

OSCAR MAX ERIC SCHOFIELD

Coastal Ocean Observation Lab, Institute of Marine and Coastal Sciences
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EDUCATION AND PROFESSIONAL APPOINTMENTS

1983-1987 B.A. in Aquatic Biology, Department of Biology, University of California at Santa Barbara
1989-1993 Ph.D. in Biology, Department of Biology, University of California at Santa Barbara
1994 Postdoctoral Researcher, Center for Remote Sensing and Environmental Optics, University of California at Santa Barbara
1994-1995 Postdoctoral Researcher, Southern Regional Research Center, Agriculture Research Service
1995-2001 Assistant Professor, Institute of Marine and Coastal Science, Rutgers University
2001-2007 Associate Professor, Institute of Marine and Coastal Science, Rutgers University
2007-present Professor, Institute of Marine and Coastal Science, Rutgers University

OTHER PROFESSIONAL APPOINTMENTS

1988 Laboratory Research Associate I, Marine Science Institute, University of California at Santa Barbara
1989-1993 Graduate Research Assistant, Marine Science Institute, University of California at Santa Barbara
1989-1993 Graduate Teaching Assistant, Department of Biology, University of California at Santa Barbara
1989-1990 Curator, Algal Culture Collection, Department of Biology, University of California at Santa Barbara
1995 Adjunct Professor of Biological Sciences, Loyola University, New Orleans, LA.
1995-present Adjunct Research Scientist, Mote Marine Laboratory, Sarasota, FL.
1999-present Co-Director of the Coastal Ocean Observation Laboratory
1999-present member Rutgers Environmental Biophysics and Molecular Biology Program
2000-present member of Rutgers Ocean Systems Engineering Center
2001-present Adjunct Professor, California Polytechnic State University, San Luis Obispo, CA.
2008-present Senior Project Scientist, Ocean Observatory Initiative

RESEARCH INTERESTS

primary productivity in aquatic ecosystems, climate change and the oceans, evolution of phytoplankton and global geochemistry, hydrological optics, integrated ocean observatories

AWARDS, HONORS AND CERTIFICATIONS

Deans Honor Student, University of California at Santa Barbara (1987)
National Science Foundation- Research Experience for Undergraduates (REU) (1987)
Antarctic Service Medal (1988)
University Research SCUBA certification (1988)
Invited Scientist 5th International Group on Aquatic Productivity (1990)
University of California at Santa Barbara Travel Award (1992)
University of California Regents Fellowship Award (1992)
Invited Scientist DIALOG Symposium (1994)
Invited Scientist National Academy of Sciences and Max Planck for the German-American Frontiers of Science Symposium, Munich Germany (1997)
Invited Scientist "Techniques for Food Industry, Agriculture and Environment" Todi, Italy (1997)
Authorized Data User and Real-time Site License for the SeaWiFS Project (1998-2008)
Invited Participant National Academy of Sciences and Japan Science & Technology Corporation (JAMSTEC), Japanese-American Frontiers of Science Symposium (1999)
NJ State Legislation Resolution Assembly Resolution No. 209 recognizing RU COOL as a state resource (2003)
Rutgers University Faculty Academic Service Increment Program (FASIP) Award (1998-2009)
Rutgers Cook College TEAM Award (2006)
Technology Collaboration Award by the Naval Research Lab at Stennis Space Center for Helping to Focus Future Naval Oceanographic Research to Support the United States Navy Warfighter Operating in the Littoral Zone, Glenn & Schofield, (2007)
Honorary member of the British Phycological Society (2008)

Biano, Spain, International recognition of the arrival of the Scarlet Knight for being the first robot to cross an ocean basin with a plaque adjacent to celebrating the return of Columbus's crew of the Pinta (2009)
 RU Scarlett Knight glider is declared a historic artifact by the White House (2009)
 Antarctic Service Medal (2009)
 AIBS awards LTER Network with its Distinguished Science award (2010)
 The transatlantic glider RU27 is inducted into the Smithsonian Museum, Washington DC (2010)
 RU COOL as part of the Port Security Center of Excellence is awarded a Department of Homeland Security Science & Technology Impact Award for efforts during the Deepwater Horizon Oil Spill (2011)

TEACHING EXPERIENCE

Post-Doctoral Advisor for

Dr. Mark Moline, Institute of Marine and Coastal Sciences, Rutgers University, NJ (1996-1997)
Presently: Professor and Director of School of Marine Science and Policy, University of Delaware
 Dr. Yu Gao, Institute of Marine and Coastal Sciences, Rutgers University, NJ (1998-2000)
Presently: Senior Research Scientist at Phycogen
 Dr. Elena Litchmann, Institute of Marine and Coastal Sciences, Rutgers University, NJ (2001-2002)
Presently: Faculty at University of Wisconsin
 Dr. Antonietta Quigg, Institute of Marine and Coastal Sciences, Rutgers University, NJ (2000-2003)
Presently: Faculty at Texas A&M
 Dr. Lin Jhang, Institute of Marine and Coastal Sciences, Rutgers University, NJ (2003-2005)
Presently: Faculty at Georgia Technology University
 Dr. Mathew Oliver Institute of Marine and Coastal Sciences, Rutgers University, NJ (2006-2007)
Presently: Faculty at University of Delaware
 Dr. Bronwyn Cahill, Institute of Marine and Coastal Sciences, Rutgers University, NJ (2006-2008)
Presently: Scientist at Informus
 Dr. Renato Castelao, Institute of Marine and Coastal Sciences, Rutgers University, NJ (2006-2008)
Presently: Faculty at University of Georgia
 Dr. Martin Montes-Hugo, Institute of Marine and Coastal Sciences, Rutgers University, NJ (2007-2009)
Presently: Faculty at University of Quebec
 Dr. Alex Kahl, Institute of Marine and Coastal Sciences, Rutgers University, NJ (2008-2010)
Presently: US State Department, Washington DC
 Dr. Grace Saba, Institute of Marine and Coastal Sciences, Rutgers University, NJ (2010-present)

Major Advisor for Ph.D. and Masters

Joe Grzyski "Ecosystem adjustments and organism adaptations: energy flows in the Santa Barbara Basin and Antarctic Peninsula" Institute of Marine and Coastal Sciences, Rutgers University, NJ (Ph.D.) (1996-2001)
Presently Senior Research Faculty at Reno Desert Research Institute
 Patricia Shaheen "Selective Feeding of the Early Winter Flounder Pleuronectes americanus" Institute of Marine and Coastal Sciences, Rutgers University, NJ (M.S.) (1998-2000) *Presently Faculty at Monmouth State University*
 Trisha Bergmann "The Ecology of Cryptophytes and Their Associated Biogeochemical Consequences" Institute of Marine and Coastal Sciences, Rutgers University, NJ (Ph.D., Co-advisor w/ Dr. Scott Glenn) (1997-2003)
Presently at National Ocean and Atmospheric Administration
 Zoe Finkel "Photoacclimation in chromophytic algae under fluctuating light and nutrient fields" Institute of Marine and Coastal Sciences, Rutgers University, NJ (Ph.D., Co-advisor w/ Dr. Paul Falkowski) (2000-2004)
Presently Faculty at Mount Allison University
 Felisa Wolfe "Role and evolution of super oxide dismutase in eukaryotic algae" Institute of Marine and Coastal Sciences, Rutgers University, NJ (Ph.D., Co-advisor w/ Dr. Paul Falkowski 2000-2005) *Presently a postdoctoral researcher at the USGS*
 Matthew Oliver "The physical forcing of biogeochemistry of the Mid-Atlantic Bight as defined using the New Jersey shelf system." Institute of Marine and Coastal Sciences, Rutgers University, NJ (Ph.D., Co-advisor w/ Dr. Paul Falkowski 2001-2007) *Presently Faculty at University of Delaware*
 Meenal Gogte "Chlorophyll budgets for the Mid-Atlantic Bight" Institute of Marine and Coastal Sciences, Rutgers University, (M.S. 2005-2006) *Presently Ph.D. student at University of Delaware*
 Alex Kahl "Flocculation processes and oceanic export flux in the world's oceans." Institute of Marine and Coastal Sciences, Rutgers University, NJ (Ph.D. 2002-2008) *Presently a AAAS Fellow at United States Department*

- Rachael Sipler “Dissolved organic nutrient regulation of coastal phytoplankton communities” Institute of Marine and Coastal Sciences, Rutgers University, NJ (Ph.D., Co-advisor w/ Dr. Sybil Sietzinger 2004-2009) *Presently a postdoctoral researcher at the Virginia Institute of Marine Sciences, William and Mary*
- Xu Yi “Physical regulation of biogeochemical fluxes of continental shelves” Institute of Marine and Coastal Sciences, Rutgers University, (Ph.D. 2006-present)
- Travis Miles “Storm regulation of Mid-Atlantic Bight phytoplankton dynamics and sediment resuspension” Institute of Marine and Coastal Sciences, Rutgers University, (Ph.D. 2009-present)
- Mike Garzio “Regulation of diatom productivity in a variable light field” Ecology and Evolution, Rutgers University, Rutgers University (M.S. 2009-2012)
- Nicole Cuorto “Mesoscale eddy propagation on the West Antarctic Peninsula” Institute of Marine and Coastal Sciences, Rutgers University, (Ph.D. 2011-present)
- Christian Laber “Virus control of phytoplankton community composition” Institute of Marine and Coastal Sciences, Rutgers University, (Ph.D. 2011-present)
- Felipa Carnevale “Phytoplankton dynamics along the West Antarctic Peninsula” Institute of Marine and Coastal Sciences, Rutgers University, (Ph.D. 2011-present)

Thesis committee member for

- Terence Evens, Department of Biology, University of California at Santa Barbara (Ph.D. awarded in 1999)
- Scott Durski, Institute of Marine and Coastal Sciences, Rutgers University, NJ (Ph.D. awarded in 2000)
- Tomoko Komada, Institute of Marine and Coastal Sciences, Rutgers University, NJ (Ph.D. awarded in 2001)
- Tracy Weigner, Institute of Marine and Coastal Sciences, Rutgers University, NJ (Ph.D. awarded in 2001)
- Cris Orrico, Department of Biology, California Polytechnic State University, CA (M.S. awarded in 2002)
- Sasha Tozzi, Institute of Marine and Coastal Sciences, Rutgers University, NJ (M.S. awarded in 2001)
- Sara Green, Lamont Doherty Earth Observatory, Columbia University, NY (Ph.D. awarded in 2005)
- Tuo Shi, Institute of Marine and Coastal Sciences, Rutgers University, NJ (Ph.D. awarded in 2006)
- Ramya Ramadurai, Institute of Marine and Coastal Sciences, Rutgers University, NJ (M.S. awarded in 2008)
- Sherrie Whitaker, Institute of Marine and Coastal Sciences, Rutgers University, NJ (M.S. awarded in 2008)
- Hui Lui, Institute of Marine and Coastal Sciences, Rutgers University, NJ (Ph.D. awarded in 2009)
- Cheng Yi, Institute of Marine and Coastal Sciences, Rutgers University, NJ (M.S. awarded in 2009)
- Frank Natale, Institute of Marine and Coastal Sciences, Rutgers University, NJ (M.S. awarded in 2009)
- Wao Jing, Institute of Marine and Coastal Sciences, Rutgers University, NJ (M.S. awarded in 2010)
- Dong Lai Gong, Institute of Marine and Coastal Sciences, Rutgers University, NJ (Ph.D. awarded in 2010)
- Brian Gaas, Institute of Marine and Coastal Sciences, Rutgers University, NJ (Ph.D. awarded in 2010)
- Jeena Drake, Institute of Marine and Coastal Sciences, Rutgers University, NJ (Ph.D. In progress)

Undergraduate Summer Internships.

- Jeffrey Widmer, 1997 Summer Internship at Institute of Marine and Coastal Sciences, Rutgers University, “PSII yields and light adaptation in the green alga *Chlorella pyrenoidosa* and the cyanobacteria *Anabaena flos aequae*”
- Christina Orrico, 1997 Summer Internship at Institute of Marine and Coastal Sciences, Rutgers University “Comparative monochromatic action spectra for *Alexandrium fundyense* (Ca28) and *Thalassiosira pseudonana*”
- Taylor Newton 1999 Summer Internship at Institute of Marine and Coastal Sciences, Rutgers University, “Spectral reflectance and its relation to spectral backscatter during summer upwelling at LEO-15”
- Meredith Armstrong 2000 Summer Internship at Institute of Marine and Coastal Sciences, Rutgers University, “State transitions in Cryptophyte algae”
- Dwight Peterson 2000 Summer Internship at Marine and Coastal Sciences, Rutgers University, “Deconvolving *in situ* bulk absorption measurements into the different spectral classes of algae”
- Jessie Sebbo 2001 Summer Internship at Marine and Coastal Sciences, Rutgers University, “The rates of transparent exopolymer particles in the coastal off New Jersey”
- Meghann Horner 2001 Summer Internship at Marine and Coastal Sciences, Rutgers University, “Particulate organic carbon and the relationship to the *in situ* optical properties”
- Rebecca Chiambi 2003 Summer Internship at Marine and Coastal Sciences, Rutgers University, “Evolution of size in the phytoplankton”
- Erin Meyer 2004 REU summer intern at Marine and Coastal Sciences, Rutgers University, “Dissolved nutrient physiology of *Karenia brevis*”
- Brendan Newell 2007 summer intern at Marine and Coastal Sciences, Rutgers University, “Acoustics of fish schools in the Mid-Atlantic Bight”

- Steven Savard 2009 summer intern at Marine and Coastal Sciences, Rutgers University “Seasonal dynamics in phytoplankton dynamics at Palmer Station Antarctica”
- Emily Rogalsky 2010 REU summer intern at Marine and Coastal Sciences, Rutgers University “Competition between coccolithophorids and diatoms under a variable light field”
- Melissa Glibranes 2010 Douglas college summer intern at Marine and Coastal Sciences, Rutgers University “Wind speed regulation of Antarctic ecosystems”
- Emily Pirl 2011 REU summer intern at Marine and Coastal Sciences, Rutgers University “Role of ocean acidification on ocean bio-optical properties”

Undergraduate Advisor

- 1997-1998 Advisor for Christina Orrico “Intraspecific variability in the monochromatic UV action spectra in the diatom *Thalassiosira pseudonana*” (*Henry Rutgers Scholars Program*)
- 1997-1998 Advisor for Jeffrey Widmer “Xanthophyll Pigment Cycling in Stochastic Light Environments” (*George H. Cook Undergraduate Scholars Program*)
- 1997-1998 Reader for Brian Larsen “LEO-15 and Upwelling Off the Coast of New Jersey” (*George H. Cook Undergraduate Scholars Program*)
- 1996-1997 Reader for Eric Halpern “Benthic Productivity at LEO-15” (*George H. Cook Undergraduate Scholars Program*)
- 1998 Advisor for Jessica Graham “Optical properties of *Gymnodinium breve*” (*Cook General Honors Program*)
- 2000 Advisor for Meredith Armstrong “Variability in light absorption capabilities of phycobilin containing algae” (*General Honors Program*)
- 2000-2001 Advisor for Ria Palmer “High light stress in the toxic red tide *Gymnodinium breve*” (*General Honors Program*)
- 2000-2001 Advisor for Scott Smolder “Derivative analysis of phytoplankton optical properties” (*General Honors Program*)
- 2001-2002 Advisor for Sarah Cundif “Cryptomonad temperature and light ecological niches” (*General Honors Program*)
- 2001-2002 Jessie Sebbo “Exudate production production and the relation to nutrient stress in marine chromophytes” (*Cook Douglass Honors Program*)
- 2002 Sarah Cundiff “Effects of ultraviolet light stress on aquatic ecosystems” (*Cook Douglass Honors Program*)
- 2005 John Hencken “Particle aggregation and transparent exopolymers” (*General Honors Program*)
- 2007-2008 Evan Goodwill-Randal “Slocum Gliders, storms, and sediment resuspension” (*Research Internship*)
- 2008 Michael Garzio “Phytoplankton bloom dynamics and exudation rates” (*Research Internship*)
- 2009 Steven Savard “Penguin foraging zones in the west Antarctic Peninsula” (*Research Internship*)
- 2010 Kaycee Coleman “Phytoplankton dynamics along the West Antarctic Peninsula” (*Research Internship*),
- 2010 Emily Rogalsky “Impact of a dynamic light field on phytoplankton growth” (*Research Internship*),
- 2010 Nils Strandovesky “Upper mixed layer regulation of phytoplankton communities” (*Research Internship*)
- 2011 Amelia Snow “Ocean acidification impact on marine cryptophytes” (*Cook Douglass Honors Program*)

Curriculum Developed

- 1996 Graduate Course Developed “Primary Production in Aquatic Ecosystems” 16:712:523
- 1997 Major Revision of Undergraduate Course “Oceanographic Methods and Data Analysis” 11:6289:364
- 1999 Group Revision of “Biological Oceanography” 11:628:462, 16:712:522
- 2004 Major Revision of Undergraduate Course “Marine Sciences” 11:628:200
- 2004 Major Revision of Graduate Course “Biological Oceanography” 11:628:462
- 2007 Developed Freshmen Seminar Course “Sea Monsters, Robots, and Radars”
- 2009 Major Revision of the Undergraduate Course “Oceanographic Methods and Data Analysis” 11:6289:364
- 2009 Development of Online 100 level “Exploring and Understanding the World’s Oceans” 11:628:125
- 2010 Faculty PI, Rutgers Oceanography House learning community
- 2010 Major Revision of Graduate Course “Primary Production in Aquatic Ecosystems” 16:712:523
- 2012 Design of Rutgers Glider University and Extension Course

Year: Courses Taught (course number)

- 2011: “Oceanographic Methods and Data Analysis” 11:628:364, “Exploring and Understanding the World’s Oceans” 11:628:125, “Ocean Observatories” 16:712:523

- 2010: “Freshmen Seminar: Sea Monsters, Robots, and Radars”, “Ocean Ecology” 11:628:462, 16:712:522, “Oceanographic Methods and Data Analysis” 11:628:364, “Exploring and Understanding the World’s Oceans” 11:628:125, “Ocean Observatories” 16:712:523, Science Communication Skills” 16:712:595
- 2009: “Oceanographic Methods and Data Analysis” 11:628:364, 11:628:364, “Science Communication Skills” 16:712:595, “Ocean Observatories” 16:712:523, 1:090:101 “Freshmen Seminar: Sea Monsters, Robots, and Radars”, Science Communication Skills” 16:712:595
- 2008: “Marine Dynamics” 11:628:200, “Oceanographic Methods and Data Analysis” 11:628:364, 1:090:101 “Freshmen Seminar: Sea Monsters, Robots, and Radars”, “Science Communication Skills” 16:712:595, “Ocean Observatories” 16:712:523
- 2007: “Marine Dynamics” 11:628:200, “Oceanographic Methods and Data Analysis” 11:628:364, 1:090:101 “Freshmen Seminar: Sea Monsters, Robots, and Radars”, “Science Communication Skills” 16:712:595
- 2006: “Marine Dynamics” 11:628:200, “Oceanographic Methods and Data Analysis” 11:628:364
- 2005 “Marine Dynamics” 11:628:200, “Oceanographic Methods and Data Analysis” 11:628:364, “Biological Oceanography” 11:628:462, 16:712:522
- 2004 “Marine Science” 11:628:200, Oceanographic Methods and Data Analysis” 11:628:364, “Biological Oceanography” 11:628:462, 16:712:522
- 2003 “Marine Science” 11:628:200, “Oceanographic Methods and Data Analysis” 11:628:364, “Biological Oceanography” 11:628:462, 16:712:522
- 2002 “Marine Science” 11:628:200, “Primary Production in Aquatic Ecosystems” 16:712:523, “Oceanographic Methods and Data Analysis” 11:628:364, “Biological Oceanography” 11:628:462, 16:712:522
- 2001 “Marine Science” 11:628:200, “Primary Production in Aquatic Ecosystems” 16:712:523, “Oceanographic Methods and Data Analysis” 11:628:364, “Biological Oceanography” 11:628:462, 16:712:522
- 2000 “Perspectives in Agriculture and the Environment” 11:015:101, “Marine Science” 11:628:200, “Biological Oceanography” 11:628:462, 16:712:522, “Oceanographic Methods and Data Analysis” 11:628:364
- 1999 “Perspectives in Agriculture and the Environment” 11:015:101, Fall 1999 “Marine Science” 11:628:200, “Oceanographic Methods and Data Analysis” 11:628:364, “Perspectives in Agriculture and the Environment” 11:015:101
- 1998 “Marine Sciences” 11:628:200, “Oceanographic Methods and Data Analysis” 11:628:364, “General Honors Program” 11:554:298
- 1997 “Primary Production in Aquatic Ecosystems” 16:712:523, “Research in Oceanography” 16:712:701, “Marine Sciences” 11:628:200, “Problems in Oceanography” 11:628:498
- 1996 “Marine Sciences” 11:628:200, “Research in Oceanography” 16:712:701, “Graduate Research Assistantship” 16:712:866
- 1995 “Marine Sciences” 11:628:200

EDUCATIONAL PODCASTS AND AUDIO SLIDE SHOWS

- Gliding on Earth (Episode 15 for Ocean Gazing) <http://coseenow.net/podcast/>
- The glide of a lifetime: Part II (Episode 8 for Ocean Gazing) <http://coseenow.net/podcast/>
- The glide of a lifetime: Part I (Episode 7 for Ocean Gazing) <http://coseenow.net/podcast/>
- Antarctica Melting (Audio slide show with LTER collaborators) <http://coseenow.net/antarctica/>

TEACHING EXTERNAL TO RUTGERS

- 2006 Short Course (8 hours) “An oceanographic life beyond chlorophyll *a*: measuring primary productivity from space” sponsored by Ocean Optics 2006 in Montreal Canada
- 2010 Graduate Short Course (16 hours) “A primer in building ocean observatories to address a changing water planet” hosted at National Kaohsiung Marine University, College of Ocean Engineering, Kaohsiung, Taiwan
- 2011 Center for Microbial Oceanography Research and Education (C-MORE) summer course (4 days). University of Hawaii, Honolulu
- 2012 Center for Microbial Oceanography Research and Education (C-MORE) summer course (4 days). University of Hawaii, Honolulu

COMMUNITY OUTREACH

- 1997-2001. IMCS Project Tomorrow Instructor (over 2,000 Pre-Collegiate Teachers Registered)
1998. Faculty Mentor for 12 High School Teachers for the Princeton University Woodrow Wilson “Science as Inquiry” Program

1998-1999. Faculty Oceanographer mentor for Field Excursions by K6-12 Teachers in Project Tomorrow
 1999. Invited community seminar as part of the Princeton Plasma Physics Laboratory Science for Saturday Science Lecture Series.
 2000-2002 Faculty Advisor for the Rutgers University SCUBA club
 2001 Faculty advisor for Turnstone Publishing K-12 Curriculum Development
 2001-present COOL Room integrated in NBC and ABC daily weather television broadcasts for Philadelphia Stations
 2005-2007 Science Representative for State of New Jersey Department of Personnel's program for "Creating the Workforce of the Future" in underprivileged urban middle schools
 2006 Learning & Teaching Advisory Committee for the Liberty Science Center
 2009 Podcast for the New Jersey Network on "Ocean Observatories"
 2009 Invited Speaker at NJ-PIRG's Global Warming Solutions campaign
 2010 Invited Speaker, Rutgers Science Saturday, Climate Change Symposium
 2010 Twice Invited Podcast speaker for Robots (<http://www.robotspodcast.com/>)
 2010 TIGER Talk to molecular biology high school teachers/students
 (http://www.hhmi.princeton.edu/index.php?option=com_content&task=view&id=21&Itemid=46)
 2011 Invited community seminar as part of the Princeton Plasma Physics Laboratory Science for Saturday Science Lecture Series
 2011 Invited movie screening of "Atlantic Crossing" the State Department of the United States (Washington DC)
 2011 Invited movie screening of "Atlantic Crossing" at NOAA (Washington DC)
 2011 Outreach to Rutgers Campus "RU Cold?: Rutgers Undergraduates in Antarctica" (New Brunswick, NJ)
 2011 Project Civility at Rutgers Campus invited questions and screening of "Atlantic Crossing" (New Brunswick, NJ)
 2011 Speaker at Rutgers GIS day (New Brunswick, NJ)
 2012 Colloquium seminar at Princeton Plasma Physics Laboratory (New Brunswick, NJ)
 2012 Speech to School of Environmental and Biological Science Staff about the Polar research efforts by COOL (New Brunswick, NJ)

SOCIETY MEMBERSHIPS

American Society of Limnologists and Oceanographers, Phycological Society of America, Oceanography Society, American Geophysical Union

PROFESSIONAL SERVICE

1995 Minority Mentor at American Society of Limnology and Oceanography Meeting, Reno, Nevada
 1995 Invited Scientist, "NY/NJ Harbor Estuary Monitoring Workshop" Rutgers University
 1995 Invited Scientist. NOAA Brown Tide Summit, Brookhaven, Long Island
 1996-1998 Editorial Board Journal of Phycology
 1996 Chair "Applied Phycology" at Phycological Society Meetings, Santa Cruz, California
 1997 Invited Scientist. NOAA "Application of Remote Sensing to Red Tide Forecasts in the Gulf of Mexico" NOAA Coastal Services Center, Charelston South Carolina
 1997-2000 Committee Member for ASLO Lifetime Achievement Award
 1998 Chair at Ocean Sciences Meeting "Bio-optical Measurements, Spectra, and Modeling" San Diego California,
 1998 Chair for the Symposium of "Molecular, Cellular, & Ecophysiological Bases of Noxious & Harmful Algal Blooms" Phycological Society Meeting, Flagstaff, AZ
 1998-1999 Guest Editor for the Journal of Phycology
 1999 Invited Scientist Coastal Ocean Observation Systems (GOOS) Symposium, Maryland
 2000 Chair at Ocean Sciences for "Coastal Ocean Dynamics and Prediction" San Antonio, Texas
 2000 Invited Scientist National Research Council for "Seafloor Observatories: Challenges and Opportunities" Fort Lauderdale, FL.
 2000-2005 NOAA Coastal Ocean Program Steering Committee
 2000 Invited Scientist Office of Naval Research "Vertical Mixing in the Coastal Ocean" Seattle, Washington
 2000 Chair at Ocean Optics for "Ocean Observatories", Monaco
 2000 Rutgers Host (with Scott Glenn) for Naval Oceanographic Office Naval Liaison
 2000 Invited Scientist of NOAA symposium on a "Harmful Algal Bloom Ocean Observatory" Pensacola, FL.
 2001 Invited Scientist for the International Ocean Network symposium on "Ocean Observations" Mt. Fuji, Japan,
 2001 Invited Scientist for "Integrated Ocean Observatories" symposium Ft. Lauderdale FL.

2002 Invited Scientist for OCEAN.US for the “National Ocean Observatory”, Warrenton, VA.
 2002 Organizer & Convener for “Coastal Ocean Observatory Workshop” organized by the NOAA Coastal Ocean Program
 2002 Invited Scientist for the NSF symposium on “Scientific Cable Ocean Time Series” Workshop
 2002-2003 National Research Council Member for the Committee of “Seafloor Observatory Network for Oceanographic Research”
 2002-2003 Special Guest Editor, Journal of Geophysical Research (Oceans)
 2003 Invited Scientist for the NSF symposium on “Autonomous and Langragian Platforms and Sensors” Workshop, San Diego, California
 2003 Chair for the "The Southern Ocean’s Role in Present and Past Climate" Joint Assembly European Geophysical Society-American Geophysical Union-European Union of Geosciences (Nice, France)
 2003 Co-Chair for “The Coastal Ocean Observing System” at the IAPSO/IAG/IOC meeting in Sapporo Japan
 2003-2004 Co-Chair for NSF “Ocean Research Interactive Observational Networks (ORION)” Workshop in San Juan, Puerto Rico
 2003 Invited scientist for “Real-time Coastal Observing Systems for Ecosystem Dynamics and Harmful Algal Blooms” sponsored by the European Commission and UNESCO, Villenfranche-sur-mer, France
 2003-2007 Associate Editor, Journal of Geophysical Research (Oceans)
 2004-2007 Executive Board for the ORION Program Office.
 2004-2006 North American Chair for the Oceanography Society Meetings in Paris, France in Spring 2005
 2004-2009 Editorial Board for the Continental Shelf Research
 2004 Steering Committee for Alliance of Coastal Technologies Autonomous Underwater Vehicle Workshop
 2004 Science risk reduction team GOES-R Hyperspectral Environmental Suite (HES) Coastal Waters (CW) Imager
 2005-2006 Ocean Optics Steering Committee
 2005 Steering Committee for the Coastal North American Carbon Program
 2006 Invited U.S. Scientist for European Eulerian Observatories (Monaco)
 2006 Steering Committee for “Artificial Intelligence and Autonomous Systems Symposium” Monterey Bay
 2006-2007 Advisory Committee for the “Undersea Vehicle Technology Center”
 2007-2013 Board of Directors of the Canadian “Ocean Entity Society”
 2007-2008 Advisory Committee for the European EuroSITES program
 2007 Chair of “Cyberinfrastructure for Ocean Observatories” session at American Geophysical Union Meeting
 2008 Invited Participant for workshop to develop the Cyberinfrastructure for United States Environmental Observatories hosted by the Computer Science Division, NSF (Arlington VA)
 2008 Organizing Committee on the “Integrated Ocean Observing System Modeling framework symposium” Arlington, Virginia
 2008-2009 Steering Committee for the Federation of Observing Environmental Networks (FEON) for NSF Computer Science Directorate.
 2008-2010 Editorial Board of the Journal of Marine Biology
 2009-2010 Chair of the Advisory Committee for the European EuroSITES program
 2009-2011 National Research Council Member for the Committee of “Ocean Infrastructure for the year 2030”
 2010-2011 Alliance of Coastal Technologies Advisory Board
 2011 Search committee for the Director of Neptune Canada
 2011 Science Steering Committee Global Biogeochemical Flux Ocean Observatories Initiative
 2012-2014 Co-Chair of Scientific Steering Committee of the International Southern Ocean Observing System
 2012 Chair, Science Review Committee of Naval Research Laboratory, Stennis Science Center

 Review grants for NSF, USDA, NASA, EPA, AAAS, United Kingdom NERC fellowships, SeaGrant
 Review manuscripts for Limnology and Oceanography, Journal of Phycology, Marine Biology, Marine Ecology Progress Series, Deep-Sea Research, Phycologia, Ecology, Science, Nature, PNAS, Nature, AAAS,

UNIVERSITY COMMITTEES

Chair IMCS Seminar Series (1996-1998)
 Undergraduate Curriculum Committee (1996-1998)
 Graduate Admissions Committee (1999)
 Chair Graduate Admissions Committee (1999-2004)
 Graduate Executive Committee (1999-2004)
 Cook College General Honors Program (2001-2003)

Institute of Marine and Coastal Sciences Computing Committee (2003, Chair in 2005-2007)
 Institute of Marine and Coastal Sciences Executive Counsel (2005-2006)
 Chair Institute of Marine and Coastal Sciences Microbial Ecologist Faculty Search Position (2005)
 PEC FASIP Committee (2005)
 Institute of Marine and Coastal Sciences Oceanography Faculty Search Position (2007)
 Chair, Agricultural Experiment Faculty Search for Marine Extension (2007)
 Executive Committee for Graduate Program in Department of Ecology & Evolution (2010)
 Academic and Promotion Committee, School of Environmental and Biological Sciences (2010-2013)
 Institute of Marine Coastal and Marine Sciences Faculty Search Committee (2012)

PUBLICATIONS (**Paper by students and post-doctoral researchers) (H-index = 30, ISI Web of Science)

1. Prézelin, B. B., Glover, H. E., Ver Hoven, B., Steinberg, D., Matlick, H.A., **Schofield, O.**, Nelson, N., Wyman, M., Campbell, L. 1989. Blue-green light effects on light-limited rates of photosynthesis: relationship to pigmentation and productivity estimates for *Synechococcus* populations from the Sargasso Sea. *Marine Ecology Progress Series* 54: 121-136.
2. Bidigare, R. R., **Schofield, O.**, Prézelin, B. B. 1989. Influence of zeaxanthin on quantum yield of photosynthesis of *Synechococcus* clone WH7803 (DC2). *Marine Ecology Progress Series* 56: 177-188.
3. **Schofield, O.**, Bidigare, R. R., Prézelin, B. B. 1990. Spectral photosynthesis, quantum yield and bluegreen light enhancement of productivity rates in the diatom *Chaetoceros gracile* and the prymnesiophyte *Emiliana huxleyi*. *Marine Ecology Progress Series* 64: 175-186.
4. Prézelin, B. B., Tilzer, M. M., **Schofield, O.**, Haese, C. 1991. The control of the production process of phytoplankton by the physical structure of the aquatic environment with special reference to its optical properties. *Aquatic Sciences* 53: 136-186.
5. **Schofield, O.**, Prézelin, B. B., Stegmann, P., Nelson, N. B., Lewis, M., Smith, R. C., Baker, K. 1991. Variability in spectral and nonspectral measurements of photosynthetic light utilization efficiencies. *Marine Ecology Progress Series* 78: 253-271.
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10. Hales, B., W. –J. Cai, B. G. Mitchell, C. L. Sabine, and **O. Schofield.** (eds.) 2008. *North American Continental Margins: A synthesis and Planning Workshop.* Report of the North American Continental Margins Working Group for the U.S. Carbon Cycle Scientific Steering Group and Interagency Working Group, U.S. Carbon Cycle Science Program, Washington, DC, 110 pp.
11. Barron, E. J., Fine, R. A., Bellingham, J. G., Boss, E. S., Boyle, E. A., Edwards, M., Johnson, K. S., Kelley, D. S., Kite-Powell, H., Ramberg, S., Rudnick, D. L., **Schofield, O.**, Taburri, M., Wiebe, P. H., Wright, D. J. 2011. Critical infrastructure for ocean research and societal needs in 2030. Ocean Studies Board, National Research Council.

CHIEF SCIENTIST (For Research expeditions longer than 3 days)

- 1998 R.V. Laurentian, Lake Michigan (1.5 Weeks) Hydrological optics of a coastal turbidity plume
- 1998 R. V. NorthStar, Mid-Atlantic Bight (3 Weeks) Impact of upwelling coastal optical properties
- 1999 R.V. Laurentian, Lake Michigan (2 Weeks) Hydrological optics of a coastal turbidity plume
- 1999 R.V. Walford, Mid-Atlantic Bight (4 Weeks) Coastal predictive skill experiments on coastal upwelling
- 2000 R.V. Laurentian Lake Michigan (2 Weeks) Hydrological optics of a coastal turbidity plume
- 2000 R.V. Endeavor, Mid-Atlantic Bight (20 days) Utilization of KSS laser lidar for assessing thermocline depth
- 2000 R.V. Walford, Mid-Atlantic Bight (4 Weeks) Coastal predictive skill experiments on coastal upwelling
- 2001 R.V. Endeavor (20 days) Hyperspectral Remote Sensing
- 2001 R.V. Walford (4 Weeks) Coastal predictive skill experiments focused on coastal upwelling
- 2005 R.V. Oceanus (2 Weeks) Lagrangian transport and transformation experiment
- 2006 R.V. Oceanus (1 Week) Lagrangian transport and transformation experiment
- 2006 R. V. Sharp (1 week) Novel acoustic methods within a coastal observatory
- 2007 R. V. Sharp Mid-Atlantic Shelf/Slope, (3 weeks) Novel acoustic methods within a coastal observatory
- 2013 R. V. Gould Antarctica, (8 weeks) Ecosystem dynamics along the West Antarctic Peninsula

FIELD EXPEDITIONS (Only expeditions longer than 3 days, over a 200 hundred 1-2 day expeditions)

- 1986 Sargasso Sea. (6 weeks) Photophysiology of photosynthetic picoplankton
- 1987 Santa Barbara Frontal Boundary (1 week) Biology of sewage seep methane reducing mussels
- 1987 Bransfield Strait Antarctica (8 weeks) Overwintering mechanisms in the Antarctic krill
- 1988 Bransfield Strait & Palmer Station Antarctica (12 weeks) Grazing ecology of larval Antarctic krill
- 1988 Santa Barbara Frontal Boundary (4 weeks) Variability in photosynthetic quantum yields

1990 Bellinghausen Sea Antarctica (12 weeks) Impact of Antarctic ozone hole of spring phytoplankton blooms
 1993 Bellinghausen Sea & Palmer Station (20 weeks) Impact of Antarctic ozone hole of phytoplankton physiology
 1996 Gulf of Mexico (1 week) Impact of high light stress on algal biology
 1998 Lake Michigan (1.5 weeks) Hydrological optics of a coastal turbidity plume
 1998 Coastal Predictive Skill Experiments off New Jersey (3 weeks) Impact of upwelling coastal optical properties
 1999 Lake Michigan (2 weeks) Hydrological optics of a coastal turbidity plume
 1999 Coastal Predictive Skill Experiments off New Jersey (4 weeks) Impact of upwelling coastal optical properties
 2000 Lake Michigan, R.V. Laurentian (2 Weeks) Hydrological optics of a coastal turbidity plume
 2000 Mid-Atlantic Bight, R.V. Endeavor (20 days) Utilization of KSS laser lidar for assessing thermocline depth
 2000 Mid-Atlantic Bight, R.V. Walford (4 Weeks) Coastal predictive skill experiments focused on coastal upwelling
 2000 Gulf of Mexico, R.V. SunCoaster (3 weeks) Physiology of toxic *Gymnodinium breve* red-tides
 2001 Mid-Atlantic Bight, R.V. Endeavor (20 days) Hyperspectral Remote Sensing
 2001 Mid-Atlantic Bight, R.V. Walford (4 weeks) Coastal predictive skill experiments focused on coastal upwelling
 2001 Gulf of Mexico, R.V. SunCoaster (1 week) Physiology of toxic *Gymnodinium breve* red-tides
 2002 Santa Barbara Channel, R.V. Sproul (1 week) Chloroplasts sequestration in deep-sea foraminifera
 2003 Gulf of Mexico, R.V. Suncoaster (1 week) Autonomous vehicles for detecting the presence of red-tide
 2004 Mid-Atlantic Bight, R. V. Connecticut (1 week) Hudson river outflow into coastal shelf
 2005 Mid-Atlantic Bight, R. V. Oceanus (2 Weeks) Langragian transport and transformation experiment
 2006 Mid-Atlantic Bight, R.V. Oceanus (1 Week) Langragian transport and transformation experiment
 2009 Antarctica, R. V. Gould (8 weeks) Ecosystem dynamics along the West Antarctic Peninsula
 2011 Antarctica, R. V. Gould (8 weeks) Ecosystem dynamics along the West Antarctic Peninsula
 2011 Antarctica, R. V. Gould (3 weeks) Ecosystem dynamics along the West Antarctic Peninsula
 2012 Antarctica, R. V. Gould (8 weeks) Ecosystem dynamics along the West Antarctic Peninsula

CONSULTING EXPERIENCE

March 25-31 1995 "Application of fluorescence kinetics for defining physiology of field populations of cyanobacteria" for Dr. Hans Pearl at Institute of Marine Sciences, University of North Carolina, Morehead City
 January 17-21 1996. "Off-flavor metabolite synthesis in coastal shrimp aquaculture farms" for Minister Jose Monogollon, C. I. Agrosoleidad, Cartengha, Colombia
 May 24-31 1996 "Application of novel optical instrumentation for commercial aquaculture ponds" for Dr. Chris Diongi, Agricultural Research Service-U.S. Department of Agriculture, Stoneville, Mississippi
 April 7-12 1997 "Optical characterization of the Suwannee river, Florida" for Dr. Tom Frazer, University of Florida, Gainesville Florida
 May 22-24 1998 "Light-limitation of autotrophic biomass in Florida wetland communities" for Southwest Florida Water Quality Management District
 June 10-17 2000 "Measuring the inherent optical properties for the coccolithophorid *Emiliana huxleyi* during the European Coccocosm mesocosm experiments" for Dr. David Halpern, Jet Propulsion Labs, NASA
 August 2007 "Preparation of the Preliminary Science User Prospectus" for the Joint Ocean Institutions (JOI) to compete for a \$350 million National Science Foundation MREFC award

GRANT AWARDS

Research Grants (over \$50,000,000 in awarded grants)

U.S. Department of Agriculture Cooperative Agreement 1996 to 2000 "Off-flavor metabolite synthesis in noxious algae and the impact of a dynamic light field" PI Oscar Schofield (\$ 48,000)
 NRI-U.S. Department of Agriculture Cooperative Agreement. Competitive Grants Program 1996 to 1999 "Nitrogen-driven eutrophication of the Neuse River, NC: Phytoplankton ecophysiological responses to changing N input dynamics" PIs Hans Paerl, Jay Pinckney, Oscar Schofield, David Millie, Gary Kirkpatrick (\$ 237,780)
 Environmental protection Agency Competitive Grants Program 1997 to 1999 "Impact of atmospheric nitrogen deposition on eutrophication in the Neuse River Estuary" PIs Hans Paerl, Jay Pinckney, subcontracts to Drs. Oscar Schofield, David Millie, Gary Kirkpatrick (\$298,700)
 Department of Defense-Office of Naval Research, Models and Prediction Section 1997 to 2002 "Coastal Ocean Modeling and Observation Program: Real-Time Adaptive Sampling" PIs Scott Glenn, Dale Haidvogel, Oscar Schofield (\$1,050,000)
 NOAA-National Undersea Research Program 1997 to 1998 "Phytoplankton Biomass at LEO-15 and the Calibration of In situ Fluorometers" PI Oscar Schofield 1997-1998 (\$9,950)

- National Science Foundation 1997 to 2002 “Impact of episodic transport and resuspension on coastal phytoplankton processes: A case study of the Lake Michigan Recurrent Plume” PIs Gary Fahnenstiel, Oscar Schofield, Steve Lohrenz, David Millie, Linda Goad (\$1,302,632)
- NOAA-Ecology of Harmful Algal Blooms Program 2000 to 2001 “Predicting *Gymnodinium breve* bloom dynamics in the Gulf of Mexico” (Schofield budget for 2 cruises in years 2000 and 20001 is \$115,000) Project Coordinator Karen Steindinger and 21 PIs
- NASA 1998-1999 “Real-Time Site License for SeaWiFs Satellite Data” PIs Scott Glenn and Oscar Schofield
- Department of Commerce Phase I SBIR. 1998-1999 “Construction of a submersible fiber-optic spectroradiometer and spectrofluorometer” Subcontract from Poulous Technology to Oscar Schofield (subcontract of \$15,000 from Poulous Technologies)
- National Ocean Partnership Program (NOPP) 1998 to 1999 “Demonstration of a relocatable regional ocean atmosphere modeling system with coastal autonomous sampling networks” PIs Scott Glenn, Dale Haidvogel, Roni Avissar, Frederick Grassle, Oscar Schofield, Christopher von Alt, Edward Levine, Douglass Webb, Donald Barrick, Belinda Lipa, Joel Young, Richard Signell (\$990,000)
- CMER-National Marine Fisheries 1999 “Selective Feeding of the Early Winter Flounder Pleuronectes americanus.” PIs Oscar Schofield and Patricia Shaheen (\$21,491)
- Department of Defense-Office of Naval Research, Ocean Optics Section 1999-2001 “Hyperspectral remote sensing of the coastal ocean: Adaptive sampling and forecasting of nearshore in situ optical properties” PIs Oscar Schofield, Scott Glenn, Dale Haidvogel, Frederick Grassle, Paul Bissett, Mark Moline, Chris von Alt (\$1,498,304)
- NOAA Coastal Ocean Program 2000-2002 “Pfiesteria and Pfiesteria-like species monitoring and assessments in the lower St. Johns River, Florida” P-Is Karen Steindinger, John Burns, Jan Landsberg, David Millie, Patricia Tester, Carmelo Tomas (\$102,000 to Schofield via subcontract)
- Department of Defense-Office of Naval Research, Ocean Optics Section 2000 “Expansion of Hyperspectral remote sensing of the coastal ocean: Adaptive sampling and forecasting of nearshore in situ optical properties” PIs Oscar Schofield, Scott Glenn (\$75,900)
- Department of Commerce Phase II SBIR. 2000-2001 “Optimization a submersible fiber-optic spectroradiometer and spectrofluorometer” Subcontract from Poulous Technology to Oscar Schofield (subcontract of \$32,000 from Poulous Technologies)
- National Ocean Partnership Program (NOPP) 2000 to 2002 “Renewal of Multi-scale model-driven sampling with autonomous systems at a national littoral laboratory” PIs Scott Glenn, Oscar Schofield, Frederick Grassle, Dale Haidvogel, Edward Levine, Donald Barrick, Belinda Lipa, Mark Moline (\$600,000)
- National Science Foundation, Bio-Complexity Program 2000-2005 “Evolution and Radiation of Eucaryotic Phytoplankton Taxa (EREuPT)” PIs Paul Falkowski, Andrew Knoll, Kenneth Miller, Oscar Schofield, Constantino Vetriani (\$4,000,000)
- Department of Defense Office of Naval Research, Models and Prediction Section 2000 to 2003 “Coastal Ocean Modeling and Observation Program: Development and Demonstration of Rapid Environmental Assessment Techniques at a National Littoral Laboratory” PIs Scott Glenn, Dale Haidvogel, Oscar Schofield, John Wilkins (\$1,530,000)
- Department of Defense-Office of Naval Research, Ocean Optics Section 2001 “Expansion of Hyperspectral remote sensing of the coastal ocean: Adaptive sampling and forecasting of nearshore in situ optical properties” PIs Oscar Schofield, Scott Glenn (\$89,800)
- Department of Defense-Office of Naval Research, DURIP 2001 “Integration of an Autonomous Glider Fleet into a Shelf-wide Coastal Ocean Observatory” PIs Scott Glenn and Oscar Schofield (\$185,000)
- Department of Defense-Office of Naval Research, Ocean Optics Section 2002 to 2003 “Renewal of Hyperspectral remote sensing of the coastal ocean: Adaptive sampling and forecasting of nearshore in situ optical properties” PIs Oscar Schofield, Scott Glenn, Dale Haidvogel, Frederick Grassle, Paul Bissett, Mark Moline (\$610,000)
- Strategic Research Opportunity Announcement, Rutgers University. 2001-2002. “Development of a Robotic Fleet of Autonomous Underwater Gliders for a New Jersey Continental Shelf Regional Ocean Observatory” Scott Glenn, Oscar Schofield, Frederick Grassle (\$135,000)
- Department of Defense-Office of Naval Research, Phase I STTR Program 2001-2002. “Autonomous Operation of a Coordinated Underwater Glider Fleet” Clayton Jones, Douglass Webb, Scott Glenn, Oscar Schofield (\$96,647)
- National Science Foundation Engineering Development Award 2002-2003. “Development of Nested, Autonomous Phytoplankton Monitoring Technology” Gary Kirkpatrick, Oscar Schofield, Scott Glenn, Mark Moline, Clayton Jones (\$637,000)
- Department of Defense-Office of Naval Research, Phase II STTR Program 2002-2003. “Autonomous Operation of a Coordinated Underwater Glider Fleet” Clayton Jones, Douglass Webb, Scott Glenn, Oscar Schofield (\$600,000)

- Department of Defense-Office of Naval Research, DURIP 2002 “A Nested BiStatic Radar Array” Josh Kohut, Oscar Schofield, Scott Glenn (\$100,000)
- NASA Exobiology Program 2002-2004 “The chloroplast conundrum: the biology and ecology of a chloroplast-sequestering foraminifer inhabiting an aphotic, sulfide-enriched deep-sea environment” Joan Bernhard, Oscar Schofield, Joe Grymski (\$317,970)
- NOAA EcoHab 2003-2004 “The Field testing of an Autonomous Phytoplankton Monitoring Technology” Oscar Schofield, Scott Glenn (\$70,000)
- National Science Foundation Coastal Ocean Processes Program 2003-2008 “COLLABORATIVE RESEARCH: Lagrangian studies of the transport, transformation, and biological impact of nutrients and contaminant metals in an buoyant plume. Robert Chant, Scott Glenn, Oscar Schofield, John Reinfelder, John Wilkins, Mark Moline, Robert Chen, Thomas Frazer, Mung Zuo, Paul Bissett (\$4,200,000)
- Department of Defense-Office of Naval Research 2003-2004. “Developing the Ability to Map In Situ Optical Properties in Coastal Waters Using Slocum Coastal Gliders” Oscar Schofield, Scott Glenn, Clayton Jones (\$208,200)
- Department of Defense- Office of Naval Research EcoHab 2003-2005 “Optical Detection and Assessment of the Harmful Alga, *Karenia brevis*” Steve Lohrenz, Oscar Schofield, Gary Kirkpatrick (\$495,098)
- United States-Israel Binational Science Foundation 2003-2007 “Time Resolved Photosynthesis Energy Budget Combining Photoacoustics, Fluorescence and Oxygen” Zvy Dubinsky, Oscar Schofield, Maxim Grobunov (\$175,000)
- Department of Defense-Office of Naval Research 2003 “Mapping *In Situ* Optical Properties using Slocum Coastal Gliders during the MIREM Mine Countermeasures Exercise” Oscar Schofield and Scott Glenn (\$23,000)
- Department of Defense-Office of Naval Research 2003-2004. “Renewal of Developing the Ability to Map *In Situ* Optical Properties in Coastal Waters Using Slocum Coastal Gliders” Oscar Schofield, Scott Glenn (\$95,000)
- National Ocean Partnership Program (NOPP) 2004-2005 “An Integrated Wireless Coastal Communications Network” PIs David Porter, Scott Glenn, Oscar Schofield (\$46,266)
- Department of Defense- Office of Naval Research 2004-2006 “Mapping the spatial dynamics in optically significant nepheloid layers using autonomous underwater gliders” PIs Oscar Schofield, Scott Glenn, Michael Twardowski (\$225,000)
- National Ocean Partnership Program (NOPP) 2005-2008 “Development of fluorescent induction and relaxation systems for the measurement of biomass and primary productivity on Webb Slocum gliders” PIs Oscar Schofield, Scott Glenn, Paul Falkowski, Scott MacLean, Maxim Grobunov, Clayton Jones (\$600,000)
- Department of Defense- Office of Naval Research 2005 “Expansion of Optical Detection and Assessment of the Harmful Alga, *Karenia brevis*” PI Oscar Schofield (\$53,000)
- National Ocean Partnership Program (NOPP) 2005-2008. “Novel Acoustic Techniques to Measure Schooling in Pelagic Fish in the Context of an Operational Coastal Ocean Observatory” PIs K. Benoit-Bird, C. Jones, O. Schofield, S. Glenn, J. Quinlan (\$1,367,980)
- Department of Defense- Office of Naval Research 2005-2006 “Adaptive Sampling in a Research Observatory During the Shallow Water 2006 Acoustics Experiment” PIs S. M. Glenn, O., Schofield, J. Kohut (\$400,000)
- NOAA CICEET program. 2005-2006. Improving the spatial mapping within the National Estuarine Research System using bio-optical technologies, A pilot effort for the Jacques Cousteau NERR. O. Schofield (\$62,937).
- Department of Defense- Office of Naval Research 2006 ‘Establishing an ONR autonomous underwater glider technology center’ PIs S. M. Glenn, O. Schofield, J. Kohut, C. Jones (\$666,666)
- Department of Defense- Office of Naval Research 2006 “Mapping *in situ* apparent optical properties using coastal Slocum Webb gliders” PIs Schofield, O., and S. M. Glenn (\$175,255)
- Department of Energy 2006-2009 “Active Microbes Responding to Inputs from the Orinoco River Plume” PIs Kerkhof, L., Corredor, J., Schofield, O., Glenn, S. (\$1,287,000)
- Department of Defense, Major University Research Initiative program (MURI) 2006-2011. “Rapid environmental assessment using an integrated coastal ocean observation and modeling system” PIs Schofield, O, Glenn, S. M., Fennel, K., Wilkin, J., McGillicuddy, D., He, R., Gawarkiewicz, G., Moline, M. A. (\$4,916,133)
- National Aeronautics and Space Administration, Earth-Sun System Division 2006-2009 “Bioinformatic mapping of ocean biogeochemical provinces” PIs Schofield, O., Oliver. M., Falkowski, P. G. (\$491,000)
- National Science Foundation Office of Polar Program 2006-2007. “Collaborative Research: Slocum Glider in Western Antarctic Peninsula Continental Shelf Waters Pilot Study” PIs Martinson, D. G., Schofield, O., Jones, C. (\$80,000)
- Department of Defense- Office of Naval Research 2007 “Characterizing storm impacts on nearshore nepheloid layers using optical Slocum gliders” Schofield, O., Glenn, S. (\$25,000)

- Joint Oceanographic Institutions and National Science Foundation 2007-2013 “Network for ocean research, interaction, and application – NORIA” Schofield, O., and Glenn, S. M. (\$410,998)
- NOAA Coastal Services Center “Phased Deployment and Operation of the Mid-Atlantic Regional Coastal Ocean Observing System (MARCOOS) – Rutgers scientists (Glenn S. M. lead PI of program, with Janice McDonnell, Josh Kohut, Oscar Schofield, John Wilkin) and 19 other academic and commercial institutions. (\$9,000,000)
- Department of Defense- Office of Naval Research 2007-2010 “Using Gliders to Resolve Dynamics of Dust and Phytoplankton in the Mediterranean” Oscar Schofield and Scott Glenn (Rutgers) and Chuck Tress (NATO SCALANT) (\$250,046)
- National Science Foundation Computer Network Systems Division 2007-2008. “CSR-CSI: DDDAS-The Pervasive Dynamical Ecosystem for Oceanographic Research” PIs Metaxas, D., Ulrich, K., Glenn, S., Schofield, O. (\$399,865)
- Department of Defense- Office of Naval Research 2008 “Mapping In situ optical properties in coastal waters using Slocum gliders during the Naval RIMPAC 2008” Oscar Schofield and Scott Glenn (Rutgers) (\$58,693)
- Department of Defense-Office of Naval Research, DURIP 2008 “Characterizing continental shelves with satellites and gliders” Oscar Schofield, Scott Glenn, Josh Kohut, Mathew Oliver (\$351,000)
- National Science Foundation Office of Polar Program 2008-2013. “West Antarctic Palmer LTER” PIs Ducklow, H., Martinson, D. G., Schofield, O., Steinberg, D., Stammerjohn, S., Fraser, W., Baker, K. S. (\$5,100,100)
- National Science Foundation, Computer Sciences Directorate, Major Research Infrastructure Development Grant 2008-2011 “Development of Next Generation Collaborative Underwater Robotic Instrumentation” Metaxas, D., U. Kremer, Manish P., Schofield, O., Glenn, S. (\$2,000,000)
- Norwegian Partnerships in Higher Education program Norway -North America 2008-2011 “Technology for marine monitoring and ocean observation” Johnsen, G., Moline, M. A., Berge J. Glenn, S. M., Schofield, O. (\$1,700,000 Norwegian Krona)
- Gordon and Betty Moore Foundation 2008-2011 “From Microbes to Mammals: A Robotic Network to Study Climate Induced Changes in an Antarctic Marine Ecosystem” Schofield, O., Glenn, S. M., Martininson, D. G., Steinberg, D. (\$1,347,416)
- National Aeronautics and Space Administration, Earth-Sun System Division 2009-2012. “Satellite Driven Studies of Climate Mediated Changes in Antarctic Food-Webs”. Oliver, M., Kohut, J., Irwin, A., Fraser, W., Schofield, O. (\$747,880)
- National Science Foundation, Office of Polar Programs 2009-2011. “Collaborative research aboard icebreaker ODEN: ASPIRE Amundsen sea polynya international research expedition.” Yager, P., Sherrell, R., Ducklow, H., Stammerjohn, S., Schofield, O. (\$1,109,008)
- Department of Defense, subcontract through Teledyne-Brown 2009-2010 “Littoral Battlespace Sensing” Glenn, S.M., O. Schofield, J. Kohut (\$272,432)
- NOAA Integrated Ocean Observing System (IOOS) 2010-2011, Renewal, Phased Deployment and Operation of the Mid-Atlantic Regional Coastal Ocean Observing System (MARCOOS), Glenn, S.M., plus 34 Co-PI’s (\$1,700,000)
- National Science Foundation, Office of Physical Oceanography 2010-2013. “Collaborative Research: The propagating response of the inner shelf to wind relaxations in a coastal upwelling system” Washburn, L., Ohlman, C., Moline, M. A., Schofield, O. (\$1,109,008)
- National Science Foundation, Ocean Acidification Program 2010-2014. “The molecular basis of ocean acidification effects on calcification in zooxanthellae corals” Falkowski, P. G., Rosenthal, Y., Schofield, O., Sherrell, R. (\$1,882,193)
- Office of Naval Research 2011-2014. “Development and ocean endurance test of Slocum thermal-recharging gliders (Slocum-TREC)” Chao, Y., Jones, J. A., Valdez, T. I., Webb, D., Paterson, T., Schofield, O. (\$2,800,000)
- NOAA Integrated Ocean Observing System (IOOS) 2011-2016, Phased Deployment and Operation of the Mid-Atlantic Regional Association Coastal Ocean Observing System (MARACOOS), Glenn, S.M., plus 34 Co-PI’s (\$12,000,000)
- National Science Foundation OOI Program. 2012-2014. “OOI project scientists and glider software development” Oscar Schofield (\$253,059)
- NOAA CINAR 2012. “Undergraduate development of ecological proxies using ocean observatory data in support of marine fisheries research” Oscar Schofield (\$16,713)
- Rutgers SEBS Agricultural Experiment Station 2012 “Functional genomic analysis of the Antarctic cryptophyte, *Geminigera cryophila*, under variable salinity and nutrient regimes.” Saba, G., Schofield, O. (\$8,000)

TEACHING GRANTS (\$1,412,002 in awarded grants)

- Dialogue Grant, Rutgers Teaching Excellence Center 1997 “Development of a New Course, Oceanographic Methods and Data Analysis” PIs Oscar Schofield, Clare Reimers (\$8,000)
- National Ocean Partnership Program (NOPP) 1997 to 1998 “Bringing the ocean into the precollege classroom through field investigations at the National Underwater Laboratory” PIs Michael DeLuca, Janice McDonnell, CoPIs Ken Able, Scott Glenn, and Oscar Schofield (\$100,000)
- NSF 1999 to 2001 “Instrumentation to Support the Revision of Analytical Chemistry for Today’s Students: Aqueous Systems with Environmental Significance” PIs Gregory Herzog, Clare Reimers, John Reinfelder, Oscar Schofield, Theodore Chase (\$100,000)
- Cook College, Special Projects Funding Grant 2005 “Enhancement of Oceanographic Methods and Data Analysis” PI Oscar Schofield (\$18,000)
- Cook College, Special Projects Funding 2006 “Enhancing the Teaching Collaboratory for the Rutgers University (R.U.) Coastal Ocean Observation Lab (COOL)” Glenn, S. M., Schofield, O., Chant, R. J., Kohut, J., McDonnell, J. (\$20,000)
- National Science Foundation, Ocean Sciences 2007-2012. “Collaborative Proposal: COSEE Center - Centers for Ocean Sciences Education Excellence - Networked Ocean World (COSEE-NOW)” McDonnell, J., Petrone, C., Hoatling, L., Schofield, O., Glenn, S. (\$1,166,002)

PRESENTATIONS**I) Invited Seminars**

- Schofield, O., Prézelin, B. B. (February 1992). Regression Analysis of the Operational and Maximum Quantum Yield in the Southern California Bight, at the Ocean Sciences Meeting (Santa Fe, NM) in a Special Session, "Optically-Derived Models of Phytoplankton Production", chaired by Marlon R. Lewis (Dalhousie University) and Everett J. Fee (Freshwater Inst., Winnipeg)
- Schofield, O. (March 1994). Fluorescence and its Applications for Defining the Physiological Ecology of Field Phytoplankton Populations. Southern Regional Research Center, U.S. Department of Agriculture-Agricultural Research Service (New Orleans, LA)
- Schofield, O. (November 1994). Impact of the Antarctic Ozone Hole on Natural Phytoplankton Communities During Austral Spring 1993. School of Environmental Science, Tulane University (New Orleans, LA)
- Schofield, O. (December 1994). The Utilization of Radiant Energy by Algae and the Linkages to the Bio-optical Properties of Marine Phytoplankton. In the DIALOG Symposium (organized by the American Society of Limnology and Oceanography) at the Bermuda Biological Station, (Bermuda)
- Schofield, O. (March 1995). Phytoplankton Productivity in the Southern Ocean: What is the Impact of the Antarctic Ozone Hole?. University of North Carolina (Morehead City, NC)
- Schofield, O. (March 1995). Regulation of Phytoplankton Production by the Mixed Layer Depth in the Southern Ocean. Department of Ecology and Evolution, Tulane University (New Orleans, LA)
- Schofield, O. (May 1995). Utility of Fluorescence for Studying the Physiological Ecology of Phytoplankton: Defining the Impact of the Antarctic Ozone Hole on Field Populations. Department of Marine Sciences, Texas A&M University (College Park, TX)
- Schofield, O. (October 1995). UVB Degradation of Photosystem II: Implications for the Productivity Rates and Community Ecology of Aquatic Algae. Poconos Comparative Lake Symposium, LeHigh University (Bethlehem, PA)
- Schofield, O. (June 1996). Physical Forcing of Phytoplankton Productivity in Antarctic Coastal Waters, LeHigh University (Bethlehem, PA)
- Schofield, O. (January 1997). Using Fluorescence to Define the Physiological Ecology of Phytoplankton: Are We Close to the Finish Line or Are We on a Road to Nowhere? University of Mississippi and Stennis Space Center (Stennis Space Center, MS)
- Schofield, O. (April 1997). Fluorescence-based Models to Predict Phytoplankton Productivity: Will They Work? (University of Florida, Gainesville FL.)
- Schofield, O. (May 1997). Ultraviolet-B Inhibition on Photosystem II and Carbon Fixation in Marine Phytoplankton: Studies from the Laboratory to the Antarctic Ozone Hole. (Delaware Graduate College of Marine Studies, Lewes DE)
- Schofield, O. (November 1997). Physical Forcing of Phytoplankton Productivity and Community Ecology in Nearshore Antarctic Coastal Waters. (Lamont-Doherty-Columbia University, NY)

- Schofield, O. (January 1998). The Bio-Optics of Recurrent Phytoplankton Blooms in Antarctic Coastal Waters: Physical Forcing of Phytoplankton Community Composition. (Smithsonian Environmental Research Center, Edgewater MD)
- Schofield, O. (January 1998). The Utilization of Light by Phytoplankton: The Problems and Potential for Bio-Optics in the Coastal Ocean (University of California at Santa Barbara, CA)
- Schofield, O. (June 1998). Biological Forecasting in the Coastal Ocean: Possibility or Pipe-Dream? LeHigh University (Bethlehem, PA)
- Schofield, O., Kirkpatrick, G., Millie, D. F., Moline, M. A., Glenn, S. (August 1998). Design Strategies for Forecasting Systems for Harmful Algal Blooms. in a Special Symposium on the "Molecular, Cellular, & Ecophysiological Bases of Noxious & Harmful Algal Blooms" (Phycological Society, Flagstaff AZ) *Journal of Phycology* 34(3): 52
- Schofield, O. (January 1999). Hyperspectral Applications for Species Identification. at SMP-JGOFS workshop on "Satellite Applications for Defining the Distribution of Functional Groups of Marine Phytoplankton for Biogeochemical Models" (Rutgers University, NJ)
- Schofield, O. (February 1999). Coastal Ocean Observation Networks and Summer Time Predictive Skill Experiments (Cal-Tech, CA)
- Schofield, O. (February 1999). The New Jersey Long term Ecosystem Observatory (LEO-15). Florida Atlantic University (Fort Lauderdale, FL)
- Schofield, O. (April 1999). The New Jersey Long Term Ecosystem Observatory: Bio-Optical Forecasting Networks Possibility or Pipe Dream? (Monterey Bay Aquarium Research Institute, CA)
- Schofield, O. (September, 1999). Coastal Ocean Observation Networks and Summer Time Predictive Skill Experiments: Biological Forecasting Networks Possibility or Pipe Dream? (Texas A&M University, TX)
- Schofield, O. (November, 1999). Impact of Long Term Warming Trends on the Antarctic Coastal Ecosystem (Rutgers University, NJ)
- Schofield, O. (November, 1999). The New Jersey Long Term Ecosystem Observatory: Bio-Optical Forecasting Networks Possibility or Pipe Dream? (Old Dominion University, VA)
- Schofield, O. (December, 1999). Quantifying and Characterizing Ocean Primary Productivity (National Academy of Sciences of Mexico, Puerto Morelos, Mexico)
- Schofield, O. (January, 2000). Characterizing the Scales of Variability in the Bio-optical Properties in the Coastal Ocean: The Promise and Problems of Undersea Observatories. (University of Southern Mississippi and Naval Research Laboratory, MS)
- Schofield, O., Glenn, S. M., Haidvogel, D., Grassle, F., von Alt, C. (January, 2000). The 1999 Coastal Predictive Skill Experiment: An Operational Multi-scale Real-time Long-term Ecosystem Observatory (LEO-15) for the Coastal Ocean. (AGU/ASLO Ocean Sciences, San Antonio, TX)
- Schofield, O. (February 2000). Application of Modern and Future Ocean Observatories for Defining the Temporal and Spatial Variability in Natural Bioluminescence Fields. Symposium hosted by the American Institute of Biological Sciences (AIBS) and the Office of Naval Research (San Diego, CA)
- Schofield, O. (September 2000). Integrated Ocean Observatories and the Blue-print for a National Coastal Observatory. Symposium hosted by the Marine Technology Society (Naval Research Laboratories at Stennis Space Center)
- Schofield, O. (September 2000). Melding Physical and Biological Observation Systems for Assessing Water Quality. Symposium on "Carolina Coastal Waters and Health" hosted by University of North Carolina Center for Marine Science (Wilmington, NC)
- Schofield, O. (January 2001). Using Coastal Ocean Observatories to Characterize Biological Dynamics: The Long term Ecosystem Observatory. Hosted by the Ocean Hemisphere Project and the International Observatory Network (Mt. Fuji, Japan)
- Schofield, O. (March 2001). Characterizing the Changing Ecology of the Coastal Ocean Using the New Generation Ocean Robotic Observatories: A Jaunt from the Antarctic to the Eastern Coast of The United States. University of Bristol (University of Bristol, United Kingdom)
- Schofield, O., Moline, M. A., Bissett, W. P., Haidvogel, D., Glenn, S. M. (February 2002). Evolution of LEO into a shelf-wide observatory. At Ocean Sciences Meeting in a Special Session "Multidisciplinary Ocean Observations and Observatories", chaired by John Orcutt (Honolulu, HI)
- Schofield, O. and Glenn, S. M. (April 2002). The Changing Nature of Ocean Observation and the National Ocean Observation Network. University of Washington (Seattle, WA)

- Schofield, O. (May 2002). Coastal Ocean Observatories Along the Eastern United States and the Gulf of Mexico. Coastal Ocean Program Symposium on “Coastal Ocean Observatories”. Skidaway Oceanographic Institute, (Savannah, GA.)
- Schofield, O and Glenn S. (June 2002). Dawn in the New Millennium: Synoptic Oceanography Going Operational. Tutorial in the session “Application of Automated Technology to Detect Environmental Change” chaired by Dr. Karen Steindinger at the American Society of Limnology and Oceanography (Victoria, British Columbia) ASLO 2002 p 103.
- Glenn S. and Schofield, O. (July 2002). Regional Ocean Observatories. Invited testimony to the Presidential Ocean Commission. Rutgers University Marine Field Station (Tuckerton, NJ)
- Schofield, O. (December 2002). Documenting biogeochemical change in the coastal oceans and the evolving role of coastal ocean observatories. Marine Sciences Research Center, SUNY (Stony Brook NY)
- Glenn S. M. and Schofield, O. (December 2002). The evolution of the New Jersey Shelf observing system (NJ-SOS). University of Maine (Portland, ME)
- Schofield, O., Glenn, S. M. (February 2003). An autonomous fleet of underwater Slocum Gliders. ONR Joint Review of Technology Applicable to Mine Counter Measures and Associated Missions. Coastal Systems Station (Panama City, FL)
- Schofield, O., Glenn, S. (May 2003). Documenting changes in coastal waters using the ocean observatories. Lamont Doherty Earth Observatory, New York.
- Schofield O., Kirkpatrick, G., Oliver, M., Falkowski, P. (June 2003). The utility of optics for biologists in the new millennium. HAB-Watch Symposium (Villenfranche, France)
- Schofield O., Kirkpatrick, G., Oliver, M., Falkowski, P. (June 2003). Where are we and where do we go from here for HAB research?. HAB-Watch Symposium (Villenfranche, France)
- Schofield O., Chant, R. Glenn, S. M. (July 2003). The evolution of the New Jersey shelf observing system. IUGG/IAG/IGPP (Sapparo, Japan)
- Schofield, O. Plenary Talk: (January 2004). Plenary Lecture: Ocean observing systems and technology. American Geophysical Union (Portland Oregon)
- Schofield, O. Plenary talk (January 2004). The future of ocean observation in the millennium. American Society of Limnology and Oceanography. (Honolulu, Hawaii)
- Schofield, O., Glenn, S. M. (February , 2004). Utility of seafloor cables for hyperspectral optics. American Society of Limnology and Oceanography. (Honolulu, Hawaii)
- Schofield, O., Glenn, S. M. (April, 2004). The development of a national ocean observing system. (NASA Goddard, Greenbelt, Maryland)
- Schofield, O., Glenn, S. M. (April, 2004). Recent developments in autonomous underwater vehicles. (Alliance of Coastal Technologies, Portland, Maine)
- Schofield, O, Glenn, S. M. (May, 2004). Documenting the changes in Mid-Atlantic Bight biogeochemistry using a robotic fleet of Webb Gliders. (Southampton Oceanography, Southampton, United Kingdom)
- Schofield, O. (September 2004). The transport and transformation of organic matter associated with buoyant plumes in the Mid-Atlantic Bight. Lamont Doherty Earth Observatory (New York).
- Schofield, O. (January 2005). The utility for a geostationary satellite for biological oceanography. Science advisory team GOES-R Hyperspectral Environmental Suite (HES) Coastal Waters (CW) Imager (Portland, OR)
- Schofield, O. (February 2005). The evolution of the ocean observing networks. Virginia Institute of Marine Sciences (Gloucester Point, VA).
- Schofield, O., Glenn, S. M. (August 2005). Ocean Observatories: 1(Orion) + 1(IOOS) = 3. Executive Office of Science & Technology Policy (Washington DC)
- Schofield, O. (September 2005). The optics of nearshore buoyant plumes. Science advisory team GOES-R Hyperspectral Environmental Suite (HES) Coastal Waters (CW) Imager (Portland, OR)
- Schofield, O. (September 2005). Carbon dynamics on large continental shelves. North Atlantic Carbon Program (Boulder, CO)
- Schofield, O. (November 2005). The view from the COOL room. University of Connecticut (Groton, CT)
- Schofield, O., Kohut, J. (December 2005). Cook’s COOL room: Opening a window to the sea. New Jersey Agricultural Experiment Station Board of Managers. (New Brunswick, NJ)
- Schofield, O. (February 2006). Using robots-radar-satellites to study biogeochemical dynamics on the Mid-Atlantic Bight (University of Delaware, Newark, DE)
- Schofield O. (April 2006). Science using the ORION network. ORION Design & Implementation Workshop (Salt Lake, Utah)

- Schofield, O. and Tommy Dickey (May 2006). Monaco eulerian observatory. (International Atomic Agency, Monaco)
- Schofield, O. (June 2006). H-GOES risk reduction using optical gliders. (Monterey Bay, California)
- Schofield, O. (August 2006). Dawn in the age of the robots: Enabling polar research in the coming International Polar Year. (National Science Foundation Office of Polar Programs, Washington DC)
- Schofield, O. (August 2006). Coastal component to the NSF ORION program” before a Blue Ribbon Panel convened by NSF in Monterey Bay California
- Schofield, O. (October 2006) The future of ocean observations. (Kaoshiung University School of Engineering , Taiwan)
- Schofield, O., Glenn, S. M. (January 2007). The future technologies that will explore the world’s oceans (hosted by University of Tianjin, Port Office of Tianjin, and the Tianjin Department of Environmental Prediction)
- Schofield, O. (March 2007). Innovating science for maintaining a healthy ocean. (Dalhousie University, Halifax Canada)
- Glenn, S. M., Schofield, O. (March 2007). The evolution of the Northeast Observing System. (University of Massachusetts, Dartmouth)
- Glenn, S. M., Schofield, O. (September 2007). Rutgers Coastal Ocean Observation Lab: Robots, Radars and Remote Sensing. (New Jersey State Assembly, Trenton NJ)
- Schofield, O. (October 2007). The evolution of the Coastal Ocean Observation Laboratory. (Oceans 2007, Vancouver, Canada)
- Schofield, O. (October 2007). Biogeography of the global ocean: Making sense of a dynamic world. (Ocean Microbe Meeting, Bermuda, United Kingdom)
- Schofield, O. (December 2007). The science justification for the Ocean Observatory Initiative (OOI). (NSF Preliminary Design Review for OOI program, Washington DC)
- Schofield, O. (January 2008). Dawn in the phycological millennium for oceanography (British Phycological Society, Bristol England)
- Schofield, O. (February 2008). Robots, Radars & Remote Sensing unveiling the biological complexity in the oceans: A decadal view from the COOL Room. (University of Wisconsin, Milwaukee)
- Schofield, O. (February 2008). Hot days in the Southern ocean: Climate change and the biological response along the Antarctic Peninsula (University of Wisconsin, Milwaukee)
- Schofield, O. (February 2008). The cyberinfrastructure for the Ocean Observatory Initiative. (NSF Computer Science Division, Washington DC)
- Schofield, O. (March 2008). COSEE Networked Ocean World. (Ocean Sciences, Orlando Florida)
- Schofield, O. (April 2008). Unveiling the biological complexity in the coastal oceans: A decadal view from the COOL Room. (University of Southern California)
- Schofield, O. (April 2008). Hot days in the Southern Ocean. Climate induced migration of the West Antarctic Peninsula (Oregon State University)
- Schofield, O. (April 2008). Lessons learned from a decade building the Coastal Ocean Observation Lab (Oregon State University)
- Schofield, O. (July 2008). Dawn in a new era of ocean observing: Potential payoffs for managing the Mid-Atlantic Bight. (National Marine Fisheries Service, Sandy Hook, NJ)
- Schofield, O. Glenn, S. (October 2008). Using Slocum Webb Gliders to maintain a sustained science presence in the ocean. Exploration Technology Symposium (Stennis Space Center, MS)
- Schofield, O. (November 2008). Science overview for the NSF Ocean Observatory Initiative. Final Design Review for the OOI (National Science Foundation, Arlington VA)
- Schofield, O. (March 2009). Warm days in the West Antarctica Peninsula: The impact of regional warming on the marine ecosystem (Princeton University, NJ)
- Schofield, O. (March 2009). Revised Science overview for the NSF Ocean Observatory Initiative. Final Design Review for the OOI (National Science Foundation, International Videoconference)
- Schofield, O. (March 2009). My personal story of why high school kids need to learn science: Preparing for the gathering storm (Department of 4H, Rutgers, NJ)
- Schofield, O. (April 2009). Development of ocean observatories by the United States (EuroSITES Annual review meeting, Cape Verde)
- Schofield, O. (April 2009). Using Webb gliders to maintain a sustained ocean presence. (SPIE Defense Security and Sensing Symposium, Orlando Florida)
- Schofield, O. (June 2009). Developments of ocean observatory systems for the United States. (Neptune Canada/VENUS Seminar, Victoria Canada)

- Schofield, O., Glenn S. (July 2009). Role of gliders for future biogeochemical studies (Ocean Carbon Biogeochemistry Meeting, Woods Hole, Massachusetts)
- Schofield, O. (July 2009). Dawn in the new age of oceanography with the ocean observatories (REU Lecture, Mote Marine Laboratory, Florida)
- Schofield, O. (October 2009). Ocean observing for next 20 years (Tawain Technology Conference plenary talk, Kaushioug, Tawain)
- Schofield, O. (November 2009). Dawn in the age of robotic oceanography (SOLAs plenary talk, Barcelona Spain)
- Schofield, O. (November 2009). How will the OOI cyberinfrastructure help scientists? (OOI Community workshop, Baltimore, Maryland)
- Glenn, S. M., Schofield, O. (February 2010). Assessing the educational impacts of ocean observatories (Ocean Sciences, Portland, OR)
- Peach, C. L., Collier, R., Kelley, D. S., Thorrold, A., Duncan, S., Orcutt, J. A., Vernon, F. L., Chave, A. D., Arrott, M., Schofield, O., Meisinger, M. J., Farcas, C., Farcas, E., Krueger, I., Kleinert, J., Keen, C. S. (February 2010) Ocean observatory educational infrastructure for 21st century learners (Ocean Sciences, Portland, OR)
- Ducklow, H., Fraser, B., Martinson, D., Schofield, O., Stammerjohn, S. E. (February 2010). Long-term observations of climate change and ecosystem response along the western Antarctic Peninsula, 1975-2009 (Ocean Sciences, Portland, OR)
- Schofield, O., Ducklow, H., Arrott, M., Kahl, A., Martinson, D., Steinberg, D. K., Fraser, B., Gorman, K., (February 2010). Bathymetric structuring of biological hotspots in the West Antarctic Peninsula. (Ocean Sciences, Portland, OR)
- Glenn, S. M., Schofield, O. (March 2010). Entraining the Global Generation in Earth Science: Our View from the COOLroom. (National Science Teachers Association, Philadelphia, PA)
- Schofield, O. (April 2010). Ocean observing in the melting poles: A case example from the West Antarctic Peninsula. (Department of Earth and Oceans, University of Massachusetts)
- Schofield, O. (April, 2010). Building a robust cyberinfrastructure to enable science for the National Science Foundation's Ocean Observatory Initiative (Arizona State University, Tempe, AZ)
- Schofield, O. (May 2010). Hot days in the Southern Ocean: Climate change and ecosystem response. (Southampton University and the United Kingdom National Oceanographic Office, United Kingdom)
- Schofield, O. (October 2010). Understanding a changing water planet: Building the new automated ocean sensor networks. Pop Tech 2010 conference, special session on "Cloud Computing" (Camden ME)
- Schofield, O. (October 2010). The Ocean Observatory Initiative and the Observing Science (Simulation) Experiment. To the Board for Ocean Leadership (Washington DC).
- Schofield, O. (October 2010). Dawn in the age of robotic oceanography. (Tawain Technology Conference plenary talk, National Kaohsiung Marine University, College of Ocean Engineering, Kaohsiung, Taiwan)
- Schofield, O. (November 2010). My journey to study the world's oceans: The challenges/opportunities for the next generation of ocean explorers. Public Plenary to Mount Allison University (Sackville, Canada)
- Schofield, O. (November 2010). My journey exploring the world's oceans. Princeton for a TIGER Talk to high school students. (Princeton, New Jersey)
- Schofield, O., Glenn, S. M. (December 2010). The potential for the ocean observatories. United States State Department. (Washington DC)
- Schofield, O. (March 2011). Exploring the world's oceans. Princeton Plasma Lab's Science Saturday's to high school students. (Princeton, New Jersey)
- Schofield, O., Oliver M., Moline, M., Kohut, J. (March 2011). The potential of using autonomous gliders to study the ecology of polar oceans. (Gordon Keenan Conference, Ventura, California)
- Schofield, O. (April 2011). Hot days along the western Antarctic Peninsula. Woods Hole Oceanographic Institution. (Falmouth, Massachusetts)
- Schofield, O. (April 2011). Decadal changes in seasonal dynamics in the Mid-Atlantic Bight? Woods Hole Oceanographic Institution. (Falmouth, Massachusetts)
- Schofield, O. (May 2011). Dawn in the age of robotic oceanography. University of Maryland Faculty Convocation. (Baltimore, Maryland)
- Schofield, O. (May 2011). Project scope of the ocean observatory initiative. Year 1 review of the OOI interannual review. (Woods Hole Oceanographic Institute)
- Schofield, O. (May 2011). Cyberinfrastructure: Rise of the machines. Ocean Carbon Biogeochemistry meeting. (Woods Hole Oceanographic Institute, MA)
- Schofield, O. (June 2011). COSYNA SAC meeting 2011: An overview of some of the larger United States ocean observing efforts. (Helm-Hotz Association, Hamburg, Germany)

- Schofield, O. (July 2011). Hot days in the Southern Ocean: Challenges confronting the current REU generation. (Mote Marine Laboratory, Sarasota Florida)
- Schofield, O. (July 2011). Phytoplankton dynamics along the Western Antarctic Peninsula (British Antarctic Survey, Cambridge, UK)
- Schofield, O. (September 2011). Hot days in the Southern Ocean: Rise of the machines (Colgate University, Hamilton New York)
- Schofield, O. (October 2011). The understanding of East Coast dynamics using special tools (gliders, HF Radar, satellite, and models): The experience of the COOL Room. (Congresso Latino-Americano de Ciencias do Mar, Santa Catarina, Brazil)
- Schofield, O. (November 2011). The developing national backbone of a CODAR backbone for the United States. (Congresso Latino-Americano de Ciencias do Mar, Santa Catarina, Brazil)
- Schofield, O. (December 2011). Palmer LTER: Geological forcing of the coastal Antarctic ecosystems (NSF site review: Palmer Station, Antarctica)
- Schofield, O., Kohut, J., Glenn, S. (February 2012). What has COSEE meant for our research? (Ocean Sciences, AGU/ASLO meeting, Salt Lake City, USA)
- Schofield, O. (March 2012). Ecological impacts of warming along the Antarctic Peninsula (Lamont Goherty Earth Observatory, NY)
- Schofield, O. (May 2012). Teen climate summit: Hot days in the melting Southern Ocean (New Brunswick, NJ)
- Schofield, O. (May 2012). Dawn in the age of ocean observatories (Princeton Plasma Laboratory, NJ)

II) Contributed presentations and published abstracts

(** presentation by student or post-doctoral researcher)

- Boucher, N., **Schofield, O.**, and B.B. Prézelin (1988) Enhancement effects and diel variations in wavelength-dependent absorption properties, carbon fixation rates and quantum yield of photosynthesis in *Synechococcus* clone WH7803 (DC2). ASLO, San Francisco EOS.
- Bidigare, R.R., **Schofield, O.**, and B.B. Prézelin (1988) Photosynthetic action spectra, absorption properties of pigmentation of marine *Synechococcus* clone WH7803 (DC2): The role of zeaxanthin and quantum yield reduction. ASLO, San Francisco EOS.
- Schofield, O.**, Prézelin, B. B., Stegmann, P., Lewis, M. R., and R. C. Smith (1990) Comparison of spectral photosynthesis in surface and subsurface chlorophyll maxima across a transect of the Southern California Bight. Ocean Sciences Meeting, New Orleans. ASLO 90.
- Boucher, N. P., **Schofield, O.**, Matlick, H. A., Prézelin, B. B., Smith, R. C., and R. R. Bidigare. (1990) Patterns of primary productivity and photosynthesis-irradiance parameters across the Southern California Bight during the Watercolors '88 cruise. Ocean Sciences Meeting, New Orleans. ASLO 90.
- Nelson, N. B., **Schofield, O.**, Stegmann, P. M., Smith, R. C., Prézelin, B. B. (1992). Fluorescence-based estimates of spectral photosynthetic rates in the Southern California Counter Current (SCCC). Ocean Sciences Meetings, Santa Fe ASLO 92. p. 29.
- Prézelin, B. B., **Schofield, O.**, Boucher, N. B., Smith, R. C., Baker, K. S., Bidigare, R. R., Coley, T. (1992) Comparison of biweekly spatial variability in hydrographic and production parameters across the Southern California Bight. Ocean Sciences Meeting, Santa Fe. ASLO 92. p. 30.
- Kroon, B., Prézelin, B. B., **Schofield, O.** (1992) Chromatic regulation of quantum yields values for ϕ_{IIc}^o , ϕ_{O_2} and ϕ_{CO_2} in the red-tide dinoflagellate *Heterocapsa pygmaea*. (Pyrrophyta) International Photosynthetic Congress, Hawaii.
- Schofield, O.**, Prézelin, B. B., Kroon, B. (1993) Chromatic regulation of quantum yields values for photosystem II charge separation, oxygen evolution and carbon fixation in *Heterocapsa pygmaea*. (Pyrrophyta). Western Regional Photosynthesis Conference, Pacific Grove.
- Kroon, B., **Schofield, O.**, Prézelin, B. B. (1994). Icecolors '93: UV-B radiation specifically decreases photosystem II (PsII) quantum yield in a field community of Antarctic ice algae exposed to natural sunlight. Ocean Sciences Meeting, San Diego. 75(3): 200.
- Schofield, O.**, Kroon, B., Prézelin, B. B. (1994). Icecolors '93: Diurnal UV-induced effects on the quantum yield of photosystem II charge separation in Antarctic frazil ice-algae and its relationship to photosynthetic carbon fixation rates during the austral spring 1993. Ocean Sciences Meeting, San Diego. 75(3):217.
- Moline, M., **Schofield, O.**, Prézelin, B. B. (1994). PALMER LTER 1991: Temporal variability in physical, chemical and optical parameters: Effects on phytoplankton bloom dynamics. Ocean Sciences Meeting, San Diego. EOS 75(3):217.

- Prézelin, B. B., **Schofield, O.**, Kroon, B. (1994). Icecolors '93: Q_{UVB} -specific inhibition of photosystem II quantum yield accounts for most of the UVB suppression of carbon fixation in ice algae under the influence of the Antarctic ozone hole. Scientific Committee for Antarctic Research (SCAR) supplement, Venice Italy. p. 220.
- Moline, M., Prézelin, B. B., **Schofield, O.**, Smith, R. C. (1994). Temporal dynamics of coastal Antarctic phytoplankton: physical/chemical/biological linkages through a summer diatom bloom. Scientific Committee for Antarctic Research (SCAR), Venice Italy p. 189.
- Schofield, O.**, Prézelin, B. B., Kroon, B. M. (1994). The utilization of radiant energy by algae and the linkages to the bio-optical properties of marine phytoplankton. DIALOG Symposium, Bermuda Biological Station, Bermuda p. 68.
- Schofield, O.**, Moline, M., Prézelin, B. B. (1995). Photoacclimation in coastal a phytoplankton bloom and impact on the radiation utilization efficiency for carbon fixation. American Society of Limnology and Oceanography, Reno ASLO 95. p. 50.
- Moline, M., **Schofield, O.**, Prézelin, B. B. (1995). Spatial and temporal relationships of photosynthetic parameters to inorganic nutrients and pigmentation in Antarctic phytoplankton. American Society of Limnology and Oceanography, Reno ASLO 95. p. 37.
- Kroon, M. A., **Schofield, O.**, Prézelin, B. B. (1995). Fluorescence characteristics of Antarctic phytoplankton. American Society of Limnology and Oceanography, Reno ASLO 95. p. 27.
- Millie, D., Pinckney, J., **Schofield, O.**, Paerl, H. (1995). Relating photosynthetic pigments to microalgal growth and production in the Neuse River, North Carolina. American Society of Limnology and Oceanography, Reno ASLO 95. p. 37.
- Schofield, O.**, Millie, D., Prézelin, B. B., Kroon, B. M. A. (1995). Utility of fluorescence to predict photosynthetic-irradiance parameters for the dinoflagellate, *Heterocapsa pygmaea*. Phycological Society of America, Breckenridge, CO. PSA Journal of Phycology 31: 83.
- Millie, D., **Schofield, O.**, Tester, P., Kirkpatrick, G. (1995). What are the requirements the for harmful algal blooms. Phycological Society of America, Breckenridge, CO. Journal of Phycology 31: 56.
- Millie, D. F., Pinckney, J., Paerl, H., **Schofield, O.** (1995). Neuse River phytoplankton: using photopigments to characterize community dynamics and photophysiological process. Estuarine Research Federation, Corpus Christi, TX.
- Paerl, H., Pinckney, J., Millie, D. F., **Schofield, O.** (1995). Neuse River phytoplankton: Synergistic nutrient and hydrological controls of bloom dynamics- Timing is everything (well almost). Estuarine Research Federation, Corpus Christi, TX.
- Pinckney, J., Paerl, H., Millie, D. F., **Schofield, O.** (1995). Neuse River phytoplankton: Taxa-specific growth responses to nutrient additions. Estuarine Research Federation, Corpus Christi, TX.
- Schofield, O.**, Moline, M. A., Prézelin, B. B. (1996) Variability in the quantum yields for photosynthetic activity in coastal Antarctic phytoplankton and the impact on the bio-optical productivity models. Ocean Sciences Meeting, San Diego, CA EOS 76(3): 188.
- Millie, D., **Schofield, O.**, Kirkpatrick, G., Tester, P. (1996). Using bio-optical characteristics as "biomarkers" for harmful algal blooms: A case study of the Florida red-tide dinoflagellate, *Gymnodinium breve* Davis. . Ocean Sciences Meeting, San Diego CA. Ocean Sciences Meeting, EOS 76(3):188.
- Schofield, O.**, Millie, D. F., Grzymski, J. (1996). Utility of submersible optical instruments for studying marine phytoplankton: What biological information can we extract? Phycological Society of American, Santa Cruz, CA Journal of Phycology 32(3): 43.
- Millie, D. F., Pinckney, J., Paerl, H., **Schofield, O.**, Vinyard, B (1996) Characterization of physical and chemical factors forcing microalgal bloom initiation. Phycological Society of American, Santa Cruz, CA Journal of Phycology 32(3): 33.
- **Bergmann, T., **Schofield, O.**, J. Grzymski, M. Crowley, S. Glenn (1996). Variability in inherent and apparent optical properties during an upwelling event in the Mid-Atlantic Bight. Sea-Space Conference, Yokohama, Japan.
- **Moline, M. A., Grzymski, J., **Schofield, O.**, Jovine, R. (1997). Impact of temperature on photoinhibition in the red-tide dinoflagellate *Alexandrium fundyense* (Ca28). American Society of Limnology and Oceanography, Santa Fe, NM ASLO 97: 56.
- Schofield, O.**, P. Bergmann, M. Crowley, S. Glenn, J. Grzymski (1997). Variability in inherent and apparent optical properties during an upwelling event in the Mid-Atlantic Bight. American Society of Limnology and Oceanography, Santa Fe, NM ASLO 97: 298.

- Kerckhoff, L., **Schofield, O.**, Millie, D. F. (1997). Exploring the linkages between bacterial and phytoplanktonic diversity in the coastal ocean, American Society of Limnology and Oceanography, Santa Fe, NM ASLO 97: 208.
- **Grzymiski, J., **Schofield, O.**, Moline M. A. (1997). An ultraviolet action spectra for photosystem II activity in marine phytoplankton. American Society of Limnology and Oceanography, Santa Fe, NM ASLO 97: 177.
- Millie, D. F., **Schofield, O.**, Grzymiski, J., Zimba, P., Dionigi, C., Kirkpatrick, G. (1997). Using *in situ* fluorescence-excitation/emission spectra to characterize noxious cyanobacterial assemblages in hypereutrophic aquaculture systems. Proceedings of Harmful Algal Blooms. Vigo Spain. p. 139.
- Glenn, S. M., Haidvogel, D. B., **Schofield, O.** (1997). Forecasting and adaptive physical and bio-optical sampling of coastal upwelling at the Leo-15 National Littoral Laboratory. Symposium of "Coupled Ocean Observation/Modeling Systems" at Massachusetts Institute of Technology, MS.
- Crowley, M., McDonnell, J., Glenn, S., **Schofield, O.**, De Luca, M., Bogdon, M. (1998) Using Real Time Satellite and In Situ Data on the Internet to Study Biological Responses to Upwelling Off the New Jersey Coast. 7th Education Conference, Phoenix AZ.
- Schofield, O.**, Moline, M. A., Vargo, G., Steward, R., Kirkpatrick, G. (1998) Spectral inherent optical and fluorescence properties of natural populations of the toxic dinoflagellate, *Gymnodinium breve*, in the Gulf of Mexico Ocean Sciences Meeting, San Diego, CA. EOS 78: 42.
- **Moline, M. A., Frazer, T., Habermann, K., Claustre, H., Grzymiski, J., **Schofield, O.** (1998) Environmental forcing of phytoplankton community composition and potential impact on zooplankton in Antarctic coastal waters. Ocean Sciences Meeting, San Diego, CA. EOS 78: 21.
- **Grzymiski, J., Jovine, R. V. M., Moline, M. A., **Schofield, O.** (1998). Interaction of light and temperature on the photo-physiology of *Alexandrium fundyense* (CA28): Possible importance in the initiation of dinoflagellate blooms? Ocean Sciences Meeting, San Diego, CA. EOS 78: 32.
- **Bergmann, P., **Schofield, O.**, Moline, M. A., Grzymiski, J., Glenn S. (1998) Impact of upwelling on nearshore inherent and apparent optical properties in the Mid-Atlantic Bight. Ocean Sciences Meeting, San Diego, CA. EOS 78: 32.
- Millie, D., Fahnenstiel, G., **Schofield, O.**, Lohrenz, S. (1998). Impact of a recurrent coastal plume on Lake Michigan phytoplankton; A preliminary assessment. Phycological Society Meetings, Flagstaff, AZ. 34(3): 41.
- Schofield, O.**, Kirkpatrick, G., Millie, D. F., Moline, M. A., Glenn, S. (August 1998). Design Strategies for Forecasting Systems for Harmful Algal Blooms. in a Special Symposium on the "Molecular, Cellular, & Ecophysiological Bases of Noxious & Harmful Algal Blooms" (Phycological Society, Flagstaff AZ) Journal of Phycology 34(3): 52.
- Moline, M. A., Frazer, T., Vernet, M., Claustre, H., Grzymiski, J., **Schofield, O.** (1998) Environmental regulation of phytoplankton community composition and the potential impact on zooplankton in coastal waters along the Antarctic peninsula. Scientific Committee for Antarctic Research (SCAR), New Zealand.
- Schofield, O.**, Bergmann, P., Grzymiski, J., Moline, M. A., Glenn, S. (1998). Spectral fluorescence emission and inherent optical properties during upwelling events off the coast of New Jersey. Ocean Optics, Maui, HW.
- Kirkpatrick, G. J., **Schofield, O.**, Millie, D. F. (1998) Optical discrimination of a phytoplankton species in natural mixed populations Ocean Optics, Maui, HW.
- Glenn, S., Crowley, M., Grassle, F., Haidvogel, D., **Schofield, O.**, von Alt, C. (1998). Adaptive sampling of coastal upwelling at the long-term ecosystem observatory at LEO-15. American Geophysical Union, San Francisco, CA., AGU:
- **Bergmann, T., **Schofield, O.**, Kirkpatrick, G., Millie, D. F., Paerl, H., Pinckney, J. (1999). Impact of light and nitrogen on the maximum quantum yield of photosystem II for natural phytoplankton populations from the Neuse River, NC. American Society of Limnology and Oceanography, Santa Fe, NM ASLO 99: 22.
- Lohrenz, S. E., **Schofield, O.**, Fahnenstiel, G. L., Millie, D. F., (1999). Optical Gradients in a recurrent coastal turbidity plume in southeastern Lake Michigan. American Society of Limnology and Oceanography, Santa Fe, NM ASLO 99: 111.
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