



## Curriculum Vita

### Professor John M. Morrison

Center for Marine Science  
Department of Physics Physical Oceanography  
University of North Carolina Wilmington

#### CONTACT INFORMATION

- Office: CMS 1118
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#### EDUCATION

- **PhD, Texas A&M University, 1977.** Major: Physical Oceanography; Dissertation Title: Water Mass Properties Used as Flow Indicators within the Eastern Caribbean Sea During the Winter of 1972 and Fall 1973; ADVISOR: Worth D. Nowlin, Jr.
- **MS, Texas A&M University, 1974;** Major: Physical Oceanography; Thesis Title: Nutrient and Dissolved Oxygen Distributions in the Gulf of Mexico and Adjacent Regions; ADVISOR: Worth D. Nowlin, Jr.
- **BA, College of the Holy Cross, 1971;** Major: Physics; Advisor: Undergraduate Research: Ion Implantation using a 1 MeV Van der Graaf Accelerator. ADVISOR: Edward F. Kennedy.

#### PROFESSIONAL POSITIONS

##### **Academic**

- Tenured Full Professor, University of North Carolina Wilmington (January 1, 2006 - Present)
- Adjunct Full Professor, North Carolina State University (January 1, 2006 - Present)
- Associate Director for Research & Education, Center for Marine Science, UNCW (2013 – 2015)
- Associate Director for Academic Planning, Center for Marine Science, UNCW (2011 – 2013)
- Tenured Full Professor, North Carolina State University (2000)
- Director, Oceanographic Remote Sensing Facility, NCSU (3/1/1992 – 12/31/2005)
- Director, Facility for Oceanographic Modeling and Visualization (FOAMv), NCSU (1994 – 2002)
- Tenured Associate Professor, NCSU (7/1/1989 – 7/31/2000)
- Visiting Scientist / Lecturer, University of Miami (1/1/1987 – 5/31/1987)
- Associate Professor, NCSU (10/1/1985 – 7/31/1989)
- Assistant Research Scientist, Texas A&M University (9/1/1978 – 6/30/1982)
- Research Associate, Texas A&M University. Scientific Officer for the International Southern Ocean Studies (6/1/1977 -8/31/1978)
- Graduate Research Assistant, Texas A&M University (1/1/1976 – 5/31/1977)
- Research Associate, Texas A&M University. Executive Assistant for the International Southern Ocean Studies (2/1/1975 – 12/31/1975)
- Research Assistant, Texas A&M University (9/1/1971 – 1/1/1975)
- Graduate Research Assistant, Texas A&M University (9/1971 – 8/1974)

##### **Government**

- Associate Program Director for Physical Oceanography, National Science Foundation (3-9/1985)

- Program Director for Ocean Dynamics, National Science Foundation (8/1/1983 – 3/31/1985)
- Assistant Program Director for Ocean Dynamics, National Science Foundation (6/1982 - 7/1983)
- Staff Associate, Ocean Science Board, National Academy of Sciences (9/1980 – 2/1982)

#### **Military**

- Senior Faculty Fellow, Naval Air Warfare Center, Warminster, PA (5/15/1992 – 8/15/1992)
- Faculty Fellow, Naval Air Warfare Center, Warminster, PA (5/15/1991 – 8/15/1991)

#### **PROFESSIONAL MEMBERSHIPS**

- Sigma Phi Sigma, National Physics Honor Society
- Sigma Xi, National Scientific Research Society
- The Oceanography Society.
- American Geophysical Union.

#### **AWARDS AND HONORS**

- Antarctic Service Medal of the United States, Awarded by Congress (1983)
- Outstanding Performance Award, Ocean Science Division, National Science Foundation (1986)
- Special Service Award, National Science Foundation, Contributions to Presidential Science and Technology Initiative (November 1985)
- Faculty Fellow, US Navy - American Society Engineering Education (1991)
- Senior Faculty Fellow, US Navy - American Society Engineering Education (1992)
- President's Ocean Exploration Panel (2000)
- UNCW James F. Merritt \$5 Million Dollar Research Club

#### **COURSES TAUGHT**

**University of North Carolina Wilmington:** PHY 101, Elementary College Physics Laboratory; PHY 103, Great Ideas in Physics; PHY 104, Physics for Future Presidents; PHY 475, Physical Oceanography; PHY 477, Observational Methods and Data Analysis in Marine Physics; PHY 479, Ocean Circulation Systems; PHY 481, Research Cruise Experience; PHY 481, Directed Independent Study; PHY 495, Physics Seminar; PHY 575, Physical Oceanography; PHY 577, Observational Methods and Data Analysis in Marine Physics; PHY 579, Ocean Circulation Systems; PHY 599, Thesis

**North Carolina State University:** MEA 250, Introduction to Coastal Environments; MEA 460/540, Principles of Physical Oceanography; MEA 461, Undergraduate Student Cruise; MEA 462, Methods of Marine Physics; MEA 493, Introductory Oceanography Lab; MEA 526, Air-Sea Interaction; MEA 559, Synoptic Physical Oceanography; MEA 561, Undergraduate Student Cruise; MEA 593, Air-Sea Interaction Cruise; MEA 599, Graduate Student Research; MEA 601, Student Seminar (MS); MEA 615, Graduate Student Cruise; MEA 690, Master's Exam; MEA 693, Supervised Research (MS); MEA 695, Thesis Research (MS); MEA 699, Thesis Preparation (MS); MEA 801, Student Seminar; MEA 893, Supervised Research; MEA 895, Dissertation Research; MEA 899, Dissertation Preparation.

#### **STUDENT TRAINING**

- **POST DOCTORAL STUDENTS:** *Wendy Woods; Blake Shaefer; Huiqing Liu; Greg Snedden*
- **DOCTORAL STUDENTS:** **Anita McColloch**, 2014 (Co-Advised with Daniel Kamykowski, NCSU); **Yanyun Liu**, 2010 (Co-Advised with Lian Xie, NCSU); **William Sweet**, 2009 (NCSU); **Wei Shi**, 2002; (NCSU); **Vijayakumar Manghani**, 2000 (Co-Advised with Lian Xie, NCSU); Thomas Weingartner, 1990 (Co-Advised with Robert Weisberg, NCSU); Orson Smith, 1997 (NCSU)

- **MASTERS STUDENTS:** Michael Taylor, 2010 (UNCW); Ebenezer Njadjro, 2009 (UNCW); Xiaoyung Liu, 1999 (NCSU); James Epps, 1999 (NCSU); Wei Shi, 1998 (NCSU); Xiaoming Liu, 1997 (NCSU); Vijayakumar Manghani, 1997 (NCSU); Timothy Donato, 1994 (NCSU)

<b>REFERRED JOURNAL ARTICLES (* Students)</b>
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- Morrison, J. M.** and W. D. Nowlin, Jr. 1977. Repeated nutrient, oxygen and density sections through the Loop Current. *Journal of Marine Research*, 35, 105-128.
- Merrell, W. J. and **J. M. Morrison**. 1981. The current regime of the western Gulf of Mexico as observed in April 1978. *Journal of Geophysical Research*, 86, 4181-4185.
- Morrison, J. M.** and W. D. Nowlin, Jr. 1982. General Distribution of water masses within the eastern Caribbean Sea during the winter of 1972 and fall of 1973. *J. Geophysical Research*, 87, 4207-4229.
- Morrison, J. M.**, W. J. Merrell, R. M. Key and T. C. Key. 1983. Property distributions and deep chemical measurements within the western Gulf of Mexico. *Journal of Geophysical Research*, 88, 2601-2608.
- Molinari, R. L. and **J. M. Morrison**. 1988. The Separation of the Yucatan Current from the Campeche Bank and the Intrusion of the Loop Current into the Gulf of Mexico. *J. Mar. Res.*, 93(C9), 10, 645-10,653.
- O. P. Smith\* and **J. M. Morrison**. 1989. Shipboard acoustic doppler current profiling in the Caribbean Sea, 1985-1986. *Journal of Geophysical Research*, 94, 9713-9719, 1989.
- J. M. Morrison** and O.P. Smith\*. 1990. Geostrophic transport variability along the Aves Ridge, *Journal of Geophysical Research*, 95, 699-710.
- J. M. Morrison** and D. B. Olson. 1992. Seasonal basinwide extremes in T-S characteristics in the near surface waters of the Arabian Sea and Somali Basin, *Oceanography of the Indian Ocean*, Ed: B. N. Desai, Goa, India, 605-616.
- D. J. DeMaster, R. B. Dunbar, L. I. Gordon, A. R. Leventer, **J. M. Morrison**, D. M. Nelson, C. A. Nittrouer and W. O. Smith, Jr. 1992. Cycling and Accumulation of Biogenic Silica and Organic Matter in High-Latitude Environments: The Ross Sea, *Oceanography*, 5, 146 - 153.
- L. J. Pietrafesa, **J. M. Morrison**, M. P. McCann, J. Churchill, E. Bohm\* and R. W. Houghton. 1994. Water mass linkages between the Middle and South Atlantic Bights, *Deep-Sea Research*, 41, 365-389.
- F. Askari, T. F. Donato \* and **J. M. Morrison**. 1996. Detection of Oceanic Fronts at Low Grazing Angles using an X-Band Real Aperture Radar, *Journal of Geophysical Research*, 101, 20883- 20898.
- T. Chereskin, W. D. Wilson, H. L. Bryden, A. Field, and **J. M. Morrison**. 1997. Direct estimations of the Ekman Transport at 8.5 N in the Indian Ocean during the Southwest Monsoon, *Geophysical Research Letters*, 24(21), 2541-2544, 1997.
- J. M. Morrison**. 1997. Inter-monsoonal Changes in the T-S Properties of the Near-Surface Waters of the Northern Arabian Sea, *Geophysical Research Letters*, 24(21), 2553 - 2556.
- X. Liu\*, **J. M. Morrison**, L. Xie. 1998. Sensitivity of Equatorial Pacific SST to Atmospheric Forcing Parameterizations in a Global Isopycnic Ocean Model, *Mausam*, 48(4), 657-668.
- L. J. Pietrafesa, L. Xie, **J. M. Morrison**, G. S. Janowitz, J. Pelisier, K. Keeter, and R. A. Neuherz. 1998. Numerical Modeling and Computer Visualization of the Storm Surge In and Around the Croatan-Albemarle Estuary System Produced by Hurricane Emily of August 1993, *Mausam*, 48(4), 567-578.
- S. L. Smith, L. A. Codispoti, and **J. M. Morrison**. 1998. The 1994-1995 Arabian Sea Expedition: An integrated, interdisciplinary investigation of the response of the northwest Indian Ocean to monsoonal forcing, *Deep-Sea Research*, 45, 1905-1917.
- J. M. Morrison**, L. A. Codispoti, S. Gaurin, B. Jones, V. Manghnani \*, and Z. Zheng. 1998. Seasonal Variation of Hydrographic and Nutrient Fields During the U. S. JGOFS Arabian Sea Process Study, *Deep-Sea Research (Invited)*, 45, 2053-2102.
- V. Manghnani\*, **J. M. Morrison**, T. Hopkins, and J. Hendricks. 1998. Characterization of Monsoonal

- Upwelling in the Arabian Sea During the JGOFS Period, *Deep-Sea Research*, 45, 2027-2052.
- J. M. Morrison**, L. A. Codispoti, S. Smith, K. Wishner, C. Flagg, W. E. Gardner, S. Gaurin, S. W. Naqvi, V. Manghnani\*, L. Prosperie and J. S. Gundersen. 1999. The Oxygen Minimum Zone in the Arabian Sea during 1995, *Deep-Sea Research II*, 46, 1903-1932.
- E. Bohm\*, **J. M. Morrison**, V. Manghnani\*, H-S Kim, and C. Flagg. 1999. Remotely sensed and acoustic doppler observations of the Ras al Hadd Jet in 1994-1995, *Deep-Sea Research II*, 46,1531-1550.
- W. Shi\*, **J. M. Morrison**, E. Bohm\*, and V. Manghnani\*. 1999. Remotely - Sensed Sea Features in the JGOFS Arabian Sea Process Study, *Deep-Sea Research II*, 46, 1551-1576.
- X. Li \*, **J. M. Morrison**, L. Pietrafesa and A. Ochadlick. 1999. SAR Observations of Internal Waves off Cape Hatteras, *Journal of Coastal Research*, 15 (4), 884-891.
- L. Xie, **J. Morrison**, X. Liu\*, 2000. Sensitivity of Tropical Pacific Sea Surface Temperature to Atmospheric Forcing in an Isopycnal Coordinate Model. *The Global Atmosphere and Ocean System*, 7, 229-247.
- W. Shi\*, **J. M. Morrison**, E. Bohm\*, V. Manghnani\*, 2000. The Oman Upwelling Zone during 1993, 1994 and 1995, *Deep-Sea Researc II*, 47, 1227-1248.
- V. Manghnani\*, S. Raman, D. S. Niyogi\*, V. Parameswara\*, **J. M. Morrison**, W. W. Ranana, S.K. Sengupta, J. V. S. S. Raju Bhat, L. V. G. Rao, 2000. Marine boundary layer variability over the Indian Ocean during the 1998 pre-INDOEX, *Boundary-Layer Meteorology*, 97(3), 411-430.
- L. Gordon, L. A. Codispoti, J. C. Jennings, Jr., F. J. Millero, **J. M. Morrison**, C. Sweeney, 2000. Seasonal Evolution of Hydrographic Properties of the Ross Sea, Antarctica, 1996-1997, *Deep-Sea Research II*, 47, 3095-3117.
- D. G. Logan\*, **J. M. Morrison**, L. J. Pietrafesa, T. S. Hopkins and J. Churchill. 2000. Physical Oceanographic Processes Affecting Inflow/Outflow Through Beaufort Inlet, North Carolina, *Journal of Coastal Research*, 16(4), 1111-1125
- W. O. Smith, R. F. Anderson, J. K. Moore, L. A. Codispoti, and **J. M. Morrison**. 2000. U.S. Southern Ocean Joint Global Ocean Flux Study: An Introduction to AESOPS. *Deep-Sea Res. II*, 47(15-16), 3073 - 3094.
- L. I. Gordon, L. A. Codispoti, J. C. Jennings, Jr., F. J. Millero, **J. M. Morrison**, and C. Sweeney. 2000. Seasonal Evolution of the Hydrographic Properties During the U.S. JGOFS AESOPS Expedition to the Ross Sea, 1996 – 1997, *Deep-Sea Research, Part II*, 47(15-16), 3095 - 3118.
- J. M. Morrison**, S. Gaurin, L. A. Codispoti, T. Takahashi, F. J. Millero, W. Gardner and M.J. Richardson, 2001. Seasonal Evolution of the Hydrographic Properties During the U.S. JGOFS AESOPS Expedition to the Antarctic Polar Frontal Zone, 1997 – 1998, *Deep-Sea Research II*, 48, 3943-3972.
- XIE, L., **MORRISON, J.**, AND LIU, X. 2001. Sensitivity of tropical Pacific sea surface temperature to atmospheric forcing in an isopycnic coordinate ocean model. *Global Atmosphere and Ocean System*, 7(3), 229-247.
- W. Shi\*, **J. M. Morrison**, and H. L. Bryden, 2002. The Flux of Heat and Fresh Water at 8.5°N in the Northern Indian Ocean, *Deep-Sea Research II*, 49, 1231-1252.
- Arnold E. Gordon, Claudia F. Giulivi, Taro Takahashi, Stewart Sutherland, **John Morrison** and Donald Olson, 2002. Bay of Bengal Nutrient Rich Benthic Layer, *Deep-Sea Research II*, 49, 1411-1422.
- V.K. Manghnani\*, J. M. Morrison, Lian Xie, S. Bulusu, 2002. Heat Transport in the Indian Ocean using TOPEX/Poseidon Altimetry and Model Simulations, *Deep-Sea Research II*, 49,1459-1480.
- L. J. Pietrafesa, L. Xie, G. L. Weatherly, C. N. Flagg, and **J. M. Morrison**, 2002. The winter/spring 1996 OMP current, meteorological, sea state and coastal sea level fields. *Deep-Sea Res. II*, 49, 4331-4354.
- Daniel Kamykowski, Sara-Joan Zentara, **John M. Morrison** and Anna C. Switzer\*, 2002. Dynamic global patterns of nitrate, phosphate, silicate, and iron availability and phytoplankton community composition from remote sensing data. *Global Biogeochemical Cycles*, 16(4), 25-1 to 25-29.
- Wei Shi\*, Bulusu Subrahmanyam, **John M. Morrison**, 2003. Estimation of heat and salt storage variability in the Indian Ocean from TOPEX/Poseidon altimetry. Estimation of heat and salt storage variability in the Indian Ocean from TOPEX/Poseidon altimetry. 106 (C7), doi: 10. 1029/2001JC1244.

- Vijay Manghnani\*, Bulusu Subrahmanyam, Lian Xie, **John M. Morrison**, 2003. Numerical simulation of seasonal and interannual Indian Ocean upper layer circulation using Miami Isopycnal Coordinate Ocean Model, Journal of Geophysical Research, 106 (C7), doi: 10.1029/2002JC001567.
- Xie, L., T. Yan, L. Pietrafesa, **J. Morrison**, and T. Karl, 2005: The climatology and interannual variability of regional landfall hurricane frequency and its association with North Atlantic hurricane tracks. Journal of Climate, 18: 5370-5381
- W.V. Sweet\*, **J.M. Morrison**, B.A. Schaeffer\*, Y. Liu\*, D. Kamykowski, S. Banks (2007) Water mass seasonal variability in the Galapagos Archipelago. Deep-Sea Research I, doi:10.1016/j.dsr.2007.09.009
- Subrahmanyam, B., K. Ueyoshi, **J.M. Morrison**, 2007: Sensitivity of the Indian Ocean Circulation to Phytoplankton forcing using an ocean model, Remote Sensing of the Environment, 112,1488 - 1496, doi:10.1016/j.rse.2007.05.021;
- Schaeffer, B. A., **J. M. Morrison**, D. Kamykowski, G.C. Feldman, L. Xie, Y. Y. Liu\*, W. Sweet\*, A. McCulloch\*, S. Banks, 2008. Phytoplankton biomass distribution and identification of productive habitats within the Galapagos Marine Reserve by MODIS, a surface acquisition system, and in-situ measurements. Remote Sensing of the Environment, 112 (6), 3044-3054.
- Sweet\*, W. V., **Morrison, J. M.**, Kamykowski, D., Schaeffer, B. A., Banks, S. (2009). Tropical Instability Waves within the Galapagos Archipelago. Deep-Sea Research Part I, 56(8), 1217 - 1279.
- Anita McCulloch\*, Daniel Kamykowski, **John Morrison**, Carrie Thomas, Katy Grabowski Pridgen\*, 2013. A Physical and Biological Context for Karenia Brevis Seed Populations on the Northwest Florida Shelf During July 2009, Continental Shelf Research, <http://dx.doi.org/10.1016/j.csr.2013.05.001>
- D. Kamykowski, K.Grabowski Pridgen\*, **J.M.Morrison**, A.A.McCulloch\*, E.S.Nyadjro\*, C.A. Thomas, G.A.Sinclair\* (2013) Cold front induced changes on the Florida panhandle shelf during October2008.Continental Shelf Res,54,52-66. <http://dx.doi.org/10.1016/j.csr.2012.12.006>
- Yanyun Liu\*, Lian Xie, **John M. Morrison**, and Daniel Kamykowski (2013) Dynamic Downscaling of the Impact of Climate Change on the Ocean Circulation in the Galápagos Archipelago. Adv in Meteor., Article I 837432, 18 pages, <http://dx.doi.org/10.1155/2013/837432>
- Lian Xie, Bin Liu, **John M. Morrison**, Huiwang Gao\*, Jianhong Wang\*, Editorial: Advances in Meteorology 01/2013; 2013:1-3. DOI:10.1155/2013/162475
- Yanyun Liu\*, Lian Xie, **John M. Morrison**, Dan Kamykowski, and William V. Sweet\*. 2014 Ocean Circulation and Water Mass Characteristics around the Galápagos Archipelago Simulated by a Multiscale Nested Ocean Circulation Model, International Journal of Oceanography, 2014, Art. ID 198686, 16 pps, <http://dx.doi.org/10.1155/2014/198686>

#### RESEARCH MEMORANDA OF UNDERSTANDING

- Marine Science and Fisheries Center, Muscat, Oman:** Lead on the US Side of a MOA between NCSU & Marine Science and Fisheries Center, Muscat, Oman. Study Oman Upwelling Zone. (1997 – 2006)
- National Institute of Oceanography, Goa, India:** Lead on the US Side of a MOA between N. C. State University and the National Institute of Oceanography, Goa, India, to perform collaborative research in oceanography, oceanographic remote sensing, and meteorology. (1997 - 2001)
- Indian Space Research Organization (ISRO):** Productivity of the Arabian Sea (no-cost proposal to have access to Ocean Color Monitor Data from India's Oceansat (2000-2004).
- NONREIMBURSABLE SPACE ACT AGREEMENT** between National Aeronautics and Space Administration Goddard Space Flight Center and University of North Carolina Wilmington, NASA's Science Mission Directorate and University of North Carolina Wilmington, (2017 – 2022) (Value in order of \$2.4 M+)

#### CONTRACTS, GRANTS AND SPONSORED RESEARCH (SINCE 1990)

- **Total PI or Co-PI (1990 -2019):** **\$14,856,459.00**

- NCSU PI or Co-PI (1990 -2019): \$9,018,502.00
- UNCW PI or Co-PI (2006 -2019): \$5,739,457.00
- UNCW Currently Active as Sole PI (2019) \$4,243,600.00
- **GRANTS Active While at UNCW**
  - NASA, "Biodiversity and Upwelling Dynamics of the Galápagos Marine Reserve," Sponsored by NASA, Federal, 2004 – 2008, \$1,066,000.00. **Morrison**, Kamykowski, Xie, Lian, Banks.
  - National Science Foundation, Benthic Dinoflagellate Migration (BenDiM): Occurrence and Processes, National Science Foundation, \$560,000. Kamkowski, **Morrison**, Janowitz, Thomas.
  - National Science Foundation, Supplement Benthic Dinoflagellate Migration (BenDiM): Occurrence and Processes, 2007 – 2011, \$656,422.00. Kamkowski, **Morrison**, Janowitz, Sinclair, Thomas.
  - NSF Biological Field Stations and Marine Laboratories, FMSL: Expansion of Small Boat Dockage Facility at the Center for Marine Science, 12-months, 1-October 2013, \$279,435.
  - Gordon and Betty Foundation, SOCON: Sustained Ocean Color Observations with Nanosatellites, 12/01/2014 – 12/30/2016, **\$1,843,600.00**
  - Gordon and Betty Foundation, Sustained Ocean Color Observations with Nanosatellites (SOCON): Launch and Operations Support for SeaHawk "Proof-of-Concept" Flight Missions", 6/1/2017 – 5/31/2021, **\$2,400.000**

#### FIELD EXPERIENCE

- **Participated:** 19 research cruises (13 as Chief or Co-Chief Scientist): Approximately 700 ship days (almost 2 years at sea)
- **Logistics Officer:** 4 major international field efforts: *International Southern Ocean Studies*, *U. S. Joint Global Ocean Flux Study (JGOFS): Arabian Sea Process Study (ASPS) and Antarctic Environments Southern Ocean Process Study (AESOPS)*; *World Ocean Circulation Experiment (WOCE) Indian Ocean Program*.
- **Undergraduate and Graduate Training Cruises:** Chief Scientist for 14 cruises.

#### DATA SETS SUBMITTED WITHIN NATIONAL/INTERNATIONAL PROGRAMS

##### U. S. JOINT GLOBAL OCEAN FLUX EXPERIMENT (JGOFS): 1996 - 1999

- U.S. JGOFS Data Management Office (DMO): <http://www1.whoi.edu/>
- *Arabian Sea Process Study*): 7 Cruises, 825 Stations
- *Antarctic Environments Southern Ocean Process Study*: Ross Sea: 6 Cruises, CTD 598 Stations
- *Antarctic Environments Southern Ocean Process Study*: Antarctic Polar Frontal Zone: 4 Cruises, 301 CTD Stations

##### U. S. WORLD OCEAN CIRCULATION EXPERIMENT (WOCE) - 1999

- National Oceanographic Data Center: <https://www.nodc.noaa.gov/woce/>
- Indian Ocean Experiment Section I1: 1 Cruise, 157 CTD Stations

##### NASA Ocean Color HRPT Data: 1998 - 2004

- National Institute of Oceanography, Goa, India (GOA): 2704 Scenes - 1998 – 2003
- Ministry of Agriculture and Fisheries, Sultanate of Oman (OMA): 3120 Scenes – 1997 – 200
- Charles Darwin Research Station, Galapagos, Ecuador (GAL): 2035 Scenes – 2001 - 2004

##### Benthic Dinoflagellate Migration (BenDiM):

- National Science Foundation Biological & Chemical Oceanography Data Management Office (BCO-DMO): <http://www.bco-dmo.org/>

- Acrobat Data: 14 Stations; Laser Optical Plankton Counter Data: 14 Stations

<b>UNIVERSITY COMMITTEES</b>
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**University of North Carolina Wilmington (Physics Physical Oceanography) – 2006-Present**

- **Department of Physics and Physical Oceanography Committees**
  - *Member, Physics Policy and Procedures Committee (2013 – 2114)*
  - Committee Member, Curriculum Committee. Revise/Update Physics and Physical Oceanography Undergraduate Program (2013).
  - Member, Physics Resources and Space Committee (2013 – 2015)
  - Chair, 5-year BS & MS in Physics with Option in Physical Oceanography (2009)
  - Chair, Ad Hoc Committee to Expand Undergraduate Program in Physics. (2007 - 2013).
  - Member, Physics Curriculum Committee. (2009)
  - Member, Physics Undergraduate Committee. (2006 - 2009).
  - Chair, Physics/Marine Physics Faculty Search Committee. (2007 - 2008).
  - Member, Physics/Marine Physics Faculty Search Committee. (2006 - 2007).
- **Undergraduate Curriculum Development in Physics:**
  - Physics with Option in Physical Oceanography
  - Minor in Physical Oceanography
- **Undergraduate Course Development in Physics:**
  - PHY 104 Physics for Future Presidents. (2009).
  - PHY 496 Undergraduate Research in Physics (2010)
- **Undergraduate Course Development in Physical Oceanography**
  - PHY 477 Observational Methods and Data Analysis in Marine Physics (2009)
  - PHY 479 Ocean Circulation Systems (2009)
  - PHY 481 Undergraduate Cruise Experience (2009)
- **Graduate Curriculum Development:**
  - Chair, Committee for Permission to Plan Ph. D. in Coastal and Marine Science (2008 – 2015)
  - Member. Planning Committee for Master’s Degree in Ocean Policy (2006 - 2011).
  - Chair, 5-year BS Physics with Physical Oceanography Option and MS in Marine Science with Physics Oceanography Option Combined Degree Plan
- **Graduate Course Development in MS Marine Science (Physical Oceanography)**
  - PHY 577 Observational Methods and Data Analysis in Marine Physics (2009)
  - PHY 579 Ocean Circulation Systems (2009)
- **University Studies Courses:**
  - PHY 103 Great Ideas in Physics (Scientific Approaches to the Natural World)
  - PHY 104 Physics for Future Presidents (Scientific Approaches to the Natural World)
  - PHY 477 Observational Methods & Data Analysis Physical Oceanography (Writing Intensive)

**North Carolina State University (Marine, Earth and Atmospheric Science) – 1985-2005**

- **Department of Marine, Earth and Atmospheric Science Committees**
  - Member MEAS Executive Committee, 1992 - 1997
  - Chairman MEAS Technical Service Committee, 1991 - 1994

- Member MEAS Computing Facilities Coordinating Committee, 1991 - 1995
- Chairman, MEAS Computer Committee, 1990 - 1995; 1999 - 2005
- Member, MEAS SPA (Personnel) Evaluation Committee, 1990 - 2005
- Member, MEAS Graduate Programs and Student Support Committee, 2000 - 2005
- Member, MEAS Computing and Network Facilities Coordinating Committee, 1995 - 2005
- Member, MEAS Space Assignment, Reallocation/Movable Equipment, 1995 – 2005
- **Undergraduate Curriculum Development**
  - Development of Undergraduate Degree in Physical Oceanography
- **Undergraduate Course Development**
  - PHY477 Observational Methods and Data Analysis in Marine Physics
  - PHY479 Ocean Circulation Systems
  - PHY481 Undergraduate Cruise Experience
- **Graduate Course Development**
  - PHY579 Ocean Circulation Systems
  - PHY577 Observational Methods and Data Analysis in Marine Physics

<b>UNIVERSITY SERVICE</b>
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**University of North Carolina Wilmington**

- **UNC System General Administration**
  - UNCW Marine Science Self Study: prepared sections on Center for Marine Science Marine Research and Physics and Physical Oceanography
  - Represented UNCW in Presentation of UNCW Marine Science Self Study component on the Center for Marine Science to the AAAS Marine Science Review Team.
  - Represented UNCW at the Meeting Called by the UNC General Administration to Respond to the AAAS Review Report
- **University Committees**
  - Member, UNCW Information, Technology & Library (2012 – 2014)
  - Member, CSURF Undergraduate Research Fellowships (2012)
  - Member, Faculty Scholarship Award (2012)
  - Member, Cahill Award Committee (2011)
  - Member, UNCW Research Committee. (2011 - 2012)
  - Chair, UNCW Faculty Athletic Council. Appointed by Chancellor (2007 - 2015).
  - Member, UNCW Athletic Director Search Committee. (2010)
  - Member, Women's Basketball Coach Search Committee. (2010).
  - Member, UNCW Athletics Grievance Panel, July 2012.
  - UNCW Representative, NAVY 50 – 50 Program, (10 October 2012)
  - UNCW Representative, NC NextGen Air Transportation (NGAT) Center at NCSU (2012)
  - UNCW Representative, Meeting with Ambassador of Malaysia, January 24, 2012.
  - Meeting with NC Project Leadership, (4/3/2013)
  - Committee Member, UNCW Research Drone Committee (2014 – present)
- **Marine Science External Committees:**
  - UNCW Rep. to US Consortium for Ocean Leadership (2007 - 2016).
  - UNCW Representative to US Consortium for Ocean Research and Education (2006 - 2007).



- UNCW Representative to Joint Oceanographic Institutions (2006 - 2007).
  - Member, Science Advisory Council to NOAA Cooperative Institute for Ocean Exploration, Research, and Technology (CIOERT) (2009 - 2016).
  - Chair, Ad Hoc Committee on Establishing a Ph.D. Coastal and Marine Science (2008 - 2015).
  - Member, Planning Committee for Master's Degree in Ocean Policy (2006 - 2015).
  - UNCW Rep. to Southeast Coastal Ocean Observing Regional Association (2007 - Present).
  - Ex Officio Member, Duke/UNC Oceanographic Consortium Policy Board (2005 - 2015).
  - Chair, Duke/UNC Oceanographic Consortium Policy Board. (2005 - 2009).
  - Member, Duke/UNC Oceanographic Consortium Program Committee (2006 - 2016).
  - Member, Search Committee for new D/UNCOC Port Captain (2010)
  - Member, Search Committee for new D/UNCOC Executive Officer (2010)
  - Member, U. S. Consortia for Ocean Carbon and Biogeochemistry (2006 – present)
  - UNCW Representative to Capital Ocean Week, Washington, DC (4-8 July 2012)
  - UNCW Representative to National Association of Marine Mammals (2012 – 2015)
  - UNCW Representative to Retirement of R/V CAPE HATTERAS (2/15/2013)
- **Center for Marine Science:**
    - Chair, Internal Advisory Committee, Center for Marine Science (2013 – 15)
    - Co-Chair, Internal Advisory Committee, Center for Marine Science (2011 – 2013)
    - Chair, Oceanographic Equipment CORE Facility (2009- present)
    - Member, Faculty Advisory Committee, (2014-2015)
    - Member, Chairs Advisory Committee (2014-2015)
    - Member, Center for Marine Science, Strategic Plan (2008).
    - Member, UNCW Marine Science Center Researchers Involved in Strategic Planning (2006-10)
    - Member, Cooperative Institute for Ocean Exploration and Research (CI-OER) (2007 - 2009).
    - Invited Guest of the Charles Darwin Research Station, Galapagos Ecology Cruise (2009).
    - Invited Speaker, 50th Anniversary Symposium for Charles Darwin Research Station (2009).
    - Planning Committee for Carolinas Marine Sciences Cooperative Institute (2006 - 2008).

### **North Carolina State University (1985 – 2005)**

- **University Committees**
  - Member, N. C. State University Transportation Committee (1999 – 2000)
  - Member, N. C. State University Representative to the Technical Advisory Committee of the North Carolina Supercomputer Center (1992 – 1997)
  - Member, N. C. State University Faculty Mediation Panel (1992-1994)
  - Member, N. C. State University Computer Committee (1992 – 1993)
  - Member, N. C. State University Planning Committee for Research III (1992 – 1995)
  - Member, N. C. State University ad hoc Committee on Supercomputing (1994 – 2005)
  - Member, N. C. State University Planning Committee for Center for Marine and Atmospheric Science and Technology (CMAST) (1995 – 2002)
- **College of Physical and Mathematical Sciences**
  - Member, N. C. State University Remote Sensing Initiative Committee (1991 – 1992)
  - Member Physical and Mathematical Sciences Advisory (PAMS) Council (1987 – 1992)

- Member PAMS Facilities Committee (1992)
- Member PAMS Computer Committee (1991 – 2005)

## PROFESSIONAL SERVICE

- **National Committees**
  - President's Ocean Exploration Panel, Subcommittee NOAA Ocean Science Advisory (2000)
  - Member, International Pan Ocean Remote Sensing Conferences (PORSEC) Scientific Organizing Committee (2000 - 2008)
  - Member, International Pan Ocean Remote Sensing Conferences Executive Com. (2002—2004)
  - Member, Executive Committee, Southeast Coastal Ocean Observing System (2001)
  - Member, Executive Committee of SURA Southeastern Coastal Ocean Observing Program (2001)
  - Ocean Research Interactive Observatory Networks (ORION) Planning Workshop (2005)
  - Member, Executive Committee, Southeast Coastal Ocean Observing System (2004 - 2007).
  - Member, University National Oceanographic Laboratory System (UNOLS) Regional Class Advisory Committee (RCAC) (2003 –2004)
  - Member, (UNOLS) Council, Washington, DC. (2007 - 2016).
  - Member, National Science Foundation RVC Ship Selection Committee (2009)
  - Member, NASA Biodiversity and Environmental Forecasting Research Team. (2004 -Present).
  - Member, NASA Ocean Color Research Team. (2000 - Present).

## PUBLIC SERVICE

- Met with Dr. Widi Pratiko, Minister of Out Islands and Secretary-General of Marine Affairs and Fisheries, Republic of Indonesia., Country of Indonesia. (February 5, 2009 - February 6, 2009).
- Met Members NC Congressional Delegation Importance of Marine Science to NC (2008 – 20011).
- Met with Dr. Widi Pratiko, Minister of Out Islands and Secretary-General of Marine Affairs and Fisheries, Republic of Indonesia., Country of Indonesia. (2009).
- Guest Speaker, Southeast Center for Excellence in Ocean Science Education SE-COSEE. (July 2008).
- Committee Member, Eagle Scout Review Board of the Crosswinds District of the Occoneechee Council, Boy Scouts of America. (2003 - 2007).
- Aquarium of Pacific: “Galapagos – Islands of Change”, Ocean Day invited lecture for the general public at the Aquarium of the Pacific, Long Beach, CA (2004).
- North Carolina State University Foundation Day: “Galapagos – Islands of Change” (2005).
- Planet Ocean Seminar: “Galapagos – Islands of Change”, Wilmington, NC (2006).
- Seas Scuba Expo: “Galapagos – Islands of Change”, Durham, NC, October 14 -15, 2006.

## OUTREACH

- Soccer Coach (United States Soccer League (USSL) 'E' License) (1995 – 2003)
- Wake Technical Community College, Advisory Board in Scientific Visualization (1991 – 2003)
- Scientist and Lecturer, Explorer of the Sea, Collaborative Program (2001)
- Eagle Scout Review Board, Occoneechee Council, Boy Scouts of America (2003 – 2005)
- NCSU Foundation Day: “Galapagos –Islands of Change” (2005)
- UNCW Planet Ocean Seminars (2006,2018)
- Seas Scuba Expo: “Galapagos – Islands of Change”, Durham, NC (2006)
- Seminar OSHER Lifelong Learning Institute (2011, 2012, 2013, 2018)