



JUNE 1988

NEWSLETTER

WOODS HOLE OCEANOGRAPHIC INSTITUTION



The ATLANTIS II returning to Woods Hole in 1986 after carrying ALVIN to the North Atlantic to investigate the wreck of the TITANIC. (Photo by David Gray.)

ATLANTIS II DEPARTS SAN DIEGO SHIP SAILS ON SCHEDULE AS NEGOTIATIONS CONTINUE

Though U.S. Customs has not yet formally returned the ATLANTIS II to the Institution, Customs officials have allowed the vessel to leave San Diego and continue scheduled research operations. The A-II and ALVIN left San Diego Harbor on May 31 at around 12:15 Pacific Time on a voyage to study the Gorda Ridge, an ocean feature in the Escanaba Trough roughly 350 miles offshore from Eureka, California. The purpose of this trip is to investigate the geology, chemistry, and biology of the water and sediments surrounding the hydrothermal vents near the ridge. ALVIN will make ten dives in the area, and scientific activities at the site, including taking sediment cores and operating large-volume water samplers, will be conducted around the clock.

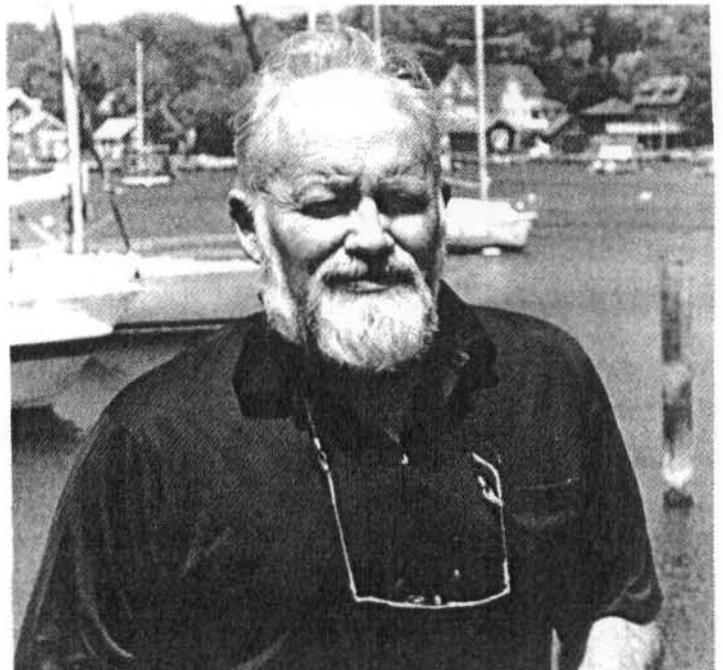
(See A-II/SAN DIEGO, page 2)

PAUL RYAN RECEIVES FULBRIGHT

Paul Ryan, Editor of *Oceanus* Magazine, is the recipient of a Fulbright Scholar Journalist Award to do research in Japan for nine months beginning in September. Paul is one of five professionals to receive a research award in the 1988-89 Japan grant program, and one of only two journalists so honored. His wife, Ruthann, will accompany him on the trip.

Paul was notified of the award in May by the Japan-United States Educational Commission which administers the Fulbright program along with the Council for the International Exchange of Scholars and the U.S. Information Agency. His research project will be a study of Japan-U.S. marine interests in the Pacific with specific attention to relations with China and the Soviet Union. The Japan Marine Science and Technology Center (JAMSTEC), located on Tokyo Bay about an hour's train ride from the capital city, is acting as Paul's host institution.

(See RYAN, page 4)



Oceanus Editor Paul Ryan. (Photo by Rob Brown.)

(A-II/SAN DIEGO, continued from page 1)

The A-II is still being held in "constructive seizure" under the Zero Tolerance laws by U.S. Customs. The ship was seized May 18 when Customs agents using drug-sniffing dogs found a very small amount of marijuana in the personal possessions of a crew member during a random search of vessels entering San Diego from abroad. The ship was returning to the U.S. from a port call in Guatemala after completing work around the hydrothermal vents near the Galapagos Islands. Harbor operations were not disrupted during the scheduled maintenance port call.

Derek Spencer, WHOI Associate Director for Research, says negotiations with Customs are continuing and he is hopeful that WHOI ownership of the A-II will be reinstated shortly. Negotiations since the ship's seizure have been complex and center on WHOI's submission of a petition to the Customs Office pledging, among other things, tighter shipboard security. This petition has been filed with Customs officials in Washington, DC.

The WHOI Personnel Practices and Procedures Handbook states that possession or use of a controlled substance aboard ship is considered sufficient cause for discharge. At present, the crew member involved in the incident in San Diego has been placed on shore leave. The Institution is currently obtaining complete information and documentation before making decisions regarding his future employment status.

The A-II's present cruise is Leg XXXV of extended Voyage #118. Aboard for this leg are scientists from MIT, USGS, WHOI, and several universities. Dr. John Edmond of MIT is Chief Scientist. He will be studying the ore deposition processes that are occurring along the southern part of the Gorda Ridge; sediments there react with seawater and heat from local volcanic activity to create high-grade lead, zinc, and silver. Scientists, including Fred Grassle of WHOI's Biology Department, will also collect fauna from near the vents and take samples from the extremely hot flumes of the vents' black smokers. A-II will end this leg June 14, docking in Astoria, Oregon. Work off Oregon and Washington will keep the ship in the northeastern Pacific for the next four months.

ONR ANNUAL SITE REVIEW

The Office of Naval Research (ONR) will hold its annual site review at WHOI June 20-25, primarily in Clark 507. Presentations and poster sessions will be given by many staff members. The ALVIN Review Committee will also meet during the week to plan the 1989 diving schedule.



Dr. Alasdair McIntyre, this year's Ketchum lecturer.

WHOI HOLDS FOURTH KETCHUM LECTURE

The fourth Bostwick H. Ketchum Lecture will be delivered June 20 at 4:00 p.m. in Redfield Auditorium. This year's Ketchum lecturer, Dr. Alasdair McIntyre, comes from Scotland, where he is currently Emeritus Professor of Fisheries and Oceanography in the Zoology Department of the University of Aberdeen. Dr. McIntyre's speech, entitled "The Quality of the Seas," will be followed by a wine and cheese reception at the Institution's Endeavour House. The lecture is open to the public.

The Bostwick H. Ketchum Award is an endowed lectureship which brings an internationally recognized scientist to Woods Hole for an annual lecture or supports a longer visit by a younger researcher. The award was established in 1983 as a tribute to the late Bostwick "Buck" Ketchum who passed away in 1982 at age 70. Ketchum, a strong force in the development of biological oceanography in Woods Hole for over 40 years, retired from his position as Associate Director in 1977.

Past Ketchum lecturers have included Professor Edward Goldberg of the Scripps Institution of Oceanography (1984), joint recipients Dr. Michael Moore and Dr. Thomas Pearson of the United Kingdom (1985), and Dr. John Allen of Oregon State University (1986).

UPDATE ON CLIMATE ASSESSMENT STUDY

The Climate Assessment Study, which is being conducted by an outside consultant, is expected to be complete in early July. When the final report is received, a summary of it will be sent to all employees and students. The full report will be made available to anyone interested. While other issues were raised during the process, the study's focus is on equity issues, that is, issues of fair and equitable treatment primarily involving gender but also including race and age.

During March, questionnaires were sent to every WHOI employee and all students in the Joint Program. Of the 871 questionnaires distributed, 460 were filled out and returned. In fact, this excellent (53%) response has resulted in the delay of the final report by about two months.

In addition to the written questionnaires, more than 100 individuals were interviewed in person by the consultants. With the exception of two late-comers, anyone who wished to be interviewed was scheduled for an appointment. Of those interviewed, 63 were women and 40 were men.

The box below shows a statistical breakdown on questionnaire distribution and returns and interviews according to discipline and staff.

QUESTIONNAIRES		
Staff	# Distributed	#, % Returned
Sci/Tech	272	152, 56%
Graded/Marine	423	200, 47%
Administrative	49	29, 59%
Students	<u>127</u>	<u>79, 62%</u>
Totals	871	460, 53%

INTERVIEWS (103 total)			
By staff		By discipline	
Sci/Tech	35	Biol	15
Graded/Marine	29	Chem	12
Administrative	13	G&G	14
Students	18	OE	14
Other	8	PO	15
		Non-science	33

WHOI FAMILY WELCOMES NEW MEMBER

Olivia Haskell Kurz was born April 22 to Mark Kurz, Associate Scientist in Chemistry, and his wife Barbara Haskell. Olivia, who was born at Tobey Hospital, weighed 8 pounds. She was welcomed home by her 3-year-old sister Danielle.

SAFETY VIDEOS AVAILABLE

The WHOI Safety Office has several videotapes in VHS format available for short-term loan to any employee wishing to view them. To arrange a loan of any of the videos listed below, please call the Safety Office, x2242.

The Medical Emergency Video covers a variety of emergencies that may occur at home and offers simple instructions for treating them. (45 minutes long.)

CPR for Bystanders is a video on one-rescuer cardiopulmonary resuscitation (CPR) for heart attack, cessation of breathing, and choking situations. (30 minutes long.)

Radiation Safety provides an introduction to techniques and procedures that may be useful during emergencies encountered in a typical academic laboratory. (40 minutes long.)

Although these films provide valuable and practical information, viewing them will not result in any type of certification. Certification by the American Red Cross for First Aid and the American Heart Association for CPR can only be obtained by attending the regularly scheduled courses sponsored by the Institution.

EXHIBIT CENTER OPENS

The WHOI Exhibit Center, located in Endeavour House, opens June 20 for the summer season. Daily operations will be from 10 a.m. to 4:30 p.m. through the Columbus Day weekend in October. The general public will be able to purchase WHOI gift items at the Center.

CARS DAMAGED IN WHOI PARKING LOTS

Over the past few months there have been two reported instances of employee cars being damaged while parked in parking lots on the Quissett Campus. In both cases the damage ran to several hundred dollars, and in neither case did the person who did the damage leave a note or contact the owner of the damaged vehicle. Similar incidents have occurred in WHOI parking lots in the village.

Employees are asked to remember that collisions between private vehicles must be resolved between the individuals involved through their own insurance companies. Parking lot owners, including WHOI, do not provide insurance coverage for such events. Please be considerate of your fellow employees and notify the owner of the other vehicle if an accident occurs.

(RYAN, continued from page 1)

"The core of my project," Paul says, "is to identify where U.S.-Japan marine policies are in conflict and where they are serving joint interests, particularly in relation to the Soviet Union and China, and to make an analysis of how these findings impact both nations from a political, economic, scientific, and technological point of view."

Paul, a graduate of Harvard and an Institution employee for twelve years, will be taking a leave of absence from WHOI to participate in the program. He plans to devote two issues of *Oceanus* to marine affairs in the Pacific upon his return. The Spring 1987 issue of *Oceanus* was entitled "Japan and the Sea." All but one of its authors were Japanese specialists in the marine sciences.

Paul, who has worked for *The New York Times*, *The Boston Globe*, Radio Free Europe, and Reuters News Agency, has published over 40 magazine and journal articles, both popular and scholarly.

JOHN WILLIAMS' SON WINS HONORABLE MENTION AT STATE SCIENCE FAIR

David Williams, a junior at Falmouth High School and son of WHOI Security Guard John Williams, recently received an Honorable Mention Award at the Massachusetts Science Fair in Boston. His experiment focused on superconductivity, and he received help on the project from various members of the WHOI community.

Using liquid nitrogen, David cooled a mixture of oxygen, copper, yttrium, and barium to -115° F to produce an alloy he could study for its ability to conduct electricity. In the last few years, such "superconductors" have received much attention from industry and the scientific community.

At present, superconductors are used commercially at temperatures of about -450° F; such low temperatures make this technology prohibitively expensive. Consequently, if superconductivity can be attained at higher temperatures, such as those used by David in his experiment, the technology could be adapted to a wider variety of applications, including more efficient electrical transmission lines and super-fast trains propelled and suspended by superconducting magnets.

David got the materials for the project from his school and WHOI. His father, John, notes with gratitude the help David received from members of the WHOI community, including Don LeBlanc, Bobby Weeks, Nat Corwin, Dave Aubrey, Wayne Spencer, Bill Jenkins, Danuta Kaminski, Dempsey Lott, John Dacey, Bruce Goodin, Sheila Griffin, Alan Fleer, and others. Congratulations, David!

FALMOUTH POND STUDIES RECEIVE HELP FROM WHOI PERSONNEL

Scientists from the Institution and volunteers from Falmouth will join forces over the next two years to gather and analyze scientific information on the general health of Oyster, Little, and Green Ponds in Falmouth. These ponds have all suffered deteriorating water quality, possibly as a result of increased human activities in their surrounding areas.

The study should provide the Town of Falmouth with documentation of water quality conditions in the three ponds. This information will provide the means to assess the effectiveness of any future management actions, such as fertilizer restrictions, denitrification systems, rezoning, or opening and improving inlets from the ocean.

The study, which will be conducted under the general guidance of the Falmouth Planning Office, is a cooperative effort between the Sea Grant Program at WHOI, members of the Biology Department, and the town. The bulk of the funding for the program this year, \$34,000, will come from Sea Grant, with the town contributing another \$9,000. Similar funding is anticipated in 1989.

Citizens who live near the ponds are being recruited now to gather information during July through September of this year and June through September of 1989. Training of the volunteers, who will work with water samplers, thermometers, rain gauges, and other instruments, begins this month. The volunteers will be coordinated by Alan White, Marine Science Advisor for the WHOI Sea Grant Program.

"We need two groups of volunteers," Alan says. "One group, which will hopefully number about 15 to 20 people, should be boat owners or people with access to a boat who are willing to go out on the ponds once a month during the summer to make various simple measurements and collect samples from certain locations in the ponds. The other group will be pond watchers, keeping an eye on the ponds year-round and watching for unusual events, such as fish kills, pronounced algal blooms or mats, or bad odors."

The samples collected by the volunteers will be analyzed for nutrients by Brian Howes and Dale Goehringer at their laboratory in the Biology Department. Brian and Dale have been involved in nutrient studies of coastal waters for a number of years. They are also part of a separate Sea Grant-funded program focusing on nitrogen cycling in Little Pond.

If you are interested in helping with the pond studies, contact Alan White, x2289.

SUMMER IS VOLUNTEER SEASON AT WHOI

With the onset of summer, employees will see volunteers helping out in various capacities around the Institution. These volunteers, nearly all of whom are Associates, have proven very helpful during past summers, providing services that are needed at the Institution but have no available funding. Some of the areas they will be involved in this summer are listed below.

Public Information Office. During the past two summers, Associate volunteers have assisted this office by answering questions from the many tourists who visit the Institution, answering phones, assembling press packets, labelling slides and photographs, and clipping news articles for press files. This year, in addition to these tasks, they will be putting information on the computer.

Exhibit Center. This year, as in the past, Associates will staff both floors of the Exhibit Center, taking care of visitors, selling WHOI items, and running the audio/visual programs.

Archive/Data Library. In WHOI's Archive/Data Library, located on the lower level of the McLean Lab, volunteers will be sorting, labelling, and filing charts, as well as sorting WHOI publications.

Watkins Laboratory. In Bill Watkins' lab, located in Shiverick House, volunteers will be helping create a computer data base which will index marine mammal literature. Presently, no complete list of these reference materials is available on computer.

Pond Monitoring Program. Volunteers will join forces with WHOI scientists over the next two years to gather scientific information on the health of Oyster, Little, and Green Ponds. Volunteers will collect samples and keep an eye on the ponds.

WHOI Gardens. If interest is sufficient, we hope to utilize the horticultural talents of Associate volunteers to help refurbish some of the gardens.

At present, there are still openings for Associate volunteers in all of these areas. If you feel you could put a volunteer to work, or if you know someone interested in volunteering, please call the Development or Public Information Offices. Orientation for volunteers will be held on June 24th, and work schedules will begin June 27.

BIGELOW AWARD TO BE PRESENTED

The tenth Henry Bryant Bigelow Award in Oceanography will be presented June 17 at the Annual Meeting to Hans Thomas Rossby and Douglas Chester Webb for their contributions to ocean technology and oceanography. The award lecture will be held this fall.



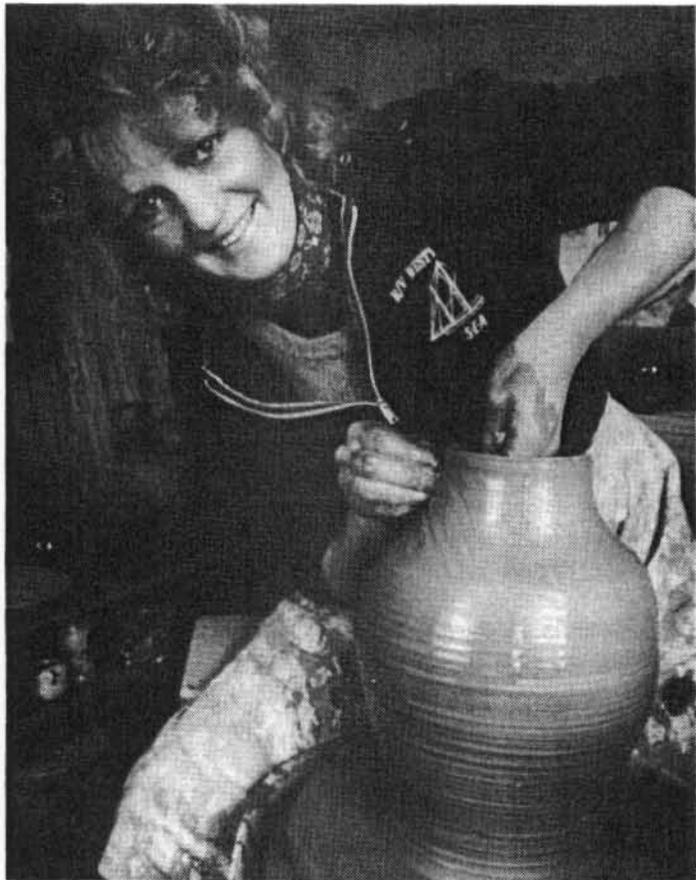
Publications and Information Office Manager Shelley Lauzon leads a group of new Associates on a tour of WHOI facilities on New Associates Day held May 27. (Photo by Rob Brown.)

WHOI RECEIVES GRANTS FROM ARTHUR VINING DAVIS AND G. UNGER VETLESEN FOUNDATIONS

The Institution recently received a grant of \$150,000 from The Arthur Vining Davis Foundations of Jacksonville, Florida, in support of the Institution's Joint Initiative Awards program. The Joint Initiative Awards, established in 1987, enable scientists from different disciplines to collaborate and focus on a common research problem. A principal aim of the awards, granted for a period of two to three years, is to provide a means for the Institution to develop creative multi-disciplinary research initiatives to a point where they can gain federal funding.

The Institution has also received a grant from the G. Unger Vetlesen Foundation of New York for \$100,000. This unrestricted grant in support of WHOI research activities has been allocated to the Director's Innovative Fund, which provides support for unique and innovative research that does not have immediate funding through the federal funding system but that the Institution feels deserves support.

Without private funding like that provided by these foundations, some new efforts by WHOI scientists would not be possible, and new research directions--often leading to breakthroughs--could not be easily pursued.



Sculptor Jane Louise. (Photo courtesy of Ned Manter.)

SCULPTURES AND POTTERY BY WHOI'S JANE LOUISE ON DISPLAY IN CLARK LOBBY

Jane Louise began working at WHOI as a Research Assistant in the Physical Oceanography Department in January 1985. She's married to Jerry Dean, Research Specialist in Physical Oceanography, and though she enjoys being involved in oceanography, her first love is making pottery. Some of Jane's work is on display in the Clark Lobby through the beginning of July.

Jane Louise started making pots in the 1960s when she and a group of freshmen at Stanford University set up a studio in the basement of one of the dorms. Through the years, her interest in pottery grew. She studied ceramics for three years at Teachers College, Columbia University, then made and sold pots in the Virgin Islands while she and her family were living there on their boat. Later, in Guilford, CT, she spent six years taking a variety of courses at the Guilford Handcrafts Center, before moving to the Cape where she now has a studio in her home. In 1983 Jane gave up her career as a professional manager and decided to

make ceramics her primary occupation. At that time she helped establish Woods Hole Handworks, a cooperative gallery for local artists. She is presently a ceramics major at the Swain School of Design in New Bedford in the Program in Artisanry.

Jane has experimented in many areas of ceramics, including low and high fired oxidation and reduction, working with earthenware, stoneware, raku, porcelain and slip casting clay bodies. Her skills include wheel throwing and handbuilding techniques, mold making, and ceramic sculpture.

Prior to returning to school, Jane was working primarily with terracotta clay and using a primitive technique of pit firing. She considers this to be a direct influence from the pottery of the American Southwest, which has been one of her major sources of inspiration since childhood. Last year she made a trip to New Mexico and did a comprehensive study of the lives and pottery of the prehistoric Anasazi Indians. For the last two years Jane has been dealing with larger, more abstract forms that she still considers "functional" vessels, but with sculptural elements.

Along with informal shows, Jane has displayed her work in a number of galleries in Connecticut and Massachusetts. On the Cape her work has been shown at the Kendall Gallery in Wellfleet, at the Sparre Gallery in Cotuit, and at Woods Hole Handworks.

JANNASCH TO VISIT TIBET

The Chinese and U.S. National Academies of Sciences are sponsoring a joint expedition to study specific mineral deposits of high-altitude saline lakes in Tibet. A special group of "halophilic" algae and bacteria strongly affect the selective precipitation of certain minerals. WHOI's Holger Jannasch, who has worked with such organisms in the past, has been asked to join the U.S. team of five geologists and geochemists. After a four-day period to adjust to the altitude, the Chinese-U.S. group will leave Lhasa, Tibet, on June 25 to trek across southeastern and central Tibet, returning to Lhasa by mid-July.

Holger is having a busy year. Last month he presented the opening lecture to 8,000 microbiologists at the Annual Meeting of the American Society of Microbiology in Miami. The meeting's opening lecture is commonly devoted to exciting contemporary themes, such as cancer, AIDS, and molecular engineering. It is gratifying for oceanographers to learn that "The Microbial Basis of Life at Deep-sea Hydrothermal Vents" (the title of Holger's speech) falls into this category!

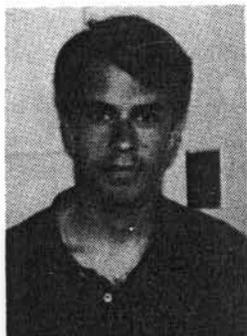
NEW FACES



Karen Carmichael
Sr. Key Entry Optr.
Controller
Challenger, x 2335
P. Duffy



Scott Farrow
MPOM Fellow
Education/MPOM
Swift House, x2493
J. Broadus



Christopher Johnston
Res. Asst. II-Chem.
Chemistry
Clark 418, x2552
J. Bullister



Carol MacMurray
Res. Asst. III-Data Proc.
Physical Oceanography
Clark 141B, x2794
A. Morton



Maura Power
Staff Asst. I
Services
Quissett Whse., x2412
B. Crampton



Mary Tkacsik
Res. Asst. II-Geology
Geology & Geophysics
McLean 214, x6011
H.B. Dick

PERSONNEL CHANGES

Steven Ferreira (Purchasing) from Buyer I to Buyer II.

Robert Olson (Biology) from Assistant Scientist to Associate Scientist.

John Powers (Purchasing) from Buyer II to Senior Buyer.

Sandra Sherlock (Purchasing) from Purchasing Expeditor to Buyer I.

John Whitehead (Physical Oceanography) from Associate Scientist to Senior Scientist.

OLSON PROMOTED TO ASSOCIATE SCIENTIST

Rob Olson, Assistant Scientist in the Biology Department since 1984, was recently promoted to Associate Scientist. The author or co-author of about 20 scientific publications, Rob is primarily interested in marine microbial ecology. He earned his B.A. in Biology from Willamette University in Oregon in 1974 and his Ph.D. in Marine Biology from the University of California in San Diego in 1980. Much of his research in recent years has involved sea-going applications of flow cytometry for automated analysis of phytoplankton.

WHITEHEAD APPOINTED SENIOR SCIENTIST

John Whitehead has been appointed Senior Scientist in the Physical Oceanography Department. John earned his B.S. in Mechanical Engineering from Tufts University in 1963 and his M.S. and Ph.D. degrees in Physics of Fluids from Yale in 1965 and 1968. His research interests include geophysical fluid dynamics and analytical and laboratory studies of fluid mechanics problems in oceans. He is author or co-author of 49 refereed and numerous non-refereed scientific publications.

BENEFITS REMINDER

All employees should remember to notify the Benefits Office *within 31 days* of incurring any type of change in status that might affect their benefits. Status changes include marital status, employment status of you and your spouse, birth or adoption, and loss or gain of benefits of your spouse at his or her employment. This 31-day period is especially important if you have elected your insurance premiums on a pre-tax basis or enrolled in the Dependent Care Reimbursement Account. The Institution must comply with strict IRS guidelines to qualify in offering the Flexible Spending Plan (pre-tax benefits) to employees. If you have any questions, please contact the Benefits Office.

OCEANOGRAPHIC SHIP NOTES

ATLANTIS II and ALVIN were scheduled to arrive in Astoria, Oregon, June 14, completing Leg XXXV of extended Voyage #118. The vessels will depart Astoria June 18 for continued diving operations and related scientific activities on the Juan de Fuca and Gorda Ridges off the Oregon and Washington coasts. The next port call will be July 2-6 in Newport, Oregon. A-II and ALVIN will be working off the Washington and Oregon coasts through September.

KNORR departed Istanbul, Turkey, June 3 on Leg X of Voyage #134. The third leg of the six-leg Black Sea Expedition will focus on the distribution and cycling of trace metals, oxygen, sulfide, and nutrients across the anoxic interface and in the deep water of the Black Sea. Large volume water sampling and sediment coring will be the principle scientific activities during the cruise, with the deployment of a new pump profiling system. KNORR is scheduled to return to Istanbul June 16 and depart on Leg XI June 21 to investigate chemical mixing and the fate of radioactive fallout from the Chernobyl nuclear power plant disaster in April 1986. Return to Istanbul is scheduled for July 9.

OCEANUS departed Woods Hole May 20 on Voyage #200, a two-leg cruise to deploy an array of instrumented moorings in the Gulf Stream and western North Atlantic to study the dynamic and energy balances in Gulf Stream meanders and interaction with surrounding rings and eddies. A short port call was made in Woods Hole June 2-4 to load additional mooring equipment and change scientific personnel. Return to Woods Hole from Leg II is expected June 16. OCEANUS will depart June 21 for geological and geophysical studies in the North Atlantic, returning July 4.

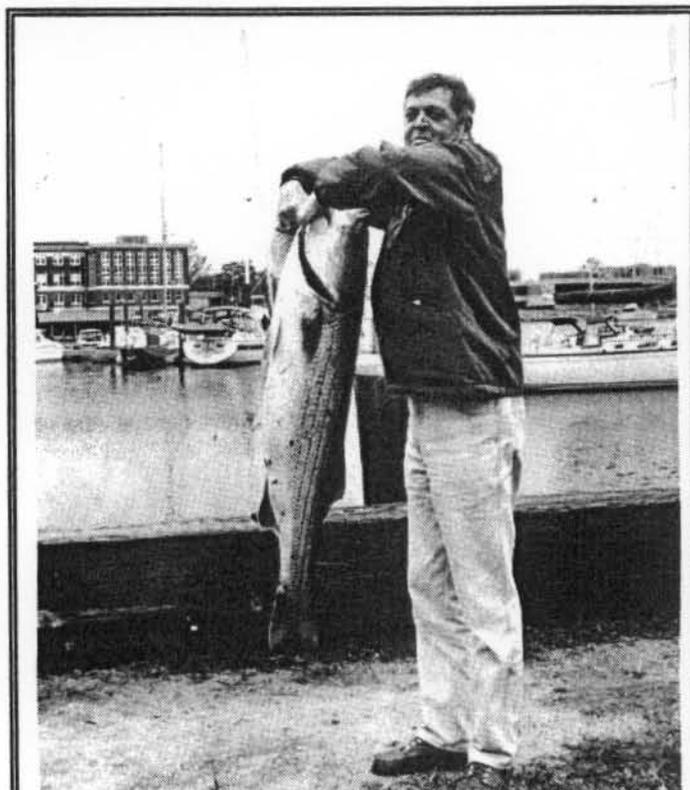
IN MEMORIAM

The Institution announces with sadness the passing of our friend and colleague John McMillan, Program Manager for Ship Operations at NSF, on Tuesday, June 7. John had been battling a liver ailment and associated complications for several months.

Prior to coming to the NSF in 1981, John had a distinguished career in the U.S. Navy, culminating in a position as Chairman of the Oceanography Department at the Naval Academy in Annapolis. He is survived by his wife Sandie and their three children. Expressions of sympathy may be sent to Mrs. Sandra McMillan, 1716 Roxboro Pl., Crofton, MD, 21114.

JUNE IS ANNUAL MEETING MONTH

The 59th Annual Meetings for WHOI Trustees and Members of the Corporation will be held June 17. The day-long event will include a science report in the morning by John Stegeman entitled "Biochemistry and Molecular Biology: Questions, Applications, and Rewards" and an afternoon lecture by John Bullister entitled "Freons--Their Impact on Ozone in Antarctica and their Use as Ocean Circulation Tracers." Open Houses will be held in several WHOI laboratories during the afternoon, and a reception and dinner for Trustees, Corporation Members, and Associates will be conducted under a tent on the Fenno House lawn in the evening.



George Grice, Associate Director for Scientific Operations, displays his catch. (Photo by Rob Brown.)

On May 18th, 1988

A 43 pound bass met its fate

In the morning fog around about four

Our Associate Director hit his score.

No matter the hundreds of hours he's fished

Or the 10ⁿ gallons of gas into his motor he's dished

And spent a fortune in lures and gear

For the next 20 years, guess what we'll hear?!

Our congratulations to you George

May you enjoy your super bass gorge!

---anonymous