STRATEGIES FOR PURSUING

A Career in Marine Mammal Science

The Society for Marine Mammalogy
Strategies for Pursuing a Career in Marine Mammal Science

The field of marine mammal science has a growing appeal for young people. Yet, many students do not clearly understand what the field involves. This brochure addresses questions commonly asked by people seeking a career in marine mammal science in the United States and provides suggestions on how to plan education and work experience.

What is marine mammal science?
There are about 100 species of aquatic or marine mammals that depend on fresh water or the ocean for part or all of their life. These species include pinnipeds, which are seals, sea lions, fur seals, and walrus; cetaceans, which are baleen and toothed whales, ocean and river dolphins, and porpoises; sirenians, which are manatees and dugongs; and some carnivores, such as sea otters and polar bears. Marine mammal scientists try to understand these animals' genetic, systematic, and evolutionary relationships; population structure; community dynamics; anatomy and physiology; behavior and sensory abilities; parasites and diseases; geographic and microhabitat distributions; ecology; management; and conservation.

How difficult is it to pursue a career in marine mammal science?
Working with marine mammals is appealing because of strong public interest in these animals and because the work is personally rewarding. However, competition for positions is keen.

There are no specific statistics available on employment of students trained as marine mammal scientists. However, in 1990 the National Science Board reported some general statistics for employment of scientists within the US: 75% of scientists with B.S. degrees were employed (43% of them held positions in science or engineering), 20% were in graduate school, and 5% were unemployed.

Marine mammal scientists are hired because of their skills as scientists, not because they like or want to work with marine mammals. A strong academic background in basic sciences, such as biology, chemistry, and physics, coupled with good training in mathematics and computers, is the best way to prepare for a career in marine mammal science. Persistence and diverse experiences make the most qualified individuals. Often developing a specialized scientific skill or technique, such as acoustics analysis, biostatistics, genetic analysis, or biomolecular analyses, provides a competitive edge.

What are typical salaries in marine mammal careers?
Marine mammal scientists enter this field for the satisfaction of the work, not for the money-making potential of the career. Salaries vary greatly among marine mammal scientists, with government and industry jobs having the highest pay. Salary levels will increase with years of experience and graduate degrees, but generally remain low considering the amount of experience and education needed. High competition in this field most likely will keep salaries at a modest level. A 1990 survey of 1,234 mammalogists conducted by the American Society of Mammalogists indicated that 42.7% of the respondents earned $40,000/year. The salary range that included the most respondents (21.2%) was the $30,000-$40,000 range.

What types of jobs involve marine mammals?
Most jobs with marine mammals are not as exciting or glamorous as popular television programs make them seem. Marine mammal studies often involve long, hard, soggy, sunburned days at sea, countless hours in a laboratory, extensive work on computers, hard labor such as hauling buckets of fish to feed animals, hours of cleanup, numerous reports, tedious grant applications, and permit applications.

As in other fields of science, jobs dealing with marine mammals vary widely. Examples of marine mammal jobs include researcher, field biologist, fishery vessel observer, laboratory technician, animal trainer, animal care specialist, veterinarian, whalewatch guide, naturalist, educator at any level, and government or private agency positions in legislative, management, conservation, and animal welfare issues. Many marine mammal scientists work with museum displays and collections, as a curator, an artist, an illustrator, a photographer, or a film maker.

Answers to the following questions will help focus interests and indicate which marine mammal scientists and facilities to contact for education, work experience, and job opportunities.

1) What specific areas are of interest, e.g., anatomy, physiology, evolution, taxonomy, ecology, ethology, psychology, molecular biology, genetics, veterinary medicine, pathology, toxicology, biostatistics, management, conservation, museum curation, or education?
2) What species or group of marine mammals is of interest, e.g., cetaceans, sirenians, or marine carnivores?
3) Is a career involved in field or laboratory work desired?
4) Is a career involved with care of animals, teaching, research, or legislative/policy matters wanted?
5) Is working for government, industry, academia, oceanaria, museums, private organizations, or self-employment best?
6) In what part of the world is work desired?

For example, the manatee is an endangered species in Florida. They have a high mortality rate because of accidental entrapment in flood control gates, collisions with speed boats, and loss of habitat. Local, state, and federal governments fund research on this species. Some local industries also are involved with management of manatees. Therefore, people wanting to study manatees most likely should look for education and work experience at universities and research facilities in Florida.

Who employs marine mammal scientists?

A variety of international, federal, state, and local government agencies employ marine mammal scientists for positions in research, education, management, and legal/policy development. U.S. federal agencies include the National Oceanic and Atmospheric Administration, National Marine Fisheries Service, Minerals Management Service, US Fish & Wildlife Service, US National Biological Service, US Navy, Office of Naval Research, Coast Guard, and Marine Mammal Commission. Other Federal agencies that work on marine-related issues include the National Park Service, Army Corps of Engineers, Environmental Protection Agency, National Science Foundation, National Aeronautics and Space Administration, Department of State, and Smithsonian Institution.

When oceanic operations, such as oil and gas exploration, production, and transportation, affect marine mammals, these industries often hire marine mammal experts. Because commercial fishing operations can conflict with marine mammal conservation, some fishing organizations hire marine mammal scientists. Many environmental, advocacy, and animal welfare organizations hire marine mammal specialists. Oceanaria and zoos hire marine mammal specialists for veterinary care, husbandry, training, research, and education programs. Museums hire marine mammal specialists for educational programs, research, and curatorial positions.

What education is necessary to become a marine mammal scientist?

High School Studies:

A broad education is essential for finding employment in marine mammal science. High school courses such as biology, chemistry, physics, mathematics, computer science, and language will provide a good educational base. Consult a guidance counselor for help in selecting course work. Good grades are essential for admission to a university.

Undergraduate Studies:

Most entry-level marine mammal jobs require a B.S. degree, with a major in biology, chemistry, physics, geology, or psychology. A minor in any science, computer science, mathematics, statistics, or engineering also can be helpful. Good language and technical writing skills are essential. Many people are surprised by the amount of writing involved in marine mammal professions. Because marine mammals are found worldwide, foreign language training often is useful.

A student must first become a scientist before specializing in marine mammals. Generally, undergraduate students will concentrate on a basic science curriculum and rarely have an opportunity to take courses related to marine mammal science. Specialization in marine mammals generally comes later through practical work experience or while working toward an advanced degree. In other words, if your B.S. degree program does not include courses in marine sciences, do not become discouraged. Concentrate on finding practical experience and/or a master’s degree with emphasis in marine mammal science. Maintaining a high grade point average as an undergraduate is very important to gain admission to graduate school.

Graduate Studies:

The master’s degree is usually the first opportunity college students have to specialize in marine mammal science. Care should be taken to select an advisor with experience in the subject and a reputable university with a diverse curriculum that will enable you to focus on marine mammal science.

Students who have dual majors or interdisciplinary training sometimes have more employment opportunities. Because the field of marine mammal science is so diverse, students who train in specialized areas have practical tools that may help them gain employment. For example, a graduate degree in statistics can be very useful for entering the field of population assessment. A degree in electrical engineering can be particularly useful for bioacoustic research. A graduate degree in environmental law can be important for developing a career in government policymaking or conservation.

What additional career opportunities will a graduate degree provide?

With a B.S. degree, potential positions include animal care specialist, animal trainer, field technician, laboratory technician, consultant for industry, and entry-level government position. Generally, jobs at this level offer little opportunity for self-directed work.
The M.S. degree can facilitate individual work with marine mammals, e.g., designing research projects, developing management plans, supervising field or laboratory studies, or heading programs in education, husbandry, or training.

The acquisition of a Ph.D. or D.V.M. (or both) provides more career opportunities, including design and management of field and laboratory research programs, university faculty positions, coordination of government and industry programs, and management positions in oceanaria or museums.

Years of practical work experience sometimes can substitute for a graduate degree, but the time required to advance is typically longer.

How to find a university program in marine mammal science

There are very few universities that offer a marine mammal science curriculum. To select an undergraduate university, visit campuses and talk with professors and students about career interests. Most university libraries or counseling centers have university catalogs to identify schools. In addition, there are several publications that list graduate programs by state and discipline, list marine mammal scientists by address, or summarize areas of research by marine mammal scientists (see list at the end of this booklet).

An interest in a certain marine mammal species may influence the geographic location of the graduate university selected. However, in most instances the best university is determined by selecting a graduate advisor specializing in a particular field.

Students should consider applying to several graduate schools. Application deadlines vary, but typically applications should be submitted in January for admission into a graduate program the following fall. Many universities require graduate school applicants to take the Graduate Record Examination (GRE) and include the test scores with their applications.

How to find an advisor for graduate studies

Selecting an advisor for a graduate degree is a very important decision. He or she will become a mentor, a career-long colleague, and will help establish a network of scientific colleagues. An advisor helps to obtain funds to support graduate student research and helps make contacts for future employment.

First, identify marine mammal scientists who are doing current research in an area of interest, their university affiliation, whether they have funds to support graduate students, and if they are accepting new students. Keep in mind that many government and industry scientists also have adjunct appointments at universities and can serve as co-advisors.

There are two ways to find potential advisors:

1) Find the names of authors in current scientific journals, such as Marine Mammal Science, Aquatic Mammals, Journal of Mammalogy, Canadian Journal of Zoology, Journal of Zoology, Behavioral Ecology and Sociobiology, or Fisheries Bulletin, or in recently published books on marine mammals. Scientists who publish may be in situations where they can accept graduate students.

2) Attend specialized scientific conferences on marine mammals hosted by professional societies such as The Society for Marine Mammalogy, International Marine Animal Trainers’ Association, European Association for Aquatic Mammals, European Cetacean Society, American Cetacean Society, or International Association for Aquatic Animal Medicine. Dates and locations of these meetings are published in the newsletter or journal of the respective societies. At these meetings, make a personal contact with a potential advisor and express your interest in doing graduate work with him or her. Follow-up any good lead with a telephone call, letter, or visit.

Because there is competition for advisors in the field of marine mammal science, an advisor will select students from a pool of applicants. Students should realize that, unlike the case in undergraduate study, graduate school faculty do NOT have to advise students just because they are enrolled at their university. Students sometimes enroll at a university because of a well-known professor and assume they will have the opportunity to work under him or her. BEFORE entering a graduate program, contact the professor and establish his or her willingness to serve as an advisor. If necessary, discuss the possibilities of financial support and decide on a potential research project. Choose a thesis research topic carefully so it is practical, scientifically sound and potentially fundable. Seek advice from others on this, perhaps in the form of a draft research proposal. At many universities, the advisor needs to notify the graduate school to approve an application. Many prospective graduate students with good grades and experience are rejected because they do not have an advisor working from inside the university to facilitate their acceptance.

Many graduate schools will not accept students without financial support. Graduate assistantship funds for marine mammal studies are rare, and most graduate programs have a limited number of teaching assistantships. Students should be prepared to support themselves or find research funds on their own.

How to write a cover letter with an application

To write the most appropriate cover letter with a job or graduate program application, carefully review the
description of the position and tailor the cover letter to fit those requirements. Proper spelling and grammar are essential because they reflect the thoroughness of work. Include the telephone/fax number and address where you can be reached, so a potential employer or advisor can easily find you. Include a list of three names, addresses and telephone numbers of people who can be contacted for a recommendation. Contact these references in advance to ensure they are willing to provide a good recommendation.

**What information to include in a résumé**

Opinions vary about the appropriate résumé style and length. The sample résumé on page 11 provides some example headings and topics for a résumé. Remember that the priority of items on the résumé might be reordered or changed, depending on the specific job or graduate program. Proper spelling and grammar are essential! Many résumés end up in the “circular file” if spelling or grammar errors are detected. Expensive paper with fancy logos generally do not enhance an applicant’s chances.

**How to obtain letters of recommendation**

Always ask a person directly if he/she is willing to write a supportive letter of recommendation. Consider asking past employers, work colleagues and instructors to write letters of support. Choose people who know you and your skills well. The best letters of recommendation are written to match the specific description of the job or graduate program. For example, an instructor will write a letter of recommendation with a different emphasis depending on whether the position is for research, teaching, or graduate study. To facilitate this, always give the writer a copy of the job or graduate program description along with a résumé, a pre-addressed, stamped envelope and the deadline for submitting the letter of recommendation. If possible, provide an outline or draft proposal of any research to be conducted.

**How to convince an advisor to accept a graduate student**

1) Talk to current or former graduate students of a particular advisor and ask how to promote yourself.

2) Send the advisor a letter and resume, inquiring about the possibility of working with him or her. Be specific about research interests and career goals. Follow-up with a telephone call or visit.

3) Initiate a personal contact with a potential advisor. Faculty members rarely request visits by potential students because such encouragement might be misconstrued as an agreement to serve as the student’s advisor. As mentioned earlier, one good opportunity to meet a potential advisor is at a scientific conference. Another strategy is to contact a potential advisor, noting that you just “happen to be in the area” and would like to meet. It is very useful to be informed about the advisor’s background, research interests and publications and point out ways that interests interface.

4) Gain practical work experience, which is an increasingly important factor in admission to a graduate program. Develop a well-rounded set of experiences, including work in the marine environment.

5) Publish in a scientific journal. Co-authoring a paper still can impress a potential advisor.

**How to gain practical work experience with marine mammals**

As a high school or undergraduate student, practical experience can be gained by volunteering at federal, state, or local organizations that work with marine mammals. For example, volunteer as a laboratory assistant for a research project with marine mammals or volunteer for the marine mammal strandng network in the United States. Also, oceanaria, zoos, and museums often have large volunteer or docent programs. This volunteer experience provides practical skills, an employer reference, a network of contacts in the field of marine mammal science, and most importantly helps determine whether this type of work is appealing. Because they already have observed a volunteer’s work habits and commitment, organizations often hire from their pool of volunteers. Many oceanaria, zoos, museums, and government agencies have internships that provide practical experience (see list at the end of this brochure).

Many careers in marine mammal science require experience in the marine environment. Scuba certification, boat-handling experience, or sea time can be helpful in securing employment in the field of marine mammal science.

**How to become a marine mammal trainer**

Most marine mammal trainers start by volunteering at an oceanarium or zoo. Often people work in other departments, such as operations, maintenance, or education, before transferring to a job in animal training. For the best advice about a career in marine mammal training, contact the International Marine Animal Trainers’ Association.

**How to become a marine mammal veterinarian**

To become a marine mammal veterinarian, follow the basic curriculum and schooling of other veterinarians, but try to gain practical experience with marine mammals
by volunteering at an oceanarium or zoo. A few veterinary schools are developing specialized course work in the area of exotic animal medicine, including marine mammals. For more information, contact the American Veterinary Medical Association and the International Association for Aquatic Animal Medicine.

How to find out about jobs with marine mammals

Often a good source for job announcements is the personnel department of a specific agency. The journal Science and The Chronicle of Higher Education list academic positions at junior colleges, colleges, and universities. Some sources of job announcements in marine mammal science appear at the end of this booklet.

Many jobs are not announced, rather are filled by volunteers at an organization, by a graduate student of a colleague, through an informal interview at a scientific conference, or from a recommendation by a colleague. In addition to WHAT you know, WHO you know is very important in finding a marine mammal job. It is valuable to keep an active network of marine mammal colleagues. Attending scientific conferences is very useful for maintaining the network and identifying job opportunities. Electronic bulletin boards, such as MARMAM or WHALENET announce upcoming jobs. When looking for a job, make that fact known in these informal networks of marine mammal scientists.

Many job opportunities are a matter of being in the right place at the right time. Controlling the right time is difficult, but obtain the appropriate education, be in the right place, and wait for the right time. For example, chances of obtaining a career designing educational exhibits on marine mammals are greatly enhanced if a candidate has an M.S. degree and volunteers in the exhibits department of an oceanarium.

Good luck in pursuing a career in marine mammal science!
Resource List

BOOKS


Careers in Oceanography and Marine-Related Fields: a special edition with emphasis on opportunities for sensory or physically disabled persons. 1990. The Oceanography Society. 4052 Timber Ridge Drive, Virginia Beach, VA 23455


The new complete guide to environmental careers. 1993. Island Press. CEIP Fund, 68 Harrison Avenue, Fifth Floor, Boston, MA 02111-1907.


Schaefer, F.S. Training and careers in marine science. The International Oceanographic Foundation, 4600 Rickenbacker Causeway, Miami, FL 33149.


ARTICLES


INFORMATION SHEETS AND PACKETS

OCEANOGRAPHY
American Geophysical Union, 2000 Florida Avenue NW, Washington, DC 20009
Earth Work Career Publications Service, SCA, Attn: Earth Work. P.O. Box 550. Charlestown, NH 03603 (various publications on
environmental careers)
International Oceanographic Foundation, 4600 Rickenbacker Causeway Miami, FL 33149
National Aquarium-Baltimore, Dept. of Education and Interpretation, Pier 3, 501 East Pratt Street, Baltimore, MD 21202
The Oceanography Society, 4052 Timber Ridge Drive, Virginia Beach, VA 23455. Ask for “Careers in Oceanography and Marine-Related Fields”.

MANAGEMENT
Dept. of Environmental Protection & Energy, Division of Fish, Game & Wildlife, CN 400, Trenton, NJ 08625

MARINE EDUCATION
Gulf Coast Research Laboratory, Scott Marine Education Center, PO Box 7000, Ocean Springs, MS 39564
National Sea Grant Office, 1335 East-West Highway, Silver Spring, MD 20910

SEA GRANT PROGRAMS BY STATE AND TELEPHONE NUMBERS

University of Alaska .................................................. 907-474-7086
University of California .................................................. 858-534-4440
University of Connecticut .............................................. 860-405-9110
University of Delaware .................................................. 302-831-2841
University of Florida .................................................... 352-392-5870
University of Georgia .................................................... 404-542-7671
University of Hawaii .................................................... 808-956-7031
Illinois - Indiana Sea Grant ............................................. 217-333-6444
Louisiana State University .............................................. 225-578-6710
University of Maine ...................................................... 207-581-1422
University of Maryland .................................................. 301-405-6371
Massachusetts Institute of Technology ................................ 617-253-7131
University of Michigan .................................................. 313-763-1437
University of Minnesota .................................................. 218-726-8710
Mississippi-Alabama Sea Grant Consortium .......................... 228-818-8843
University of New Hampshire ......................................... 603-862-0122
New Jersey Marine Sciences Consortium ............................ 732-872-1300
State University of New York ......................................... 631-632-6905
University of North Carolina .......................................... 919-515-2454
Ohio State University .................................................... 614-292-8949
Oregon State University .................................................. 541-737-2714
University of Puerto Rico ................................................. 787-832-3585
University of Rhode Island ............................................... 401-874-6800
South Carolina Sea Grant Consortium ............................... 843-727-2078
University of Southern California ..................................... 213-740-1961
Texas A&M University .................................................... 979-845-3854
Virginia Graduate Marine Science Consortium ..................... 434-924-6965
University of Washington ............................................... 206-543-6600
University of Wisconsin .................................................. 608-262-0905
Woods Hole Oceanographic Institution ............................. 508-289-2557

GRANTS, SCHOLARSHIPS, & TRAINING
American Fisheries Society, 5410 Grosvenor Lane, Suite 110, Bethesda, MD 20814
National Wildlife Federation, 1400 16th Street, NW, Washington, DC 20036
Friends of the National Zoo, c/o Ms. Joan Grumm, National Zoological Park, Washington, DC 20008
LASPAU (scholarships for Latin American students), 25 Mount Auburn Street, Cambridge, MA 02138
Minority Institutions, Marine Science Association, Biology Dept.; Box 18540, Jackson State University, Jackson, MS 39217
National Oceanic & Atmospheric Administration, Marine Policy Fellowships, National Sea Grant College Program, 1335 East-West Highway, Silver Spring, MD 20910
Student Conservation Association, Resource Assistant Program, Dept. EW, Box 550, Charlestown, NH 03603
INTERNSHIPS

(Based on a list prepared by Stacy Brsaul-Schneck)

Alaska SeaLife Center, P.O. Box 1329, Seward, Alaska 99664 USA
Aquarium for Wildlife Conservation, Attn: George Biedenbach/Training Department, 610 Surf Avenue, Brooklyn, New York 11240 USA
Aquarium of Niagara Falls, Intern/Volunteer Program, 701 Whirlpool St., Niagara Falls, New York 14301 USA
Atlantic Cetacean Research Center, Intern/Volunteer Program, 70 Thurstoon Point Road, PO Box 1413, Gloucester, Massachusetts 01930 USA
Belle Isle Zoo & Aquarium, Intern/Volunteer Program, P.O. Box 39, Royal Oak, Michigan 48068-0039 USA
Center for Coastal Studies, Intern Review Committee, Box 1036, Provincetown, Massachusetts 02657 USA
Center for Marine Conservation, Intern/Volunteer Program, 1725 DeSales St., NW, Washington, D.C. 20036 USA
Whale Center of New England, Intern/Volunteer Program, P.O. Box 159, Gloucester, Massachusetts 01930 USA
Chicago Zoological Park, Brookfield Zoo, Intern/Volunteer Program, 3300 Golf Rd., Brookfield, Illinois 60513 USA
Cleanwater Marine Aquarium, 249 Windward Passage, Clearwater, Florida 33767 USA
Dolphin Research Center, Volunteer/Intern Coordinator, P.O. Box 522875, Marathon Shores, Florida 33052 USA, email: drc-vr@dolphins.org
Dolphin Plus, P.O. Box 2728, Key Largo, Florida 33037 USA, email: dolphins-plus@pennekamp.com
EPCOT/Living Seas Animal Care, Walt Disney World, Michelle Matuszewski-May, 2020 North Avenue of the Stars, Lake Buena Vista, Florida 32830-1000 USA
Florida Dept. of Environmental Protection, Florida Marine Research Institute, Intern/Volunteer Program, Tampa Bay Manatee Watch, 100 8th Ave., S.E., St. Petersburg, Florida 33701-5095 USA
Gulf World Marine Park, Attn: Barb Losch, 15412 Front Beach Road, Panama City Beach, Florida 32413 USA
Isles of Shoals Steamship Company, Intern Program, P.O. Box 311, Portsmouth, New Hampshire, 03802-0311 USA
Kewalo Basin Marine Mammal Laboratory, Intern Coordinator, 1129 Ala Moana Blvd., Honolulu, Hawaii 96814 USA
Marine Mammal Research Program, Intern/Volunteer Program, Texas A&M University at Galveston, Dept. of Fisheries and Wildlife, 4700 Ave. U, Bldg. 303, Galveston, Texas 77551 USA
Mote Marine Laboratory, Andrea Davis, Coordinator of Intern/Volunteer Services, 1600 Thompson Pkwy, Sarasota, Florida 34236 USA
Mystic Aquarium/Institute for Exploration, College Intern Program, Volunteer Program, 55 Coogan Boulevard, Mystic, Connecticut 06355-1997 USA, Phone: +860-572-5959
National Aquarium in Baltimore, Pier 3, 501 E. Pratt Street, Baltimore, Maryland 21202-3194 USA
National Museum of Natural History, Intern Coordinator, Education Office, Room 212, MRC 158, Smithsonian Institution, Washington, D.C. 20560 USA
Friends of the National Zoo, Research Traineeship Program, National Zoological Park, Washington, D.C. 20008 USA
New England Aquarium, Intern/Volunteer Program, Central Wharf, Boston, Massachusetts 02110-3399 USA
Pacific Whale Foundation, Intern/Volunteer Program, Kealia Beach Plaza, 101 N. Kihei Rd., Ste. 21, Kihei, Hawaii 96753-8833 USA
Society for Ecological and Coastal Research, Gray Whale Ecology and Coastal Ecology Internships, P.O. Box 35052, Victoria, British Columbia V8T 5G2, Canada, Phone: +250-472-4746
Tethys Research Institute, Viale G.B. Gadio 2, I-20121 Milano, ITALY
The John G. Shedd Aquarium, Internship Coordinator, 1200 S. Lake Shore Drive, Chicago, Illinois 60605 USA
The Oceania Project (humpback whale research), P.O. Box 646, Byron Bay, 2481 New South Wales, Australia, email: oceania@nor.com.au
Theater of the Sea, Intern/Volunteer Program, 84721 Overseas Highway, Islamorada, Florida 33036 USA
U.S. Fish and Wildlife Service, Volunteer Program, 1011 E. Tudor Road, Anchorage, Alaska 99503 USA
U.S. Navy Marine Mammal Internship Program, DruAnn Clark, coordinator of Volunteer Programs, email: dru@spawar.navy.mil, Snail Mail applications to: Mark Xito, Attn: Volunteer Programs, Space and Naval Warfare Center, Code D351, 53560 Hull Street, San Diego, CA 92152
Waikiki Aquarium, Intern/Volunteer Program, 2777 Kalakaua Ave., Honolulu, Hawaii 96815 USA
Whale Research Group, Dr. Jon Lien, 230 Mount Scio Rd., Memorial University of Newfoundland, St. John's, Newfoundland, CANADA A1C 5S7
Green Volunteers: An international list of volunteer opportunities (list costs US$16.00 plus $5.00 postage) Lists more than 100 opportunities worldwide, includes many marine mammal projects. Short and long-term term opportunities available. Some projects require a financial contribution. Contact: Green Volunteers or Green Volunteers
P.O. Box 23
Sandy, Bedfordshire
United Kingdom SG19 2XE
phone/fax: +44-1767-262481
email: info@greenwol.com
1 Greenleaf Woods Drive, #302A
Portsmouth, New Hampshire 03810 USA
phone: 1-800-525-9579

FIELD PROGRAMS (Pay to volunteer)
Cetacean Behavior Lab Internships, c/o Dr. R.H. Defran, Department of Psychology, San Diego State University, San Diego, CA 92182 USA
Coastal Ecosystems Research Foundation, 2648 Tennis Cr., Vancouver, BC V6T 2E1, Canada, phone: + 604-224-2642, email: info@cerf.bc.ca
EarthWatch, 680 Mount Auburn Street, P.O. Box 403, Watertown, MA 02272-9104 USA
Ecovolunteer Program, Meijersweg 29, 7553 AX Hengelo, The Netherlands
Minga Island Cetacean Study, 285 Green Street, St. Lambert, Quebec J4P 1T3, Canada
Oceanic Society Expeditions, Fort Mason Center - Bldg. E, San Francisco, CA 94123 USA
ORES - Centre for Coastal Field Studies, Postfach 756, 4502 Solothurn, Switzerland, Phone: +41-32-6236354
School for Field Studies, 16 Broadway Street, Beverly, MA 01915 USA
Tethys Research Institute, Viale G.B. Gadio 2, I-20121 Milano, ITALY
University Research Expedition Programs, University of California, Berkeley, CA 94720-6586 USA

UNIVERSITY PROGRAMS
C. Johnson and K. Bleakley (eds.), 5th Edition, 1993, Australian Marine Sciences Association, Inc, Cost: $3.00 Australian plus postage (Add $2.50 to the U.S.), Lists all Australian marine science programs. Available from: School of Marine Sciences, University of Queensland, Queensland 4072, Australia
Marine Science Careers. A Sea Grant Guide to Ocean Opportunities (1996 edition), See Grant Communications Office, University of New Hampshire, Kingman Farm, Durham, NH 03824-3512. Cost: US$5.00; make checks payable to UNH
Peterson's Graduate Directory, Dept. 6608, P.O. Box 2123, 166 Bunn Drive, Princeton, NJ 08543
See listing in Foer 1992 (page 6 this booklet)
See listing in Klinowska 1992 (page 6 this booklet)

SCIENTIFIC SOCIETIES
American Cetacean Society, P.O. Box 1391, San Pedro, CA 90733 USA
American Society of Mammalogists, H. Duane Smith, Secretary-Treasurer, 501 Widtsoe Building, Brigham Young University, Provo, UT 84602
American Veterinary Medical Association, 1931 N Mecham Road, Suite 1000, Schaumburg, IL 60173 USA
European Association for Aquatic Mammals, c/o Kai Mattsson, Sarkanniemi, 33230 Tampere, Finland
European Cetacean Society, Dr. Harald Benke, Deutches Museum fur Meereskunde und Fischerei, Katharinenberg 14-20, D-18439 Stralsund, Germany
International Association for Aquatic Animal Medicine, c/o Dr. Donald Abt, Secretary Treasurer, 61 Sao Paulo Drive, East Falmouth, MA 02536 USA
Society for Marine Mammology

International Marine Animal Trainers Association, c/o Shelley Ballmann, Secretary, 1200 South Lake Shore Drive, Chicago, IL 60605 USA, Fax: +312-639-2216

The Society for Marine Mammalogy (publisher of this booklet)

OTHER SOURCES OF INFORMATION

American Cetacean Society, P.O. Box 1391, San Pedro, California 90733 USA, email: acs@pobox.com

British Columbia Marine Mammal Directory, West Coast Whale Research Foundation, 2020-1040 West Georgia Street, Vancouver, BC V6E 4H1, Canada

Chronicle Guidance Publications, P.O. Box 1190, Moravia, NY 13118-1190, email: chronicle@ns1.relex.com, Occupational Brief #543 - Marine Biologists, Occupational Brief #200 - Oceanographers

The Environmental Sourcebook, Lyons & Burford, 31 W 21st Street, New York, NY 10010

Conservation Directory, National Wildlife Federation, 1400 16th Street NW, Washington, DC 20036 (ask for most recent edition)

Student Conservation Association, Resource Assistant Program, Earth Work, Dept. EW, Box 550, Charlestown, NH 03603

US Ocean Scientists & Engineers Directory, American Geophysical Union, 2000 Florida Avenue NW Washington, DC 20009 (ask for most recent edition)

The Directory of National Environmental Organizations, U.S. Environmental Directories, P.O. Box 65156, St. Paul, MN 55165

JOB ANNOUNCEMENTS

American Women in Science

Earth Work, Circulation Office, P.O. Box 550, Charlestown, NH 03603

Environmental Careers Organization, 286 Congress Street, Boston, MA 02210

Minority Institutions, Marine Science Association, Biology Dept. Box 18540, Jackson State University, Jackson, MS 39217

National Oceanic & Atmospheric Administration, Personnel Operations Division, 1335 East-West Highway, Silver Spring, MD 20910

US Office of Personnel Management, Summer Job Opportunities in the Federal Government No. 414 (Free Copies), 1900 E Street NW, Room 1416, Washington, DC 20415

Women's Aquatic Network, Box 4993, Washington, DC 20008

OCEANARIA, ZOOS & MUSEUMS

American Association of Zooteachers, Michael Illig, Metro Washington Park Zoo, 4001 SW Canyon Road, Portland, OR 97221

American Zoo and Aquarium Association, 7970-D Old Georgetown Road, Bethesda, MD 20814

Consortium of Aquariums, Universities and Zoos, Donna Hardy, Dept. of Psychology, Calif. State Univ., Northridge, CA 91330

AUDIOVISUAL MATERIALS

Marine Careers (1992), VHS or Beta, 18 min. (Purchase or rent), Marine Communications Office, University of Delaware, Newark, DE 19716, 302-831-8083

TEACHING MATERIALS

SeaWorld California, Education Department, 1720 South Shores Road, San Diego, CA 92109

SeaWorld Florida, Education Department, 7007 Sea World Drive, Orlando, FL 32821-8097

SeaWorld Ohio, Education Department, 1100 Sea World Drive, Aurora, OH 44202

SeaWorld Texas, Education Department, 10500 Sea World Drive, San Antonio, TX 78251
Sample Résumé

JANE FAWN DOE

PRESENT POSITION:
Graduate Research Assistant
Biology Department
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Wahoo, Florida, USA  66666

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CITIZENSHIP :
United States of America

SCIENTIFIC INTERESTS:
Mammalogist with special interest in mammalian behavior, ecology and reproductive physiology.
Strong background in field experience with good knowledge of statistics and computers.

EDUCATION:

Bachelor of Science. 2001, Wahoo State College, Wahoo, Florida

Major: Zoology  Minor: Botany
GPA: 3.10  GPA: 3.00
Overall GPA: 3.20

Courses in Major:
Intro Zoology  Intro Botany
Ornithology  Local Flora
Mammalogy  Plant Taxonomy
Ichthyology  Herpetology

Thesis title: “Animal Names”
University of Wahoo, Wahoo, Florida

Graduate Courses Taken:
Evolutionary Systematics
Biometry
Parasitology

POSITIONS HELD:
1990-92: Volunteer Animal Caretaker, Wahoo Public Aquarium
1992-93: Sales person, Petland, Wahoo, Florida
1994-present: Teaching Assistant, Biology Department, U.W.

FIELD EXPERIENCES:
• Raised on a dairy cattle farm in Wahoo, Florida
• Obedience training of dog, championship, 4 yrs.
• 4-H projects on husbandry of dairy cattle
• Field project on radio telemetry of manatees, Florida Department of Environmental Protection
• Insect collection of 2000 specimens
• Deer and coyote hunter, 5 years

LABORATORY EXPERIENCES:
• Assistant, Edmonton Veterinarians, 1991
• Volunteer, Wahoo Hospital, 2 year
• Ethogram of polar bears, Behavior class, WSC
• Study skin preparation Mammalogy class, 1992
• Independent study on cancer in domestic dogs
TEACHING EXPERIENCES:
- Docent at Wahoo Public Aquarium, 1991
- Graduate Teaching Assistant, UW, 1993

FUNDED PROPOSALS:
- Funding from University Research Council for Master’s thesis research, 1993

SCHOLARSHIPS:
- National State Teacher’s Scholarship
- National Defense Student Loan Award

HONORS:
- President, Tri-Beta Biology Society
- Honor Society in High School, 3 years

SOCIETY MEMBERSHIPS:
- Tri-Beta, Honorary Biology Society
- Wildlife Society
- American Society of Mammalogists
- The Society for Marine Mammalogy

LANGUAGES:
- Spanish, read and speak
- Russian, read only
- C++, Pascal computer languages

COMPUTER SKILLS:

SPECIAL SKILLS:
- Violinist, WSC University Orchestra
- Swim Team, WSC
- SCUBA Certified, PADI, NAUI, YMCA
- Taxidermist
- Trap and skeet shooting
- Show champion field dogs
- Rodeo bull rider
- CPR & First Aid certified
- Animal Illustrator
- Water and cross country skiing

PRESENTATIONS:
Poster, Tenth Biennial Conference on the Biology of Marine Mammals, Galveston, TX.
11/98

PUBLICATIONS:

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