

CURRICULUM VITAE – RYAN H. SMITH

*Atlantic Oceanographic and Meteorological Laboratory
National Oceanic and Atmospheric Administration*



**Ryan Hunter Smith
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INTERESTS:

- Regional circulation of south Florida coastal waters and the Florida Straits.
- Circulation patterns and water mass transports into and out of the Caribbean Sea.
- Lowered and hull-mounted acoustic Doppler current profiler applications.
- Implementation of moored oceanographic sensor arrays.
- Development of real-time oceanographic monitoring stations.

PROFESSIONAL EXPERIENCE / WORK HISTORY WITH NOAA/AOML/PHOD:

Jul. 1999 – Present **Oceanographer** (federal employee)
May 1997 – Jul. 1999 **Research Associate** (U. of Miami on contract to AOML)
Jan. 1995 – May 1997 **Research Associate** (META Inc. on contract to AOML)
Nov. 1993 – Dec. 1994 **Research Associate** (part-time federal employee)

EDUCATION:

M.S. – Meteorology and Physical Oceanography.

University of Miami, Coral Gables, Florida. 2010.

Thesis: *Atlantic-Caribbean Exchange through Windward Passage.*

B.S. – Marine Science and Biology (Chemistry Minor).

University of Miami, Coral Gables, Florida. 1994.

AWARDS:

2017 NOAA Administrator's Award

For surveying Cuban waters and establishing a groundbreaking multinational Atlantic bluefin tuna research partnership with Cuban scientists.

2017 Unit Citation

For supporting a successful science mission which brought the NOAA Ship Nancy Foster to Havana, Cuba, making her the first commissioned US Government vessel to dock in Cuba in over 50 years.

2007 US Department of Commerce Bronze Medal

Western Boundary Time Series – Meridional Overturning Circulation Team

For long-term research, design and support of an observing system for the Florida Current and the Meridional Overturning Circulation.

NOAA RESEARCH PROJECT HISTORY:

2014 – Present	Southwest Atlantic MOC
2012 – 2017	Connectivity of the Pulley Ridge (co-PI)
2010 – 2012	Vieques Sound and Virgin Passage Transport Study (lead PI)
2010 – 2013	AOML Deepwater Horizon Response (co-PI)
2007 – 2020	Coral Reef Ecosystem Research (co-PI)
2002 – 2005	Windward Passage Experiment
2000 – Present	PhOD Divisional Support for ADCP
1997 – 2012	NOAA/AOML South Florida Program (co-PI, 2010-2012)
1997 – 1999	North Brazil Current Rings
1996 – 1997	AOML Global Drifter Center
1995 – Present	Western Boundary Time-Series <i>and predecessors</i>
1995 – 2000	Windward Islands Passages Monitoring Program
1994 – 1995	World Ocean Circulation Experiment
1993 – 1996	Eastern Pacific GOES Station Sea Level Monitoring

DOC AND NOAA GOALS RELEVANT TO NOAA RESEARCH PROJECT HISTORY:

DOC Strategic Goals

- *promoting environmental stewardship through advancing understanding of climate variability and change;*
- *protecting, restoring and managing the use of coastal and ocean resources*

NOAA Long-Term Goals

- *advancing climate adaptation and mitigation planning via improving scientific understanding of the changing climate system and its impacts;*
- *improving understanding of ecosystems to inform resource management decisions.*

NOAA SEAGOING EXPERIENCE:

NOAA Vessels

- NOAA Ship *Gordon Gunter* (3 cruises)
- NOAA Ship *Malcolm Baldrige* (6+ cruises)
- NOAA Ship *Nancy Foster* (9 cruises, Chief Scientist on all cruises)
- NOAA Ship *Ronald H. Brown* (5 cruises, Chief Scientist on 2 cruises)

UNOLS Vessels

- R/V *Calanus* (5+ cruises)
- R/V *Savannah* (1 cruise, Chief Scientist on the cruise)
- R/V *Seward Johnson* (10+ cruises, Chief Scientist on 1 cruise)
- R/V *F. G. Walton Smith* (73+ cruises, Chief Scientist on 70 cruises)

Other Vessels

- R/V *Justo Sierra* (1 cruise)
- R/V *Ulises* (1 cruise)
- R/V *Virginia K* (small boat) (led/participated on 30+ coastal cruises)

PUBLICATIONS:

- Meinen, C. S., R. H. Smith, and R. F. Garcia (2021). Evaluating pressure gauges as a potential future replacement for electromagnetic cable observations of the Florida Current at 27°N. *J. Oper. Oceanogr.*, 14(2). 10.1080/1755876X.2020.1780757.
- Volkov, D. L., R. Domingues, C. S. Meinen, R. Garcia, M. Baringer, G. Goni, and R. H. Smith (2020). Inferring Florida current volume transport from satellite altimetry. *J. Geophys. Res.: Oceans*, 125, e2020JC016763.
- Valle-Levinson, A., V. H. Kourafalou, R. H. Smith, and Y. Androulidakis (2020). Flow structures over mesophotic coral ecosystems in the eastern Gulf of Mexico. *Cont. Shelf Res.*, 207, 104219.
- Le Hénaff, M., V. H. Kourafalou, Y. Androulidakis, R. H. Smith, H. Kang, C. Hu, and J. T. Lamkin (2020). In situ measurements of circulation features influencing cross-shelf transport around northwest Cuba. *J. Geophys. Res.: Oceans*, 125, e2019JC015780.
- Johns, E. M., R. Lumpkin, N. F. Putman, R. H. Smith, F. E. Muller-Karger, D. T. Rueda-Roa, C. Hu, M. Wang, M. T. Brooks, L. J. Gramer, and F. E. Werner (2020). The establishment of a pelagic *Sargassum* population in the tropical Atlantic: Biological consequences of a basin-scale long distance dispersal event. *Prog. Oceanogr.*, 182, 102269.
- Reed, J. K., S. Farrington, A. David, S. Harter, S. Pomponi, C. Diaz, J. Voss, K. D. Spring, A. C. Hine, V. Kourafalou, R. H. Smith, A. C. Vaz, C. B. Paris, and M. D. Hanisak (2019). Pulley Ridge, Gulf of Mexico, U.S.A., Chapter 4 in *Mesophotic Reefs of the World*, K. Puglise, Y. Loya (eds.), Springer, 57-69.
- Meinen, C. S., W. E. Johns, B. I. Moat, R. H. Smith, E. M. Johns, D. Rayner, E. Frajka-Williams, and R. F. Garcia (2019). Structure and variability of the Antilles Current at 26.5°N. *J. Geophys. Res.: Oceans*, 124, 3700-3723.
- Olascoaga, M. J., P. Miron, C. B. Paris, P. Pérez-Brunius, R. Pérez-Portela, R. H. Smith, and A. C. Vaz (2018). Connectivity of Pulley Ridge with remote locations as inferred from satellite-tracked drifter trajectories. *J. Geophys. Res.: Oceans*, 123, 1-9.
- Kourafalou, V. H., Y. S. Androulidakis, H. Kang, R. H. Smith, and A. Valle-Levinson (2018). Physical connectivity between Pulley Ridge and Dry Tortugas coral reefs under the influence of the Loop Current/Florida Current system. *Prog. Oceanogr.*, 165, 75-99.
- Carrillo, L., J. T. Lamkin, E. M. Johns, L. Vásquez-Yeomans, F. Sosa-Cordero, E. Malca, R. H. Smith, and T. Gerard (2017). Linking oceanographic processes and marine resources in the western Caribbean Sea large marine ecosystem subarea. *Env. Dev.*, 22, 84-96.
- Carrillo, L., E. M. Johns, R. H. Smith, J. T. Lamkin, and J. L. Largier (2016). Pathways and upper hydrography in the Mesoamerican Barrier Reef System, Part 2: Thermohaline Structure. *Cont. Shelf Res.*, 120, 41-58.
- Lee, T., N. Melo, N. Smith, E. M. Johns, C. R. Kelble, R. H. Smith, and P. B. Ortner (2016). Circulation and water renewal of Florida Bay. *Bull. Mar. Sci.*, 92(2), 1-28.

PUBLICATIONS (CONTINUED):

Carrillo, L., E. M. Johns, R. H. Smith, J. T. Lamkin, and J. L. Largier (2015). Pathways and upper hydrography in the Mesoamerican Barrier Reef System, Part 1: Circulation. *Cont. Shelf Res.*, 109, 164-176.

Johns, E. M., B. A. Muhling, R. C. Perez, F. E. Muller-Karger, N. Melo, R. H. Smith, J. T. Lamkin, T. L. Gerard, and E. Malca (2014). Amazon River water in the northeastern Caribbean Sea and its effect on larval reef fish assemblages during April 2009. *Fish. Ocean.*, 23(6), 472-494.

Smith, R. H., E. M. Johns, G. J. Goni, J. Trinanes, R. Lumpkin, A. M. Wood, C. R. Kelble, S. R. Cummings, J. T. Lamkin, and S. Privoznik (2014). Oceanographic conditions in the Gulf of Mexico in July 2010, during the Deepwater Horizon oil spill. *Cont. Shelf Res.*, 77, 118-131.

Muhling, B. A., R. H. Smith, L. Vasques-Yeomans, J. T. Lamkin, E. M. Johns, L. Carrillo, E. Sosa-Cordero, and E. Malca (2013). Larval reef fish assemblages and mesoscale oceanographic structure along the Mesoamerican Barrier Reef System. *Fish. Ocean.*, 22(5), 409-428.

Zhao, J., C. Hu, B. Lapointe, N. Melo, E. M. Johns, and R. H. Smith (2013). Satellite observed “black water” events off Southwest Florida: Implications for coral reef health in the Florida Keys National Marine Sanctuary. *Remote Sensing, Special Issue: Remote Sensing for Understanding Coral Reef Dynamics and Processes: Photo-Systems to Coral Reef Systems*, 5, 415-431.

Smith, R. H., and E. M. Johns (2012). *Tropical Connections: South Florida's marine environment*. Chapter 2, Oceanographic Connectivity, "Oceanographic data are collected in many different ways". Kruczynski W.L., Fletcher P.J., (eds.).

Muhling, B. A., J. T. Lamkin, J. M. Quattro, R. H. Smith, M. A. Roberts, M. A. Roffer, and K. Ramirez (2011). Collection of larval bluefin tuna (*Thunnus thynnus*) outside documented western Atlantic spawning grounds. *Bull. Mar. Sci.*, 87(3), 687-694.

Smith, R. H. (2010) Atlantic-Caribbean Exchange through Windward Passage. Master's Thesis, University of Miami, Coral Gables. 130p.

Lee, T. N., N. Melo, E. Johns, C. Kelble, R. H. Smith, and P. B. Ortner (2008). On Water Renewal and Salinity Variability in the Northeast Subregion of Florida Bay. *Bull. Mar. Sci.*, 82(1), 83-105.

Kelble, C. R., W. K. Nuttle, E. Johns, T. N. Lee, C. Hittle, R. H. Smith, and P. B. Ortner (2007). Salinity patterns of Florida Bay. *Estuaries* 71, 318-334.

Lee, T. N., E. Johns, N. Melo, R. H. Smith, P. B. Ortner, and D. Smith (2006). On Florida Bay hypersalinity and water exchange. *Bull. Mar. Sci.*, 79(2), 301-327.

MEETING ABSTRACTS:

Schmidt, W., M. Jimenez, D. Rojas, R. H. Smith, and H. Xu (2019). Free Vehicles: An Oceanographic Analog to Weather Balloons? [SS021-12022] presented at ASLO 2019 Aquatic Sciences Meeting, San Juan, PR, 23 Feb. – 2 Mar.

MEETING ABSTRACTS (CONTINUED):

Kang, H., V. H. Kourafalou, Y. Androulidakis, R. H. Smith, and A. Valle-Levinson (2018). Modeling and Monitoring the Impact of the Loop Current / Florida Current System on the Physical Connectivity Among South Florida Coral Reefs [OM14A-2031] presented at 2018 Ocean Sciences Meeting, Portland, OR, 12-16 Feb.

Olascoaga, M. J., P. Miron, C. B. Paris, P. Perez-Brunius, R. Perez-Portela, R. H. Smith, and A. Vaz (2018). Connectivity of Pulley Ridge with Remote Locations as Inferred by Satellite-Tracked Drifter Trajectories [EP21A-04] presented at 2018 Ocean Sciences Meeting, Portland, OR, 12-16 Feb.

Johns, E., and R. H. Smith (2016). Sargassum accumulation in the Caribbean Sea in response to anomalous oceanographic and meteorological forcing in the North Atlantic Ocean. Proceedings of the 69th annual Gulf and Caribbean Fisheries Institute Conference, 7-11 November 2016, Grand Cayman Island.

Kourafalou, V. H., R. H. Smith, A. Valle-Levinson, M. Le Hénaff, H. Kang, and Y. Androulidakis: Physical Processes Controlling Connectivity among South Florida Coral Reefs and Pathways of Upstream River Influence (2016). 13th International Coral Reef Symposium in Honolulu, Hawaii, June 19-24, 2016. (Abstract ID: 29587).

Olascoaga, M. J., A. C. Vaz, C. B. Paris, and R. H. Smith: Historical Analysis of Oceanographic Connectivity in the Pulley Ridge (2016). 13th International Coral Reef Symposium in Honolulu, Hawaii, June 19-24, 2016. (Abstract ID: 29482).

Reed, J. K., S. Farrington, J. Voss, K. Spring, A. Hine, V. H. Kourafalou, R. H. Smith, A. Vaz, C. Paris, and D. Hanisak: Resilience of a Unique Mesophotic Reef in the Gulf of Mexico, USA: A 30-Year Historical Perspective of the Coral Communities at Pulley Ridge Reef (2016). 13th International Coral Reef Symposium in Honolulu, Hawaii, June 19-24, 2016. (Abstract ID: 28799).

Smith, R. H., E. M. Johns, J. T. Lamkin, and J. A. Baisre (2015). Oceanographic circulation around Cuba during May 2015 from shipboard, drifter, and satellite measurements. X Congreso de Ciencias del Mar (MarCuba'2015). Havana, Cuba, November 16-20, 2015.

Rasmuson, L. K., J. T. Lamkin, T. L. Gerard, E. Malca, J. A. Baisre, and R. H. Smith (2015). Role of hydrodynamics in structuring spatial distributions of blackfin and skipjack tuna larvae in Cuban waters. X Congreso de Ciencias del Mar (MarCuba'2015). Havana, Cuba, November 16-20, 2015.

Smith, R. H., A. Valle-Levinson, and V. H. Kourafalou (2015). Current observations at Pulley Ridge mesophotic reef: results from a three-year time-series of moored ADCP data. X Congreso de Ciencias del Mar (MarCuba'2015). Havana, Cuba, November 16-20, 2015.

Shulzitski, K., J. T. Lamkin, T. L. Gerard, E. Malca, J. A. Baisre, and R. H. Smith (2015). Patterns of plankton distribution and biomass in Cuban waters. X Congreso de Ciencias del Mar (MarCuba'2015). Havana, Cuba, November 16-20, 2015.

MEETING ABSTRACTS (CONTINUED):

Johns, E. M., C. R. Kelble, T. N. Lee, N. Melo, P. B. Ortner, and R. H. Smith (2010). Sea surface temperature, salinity, and chlorophyll variability in the Florida Keys and surrounding coastal waters, 1997 - 2010: Means, seasonal patterns, interannual variability, and extreme events. Proceedings, Linking Science to Management - A Conference and Workshop on the Florida Keys Marine Ecosystem. Duck Key, FL, October 19-22, 2010.

Johns, E. M., M. O. Baringer, F. Bringas, S. R. Cummings, P. N. Di Nezio, C. M. Featherstone, G. J. Goni, L. J. Gramer, G. R. Halliwell, J. C. Hendee, C. R. Kelble, D. Lindo, R. Lumpkin, F. D. Marks, J. R. Molina, R. H. Smith, J. A. Trinanes, and A. M. Wood (2010). Oil spill response activities conducted by NOAA's Atlantic Oceanographic and Meteorological laboratory (AOML) during summer 2010. Proceedings, Linking Science to Management - A Conference and Workshop on the Florida Keys Marine Ecosystem. Duck Key, FL, October 19-22, 2010.

Halliwell, G. R., V. H. Kourafalou, R. H. Weisberg, W. J. Teague, and R. H. Smith (2008). Impact of Initial Conditions Provided by GODAE Products on the Simulated Coastal Ocean Response to Hurricanes, *EOS Trans. AGU*, 89(53), Fall Meet. Suppl., Abstract OS52B-09

Johns, E. M., T. N. Lee, C. Kelble, R. H. Smith, N. Melo, P. B. Ortner, and V. Kourafalou (2008). Surface Salinity Variability of South Florida Coastal and Estuarine Waters from Gridded Shipboard Observations, 1995 – 2008. Proceedings, 2008 Florida Bay and Adjacent Marine Systems Science Conference, Naples, FL, December 8-11, 2008. University of Florida, 104.

Lee, T. N., N. Melo, N. Smith, E. M. Johns, R. H. Smith, C. Kelble, and P. B. Ortner (2008). On Florida Bay Circulation and Water Exchange with Focus on the Western Subregion. Proceedings, 2008 Florida Bay and Adjacent Marine Systems Science Conference, Naples, FL, December 8-11, 2008. University of Florida, 121.

Melo, N., T. N. Lee, E. M. Johns, R. H. Smith, C. Kelble, and P. B. Ortner (2008). South Florida Coastal Oceanographic Database. Proceedings, 2008 Florida Bay and Adjacent Marine Systems Science Conference, Naples, FL, December 8-11, 2008. University of Florida, 137.

Smith, R. H., T. L. Gerard, E. M. Johns, and J. T. Lamkin (2008), Fisheries Oceanography in the Virgin Islands: Preliminary Results from a Collaborative Research Endeavor, *EOS Trans. AGU*, 89(23), Jt. Assem. Suppl., Abstract OS43A-02.

Johns, E. M., R. H. Smith, J. T. Lamkin, L. C. Birbriezca, L. Vasquez-Yeomans, and E. S. Cordero (2008), Connectivity of the South Florida Coral Reef Ecosystem to Upstream Waters of the Western Caribbean and Gulf of Mexico, *EOS Trans. AGU*, 89(23), Jt. Assem. Suppl., Abstract OS34A-06.

Johns, W. E., R. H. Smith, E. M. Johns, and W. D. Wilson (2008), The Caribbean Mass Budget Revisited, *EOS Trans. AGU*, 89(23), Jt. Assem. Suppl., Abstract OS34A-03.

Johns, E. M., C. R. Kelble, T. N. Lee, N. Melo, R. H. Smith, and P. B. Ortner (2008). Salinity Variability of South Florida Coastal Waters on Time Scales from Episodic to Multidecadal: How Might the Everglades Restoration Change These Patterns? Meeting Abstracts, 2008 Ocean Sciences Conference, Orlando FL March 2-7, 2008. American Society of Limnology and Oceanography, 222.

MEETING ABSTRACTS (CONTINUED):

- Melo, N., T. N. Lee, E. M. Johns, R. H. Smith, C. R. Kelble, and P. B. Ortner (2008). Understanding Florida Bay Hypersalinity and Water Exchanges. Meeting Abstracts, 2008 Ocean Sciences Conference, Orlando FL March 2-7, 2008. American Society of Limnology and Oceanography, 299-300.
- Smith, R. H., W. E. Johns, and E. M. Johns (2007), Volume transport and variability at Windward Passage, *EOS Trans. AGU*, 88(23), Jt. Assem. Suppl., Abstract OS52A-08.
- Johns., W., E. Johns, R. H. Smith, and J. Molina (2007), Deep overflow of Atlantic waters to the Caribbean Sea through Windward Passage, *EOS Trans. AGU*, 88(23), Jt. Assem. Suppl., Abstract OS52A-03.
- Smith, R. H., P. B. Ortner, V. H. Kourafalou, T. N. Lee, E. M. Johns, S. R. Cummings, C. R. Kelble, and C. Hu. (2006), Post-Katrina pollutant and contaminant pathways: downstream transport or local retention?, *EOS Trans. AGU*, 87(36), Ocean Sci. Meet. Suppl., Abstract OS16H-18.
- Johns, W. E., E. M. Johns, and R. H. Smith (2006), Bifurcation of the Atlantic Deep Western Boundary Current through the southern Bahamas, *EOS Trans. AGU*, 87(36), Ocean Sci. Meet. Suppl., Abstract OS54K-04.
- Smith, R. H., E. M. Johns, S. R. Cummings, P. B. Ortner, C. R. Kelble, N. Melo, and T. N. Lee (2005). The influence of the 2005 hurricane season on water quality in Florida Bay and surrounding coastal waters. Proceedings, 2005 Florida Bay and Adjacent Marine Systems Science Conference, Duck Key, FL December 11-14, 2005. University of Florida, 146-147.
- Johns, E. M., R. H. Smith, P. B. Ortner, T. N. Lee, C. R. Kelble, and N. Melo (2005). Real-time oceanographic and meteorological observations in the Florida Keys National Marine Sanctuary. Proceedings, 2005 Florida Bay and Adjacent Marine Systems Science Conference, Duck Key, FL December 11-14, 2005. University of Florida, 133-134.
- Johns, E. M., R. H. Smith, P. B. Ortner, T. N. Lee, C. R. Kelble, and N. Melo (2005). Salinity variability in south Florida coastal waters, 1995-2005. Proceedings, 2005 Florida Bay and Adjacent Marine Systems Science Conference, Duck Key, FL December 11-14, 2005. University of Florida, 135-136.
- Lee, T. N., E. M. Johns, N. Melo, R. H. Smith, P. B. Ortner, D. Smith, and N. Smith (2005). On Florida Bay hypersalinity and water exchange. Proceedings, 2005 Florida Bay and Adjacent Marine Systems Science Conference, Duck Key, FL December 11-14, 2005. University of Florida, 123-124.
- Bitterman, D., R. H. Smith, W. D. Wilson, N. Melo, and T. N. Lee (2003). Florida Bay shallow water surface drifter. Proceedings, 2003 Joint Conference on the Science and Restoration of the Greater Everglades and Florida Bay Ecosystem, Palm Harbor, FL April 13-18, 2003. University of Florida, 56-58.

MEETING ABSTRACTS (CONTINUED):

- Johns, E. M., P. Ortner, R. H. Smith, C. Kelble, S. Cummings, J. Hendee, N. Melo, T. N. Lee, and E. Williams (2003). New interdisciplinary oceanographic observations in the coastal waters adjacent to Florida Bay. Proceedings, 2003 Joint Conference on the Science and Restoration of the Greater Everglades and Florida Bay Ecosystem, Palm Harbor, FL April 13-18, 2003. University of Florida, 45-47.
- Lee, T. N., E. Williams, E. Johns, R. H. Smith, and N. Melo. Circulation and exchange processes within Florida Bay interior basins (2003). Proceedings, 2003 Joint Conference on the Science and Restoration of the Greater Everglades and Florida Bay Ecosystem, Palm Harbor, FL April 13-18, 2003. University of Florida, 26-27.
- Melo, N., T. N. Lee, E. Williams, D. Smith, M. Framinan, R. H. Smith, and E. M. Johns (2003). A movie of Florida Bay sea level response to local wind forcing. Proceedings, 2003 Joint Conference on the Science and Restoration of the Greater Everglades and Florida Bay Ecosystem, Palm Harbor, FL April 13-18, 2003. University of Florida, 59-60.
- Smith, R. H., E. Johns, W. D. Wilson, T. N. Lee, and E. Williams (2001). Moored observations of salinity variability in Florida Bay and south Florida coastal waters on daily to interannual time scales. Proceedings, 2001 Florida Bay and Adjacent Marine Systems Science Conference, Key Largo, FL, April 23-26, 2001. University of Florida, 42-43.
- Johns, E., R. H. Smith, W. D. Wilson, T. N. Lee, and E. Williams (2001). Influence of hurricanes, tropical storms, and cold fronts on south Florida coastal waters. Proceedings, 2001 Florida Bay and Adjacent Marine Systems Science Conference, Key Largo, FL, April 23-26, 2001. University of Florida, 14-15.
- Johns, E., P. B. Ortner, R. H. Smith, W. D. Wilson, T. N. Lee, and E. Williams (2001). Salinity variability in Florida Bay from monthly high-resolution surveys. Proceedings, 2001 Florida Bay and Adjacent Marine Systems Science Conference, Key Largo, FL, April 23-26, 2001. University of Florida, 16-17.
- Fratantoni, D. M., P. L. Richardson, W. E. Johns, C. I. Fleurant, R. H. Smith, S. L. Garzoli, W. D. Wilson, and G. J. Goni (1999). The North Brazil Current Rings Experiment. AGU 1999 Spring Meeting, Boston, MA, June 1-4, 1999. *EOS Trans., AGU*, 80(17):S179, OS31B-10.
- Smith, R. H. (1999). IASlinks.org: Online management and distribution of oceanographic and meteorological data for the Gulf of Mexico and Caribbean Sea. Proceedings, First Biennial Intra-Americas Sea Initiative (IASI) Science Meeting, Panama City, Panama, November 9-11, 1999. University of Miami.
- Wilson, W. D., E. Johns, R. H. Smith, T. N. Lee, and E. Williams (1999). Interaction of freshwater riverine discharges from the Everglades with the Gulf of Mexico and Florida Bay: Preliminary results from a moored array and shipboard surveys. 1999 Florida Bay and Adjacent Marine Systems Science Conference, Programs and Abstracts, Key Largo, FL, November 1-5, 1999. University of Florida Sea Grant Program, 175-177 1999.

MEETING ABSTRACTS (CONTINUED):

Wilson, W. D., S. L. Garzoli, G. J. Goni, W. E. Johns, R. H. Smith, C. I. Fleurant, P. L. Richardson, and D.M. Fratantoni (1999). The North Brazil Current Retroflexion: Two recent surveys. AGU 1999 Spring Meeting, Boston, MA, June 1-4, 1999. *EOS Trans., AGU*, 80(17):S179, OS31B-11.

Sheinbaum, J., J. Candela, J. Ochoa, A. Badan, I. Gonzalez, W. D. Wilson, and R. H. Smith (1998). Velocity and transport measurements with a lower-acoustic Doppler current profile in the Yucatan Channel: Some preliminary results. Proceedings, Conference on the Transports and Linkages of the Intra-Americas Sea (IAS), Cozumel, Mexico, November 1-5, 1997. IOC/IOCARIBE/MMS, 57.

TECHNICAL / DATA REPORTS:

Hooper, J. A., M. O. Baringer, and R. H. Smith (2022). Hydrographic Measurements Collected in 2020 During Western Boundary Time Series Cruises in the Florida Current aboard the Research Vessel R/V *Walton Smith*, (FC2002, FC2012, FC2012B). NOAA Data Report, OAR-AOML-84, 124 pp.

Hooper, J. A., M. O. Baringer, and R. H. Smith (2021). Hydrographic Measurements Collected in 2019 During Western Boundary Time Series Cruises in the Florida Current aboard the Research Vessel R/V *Walton Smith*, (FC1902, FC1904, FC1906, FC1907, FC1910). NOAA Data Report, OAR-AOML-83, 182 pp.

Hooper, J. A., M. O. Baringer, and R. H. Smith (2021). Hydrographic measurements collected in 2018 during Western Boundary Time Series cruises in the Florida Current aboard the R/V *F.G. Walton Smith* and R/V *Savannah* (FC1804, FC1806, FC1809, FC1810). NOAA Data Report, OAR-AOML-82, 144 pp.

Garcia, R. F., R. H. Smith, and D. Volkov (2020). Oceanographic data collected in the Straits of Florida at 27°N during the year 2019, including the estimated Florida Current transport. NOAA Data Report, OAR-AOML-81, 76 pp.

Hooper, J. A., M. O. Baringer, and R. H. Smith (2020). Hydrographic Measurements Collected Aboard the NOAA Ship *Ronald H. Brown*, 23 February - 1 March 2018: Western Boundary Time Series Cruise AB1802 (RB1801). NOAA Data Report, OAR-AOML-79, 110 pp.

Garcia, R. F., R. H. Smith, and D. Volkov (2020). Oceanographic data collected in the Straits of Florida at 27°N during the year 2018, including the estimated Florida Current transport. NOAA Data Report, OAR-AOML-80, 75 pp.

Garcia, R. F., C. S. Meinen, R. H. Smith, and D. Volkov (2019). Oceanographic data collected in the Straits of Florida at 27°N during the year 2017, including the estimated Florida Current transport. NOAA Data Report, OAR-AOML-76, 81 pp.

Garcia, R. F., C. S. Meinen, and R. H. Smith (2017). Oceanographic data collected in the Straits of Florida at 27°N during the year 2016, including the estimated Florida Current transport. NOAA Data Report, OAR-AOML-74, 74 pp.

TECHNICAL / DATA REPORTS (CONTINUED):

Garcia, R. F., C. S. Meinen, and R. H. Smith (2017). Oceanographic data collected in the Straits of Florida at 27°N during the year 2000, including the estimated Florida Current transport. NOAA Data Report, OAR-AOML-73, 26 pp.

Garcia, R. F., C. S. Meinen, and R. H. Smith (2017). Oceanographic data collected in the Straits of Florida at 27°N during the year 2001, including the estimated Florida Current transport. NOAA Data Report, OAR-AOML-72, 59 pp.

Garcia, R. F., C. S. Meinen, and R. H. Smith (2017). Oceanographic data collected in the Straits of Florida at 27°N during the year 2002, including the estimated Florida Current transport. NOAA Data Report, OAR-AOML-71, 65 pp.

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