

BIOGRAPHICAL INFORMATION

Wilton Sturges III

Last update: July, 2016

EDUCATION

B.S.	Auburn University, 1957. Physics (honors)
M.A.	The Johns Hopkins University, 1963. Oceanography
Ph.D.	The Johns Hopkins University, 1966. Oceanography

EMPLOYMENT AND ACADEMIC APPOINTMENTS

1957-60	ENS., LTJG USN. U.S. Naval Weapons Laboratory, Dahlgren, Virginia
1960	Physicist, GS-11, U.S. Naval Weapons Laboratory, Dahlgren, Virginia
1963-66	Research Assistant, Chesapeake Bay Institute
1962-66	Instructor in Oceanography, Naval Reserve Officers School, Ft. McHenry, Baltimore
1966-70	Assistant Professor of Oceanography, University of Rhode Island
1970-72	Assoc. Prof. with tenure, University of Rhode Island
1972-76	Associate Professor of Oceanography, Florida State University
1976-2001	Professor of Oceanography
1976-82	Chairman, Department of Oceanography, F.S.U.
1983	Visiting Scientist, Woods Hole Oceanographic Institution
1985-88	Chairman, Department of Oceanography, F.S.U.
2001-Present	Professor Emeritus, Florida State University

PROFESSIONAL ACTIVITIES

National Academy of Sciences, Committee on Oceanography; Ocean-wide Surveys Panel, 1969-71

Associate Editor, *Journal of Geophysical Research*, 1969-71

National Academy of Engineering; Member, Panel on Buoy Technology Assessment, 1972-74

Fourth GEOP (Geodesy/Solid-Earth and Ocean Physics) Research Conference; Chairman, Panel on Departures of Sea Surface from Geoid, August, 1973

American Geophysical Union; Member, Committee on Marine Geodesy, 1973-76

Nova University/U.N.O.L.S.; Member, Current-meter facility advisory board, 1974-75

National Academy of Sciences; Member, Ocean Science Board, 1975-77

National Science Foundation; Advisory Panel for Oceanography, 1975-77

Florida Institute of Oceanography; Executive Committee and Advisory Board, 1978-82, 1986-2001.

National Academy of Sciences; Geophysics Study Committee; Member, Panel on Sea-Level Change 1984-1989

National Academy of Engineering; Marine Board, Committee on Engineering Implications of Changes in Relative Mean Sea Level, member, 1985 - 1989

Member, external advisory Panel, NOAA Climate and Global Change program, 1990.

Member, Joint Florida-U.S. Minerals Management Service Task Force on Oil Spill Risk Assessment, 1987-1989.

Member, N.A.S. Physical Oceanography Panel, Committee to Review the OCS Environmental Studies Program, 1988-1989.

American Geophysical Union, Committee on Global Environment Change, member, 1993 - 1996.

Member, Florida Oceans and Coastal Resources Council, 2005-2007.

Member, External Review Boards for various MMS programs in the Gulf of Mexico, 1990-2008.

Member, NOAA / NRDA advisory board for DeepWater Horizon Hydrodynamics Study Group. 2011 – present.

PUBLICATIONS

1965 W. Sturges, Water Characteristics of the Caribbean Sea. *Jour. Mar. Res.* 23(2), 147-162.

- 1967 W. Sturges, Slope of Sea Level along the Pacific Coast of the United States. *Jour. Geophys. Res.* 72(14), 3627-3637.
- 1968 W. Sturges, Sea-surface Topography Near the Gulf Stream. *Deep-Sea Res.* 15(2), 149-156.
- 1968 W. Sturges, Thermometric Depth and Gravity Variations. *Deep-Sea Res.* 15(5), 645-646.
- 1969 W. Sturges, Book Review: Upper Waters in Pacific Ocean, by M. Tsuchiya. *Limnol. Oceanogr.* 14(4), 650-651.
- 1970 W. Sturges, On the Thermal Expansion of Sea Water. *Deep-Sea Res.* 17(3), 637-640.
- 1970 W. Sturges, Observations of Deep-Water Renewal in the Caribbean Sea. *J. Geophys. Res.* 75(36), 7602-7610.
- 1971 W. Sturges, Comments on Ocean Circulation with Regard to Satellite Altimetry. In: *Sea Surface Topography from Space*, John Apel, Ed., 1971, NOAA Report ERL 228-7, Miami.
- 1971 W. Sturges, Contributor to, Environmental Science: Challenge for the Seventies. Natl. Sci. Board, NSF, Washington.
- 1973 W. Sturges, Discrepancy between Geodetic and Oceanographic Leveling along Continental Boundaries. Proc. Int. Assoc. Geodesy, Symposium on Earth's Gravitational Field and Secular Variations in Position. Kensington, Australia.
- 1974 W. Sturges, Slope of Sea Level along Continental Boundaries. *J. Geophys. Res.* 79(6), 825-830.
- 1974 B. Chovitz, Ivan A. Mueller, R.H. Rapp, W. Sturges, and G. Weiffenbach, The Geoid and Ocean Surface; Report on the Fourth GEOP Research Conference. *Trans. Amer. Geophys. U.* 55(3), 128-131.
- 1974 W. Sturges, Contributor to: Directions for Data Buoy Technology 1978-1983. National Academy of Engineering, Panel on Buoy Technology Assessment.
- 1974 W. Sturges, Longshore Slopes Induced by Tidal Interactions. *Deep-Sea Res.* 21, 1035-1038.
- 1975 W. Sturges, Mixing of Renewal Water Flowing into the Caribbean Sea. *J. Mar. Res.* 33, suppl., 117-130.
- 1975 W. Sturges, On the General Ocean Circulation. *Rev. Geophys. Space Physics* 13(3), 603-607.
- 1976 R. Weisberg and W. Sturges, The Net Circulation in West Passage of Narragansett Bay. *J. Phys. Oceanogr.* 6(3), 345-354.

- 1976 D.M. Karl, P.A. LaRock, J. Morse and W. Sturges, Adenosine Triphosphate in the North Atlantic Ocean and its Relationship to the Oxygen Minimum. *Deep-Sea Res.* 23, 81-88.
- 1976 W. Sturges and J.P. Blaha, A Western Boundary Current in the Gulf of Mexico. *Science* 192, 367-369.
- 1977 W. Sturges, Comment on "Nearshore Currents off Long Island" by J.T. Scott and G.T. Csanady. *J. Geophys. Res.* 89(9), 1451-1452.
- 1977 R.B. Lambert and W. Sturges, A Thermohaline Staircase and Vertical Mixing in the Thermocline. *Deep-Sea Res.* 24(3), 211-222.
- 1978 The MODE Group (including W. Sturges), The Mid-Ocean Dynamics Experiment. *Deep-Sea Res.* 25(10), 859-910.
- 1979 C. Horton and W. Sturges, A Geostrophic Comparison During MODE. *Deep-Sea Res.* 26, 521-534.
- 1981 W. Sturges and C. Horton, Circulation in the Gulf of Mexico. Summary prepared as a working document for the Conference on the Role of Organics in the Marine Environment. *Proceedings of a Symposium on Environmental Research in the Gulf of Mexico (GOMEX)*, Vol. II A, D. Atwood, Ed., A.O.M.L. Miami, Fla., May.
- 1981 J.P. Blaha and W. Sturges, Evidence for Wind Forced Circulation in the Gulf of Mexico. *J. Mar. Res.* 39(4), 711-734.
- 1982 W. Sturges and A. Summy, Low-Frequency Temperature Fluctuations between Ocean Station Echo and Bermuda. *J. Mar. Res.* 40, (Worthington volume), 727-746.
- 1982 Gary T. Mitchum and W. Sturges, Wind-Driven Currents on the West Florida Shelf. *J. Phys. Ocean.* 12, 1310-1317.
- 1983 J.A. Cragg, W. Sturges, and G. Mitchum, Sea-Surface Slopes in the Eastern Gulf of Mexico. *J. Phys. Ocean.* 13, 2201-2212.
- 1983 W. Sturges, On Interpolating Gappy Records for Time-Series Analysis. *J. Geophys. Res.* 88, 9736-9740.
- 1983 W. Sturges and J.C. Evans, On the Variability of the Loop Current in the Gulf of Mexico. *J. Mar. Res.* 41, 639-653.
- 1983 Allen, John, W. Sturges *et al.*, Observations of Continental Shelf Circulation. *In Rev. Geophys. Space Physics* 21, 1149-1181.
- 1986 W. Sturges, Subsurface Currents -- West Florida Shelf. *In Gulf of Mexico Physical Oceanography Program, Final Report to U.S. Dept. Interior, Minerals Management Service*, pp 268-333, 39 figs, Science Applications Inc., Rept. 86/1023, 378 pp.

- 1987 Contributor to: "Engineering Implications of Changes in Relative Mean Sea Level." National Academy of Engineering, Marine Board, Comm. on Engineering, NRC/NAS. National Academy Press, 188 pp.
- 1987 W. Sturges, Large-scale Coherence of Sea Level at Very Low Frequencies. *J. Phys. Ocean.* 17, 2084-2094.
- 1987 J.P. Blaha and W. Sturges, Slope of Sea Level from Miami to Atlantic City. *J. Phys. Ocean.* 17, 177-184.
- 1989 W. Sturges with others: "Oil Spill Risk Assessment Task Force Report; by State of Florida and U.S. Dept. of Interior, Minerals Management Service. 78 pp. plus appendices A-D.
- 1989 Contributor to: NAS/NRC Report, "The Adequacy of Environmental Information for Outer Continental Shelf Oil and Gas Decisions: Florida and California." National Academy Press, Washington, D.C.
- 1990 With others, Towards an integrated system for measuring long term changes in global sea level. JOI, Inc. Washington, D.C., 178 pp, May 1990.
- 1990 With R. Revelle, *et al.* Sea Level Change. Report of N.A.S., Geophysics Study Committee on Sea Level Change, 234 pp.
- 1990 With S. Welsh. On the wind-driven response of Ocean Surface IR Signals. *J. Phys. Ocean.*, 20, Oct.
- 1992 W. Sturges. An Estimate of the Spectrum of Loop Current Variability from Gappy Data. *J. Phys. Ocean.*, 22, No. 11, 1245-1256.
- 1993 Sturges, W., J.C. Evans, W. Holland and S. Welsh. The Separation of Warm-Core Rings in the Gulf of Mexico. *J. Phys. Ocean.*, 23, 250-268.
- 1993 W. Sturges. The Annual Cycle of the Western Boundary Current in the Gulf of Mexico, *J. Geophys. Res.* 98., 18,053-18068.
- 1993 W. Sturges, The Frequency of Ring Separations from the Loop Current., *Jour. Phys. Ocean.*, 24, 1647-1651.
- 1995 W. Sturges and B.G. Hong. Wind forcing of the Atlantic thermocline along 32° N at low frequencies. *Jour. Phys. Ocean.*, 25, 1706-1715.
- 1998 Sturges, W., B.G. Hong, and A.J. Clarke, Decadal wind forcing of the North Atlantic subtropical gyre. *Jour. Phys. Ocean.*, 28, pp , 659-668.
- 1998 Yang, H., & Robert Weisberg, P. Niiler, W. Johnson, and W. Sturges, Lagrangian Circulation and the forbidden zone on the west Florida shelf. *Continental Shelf Res.*, 19, 1221-1245.
- 1999 Wiseman, William, and W. Sturges, The Physical Oceanography of the Gulf of Mexico: Processes that regulate its biology. *In*, The Gulf of Mexico Large Marine Ecosystem; Kumpf, Steidinger and Sherman, eds., pp 77-92. Blackwell Science, Inc., Malden MA.

- 2000 Hong, B.G., Wilton Sturges, and A. J. Clarke, Sea level on the U.S. east coast: decadal variability caused by open-ocean wind-curl forcing. *J. Phys. Oceanogr.*, **30**, 2008-2098.
- 2000 Sturges, Wilton and Robert Leben, Frequency of Ring Separations from the Loop Current in the Gulf of Mexico: a revised estimate. *Jour. Phys. Ocean.*, **30**, 1814-1819.
- 2001 Sturges, Wilton, and B.G.Hong, Decadal variability of Sea Level. Ch 7, in Sea Level Rise, Douglas, Kearney and Leatherman, eds., Academic Press.
- 2001 Sturges, Wilton, and B.G. Hong: Gulf Stream transport variability at periods of decades. *Jour. Phys. Ocean.*, **31**, 324-332.
- 2003 Ezer, T., Lie-Yauw Oey, and W. Sturges, 2003. On the variability of the Yucatan Strait flow and its relation to variations in the Loop Current and to eddy shedding events in the Gulf of Mexico. *Jour. Geophys. Res.*, 108 C1, 3012, 12-1 to 12-13.
- 2004 Romanou, A., E. Chassignet, and W. Sturges. The Gulf of Mexico circulation within a high-resolution numerical simulation of the North Atlantic. *Jour. Geophys. Res.* C01003, 1-15.
- 2005 DeHaan, Christopher, and W. Sturges., Deep Cyclonic Circulation in the Gulf of Mexico. *Jour. Phys. Ocean.*, 35, 1801 – 1812.
- 2004 Oey, Lie-Yauw, Tal Ezer, and W. Sturges. Modeled and observed empirical orthogonal functions of currents in the Yucatan Channel, Gulf of Mexico. *Jour. Geophys. Res.*, 109, 10.1029/2004JC002345.
- 2005 Cherubin, L., W. Sturges, and E. Chassignet. Deep Flow Variability in the Vicinity of the Yucatan Straits from a High-resolution MICOM Simulation. *Jour. Geophys. Res.*, 110, C04009, doi:10.1029/2004JC002280.
- 2005 Sturges, W., Deep Exchange between the Atlantic, Caribbean, and Gulf of Mexico. pp 263-278, in, *Circulation in the Gulf of Mexico*, Monograph 161, Amer. Geophys. Union; W. Sturges and Alexis Lugo-Fernandez, eds, 360 pp + CD appendix.
- 2005 Sturges, W. and Alexis Lugo-Fernandez, eds: *Circulation in the Gulf of Mexico: Observations and Models*. Monograph 161, Amer. Geophys. Union, 360 pp + CD appendix.
- 2005 Fitzhugh, Gary R., C.C. Koenig, F.C. Coleman, C.B. Grimes and W. Sturges, Spatial and temporal patterns in fertilization and settlement of young Gag

(Mycteroperca Microlepis) along the west Florida shelf. Bull. Marine Science, 77, 377-396.

- 2008 Sturges, W. and K. E. Kenyon, Mean Flow in the Gulf of Mexico, Journal of Physical Oceanography, **38**, 1501-1514.
- 2010 Sturges, W., N. Hoffmann and Robert Leben. A Trigger Mechanism for Loop Current Ring Separations. Journal of Physical Oceanography, **40**, 900-913.
- 2011 Sturges, W., and Bruce C. Douglas. Wind effects on estimates of sea level rise. J. Geophysical Res., doi : 10.1029/2010JC006482, 2011.

REVIEWER FOR

(in the past few years) NSF, NOAA, Deep Sea Research, Journal of Geophysical Research, Journal of Marine Research, Journal of Physical Oceanography, Jour. Atmospheric and Oceanic Technology, Bulletin of Marine Science.

PUBLISHED ABSTRACTS, UNPUBLISHED REPORTS, ETC.

- 1968 W. Sturges, On the Increase in Transport of the Gulf Stream. Abstract, *Trans. Amer. Geophys. U.* 49(1), 198.
- 1972 W. Sturges, Deep Current Observations Near 36° N, 70° W. Abstract, *Trans. Amer. Geophys. U.* 53, 394.
- 1972 W.J. Schmitz and W. Sturges, First Results from Array 1 Current Measurements. MODE Hot-Line News (1), March 17 (unpublished report).
- 1972 W. Sturges, Thermocline Topography for the MODE region. MODE Hot-Line News (21), Dec. 1972 (unpublished report).
- 1974 J. Crease, A. Leetmaa, R. Scarlet, W. Sturges, and R. Millard, MODE Density Program. Abstract, *Trans. Amer. Geophys. U.* 55(4), 289.
- 1974 W. Sturges, Extended Pattern Recognition Array. MODE Hot-Line News (64), August.
- 1974 W. Sturges, Time Scales of Deep Currents During MODE 1. MODE Hot-Line News (66), Sept.
- 1977 J.P. Blaha and W. Sturges, Large-Scale Circulation in the Central and Western Gulf of Mexico. *EOS*, *Trans. AGU*, paper presented at Spring Meeting, Washington, D.C.
- 1977 J.P. Blaha and W. Sturges, The Six-Month-Forcing of the Large-Scale Gyre in the Gulf of Mexico. *EOS*, *Trans. AGU*, paper presented at Fall Meeting, San Francisco.
- 1979 W. Sturges and S. Shang, Summary Report - A Working Conference on Circulation in the Gulf of Mexico, unpublished technical report, Dept. of Oceanography, FSU.
- 1980 W. Sturges and A. Summy, Low-Frequency Temperature Fluctuations between Ocean Station Echo and Bermuda. Paper presented at AGU Fall 1980 Meeting; abstract, *EOS* 61, No. 46, p. 1012.
- 1981 W. Sturges and R. Kassler, Variability of the Anticyclonic Circulation in the Western Gulf of Mexico. Technical Report, Dept. of Oceanography, FSU.
- 1983 Gary T. Mitchum and W. Sturges, On the Wind-Stress, Sea-Level Power Law. Unpublished technical report, Dept. of Oceanography, FSU.

- 1984 W. Sturges, Sea-level Fluctuations: Large-Scale Circulation and Frequencies from Seasonal to Surges. Abstract; *EOS*, Trans. AGU; Presented at AGU Fall Meeting, San Francisco.
- 1984 W. Sturges, Southwest Florida Continental Shelf Current Measurements. Presented at 5th Annual Meeting, MMS, ITM, Nov., New Orleans.
- 1987 G.T. Csanady, W. Sturges, *et al.*, Physical Processes at Continental Margins: Their Role in the Global Bio-Geochemical Cycle. A Report of a "Coastal-GOFS" Working Group.
- 2000 With Gary R. Fitzhugh, C.C. Koenig and Felicia C. Coleman, Dec. 2000. Spawning-to-nursery connection for gag: Tests of mechanisms to explain seagrass recruitment patterns. Final report, Nat. Marine Fisheries Service. 30 pp + 20 Figs.
- 2000 With Thomas J. Berger, P. Hamilton, J.J. Singer et al., Nov. 2000. DeSoto Canyon Eddy Intrusion Study. Final Report, U.S. Minerals Management Service, OCS Study MMS 2000-080. 2 vols, 275 pp.
- 2013 W. Sturges, A. Bozec, 2013, A puzzling disagreement between observations and numerical models in the central Gulf of Mexico. *Journal of Physical Oceanography* 43(12), 2673-2681.
- 2016 W. Sturges, 2016, The mean upper-layer flow in the central Gulf of Mexico by a new method. *Journal of Physical Oceanography*, In Press.