NEWSLETTER

WOODS HOLE OCEANOGRAPHIC INSTITUTION

Vol. 14 March 14, 1973 No. 4

A Tribute to Volume 1, Number 1

NEWSLETTER APPROACHING 13TH ANNIVERSARY

W.H.O.I.'s first NEWSLETTER was published on April 1, 1960. The three-page issue, which consisted of news and notices compiled by a staff of nine reporters, featured the only "editorial" to run in THE NEWSLETTER in 13 years:

> "As this first number of the Institution NEWSLETTER goes to press, the editors are not unconscious of making history in a small way. History, however, has recorded both good and evil acts. Naturally we hope that we are on the side of the angels. It is our hope also that the NEWSLETTER will perform a useful and welcome function, keeping all of us informed of Institution activities,in a way that will be conducive to the congenial spirit of the 'good' old days in a growing organization that can no longer maintain that spirit entirely by direct personal contact. A piece of paper is not a substitute for a friendly smile or a welcoming handshake. That is one situation where do-it-yourself has a genuine place.
>
> "A steadily expanding plant and staff make intercommunication increasingly difficult. Peanut Butter Club luncheons help, but not everyone can attend. We hope to take the place of casual word-of-mouth transmission of 'the word' and of rumour and to be of service to the Institution and particularly the individuals that compose it."

The first edition of THE NEWSLETTER also contained the only "Letter to the Editor" ever to appear in a NEWSLETTER. Reporters called it "fan mail," and it was written by Paul M. Fye.

PERSONNEL CHANGES

Arrivals

Chemistry	Richard D. Boudreau (Lab Assistant)
Physical Oceanography	Alan T. Bruen (Lab Assistant)
Geology and Geophysics	Susan Fletcher (Temp. Lab Assistant)
Physical Oceanography	Edwin Ford (Postdoc. Investigator)
Biology	U.K. Gopalan (Visiting Investigator)
Physical Oceanography	Daniel H. Gould (Lab Assistant)
Ocean Engineering	Donna Heineman (Visiting Investigator)
Geology and Geophysics	Warren F. King (Temp. Research Asst.)
Administration	Tina Mendousa (Housekeeper)
Biology	James Miller (Part-time Helper)
Administration	Barbara Nairn (Drafting Aide)
Administration	Bruce Rawley (Drafting Aide)
Ocean Engineering	William Reynolds, Jr. (Lab Assistant)
Administration	Ronald A. Wright (Accountant)
Geology and Geophysics	Kenneth F. Yasi (Lab Assistant)

Changes

Geology and Geophysics	Adams, Mary-Linda
Ocean Engineering	Roberta Norwood (Lab Assistant) x421
Ocean Engineering	Ronald Penton x435, 11 School Street

Departures

Ocean Engineering	Samuel Churchill (Lab Assistant)
Marine	Joseph Dawicki, Jr. (Chief Engr.)
Administration	Mildred S. Hill (Secretary)
Administration	Dorothy L. Hillman (Secretary)
Chemistry	Fritz Johnson (Part-time Helper)
Administration	Patricia McComb (Clerk/Typist)
Biology	Coyla McCullough (Lab Assistant)
Marine	Joseph C. Morse
Physical Oceanography	Charles F. Simmons (Research Asst.)
Ocean Engineering	David F. White (Lab Assistant)

NOTICES

Anyone interested in participating in a play reading group - to meet once a week at Endeavour and possibly to present readings or small scale productions to an audience - is asked to contact Karl Schleicher at extension 246 for more information.

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The Oceanographic Film Society will present "Petulia" starring George C. Scott on March 23 in Redfield Auditorium. The short subject is "Skater Dater".

Cadwalader and Mac Hulburt aboard JOSEPHINE in Vineyard Sound. (Photo: Chic's, New Bedford)

JOSEPHINE OF WOODS HOLE

Something of the background and history of George Cadwalader's boat, JOSEPHINE, is told by her skipper in a feature story appearing in this month's Sail magazine. "The Resurrection of JOSEPHINE" is also an account of the boat's 'maiden' voyage (to Woods Hole) after spending two years in a Maryland shipyard.

About four years ago, Cadwalader's "search for the best wooden boat $2,500 would buy" led him to the 32-foot English cutter that is now berthed in Eel Pond. The article in "Sail" fills in the rest of the story, from George Cadwalader's first inspection of the boat to his realization that "...I had the boat I had been looking for."

JOSEPHINE first arrived in Woods Hole in October, 1971.

GERMAN SCIENTISTS HERE FOR DSDP BRIEFING

A small group of German scientists visited the Institution last week primarily to learn about W.H.O.I.'s role in the Deep Sea Drilling Project. The visit was generated as a result of an invitation issued Germany by the U.S. government to join JOIDES (Joint Oceanographic Institutions for Deep Earth Sampling).

The German scientists were Dr. Wilckens, assistant to the Federal Secretary for Research and Technology; Dr. Goerlich, a member of the German Science Foundation; Dr. Closs, who is with the German Geological Survey;and Dr. Seibold of the Oceanographic Institute at Kiel.

The four were given a tour of the Institution on March 6, and during the course of the day they met with about 20 W.H.O.I. scientists and administrators. Egon Degens and Art Maxwell acted as co-hosts for the visit.

Following their stay at the Institution, the German scientists planned to go to Washington, accompanied by Maxwell, for a continuation of discussions on the Deep Sea Drilling Project.

CHAIN CREW AND CAPTAIN COMMENDED BY ICE PATROL

CHAIN has been named one of the ten outstanding contributors of special sea surface temperature observations to the International Ice Patrol during 1972.

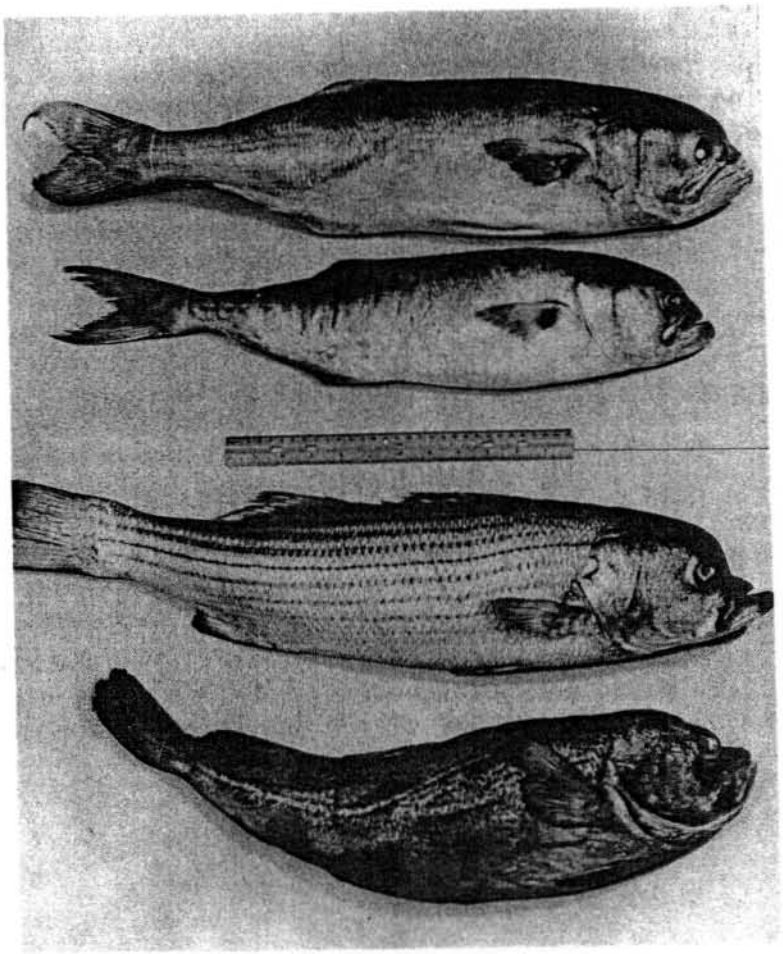
According to Acting Commander of the International Ice Patrol, C.W. Bailey, "Because sea surface temperatures are used to predict the life expectancy of icebergs, [CHAIN's] participation materially helped in the success of the Ice Patrol's longest and heaviest season."

KINGSPOINTER EXPECTED IN WOODS HOLE

The NOAA vessel KINGSPOINTER is expected to arrive in Woods Hole Wednesday for a one-day visit to the Institution and the Fisheries Center.

The 143-foot ship is operated by Kings Point Maritime Academy on Long Island, New York. She is currently carrying out a training cruise between her home port and Woods Hole.

Pugheadedness is one of the earliest recorded deformities in fishes, with its first written description dating back to 1555. It is also called lion head and tete du chien. Many species of fish have been observed with this abnormality and it occurs in varying degrees of severity.Its most extreme manifestation is a steep and bulging forehead and a minimal upper jaw.



Varying degrees of pugheadedness in 3 species of Atlantic coast fishes: (top) two bluefish; (middle) striped bass; (bottom) Atlantic cod.

NEW FACES

James Butler
Lab. Assistant
O.E./M. Rosenfeld
Swift Hse.; Ext. 437

William B. Dodge
Security Guard
Admn./A. Wessling
Smith Lobby; Ext. 251

Edwin F. Ford
Postdoct. Investigator
P.O./N. Fofonoff
Smith 201; Ext. 242

J. Michael Frawley
Radio Operator
Marine/J. Pike
CHAIN; Ext. 208

Richard C. Hayden
3rd Asst. Eng./rehire
Marine/J. Pike
CHAIN; Ext. 208

Gilbert C. Medeiros
Research Assistant
Chemistry/J. Farrington
Red. 3-10; Ext. 309/304

Barbara H. Nairn
Drafting Aide
Admn./D. Souza
Smith 205; Ext. 260/261

Kenneth F. Yasi
Lab. Assistant
G&G/R. Von Herzen
Big. 313F; Ext. 249

CATCH A PECULIAR FISH?

If you catch a fish with an abnormal head, a "wavy" back, or without fins call or write the New York Ocean Science Laboratory in Montauk, Long Island.

Scientists there want to know why more and more abnormal fish are being reported. They are concerned with the various types of skeletal deformities which exist, the species affected, and their distribution patterns.

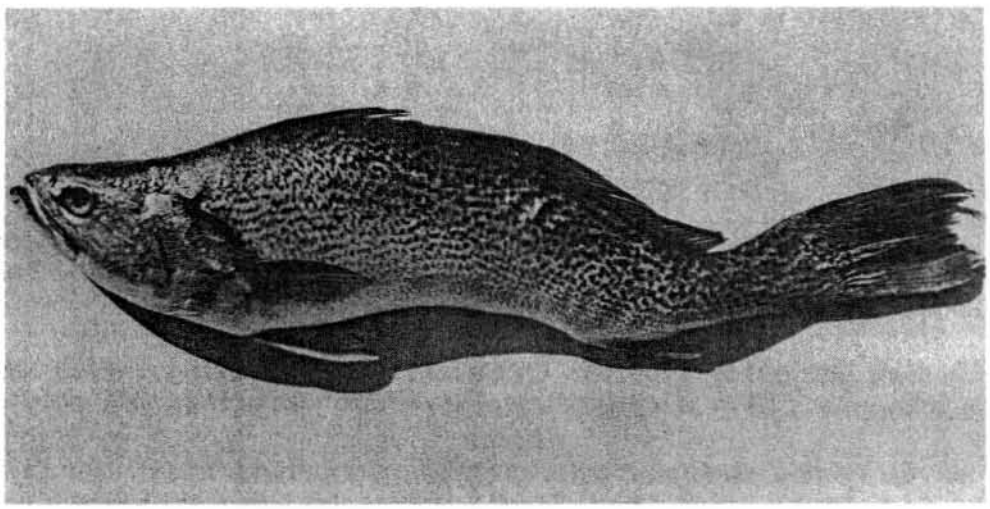
Although physically abnormal fish have been biological curiosities for many centuries, there has been an increase in the number of reports in recent years.

"This could be due to an increase in the number of deformed fish, or maybe fishermen are becoming more aware of such abnormalities, or both," the scientists said. "There are many types of abnormalities, but the most common and easily detected are wavy backs, pugheadedness, and anomalies of the fins such as reduced or additional numbers of fin rays, shortened or stubby rays, partial or complete loss of the pelvic complex, and missing fins."

As the scientists are anxious to document particular cases, they are asking fishermen to save abnormal fish. Ideally, they would like the fish alive in order to maintain and observe behavior in the laboratory. But a photo of the fish is the next best thing, along with data on the date and method of capture, location, and comments.

NYOSL researchers, reporting that written accounts of abnormal fish date back more than 400 years, said that in earlier days they were often classified in a confusing manner, grossly illustrated out of proportion, and reported as monsters.

The program started at NYOSL, along with seeking to determine what causes the abnormalities, will study distribution patterns and effects on fishes' habits.

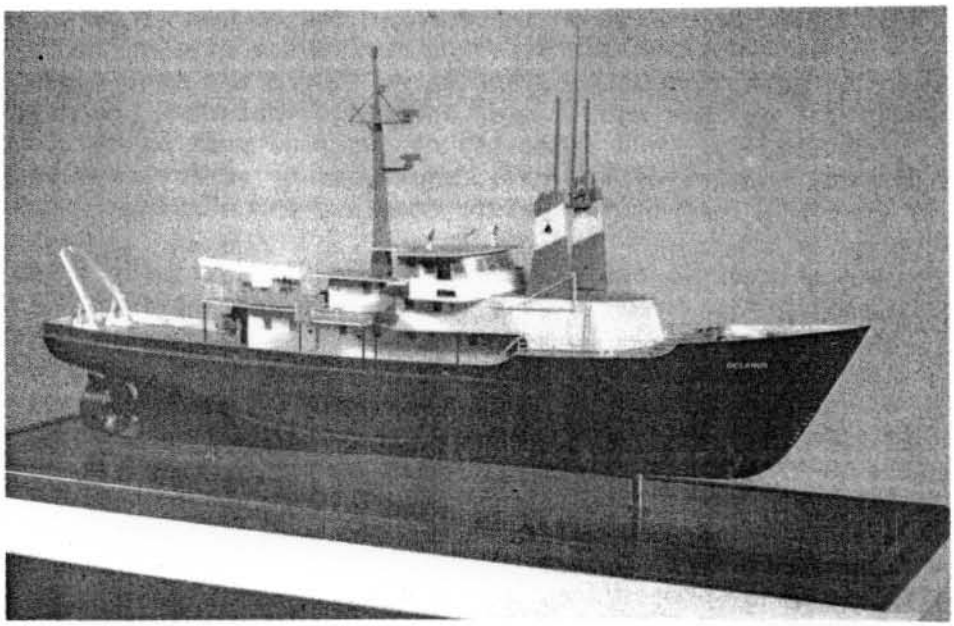


Severe case of spinal curvature (wavy back) in a weakfish

MINIATURE OCEANUS TO GO ON DISPLAY

A model of OCEANUS, built by the Boucher-Lewis Precision Model Company of New York, was delivered to the Institution during late February. It is planned for display in Smith Lobby soon, and will likely be shown at the Exhibit Center during the months of June, July, and August.

Proposals on the real OCEANUS are due from various shipyards in April, with an anticipated construction period of about a year and a half after the yard is selected.



The 1/8-scale ship model measures about 24 inches in length (1/8 inch=1 foot).

KNORR ARRIVING NEW YORK APRIL 2

KNORR will arrive in New York City, before returning to Woods Hole, on Monday April 2. The ship is expected to remain in New York for about two days.

During her brief stopover KNORR will host visiting United Nations delegates, with a reception planned for more than 250 people.

While in New York the ship will berth at South Side Pier 15 on the East River, near South Street Museum in Lower Manhattan. She is scheduled to return to Woods Hole on or about Friday, April 6.

FIRST FLARE FINDINGS REPORTED

In 1972 LULU played an important role in a three-month scientific investigation called Project FLARE (Florida Aquanaut Research Expedition), and last month a number of preliminary findings were announced by the Department of Commerce.

One basic question which the Project sought to answer was whether there were significant differences in the transmittance of solar radiation by water at different locations, and whether such differences were related to human activities. Results of the experiments indicate that changes in the amount of sunlight reaching coral reefs are controlled more by natural processes than by man-made pollution.

According to NOAA scientists, natural variations in turbidity of the water, caused by currents, are considerably larger than variations caused by human activities.

During Project FLARE, instruments that measure the amount of light striking a particular surface were used to gauge solar radiation reaching various depths down to 44 feet. The comparative studies were carried out at a location about three miles offshore from Miami Beach, and also at sites farther south in waters less polluted by man's activities.

"If man-made changes in turbidity of the water are present [in polluted waters], then they are so small compared to the naturally occurring variation in turbidity that they are undetectable with the present data sample," the scientists reported.

The fact that pollution somehow affects the reef is undisputed. The coral was found to be almost devoid of algae, and large portions of the reef are virtually dead. But the recent findings resulting from Project FLARE seem to indicate that the problem is not lack of sunshine.

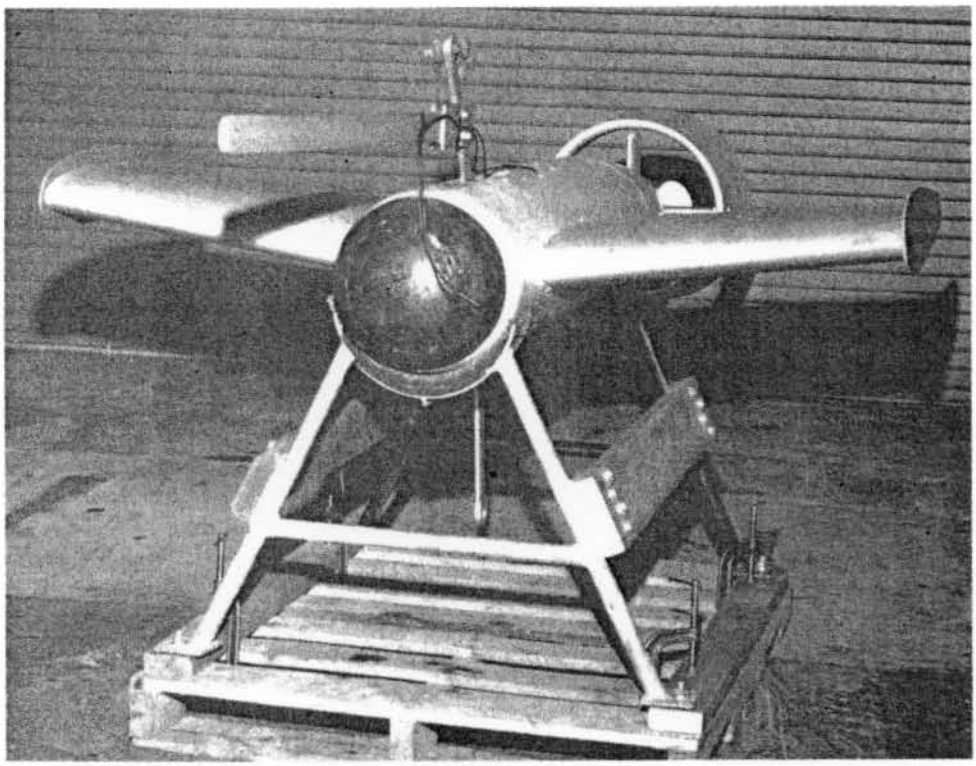
RUMFORD PRIZE GOES TO W.H.O.I. TRUSTEE

The American Academy of Arts and Sciences last month awarded its Rumford Prize - a gold and a silver medal together with a premium of $5,000 - to E. Bright Wilson, Professor of Chemistry at Harvard and a long-time Trustee of the Institution.

Wilson won the prize for his studies of microwave spectra and the structure of molecules.

The Rumford Premium was established by Count Rumford in 1796 to encourage research in the fields of heat and light. Previous winners include Enrico Fermi, biologist George Wald, and Hans Bethe.

W.H.O.I. ENGINEERS DESIGN A "FISH"



The 300-pound "fish" will be used during Project MODE.

A towed vehicle resembling an airplane has been designed and built by W.H.O.I. engineers Fritz Hess, Pete Kallio, and George Shepard. It is called the Towfish.

The Towfish is designed to remain at a constant depth, which is controlled by signals sent through a conducting tow cable from a surface ship. These signals activate a hydraulic system driven by the small propeller mounted in the fish's tail. An instrument package for measuring pressure, temperature, and conductivity attaches to the vehicle, and signals from these sensors are transmitted to the ship.

According to Fritz Hess, the vehicle is intended to be operable to depths of about 3,000 feet and at tow speeds of approximately five knots. It will be used by Eli Katz during the MODE work, primarily to map density surfaces in the interior of the ocean. Scheduled are several four to five-day tows.

The bright yellow Towfish, seen on the W.H.O.I. dock and in the shop areas recently, is almost seven feet long and weighs about 300 pounds. It will be incorporated into the data gathering system by Dick Nowak, Dave Mason, and Brian Bardsley of the Ocean Engineering Department.

NEW FUNDS FOR W.H.O.I. GEOLOGICAL COLLECTION

The institution has received grants totalling $49,000 from the National Science Foundation and the Office of Naval Research in support of a project for updating the W.H.O.I. Geological Collection. The project, which is under the direction of Dave Johnson and Alan Driscoll, will ensure that proper curatorial facilities are available to support W.H.O.I.'s expanding geological sampling programs, which employ both conventional techniques such as coring and dredging and new instrumentation like the Giant Corer.

The geological collection now contains approximately 1,200 cores, 8,000 sediment samples from the W.H.O.I.-U.S.G.S. continental shelf study, 300 dredge samples, and 100 rock samples collected by ALVIN. This material has been obtained primarily from expeditions within the past 15 years, and has recently been relocated in the new core storage facility at the DESC Building on Quissett Campus.

Under the new project, the cores are being split and photographed on a routine basis, and will be stored in sealed tubes. In addition, visual core descriptions are being made on standard lithologic log sheets, and smear slides will be prepared at intervals of one meter or less within each of the cores. The basic data for each geological sample - location, water depth, sample size, and type of material - is being computerized for purposes of rapid retrieval, and will be published as a W.H.O.I. blue cover report in mid-1973. Using these listings, scientists at the institution and elsewhere will be able to request descriptive information and sampling materials for their investigations.

The geological collection has in the past received support totalling $32,700 from the Ocean Industries Program.

BOOK ON ATLANTIC COMPILED BY INSTITUTION GEOLOGISTS

Ken Emery and Elazar Uchupi (Geology and Geophysics) have recently compiled a book entitled Western North Atlantic Ocean: Topography, Rocks, Structure, Water, Life, and Sediments.

A compendium of discoveries in geology, physical oceanography and marine biology, the book covers an area from the eastern Gulf of Mexico and the Caribbean to the Arctic. It discusses regions favorable to oil and gas occurrence and describes mineral deposits found on the ocean floor, as well as the fisheries and marine life found in these waters and on the sea bottom.

Starting with the early discoveries of North America by the Vikings and Columbus, the book reviews the history of exploration and early mapping of the Atlantic coast, and continues through investigations done with airborne radar and satellite photography. It contains discussions of ocean currents, water temperature, tidal action, and shore conditions.

Seated behind the table is the Women's Study Committee appointed by Dr. Fye: (from left to right) Frederica Valois, Mary McGilvray,Jan Battee, Anne Riley, and Kathy Busa (Photos: Susan Fletcher).

WOMEN'S MEETINGS HELD LAST MONTH

Women employees met four times during February to discuss conditions for women at the Institution. Of a total of 162 female employees, 135 were present at the first meeting, 100 were at the second, and about 80 attended both the third and fourth meetings.

According to Mary McGilvray, chairman of the Women's Study Committee appointed by Dr. Fye, an informal report on the issues discussed at the meetings has already been presented to the Director.

The report contained, among its recommendations, the names of six women elected to serve on a continuing Women's Committee. The six, who were chosen by popular vote from 24 volunteers and endorsed by Dr. Fye, are: Kathy Busa, Emily Evans, Linda Graham, Carolyn Miller, Anne Riley, and Chris Wooding.

The entire report of the Women's Study Committee will be distributed probably this week.

Meeting last month in Smith Conference Room