# NEWSLETTER

April 1982 WOODS HOLE OCEANOGRAPHIC INSTITUTION


## ADVANCED CHEMISTRY LABORATORY TO BE BUILT ON QUISSETT CAMPUS

Plans are progressing for the Institution's Advanced Chemistry Laboratory, to be built on the Quissett Campus between Clark Laboratory and Fenno House.

The 12,000 square-foot laboratory will be a single story on a slab with a shingled exterior and will house six organic chemistry labs, a mass spectrometer lab, 16 offices and a conference room. The labs will be occupied by Stuart Wakeham, Cindy Lee, Bob Gagosian, John Farrington and Nelson Frew plus their personnel, totaling 25.

Expected construction cost for the facility is $2.1 million. The project architect is Oliver W. Egleston of the Boston firm of Shepley, Bulfinch, Richardson and Abbott Inc. (The firm designed the Iselow Laboratory.) Groundbreaking is scheduled for June 18 and construction should be completed by April 1983. The Institution is awaiting final figures on the architect's plans before construction contracts can be initiated. George Grice, associate director for scientific operations, notes that the high construction cost proportional to the building's size is due to the highly sophisticated ventilation, air conditioning, and heating systems required for the labs. A sprinkler system will also be installed.

The new lab will be situated closer to Fenno House than to Clark, with a driveway leading off to the left from the top of the hill on the road to Fenno and Oyster Pond Road.

Space in Redfield vacated in the spring of 1983 by the organic chemists moving to the new facility will be remodeled and assigned according to department needs, Grice reports.

## NEW CHEMISTRY DEPARTMENT CHAIRMAN NAMED

Director John Steele has announced the appointment of Associate Scientist Bob Gagosian as chairman of the Chemistry Department, effective in the fall of 1982. A date will be announced later.

Senior Scientist Geoff Thompson has asked to step down as Chemistry Department chairman to devote more time to research activities. Geoff has been department chairman since July 1978, when he assumed

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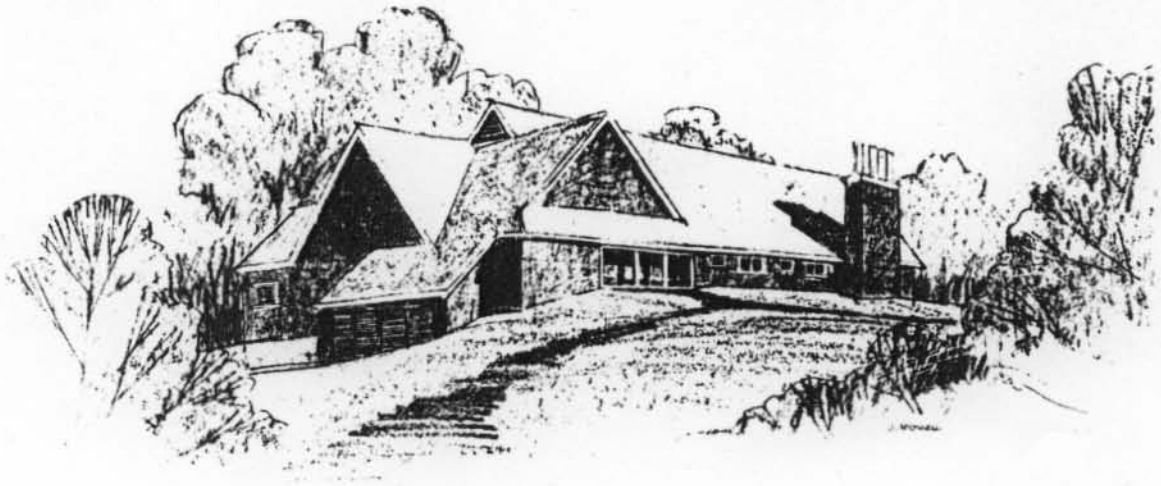


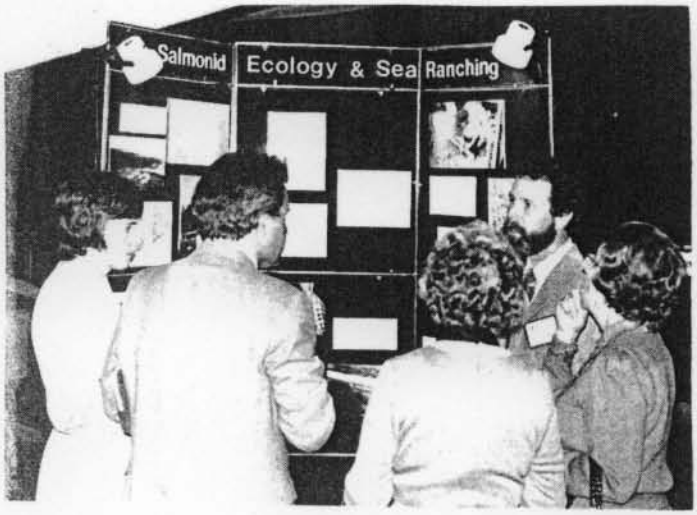
Preliminary Plan - Advanced Chemistry Laboratory

CHEMISTRY DEPARTMENT CHAIRMAN (continued)

the post from Derek Spencer, now associate director for research. Geoff received both his B.S. and Ph.D. degrees from Manchester University in England and was appointed an assistant scientist at WHOI in 1965. He was named an associate scientist in 1970 and a senior scientist in 1978. Geoff's research interests include geochemical studies of the sea floor and marine organisms with the aims of understanding the composition, structure and evolution of the upper mantle and oceanic crustal igneous and metamorphic rocks.

In making the announcement, Director Steele said: "Geoff Thompson has contributed significantly to the Department and the Institution during his time as chairman. I am pleased to know that Bob Gagosian has the full support of the Chemistry Department in his new post and look forward to working with him."

Bob Gagosian, a marine organic geochemist, received his B.S. degree from MIT and his Ph.D. from Columbia University. He was named an assistant scientist in 1972 and an associate scientist in 1976. His research interests include marine geochemistry of biologically produced organic compounds, their transformation reactions, transport processes, sources in the water column, recent sediments and in the atmosphere; with special emphasis on steroid and triterpenoid alcohols, ketones, and hydrocarbons, low molecular weight fatty acids and hydroxy-acids, and carotenoid and porphyrin pigments.




Associate Scientist Bob Nalman of the Biology Department (pictured here with several Associates) and Joint Program Student Steve McCormick gave one of four poster sessions at the annual spring Associates Dinner March 31 at Boston's Museum of Science. The pair spoke on their work in salmonid ecology and sea ranching. Other featured speakers and displays were Peter Wiebe and Terry Joyce on the Warm Core Gulf Stream Rings project, John Farrington on the proposed Advanced Chemistry Laboratory, and Pat Lohmann on evolutionary history in the seabed. Photo by Shelley Lauzon.

IM MEMORIAM

The Institution announces with great sorrow the death of Kaleroy Hatzikon March 31 at age 52.

Kal was born in Hyannis, attended Falmouth schools and graduated from Larson College in New Haven, Connecticut, with an associate degree in the cultural secretarial program. She began employment at the Institution in July 1950 as a junior technician on Project J93, later working for three of the five directors of the Institution. When the Marine Policy Program was established in 1971, Kal served as secretary and Departmental Executive Assistant. During this time, she had a close association with all participants in the Marine Policy Program and kept in touch with many former fellows.

Kal organized the women employees' dinners in 1960 and ran them until 1972; the dinners are still held each fall. She was a conscientious and loyal Institution employee, and was greatly respected and admired by all who knew her. Her faith, dedication, and will are an inspiration to us all.

WHOI AWARDS COLLEGE SCHOLARSHIP TO SCIENCE FAIR WINNER

Roger Hayward, a sophomore at Falmouth High School, was the overall winner of the Falmouth Science Fair March 27 at Falmouth High School's field house. Roger, the son of Research Assistant Nancy Hayward of the Chemistry Department, received the Institution's $750 college scholarship for his project demonstrating an equation to measure lift in an airplane's wing.

Associate Scientist John Farrington presented Roger with a certificate at the awards ceremony following the fair. The

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scholarship will be paid directly to the college or university of his choice in payment of tuition and fees.

Second place winner was senior Ted Inoue, the recipient of the first WHOI scholarship in 1980, for his project on sun spot cycles. Third place went to sophomore Sheila Clifford, daughter of Research Associate Hovey Clifford of the Chemistry Department, for her project on crude oil's effect on brine shrimp.

Recognition was also given to freshman Kristina Schmitz, daughter of Senior Scientist Bill Schmitz of the Physical Oceanography Department, for her project on the effect of radiation on Drosophila. Freshman David Merson, son of secretary Carole Merson of Facilities and Marine Operations, was honored for his display on the effects of acid rain on planaria.

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## IN MEMORIAM

The Instititon announces with sorrow the death February 15 of Dr. Charles E. Holt III, professor of biology at MIT. Dr. Holt had served as chairman of the WHOI/MIT Joint Program in Biological Oceanography.

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## STAFF COMMITTEE ELECTS NEW MEMBERS, HOLDS ANNUAL MEETING

Steve Boyd, Tim Cowles, Bob Groman and Nancy Marcus have been elected to the 1982 Staff Committee, replacing Judy Capuzzo, Maxine Jones, Fred Sayles and Bruce Tripp. Continuing members include Dave Aubrey, Jim Broda, Cindy Lee and George Tupper.

The annual staff meeting was held April 8 in Clark 507. Approximately 75 attended. Retiring committee cochairman Judy Capuzzo summarized the committee's work during the past year. Director John Steele spoke briefly about endowment vs. ready cash income and future development plans for the Institution. He was followed by George Grice, who reviewed some of the plans for moving personnel and offices within the Institution. George also showed showed plans for the new Advanced Chemistry Laboratory (see story on page 1). Bob Dinsmore discussed ship operations and proposed funding for the next several years. The meeting concluded with Derek Spencer, who spoke of the need for an industrial liaison program in view of the funding situation and future prospects.

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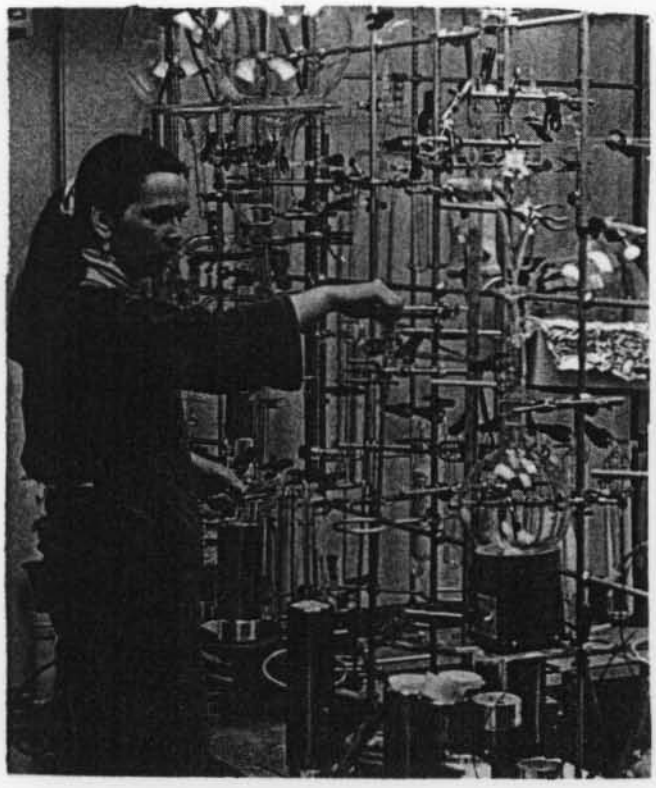

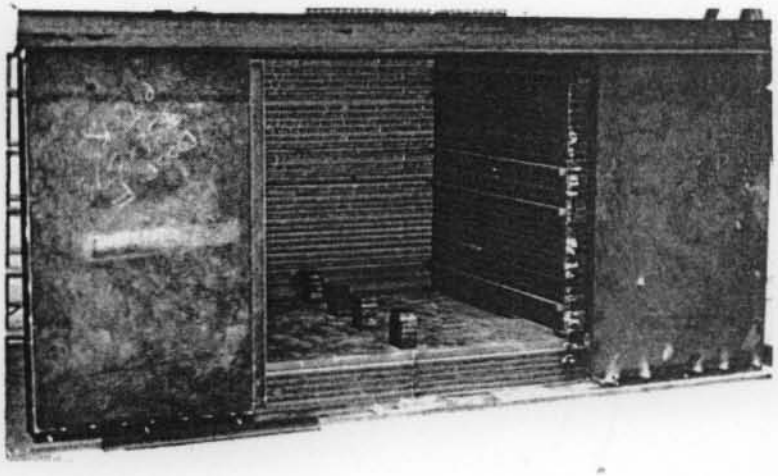

Research Assistant Sheila Griffin of Geochemist Ellen Druffel's lab prepares samples at McLean Lab (left). Ellen's carbon-14 shield (bottom), a 5-1/2 x 6 x 6 foot chamber of very scarce steel smelted in the 1940s before bomb tests contributed radioactive nuclides to manufactured items, was recently completed in the McLean basement. The shield is made of 35 tons of steel originally intended for use in repair and construction of Coast Guard ice breakers and was provided by the Coast Guard with Navy support. Walls of the shield are 6 - 7 inches thick. To prevent the entire McLean basement floor from cracking due to the shield's weight, the floor around it was cut. The chamber is meant to shield the carbon-14 detectors from background induced by cosmic rays. Photos by Shelley Lauzon.

**FUNDING ANNOUNCEMENTS**

The Institution has received funding for work under the direction of the following scientists.

From the National Science Foundation:

-- to Terry Joyce for "Physical Studies of Warm Core Gulf Stream Rings," $424,911;
-- to Stan Watson and John Waterbury for "Concentration, Distribution and Role of Synechococcus in the Ocean," $125,015;
-- to Dave Johnson for "Late Cenozoic Sedimentation and Paleoceanography of the Rio Grande Rise/Vema Channel," $120,000;
-- to Bob Ballard for "Volcanic and Tectonic Studies of the East Pacific Rise," $90,000;
-- to Bob Spindel for "Ocean Acoustic Tomography," $144,429;
-- to Bill Jenkins for "North Atlantic Transport Study Using Tritium and $^3He$," $267,000;
-- to John Stegeman for "Pollutant Responses in Marine Animals: Cytochrome P-450 and Biotransformation of Hydrocarbons in Marine Fish," $120,394;
-- to Elazar Uchupi, Brian Tucholke and Charley Hollister for "Construction of the Nova Scotian Continental Rise," $15,842;
-- to Cindy Lee for "The Role of Organic Nitrogen Compounds in Decomposition Processes," $52,700;
-- to Henry Stommel for "Research in Ocean Physics," $203,782;
-- to Mike Purdy for "Seismic Investigations of the Kane Fracture Zone and the Adjacent Oceanic Crust," $241,416;
-- to Breck Owens for "U.S.- U.S.S.R. Mid-Ocean Dynamics Experiment (POLYMODE): Analysis and Modeling of Dynamic Balances for the Local Dynamics Experiment," $136,889;
-- to Bob Dinsmore for "Ship Operations Support," $1,932,490.

From the Office of Naval Research:

-- to Earl Hays for "Continuation of Undersea Acoustic Research," $299,500.

From the National Oceanic and Atmospheric Administration:

-- to Tom Leschine for "Exploring NOAA's Options in the Accelerated OCS Oil and Gas Leasing Program," $34,500.

From the Knolls Atomic Power Laboratory:

-- to Vaughan Bowen for "Bottom Water Samples," $14,000.

From the Institute of Ocean Sciences:

-- to Sus Honjo for "Construction of PARFLUX V Sediment Trap," $37,098.

From the University of California, San Diego:

-- to George Tupper for "Preparation and Check of VMCMS," $18,547.

From the University of Delaware:

-- to Don Anderson for "Hydrography-Mediated Encystment and Excystment of Two Estuarine Dinoflagellates," $21,661.

From the Johns Hopkins University:

-- to George Frisk for "Determination of Geoacoustic Parameters in the Icelandic Basin and Hatton Bank," $75,000.

From the University of South Carolina:

-- to Kirk Cochran for "Radiochemistry of Pore Water and Sediment from MANOP Sites," $55,444.

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Research Assistant George Knapp (standing) and Scientist Emeritus Fritz Fuglister of the Physical Oceanography Department discuss computer data in a Clark 3 laboratory. Photo by Mel Briscoe.

## OFFICES, PERSONNEL MOVES PLANNED

A number of personnel and office moves will be made during the next year to comply with the Institution's Master Plan and meet needed laboratory space in several departments. Although many rumors have circulated and options have changed, Associate Director for Scientific Operations George Grice reports that the following moves are now definite.

Construction is underway on a 75 x 25-foot addition to the Quissett Warehouse in the GEOSECS area. The addition will cost approximately $74,000 and is being constructed by V & V Construction Co., Inc. of East Falmouth, builders of the Coastal Experimental Laboratory. The addition will provide office space for Shipping & Receiving and the Building Services group. Completion is expected in May and the personnel involved will begin moving in shortly thereafter.

The move of Shipping & Receiving from the Blake first floor to the Quissett Warehouse is part of the Institution's Master Plan, which calls for the GEOSECS area to be the central warehousing area for the Institution. Plans call for a large warehouse to be built nearby before the lease on the Falmouth Warehouse runs out in 1986. The move will ease traffic congestion in the village and will provide adequate loading facilities for Shipping & Receiving. A loading dock, large truck turnaround and additional outside storage space will be available in the large cleared area behind the warehouse. Shuttle service to the warehouse area will be provided once personnel occupy the facilities.

The nearby GEOSECS Warehouse will also undergo some changes. USGS personnel now occupy some offices in the warehouse. Once they have vacated those offices and following some minor remodeling, the Property and Purchasing Offices will move there from Blake. Vans now located outside the GEOSECS Warehouse will be moved to the clearing and additional parking space provided for the new occupants.

Other moves are scheduled on the Quissett Campus. In Clark, the Development Office will move into the Directorate area on Clark 2, occupying Joe Kiebala and Bob Dinsmore's former offices. (With the departure of Art Maxwell, Derek Spencer and Joe Kiebala are moving down one office.) Several small offices in the center of the Directorate area will also be occupied by the Development Office. Hoyt Watson's present office in Development will be given to Hartley Hoskins for OIP. The remaining space in Development will be occupied by G & G personnel.

Renovation continues on the Fenno House, where three walls have been removed, a stairwell to the second floor added and other remodeling done. The flooring must be laid and kitchen equipment delivered. Completion of these last phases of the remodeling is expected by mid-May. The Buttery will then move from Clark 1 to Fenno, where there will be more space for large receptions and dinners.

Once the Buttery has moved to Fenno, its space in Clark will be transformed into a Reading Room for the Library as well as some office space. The west wing of Clark 1 now houses IPC personnel and computer facilities and several Physical Oceanography Department offices.

Final touches are being made in the Coastal Exoerimental Laboratory. The first to occupy the building, Jack Whitehead and Bob Frazell, were expected to begin moving into the lab this week.

The moves to the Quissett Campus will result in moves in village facilities. The Shipping & Receiving area in Blake will be occupied by Ocean Engineering personnel, primarily Bob Ballard's group for work on the ARGO/JASON camera system. Office space vacated by Purchasing on the Blake second floor will be occupied by the Personnel Office, now in Bigelow 1. Personnel is expected to move to Blake in late summer and the use of its present space in Bigelow is under discussion among departments.

Shiverick House, formerly occupied by the IPC group, remains vacant, awaiting decisions on the Bigelow 1 space. At 573 Woods Hole Road (Challenger Annex), Eric Frank's group will move into the second floor rear office previously occupied by the Services Office. The group now occupies the second floor front office and space on the first floor next to Payroll.

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**NEWSLETTER NOTICES** - Please send notices, photos and photo tips, and any other items of interest to the oceanographic community to Shelley Lauzon, editor, Co-op, ext. 2271.


A number of telephone calls, many tongue in cheek, were received by the Port, Information and Marine Operations offices when a "FOR SALE, CHEAP" sign was stenciled on the side of the ATLANTIS II near the gangway in early March. Those inquiring about the ship suggested it be used by Gillette for razor blades or to transport buffalo to Australia. Before long, however, a "SOLD" sign appeared, courtesy of A-II Realty!
Photo by Shelley Lauzon.

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## NEW XEROX COPIER OFFERS MANY FEATURES

The Institution's copying facilities were greatly expanded when the Xerox 9500 arrived at the end of March. The new machine, located in the Reproduction Shop in Blake, is an example of the advanced stage in reproduction equipment.

The Xerox 9500 is a fully automatic machine and has automatic job recovery. It is also fast, capable of making 7,200 copies per hour - nearly twice the amount other Institution machines can do. (The Xerox 5600 in Redfield will make 4,500 copies per hour.) Cathy Ferreira in Reproduction is primarily responsible for assisting with jobs on the new machine.

The new copier has variable reduction capabilities ranging from 65 percent to 98 percent. Other features include an automatic document handler with a capacity for 200 originals, variable density control to make copies lighter or darker, and a 50-bin sorter. In addition, the machine will make high quality copies of halftones and will accept paper weights ranging from 16 to 110 lbs. without adjusting.

It is hoped the new machine will be used for large copying jobs throughout the Institution, freeing up the smaller satellite copying machines for smaller jobs. An Open House will be held in the Reproduction shop April 23 from 10 a.m. to noon to demonstrate the many features of the new Xerox 9500. Test copies are welcome.

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## OCEANOGRAPHIC SHIP NOTES

ALVIN and LULU departed San Diego April 11 on Voyage #111, Leg XIII, for diving operations on the East Pacific Rise, scheduled for April 17 - 26. Biological work will be conducted for the Scripps Institution of Oceanography. The vessels are scheduled to arrive in Matatlan, Mexico, April 28. They will depart Mazatlan May 2 on another biological cruise for Scripps, arriving in Mazatlan May 15.

ATLANTIS II remains at the pier in Woods Hole undergoing continued mid-life refitting and habitability upgrading.

KNORR returned to Woods Hole April 7, completing Leg II of Voyage #92 for the Geology and Geophysics Department. The ship is scheduled to depart April 18 on Voyage #93 for the Biology Department and will work with OCEANUS, URI's ENDEAVOR and NMFS's ALBATROSS IV in tracking a ring for time series studies as part of the Warm Core Rings Experiment. Scientific work will be conducted south and east of Cape Cod to the Gulf Stream. KNORR will return to Woods Hole May 6 and is scheduled to depart on another Biology Department cruise May 18.

OCEANUS was scheduled to depart April 16 on Voyage #118 for the Biology Department. Work for the Warm Core Rings Experiment will be conducted in conjunction with KNORR, URI's ENDEAVOR and NMFS's ALBATROSS IV. OCEANUS will return to Woods Hole May 2 and is then scheduled to depart May 6 on a Physical Oceanography Department cruise to the LOTUS area near Bermuda. The first scientific work of the LOTUS project will be conducted, including mooring deployment and CTD work. OCEANUS will return to Woods Hole May 14.

## PROMOTIONS AND OTHER PERSONNEL CHANGES

Recent promotions include:

Edward C. Mellinger - O. E. - from Research Assistant III to Research Associate.

Dorinda R. Ostermann - G & G - from Laboratory Assistant II to Research Assistant I.

Richard A. Young - from Shipping and Receiving Clerk, Services, to Stockroom Clerk, Purchasing.

Recent transfers include:

Allan G. Gordon - from Senior Research Assistant, Chemistry, to Senior Research Assistant, Ocean Engineering.

William S. Shultz - from Experimental Machinist, Facilities, to Experimental Machinist, Ocean Engineering.

Suzanne B. Volkmann - from Research Assistant, Biology, to Research Assistant, Ocean Engineering.

Recent retirements include:

L. Valentine Worthington - Senior Scientist, Physical Oceanography.

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## ALLYN VINE ELECTED TO ENGINEERING ACADEMY

Allyn Vine, scientist emeritus in the Geology and Geophysics Department, was one of 49 engineers and 6 foreign associates recently elected to the National Academy of Engineering. The Academy has a 1,109 U.S. members and 97 foreign associates.

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## ADDITIONS TO WHOI FAMILIES ANNOUNCED

Congratulations to John and Betsy Stegeman on the birth March 30 of their third child and second son, Joseph Hill, at Falmouth Hospital. Joseph weighed 8 lbs., 5 ozs. John is an associate scientist in the Biology Department.

Best wishes are also extended to Rick and Paola Price on the birth of their second daughter, Maria Elena Malpezzi, March 5 at Falmouth Hospital. Maria weighed 7 lbs., 4 oz. Rick is a Fellow in the Marine Policy Program.

Congratulations are also extended to John and Karen Dacey on the birth of their first child, Jack Alexander, November 29 in Boston's Brigham and Women's Hospital. Jack weighed 9 lbs. John is an assistant scientist in the Biology Department.

# NEW FACES

April 1982

Catherine A. Ferreira
Trainee-Printer's Asst.
Graphic Svcs./D. Souza
Blake 1/x2256

Andrea Gabel-Jorgensen
Research Assistant
O.E./S. Little
Clark 148/x2766

Dale F. Leavitt
Research Assistant
Bio./J. Capuzzo
ESL/x2557

Sally C. Strahle
Lab. Assistant
Bio./S. Boyd
Redf. 2-26/x2738

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## ANNUITY PLAN AVAILABLE TO EMPLOYEES

The Institution has a tax deferred annuity plan available to employees. It is a payroll deduction plan that pays a fixed rate of 14% (TIAA), or a variable rate depending on market performance (CREF). Most employees are allowed to defer up to 20% of their annual income. Those who desire to defer more than 20% may also (in addition to) contribute up to $2,000 to an IRA of their choice. Contact Jack Lindon or Terry Monroe in the Personnel Office for more information.

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## REDFIELD BOAT SLIP DRAWING SCHEDULED

The annual drawing for Redfield boat slips will be held April 23. Applications can be obtained from members of the Recreation Committee: Hovey Clifford (Chemistry), Mark Dennett (Biology), Terry McKee (P.O.), Dick Nowak (O.E.), and Jim Broda (G & G).

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## WHOI TELEPHONE DIRECTORY NOTE

The Personnel Office will not publish another Institution telephone book until personnel and office moves scheduled within the next few months are completed. Extension listings will be published in the interim.

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## WIVES' COFFEE HOUR PLANNED

The next coffee hour for wives of Institution employees will be held May 4 at the Student Center, Maury Lane, Woods Hole (behind Endeavour House on School Street). Children are welcome. This will be the last coffee hour this spring; coffee hours will end for the summer months and will resume in the fall. For more information, contact Anita Tucholke at 540-0156 or Catriona Purdy at 540-2769.

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## SPECIAL JOURNAL CLUB PLANNED MAY 3

Harvard Professor Thomas McMahon will speak on "The Size of Organisms" at Journal Club May 3 at 4 p.m. in Redfield Auditorium. Refreshments will follow.

Despite the diversity of animals and plants there are patterns of size, strength, respiration and longevity that are predictable using biomechanical arguments. McMahon was trained as a fluid dynamicist and has worked in several areas of the mechanics of organisms. Applications of biomechanics range from evolutionary theory to the design of efficient compliant running surfaces (Harvard's indoor track is faster as a result).

McMahon also writes novels with significant historical settings. Two of his works are Principles of American Nuclear Chemistry, which the New York Times called "one of the finest books of the season", and McKay's Bees.

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## TELEPHONE HEALTH LIBRARY ESTABLISHED ON CAPE COD

Cape Cod Hospital has established the Tel-Med program, a system of tapes which provide information on a variety of health issues and problems, for residents of Cape Cod. The program is designed to make individuals more aware of the signs and symptoms of disease. Simply dial 778-1414 and give the operator the tape number you wish to hear. A complete listing of tapes can be obtained from the Personnel Office, ext. 2706 or 2705.

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## WHOI SAFETY: WATER-OPERATED APPLICATORS

Lifeguard, a publication of the Massachusetts Safety Council, recently contained an article on water-operated applicators, a common item at hardware stores, garden centers and local supermarkets. The applicators have become increasingly popular among homeowners battling such problems as weeds and recently the gypsy moth infestation.

The Safety Council notes that these water applicators, when connected to household water supplies, pose considerable hazards even when the best precautionary measures are taken. A case in point occurred in California when a man sprayed his lawn with a commercial weedkiller containing an arsenic compound. He used an aspirator device attached to his garden hose, to which a bottle of the weedkiller has connected. When he finished spraying, he turned off the hose and disconnected the applicator. It was a warm day, so the man turned on the hose again to get a drink of water. He was found dead from arsenic poisoning a short time later.

While he was spraying, backsiphonage had occurred and arsenic was carried back into the hose. In some cases, backsiphonage can draw material into internal water systems. Safety personnel recommend that this type pf water a]plicator not be used around the house.

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Monday, April 19, is Patriot's Day. Enjoy the holiday!