

National Sea Grant Accomplishments

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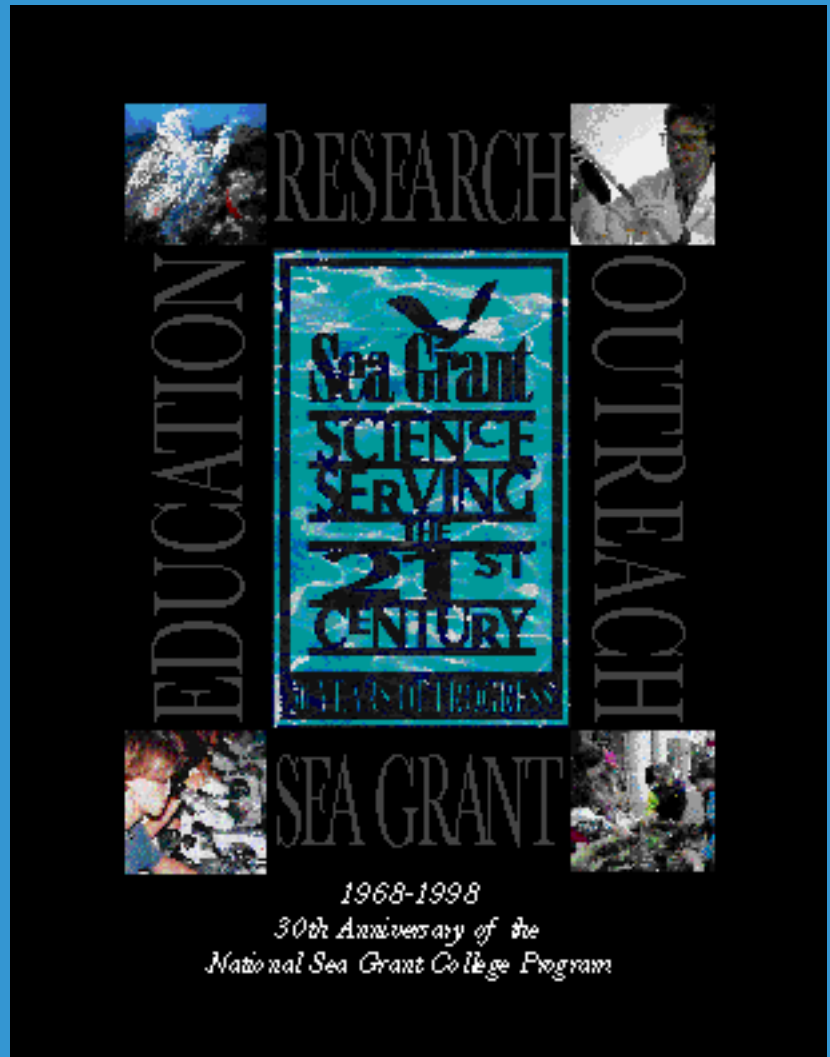
[Coastal Habitat Enhancement](#)

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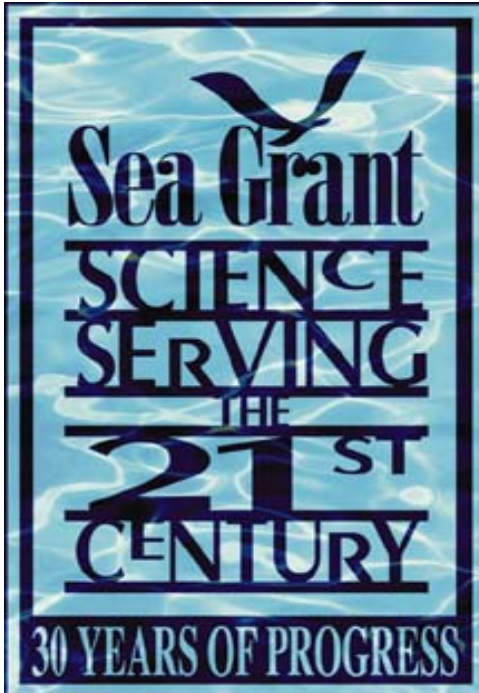


National Sea Grant College Program

[Credits](#)

Last modified

National Sea Grant College Program's Highlighted Accomplishments



What is Sea Grant?

Sea Grant is a commitment, a partnership, a bridge, and a bond. It's a commitment to solve coastal problems and develop marine resources. It's a partnership and a bridge between government, academia, industry, scientists, and private citizens to help Americans understand and sustainably use our precious Great Lakes and ocean waters for long-term economic growth. And it's a bond uniting 29 State Sea Grant programs, over 200 universities, and millions of people. In short, Sea Grant is an agent for scientific discovery, technology transfer, economic growth, and public education as they involve coastal, ocean, and Great Lakes resources.

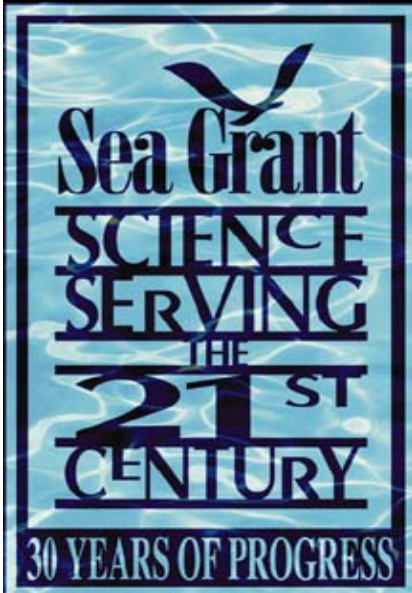
Every day, Sea Grant scientists make progress on the important marine issues of our time. A network of extension professionals takes this information out of the laboratory and into the field, working to enhance a coastal business, a fishery, or residents' safety and quality of life. A dedicated corps of communication specialists builds public understanding of these issues for informed decision-making. And Sea Grant educators bring the discoveries into the nation's schools, using them to pioneer better ways of teaching, helping to create a new generation of scientifically literate Americans.

Through these research, education, and outreach activities, Sea Grant has helped position the United States as the world leader in marine research and the sustainable development of coastal resources.

Long-term economic development, environmental stewardship, and responsible use of America's coastal, ocean, and Great Lakes resources is at the heart of Sea Grant's mission. Sea Grant's challenge is to guarantee optimal use of these resources, while ensuring that they provide sustainable, long-term benefits. With faculty from over 200 colleges and universities participating in the program, it is difficult to find an issue that Sea Grant cannot address. Sea Grant research, education, and outreach activities undertaken over the past 30 years encompass many diverse issues including the eight program areas highlighted to the right and

explained in greater detail on the pages that follow. For information about other topics and research being conducted by Sea Grant, please contact the National Office, or the nearest state program, listed on the back of this publication.

National Sea Grant College Program Network



Thirty years of careful growth and development has spawned 30 Sea Grant programs, including more than 350 participating institutions in 35 states, U.S. territories, and the District of Columbia, as well as internationally. Participating programs and institutions include:

ALASKA

Sheldon Jackson College
University of Alaska Anchorage
University of Alaska Fairbanks
University of Alaska Southeast

CALIFORNIA

SGCP, UCSD

Bodega Marine Laboratory, University of California, Davis
California Institute of Technology
California Polytechnic University
California State University-Fresno
California State University-Fullerton
California State University-Hayward
California State University-Long Beach
California State University-Los Angeles
California State University, Monterey Bay
California State University-Northridge
Claremont College
Hopkins Marine Station, Stanford University
Humboldt State University
Midwestern University
Moss Landing Marine Laboratories
Occidental College
San Diego State University
San Francisco State University
San Jose State University
Scripps Institution of Oceanography
Southern California Ocean Studies Consortium
Stanford University
University of California, Berkeley
University of California, Davis
University of California, Irvine
University of California, Long Beach
University of California, Los Angeles
University of California, Riverside
University of California, San Francisco
University of California, Santa Barbara
University of California, Santa Cruz
University of San Diego
University of Southern California
University of the Pacific
University of Utah

MISSISSIPPI-ALABAMA

Auburn University
Marine Environmental Sciences Consortium
Mississippi State University
The University of Alabama
The University of Alabama at Birmingham
The University of Mississippi
The University of Southern Mississippi
University of South Alabama

NEW HAMPSHIRE

Bigelow Laboratory for Ocean Sciences
Dartmouth College
Plymouth State College
University of Maine
University of New England
University of New Hampshire
Washington County Technical College

NEW JERSEY

Academy of Natural Sciences of Philadelphia
Atlantic Community College
Brookdale Community College
The College of NJ
County College of Morris
Columbia University
Cumberland County College
Fairleigh Dickinson University
Georgian Court College
Kean University
Lehigh University
Marine Academy of Science & technology
Middlesex County College
Montclair State University
New Jersey City University
New Jersey Institute of

NATIONAL MEDIA RELATIONS OFFICE

Mr. Ben Sherman

841 National Press Building
529 14th Street NW
Washington D.C. 20045-2277
(202) 662-7095

NATIONAL SEA GRANT WEB SITES

SEA GRANT DIRECTOR HISTORIES

NATIONAL SEA GRANT OFFICE DIRECTORS





USC

California Academy of Sciences
 California Institute of Technology
 California State Polytechnic University, Pomona
 California State University-Fullerton
 California State University-Northridge
 Moss Landing Marine Laboratories
 Scripps Institution of Oceanography
 Southern California Coastal Water Research Project
 Southern California Ocean Studies Consortium
 University of California, Irvine
 University of California, San Diego
 University of California, Santa Barbara
 Monterey Institute for International Studies
 California Lutheran University
 University of California, Los Angeles
 Southern California Academy of Sciences
 Southern California Marine Institute
 Long Beach Aquarium of the Pacific
 California Science Center
 Los Angeles County Museum of Natural History
 Cabrillo Marine Aquarium



CONNECTICUT

Connecticut College
 Fairfield University
 Sacred Heart University
 The Maritime Aquarium
 University of Connecticut
 University of New Haven
 University of Vermont
 Wesleyan University
 Williams College/Mystic Seaport
 Yale University

DELAWARE

University of Delaware
 Delaware State University

DISTRICT OF COLUMBIA

American Fisheries Society
 American Geophysical Union
 CORE
 Nasulgc
 National Association for Equal Opportunity in Higher Education
 National Fisheries Institute
 National Marine Educators Association

Technology
 New Jersey Marine Sciences Consortium
 New Jersey Medical and Dental School
 Princeton University
 Ramapo College
 Richard Stockton College of NJ
 Rider University
 Rowan University
 Rutgers-The State University
 Seton Hall University
 St. Peter's College
 Stevens Institute of Technology
 Union County College
 University of Medicine and Dentistry of NJ

NEW YORK

Buffalo State College
 College of the Bahamas
 Cornell University
 Institute for Environmental Policy and Planning
 Institute of Ecosystem Studies, Millbrook, New York
 Institute of Environmental Studies, University of Toronto
 Louisiana State University
 McMaster University
 New York University Medical Center
 Old Dominion University
 Old Forge School District
 Oregon State University
 Rensselaer Polytechnic Institute
 Southampton College of Long Island University
 State University of New York at Brockport
 State University of New York at Buffalo
 State University of New York at Oswego
 State University of New York at Plattsburgh
 State University of New York at Stony Brook
 State University of New York, College of Environmental Science and Forestry
 Syracuse University
 Université Laval



FLORIDA

Florida A & M University
Florida Atlantic University
Florida Gulf Coast University
Florida Institute of Technology
Florida International University
Florida State University
Harbor Branch Oceanographic Institution
Mote Marine Laboratory
Nova Southeastern University
University of Central Florida
University of Florida
University of Miami
University of North Florida
University of South Florida
University of West Florida

GEORGIA

Clark Atlanta University
Georgia Institute of Technology
Georgia Southern University
Savannah State University
Skidaway Institute of Oceanography
The University of Georgia

HAWAII

University of Hawaii at Hilo
University of Hawaii, Honolulu Community College
University of Hawaii, Leeward Community College
University of Hawaii, Manoa
University of Hawaii, Maui Community College
University of Hawaii, Winward Community College

ILLINOIS-INDIANA

Purdue University
University of Illinois at Urbana-Champaign
The Chicago Academy of Sciences
Illinois State Water Survey
Indiana University-Purdue University Ft. Wayne
Indiana University-Purdue University Indianapolis
Loyola University
Northwestern University
Purdue University
University of Illinois Water Resources Center
University of Notre Dame

LOUISIANA

University of Maine
University of Maryland
University of Massachusetts
University of New England
University of Rhode Island
University of South Carolina
University of Texas
University of Vermont
University of Wisconsin
Williams College
Woods Hole Oceanographic Institution
Yale School of Forestry

NORTH CAROLINA

Carteret Community College
Duke University
East Carolina University
North Carolina State University
University of North Carolina at Charlotte
University of North Carolina at Chapel Hill
University of North Carolina at Greensboro
University of North Carolina at Wilmington

OHIO

American Museum of Natural History
Bowling Green State University
Case Western Reserve University
Cedar Point Amusement Park
Cleveland State University
Great Lakes Science Center
Heidelberg College
John Carroll University
Kent State University
Lake Erie Commission
Lake Erie Marine Trades Association
Lake Erie Nature and Science Center
Lakehead University (Canada)
Miami University
The Ohio State University
Ohio University
University of Cincinnati
The University of Toledo
University of Toronto (Canada)
Westminster College

Louisiana State University, Baton Rouge
Hebert Law Center
Louisiana State University Agricultural Center
Tulane University
University of New Orleans
Xavier University
Nicholls State University
University of Southwestern Louisiana
Louisiana Universities Marine Consortium
Booker T. Washington High School

MAINE

Bigelow Laboratory for Ocean Sciences
Dartmouth College
Plymouth State College
University of Maine
University of New England
University of New Hampshire
Washington County Technical College

MARYLAND

Anne Arundel Community College
Baltimore City Public Schools
Citizens Program for Chesapeake Bay
Council for National Cooperation in Aquatics
Johns Hopkins University
National Aquarium in Baltimore
St. Mary's College in Maryland
St. Mary's County Public Schools
Undersea Medical Society, Inc.
University of Maryland, Baltimore City
University of Maryland, Baltimore County
University of Maryland, Center for Environmental Science
University of Maryland, College Park
University of Maryland, Eastern Shore
ANS Estuarine Research Center
The Johns Hopkins University
NASA Goddard Space Flight Center
National Zoo, Smithsonian
Smithsonian Environmental Research Center
University of Maryland, Center for Marine Biotechnology
University of Maryland, Crane Aquaculture Facility
University of Maryland, CES Chesapeake Biological Laboratory
University of Maryland, CES Horn Point Laboratory
University of Maryland, Wye Research and Education Center

MASSACHUSETTS

Wright State University

OREGON

Oregon State University
University of Oregon
Oregon Department of Fish and Wildlife
Sustainable Ecosystems Institute

PUERTO RICO

University of Puerto Rico - all campuses
Catholic University - all campuses
Interamerican University - all campuses
Metropolitan University
Sacred Heart University
Antillean College

RHODE ISLAND

University of Rhode Island,
Brown University

SOUTH CAROLINA

The Citadel
Clemson University
Coastal Carolina University
Medical University of South Carolina
S.C. State University
S.C. Department of Natural Resources
University of Charleston, S.C.
University of South Carolina

TEXAS

Baylor College of Medicine
Brazosport College
Lamar University
Pan American University
Sam Houston State University
Texas A&M University
Texas A&M University-Corpus Christi
Texas A&M University at Galveston
Texas Education Service Center, Waco

MIT

Boston University
Harvard University
Massachusetts Maritime Academy
New England Aquarium
Northeastern University
University of Maine
University of Maryland
University of Massachusetts/ Amherst
University of Massachusetts/Boston
University of Massachusetts/ Lowell
University of New Hampshire
University of Rhode Island
Wellesley College
Woods Hole Oceanographic Institution

WHOI

Boston University Marine Program
Brown University
Canadian Wildlife Service
Cetacean Research Unit
Clemson University
Gothenburg University (Sweden)
ICT Nisbet & Company
Marine Biological Laboratory
New England Aquarium
North Carolina State University
Purdue University
Roskilde University (Denmark)
Rutgers University
Saigene, Inc.
The INDIA Partnership
Shedd Aquarium
University of Alaska
University of California at Davis
University of Florida at Gainesville
University of Massachusetts at Dartmouth
University of Mississippi
University of Pennsylvania
University of Saskatchewan
Woods Hole Oceanographic Institution

MICHIGAN

Eastern Michigan University
Michigan Primary and Secondary Schools
Michigan State University
Michigan Technology University
Northwestern Michigan College
University of Michigan
Wayne State University

Texas Southern University
Texas Southmost College
Texas State Technical Institute,
Harlingen
Texas Tech University
The University of Texas at Austin
The University of Texas Marine
Science Institute
University of Houston
University of Houston-Clear
Lake

VIRGINIA

College of William and Mary/
Virginia Institute of Marine
Science
George Mason University
Hampton University
Norfolk State University
Old Dominion University
Rappahannock Community
College
Thomas Nelson Community
College
University of Virginia
Virginia Polytechnic Institute and
State University
Virginia State University
University of Maryland
Rutgers University/New Jersey
School of Medicine and Dentistry
University of Delaware
North Carolina State University
Philadelphia Academy of Natural
Science
Virginia Commonwealth
University
Radford University

WASHINGTON

Seattle Aquarium
Seattle Central Community
College
University of Washington
Washington State University
Western Washington University
University of Idaho
Pacific Lutheran University
University of Puget Sound

WISCONSIN

MINNESOTA

University of Minnesota, Duluth
University of Minnesota, Twin Cities

Marquette University
Medical College of South
Carolina
Purdue University
Rensselaer Polytechnic Institute
State Historical Society of
Wisconsin
U.S. Fish & Wildlife Service
U.S. Geological Survey
University of Michigan
University of Minnesota
University of Texas-Austin
University of Vermont
University of Wisconsin-Green
Bay
University of Wisconsin-La
Crosse
University of Wisconsin-Madison
University of Wisconsin-
Manitowoc
University of Wisconsin-
Milwaukee
University of Wisconsin-Stevens
Point
University of Wisconsin-Superior
University of Wisconsin System
Woods Hole Oceanographic
Institution

FUNDED BY THE NATIONAL SEA GRANT OFFICE:

The following colleges and
institutions had projects funded
by the NSGO in fiscal year
1998.

DISTRICT OF COLUMBIA

Howard University

UTAH

University of Utah

ARIZONA

University of Arizona, Tucson

FLORIDA

Harbor Branch Oceanographic
Institution
Florida Institute of Technology

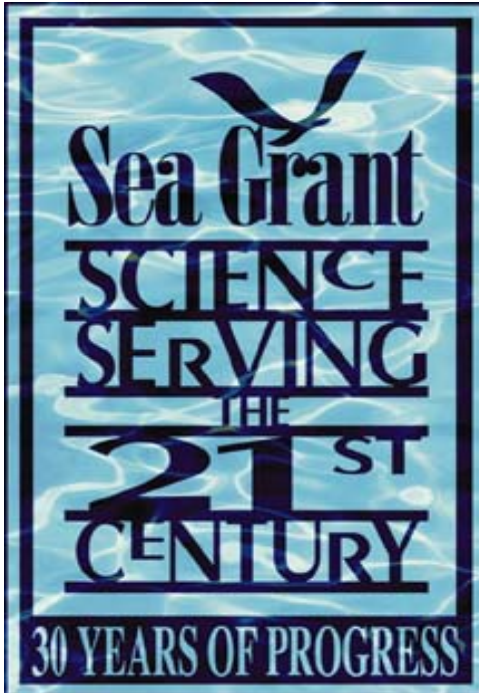
PENNSYLVANIA

University of Pennsylvania
Penn State Erie

KENTUCKY
Kentucky State University



National Sea Grant College Program's History



The Origin of Sea Grant

The idea of a Sea Grant College Program was originally suggested by Athelstan Spilhaus at the 93rd meeting of the American Fisheries Society in 1963. Interest in the Sea Grant concept grew, much of it sparked by an editorial written by Spilhaus that appeared in a 1964 issue of *Science*: "I have suggested the establishment of 'sea-grant colleges' in existing universities that wish to develop oceanic work . . . These would be modernized parallels of the great developments in agriculture and the mechanic arts which were occasioned by the Land-Grant Act of about a hundred years ago . . . Establishment of the land-grant colleges was one of the best investments this nation ever made. That same kind of imagination and foresight should be applied to exploitation of the sea." Thus, at a time when America was excited about science in general, especially the possibility of reaping sustained economic benefits from the vast resources of the seas, national enthusiasm for the Sea Grant College concept grew. In 1965, Sen. Claiborne Pell of Rhode Island introduced legislation to establish Sea Grant colleges on campuses nationwide as centers of excellence in marine and coastal studies. With the adoption in 1966 of the National Sea Grant College Act, Congress established an academic/industry/government partnership that would enhance the nation's education, economy, and environment into the 21st century.

[30TH ANNIVERSARY RECEPTION](#)

[SEA GRANT DIRECTOR HISTORIES](#)

[NATIONAL SEA GRANT OFFICE DIRECTORS](#)

[SEA GRANT ASSOCIATION](#)

[SGA AWARD WINNERS](#)

[KNAUSS FELLOWSHIP PROGRAM](#)

Timeline

1957

Sputnik I, Earth's first satellite, is launched by the Russians propelling science into the midst of international policy.

1958

U.S. universities confer 2,780 doctoral degrees in the sciences, yet only 13 are marine-related.

1963

Athelstan Spilhaus first publicly suggests the Sea Grant idea during the keynote address of the 93rd annual meeting of the American



Four "Fathers of Sea Grant" and two National Directors: Robert Abel, John Knauss, Senator Pell, Congressman Rogers, Athelstan Spilhaus, and Ned Ostenso.



Original "Founding Fathers" reunion: John Knauss, James Baker, Paul Rogers, Senator Pell, Robert Abel, and Ronald Baird.

Fisheries Society.

1965

Senator Claiborne Pell, Rhode Island, introduces legislation to create Sea Grant Colleges by amending the National Science Foundation Act of 1950. Congress-man Paul Rogers, Florida, introduces companion legislation in the House.

1966

President Lyndon Johnson signs the bill, establishing the Sea Grant Program through The National Sea Grant College and Program Act of 1966.

1968

The work of Sea Grant begins as the first grants are awarded and the National Review Panel is established.

1970

Sea Grant becomes part of the National Oceanic and Atmospheric Administration.

1970

The National Sea Grant Depository is established as an information center dedicated to the collection, storage, documentation, and dissemination of Sea Grant literature.

1971

Four universities are the first to achieve Sea Grant College status: **Oregon State University, University of Rhode Island, Texas A & M University, and University of Washington.**

1972

University of Hawaii and **University of Wisconsin** achieve College status. **University of Southern California** becomes an Institutional Program.



*National Director:
Ronald Baird,
Robert Abel, and
Ned Ostenso*

1973

University of California achieves College status.

1975

State University of New York and **Cornell University** achieve College status.

1976

The National Sea Grant College and Program Act of 1966 is amended by the Sea Grant Improvement Act. The amendment strengthens the basic program of the original Act and codifies the National Sea Grant Review Panel.

University of Delaware, State University System of Florida, Massachusetts Institute of Technology, and University of North Carolina achieve College status.

1978

Louisiana State University achieves College status.

1979

The Sea Grant Intern Program is initiated, allowing outstanding graduate students to spend one year in Washington, D.C., developing the skills needed for active leadership in both policy development and research in coastal and ocean sciences.

1980

University of Alaska, University of Georgia, and University of Maine/University of New Hampshire achieve College status.

1982

University of Maryland, University of Michigan/ Michigan State University, and Mississippi/ Alabama Consortium achieve College status.

1984

Virginia Graduate Marine Science Consortium achieves College status.

1985

University of Minnesota achieves College status; **Woods Hole Oceanographic Institution** becomes an Institutional Program.

1986

South Carolina Consortium achieves College status.

1987

The Sea Grant Intern Program was renamed the Dean John A. Knauss Marine Policy Fellowship in honor of Dean Knauss, one of the founding fathers of Sea Grant.

1988

The Ohio State University and the **University of Connecticut** achieve College status.

1989

New Jersey Marine Science Consortium and **University of Puerto Rico** achieve College status.

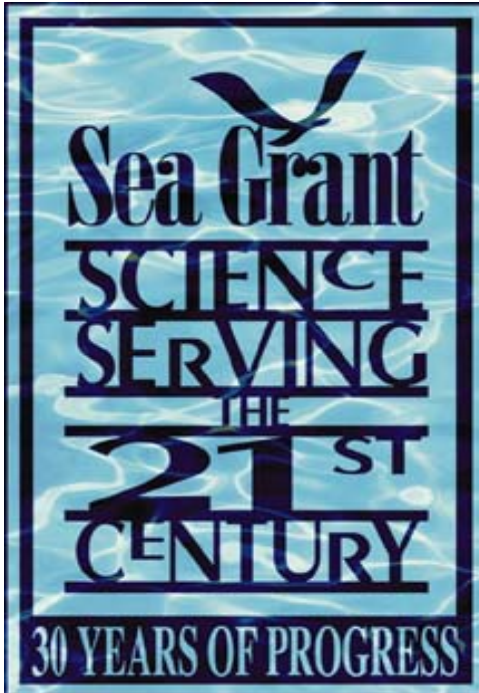
1997

University of Illinois/ Purdue University achieves College status.

1998

NOAA celebrates Sea Grant's 30th anniversary commemorating three decades of accomplishments in research, education, and outreach related to coastal, ocean, and Great Lakes resources. The year is proclaimed by the United Nations as the "International Year of the Ocean."

National Sea Grant College Program's History



30TH ANNIVERSARY OF SEA GRANT/ 20TH ANNIVERSARY OF KNAUSS FELLOWS

CAPITAL HILL RECEPTION
MARCH 2, 1999



Fellows from Class of 1999 (left to right):
Edmund R. Buckner (IL), Dosoo Jang (DE), and Marla A Steinhoff
(CT).

[KNAUSS FELLOWSHIPS](#)

[SEA GRANT TIMELINE](#)

[SEA GRANT DIRECTOR
HISTORIES](#)

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[SGA AWARD WINNERS](#)



Members of Sea Grant Network (left to right):

Charles Helsley (HI), Scott Nixon (RI), Malia Schwartz (RI), William Rickards (VA),
and Ben Sherman (Media Relations).



Dr. Chris D'Elia, former Director of Maryland Sea Grant, with
Mrs. and Mr. D. James Baker, NOAA Administrator.



Penny Dalton, new Assistant Administrator for NMFS (MD class of
1985),
talks to David Evans, Assistant Administrator for OAR.



Class of 1999 (left to right):
Christopher Jeffery (GA) and Tonna-Marie L. Surgeon (CT).

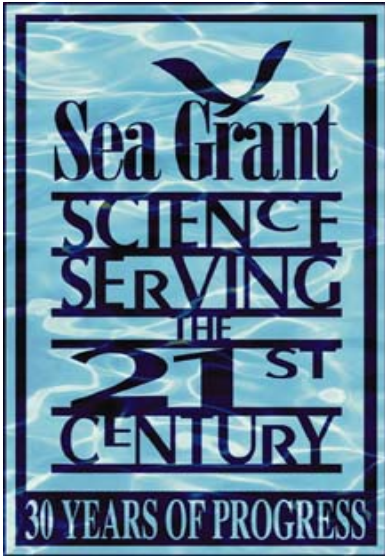


Edward Monahan (second from right), Connecticut Sea Grant
Director,
with Connecticut Sea Grant Knauss alumni and current fellow.



Dr. Craig Zamuda (MD class of 1983) with wife Christine Dawson (WA class of 1979) and daughter (Class of ?)

National Sea Grant College Program's History



Sea Grant Directors

ALASKA

1970-1975 David M. Hickok
1975-1985 Donald H. Rosenberg
1985-present Ronald K. Dearborn

CALIFORNIA

SGCP, UCSD

1971-1973 Dr. George G. Shor, Jr.
1973-1975 Jeffery Frautschy
1975-present Dr. James J. Sullivan

USC

1969-1975 Ronald Linsky
1975-1980 Donald Keach
1980-1989 Robert Friedheim
1989-1993 Donald Keach
1993-present Douglas Sherman

CONNECTICUT

1974-1980 Dr. George S. Geer
1980-1985 Dr. Victor E. Scottron
1986-present Dr. Edward C. Monahan

DELAWARE

1969-1984 Dr. William Gaither
1984-present Dr. Carolyn A. Thoroughgood

FLORIDA

1972-1981 Hugh L. Popenoe
1981-present Dr. James C. Cato

GEORGIA

1971-1987 Dr. Edward Chen
1987-present Dr. Mac V. Rawson

HAWAII

MISSISSIPPI-ALABAMA

1970-1973 Dr. Sidney D. Upham
1974-1976 Dr. Bruce W. Mattox
1977-1993 Dr. James I. Jones
1994-1998 Dr. Jess B. Tupaz
1998-2001 Dr. Barry A. Costa-
2001-present Pierce
Dr. LaDon Swann

NEW HAMPSHIRE

1968-1975 Godfrey Savage
1975-1986 Robert Corell
1987-1989 Jay Grimes
1993-present Dr. Ann Bucklin

NEW JERSEY

1974-1979 Dr. Lionell Walford
1979-1987 Dr. Robert Abel
1987-1993 William Gordon
1993-1996 Dr. Geroge Klein
1996-present Dr. Michael Weinstein

NEW YORK

1974-1985 Donald F. Squires
1977-1978 Dr. Robert E. Malouf
1991-1996 Anne E. McElroy
1997-present Dr. Jack S. Mattice

NORTH CAROLINA

1970-1973 Dr. John Lyman
1973-1996 Dr. B.J. Copeland
1998-present Dr. Ronald G. Hodson

OHIO

1977-1987 Dr. Charles E. Herdendorf, III
1988-present Dr. Jeffrey M. Reutter

[SEA GRANT TIMELINE](#)

[SEA GRANT NETWORK](#)

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[SGA AWARD WINNERS](#)

1970-75 Dr. Jack R. Davidson
1977-1994 Dr. Jack R. Davidson
1995-present Dr. Charles E. Helsley

ILLINOIS-INDIANA

1982-1995 Robert D. Espeseth
1995-present Dr. Phillip E. Pope

LOUISIANA

1968- 1991 Dr. Jack R. Van Lopik (Director)
1991-present Dr. Jack R. Van Lopik (Executive Director)

MAINE

1976-1978 Dr. Frederick Hutchinson
1978-1980 Dr. Malvern Gilmartin
1980-1985 Ronald Dearborn
1986 Dr. Larry Mayer
1987-1990 Dr. Bryan Pearce
1990-1997 Dr. Robert Wall
1997-present Dr. Ian Davison

MARYLAND

1977-1984 Dr. Rita R. Colwell
1984-1987 Richard Jarman
1989-1998 Dr. Christopher F. D'Elia

MASSACHUSETTS

MIT

1970-1973 Dr. Alfred Keil
1973-1975 Dr. Ira Dyer
1975-1982 Dean Horn
1982-present Dr. Chryssostomos Chryssostomidis

WHOI

1973-1977 Dean F. Bumpus
1977-1993 David A. Ross
1993-present Dr. Judith E. McDowell

MICHIGAN

1969-1970 James T. McFadden
1971-1973 John M. Armstrong

OREGON

1968-1972 Herbert F. Frolander
1974-1991 Bill Wick
1991-present Bob Malouf

PUERTO RICO

Prior to 1980 Dr. Alida Ortiz.
1980-1995 Dr. Manuel Hernandez Avila
1995-present Dr. Manuel Valdes-Pizzini

RHODE ISLAND

1968-1971 Dean John A. Knauss
1971-1984 Dr. Niels Rorholm
1986-present Dr. Scott W. Nixon

SOUTH CAROLINA

1972-1979 Dr. Edwin B. Joseph
1980-1982 Dr. John M. Armstrong
1983-1996 Margaret A. Davidson, Esq
1997-present M. Richard DeVoe

TEXAS

1968-1972 Dr. John C. Calhoun, Jr.
1972-1974 Robert Stephenson
1974-1976 Dr. John C. Calhoun, Jr.
1976-1977 Dr. Roy W. Hann, Jr.
1977-1978 Dr. Worth Nowlin
1977-1985 Feenan Jennings
1985-1993 Dr. Thomas J. Bright
1993-1995 Feenan Jennings
1996-present Dr. Robert R. Stickney

VIRGINIA

1968-1976 Dr. William J. Hargis Jr.
1976-1981 Dr. Maurice P. Lynch
1971-1979 Dr. George J. Flick, Jr
1980-1981 Dr. Earl Neal Boyd
1981-present Dr. William L. Rickards, III

WASHINGTON

1974-1976 S. Ross Tocher
1976-1986 Alfred M. Beeton
1987-1993 Michael G. Parsons
1993-1996 William Vorus
1996-present Dr. Russell A. Moll

MINNESOTA

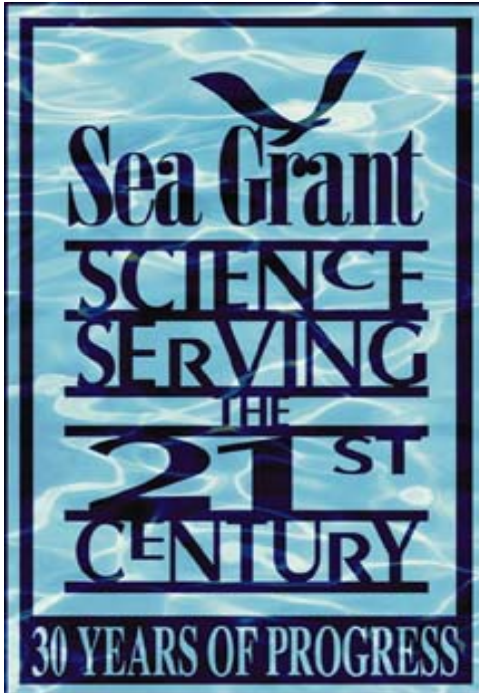
1977-1978 Lloyd L. Smith
1980-1991 Dr. Donald C. McNaught
1994-1998 Dr. Michael E. McDonald

1969-1981 Stan Murphy
1983-present Louie S. Echols

WISCONSIN

1968-1990 Dr. Robert A. Ragotzkie
1990-present Dr. Anders W. Andren

National Sea Grant College Program's History



The National Sea Grant Office Directors

In the 30 years since its inception, Sea Grant has had at its helm directors who have each contributed substantially to the program's formation and development.

As Sea Grant Director Ronald C. Baird has said, "Special thanks are due to those individuals who have led this program so capably over time... they are all responsible for building upon Sea Grant's beginning structure, (and) leading it to a record of accomplishment and organizational strength. Due to their efforts and the efforts of many other dedicated individuals throughout the Sea Grant community, this organization is well positioned to take a leadership role in the nation's coastal affairs in the next century."

[SEA GRANT TIMELINE](#)

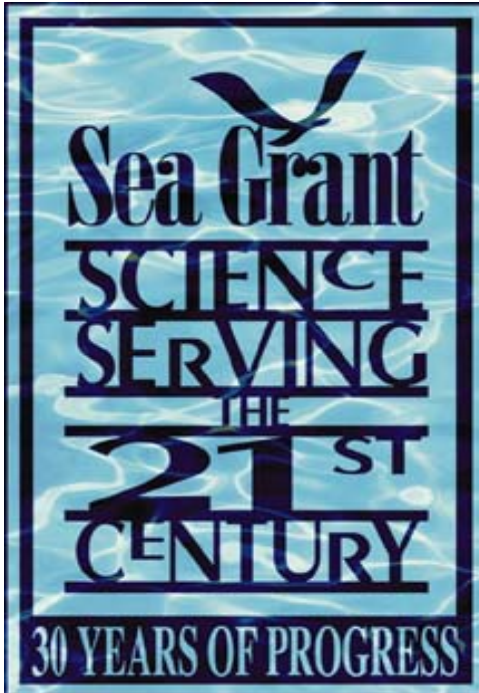
[SEA GRANT NETWORK](#)

[NATIONAL SEA GRANT OFFICE](#)

The following gentlemen have led the National Sea Grant Office:

- 1967 Robert B. Abel, named first Director
- 1977 Ned A. Ostenso, named second Director
- 1990 Robert Wildman, named third Director
- 1992 David Duane, named fourth Director
- 1995 Chandrakant Bhumralkar, named Acting Director
- 1996 Ronald C. Baird, named fifth Director

National Sea Grant College Program's History



The Sea Grant Association

The Sea Grant Association (SGA) combines the capabilities of academic institutions nationwide that participate in the National Sea Grant College Program. These institutions represent the nation's most advanced capabilities in marine, coastal, and Great Lakes research, education, and outreach. SGA provides the mechanism for these institutions to coordinate their activities, to set program priorities at both the regional and national level, and to provide a unified voice for these institutions on issues of importance to the oceans and coasts.

SGA believes that the U.S., with the world's largest jurisdiction over marine resources, can use the extraordinary capabilities of its academic institutions to more effectively utilize and manage these resources for the benefit of all citizens. Just as our nation's Land-Grant institutions have revolutionized agricultural production over more than a century, so can the Sea Grant institutions expand the productivity and sustainability of our nation's marine resources. Please visit the [SGA website](#) to learn more.

[SEA GRANT TIMELINE](#)

[SEA GRANT DIRECTOR HISTORIES](#)

[SGA AWARD WINNERS](#)

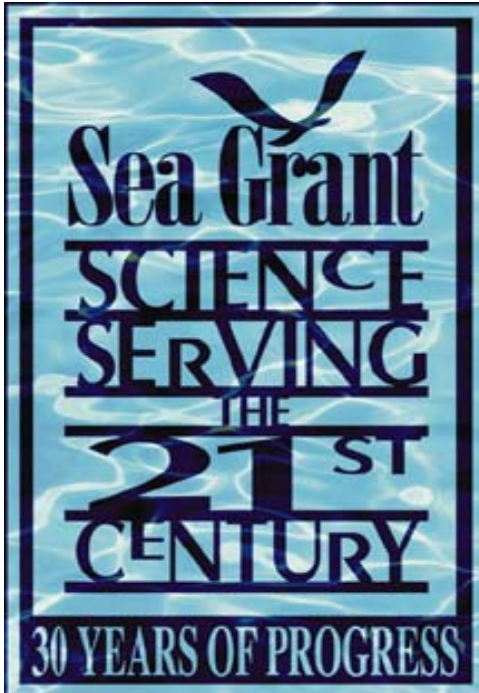
[KNAUSS FELLOWSHIP PROGRAM](#)

Sea Grant Association Presidential Roster

1970-1971	John A. Knauss, University of Rhode Island
1971-1972	Herbert F. Frolander, Oregon State University
1972-1973	Robert A. Ragotzkie, University of Wisconsin
1973-1974	William S. Gaither, University of Delaware
1974-1975	Leatha F. Miloy, Texas A&M University
1975-1976	Stanley R. Murphy, University of Washington
1976-1977	Hugh L. Popenoe, University of Florida
1977-1978	William Q. Wick, Oregon State University
1978-1979	Bruce T. Wilkins, Cornell University
1979-1980	Robert W. Corell, University of New Hampshire
1980-1981	Donald H. Rosenberg, University of Alaska

1981-1982 Feenan D. Jennings, Texas A&M University
1982-1983 B.J. Copeland, University of North Carolina
1983-1984 Alfred M. Beeton, University of Michigan
1984-1985 James I. Jones, Mississippi-Alabama Sea Grant Consortium
1985-1986 William L. Rickards, Virginia Sea Grant
1986-1987 Louie Echols, University of Washington
1987-1988 Ronald K. Dearborn, University of Alaska
1988-1989 Margaret Davidson, South Carolina Sea Grant Consortium
1989-1990 Jack R. Van Lopik, Louisiana State University
1990 James C. Cato, University of Florida
1991-1992 Christopher F. D'Elia, University of Maryland
1992-1993 James J. Sullivan, University of California
1993-1994 Anders W. Andren, University of Wisconsin (two years)
1995-1996 James C. Cato, University of Florida (two years)
1997-1998 Ronald K. Dearborn, University of Alaska (two years)
1999 Christopher F. D'Elia, University of Maryland (January-March)
1999-2000 Russell A. Moll, University of Michigan (March 1999-December 2000)

National Sea Grant College Program's History



Sea Grant Association Award Winners

Each year, the Sea Grant Association honors an individual for contributions spurring the wise use and conservation of coastal and marine resources, especially those that benefit mankind. The award recognizes an individual for direct, demonstrable contributions through research, education/training, advisory or public service activities that embody Sea Grant concepts and/or use Sea Grant products.

Recipients:

- 1970 Dr. Wilbert Chapman
- 1971 Dr. Lauren R. Donaldson
- 1972 Dr. Athelstan Spilhaus
- 1973 Dr. Wayne H. Tody
- 1974 Dr. John A. Knauss
- 1975 The Honorable Claiborne Pell
- 1976 Mr. Paul E. Atkinson
- 1977 Dr. Robert Abel
- 1978 Dr. John Isaacs
- 1979 Dr. Lewis A. Alexander
- 1980 Dr. Arthur Hasler
- 1981 Cmdr. Martin J. Nemiroff
- 1982 Dr. John Craven
- 1983 Dr. Harold Goodwin
- 1984 Dr. John Calhoun
- 1985 The Honorable Paul Rogers
- 1986 Dr. Sanford S. Atwood
- 1987 Dr. E. Arthur Trabant
- 1989 Capt. R. Barry Fisher
- 1991 Dr. Michael J. Pelzar Jr.
- 1993 Dr. Robert A. Ragotzkie
- 1995 The Honorable Lowell P. Weicker

[SEA GRANT TIMELINE](#)

[SEA GRANT NETWORK](#)

[SEA GRANT DIRECTOR
HISTORIES](#)

[SEA GRANT ASSOCIATION](#)

[KNAUSS FELLOWSHIP
PROGRAM](#)

1997 Dr. Fredrick Hutchinson

National Sea Grant College Program's Highlighted Accomplishments



Aquaculture

Many fisheries stocks around the world have begun to decline, even collapse, in recent years, yet demand for seafood continues to skyrocket due to a growing world population and an expanding appetite for seafood, particularly in wealthy nations. If Americans want to eat affordable seafood in the future, they must increasingly rely on farm-raised fish and shellfish.

To ensure healthy seafood supplies, Sea Grant has worked not only to improve wild stock management and coastal development, but also to encourage aquaculture that will not harm the environment.

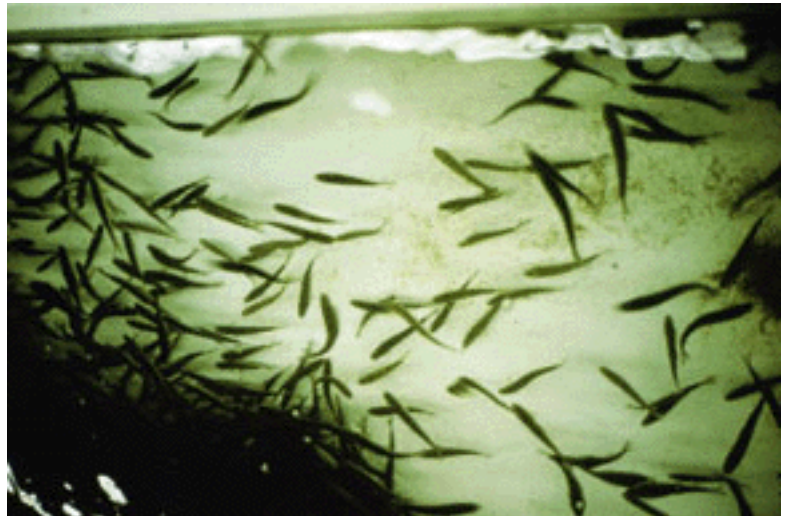
Considerable investments in basic and applied science -- genetics, reproduction, recirculation and filter systems, and rearing techniques -- have contributed to a burgeoning U.S. aquaculture industry that could reduce the current trade deficit in seafood products. Sea Grant outreach and student training efforts have helped provide aquaculturists with the scientific and business skills required to compete in an international market.



- As a result of Sea Grant research and extension efforts, hybrid striped bass pond culture has expanded in just 10 years from a small demonstration project to an industry producing 10 million pounds of fish valued at \$25 million annually.
- Sea Grant investigators have developed a sterile oyster that can be grown year-round and now makes up one-third of the \$86 million U.S. oyster market.
- No mussel culture industry existed in the Northeast prior to 1980, and wild harvests were valued at about \$35,000. Today, following a five-year research and marketing effort by Sea Grant, landings of wild and farm-raised mussels in the region are valued at \$6 million.
- To minimize the risk of genetically engineered fish escaping into the environment, Sea Grant developed the first national environmental safety guidelines for aquatic

biotechnology research and development, an award-winning effort recognized by the USDA.

- Working with watermen, researchers, students, and others, Sea Grant specialists have provided seed oysters and expertise to rebuild oyster bars in the Chesapeake Bay.
- Sea Grant research and outreach on Manila clams and blue mussels have resulted in new industries worth \$19 million annually.
- As a result of Sea Grant research and technology transfer, the small, local soft-shell crab industry has grown to a multi-million dollar investment extending from New Jersey to Texas



National Sea Grant College Program's Highlighted Accomplishments



Aquatic Nuisance Species

Beginning in 1850, an average of one new nonindigenous aquatic species has threatened an American ecosystem every 36 weeks. That number increased to one new species every 24 weeks in 1970, and has risen to one new species every 12 weeks since 1985, resulting in tremendous ecological and socio-economic damage in many regions of the nation.

From sponsoring research to conducting public education programs, Sea Grant has focused on finding solutions to these invasions. Sea Grant is the primary source of information on a range of aquatic nuisance species such as the zebra mussel, Eurasian ruffe, round goby, green crab, purple loose-strife, Phragmites, and others. The Sea Grant network houses technical collections and provides the public with easy access to on-line information.

Researchers, extension specialists, and educators continue to share their expertise at international research conferences, training workshops, and video conferences, many of which are sponsored by Sea Grant programs. A new three-year initiative will also bring research and outreach efforts to inland states.

- SGNIS, an on-line, interactive national information center developed by Sea Grant (<http://www.ansc.purdue.edu/sgnis/>), provides access to a comprehensive collection of research and educational materials related to zebra mussels and other aquatic nuisance species.
- To teach youth about the environmental threats posed by exotic species, Sea Grant has developed several "Exotic Aquatics" traveling trunks that have reached more than 11,000 educators and students in one year.
- Sea Grant programs have reduced the cost and adverse

effects of clean-up efforts for large power plants in areas infested with zebra mussels by focusing efforts on times when zebra mussel larvae are most abundant, identifying effective and inexpensive treatments, and minimizing the frequency and duration of treatments.

National Sea Grant College Program's Highlighted Accomplishments



Coastal Economic Development

Sea Grant enhances the coastal economy in many ways: identifying opportunities for business development and expansion along our coasts, minimizing economic losses caused by storms and natural disasters, developing new products for the seafood industry, and using high-tech science to develop new drugs from the sea. Although not designed to be a "jobs program," Sea Grant fosters the creation of many jobs in the tourism industry, the commercial fishing industry, the charter fishing industry, the seafood processing and retail industries, the sport fishing industry, and the aquaculture industry, thereby enhancing the coastal economy and the quality of life for many Americans.

- From 1990-1995, Sea Grant was directly responsible for obtaining \$100 million in matching federal grants to develop 130 recreational and tourism facilities on the Gulf Coast.<
- A wave-powered, reverse-osmosis pump created with Sea Grant support removes salt from seawater at significantly lower costs to public utilities than was possible with previous technology. The pump is used for food and chemical processing, mining activities, and by all branches of the U.S. military to provide drinking water in the field. Using this patented process, a Fortune 500 company is manufacturing and internationally marketing a line of motor-powered pumps.
- In the wake of timber-related industrial dislocations and salmon fishing closures, Sea Grant has helped small cities in the Pacific Northwest develop and implement revitalization plans for deteriorating waterfronts. More than \$1.5 million in state and federal grants helped one city with street improvements, building a public boat landing and plaza, and museum improvements. Riverfront revitalization also has attracted a new \$5 million private development and an historic tall ship moored at the public dock.
- Sea Grant's efforts to develop underwater preserves have

significantly boosted the economy of a wide range of businesses in Great Lakes coastal communities. A recent study suggests that diving activity provided an economic stimulus of at least \$1.5 million over a two-year period for small towns near the preserves.



National Sea Grant College Program's Highlighted Accomplishments



Coastal Habitat Enhancement

To restore and enhance coastal habitats, Sea Grant investments in environmental stewardship have resulted in water quality improvements, restoration of wetland habitats, and better use of scientific data in policy decisions concerning coastal ecosystems. Coastal habitat restoration has important ecological and economic implications including renewed opportunities for fishing, recreation and tourism, and commercial uses. Increased knowledge of coastal processes has led to better decision-making regarding the identification and use of critical coastal habitats.

- Sea Grant studies of sewage effluent plumes have led to revisions in pollution control, cleanup, and water treatment that will save Orange County, CA taxpayers \$50 million annually over a 30-year period. Lessons learned from these studies can be applied to other large sewage plants around the nation.
- Sea Grant has been instrumental in the development and construction of wetlands on all four coasts and in wetland loss mitigation strategies that have both created and restored valuable wetlands while allowing coastal development valued in excess of \$100 million.
- Sea Grant created a comprehensive database on Great Lakes contaminants and the scientific expertise necessary for developing the first complete model of a toxic industrial chemical in an aquatic ecosystem. The study has already saved the state of Wisconsin hundreds of millions of dollars in cleanup costs, and the model may ultimately save other states billions.
- Sea Grant constructed the largest freshwater artificial reefs in the world in the Great Lakes, attracting 20 to 60 times as many fish as the surrounding areas; the reefs pay for themselves 2.75 times per year.



National Sea Grant College Program's Highlighted Accomplishments



Coastal Hazards

Before 1988, U.S. residents and businesses had never faced losses from a single catastrophe that exceeded \$1 billion. Since then, however, insurance companies have paid out more than \$1 billion for each of 15 natural disasters nationwide, including hurricanes, a typhoon, erosion, and flooding.



As a result, insurers in some coastal states have begun withdrawing coverage in high-risk areas. These states have had to create catastrophe funds—paid for with taxpayer dollars—to protect residents who could not buy policies on the private market. Where coverage is still available, consumers are bearing heavier costs through higher insurance premiums. Sea Grant's coastal hazards activities protect American lives and property, and allow insurers to make coverage available at reasonable rates.

But coastal storms are only one aspect of Sea Grant's efforts in public safety and well-being. Erosion studies, safer SCUBA diving protocols, and life-saving training for watermen (who run a high risk of hypothermia) help save lives and property.

- Sea Grant promotes new construction techniques such as hurricane clips, cross-braced pile construction, and changes in roof and window design that have saved millions in repairs. Homes built in accordance with Sea Grant models can save an estimated \$220 annually in insurance premiums, or \$15,000 over the 70-year life span of the average home.
- Software developed by Sea Grant investigators allows builders to "plug in" specifications of their structure to assess the building's risk from coastal storm winds and water; the software also makes recommendations to mitigate identified risks. Structural engineers for the new 8,600-unit Sun City development near Hilton Head, SC credit the program with saving its homeowners millions in potential losses, as well as helping to protect lives in this retirement community.

- Assessments indicate that Sea Grant's research and outreach on cold water near-drowning has saved the lives of more than 1,500 people.
- Sea Grant scientists have developed sophisticated computer models to predict destructive wave conditions along the Southern California coastline during destructive El Niño cycles, and waves, currents, temperatures, and turbidity in the Great Lakes.
- Conservative estimates are that a Sea Grant publication identifying the locations of snags and obstructions in the Gulf saves commercial fishermen \$20 million a year in lost or damaged gear.
- By modifying a local beach renourishment design, Sea Grant specialists saved one urban Northeastern community \$720,000 and played a vital role in protecting more than \$10 million in public and private structures from erosion.
- Efforts to protect the Gulf Inter-coastal Waterway—a national commercial artery supporting 150,000 jobs and generating \$4 billion a year in commerce—are nearing completion, thanks to a recent Sea Grant study. Without mitigation, a breach could have occurred, costing \$20 million per day in lost commerce.

National Sea Grant College Program's Highlighted Accomplishments



Education

Education at all levels is a cornerstone of Sea Grant and includes graduate and undergraduate education, teacher training, K-12 curriculum development, marine policy fellowships in Washington, fellowships in cooperation with private industry, informal education for the general public, special training programs for industry, and much more.

Identifying outstanding graduate students and turning them into outstanding young scientists capable of solving the problems of tomorrow is one of Sea Grant's greatest accomplishments. This training is frequently done under the supervision of a nationally recognized scientist while working on a research project addressing a unique opportunity in the marine sciences, thereby making the training doubly beneficial.

The prestigious and very selective Dean John A. Knauss Marine Policy Fellowship program accelerates the careers of promising graduate students interested in marine policy issues by placing them in Washington's legislative or executive branch for a year. Not only do the students benefit, but their placement provides for the transfer of the most current scientific information to these offices.

- Sea Grant has supported 12,000 graduate research assistants while they worked on cutting-edge marine and Great Lakes science. These students have become more than a skilled workforce; they are a major factor in the nation's marine sector, with skills benefiting the environment and the economy.
- Since 1979, 341 students have received an insider's look at the national policy-making process by participating in the Knauss Policy Fellowship program in Washington, D.C. About one-third of these students stay within the D.C. area, working in government offices or in the halls of Congress. The remaining two-thirds work in industry and trade associations, in state government as managers, or in academia as teachers and university researchers.



- A Sea Grant-supported marine science program for teachers, Operation Pathfinder, has provided training to 278 teachers, who in turn trained an additional 45,000 educational professionals in 30 states and seven U.S. territories. Through this process, Operation Path-finder can potentially provide marine and coastal science education to about 33 million students nationwide over a five-year period.
- A Sea Grant funded CD-ROM has become a model teaching tool that reaches virtually all grade levels. *The Sound* multimedia CD-ROM highlights the unique properties of Puget Sound, WA using text, video, games, and animation. Since its publication in May 1997, 5,000 copies have been distributed free to schools.
- Marine Science Careers: A Sea Grant Guide to Ocean Opportunities introduces students to a wide range of marine career fields and to people working in those fields. Intended for high school students and guidance counselors, 25,000 copies of the 40-page guide are in circulation, 5,000 of which were sent free to high schools in non-coastal states.
- Education and information programs on shoreline and community development have helped communities address issues of erosion and flooding, improved public access, and tourism expansion.

National Sea Grant College Program's Highlighted Accomplishments



Marine Biotechnology

As a national network of research institutions, Sea Grant leads the nation's efforts in the emerging field of marine biotechnology, addressing critical medical, food, and environmental concerns.

Sea Grant-supported research has shown tremendous potential for using marine organisms to provide models for new pharmaceuticals, vaccines, household and industrial detergents, agricultural fertilizers, and genetically altered organisms for aquaculture and the seafood industry. Marine biotechnology is also providing new tools and approaches for understanding ecological relationships among organisms and fisheries--information that will help improve marine resource management.

Sea Grant's research, while advancing science, is also training students for high technology careers and providing the foundation for commercial developments.

- Sea Grant organized the first systematic research effort in the United States to develop new drugs from marine organisms, resulting in the discovery and description of more than 1,000 compounds that may be vitally important as many infectious organisms develop resistance to current drugs.
- Sea Grant-discovered compounds are being tested by both government agencies and commercial pharmaceutical companies as possible treatments for AIDS, inflammatory diseases such as arthritis, and prostate, lung and breast cancers.
- Using DNA sequences, researchers are developing quick-testing field probes to identify harmful algal blooms, a growing environmental problem in coastal waters worldwide. With accurate field-testing, managers can respond more effectively to determine and reduce health risks to both humans and animals.
- Biotechnology research is helping scientists and managers



restore endangered fish stocks. Through DNA studies, scientists selectively breed for disease-resistant species of threatened fin and shellfish, or add an inheritable disease-resistant gene to a threatened species. Such techniques show promise in restoring commercially important species such as cod, sturgeon, abalone, clams, and oysters.

- Organisms found in the extreme temperature zones of underwater thermal vents--extremophiles--are the focal point of cutting-edge research that could improve the effectiveness of cold-water detergents, thereby saving the energy needed to heat water.
- Research into the role of poly-aspartic acid in oysters has led to the development of a more biodegradable, environmentally-friendly alternative to harmful chemicals found in detergents and personal hygiene products, as well as increasing fertilizer's ability to significantly enhance crop yields.



National Sea Grant College Program's Highlighted Accomplishments

Seafood Technology



Sea Grant excels in building partnerships between public and private sectors, as evidenced by the program's development of new ways for Americans to reap the bounty of our waters sustainably. Sea Grant-sponsored research and technology transfer is helping the seafood industry by improving processing technology, products, and methods for assuring seafood safety.

As wild fish stocks decline, Sea Grant is finding new ways to reduce waste and bycatch in fishing gear; developing new markets for underused species; and ensuring the safety and quality of products through better storage, processing, and packaging techniques.



- Sea Grant's efforts to help the U.S. seafood industry implement new FDA-mandated processing procedures were cited by Vice President Al Gore's National Performance Review Board with its "Hammer Award" for "partnerships that make a significant contribution in improving the way federal agencies accomplish their responsibilities."
- New discoveries in biotechnology have played a pivotal role in finding new uses for bycatch species such as Pacific whiting and arrowtooth flounder, allowing the development of new multi-million dollar fisheries.
- Sea Grant researchers have used biotechnology to develop fast and highly specific techniques for detecting pathogens not only in shellfish, but also in meat and milk.
- In an effort to reduce illegal harvesting of egg-bearing lobsters, researchers have developed new technology that will identify such illegal catches and allow better enforcement of regulations designed to protect females and ensure a sustainable population of lobsters.
- Sea Grant research has led to the development of a new grading system for shrimp quality based on established freshness standards. The result will be a more consistent evaluation of both domestic and imported shrimp, ensuring a safe, stable supply of this popular seafood.
- Sea Grant technicians have educated thousands about

seafood safety methods, both for handling fish as well as preparing it. Brochures on seafood safety are among Sea Grant's most popular publications.

