manning, 2004, Adjoint data assimilation model hindcast of the Gulf of Maine coastal circulation and material transport. *To be submitted*

He, R., Y. Liu and R. H. Weisberg (2004), Coastal ocean wind fields gauged against the performance of an ocean circulation model. *Geophysical Research Letters*, Vol. 31, 14, 14303, doi:10.1029/2003GL019261

Weisberg, R. H., **R. He**, G. Kirkpatrick, F. Muller-Karger, J. J. Walsh (2004), Coastal Ocean Circulation influences on remotely sensed optical properties. *Oceanography*, 17, 68-75

Book Chapter

Weisberg, R. H., **R. He**, Y. Liu, and J. Virmani (2004), West Florida shelf circulation on synoptic, seasonal and inter-annual time scales, *Physical Oceanography in the Gulf of Mexico, in review*

Seminar and Presentation

He, R., Shelf and deep ocean interactions, Case studies on the West Florida Shelf. WHOI. December 9, 2003

He, R., Shelf and deep ocean interactions, Case studies on the West Florida Shelf. Marine Science Department, University of Connecticut, February 26, 2004

He, R., Observation and Data Assimilative Model Hindcast of the Coastal Circulation in the Gulf of Maine. Regional Associate for Research on the Gulf of Maine, July 15, 2004

He, R., Understanding and quantifying the deep ocean influence on the coastal ocean, WHOI, July 27, 2004

Research Proposal

Coastal Water Connectivity and Material Transport; PI: **R. He**, submitted to *NSF OCE* 2004 August Panel Review

Hosom, David

Physical Oceanography Department, Woods Hole Oceanographic Institution

Implementation of One High Density XBT Line with TSG and IMET Instrumentation in the Tropical Atlantic

Conferences and meetings.

The Climate Observation Program Workshop in Silver spring, MD was attended by Dr. Robert Weller, Mr. Frank Bahr and Mr. Dave Hosom. The data conference was attended by Mr. Frank Bahr and Mr. Dave Hosom.

Huang, Rui Xin

Thermohaline Circulation in the Atlantic and Its Variability under the Energy Constraint

Publications

Decadal Variability of Pycnocline Flows from the Subtropical to the Equatorial Pacific”, by Qi Wang and Rui Xin Huang, manuscript submitted to *J. Phys. Oceanogr.*, in the process of being reviewed.

The Meridional Overturning Circulation in an Air-Sea Coupled 4-box Model,” manuscript will be submitted to *J. Phys. Oceanography*. In this study we have found that an ocean-atmosphere coupled model under the energy constraint is much less sensitive to climate variability.

Jennings, Robert

CICOR Joint Program Student, (1999 - present)

Biology Department, Woods Hole Oceanographic Institution

Publications

Jennings, R.M., and K.M. Halanych. Mitochondrial Genomes of *Chlymenella torquata* (Maldanidae) and *Riftia pachyptila* (Siboglinidae): Evidence for Conserved Gene Order in Annelida. submitted to Molecular Biology and Evolution June 2004.

Jennings, R.M., and K.M. Halanych. "Population Genetics of the Annelid *Chlymenella torquata*: The imprint of recent glacial history, the effect of Cape Cod and its Canal on local dispersal, and implications for local population biology and management." Presented at the CICOR Board of Directors meeting, May 2004.

Jin, Di

Marine Policy Center, Woods Hole Oceanographic Institution

An Analysis of Fishing Vessel Accidents in Fishing Areas off the Northeastern United States

Publications

Jin, D. and E. Thunberg. 2005. An analysis of fishing vessel accidents in fishing areas off the northeastern United States. Safety Science, in press.

Interaction with NOAA

This is a collaborative research between the WHOI Marine Policy Center (MPC) and the NMFS Northeast Fisheries Science Center. Di Jin of MPC worked closely with Dr. Eric Thunberg of the Social Sciences Branch at the Northeast Fisheries Science Center (Woods Hole) throughout the project.

An Analysis of the Relationship between Fish Harvesting and Processing Sectors

Publication

Jin, D., P. Hoagland and E. Thunberg. 2004. An analysis of the relationship between fish harvesting and processing sectors in New England. *Marine Resource Economics*, Submitted.

Interaction with NOAA

This is a collaborative research between the WHOI Marine Policy Center (MPC) and the NMFS Northeast Fisheries Science Center. Di Jin and Porter Hoagland of MPC worked closely with Dr. Eric Thunberg of the Social Sciences Branch at the Northeast Fisheries Science Center (Woods Hole) throughout the project.

Johnson, Mark

Applied Ocean Physics and Engineering Department, Woods Hole Oceanographic Institution

Sperm Whales in the North Atlantic - DTAG Effort

Publications

A paper describing the coda results is currently in preparation by S. Watwood.

Publications and presentations drawing on this work:

Miller P.J.O., Johnson M., Tyack P.L., "Sperm whale behaviour is consistent with use of rapid echolocation click buzzes "creaks" in prey capture", Proc. Royal Soc, in press.

Tyack P.L., Johnson M., Madsen P.T., "Echolocation in wild toothed whales", 147th meeting Ac. Soc. Am., NY, May, 2004.

Miller P.J.O., Johnson M.P., Tyack P.L., Terray E.A., "Swimming gaits, passive drag, and buoyancy of diving sperm whales (*Physeter macrocephalus*)", J Exp Biol., 207(Pt 11):1953-1967. May, 2004.

Miller, P.J.O., Johnson, M., Tyack, P.L., Terray E.A., "Swimming gaits, passive drag, and buoyancy of diving sperm whales (*Physeter Macrocephalus*)", European Research on Cetaceans 18th, Sweden, 2004.

Madsen, P.T., Johnson, M., Tyack, P., "Biomechanics and dynamics of the sperm whale sound generator with implications for foraging", European Research on Cetaceans 18th, Sweden, 2004.

MacDonald, Allison

Physical Oceanography Department, Woods Hole Oceanographic Institution

Variations in Oceanic CO₂ Concentration, Transport and Divergence in the Atlantic

Publications and presentations

Hansell. D. A., H. W. Ducklow , A. M. Macdonald and M. O'Neil Baringer, 2004, Metabolic poise in the North Atlantic Ocean diagnosed from organic matter transports, *Limnology and Oceanography*, **49**, 1084–1094.

Macdonald A. M., M. O'Neil Baringer, R. Wanninkhof, K. Lee and D. W. R. Wallace, 2003, A 1998–1992 comparison of inorganic carbon and its transport across 24.5°N in the Atlantic. *Deep Sea Research II*, **50**, 3041–3064.

Macdonald, A. M., North Atlantic CO₂ transport and divergence, Invited talk, EGU Meeting, Nice, France, 2004.

Also presented at the Cooperative Institute for Climate and Ocean Research (CICOR) Executive Board Meeting, WHOI, May, 2004.

Extended version given at the Wednesday PO lunch seminar in October 2004.

Macdonald, A. M., Oceanic CO₂ Transport, Divergence and Air/Sea Exchange in the North Atlantic, 2nd Annual CARINA general meeting and open science conference, 2003. Also presented at the NSF NACP PI Meeting, May 2003.

Macdonald, A. M., M. O'Neil Baringer, D. W. R. Wallace and R. Wanninkhof, Carbon Transport at 24.5°N in the Atlantic, Presented by R. Wanninkhof at the CIMAS external review, 2003.

Macdonald, A. M., CO₂ transport and divergence in the North Atlantic, Seminar at AOML in Miami, March 2005.

Summary of Interaction with NOAA:

Most of my interaction with NOAA has been through AOML, first as a CIMAS post-doc (1999-2002) with R. Wanninkhof and M. O'Neil Baringer analyzing data from 24.5°N in the Atlantic, and later as collaborator with them on the Atlantic box-model inversion project. My most recent collaboration includes co-principle investigator T.-H. Peng (also of AOML) with whom I have been working on ¹⁴C investigation. K. Tedesco has been my program manager for both these projects. I am also in contact with G. Johnson of PMEL concerning a related NSF funded Pacific inversion of which I have been a part and which will be used in our study of ¹⁴C.

McGillis, Wade

Applied Ocean Physics and Engineering Department, Woods Hole Oceanographic Institution

SOLAS Summer School

Publication on Gas Exchange Lesson Produced: First International SOLAS School: Air-Sea Gas Exchange Practical Workshop, edited by C. J. Zappa, B. Ward, D. T. Ho, R. Wanninkhof and W. R. McGillis, 2003.

Owens, Brechner

Physical Oceanography Department, Woods Hole Oceanographic Institution

ARGO Float Program

Publication

Lavender, K. L., W. B. Owens, and R. E. Davis, 2003. The Mid-depth Circulation of the Subpolar North Atlantic Ocean as Measured by Subsurface Floats, Deep-Sea Research, (accepted).

Plueddemann, Albert J.

Physical Oceanography Department, Woods Hole Oceanographic Institution

Northwest Tropical Atlantic Station for Flux Measurement (NTAS)

Presentations and Publications

- Goldsmith, R.A. and A.J. Plueddemann, 2002. Moored buoy site evaluations, *Marine Geography*, J. Breman, Ed., ESRI Press, pp 73-77.
- Plueddemann, A., 2004, Multi-year, in-situ surface fluxes in the northwest tropical Atlantic, *First International CLIVAR Science Conf.*, 21-25 June 2004, Baltimore, MD (poster).
- Plueddemann, A., 2003, In-situ meteorology from the Northwest Tropical Atlantic Station, *Proc. U.S. CLIVAR Atlantic Conf.*, Wash, DC, pp 9-13.
- Plueddemann, A.J., 2003. In-situ meteorology and air-sea fluxes in the Northwest Tropical Atlantic, *NOAA Climate Observation Program Workshop*, Silver Spring, MD (poster).
- Plueddemann, A.J., 2003. In-situ meteorology and air-sea fluxes in the Northwest Tropical Atlantic, *NOAA Climate Observation Program Workshop Report*, 13-15 May 2003, Silver Spring, MD.
- Plueddemann, A.J., N.R. Galbraith, W.M. Ostrom, G.H. Tupper, R.E Handy, and J.M. Dunn, 2001. The Northwest Tropical Atlantic Station (NTAS): NTAS-1 Mooring Turnaround Cruise Report. *WHOI Tech. Rept. WHOI-2001-07*, 55 pp.
- Plueddemann, A.J., W.M. Ostrom, N.R. Galbraith, J.C. Smith, J.R. Ryder, J.J. Holley and M.A. Walsh, 2003. The Northwest Tropical Atlantic Station (NTAS): NTAS-3 Mooring Turnaround Cruise Report, *WHOI Tech. Rept. WHOI-2003-04*, 69 pp.
- Plueddemann, A.J., W.M. Ostrom, N.R. Galbraith, P.R. Bouchard, G.H. Tupper, J.M. Dunn and M.A. Walsh, 2002. The Northwest Tropical Atlantic Station (NTAS): NTAS-2 Mooring Turnaround Cruise Report, *WHOI Tech. Rept. WHOI-2002-07*, 68pp.
- Plueddemann, A.J. and R.A. Weller, 2005. Meteorology and air-sea fluxes from ocean reference stations, *NOAA Office of Climate Observation Workshop*, 25-27 April 2005, Silver Spring, MD (talk).
- Plueddemann, A.J. and R.A. Weller, 2004. Meteorology and air-sea fluxes from ocean reference stations, *NOAA Office of Climate Observation Workshop*, 12-14 April 2004, Silver Spring, MD (poster).
- Weller, R, A. Plueddemann, D. Hosom, R. Payne, J. Smith F. Bahr and F. Bradley, 2003. The quality of surface meteorology from unattended buoys and volunteer observing ships, *CLIMAR-II Workshop on Advances in Marine Meteorology*, Brussels, Belgium, 17-22 November 2003 (poster).
- Weller, R, L. Yu, A. Plueddemann, D. Hosom, and S. Sathiyamoorthy, 2003. Synthesis of basin-scale air-sea flux fields, *CLIMAR-II Workshop on Advances in Marine Meteorology*, Brussels, Belgium, 17-22 November 2003 (poster).

Weller, R, A. Plueddemann, L. Yu and D. Hosom, 2003. Ocean Reference Stations, *ORION Workshop*, 4-8 January 2004, San Juan Puerto Rico (poster).

WHOI Hawaii Ocean Timeseries Site (WHOTS)

Presentations and Publications

Plueddemann, A.J. and R.A. Weller, 2005. Meteorology and air-sea fluxes from ocean reference stations, *NOAA Office of Climate Observation Workshop*, 25-27 April 2005, Silver Spring, MD (talk).

Plueddemann, A.J. and R.A. Weller, 2004. Meteorology and air-sea fluxes from ocean reference stations, *NOAA Office of Climate Observation Workshop*, 12-14 April 2004, Silver Spring, MD (poster).

Outreach Activity for A. Plueddemann

Interactions with NOAA

Office of Climate Observations: Presentations at Annual System reviews, 2003–2005.

Atlantic Oceanographic and Meteorological Laboratory: Discussions with Dr. M. Baringer, Physical Oceanography Research Division, regarding Atlantic VOS/XBT lines.

Environmental Technology Laboratory: Cooperation with Dr. C. Fariall, Clouds, Radiation, and Surface Processes Division, on field intercomparisons of meteorological data and determination of sensor accuracy.

National Data Buoy Center: Cooperation with Dr. D. Conlee on deployment of radiation sensors on NDBC buoys; ongoing discussions about passing Atlantic ORS data to NHC/TPC.

National Hurricane Center – Tropical Prediction Center: Discussions with Eric Blake, Tropical Analysis and Forecast Branch, about making Atlantic ORS data available.

Education and Outreach Activities (2001-2005)

Member, WHOI Advisory Committee on Computing: 1997-2001

Associate Editor, *Reviews of Geophysics* 1997-2001

Associate Editor, *Journal of Atmospheric and Oceanic Technology* 1999-2002

Guest Editor, *IEEE Journal of Oceanic Engineering* 2001

Member, NSF Physical Oceanography review panel, November 2002

Advisor, Summer Fellow Aaron Donohoe 2002

Sponsor/Advisor, Guest Student Andrea Taschetto 2002

Guest lecturer on Air-Sea Fluxes in “Introduction to Physical Oceanography” class, 2002-2004

Co-Advisor (with W. Jenkins), Postdoc Burkard Baschek 2003-2005

Core-Team member, WHOI Messaging and Website Strategy Project 2003

Member, NE-COSEE Science Advisory Group 2004 –

Participant, Ocean Literacy Online Workshop 2004–2005
Participant, Roundtable Discussion on Ocean Exploration, U-Mass Dartmouth, January 2004
Participant, NE-COSEE Telling Your Story Workshop, January 2004
Presenter, U.S. ambassador to Barbados visit to NOAA ship Ronald H Brown (resulting article in Barbados Advocate newspaper, March 2005)

Reviewer: Journal of Physical Oceanography, Journal of Geophysical Research, Deep-Sea Research, Journal of Marine Research, Limnology and Oceanography, Geophysical Research Letters, Reviews of Geophysics, Journal of Atmospheric and Oceanic Technology, IEEE Journal of Oceanic Engineering, Nature.

Proshutinsky, Andrey

Applied Ocean Physics and Engineering Department, Woods Hole Oceanographic Institution

Variability of Thermohaline Circulation and Freshwater Storage in the Arctic Ocean

Papers

Proshutinsky, A.Y. , R.H. Bourke, F. McLaughlin The role of the Beaufort Gyre in the Arctic climate variability: seasonal to decadal climate scales, *Geophys. Res. Lett.*, 29(23), 2100, doi:10.1029/2002GL015847, 2002. This paper was prepared earlier but was **published** in December 2002.

Proshutinsky, A. , Circulation of the Arctic Ocean from observations and model results, In: Arctic environment variability in the context of global change, Kondratyev, K. Y., O.M. Johannessen, L.P. Bobylev, (eds). **accepted** for publication by Praxis publishing house (Great Britain), March, 2003

Hakkinen, S., A. Proshutinsky, Heat and salt content variability in the Arctic Ocean, *JGR* (**accepted**)

Steiner, N., G. Holloway, S. Hakkinen, D. Holland, M. Karcher, W. Maslowski, A. Proshutinsky, M. Steele, J. Zhang, Comparing modeled streamfunction, heat and freshwater content in the Arctic Ocean, Elsevier Science, *Ocean Modelling*, 2003. (**accepted**)

Proshutinsky, A., Decadal scale signals in the Arctic's atmospheric and oceanic systems, Seventh Conference on Polar Meteorology and Oceanography and Joint Symposium on High-Latitude Climate Variations, Hyannis, May, 2003, **Abstract**.

Petteri Uotila, David M. Holland, Sirpa Häkkinen, Greg Holloway, Nadja Steiner, Michael Steele, Jinlun Zhang, and Andrey Proshutinsky, An Energy-Diagnostics Intercomparison of Coupled Ice-Ocean Arctic Models, Seventh Conference on Polar Meteorology and Oceanography and Joint Symposium on High-Latitude Climate Variations, Hyannis, May, 2003, **Abstract**.

Hakkinen, S., A. Proshutinsky, Heat and salt content variability in the Arctic Ocean, EGS meeting, April 2003, Nice, France, **abstract**.

Dukhovskoy, D., M. Johnson, and A. Proshutinsky, Model Studies of Fresh Water Fluxes in the Arctic Ocean, 2002 Fall Meeting, **abstract**.

Talks

“Freshwater accumulation and release mechanism and role of the Beaufort Gyre in the Arctic Climate Variability”, First International PARTNERS Workshop “Pan-Arctic River Transport of nutrients, Organic Matter, and Suspended Sediments”, 24-26 February 2003, Marine Biological Laboratory, Woods Hole, MA, USA (**invited**).

“Decadal scale signals in the Arctic's atmospheric and oceanic systems”, American Meteorological Society 7th Polar Conference on Polar Meteorology and Oceanography, May 12-16, 2003, Hyannis (**invited**).

"The role of the Beaufort Gyre in the Arctic climate variability: seasonal to decadal climate scales". Chapman Conference on High-Latitude Ocean Processes, 26-29 August 2002 (**invited**).

University of New Hampshire Chapman seminar: “Sources and sinks of freshwater in the Arctic Ocean”, February 20-21, 2003, Durham, New Hampshire (**Invited**)

References

Hakkinen, S., A. Proshutinsky, Heat and salt content variability in the Arctic Ocean, JGR (accepted)

Proshutinsky, A. Y. and M. A. Johnson, Two circulation regimes of the wind-driven Arctic Ocean, *J. Geophys. Res.*, **102**, 12,493-12,514, 1997.

Proshutinsky, A.Y. , R.H. Bourke, F. McLaughlin The role of the Beaufort Gyre in the Arctic climate variability: seasonal to decadal climate scales, *Geophys. Res. Lett.*, 29(23), 2100, doi:10.1029/2002GL015847, 2002.

Sloyan, Bernadette, M.

Applied Ocean Physics and Engineering Department, Woods Hole Oceanographic Institution

Sources of the Cold Tongue in the Eastern Tropical Pacific Ocean

Publications and Presentations

Chelton, D. B., M. G. Schlax, J. M. Lyman, and G. C. Johnson. 2003. Equatorially trapped Rossby waves in the presence of meridionally sheared baroclinic flow in the Pacific Ocean. *Progress in Oceanography*, 56, 323-380.

- Cronin, M. F. and W. S. Kessler. 2002. Near surface conditions at 0°,110°W during the onset of the 1997-98 El Nino. *Deep-Sea Research I*, 49, 1-17.
- Godfrey, J. S., G. C. Johnson, M. J. McPhaden, G. Reverdin, and S. Wijffels. 2001. The Tropical Ocean Circulation. In: *Ocean Circulation and Climate - Observing and Modelling the Global Ocean*, G. Siedler, J. Church and J. Gould, eds., Academic Press, London, 715 pp.
- Johnson, G. C. 2001. The Pacific Ocean subtropical cell surface limb. *Geophysical Research Letters*, 28, 1771-1774.
- Johnson, G. C., E. Kunze, K. E. McTaggart, and D. W. Moore. 2002a. Temporal and spatial structure of the Equatorial Deep Jets in the Pacific Ocean. *Journal of Physical Oceanography*, 32, 3396-3407.
- Johnson, G. C., M. J. McPhaden, and E. Firing. 2001. Equatorial Pacific Ocean horizontal velocity, divergence, and upwelling. *Journal of Physical Oceanography*, 31, 839-849.
- Johnson, G. C., B. M. Sloyan, W. S. Kessler, and K. E. McTaggart. 2002b. Direct measurements of upper ocean currents and water properties across the tropical Pacific during the 1990s. *Progress in Oceanography*, 52, 31-61.
- Kelly, K. A., S. Dickinson, M. J. McPhaden, and G. C. Johnson. 2001. Ocean currents evident in satellite wind data. *Geophysical Research Letters*, 28, 2469-2472.
- Kessler, W. S. 2002. Mean three-dimensional circulation in the northeast tropical Pacific. *Journal of Physical Oceanography*, 32, 2457-2471.
- Kessler, W.S. 2003. Circulation of the eastern tropical Pacific: A review. *Progress in Oceanography*, in preparation.
- Kessler, W. S., G. C. Johnson, and D. W. Moore. 2003. Sverdrup and nonlinear dynamics of the Pacific South Equatorial Current. *Journal of Physical Oceanography*, 33, 994-1008.
- Losch, M., B. M. Sloyan, J. Schroeter, and N. Sneeuw. 2002. Box inverse models, altimetry and the geoid: Problems with the omission error. *Journal of Geophysical Research*, 107(C2), 10.1029/2001JC00085.
- Meinen, C. S., M. J. McPhaden, and G. C. Johnson. 2001. Vertical velocities and transports in the equatorial Pacific during 1993-1999. *Journal of Physical Oceanography*, 31, 3230- 3248.
- Molinari, R. L., S. Bauer, D. Snowden, G. C. Johnson, B. Bourles, Y. Gouriou, H. Mercier, and F. Schott. 2003. Kinematic evidence for tropical cells in the Atlantic Ocean, For: *Interhemispheric Water Exchange in the Atlantic Ocean*, G. Goni and P. Malanotte-Rizzoli, eds., Elsevier, in press.
- Sloyan, B. M., G. C. Johnson, and W. S. Kessler. 2005. Modulation of Equatorial Pacific Circulation through a 1990's composite El Nino-Southern Oscillation cycle. *Journal of Physical Oceanography*, under revision.

Sloyan, B. M., G. C. Johnson, and W. S. Kessler. 2003. The Pacific Cold Tongue: A pathway for interhemispheric exchange. *Journal of Physical Oceanography*, 32, 1027-1043.

Sloyan, B. M. and J. Schroeter. 2001. Correlation of ocean mass and temperature fluxes among hydrographic sections in the southern oceans. *Geophysical Research Letters*, 28, 2049-2052.

Presentations

Dr. Sloyan has presented seminars on the work supported by this grant at the University of Washington, Florida State University, Scripps Institute of Oceanography and Woods Hole Oceanographic Institution. She also presented posters at the CLIVAR Workshop on Shallow Tropical/Subtropical Overturning Cells (STC) and their interaction with the atmosphere, Venice and WOCE/JGFOS Ocean Transport meeting, Southampton UK.

Dr. Johnson has presented seminars on this work at the University of Washington, the Goddard Space Flight Center, the Woods Hole Oceanographic Institution, and Oregon State University. He has presented posters and/or given talks at the CLIVAR Workshop on Shallow Tropical/Subtropical Overturning Cells (STC) and their interaction with the atmosphere in Venice, the WOCE/JGFOS Ocean Transport meeting in Southampton, the AGU/ASLO Ocean Sciences Meeting, and the WOCE and Beyond Conference in San Antonio.

Dr. Kessler has presented seminars on this work at University of Washington, Scripps Institute of Oceanography, Oregon State University, NCAR, Lamont-Doherty Earth Observatory of Columbia University, Flinders University of South Australia, CSIRO Division of Marine Research, Australia, Woods Hole Oceanographic Institution, CICESE, KNMI, the University of Hawaii, the AGU Fall Meeting, and the EGS Joint Assembly in Nice.

Smith, Shawn R.

Center for Ocean-Atmospheric Prediction Studies (COAPS), Florida State University

U.S. Research Vessel Surface Meteorology Data Assembly Center

Refereed publications

Smith, S. R., 2004a: Focusing on improving automated meteorological observations from ships. *EOS, Trans Amer. Geophys. Union*, 85, 319.

Technical reports

Smith, S. R., 2005: *Shipboard Automated Meteorological and Oceanographic System (SAMOS) Initiative*. Report for 3rd session of the JCOMM Ship Observation Team meeting, 7-12 March 2005, IFREMER, Brest, France, 7pp., submitted.

Smith, S. R., 2004: *GSOP report on Ocean Observations: Surface Meteorology from Research Vessels*. CLIVAR Global Synthesis and Observation Panel Meeting, Boulder, 7pp., in press.

Rolph, J. J., and S. R. Smith, 2004: *Ron Brown IMET data quality control report: September – November 2003*. RVSMDC report 04-01, Center for Ocean-Atmospheric Prediction Studies, Florida State University, Tallahassee, Florida, 32306-2840, USA, 10 pp.

Rolph, J. J., and S. R. Smith, 2004: *Polarstern AWS data quality control report: May 2003 – June 2004*. RVSMDC report 04-02, Center for Ocean-Atmospheric Prediction Studies, Florida State University, Tallahassee, Florida, 32306-2840, USA, 24 pp.

Smith, S. R., 2004b: *Report from the 2nd Workshop on High Resolution Marine Meteorology*, COAPS Report 04-01, Center for Ocean-Atmospheric Prediction Studies, Florida State University, Tallahassee, Florida, 32306-2840, USA, 31 pp.

Conference proceedings/presentations

Bourassa, M. A., and S. R. Smith, 2004: Applications for Fine Resolution Marine Observations. 2nd *High Resolution Marine Meteorology Workshop*, April, Silver Springs, MD.

Smith, S. R., 2005: Shipboard Automated Meteorological and Oceanographic System Initiative. Abstracts from *NOAA Office of Climate Observation 3rd Annual System Review*, Silver Spring, MD, submitted.

Smith, S. R., E. C. Kent, and S. K. Cook, 2005: Shipboard Automated Meteorological and Oceanographic System (SAMOS) Initiative. Abstracts from 3rd *session of the JCOMM Ship Observation Team*, Brest, France, submitted.

Smith, S. R., 2005: Shipboard Automated Meteorological and Oceanographic Systems: A Key Component of an Ocean Observing System. Preprints from 9th *Symposium on Integrated Observing and Assimilation Systems of Atmosphere, Oceans, and Land Surfaces*, San Diego, CA, Amer. Meteor. Soc., CD-ROM.

Smith, S. R., 2004: The Shipboard Automated Meteorological and Oceanographic Systems (SAMOS) Initiative. Presentations at the 2004 UNOLS Research Vessel Technical Enhancement Committee Meeting, St. Petersburg, FL.

Smith, S. R., and M. A. Bourassa, 2004: Automated weather system observations from research vessels for climate applications. *CLIVAR 2004*, Baltimore, MD, in press.

Tynan, Cynthia

Visiting Investigator, Physical Oceanography Department, Woods Hole Oceanographic Institution

GLOBEC Target Species: Interactions with Top Trophic Levels

Publications

Tynan, C.T., D.G. Ainley, J.A. Barth, T.J. Cowles, S.D. Pierce, L.B. Spear. 2005. Cetacean distributions relative to ocean processes in the northern California Current System. *Deep-Sea*

Research Part II 52: 145-167. Contribution Number 483 of the U.S. GLOBEC program; WHOI Contribution Number 11035.

Ainley, D.G., L. B. Spear, C.T. Tynan, J.A. Barth, S.D. Pierce, R.G. Ford, T.J. Cowles. 2005. Physical and biological variables affecting seabird distributions during the upwelling season of the northern California Current. *Deep-Sea Research Part II* 52: 123-143. Contribution Number 438 of the U.S. GLOBEC program.

Presentations of Research

During 2003 – 2005, more than 14 presentations of the research were given at national and international conferences, US GLOBEC meetings, and universities.

Tynan, C.T., Ainley, D.G., Spear, L.B., Barth, J.A., Cowles, T.J., Pierce, S.D., Peterson, W.T., Brodeur, R., Batchelder, H., Strub, T., Thomas, A., 2003. 'Mesoscale distributions of cetaceans and seabirds relative to oceanographic processes in the northern California Current: A GLOBEC study, 2000 and 2002.' ONR International Field Office, Joint Planning Meeting US, UK, NATO, London, January 21, 2003

Tynan, C.T., Ainley, D.G., Spear, L.B., Barth, J.A., Cowles, T.J., Pierce, S.D., 'Cetacean distributions relative to ocean processes in the northern California Current System: A GLOBEC study.' Eastern Pacific Ocean Conference (EPOC), Sept. 24-27, 2003.

Ainley, D.G., Spear, L.B., Tynan, C.T., Barth, J.A., Cowles, T.J., Pierce, S.D., 'Factors affecting the spatial patterns of occurrence of seabirds in the northern California Current waters, spring and summer, 2000'. Eastern Pacific Ocean Conference (EPOC), Sept. 24-27, 2003, poster

Tynan, C.T., Ainley, D.G., Spear, L.B., Barth, J.A., Cowles, T.J., Pierce, S.D., 'Cetacean distributions relative to ocean processes in the northern California Current System: A GLOBEC study.' Invited seminar: WHOI Biology Department Seminar, October 2, 2003

Tynan, C.T., Ainley, D.G., Spear, L.B., Barth, J.A., Cowles, T.J., Pierce, S.D., 'Toward predictive biophysical models of cetacean occurrence patterns in the California Current System, an upwelling boundary current system.' Invited talk: ONR – Effects of Sound on the Marine Environment (ESME), Woods Hole, October 21, 2003

Tynan, C.T., 'Developing predictive biophysical models of cetacean distribution in the California Current System.' Invited seminar: Old Dominion University, Center for Coastal Physical Oceanography, November 3, 2003

Tynan, C.T., Ainley, D.G., Spear, L.B., Barth, J.A., Cowles, T.J., Pierce, S.D., 'Toward predictive biophysical models of cetacean occurrence patterns in the California Current System.' Invited Science Talk, US GLOBEC SSC, National Academy of Sciences, Woods Hole, November 6, 2003

Ainley, D.G., L.B. Spear, C.T. Tynan. 'Occurrence patterns of seabirds in the California Current'. Pacific Seabird Group, Cabo San Jose, Mexico, January 2004.

- Tynan, C.T. and R. D. Brodeur, Session Chairs for OS21J, 'Understanding the Physical and Biological Coupling of Marine Population Dynamics: Higher Trophic Levels in the Northeastern Pacific, January 26-30, 2004 AGU Ocean Sciences, Portland, Oregon.
- Tynan, C.T., D.G. Ainley, L.B. Spear, J.A. Barth, T.J. Cowles, S.D. Pierce, 'Toward predictive biophysical models of cetacean occurrence patterns in the California Current System', January 26-30, 2004 AGU Ocean Sciences, Portland, Oregon; participation in GLOBEC SI meeting and synthesis planning workshop following AGU.
- Ainley, D.G., L.B. Spear, C.T. Tynan. 'Occurrence patterns of seabirds in the California Current'. ASLO, Honolulu HI, February 16-20, 2004.
- Tynan, C.T. 'Toward predictive biophysical models of cetacean occurrence patterns in the California Current System, an upwelling boundary current system'. Requested presentation for Mr. Donald Schregardus, Deputy Assistant of the Navy (Environment) (DASNE) and CDR Karen Kohanowich, Ocean Resources Advisor, during visit to WHOI, March 9, 2004.
- Tynan, C.T., Ainley, D.G., Spear, L.B., Barth, J.A., Cowles, T.J., Pierce, S.D., 'Biotic and abiotic cross-shelf transport: comparing carbon transport by humpback whales with carbon transport in offshore jets of the California Current System', Eastern Pacific Ocean Conference (EPOC), Sept. 22-26, 2004, poster.
- Tynan, C.T., Ainley, D.G., Spear, L.B., Barth, J.A., Cowles, T.J., Pierce, S.D., 'Biotic and abiotic cross-shelf transport: comparing carbon transport by humpback whales with carbon transport in offshore jets of the California Current System', GLOBEC SI Meeting, Corvallis, Oregon, November 15-16, 2004, poster.

Weller, Robert

Physical Oceanography Department, Woods Hole Oceanographic Institution

Stratus Deck Regions

Publications

- Colbo, K. and R. A. Weller 2005a: The variability and heat budget of the upper ocean under the Chile-Peru stratus. *Journal of Marine Research*, submitted.
- Colbo, K. and R. A. Weller 2005b: The accuracy of the IMET sensor package. *Journal of Atmospheric and Oceanic Technology*, almost submitted.
- Weller, R. A. and K. Colbo 2005: Surface Meteorology and Air-Sea Fluxes Under the Stratus Clouds off Northern Chile. In preparation.

Conference Seminars, Presentations and Professional Meetings & Interactions with NOAA

In 2004

- Participate in US Interagency Working Group on Earth Observations meeting (IWGEO) Jan
- NOAA OAR Senior Res Council Feb meet with House Science Committee staff Feb
- NOAA Teacher at Sea Reception, capital Hill Feb
- NOAA Climate Working Group retreat March
- International CLIVAR VAMOS (Variability of the American Monsoon Systems) Panel, Guayquil, Ecuador March
- NOAA Climate Observation Program annual review meeting April
- JI Directors/Admion meeting April
- ORION Executive Steering Committee mtg April
- CICOR Executive Board Meeting May
- CICOR Fellows Meeting May
- JI Directors subgroup mtg May
- Visit Chet Koblinsky, Climate Goal Team Lead May
- IOC/WCRP/GCOS Ocean Observation Panel for Climate, Southampton UK June
- U.S. Global Earth Observation planning/writing meeting June
- International CLIVAR Conference, Baltimore June
- International CLIVAR Scientific Steering Group Meeting, Baltimore, June
- ORION Exec Steering Committee mtg July
- Testify to House science Committee on Global ocean observations July
- NOAA OAR Senior Res Council July
- Hawaii Ocean reference Station mooring deployment cruise August
- National Research Council review of CLIVAR Project Office, DC Aug
- National research Council Committee on Strategic Guidance for National Science Foundation Atmospheric Sciences Division Aug
- NDBC staff visits WHOI Sep
- Spoke to Knight Fellows, science journalists at WHOI sep
- Host Northeast Regional ocean observing meeting at WHOI Oct
- National research Council Committee on Strategic Guidance for National Science Foundation Atmospheric Sciences Division Boulder CO Oct
- ORION Exec Steering Committee mtg Oct
- CLIVAR Ocean reanalysis workshop Boulder CO Nov
- VOCALS (VAMOS Ocean Cloud Atmosphere Land study) science plan writing workshop, Corvallis NOV
- NOAA Climate Observing System Council mtg Nov
- Stratus OceanReference Station cruise Nov-Dec

In 2005

- CICOR/NEFSC Workshop Jan
- US CLIVAR Scientific Steering Committee Miami Jan
- ORION Exec Steering Committee mtg DC Feb
- National research Council Committee on Strategic Guidance for National Science Foundation Atmospheric Sciences Division DC Feb

- VAMOS Panel meeting Mexico City Mar
- JI Directors mtg Silver Spring MAR
- NOAA OAR SRC mtg March
- NOAA Climate Council mtg DC March
- Meet with NOAA OAR and Sea Grant to discuss development of regional ecosystems research program, Apr
- Serve of Review Panel for NOAA OAR Cooperative Institute at the Univ of Washington, the Joint Institute for the Study of the Atmosphere and Ocean (JISAO) apr
- NOAA Climate Observation Program annual review April
- NOAA Climate Obsrving System Council April
- JCOMM Observations group meeting April
- Attend Capital Hill Reception for NOAA Teacher at Sea, Mary Cook May
- Ocean Observations Panle for Climate mtg, Geneva Switzerland May

Air-Sea Interaction in the Eastern Tropical Pacific ITCZ/Cold Tongue Complex.

Presentations & Publications

Anderson, S.P., Huang, K., Brink, N.J., Baumgartner, M.F., and Weller, R.A. 2000. Pan American Climate Study Data Report. Woods Hole Oceanographic Institution, Technical Report 2000-03, Woods Hole, MA.

Anderson, S.P. 2001. On the Atmospheric Boundary Layer over the Equatorial Front. *J. Clim.* 14:1688-1695.

Farrar, J. T., 2003. The evolution of upper ocean thermal structure at 10°N, 125°W during 1997-1998. Master's Thesis, MIT-WHOI Joint Program in Physical Oceanography, Massachusetts Institute of Technology, Cambridge, MA, 191 pages.

Farrar, J.T. and Weller, R.A. 2003. The Evolution of Upper Ocean Thermal Structure at 10°N, 125°W During 1997-98. U.S. CLIVAR EPIC2001/Pan American Workshop, Boulder, CO.

Farrar, J.T. and Weller, R.A. 2004a. The Evolution of Upper Ocean Thermal Structure at 10°N, 125°W During 1997-98. *Eos Trans. AGU*, 84(52), Ocean Sci. Meet. Suppl., Abstract OS22E-12.

Farrar, J.T., Weller, R.A., and Huang, K. Comparison of NWP Model/Reanalysis Air-Sea Fluxes of Heat and Momentum to in situ Observations at several sites in the Tropical Pacific. 1st International CLIVAR Science Conference. Baltimore, MD. 2004.

Farrar, J.T. and Weller, R.A. 2004. Intraseasonal variability near 10°N in the eastern tropical Pacific Ocean. Manuscript submitted to *J. Geophys. Res.*

Ostrom, W.M., Way, B.S., Anderson, S.P., Jones, B., Key, E., and Yuras, G. 1999. Pan American Climate Study, Mooring Recovery Cruise Report, *R/V Melville*, cruise number PACS03MV. Woods Hole Oceanographic Institution, Technical Report 99-01, Woods Hole, MA.

Trask, R.P., Weller, R.A., Ostrom, W.M., and Way, B.S. 1998. Pan American Climate Study, Mooring Recovery and Deployment Cruise Report, *R/V Thomas Thompson*, cruise number 73. Woods Hole Oceanographic Institution, Technical Report 98-18, Woods Hole, MA.

Way, B.S., Ostrom, W.M., Weller, R.A., Ware, J.D., Trask, R.P., Cole, R., and Donovan, J. 1998. Pan American Climate Study, Mooring Deployment Cruise Report, *R/V Roger Revelle*, cruise number Genesis 4. Woods Hole Oceanographic Institution, Technical Report 98-07, Woods Hole, MA.

Wiebe, Peter, et al.

Biology Department, Woods Hole Oceanographic Institution

U.S. GLOBEC: Integration and Synthesis of Georges Bank Broad Scale Survey Results

(*Note: US GLOBEC is a large cooperative project, all related publications are listed here under Wiebe for clarity and convenience.)

Journal Publications

Benfield, M.C., A.C. Lavery, P.H. Wiebe, C.H. Greene, T.K. Stanton, and N.J. Copley. 2003. Distributions of physonect siphonulae in the Gulf of Maine and their potential as important sources of acoustic scattering. *Can. J. Fish. Aquat. Sci.*, 60(7):759-772.

Brown, H., S. M. Bollens, L. P. Madin, and E. F. Horgan. In Revision. Effects of Warm Water Intrusions on Populations of Macrozooplankton on Georges Bank, Northwest Atlantic. *Cont. Shelf Res.*

Durbin, E.G., R. Campbell, M. Casas, B. Niehoff, J. Runge, M. Wagner. 2003. Interannual Variation in Phytoplankton blooms and Zooplankton Productivity and Abundance in the Gulf of Maine During Winter. *Mar Ecol Progr Ser.* 254:81-100.

Fisher, K. E., P.H. Wiebe, and B.D. Malamud 2004. Fractal characterization of spatial distributions of plankton on Georges Bank. In "Handbook of Scaling Methods in Aquatic Ecology: Measurement, Analysis, Simulation". [Eds] Seuront, L. and P. G. Strutton CRC Press. ISBN: 0849313449 Publication Date: 8/27/2003. Pgs 297-319.

Green, J., R. Jones, and S. Brownell. In press. Age and growth of larval cod and haddock from the 1995 and 1996 on Georges Bank. *Marine Ecology Progress Series.*

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