

CURRICULUM VITAE

CHARLES H. GREENE

PERSONAL

Date of Birth: October 19, 1956
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EDUCATION

B.A. 1978, University of Colorado, Boulder
M.S. 1981, University of Washington, Seattle
Ph.D. 1985, University of Washington, Seattle

PROFESSIONAL EXPERIENCE

1976 Research Assistant, West Indies Laboratory, St. Croix, U.S. Virgin Islands
1977 Teaching Assistant, Department of Environmental, Population and Organismic Biology, University of Colorado
1978 - 1984 Research and Teaching Assistant, School of Oceanography, University of Washington
1985 - 1986 Postdoctoral Scholar, Biology Department, Woods Hole Oceanographic Institution
1986 - 1990 Visiting Assistant Professor, Section of Ecology and Systematics, Cornell University
1986 - Visiting Investigator, Biology Department, Woods Hole Oceanographic Institution
1986 - 1989 Visiting Scientist, Ecosystems Research Center, Cornell University
1988 - 1991 Member, Executive Committee, Water-Column Biology, Office of Naval Research Flow Over Abrupt Topography Accelerated Research Initiative
1988 - 1992 Director, Biological Resources Program, Cornell University
1989 - 1992 United States Representative, Krill Working Group, Commission for the Conservation of Antarctic Marine Living Resources
1991 - 1994 Adjunct Assistant Professor, Section of Ecology and Systematics, Cornell University
1992 - 2021 Director, Ocean Resources and Ecosystems Program, Cornell University
1992 - 1994 Advisor, Marine Science Fund Advisory Committee, Friday Harbor Laboratories, University of Washington
1993 Visiting Professor, Friday Harbor Laboratories, University of Washington
1995 Adjunct Associate Professor, Section of Ecology and Systematics, Cornell University
1995 - 2002 Associate Professor, Department of Earth and Atmospheric Sciences, Cornell University
2000 - 2001 Sabbatical Fellow, National Center for Ecological Analysis and Synthesis, University of California Santa Barbara
2001 - Associate Editor, *Oceanography*, The Oceanography Society
2001 - 2002 Resident Scholar, Whitely Center, Friday Harbor Laboratories, University of Washington
2003 - 2021 Professor, Department of Earth and Atmospheric Sciences, Cornell University
2003 Visiting Professor, Friday Harbor Laboratories, University of Washington

2004 Resident Scholar, Whitely Center, Friday Harbor Laboratories, University of Washington

2005 Visiting Professor, Friday Harbor Laboratories, University of Washington

2005 - 2019 Senior Scientist, The Kohala Center

2006 Resident Scholar, Whitely Center, Friday Harbor Laboratories, University of Washington

2006 Senior Scientist, Pacific Ocean Shelf Tracking Project

2006 - Affiliate Professor, University of Hawaii Hilo

2007 Visiting Professor, Friday Harbor Laboratories, University of Washington

2008 Resident Scholar, Whitely Center, Friday Harbor Laboratories, University of Washington

2008 - 2013 Education Coordinator, Ocean Tracking Network

2008 - 2011 Advisor, Ocean Observing Initiative Program Advisory Committee

2009 Visiting Professor, Friday Harbor Laboratories, University of Washington

2009 - 2012 Member, Awards Committee on Fellows, The Oceanography Society

2010 - Member, Advancement Board, Friday Harbor Laboratories, University of Washington

2010 Resident Scholar, Whitely Center, Friday Harbor Laboratories, University of Washington

2011 Visiting Professor, Friday Harbor Laboratories, University of Washington

2012 Resident Scholar, Whitely Center, Friday Harbor Laboratories, University of Washington

2013 Visiting Professor, Friday Harbor Laboratories, University of Washington

2014 - 2018 Resident Scholar, Whitely Center, Friday Harbor Laboratories, University of Washington

2017 Chair, Awards Committee on Fellows, The Oceanography Society

2018 - 2020 Council Member, Biological Oceanography, The Oceanography Society

2018 Chair, Awards Committee for Jerlov Medal in Ocean Optics, The Oceanography Society

2019 Chair, Awards Committee on Fellows, The Oceanography Society

2019 - 2022 Member, Executive Leadership Team, Ocean Visions Consortium

2021 - Professor Emeritus, Department of Earth and Atmospheric Sciences, Cornell University

2021 - Chair, Center for Ocean Art, Science, and Technology Steering Committee

2022 - Associate Director for Research and Strategic Planning, Friday Harbor Laboratories, University of Washington

UNIVERSITY SERVICE

1989 - 1992 Director, Biological Resources Program, Center for the Environment

1990 - 1995 Representative, Shoals Marine Laboratory Executive Committee

1991 - 2021 Member, Graduate Field of Ecology and Evolutionary Biology

1991 - 1992 Member, Undergraduate Curriculum Committee, Section of Ecology and Systematics

1992 - 2021 Director, Ocean Resources and Ecosystems Program

1992 - 2018 Member, Biology and Society Undergraduate Studies Program

1994 - 2001 Cornell Representative, Regional Association for Research in the Gulf of Maine

1994 - 1995 Member, Graduate Admissions Committee, Section of Ecology and Systematics

1995 - 2021 Member, Graduate Field of Geological Sciences

1996 - 2000 Representative, Engineering College Computing Policy Committee

1996 - 2000 Member, Science of Earth Systems Planning Committee

1997 Chairman, Marine Sciences Program Review Committee, College of Agriculture and Life Sciences

1997 Resource Panel Member, New Faculty Development Workshop

1998 - 1999 Member, Environmental Sciences Planning Committee

1998 Panel Member, Undergraduate Teaching in Engineering Workshop

1999 - 2000 Participant, Academic Leadership Series Workshop

2001 Facilitator, Freshman Reading Project

2002 Coordinator, Global Climate Change: Past, Present, and Future Seminar Series, Department of Earth and Atmospheric Sciences

2002	Member, Faculty Innovation in Teaching Grant Review Team
2002 - 2003	Faculty Advisor, Hubert H. Humphrey Fellowship Program
2003 - 2018	Member, Science of Earth Systems Curriculum Committee
2004 - 2007	Member, Committee for Recruitment of Underrepresented Groups, Biogeochemistry and Environmental Biocomplexity Program
2005 - 2007	At-Large Member, University Faculty Senate
2006 - 2010	Chairman, Science of Earth Systems Curriculum Committee
2008	Facilitator, Freshman Reading Project
2009 - 2015	Coordinator, Sustainable Earth, Energy and Environmental Systems Seminar Series, Atkinson Center for a Sustainable Future
2009 - 2021	Coordinator, Cornell - Woods Hole Oceanographic Institution Master of Engineering Program in Ocean Observing Science and Technology
2009 -	Fellow, Atkinson Center for a Sustainable Future
2010 - 2013	At-Large Member, College of Agriculture and Life Sciences Faculty Senate
2011 - 2021	Member, Climate Change Focus Group, Atkinson Center for a Sustainable Future
2011 - 2021	Member, Graduate Field of Atmospheric Science
2012 - 2013	Faculty Advisor, Cornell Club Sport Council
2014 - 2017	Departmental Representative, University Faculty Senate

HONORS AND AWARDS

1978	Member, Phi Beta Kappa
1978	America's Outstanding Names and Faces
1978	Chancellor's Medal, Recognition of Outstanding Academic Achievement, College of Arts and Sciences, University of Colorado
1979	Award for Excellence in Teaching Undergraduate Oceanography, School of Oceanography, University of Washington
1982 - 1983	Havana Bradner Academic Scholarship
1983 - 1984	Seaspace Academic Scholarship
1985 - 1986	Woods Hole Oceanographic Institution Postdoctoral Fellowship
1992 - 1993	Man of the Year, International Biographical Centre, Cambridge, England
1993	Rolex Awards for Enterprise Selected Project: Acoustic Visualization of Predator-Prey Interactions in the Southern Ocean Food Web
1998	J.P. and Mary Barger Excellence in Teaching Award, College of Engineering, Cornell University
1999	Merrill Presidential Scholar Outstanding Educator, Cornell University
2001	Faculty Innovation in Teaching Fellow, Cornell University
2008	Fellow, The Oceanography Society
2010	Sustainable Tompkins (County) Award
2011	Sustainable Tompkins (County) Award
2012	Sustainable Tompkins (County) Award
2016	Sustaining Fellow, Association for the Sciences of Limnology and Oceanography
2020	Merrill Presidential Scholar Outstanding Educator, Cornell University

SOCIETY MEMBERSHIPS

Acoustical Society of America (previous)
 American Association for the Advancement of Science (current)
 American Geophysical Union (current)
 Association for the Sciences of Limnology and Oceanography (current)
 American Society of Naturalists (previous)
 Ecological Society of America (current)
 Society for the Study of Evolution (previous)
 The Oceanography Society (current)
 Western Society of Naturalists (previous)

MAJOR RESEARCH INTERESTS

Conservation oceanography; marine bioacoustics; oceans and climate change; sustainable Earth, energy, and environmental systems

RESEARCH CRUISES AND EXPEDITIONS

Research Vessel Thomas Thompson; Central Pacific; 24-day cruise; April 1981
Research Vessel Cape Florida; Bahamas; 10-day cruise; October 1985
Smithsonian Tropical Research Institute; Carrie Bow Cay, Belize; 14-day field expedition;
December 1986
Research Vessel Seward Johnson and Research Submersible Johnson Sea Link; Gulf of Maine
and submarine canyons south of Georges Bank; 17-day cruise; September 1987
West Indies Laboratory; St. Croix, U.S. Virgin Islands; 10-day field expedition; December 1987
Aquarius Saturation Diving Facility; St. Croix, U.S. Virgin Islands; 10-day mission;
January 1989
Coordinated Eastern Arctic Research Experiment, Ice Camp A; Arctic Ocean;
11-day expedition; April 1989
Research Vessel Seward Johnson and Research Submersible Johnson Sea Link; Gulf of Maine
and submarine canyons south of Georges Bank; 8-day cruise; September 1989
Bahamian Field Station; San Salvador, Bahamas; 10-day field expedition; June 1990
Research Vessel Columbus Iselin; Bahamas; 10-day cruise; July 1990
Research Vessel Atlantis II and Deep-Submergence Vehicle Alvin; Eastern Pacific;
21-day cruise; October 1990
Bahamian Field Station; San Salvador, Bahamas; 8-day field expedition; January 1991
Research Vessel Thomas Thompson; Eastern Pacific; 21-day cruise; September 1991
Research Vessel Endeavor; Gulf of Maine; Chief Scientist; 10-day cruise; August 1992
Research Vessel Seward Johnson and Research Submersible Johnson Sea Link; Gulf of Maine;
Chief Scientist; 8-day cruise; August 1992
Research Vessel Seward Johnson and Research Submersible Johnson Sea Link; Gulf of Maine;
Chief Scientist; 6-day cruise; September 1993
Research Vessel Endeavor; Gulf of Maine; 11-day cruise; September 1994
Research Vessel Roger Revelle; Monterey Bay; Chief Scientist; 7-day cruise; August 1997
Research Vessel Endeavor; Gulf of Maine; Chief Scientist; 10-day cruise; October 1997
Research Vessel Oceanus; Gulf of Maine; Chief Scientist; 12-day cruise; October 1998
Research Vessel Oceanus; Gulf of Maine; Chief Scientist; 12-day cruise; December 1998
Research Vessel Endeavor; Gulf of Maine; Chief Scientist; 12-day cruise; October 1999
Research Vessel Endeavor; Gulf of Maine; Chief Scientist; 12-day cruise; December 1999

TEACHING EXPERIENCE

Undergraduate and Graduate Courses

1987 Biological Sciences 766: Communities and Ecosystems (Spring)
 Biological Sciences 262: Ecology, Environment, and Society (Spring)
1990 Biological Sciences 462: Marine Ecology (Spring)
1992 Biological Sciences 462: Marine Ecology (Spring)
 Geological Sciences 104: Introduction to Oceanography (Spring)
1993 Geological Sciences 104: Introduction to Oceanography (Spring)
1994 Geological Sciences 104: Introduction to Oceanography (Spring)
 Biological Sciences 665: Dynamics of Pelagic Systems (Spring)
 Biological Sciences 760: Mathematical and Computational Biology (Autumn)
1995 Biological Sciences 462: Marine Ecology (Spring)
 Geological Sciences 104: Introduction to Oceanography (Spring)
 Geological Sciences 212: Special January Field Course: Akumal, Mexico
 (Autumn)
1996 Geological Sciences 104: Introduction to Oceanography (Spring)
 Geological Sciences 775: Physical-Biological Interactions in Ocean Ecosystems
 (Spring)

1997 Biological Sciences 462: Marine Ecology (Spring)
 Geological Sciences 104: Introduction to Oceanography (Spring)
 Geological Sciences 475: Bioacoustical Oceanography (Summer)
 Geological Sciences 123: Science of Earth Systems Colloquium (Autumn)

1998 Geological Sciences 104: Introduction to Oceanography (Spring)
 Geological Sciences 475: Global Ocean Ecosystems: The Northeast Shelf
 Ecosystem (Spring)
 Geological Sciences 475: Bioacoustical Oceanography (Summer)
 Geological Sciences 123: Science of Earth Systems Colloquium (Autumn)

1999 Geological Sciences 462: Marine Ecological Processes (Spring)
 Geological Sciences 104: Introduction to Oceanography (Spring)
 Geological Sciences 775: Ocean Ecosystems and Climate (Autumn)

2000 Geological Sciences 104: Introduction to Oceanography (Spring)
 Geological Sciences 204: Ocean Sciences Laboratory (Spring)

2001 Earth and Atmospheric Sciences 475: Marine Sciences Colloquium (Autumn)

2002 Earth and Atmospheric Sciences 104: Introduction to Oceanography (Spring)
 Earth and Atmospheric Sciences 462: Marine Ecological Processes (Spring)
 Earth and Atmospheric Sciences 350: Marine Ecosystem Dynamics (Autumn)

2003 Earth and Atmospheric Sciences 154: Introduction to Oceanography (Spring)
 Earth and Atmospheric Sciences 155: Introduction to Oceanography Lab (Spring)
 Earth and Atmospheric Sciences 350: Marine Ecosystem Dynamics (Autumn)

2004 Earth and Atmospheric Sciences 154: Introduction to Oceanography (Spring)
 Earth and Atmospheric Sciences 155: Introduction to Oceanography Lab (Spring)
 Earth and Atmospheric Sciences 351: Marine Ecosystems Field Course (Spring)
 Earth and Atmospheric Sciences 222: Hawaii's Environment (Autumn)
 Earth and Atmospheric Sciences 462: Marine Ecology (Autumn)

2005 Earth and Atmospheric Sciences 154: Introduction to Oceanography (Spring)
 Earth and Atmospheric Sciences 155: Introduction to Oceanography Lab (Spring)
 Earth and Atmospheric Sciences 351: Marine Ecosystems Field Course (Spring)
 Earth and Atmospheric Sciences 475: Hawaiian Marine Ecosystems (Spring)
 Earth and Atmospheric Sciences 154: Introduction to Oceanography (Autumn)
 Earth and Atmospheric Sciences 222: Hawaii's Environment (Autumn)
 Earth and Atmospheric Sciences 350: Marine Ecosystem Dynamics (Autumn)

2006 Earth and Atmospheric Sciences 220: The Earth System (Spring)
 Earth and Atmospheric Sciences 351: Marine Ecosystems Field Course (Spring)
 Earth and Atmospheric Sciences 154: Introduction to Oceanography (Autumn)
 Earth and Atmospheric Sciences 222: Hawaii's Environment (Autumn)
 Earth and Atmospheric Sciences 462: Marine Ecology (Autumn)

2007 Earth and Atmospheric Sciences 351: Marine Ecosystems Field Course (Spring)
 Earth and Atmospheric Sciences 154: Introduction to Oceanography (Autumn)
 Earth and Atmospheric Sciences 3500: Marine Ecosystem Dynamics (Autumn)

2008 Earth and Atmospheric Sciences 3510: Marine Ecosystems Field Course (Spring)
 Earth and Atmospheric Sciences 1540: Introduction to Oceanography (Autumn)
 Earth and Atmospheric Sciences 4620: Marine Ecology (Autumn)

2009 Earth and Atmospheric Sciences 3510: Conservation Oceanography (Spring)
 Earth and Atmospheric Sciences 1420: Writing in the Sciences: Sustainable Earth,
 Energy, and Environmental Systems (Autumn)
 Earth and Atmospheric Sciences 1540: Introduction to Oceanography (Autumn)
 Earth and Atmospheric Sciences 3500: Marine Ecosystem Dynamics (Autumn)

2010 Earth and Atmospheric Sciences 3510: Conservation Oceanography (Spring)
 Earth and Atmospheric Sciences 1420: Writing in the Sciences: Sustainable Earth,
 Energy, and Environmental Systems (Autumn)
 Earth and Atmospheric Sciences 1540: Introduction to Oceanography (Autumn)
 Earth and Atmospheric Sciences 4620: Marine Ecology (Autumn)

- 2011 Earth and Atmospheric Sciences 3510: Conservation Oceanography (Spring)
Earth and Atmospheric Sciences 1420: Writing in the Sciences: Sustainable Earth, Energy, and Environmental Systems (Autumn)
Earth and Atmospheric Sciences 3500: Marine Ecosystem Dynamics (Autumn)
- 2012 Earth and Atmospheric Sciences 3510: Conservation Oceanography (Spring)
Earth and Atmospheric Sciences 1420: Writing in the Sciences: Sustainable Earth, Energy, and Environmental Systems (Autumn)
Earth and Atmospheric Sciences 1540: Introduction to Oceanography (Autumn)
Earth and Atmospheric Sciences 4620: Marine Ecosystem Sustainability (Autumn)
- 2013 Earth and Atmospheric Sciences 3510: Conservation Oceanography (Spring)
- 2014 Earth and Atmospheric Sciences 3510: Conservation Oceanography (Spring)
Earth and Atmospheric Sciences 4620: Marine Ecosystem Sustainability (Autumn)
- 2015 Earth and Atmospheric Sciences 3510: Conservation Oceanography (Spring)
Earth and Atmospheric Sciences 4750: Marine Bioacoustics (Spring)
Earth and Atmospheric Sciences 3500: Marine Ecosystem Dynamics in a Changing Ocean (Autumn)
- 2016 Earth and Atmospheric Sciences 3510: Conservation Oceanography (Spring)
Earth and Atmospheric Sciences 4750: Oceans and Climate (Spring)
Earth and Atmospheric Sciences 4620: Marine Ecosystem Sustainability (Autumn)
- 2017 Earth and Atmospheric Sciences 3510: Conservation Oceanography (Spring)
Earth and Atmospheric Sciences 4750: Oceans and Climate (Spring)
Earth and Atmospheric Sciences 3500: Marine Ecosystem Dynamics in a Changing Ocean (Autumn)
- 2018 Earth and Atmospheric Sciences 3510: Conservation Oceanography (Spring)
Earth and Atmospheric Sciences 4750: Oceans and Climate (Spring)
Earth and Atmospheric Sciences 4620: Marine Ecosystem Sustainability (Autumn)
- 2019 Earth and Atmospheric Sciences 3510: Conservation Oceanography (Spring)
Earth and Atmospheric Sciences 4750: Oceans and Climate (Spring)
Ecology and Evolutionary Biology 4920: Special Topics in Ocean Biodiversity (Spring)
Earth and Atmospheric Sciences 4720: Marine Ecosystem Dynamics in a Changing Ocean (Autumn)
- 2020 Earth and Atmospheric Sciences 3510: Conservation Oceanography (Spring)
Earth and Atmospheric Sciences 4750: Oceans and Climate (Spring)
Ecology and Evolutionary Biology 4920: Special Topics in Ocean Biodiversity (Spring)

Undergraduate Summer Internship Programs

- 1994 Coordinator, Center for the Environment - Akumal Ecological Center Summer Internship Program, Akumal, Mexico; June 1 - August 15, 1994
- 1995 Coordinator, Center for the Environment - Akumal Ecological Center Summer Internship Program, Akumal, Mexico; June 15 - August 15, 1995
- 1996 Coordinator, Center for the Environment - Akumal Ecological Center Summer Internship Program, Akumal, Mexico; June 9 - August 4, 1996

Non-Credit Graduate Seminar Courses

- 1988 Foraging Ecology of Aquatic Invertebrates (Autumn)
- 1991 Conservation of Coral Reef Ecosystems (Spring)

Advanced Spring and Summer Training Workshops/Courses

- 1993 Bioacoustical Oceanography Workshop, Friday Harbor Laboratories, Friday Harbor, WA; July 19 - August 21, 1993
- 1995 Bioacoustical Oceanography Workshop II: Top Predators and their Prey in the Marine Environment, University of California, Santa Cruz, Santa Cruz, CA; August 1 - 25, 1995

- 1996 Bioacoustical Oceanography Workshop II: Top Predators and their Prey in the Marine Environment, University of California Santa Cruz, Santa Cruz, CA; August 5 - 30, 1996
- 1997 Bioacoustical Oceanography Workshop III: Top Predators and their Prey in the Marine Environment, University of California Santa Cruz, Santa Cruz, CA; July 21 – August 14, 1997
- 1998 Bioacoustical Oceanography Advanced Workshop: Top Predators and their Prey in the Marine Environment, Shoals Marine Laboratory, Appledore Island, ME/University of New Hampshire, Durham, NH; July 15 - August 8, 1998
- 2003 Marine Bioacoustics, Friday Harbor Laboratories, Friday Harbor, WA; July 14 - August 15, 2003
- 2004 Marine Bioacoustics, Hawaii Preparatory Academy, Waimea, HI; February 23 - March 12, 2004
- 2005 Marine Bioacoustics, Hawaii Preparatory Academy, Waimea, HI; March 7 - 25, 2005
Marine Bioacoustics, Friday Harbor Laboratories, Friday Harbor, WA; August 1 - 15, 2005
- 2006 Marine Bioacoustics, Hawaii Preparatory Academy, Waimea, HI; March 7 - 19, 2006
- 2007 Marine Bioacoustics, Hawaii Preparatory Academy, Waimea, HI; March 16 - 24, 2007
Marine Bioacoustics, Friday Harbor Laboratories, Friday Harbor, WA; July 16 - August 17, 2007
- 2008 Marine Bioacoustics, Hawaii Preparatory Academy, Waimea, HI; February 4 - 8 and March 24 – April 4, 2008
- 2009 Marine Bioacoustics, Hawaii Preparatory Academy, Waimea, HI; January 19 – 23 and March 2 - 13, 2009
Marine Bioacoustics, Friday Harbor Laboratories, Friday Harbor, WA; July 20 – August 21, 2009
- 2010 Marine Bioacoustics, Hawaii Preparatory Academy, Waimea, HI; March 2 - 18, 2010
- 2011 Marine Bioacoustics, Hawaii Preparatory Academy, Waimea, HI; March 1 - 18, 2011
Marine Bioacoustics, Friday Harbor Laboratories, Friday Harbor, WA; June 20 – July 22, 2011
- 2012 Marine Bioacoustics, Hawaii Preparatory Academy, Waimea, HI; February 23 – March 14, 2012
- 2013 Marine Bioacoustics, Hawaii Preparatory Academy, Waimea, HI; February 25 – March 13, 2013
Marine Bioacoustics, Friday Harbor Laboratories, Friday Harbor, WA; July 22 – August 16, 2013
- 2014 Marine Bioacoustics, Hawaii Preparatory Academy, Waimea, HI; March 3 – 21, 2014
- 2015 Marine Bioacoustics, Hawaii Preparatory Academy, Waimea, HI; February 23 – March 13, 2015
Marine Bioacoustics, Friday Harbor Laboratories, Friday Harbor, WA; March 30 – April 24, 2015
- 2016 Marine Bioacoustics, Friday Harbor Laboratories, Friday Harbor, WA; March 28 – April 22, 2016
- 2017 Marine Bioacoustics, Hawaii Preparatory Academy, Waimea, HI; March 3 – March 10, 2017
- 2018 Marine Bioacoustics, Hawaii Preparatory Academy, Waimea, HI; February 26 – March 3, 2018
- 2019 Marine Bioacoustics, Hawaii Preparatory Academy, Waimea, HI; February 19 – March 1, 2019
- 2020 Marine Bioacoustics, Hawaii Preparatory Academy, Waimea, HI; February 3 – February 15, 2020

GRADUATE AND POSTDOCTORAL ADVISORS

M.S. Committee: Drs. John Hedges, Peter Jumars, **Amy Schoener:** University of Washington
Ph.D. Committee: Drs. Karl Banse, Bruce Frost, **Michael Landry,** Arthur Nowell, Robert Paine, Thomas Zaret: University of Washington
Postdoctoral Advisor: Dr. Larry Madin: Woods Hole Oceanographic Institution

HIGH SCHOOL, UNDERGRADUATE, GRADUATE AND POSTDOCTORAL ADVISING

High School Mentor

Noelia Martinez (Caguas, Puerto Rico). 1997. Satellite Oceanography of Puerto Rico, NASA Summer High School Apprenticeship Research Program.

Undergraduate Summer Intern Advisor

Alex Rau. 1998. NASA Space Grant Program.
Jessica Tennenbaum. 1998. NASA Space Grant Program.
Andrew Barton. 1999. NASA Space Grant Program.
Jennifer Whiteis. 1999. NASA Space Grant Program.
Gregory Thorhaug. 2000. NASA Space Grant Program.
David Rosenfeld. 2000. NASA Space Grant Program.
Daniel Steinberg. 2003. NASA Space Grant Program
Nathaniel Greene. 2013. NSF Research Experience for Undergraduates
Katherine Bohrer. 2013. NSF Research Experience for Undergraduates

Undergraduate Honors Thesis Advisor

Ann Dettelbach. 1991. Community structure and change: a look at Kaneohe Bay coral reefs. College Scholars Program, Cornell University (magna cum laude)
Eli Meir. 1992. Three-dimensional effects of Langmuir circulation on the patchiness of pelagic animals in the ocean. Division of Biological Sciences, Cornell University (highest honors)
Laura Schaefer. 1994. *Calanus glacialis* and *Calanus finmarchicus* copepodite size distributions as an indicator of co-occurrence and water origin within the Gulf of Maine. Division of Biological Sciences, Cornell University (research honors with distinction)
Mark Brush. 1995. Coral community composition and reef health of Akumal, Mexico. Division of Biological Sciences, Cornell University (high honors)
Andrew Seitz. 1997. Analysis and visualization of acoustic backscatter in the Gulf of Maine. Division of Biological Sciences, Cornell University (research honors with distinction)
Jessica Tennenbaum. 1998. Coupling of physical and biological processes during the 1998 spring phytoplankton bloom in the Gulf of Maine. Science of Earth Systems, Cornell University (magna cum laude)
Jennifer Whiteis. 2000. Patterns of Caribbean sea surface temperature change over the past decade derived from satellite imagery. Implications for coral disease. Geological Sciences, Cornell University (magna cum laude)
Daniel Steinberg. 2003. Interannual variability in North Atlantic net primary production and average sea level anomaly: 1998-2002. Science of Earth Systems, Cornell University (research honors with distinction)
Mathew Horn. 2004. Spatial and temporal variability of chlorophyll in Hawaiian mesoscale eddies. Science of Earth Systems, Cornell University (research honors with distinction)
Bradley Mills. 2015. A climate challenge: The economics and policy of biofuel production. College Scholar Program, Arts and Sciences, Cornell University (summa cum laude)
Celina Scott-Buechler. 2018. The untimely decline of Caribbean coral reefs: natural and anthropogenic climate drivers of coral bleaching. College Scholar Program, Arts and Sciences, Cornell University (summa cum laude)
Clarie Ng Jia Qi. 2019. High quality protein from the sea: feeding the world in 2050 sustainably with marine microalgae. Environmental Science and Sustainability, Cornell University (research honors with distinction)

Arjun Hausner. 2020. Optimizing dynamic ocean management strategies to reduce whale ship strikes. Earth and Atmospheric Sciences, Cornell University (research honors with distinction)

M.S. Thesis Committee Chairman

- Jeannette Zamon. 1993. Acoustically visualizing the three-dimensional prey field of foraging chinstrap penguins. Ecology and Evolutionary Biology, Cornell University
- Andrew Barton. 2001. Continuous plankton recorder survey phytoplankton measurements and the North Atlantic Oscillation: interannual to multidecadal variability in the Northwest Shelf, Northeast Shelf, and Central North Atlantic Ocean. Geological Sciences, Cornell University
- Rei Ueyama. 2004. Wind-induced modulation of spring phytoplankton blooms in the North Atlantic derived from satellite observations. Geological Sciences, Cornell University
- Jennifer Whiteis. 2005. Sources of climate variability in the Caribbean Sea: Satellite sea surface temperature measurements and their implications for coral bleaching and disease. Geological Sciences, Cornell University
- Matthew Connelly. 2011. The response of the Northwest Atlantic's coupled slope water system to the North Atlantic Oscillation: the beginning of a new regime? Geological Sciences, Cornell University
- Robert Levine. 2014. Temporal and spatial variability in euphausiid abundance, biomass, and species composition at the Northwest Atlantic shelf break and its canyons. Geological Sciences, Cornell University
- Samuel Nadell. 2017. Modeling water parcel age and phytoplankton growth in the Hudson River Estuary under climate-influenced discharge conditions. Geological Sciences, Cornell University
- Sage Mitchell. 2019. New methodologies for imaging and quantifying dissolution of pteropods to monitor the impacts of ocean acidification. Atmospheric Science, Cornell University
- Emmerson Sirk. 2021. Decadal shift in North Atlantic bloom timing from satellite observations. Atmospheric Science, Cornell University
- Celina Scott-Buechler. 2021. Bridging sustainable protein gaps: analysis of marine microalgae's potential for human nutrition. Atmospheric Science, Cornell University
- Arjun Hausner. 2021. Dynamic Strategies offer potential to reduce lethal ship collisions with large whales under changing climate conditions. Atmospheric Science, Cornell University

M.Eng. Committee Chairman

Katherine Kirk. 2013. Atlantic Ocean decadal scale property changes at 30°S. Geological Sciences, Cornell University

M.S. Thesis Committee

Margaret Salisbury. 2005. Relating water reflectance to the optical properties of water using hyperspectral data. Civil and Environmental Engineering, Cornell University.

Ph.D. Dissertation Committee Chairman

- Shonali Chandy. 1997. Estimating the predatory impact of gelatinous zooplankton. Ecology and Evolutionary Biology, Cornell University
- Gideon Gal. 1999. The biological and physical interactions of *Mysis relicta* in Lake Ontario. Ecology and Evolutionary Biology, Cornell University
- Andrew Pershing. 2001. Response of large marine ecosystems to climate variability: patterns, processes, concepts, and methods. Ecology and Evolutionary Biology, Cornell University
- Karen Fisher. 2002. Intermittency of spatial and temporal plankton patterns. Ecology and Evolutionary Biology, Cornell University
- Yianna Samuel. 2008. Climatic impacts on ocean ecosystems: a study of climate variability and conservation oceanography. Geological Sciences, Cornell University
- Andrew Fischer. 2008. An estuarine plume and coastal ocean variability: discerning a land-sea linkage in Monterey Bay, California. Geological Sciences, Cornell University

- Louise McGarry. 2014. An examination of blue whale foraging and its krill prey field in the Monterey Bay submarine canyon. Geological Sciences, Cornell University
- Ian Brosnan. 2014. Death of a salmon: An investigation of the processes affecting survival and migration of juvenile yearling Chinook salmon (*Oncorhynchus tshawytscha*) in the lower Columbia River and ocean plume with acoustic telemetry, mark-recapture statistics, and individual-based modeling. Ecology and Evolutionary Biology, Cornell University
- Erin Meyer-Gutbrod. 2017. Impacts of climate-associated changes in prey availability on North Atlantic right whale population dynamics. Atmospheric Science, Cornell University

Ph.D. Dissertation Committee Member

- Daniel Grunbaum. 1992. Local processes and global patterns: Biomathematical models of bryozoan feeding currents and density-dependent aggregations in Antarctic krill. Ecology and Evolutionary Biology, Cornell University
- Laurie Raymundo. 2000. Coral reef rehabilitation in the Philippines: The role of biotic interactions in coral reef establishment. Division of Biological Sciences, Cornell University
- Minsu Kim. 2001. Investigation of the effects of natural variations of phytoplankton on ocean color. Civil and Environmental Engineering, Cornell University
- David Kohler. 2001. An evaluation of a derivative-based hyperspectral bathymetric algorithm. Civil and Environmental Engineering, Cornell University
- Daniel Pendelton. 2010. Models of North Atlantic right whale habitat: Tools for science and Conservation. Natural Resources, Cornell University

Ph.D. Opponent or External Examiner

- Thomas Torgersen. 2001. Causes and implications of visual planktivore distributions. Biology Department, University of Oslo, Oslo, Norway
- Timothy Pauly. 2002. Acoustic target strength measurements of free-swimming Antarctic krill. Curtin University of Technology, Perth, Australia

Postdoctoral Advisor

- Dr. Sam McClatchie. 1990. Cornell University (Retired: Fisheries Oceanographer, NOAA Southwest Fisheries Science Center)
- Dr. Bruce Monger. 1993-1994. Cornell University (Current position: Senior Lecturer, Cornell University)
- Dr. Andrew Pershing. 2001-2003. Cornell University (Current position: Director of Climate Science, Climate Central)
- Dr. Evija Smite. 2002-2003. Hubert H. Humphrey Fellowship Program. Cornell University (Current position: Director of the State Environmental Services Fisheries Control Department, Valsts Vides Dienests)
- Dr. Colin Beal. 2011-2013. Cornell University (Current position: Researcher, B&D Engineering and Consulting)
- Dr. Deborah Sills. 2011-2013. Cornell University (Current position: Associate Professor, Bucknell University)
- Dr. Leda Gerber. 2013- 2015. Cornell University (Current position: Senior Research Engineer, Climeworks)
- Dr. Louise McGarry. 2014-2016. Cornell University (Current position: Research Scientist, Fundy Ocean Research Centre for Energy)
- Dr. Erin Meyer-Gutbrod. 2016-2017. Cornell University (Current position: Assistant Professor, University of South Carolina)

SYNERGISTIC ACTIVITIES

In 1991, Dr. Greene chaired a panel discussion on training and human resources development at a National Science Foundation-sponsored workshop on *GLOBEC Acoustic Instrumentation*. Recommendations from this panel discussion led the Office of Naval Research to fund several series of marine bioacoustics courses that he first organized in 1993 and continued to coordinate until 2021. By bringing together many of

the top researchers in marine bioacoustics, biological oceanography, and marine biology, these courses have provided students with a unique opportunity to work side by side with world experts using state-of-the-art tools and technologies. The courses also provided a setting for developing and testing new technologies. In this manner, they have served as a research magnet, attracting leading scientists to conduct their own research in a creative teaching and learning environment that has catalyzed interactions across the various disciplines associated with marine bioacoustics. During the past 25 years, the courses have trained over 350 students from 32 countries.

In 2000, Dr. Greene organized a special symposium and workshop at the summer ASLO Meeting in Copenhagen, Denmark on *The Response of North Atlantic Shelf Ecosystems to Climate Variability and Change*. These activities led to the formation of a working group dedicated to investigating Marine Ecosystem Responses to Climate In the North Atlantic (MERCINA). The synthesis research conducted by MERCINA revealed that decadal-scale regime shifts in Northwest Atlantic shelf ecosystems are often remotely forced by atmosphere-cryosphere-ocean interactions in the Arctic's climate system.

Dr. Greene and his students have used the oceanographic insights from this research to advance the management of commercially exploited and protected animal populations in the Gulf of Maine, including cod and the critically endangered North Atlantic right whale. In the case of the right whale, they were able to demonstrate that variability in the population's recovery rate is strongly coupled to food availability, which in turn is linked to climate-driven changes in the ecosystem.

Since 2010, Dr. Greene has served on the leadership team of a consortium of universities and other organizations that are conducting marine microalgae research to develop an integrated approach for society to achieve climate, energy, food, and water security during the 21st century. In 2020, he initiated an Ocean Visions task force on the Marine Circular Bioeconomy. The goal of this task force is to develop a new algae-based conceptual framework for aquaculture, one that can contribute significantly to human nutrition while simultaneously improving environmental sustainability and biodiversity conservation.

In recognition of his contributions to the oceanographic community in research, teaching, and service, Dr. Greene was elected a Fellow in The Oceanography Society in 2008 and a Sustaining Fellow in the Association for the Sciences of Limnology and Oceanography in 2016.

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- Greene, C.H. Acoustic mapping and visualization of zooplankton patchiness. Workshop on Three-Dimensional Animal Aggregations, Monterey, California; October 1991.
- Greene, C.H. and P.H. Wiebe. Acoustical mapping of zooplankton patchiness in the sea (Invited Symposium Speaker). Symposium on Acoustical Determination of Biological Structure in the Sea, Acoustical Society of America, Houston, Texas; November 1991.
- Greene, C.H., E. Meir, P.H. Wiebe, S. Kaartvedt, A. Genin, G. Gal, and L. Haury. 1992. Acoustic visualization of physical-biological interactions in the oceanic environment. Symposium on Coupling of Physical and Biological Processes, American Society of Limnology and Oceanography, Santa Fe, New Mexico; February 1992.
- Greene, C.H. 1992. Acoustic visualization of patch dynamics in oceanic ecosystems, Summer Seminar Series, Friday Harbor Laboratory, Friday Harbor, Washington; July 1992.
- Greene, C.H. 1992. Acoustic visualization of patch dynamics in oceanic ecosystems, Seminar Series, Steinitz Marine Biology Laboratory, Eilat, Israel; November 1992.
- Greene, C.H. 1993. Acoustic visualization of patch dynamics in oceanic ecosystems (Invited Symposium Speaker). Perspectives, New Directions, and News in Oceanography, The Oceanography Society's Third Scientific Meeting, Seattle, Washington; April 1993.
- Greene, C.H. 1994. Acoustic visualization: new approaches to the study of marine pelagic communities, Seminar Series, Shoals Marine Laboratory, Appledore Island, Maine, August 1994.
- Greene, C.H. and P.H. Wiebe. 1995. Acoustic visualization of zooplankton and micronekton patchiness in ocean ecosystems. ICES International Symposium on Fisheries and Plankton Acoustics, Aberdeen, Scotland; June 1995.
- Greene, C.H. 1995. Plankton target strength: Introduction (Session Chair). ICES International Symposium on Fisheries and Plankton Acoustics, Aberdeen, Scotland; June 1995.
- Greene, C.H. 1995. Acoustic visualization of zooplankton patch dynamics on Georges Bank, Summer Seminar Series, Friday Harbor Laboratory, Friday Harbor, Washington; July 1995.

- Greene, C.H. and P.H. Wiebe. 1995. Acoustic visualization of zooplankton and micronekton patchiness in ocean ecosystems (Invited Symposium Speaker). Symposium on Acoustical Oceanography: Acoustic Inversion of Fish and Plankton Ensembles, Acoustical Society of America, St. Louis, Missouri; November 1995 (presented by P.H. Wiebe).
- Greene, C.H. 1995. Acoustic remote sensing of zooplankton dynamics in the Northwest Atlantic, Seminar Series, Monterey Bay Aquarium Research Institution, Monterey, California; November 1995.
- Greene, C.H. 1995. Acoustic remote sensing of zooplankton dynamics in the Northwest Atlantic, Department of Ocean Sciences Seminar Series, University of California Santa Cruz, Santa Cruz, California; November 1995.
- Greene, C. H., J.M. Popp, P. H. Wiebe, M.C. Benfield, and C.R. Pelkie. Three-dimensional acoustic visualization of zooplankton patchiness on Georges Bank. American Geophysical Union/American Society of Limnology and Oceanography Ocean Sciences Meeting, San Diego, California; February 1996.
- Greene, C. H., P. H. Wiebe, M.C. Benfield, C.S. Davis, S.M. Gallager, and J.M. Popp. Acoustic and video remote sensing of zooplankton patchiness. American Geophysical Union/American Society of Limnology and Oceanography Ocean Sciences Meeting, San Diego, California; February 1996.
- Greene, C. H. and P. H. Wiebe. Volumetric visualization of zooplankton sound scattering in the ocean (Invited Symposium Speaker). Symposium on Acoustic Imaging in the Ocean. Acoustical Society of America, Honolulu, Hawaii; December 1996.
- Greene, C.H., A.J. Pershing, P.H. Wiebe, T.C. Austin, A.M. Bradley, and R.G. Goldsborough. Assessing the distribution and abundance of zooplankton: a comparison of acoustic and net-sampling methods with D-BAD MOCNESS. American Geophysical Union/American Society of Limnology and Oceanography Ocean Sciences Meeting, San Diego, California; February 1998.
- Greene, C.H., M.C. Benfield, P.H. Wiebe, C.S. Davis, and S.M. Gallager. Eyes and ears beneath the sea: video-acoustic imaging of plankton (Invited Symposium Speaker). Symposium on Frontiers in Plankton Dynamics. American Association for the Advancement of Science, Philadelphia, Pennsylvania; February 1998.
- Greene, C.H., M.C. Benfield, and P.H. Wiebe. The Georges Bank ecosystem: Predicting the crash of 1999? American Society of Limnology and Oceanography Aquatic Sciences Meeting, Santa Fe, New Mexico; February 1999.
- Greene, C.H., and A.J. Pershing. The response of *Calanus finmarchicus* populations to climate variability in the Northwest Atlantic: basin-scale forcing associated with the North Atlantic Oscillation. ICES Symposium: Population Dynamics of *Calanus* in the North Atlantic, Tromso, Norway; August 1999.
- Greene, C.H., and A.J. Pershing. Trans-Atlantic responses of copepod populations to basin-scale forcing associated with the North Atlantic Oscillation. Western Society of Naturalists, Monterey, California; December 1999.
- Greene, C.H., and A.J. Pershing. Trans-Atlantic responses of *Calanus finmarchicus* populations to basin-scale forcing associated with the North Atlantic Oscillation. American Geophysical Union/American Society of Limnology and Oceanography Ocean Sciences Meeting, San Antonio, Texas; January 2000.
- Greene, C.H. The response of Northeast and Northwest Atlantic shelf ecosystems to climate variability and change (Invited Symposium Speaker). American Society of Limnology and Oceanography Summer Meeting, Copenhagen, Denmark; June 2000.
- Greene, C.H. Trans-Atlantic responses of *Calanus finmarchicus* to basin-scale forcing associated with the North Atlantic Oscillation. Seminar Series, Department of Ecology, Evolution, and Marine Biology, University of California, Santa Barbara, California; November 2000.
- Greene, C.H., and A.J. Pershing. Trans-Atlantic responses of *Calanus finmarchicus* to basin-scale forcing associated with the North Atlantic Oscillation (Invited Symposium Speaker). American Geophysical Union Chapman Conference on the North Atlantic Oscillation, Ourense, Spain; November 2000.
- Greene, C.H., and A.J. Pershing. Trans-Atlantic responses of *Calanus finmarchicus* to basin-scale forcing associated with the North Atlantic Oscillation (Invited Symposium Speaker). 70th Anniversary of the Continuous Plankton Recorder Surveys of North Atlantic Symposium, Edinburgh, Scotland; August 2001.

- Greene, C.H., and A.J. Pershing. Modal shifts in slope water circulation and the flip side of the North Atlantic Oscillation (Invited Symposium Speaker). American Geophysical Union/American Society of Limnology and Oceanography Ocean Sciences Meeting, Honolulu, Hawaii; February 2002.
- Greene, C.H. Sound and light: visualizing life in the ocean's interior. Kohala Center, Waimea, Hawaii; December 2002.
- Greene, C.H. Ocean explorations. Keauhou Beach Resort, Kona, Hawaii; January 2003.
- Greene, C.H. Climate and biocomplexity: linking the oceanographic effects of climate variability to the reproductive biology of North Atlantic Right whales. Department of Biology, University of California, Santa Cruz, California; March 2003.
- Greene, C.H. Climate and biocomplexity: linking the oceanographic effects of climate variability to the reproductive biology of North Atlantic Right whales. Hopkins Marine Station, Stanford University, Pacific Grove, California; March 2003.
- Greene, C.H. Climate and biocomplexity: linking the oceanographic effects of climate variability to the reproductive biology of North Atlantic Right whales. Friday Harbor Laboratories, Friday Harbor, Washington; August 2003.
- Greene, C.H. Climate and biocomplexity: linking the oceanographic effects of climate variability to the reproductive biology of North Atlantic Right whales. Program in Atmospheric and Ocean Sciences, University of Colorado, Boulder, Colorado; October 2003.
- Greene, C.H. A bioacoustic ocean observatory on Hawai'i Island. (Invited Symposium Speaker). American Society of Limnology and Oceanography/The Oceanography Society Ocean Research Conference, Honolulu, Hawaii; February 2004.
- Greene, C.H. Climate and the recovery of North Atlantic right whales. Museum of the Earth Seminar Series, Ithaca, New York; June 2004.
- Greene, C.H., and A.J. Pershing. Biocomplexity and climate: recovery of the North Atlantic right whale population in the context of climate-induced changes in oceanographic processes. (Invited Symposium Speaker). Climate Change and Aquatic Systems, Plymouth, England; July 2004.
- Greene, C.H. Oceanographic responses to climate variability in the Northwest Atlantic. Coordinating Research on the North Atlantic (CORONA) Workshop, Plymouth, England; July 2004.
- Greene, C.H., and A.J. Pershing. Climate variability, regime shifts, and ecosystem resiliency in the Northwest Atlantic. (Invited Symposium Speaker) Managing for Resilience: An Integrated Approach to Coastal Marine Science and Conservation, Friday Harbor Laboratories, Friday Harbor, Washington; August 2004.
- Greene, C.H. Biocomplexity and climate: linking the conservation biology of right whales to climate-induced oceanographic changes in the North Atlantic. School of Ocean and Earth Sciences, University of Victoria, Victoria, Canada; January 2005.
- Greene, C.H. Comparing freshwater and marine survival of British Columbia salmon using the Pacific Ocean Shelf Tracking (POST) array. American Society of Limnology and Oceanography, Victoria, Canada; June 2006.
- Greene, C.H. The responses of shelf ecosystems to climate variability and change in the Northwest Atlantic. School of Earth and Ocean Science and Technology, University of Hawaii, Manoa, Hawaii; September 2006.
- Greene, C.H. Sounding the sea's biology. Nicholas School of the Environment, Duke University, Durham, North Carolina; April 2007.
- Greene, C.H. Climate drives sea change in the Northwest Atlantic. Beaufort Marine Laboratory, Duke University, Beaufort, North Carolina; April 2007.
- Greene, C.H. A sea change for ecosystems in the North Atlantic. Scientists and Journalists: Getting the Point Across Seminar Series, University of Rhode Island's Metcalf Institute for Marine and Environmental Reporting, Narragansett, RI; June 2007.
- Greene, C.H. Climate drivers of sea change in the Northwest Atlantic. Scripps Institute of Oceanography, University of California, San Diego, California; February 2008.
- Greene, C.H. Climate drivers of sea change in the Northwest Atlantic. Seminar Series, Geology Department, State University of New York, Cortland, New York; April 2009.
- Greene, C.H. Climate remote forcing of Northwest Atlantic shelf ecosystems. Seminar Series, Northwest Fisheries Science Center, Seattle, Washington; November 2009.
- Greene, C.H. Arctic climate forcing of Northwest Atlantic ecosystems. (Invited Symposium Speaker) American Geophysical Union/American Society of Limnology and

- Oceanography/The Oceanography Society Ocean Sciences Meeting, Portland, Oregon; February 2010.
- Greene, C.H. What's next in a post-GLOBEC world? (Invited Symposium Speaker) United States Global Ocean Ecosystems Pan-Regional Synthesis Symposium, Friday Harbor, Washington; August 2010.
- Greene, C.H., et al. Arctic Climate Forcing of NW Atlantic Shelf Ecosystems. Ecological Studies of Subarctic Seas Meeting, Seattle, Washington; June 2011.
- Greene, C.H. Remote climate forcing of Northwest Atlantic Shelf Ecosystems and its Implications for North Atlantic Right Whales. Whale Museum Summer Seminar Series, Friday Harbor, Washington; July 2011.
- Greene, C.H. Geoengineering: The inescapable truth of getting to 350. American Association for the Advancement of Science Annual Meeting, Vancouver, British Columbia; February 2012.
- Greene, C.H. Towards a more balanced view of marine ecosystems. (Invited Speaker) GLOBEC/PICES/ICES Workshop on Forecasting Ecosystem Indicators with Process-Based Models. Friday Harbor, WA; September 2012.
- Greene, C.H. Towards a more balanced view of marine ecosystems. (Invited Symposium Speaker) Annual ICES Science Meeting, Bergen, Norway; September 2012.
- Greene, C.H. Arctic remote climate forcing of Northwest Atlantic shelf ecosystems. (Invited Speaker) Arctic Ocean Modeling Intercomparison Project Workshop. Woods Hole, MA; October 2012.
- Greene, C.H. Remote climate remote forcing of ecosystem dynamics in the Northwest Atlantic. Marine Sciences Seminar Series, Rutgers University, Brunswick, NJ; November 2012.
- Greene, C.H. A need for Qatari leadership in securing a sustainable world for future generations. United Nations COP 18 Conference, Bellona Foundation Side Event, Doha, Qatar; December 2012.
- Greene, C.H. A need for Qatari leadership in securing a sustainable world for future generations. Seminar Series, Weill Cornell Medical College, Doha, Qatar; December 2012.
- Greene, C.H. Fossil fuel junkies, climate change, and global biogeochemical engineering. Natural Resources Seminar Series, Cornell University, Ithaca, NY; April 2013.
- Greene, C.H. Climate change and global biogeochemical engineering. Tompkins County Climate Protection Initiative, Ithaca, NY; April 2013.
- Greene, C.H. Fossil fuel addiction, climate change, and global biogeochemical engineering. Institute of Marine Sciences, Italian National Research Council, La Spezia, Italy; May 2013.
- Greene, C.H., et al. Real-time, continental-scale acoustic monitoring of commercial fish stocks In the US Exclusive Economic Zone (EEZ). American Geophysical Union/American Society of Limnology and Oceanography/The Oceanography Society Ocean Sciences Meeting, Honolulu, HI; February 2014.
- Greene, C.H. Fossil fuel junkies, climate change, ocean acidification, and global biogeochemical engineering. (Invited Tutorial Speaker). American Geophysical Union/American Society of Limnology and Oceanography/The Oceanography Society Ocean Sciences Meeting, Honolulu, HI; February 2014.
- Greene, C.H. Marine microalgae: climate, energy, and food security from the sea. School of Aquatic and Fisheries Science Aquaculture Lecture, University of Washington, Seattle, WA; May 2015.
- Greene, C.H. Fossil fuel junkies, climate change, and better living through algae. Climate Change Resiliency Network, Friday Harbor, WA; June 2015.
- Greene, C.H. Marine microalgae: climate, energy, and food security from the sea. Friday Harbor Laboratories Seminar Series, Friday Harbor, WA; June 2015.
- Greene, C.H. The conservation oceanography of North Atlantic right whales. Tiburon Center, San Francisco State University Seminar Series, Tiburon, CA; December 2017.
- Greene, C.H. The conservation oceanography of North Atlantic right whales. Hopkins Marine Station, Stanford University Seminar Series, Pacific Grove, CA; December 2017.
- Greene, C.H. The conservation oceanography of North Atlantic right whales. Marine Sciences Institute, University of California Santa Cruz Seminar Series, Santa Cruz, CA; December 2017.
- Greene, C.H. Climate, energy, and food security from the sea. (Invited Tutorial Speaker). American Geophysical Union/American Society of Limnology and Oceanography/The Oceanography Society Ocean Sciences Meeting, Portland, OR; February 2018.

Greene, C.H. Marine microalgae: climate, energy, and food security for the 21st century. (Invited Speaker and Panelist). Circular Carbon Economy Conference, Golden, CO; July 2018.

Greene, C.H., E.L. Meyer-Gutbrod, and K.T.A. Davies. Climate change and the conservation oceanography of the North Atlantic Right Whale population. Lenfest Foundation Webinar Series, Remote; September 2018.

Greene, C.H. Marine algae-based solutions to climate, energy, and food security. (Invited Speaker). OceanVisions Summit, Atlanta, GA; April 2019.

Greene, C.H. and M.E. Huntley. Reversing climate change: The pivotal role of algae. (Invited Speaker). Energy Series, Stanford University, Palo Alto, CA; May 2019.

Greene, C.H. Reversing climate change in a generation: The pivotal role of algae. (Keynote Speaker). Algal Biomass Organization Summit, Orlando, FL; September 2019.

Greene, C.H. Reversing climate change in a generation: The pivotal role of algae. (Invited Speaker). University of Hong Kong, Hong Kong; October 2019.

Greene, C.H. Reversing climate change in a generation: The pivotal role of algae. (Invited Speaker). Woods Hole Research Center, Woods Hole, MA; October 2019.

Greene, C.H. The conservation oceanography of North Atlantic right whales. (Invited Speaker). Woods Hole Oceanographic Institution, Woods Hole, MA; October 2019.

Greene, C.H. Reversing climate change in a generation: The pivotal role of algae. (Invited Speaker). National Center for Ecological Analysis and Synthesis, University of California Santa Barbara, Santa Barbara, CA; December 2019.

Greene, C.H. The Green New Deal: algal solutions to reversing climate change and ending world hunger. American Geophysical Union/American Society of Limnology and Oceanography/The Oceanography Society Ocean Sciences Meeting, San Diego, CA; February 2020.

Greene, C.H. Climate Research. Roots and Shoots Webinar Series, Jane Goodall's Youth Movement, Remote; July 2021.

Greene, C.H. Using ocean knowledge to achieve climate, energy and food security by 2050. Cornell Adult University Webinar, Cornell University, Remote; July 2021.

Greene, C.H. Using ocean knowledge to achieve climate, energy and food security by 2050. Friends of Hopkins Webinar Series, Hopkins Marine Station, Stanford University, Remote; March 2021.

Greene, C.H. Northwest Atlantic Continuous Plankton Recorder Survey: ecosystem regime shifts and the conservation oceanography of the North Atlantic right whale. (Invited Symposium Speaker). 90th Anniversary of the Continuous Plankton Recorder Survey Symposium, Remote; September 2021.

Greene, C.H., E.L. Meyer-Gutbrod, and K.T.A. Davies. How climate-driven ocean changes are further threatening North Atlantic right whales. Lenfest Foundation Webinar Series, Remote; October 2021.

Greene, C.H. Conservation Oceanography: Ocean regime shift is driving collapse of the North Atlantic right whale population. (Invited Speaker). School of Aquatic and Fisheries Science, University of Washington, Seattle, WA; October 2021.

Greene, C.H. Algae-based bioenergy with carbon capture and storage in the marine circular bioeconomy. American Geophysical Union/American Society of Limnology and Oceanography/The Oceanography Society Ocean Sciences Meeting, Remote; February 2022.

Greene, C.H., E.L. Meyer-Gutbrod, and K.T.A. Davies. The North Atlantic right whale as an indicator of large marine ecosystem regime shifts. American Geophysical Union/American Society of Limnology and Oceanography/The Oceanography Society Ocean Sciences Meeting, Remote; February 2022.

Greene, C.H., R. Troll, and K. Parker. The art and science of *Blue Seas, Green Seas*, changing seas. Friends of Hopkins Webinar Series, Hopkins Marine Station, Stanford University, Remote; February 2022.

Greene, C.H., C. Scott-Buechler, and C. M. Beal. Marine circular bioeconomy: algae and the future of marine aquaculture. Geodynamics Seminar (Invited Speaker). Woods Hole Oceanographic Institution, Woods Hole, MA; March 2022.

Greene, C.H. Conservation Oceanography: Ocean regime shift is driving collapse of the North Atlantic right whale population. (Invited Speaker). Banse Lecture Series, School of Oceanography, University of Washington, Seattle, WA; October 2022.

Greene, C.H. Science-based investing to meet the global challenges of climate change and food security (Invited Speaker). Silicon Valley Fintech Incubator Start-Up Workshop. San Mateo, CA; October 2021.

Greene, C.H., Sean Brilliant, and Gina Lonati. *Last of the Right Whales* Panel Discussion. (Invited Panelist). Sea Change Canada, Remote; December 2022.

- Greene, C.H. Algal Solutions for a Sustainable Future. Hopkins Marine Station Seminar Series, Pacific Grove, CA; February 2023.
- Greene, C.H. Conservation Oceanography: A Whale's Tale. (Invited Speaker). Lecture Series, Monterey Bay Aquarium Research Institute, Moss Landing, CA; April 2023.
- Greene, C.H. Algal Solutions for a Sustainable Future. Friday Harbor Laboratories Seminar Series, Friday Harbor, WA; June 2023.
- Greene, C.H. Algal Solutions: Transforming Marine Aquaculture to Address Climate and Food Security. Friends of Hopkins Webinar Series, Hopkins Marine Station, Stanford University, Remote; February 2024.

WORKSHOPS AND SYMPOSIA

- Workshop on "Project S.U.P.E.R. (SUbarctic Pacific Ecosystem Research)," Lake Wilderness Conference Center, Maple Valley, Washington; Spring 1981.
- Workshop on "Interannual Variability of the Environment and Fisheries of the Gulf of Alaska and the Eastern Bering Sea," College of Ocean and Fishery Sciences, University of Washington, Lake Wilderness Conference Center, Washington; Spring 1983.
- Workshop on "Coordinated Eastern Arctic Research Experiment (CEAREX)," NASA Goddard Space Flight Center, Greenbelt, Maryland; Summer 1987.
- Workshop on "Flow Over Abrupt Topography," U.S. Naval Postgraduate School, Monterey, California; Spring 1988.
- Workshop on "Marine Zooplankton Ecology," Lake Arrowhead Conference Center, Lake Arrowhead, California; Spring 1988.
- Workshop on "Remote Optical and Acoustical Mapping," Monterey Bay Aquarium, Monterey, California; Spring 1988.
- Workshop on "Antarctic Krill," Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR) Working Group on Krill, Southwest Fisheries Center, La Jolla, California; Summer 1989.
- Workshop on "Small-Scale Physical/Biological Coupling," Monterey Bay Aquarium, Monterey, California; Summer 1989.
- Workshop on "Coordinated Eastern Arctic Research Experiment (CEAREX)," University of Southern Mississippi, Long Beach, Mississippi; Winter 1990.
- Workshop on "Global Ocean Ecosystems (GLOBEC): Northwest Atlantic Program," Chairman of zooplankton working group, Bedford Institute of Oceanography, Dartmouth, Nova Scotia; Summer 1990.
- Workshop on "Global Ocean Ecosystems (GLOBEC): Acoustic Instrumentation," Chairman of panel discussion on training and human resources development, Northeast Fisheries Center, Woods Hole, Massachusetts; Spring 1991.
- Workshop on "Global Ocean Ecosystems (GLOBEC): Southern Ocean Program," Scripps Institution of Oceanography, La Jolla, California; Spring 1991.
- Workshop on "Advanced Techniques in Zooplankton Ecology," Lake Lacawac Sanctuary, Lake Lacawac, Pennsylvania; Spring 1991.
- Workshop on "Three-Dimensional Animal Aggregations," Monterey Bay Aquarium, Monterey, California; Autumn 1991.
- Workshop (organizer) on "Marine Mammals and Acoustic Remote Sensing," Cornell University, Ithaca, New York; Summer 1994.
- Workshop on "Global Ocean Ecosystems (GLOBEC) Georges Bank Study," Woods Hole Oceanographic Institution, Woods Hole, Massachusetts; Autumn 1995.
- Workshop on "Global Ocean Ecosystems (GLOBEC) Georges Bank Study," University of New Hampshire, Durham, New Hampshire; Autumn 1996.
- Workshop (organizer) on "Spatio-Temporal Dynamics: New Statistical and Modeling Approaches for Analyzing Spatially and Temporally Indexed Data from Pelagic Ecosystems," Cornell University, Ithaca, New York; Autumn 1996.
- Workshop on "Earth Systems Science Education," Biosphere 2, Oracle, Arizona; Spring 1997.
- Workshop on "Global Ocean Ecosystems (GLOBEC) Georges Bank Study," University of New Hampshire, Durham, New Hampshire; Autumn 1998.
- Workshop on "Global Ocean Ecosystems (GLOBEC) Georges Bank Study," Woods Hole Oceanographic Institution, Woods Hole, Massachusetts; Autumn 1999.

Special Symposium and Workshop (organizer) on “The Response of Northeast and Northwest Atlantic Shelf Ecosystems to Climate Variability and Change. American Society of Limnology and Oceanography Summer Meeting, Copenhagen, Denmark; June 2000.

Workshop (organizer) on “Response of NW Atlantic Marine Ecosystems to Climate Variability,” National Center for Ecological Analysis and Synthesis, Santa Barbara, California; Spring 2001.

Special Symposium and Workshop (organizer) on “Marine Ecosystem Responses to Climate: The Responses of Large Marine Ecosystems to Interdecadal-Scale Climate Variability.” American Geophysical Union/American Society of Limnology and Oceanography Ocean Sciences Meeting, Honolulu, Hawaii; February 2002.

Workshop (organizer) on “Hawaiian Ocean Resources and Ecosystems Observatory,” Keauhou Beach Resort, Keauhou, Hawaii; February 2003

Special Symposium (organizer) on “Ocean Observing Systems: Novel Approaches to Studying and Monitoring Large Marine Ecosystems and their Living Resources.” American Society of Limnology and Oceanography/The Oceanography Society Ocean Research Conference, Honolulu, Hawaii; February 2004.

Workshop on “Coordinating Research on the North Atlantic (CORONA),” Plymouth, England; July 2004.

Workshop on “Climate-Based Assessment and Forecasting of Ecosystems (CAFÉ) in the Gulf of Maine,” Boston, Massachusetts; December 2004.

Workshop on “Researching the Roles of Marine and Coastal Biodiversity in Maintaining Ecosystem Services.” Census of Marine Life, Washington, DC; September 2006.

Workshop (organizer) on “Responses of NW Atlantic Shelf Ecosystems to Arctic Climate Change,” Gulf of Maine Research Institute, Portland, Maine; November 2006.

Special Symposium (organizer) on “Emergence of Conservation Oceanography.” American Association for the Advancement of Science Annual Meeting, San Francisco, California; February 2007.

Workshop on “GLOBEC Basin-Scale Analysis, Synthesis and Integration.” Chapel Hill, NC; May 2007.

Workshop on “GLOBEC Pan-Regional Synthesis.” Seattle, WA; September 2007.

Special Symposium (organizer) on “Influences of Recent Changes in the Arctic on Subarctic and Mid-Latitude Marine Ecosystems.” American Geophysical Union/American Society of Limnology and Oceanography/The Oceanography Society Ocean Sciences Meeting, Orlando, Florida; March 2008.

Workshop (organizer) on “Responses of NW Atlantic Shelf Ecosystems to Climate Forcing,” Shoals Marine Laboratory’s Creek Farm Campus, Portsmouth, New Hampshire; October 2008.

Workshop (organizer) on “Remote Climate Forcing of NW Atlantic Shelf Ecosystems,” American Geophysical Union/American Society of Limnology and Oceanography/The Oceanography Society Ocean Sciences Meeting, Portland, Oregon; February 2010.

Special Symposium (organizer) on “Marine Ecosystem Regime Shifts: Observations and Predictions.” American Geophysical Union/American Society of Limnology and Oceanography/The Oceanography Society Ocean Sciences Meeting, Portland, Oregon; February 2010.

Research Symposium (organizer) on “Global Ocean Ecosystems and Climate.” US Global Ocean Ecosystems Pan Regional Synthesis Symposium, Friday Harbor, Washington; August 2010.

Workshop (organizer) on “Remote Climate Forcing of NW Atlantic Shelf Ecosystems,” Ecological Studies of Subarctic Seas Meeting, Seattle, Washington; June 2011.

Special Symposium (organizer) on “The Challenges of Getting to 350.” American Association for the Advancement of Science Annual Meeting, Vancouver, British Columbia; February 2012.

Workshop (co-organizer) on “Forecasting Ecosystem Indicators with Process-Based Models.” GLOBEC/PICES/ICES Workshop, Friday Harbor, WA; September 2012.

Workshop (organizer) on “Conservation Oceanography of Right Whales.” Lenfest Ocean Program Workshop, Friday Harbor, WA; August 2018.

Workshop (organizer) on “Conservation Oceanography of Right Whales.” Lenfest Ocean Program Workshop, Friday Harbor, WA; August 2019.

Forum on “Entrepreneurship of the Blue Economy.” Shenzhen, China; October 2019.

Forum on “International Cooperation and Development of the Marine Economy.” Shenzhen, China; October 2019.

Special Symposium (organizer) on “Ocean Visions: Finding Ocean-Based Solutions to Society’s Greatest Global Challenges.” American Geophysical Union/American Society of Limnology and Oceanography/The Oceanography Society Ocean Sciences Meeting, San Diego, California; February 2020.

Special Session (organizer) on “The Marine Circular Bioeconomy.” Ocean Visions Summit, Remote; May 2021.

Special Session (organizer) on “The Marine Circular Bioeconomy Workshop.” Algal Biomass Organization, Remote; October 2021.

Workshop (organizer) on “Conservation Oceanography of Right Whales.” Lenfest Ocean Program Workshop, Friday Harbor, WA; August 2019.

HISTORY OF GRANT SUPPORT

Funding Agency: CO₂ Foundation
Title: Marine Heat Waves Training Workshop
Principal Investigators: Charles H. Greene (University of Washington)
Project Duration: January 1, 2024 – December 31, 2024
Award Amount: \$84,746

Funding Agency: Advanced Research Projects Agency - Energy
Title: Marine Circular Bioeconomy Workshop
Principal Investigators: Charles H. Greene (University of Washington)
Project Duration: September 15, 2021 – April 14, 2022
Award Amount: \$10,000

Funding Agency: Engage Cornell, Cornell University
Title: A Model for Sustainable Resource Use: Leveraging Science and Traditional Ecological Knowledge in Environmental Education
Principal Investigators: Charles H. Greene (Cornell University)
Project Duration: September 1, 2019 – August 31, 2020
Award Amount: \$79,950

Funding Agency: Department of Agriculture (subcontract from University of Arkansas)
Title: Empowering US Broiler Production for Transformation and Sustainability
Principal Investigators: Xingen Lei et al. (Cornell University)
Project Duration: September 1, 2019 – August 31, 2024
Award Amount: \$4,653,825

Funding Agency: Office of Naval Research
Title: Marine Bioacoustics: Applications in Mobile Ocean Observing Network
Principal Investigator: Charles H. Greene (The Kohala Center)
Project Duration: June 1, 2018 – May 31, 2021
Award Amount: \$74,307

Funding Agency: Lenfest Ocean Program, Pew Charitable Trusts
Title: Climate Change and the Conservation Oceanography of the North Atlantic Right Whale Population
Principal Investigators: Charles H. Greene (Cornell University)
Project Duration: May 24, 2018 - May 31, 2020
Award Amount: \$285,200

Funding Agency: Atkinson Center for a Sustainable Future, Cornell University
Title: Transforming Fisheries Science and Management
Principal Investigators: Charles H. Greene (Cornell University), Helen Takade-Heumacher, and Jake Kritzer (Environmental Defense Fund)
Project Duration: April 1, 2016 - March 31, 2017
Award Amount: \$87,570

Funding Agency: Department of Energy
Title: Marine Algae Industrialization Consortium
Principal Investigator: Zackary Johnson (Duke University)
Project Duration: October 1, 2015 – September 30, 2022
Award Amount: \$5,240,313

Funding Agency: Atkinson Center for a Sustainable Future, Cornell University
Title: Developing Surrogates for Advanced Liquid Transportation Fuels
Principal Investigators: C. Thomas Avedisian et al. (Cornell University)
Project Duration: July 15, 2014 - July 14, 2015
Award Amount: \$103,084

Funding Agency: National Science Foundation
Title: Development of a Large-Area, High-Resolution Marine Acoustic Tracking System

Principal Investigator: Charles H. Greene (Cornell University)
Project Duration: July 1, 2013 - June 30, 2016
Award Amount: \$500,036

Funding Agency: Office of Naval Research
Title: Marine Bioacoustics: Soundtracks for the Future
Principal Investigator: Charles H. Greene (The Kohala Center)
Project Duration: April 1, 2013 – March 31, 2018
Award Amount: \$250,007

Funding Agency: Department of Defense
Title: National Defense Science and Engineering Predoctoral Fellowship: Erin L. Meyer-Gutbrod
Principal Investigators: Charles H. Greene and Erin L. Meyer-Gutbrod (Cornell University)
Project Duration: August 1, 2012 - July 31, 2015
Award Amount: \$92,500

Funding Agency: National Oceanic and Atmospheric Administration
Title: Pilot study utilizing a Wave Glider towed echo-sounder system for fisheries acoustic surveys.
Application to acoustic surveys of Pacific hake (*Merluccius productus*)
Principal Investigators: Larry Hufnagle (NMFS), Dezhang Chu (NMFS), Charles Greene
(Cornell University), Janusz Burczynski (BioSonics), Alan Declerk (Liquid Robotics)
Project Duration: August 1, 2012 – July 31, 2014
Award Amount: \$205,776

Funding Agency: Atkinson Center for a Sustainable Future, Cornell University
Title: Sustainable Hawaii
Principal Investigators: Charles H. Greene et al. (Cornell University)
Project Duration: July 1, 2012 – December 31, 2014
Award Amount: \$20,000

Funding Agency: Department of Energy
Title: Algal Biofuels Consortium: Large-Scale Production of Fuels and Feeds from Marine
Microalgae Principal Investigators: Charles H. Greene and Mark E. Huntley (Cornell University)
Project Duration: July 29, 2011 – September 30, 2015
Award Amount: \$8,713,416

Funding Agency: Atkinson Center for a Sustainable Future, Cornell University
Title: Sustainable Energy Pathways: The Qatar Connection
Principal Investigators: Charles H. Greene et al. (Cornell University)
Project Duration: July 1, 2011 – December 31, 2013
Award Amount: \$16,000

Funding Agency: Department of Agriculture (subcontract from Cellana)
Title: Developing a New Generation of Animal Feed Protein Supplements: Co-Products from Marine
Algae Biofuel Production
Principal Investigators: Charles H. Greene and Xingen Lei (Cornell University)
Project Duration: March 1, 2011 – February 28, 2015
Award Amount: \$499,972

Funding Agency: Cellana
Title: Algal Biofuels Life Cycle Analysis
Principal Investigator: Charles H. Greene (Cornell University)
Project Duration: December 1, 2010 – June 1, 2011
Award Amount: \$51,041

Funding Agency: National Science Foundation
Title: Wave Gliders in the Development of a Continental-Scale Integrated Ocean-Observing System
Principal Investigator: Charles H. Greene (Cornell University)
Project Duration: October 1, 2010 - September 30, 2013
Award Amount: \$452,190

Funding Agency: Department of Defense
Title: National Defense Science and Engineering Predoctoral Fellowship: Ian G. Brosnan
Principal Investigators: Charles H. Greene and Ian G. Brosnan (Cornell University)
Project Duration: August 1, 2010 - July 31, 2013
Award Amount: \$92,500

Funding Agency: National Science Foundation (subcontract from Rutgers)
Title: U.S. GLOBEC: Global Ocean Ecosystems and Climate: A Pan-Regional Synthesis
Principal Investigators: Charles H. Greene (Cornell University)
Project Duration: January 1, 2009 – February 28, 2013
Award Amount: \$150,070

Funding Agency: Office of Naval Research
Title: Marine Bioacoustics: Back to the Future
Principal Investigator: Charles H. Greene (The Kohala Center)
Project Duration: January 1, 2008 – December 31, 2012
Award Amount: \$530,235

Funding Agency: College of Engineering, Cornell University
Title: Plug in the Big Island – Clearing the Gridlock for a Sustainable Energy Future
Principal Investigators: Max Zhang, Robert Thomas, and Charles H. Greene (Cornell University)
Project Duration: July 1, 2007 – June 30, 2008
Award Amount: \$30,000

Funding Agency: National Science Foundation
Title: U.S. GLOBEC: NWA/Georges Bank – Marine Ecosystem Responses to Climate- Associated Remote Forcing from the Labrador Sea
Principal Investigators: Charles H. Greene and Andrew J. Pershing (Cornell University)
Project Duration: January 1, 2006 – June 30, 2009
Award Amount: \$256,920

Funding Agency: National Oceanic and Atmospheric Administration (Subcontract from GOMOOS)
Title: A Regional Association Project to Observe Ocean Climate in the Gulf of Maine in Support of Marine Resource Management: A Sentinel Buoy in the Northeast Channel with Predictive Tools for Shrimp Stocks and Marine Mammals
Principal Investigators: Gulf of Maine Ocean Observing System (GOMOOS)
Project Duration: October 1, 2003-September 30, 2004
Award Amount: \$35,972

Funding Agency: Office of Naval Research
Title: Bioacoustical Oceanography Workshops: The Next Generation
Principal Investigator: Charles H. Greene (The Kohala Center, Cornell University)
Project Duration: January 1, 2003 – December 31, 2007
Award Amount: \$510,087

Funding Agency: National Oceanic and Atmospheric Administration
Title: Synthesis: Climate-Based Forecasts for the Gulf of Maine Ecosystem
Principal Investigators: Andrew J. Pershing and Charles H. Greene, (Cornell University), Barbara A. Bailey (University of Illinois), Jon K.T. Brodziak, Loretta O'Brien, and Jack W. Jossi (National Marine Fisheries Service)
Project Duration: September 1, 2002 – August 31, 2004
Award Amount: \$350,546

Funding Agency: National Oceanic and Atmospheric Administration

Title: Right whales, *Calanus*, and climate: understanding the distribution and abundance of right whales relative to their prey

Principal Investigators: Andrew J. Pershing, Charles H. Greene, and Bruce C. Monger (Cornell University)

Project Duration: July 1, 2001 – June 30, 2003

Award Amount: \$210,756

Funding Agency: National Aeronautics and Space Administration

Title: Undergraduate Course on Satellite Remote Sensing in Biological Oceanography Principal Investigators: Bruce C. Monger and Charles H. Greene (Cornell University)

Heidi Sosik (Woods Hole Oceanographic Institution)

Project Duration: July 1, 2001 – June 30, 2002

Award Amount: \$89,482

Funding Agency: National Aeronautics and Space Administration

Title: Undergraduate Course on Satellite Remote Sensing in Biological Oceanography Principal Investigators: Bruce C. Monger and Charles H. Greene (Cornell University), Heidi Sosik

(Woods Hole Oceanographic Institution), and James J. Bisagni (University of Massachusetts)

Project Duration: July 1, 1999 – March 31, 2001

Award Amount: \$152,501

Funding Agency: National Oceanic and Atmospheric Administration

Title: Estimating the *in situ* Acoustic Target Strength, Distribution and Abundance of Diapausing *Calanus finmarchicus* and its Invertebrate Predators in the Deep Basins of the Gulf of Maine

Principal Investigators: Mark C. Benfield, Richard F. Shaw (Louisiana State University), Charles H. Greene (Cornell University), Peter H. Wiebe, Timothy K. Stanton

(Woods Hole Oceanographic Institution)

Project Duration: May 1, 1998 – December 31, 1999

Award Amount: \$102,156

Funding Agency: National Science Foundation

Title: U.S. GLOBEC: Broad-Scale Patterns of the Distribution of Zooplankton and Nekton in Relation to Micro-, and Coarse-scale Physical Structure in the Georges Bank Region

Principal Investigators: Peter H. Wiebe, Timothy K. Stanton, and Charles H. Greene (Woods Hole Oceanographic Institution)

Project Duration: February 15, 1998 – January 31, 1999

Award Amount: \$90,000

Funding Agency: National Aeronautics and Space Administration

Title: Biological and Physical Controls of Primary Production and its Subsequent Fate in the Georges Bank Region: an Integration of Satellite Imagery and US-GLOBEC Survey Cruises

Principal Investigators: Charles H. Greene and Bruce C. Monger (Cornell University)

Project Duration: September 1, 1997 – October 31, 2000

Award Amount: \$218,223

Funding Agency: National Aeronautics and Space Administration

Title: Volumetric Assessment of Factors Governing Seasonal and Interannual Fluxes of Phytoplankton from Georges Bank 1994-1999 and Applications to SeaWiFS Data for Large-Scale New Production Estimates

Principal Investigators: Charles H. Greene and Karen Fisher (Cornell University)

Project Duration: September 1, 1998 – August 31, 2001

Award Amount: \$66,000

Funding Agency: National Oceanic and Atmospheric Administration
Title: U.S. GLOBEC: Processes Controlling the Recruitment of *Calanus finmarchicus* Populations from the Gulf of Maine to Georges Bank
Principal Investigators: Charles H. Greene (Cornell University), Mark C. Benfield (Louisiana State University), and Peter H. Wiebe (Woods Hole Oceanographic Institution)
Project Duration: January 1, 1997 – June 30, 2001
Award Amount: \$645,846

Funding Agency: Department of Defense
Title: National Defense Science and Engineering Predoctoral Fellowship: Andrew J. Pershing
Principal Investigators: Charles H. Greene and Andrew J. Pershing (Cornell University)
Project Duration: August 1, 1996 – July 31, 1999
Award Amount: \$86,352

Funding Agency: Office of Naval Research
Title: Bioacoustical Oceanography Workshops: Top Predators and their Prey in the Marine Environment
Principal Investigator: Charles H. Greene (Cornell University)
Project Duration: January 1, 1996 – September 30, 1998
Award Amount: \$225,000

Funding Agency: Department of Defense
Title: A High-Performance Towed Platform for Bio-Optical, Acoustical, and Physical Data Acquisition
Principal Investigators: Peter H. Wiebe, Timothy K. Stanton, and Charles H. Greene (Woods Hole Oceanographic Institution)
Project Duration: July 1, 1995 – June 30, 1996
Award Amount: \$458,100

Funding Agency: National Science Foundation
Title: U.S. GLOBEC: Broad-Scale and Time Series Acoustic Measurements of Zooplankton and Nekton in the Georges Bank Region
Principal Investigators: Peter H. Wiebe, Timothy K. Stanton, and Charles H. Greene (Woods Hole Oceanographic Institution)
Project Duration: March 1, 1995 – February 28, 1997
Award Amount: \$399,477

Funding Agency: National Science Foundation
Title: Bioacoustical Oceanography Workshop II
Principal Investigators: Timothy K. Stanton, Peter H. Wiebe, and Charles H. Greene (Woods Hole Oceanographic Institution)
Project Duration: March 1, 1995 – December 31, 1995
Award Amount: \$25,000

Funding Agency: New York State Sea Grant
Title: Dynamics of the Mysid Population in Lake Ontario
Principal Investigators: Lars G. Rudstam, Edward L. Mills, Charles H. Greene (Cornell University) and Ora Johansson (Great Lakes Laboratory)
Project Duration: February 1, 1995 – January 31, 1997
Award Amount: \$150,000

Funding Agency: Office of Naval Research
Title: Bioacoustical Oceanography Workshop II
Principal Investigator: Charles H. Greene (Cornell University)
Project Duration: January 1, 1995 – December 31, 1995
Award Amount: \$52,636

Funding Agency: Office of Naval Research
Title: Marine Mammals and Acoustic Remote-Sensing Initiative
Principal Investigator: Charles H. Greene (Cornell University)
Project Duration: May 1, 1994 – April 30, 1996
Award Amount: \$44,693

Funding Agency: Office of Naval Research
Title: Bioacoustical Oceanography Workshop
Principal Investigator: Charles H. Greene (Cornell University)
Project Duration: Apr. 15, 1993 – Dec. 31, 1994
Award Amount: \$50,357

Funding Agency: National Oceanic and Atmospheric Administration
Title: GLOBEC Field Studies in the NW Atlantic: Predatory Impact of Euphausiids on Overwintering
Calanus finmarchicus Populations in the Gulf of Maine
Principal Investigator: Charles H. Greene (Cornell University)
Project Duration: Feb. 1, 1992 – Jan. 1, 1994
Award Amount: \$11,187 and 2 weeks of Johnson Sea Link submersible time

Funding Agency: Department of Defense (subcontract from WHOI)
Title: Modeling Biological-Physical Interactions: A Population Biological Approach
Principal Investigator: Charles H. Greene (Cornell)
Project Duration: April 1, 1992 – March 31, 1997
Award Amount: \$662,735

Funding Agency: National Science Foundation
Title: Bioacoustical Oceanography: Dual-Beam Acoustics Deployed on a Multiple Opening/Closing
Net and Environmental Sensing System (D-BAD MOCNESS)
Principal Investigators: Charles H. Greene (Cornell University) and Peter H. Wiebe
(Woods Hole Oceanographic Institution)
Project Duration: June 1, 1991 – May 30, 1993
Award Amount: \$133,027 (to Cornell University); \$250,013 (to Woods Hole Oceanographic
Institution)

Funding Agency: Office of Naval Research
Title: Bioacoustical Signatures of Seamounts
Principal Investigator: Charles H. Greene (Cornell University)
Project Duration: Oct. 1, 1988 – Sept. 30, 1993
Award Amount: \$440,051

Funding Agency: New York Sea Grant
Title: Cornell's Year of Ocean Awareness Open House and Distinguished Ocean Scholar
Seminar Series
Principal Investigator: Charles H. Greene (Cornell University)
Project Duration: Sept. 1, 1989 – May 30, 1990
Award Amount: \$9,000

Funding Agency: National Oceanic and Atmospheric Administration
Title: The Distributional Patterns of Antarctic Krill: Collection and Analysis of Hydroacoustic
Survey Data off Elephant Island
Principal Investigators: Charles H. Greene and Simon A. Levin (Cornell University)
Project Duration: Dec. 1, 1989 – Sept. 30, 1990
Award Amount: \$75,126

Funding Agency: Office of Naval Research Title: Arctic Zooplankton Ecology
Principal Investigators: Charles H. Greene (Cornell University) and Peter H. Wiebe
(Woods Hole Oceanographic Institution)
Project Duration: Jan. 1, 1988 – Sept. 30, 1990
Award Amount: \$362,503

Funding Agency: Office of Naval Research
Title: Variability in Zooplankton Vertical Migration Behavior
Principal Investigators: Charles H. Greene and Peter H. Wiebe
(Woods Hole Oceanographic Institution)
Project Duration: Feb. 1, 1987 – Sept. 30, 1988
Award Amount: \$168,333