

**Ohio Sea Grant
College Program**

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Sea Grant forms a unique partnership with public and private sectors to combine research, education, and technology transfer for service to the public. Sea Grant provides a national network for universities to meet changing environmental and economic needs in our coastal, oceans and Great Lakes regions.

Ohio Sea Grant, based at The Ohio State University, is one of 30 state programs in the National Sea Grant College Program of the National Oceanic and Atmospheric Administration (NOAA), Department of Commerce. Ohio Sea Grant is supported by the Ohio Board of Regents, Ohio State University Extension, other universities, industries, and associations.

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Marine-related careers

Options and resources

Water's role is critical to the continuance of life, indeed to the very makeup of the planetary crust and atmosphere. The relationship between water and life is reciprocal: The characteristics of the available water supply affect the quality and diversity of every local biological system; the way a local system interacts with its water supply either enhances or inhibits that system's capacity to flourish. Water quality fluctuates in intimate response to care or abuse of all the components of the hydrologic cycle.

Population density is increasing in coastal zones faster than in any other area of this country. By the middle of the twenty-first century, more than three-fourths of the population of the United States will live within 50 miles of a coast. Most of the rest of the population will live near inland rivers and lakes. This density will place enormous stress on all water resources, stress that will affect not only these coastal and marine environments but also inland ecosystems.

As a result, the number and variety of employment and career opportunities in marine-related fields are steadily increasing. Such jobs vary in the type and amount of education and experience required. Careers in such ancillary areas as public policy and administration, law, education, and news media are also growing in number.

This publication provides a partial listing of marine-related career categories and job titles, emphasizing variety. Following this is a list of selected publications you

will want to examine if you are considering a career in the marine field. Additional information is available if you:

- Write or call federal, state and local government offices, private societies, and institutes. A select list of national offices is provided.
- Consult the reference desk at your local public or school library. Look in resource books, such as *The Occupational Outlook Handbook* and *The Complete Guide to Environmental Careers*; in informational pamphlets such as this one from various government, association, and academic agencies; and in the many publications available from the U.S. Government Printing Office.
- Explore the Internet. For example, The Smithsonian Institute has a home page Sources for information on careers in biology, conservation, and oceanography, which can be found at <http://www.si.edu/>.
- Take a career aptitude/interest self-test, such as that found in the book, *What Color Is Your Parachute?* — it may provide you with unsuspected avenues to explore.
- Talk to guidance counselors and those actually working in your field of interest will also be able to help you research your career interests.
- Attend a summer camp specializing on the subjects you are interested in; take a university course, especially those offered at biological field stations; or intern to learn more about a particular subject.

Marine career categories and job titles

Academic disciplines: archaeology; biology; botany; cartography; cetology; chemistry; climatology; computer science; engineering; fisheries; fine arts; geology; history; hydrology; ichthyology; language arts; limnology; marine biotechnology; paleontology; seismology; physics; zoology.

Aquaculture: fish farmer; fish hatchery manager, administrator, or maintenance and operations worker; fisheries research biologist, botanist, chemist, engineer, or statistician.

Aquatic food production: deep-sea fisher; fish packer; oyster shucker; seafood processor; seaweed harvester; food fish inspector.

Arts and humanities: cultural analyst; essayist; filmmaker; historian; musician; painter; philosopher; photographer; poet; sculptor; social theorist; songwriter; writer.

Boating and recreation: charterboat operator; lifeguard; motel or hotel operator; restaurateur; sailboat or powerboat promoter/specialist; scuba diving instructor; sport fishing promoter/specialist; swimming and water safety instructor.

Boating support services: boat builder and repairman; drydock operator; marina owner/operator; marine supplies retailer; marine mechanic; sailmaker.

Commercial lake/river/ocean work: barge pilot or crewmember; merchant marine; scuba or deep-sea diver; commercial angler; oil rig technician; salvage operator; marine surveyor; tugboat pilot.

Commercial shipping and boating: many crew positions on many kinds of ships and boats; stevedore.

Education: aquarium operator; animal handler; museum curator; freshwater naturalist; teacher.

Marine administration: harbormaster; law enforcer; U.S. Coast Guard member; special agent; wildlife inspector.

Marine environmental studies/Ecology/Conservation: climate/weather researcher; environmental protection advocate; naturalist; remote sensing technician; pollution control specialist; wetlands biologist.

Marine education and entertainment media: cinematographer/ videographer; editor/publications designer; graphic artist; illustrator; photographer; writer.

Oceanography: chemist; geologist; geophysicist; hydrologist; researcher.

Park Service employee: city, county, state, and national park service employee, any place where the park has rivers and/or bodies of water.

Public policy/business: economist; Exclusive Economic Zone (EEZ) administrator; international environmental and climatic regulator; international maritime law and business regulator; international trade representative; lawyer; lobbyist; local/regional civil service worker; politician; translator.

Recreational/Resort/Commercial advertising: agency representative; art director; copywriter.

Structural design and construction: bridge architect; dam architect; fish hatchery architect; flood control structure designer; erosion control structure designer; offshore drilling platform designer; offshore habitation designer; recreational facilities designer; structural engineer; water treatment plant architect; wildlife habitat designer.

Ohio Sea Grant Extension Program

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References

Check with your local bookstore, too, for new publications.

Anderson, A.L. (1993, rev.). *Questions about careers in oceanography*. Texas Sea Grant, Texas A&M University, 2700 Earl Rudder Freeway South, College Station, TX 77845.

Careers in biology. Institute of Biological Sciences, 1444 Eye St. NW, Washington, DC 20001.

Careers in oceanography and marine-related fields. The Oceanography Society, PO Box 1931, Rockville, MD 20849.

Career opportunities for the ichthyologist.

American Society of Ichthyologists and Herpetologists, Florida International University, North Miami, FL 33181.

The complete guide to environmental careers (1993). The CEIP Fund, Washington, DC 20036.

The conservation directory. The National Wildlife Federation, 1400 16th St. NW, Washington, DC 20036.

Environmental opportunities. Environmental Studies Department, Antioch/New England Graduate School, Keene, NH 03431.

Fisheries as a profession: A fisheries career guide brochure. The American Fisheries Society, 5410 Grosvenor Lane, Bethesda, MD 20814.

Fisheries-related programs at North American colleges and universities. The American Fisheries Society, 5410 Grosvenor Lane, Bethesda, MD 20814.

Fisheries scientist: Occupational brief 190. Chronicle Guidance Publications, Moravia, NY 13118.

Heitzmann, W.R. (1988). *Opportunities in marine and maritime careers*. Lincolnwood, IL: VGM Career Horizons.

Hollin, D. (1981). *Vocational-Technical Marine Career Opportunities in Texas*. Texas Sea Grant, Texas A&M University, 2700 Earl Rudder Freeway South, College Station, TX 77845.

The occupational outlook handbook. U.S. Government Printing Office, Washington, DC 20402.

Sea Grant Guide to Marine Science Careers (2000) profiles 32 scientists and other professional from around the country and provides current information on careers in the fields of marine biology, oceanography, ocean engineering, and other closely related fields. The guide takes a look at the future for these fields and serves as a resources for high school students exploring marine-related career options. Limited quantities are available through the Ohio Sea Grant office. A version of this publication is available on-line at www.marinecareers.net. For quantity orders, contact New Hampshire Sea Grant at 603-749-1565.

F.T. Stone Laboratory is a freshwater biological field station located on Gibraltar Island in Lake Erie and owned by The Ohio State University. Established in 1985, it is the oldest freshwater laboratory in the United States. Each summer the laboratory offers college credit courses in the biological, geological, and natural sciences. Courses ranges from 1-week to 5-weeks and are for undergraduate, graduate, K-12 teachers, and non-formal educators. Several one-week introductory courses are designed specifically for select high school students and freshmen college students. For more information, phone 614/292-8949 or visit www.sg.ohio-state.edu.

For more career information

Write also to the addresses given in the references.

The American Fisheries Society
5410 Grosvenor Lane, Suite 110
Bethesda, MD 20814-2199
www.fisheries.org

American Meteorological Society
45 Beacon Street
Boston, MA 02108
www.ametsoc.org

**American Society of
Limnology and Oceanography**
5400 Bosque Boulevard, Suite 680
Waco, Texas 76710-4446
www.aslo.org/

**American Zoo and
Aquarium Association**
8403 Colesville Rd.
Suite 710
Silver Spring, MD 20910-3314
www.aza.org

Environmental Protection Agency
1200 Pennsylvania Avenue, N.W.
Mail Code 3213A
Washington, DC 20460
www.epa.gov

Marine Education Center
Gulf Coast Research Laboratory
115 Beach Blvd.
1650 East Beach
Biloxi, MS 39530
www.aquarium.usm.edu/

**National Academies (Science,
Engineering, and Medicine)**
500 Fifth St. NW
Washington, DC 20001
www.nationalacademies.org/

National Aquarium
Department of Commerce Building
Room B-077
14th St. and Constitution Ave., NW
Washington, DC 20230
www.nationalaquarium.com

National Geographic Society
1145 17th Street N.W.
Washington, D.C. 20036-4688
www.nationalgeographic.com/

**National Marine Education
Association**
College of Marine Sciences
P.O. Box 7000
Ocean Springs, MS 39566
www.marine-ed.org/

National Science Foundation
4201 Wilson Boulevard
Arlington, Virginia 22230
www.nsf.gov/

National Sea Grant Library
University of Rhode Island-Bay
Campus
Pell Library Building
Narragansett, RI 02882
www.nsgd.gso.uri.edu/

**Resources Conservation
Internship Program**
National Wildlife Federation
1400 16th Street, NW
Washington, DC 20036-2266
www.nwf.org/

Sport Fishing Institute
1010 Massachusetts Avenue,
NWSuite 100
Washington, DC 20001

U.S. Army Corps of Engineers
441 G. Street, NW
Washington, DC 20314
www.usace.army.mil/

U.S. Fish and Wildlife Service
Department of the Interior
1849 C Street NW
Washington, DC 20240
www.fws.gov/

U.S. Geological Survey
U.S.G.S. National Center
12201 Sunrise Valley Drive
Reston, VA 20192
www.usgs.gov/

**Water Pollution
Control Federation**
3900 Wisconsin Avenue
Washington, DC 20016