



MEETINGS:

Journal Club - 8 p.m. - L. O. Conference Room

January 21 - "The 2,000-meter Submarine"

E. Hays, J. Mavor, W. Rainnie, A. Vine

January 28 - "A Proposed Evolution of Some Muscle Systems in the Crustacea"

R. Hessler

Peanut Butter Club - Noon - MBL Club

January 18 - Open meeting

January 25 - To be announced

SHIP'S NEWS:

ATLANTIS - Winter Lay-up, Riverside Yacht Yard Pier, Jacksonville, Florida

BEAR - Laid up

CHAIN - Leaving January 21 on EQUALANT 1 Cruise with following itinerary:

St. Thomas, V. I.; Recife, Brazil; Paramaribo, Surinam; Port of Spain, Trinidad; St. Thomas, V. I., arriving Woods Hole May 20. Work schedule includes setting up of buoys, geological sampling, collection of marine invertebrates, coring, dredging, bathymetry, and water sampling. Dr. G. D. Nicholls, Senior Lecturer, Dept. of Geology, University of Manchester, England and Mr. Geoffrey Thompson, PhD. Candidate, also of the University of Manchester, will join our scientific party.

CRAWFORD - Left Tuesday for Cape Verde Islands. Will go on to work with CHAIN on EQUALANT 1 Cruise.

GOSNOLD - Left Jan. 9 with Frank Mather and Marty Bartlett for eighteen days of fishing by long line for migratory game fish with particular interest in the bluefin tuna in the Shelf waters at Atlantis Canyon, Hudson Canyon, Baltimore Canyon and thence off the Shelf to the Gulf Stream with scheduled arrival at Norfolk today where Professor William W. Hassler of the Department of Zoology at North Carolina State College and Mr. Mark Ras-kovich of the American Museum of Natural History will join the scientific party for the remainder of the voyage on the return run to Woods Hole.

ATLANTIS II - Bay trial held Monday, January 14 reported successful. Several sea trials are planned. Watch for special announcement of arrival in Woods Hole.

GRANTS:

The following National Science Foundation Grants have been awarded:

\$45,700 for support of research entitled "Biological Role of Ammonia in the Sea" under direction of Ralph F. Vaccaro, for a period of approximately three years.....

\$7,400 for support of a "Cooperative College-School Science Program" to be held at Woods Hole Oceanographic Institution; Tabor Academy, Marion, Mass.; St. George's School, Newport, Rhode Island and Moses Brown School, Providence, Rhode Island under the direction of Charles S. Yentsch \$51,200 for support of research entitled "Comparative Environmental Physiology of Marine Planktonic Algae" under direction

WHOI PAPERS:

Contribution numbers have been assigned as follows:

- 1302 - J. Kanwisher, Gas exchange of shallow marine sediments. The Environmental Chemistry of Marine Sediments, Proceedings of a Symposium held at the University of Rhode Island on January 13, 1962.
- 1303 - E. M. Hulburt, The distribution of phytoplankton in coastal waters of Venezuela.
- 1304 - Friedman, Irving, A. C. Redfield, B. Schoen and J. Harris, The variation of the deuterium content of natural waters in the hydrologic cycle.
- 1305 - J. E. G. Raymond, and R. S. Miller, Production of marine zooplankton with fertilization in an enclosed body of sea water.
- 1306 - H. L. Burstyn, Theory and practice in man's knowledge of the tides.
- 1307 - C. S. Yentsch, Primary production.
- 1308 - A. H. Woodcock, D. C. Blanchard and C.G.H. Rooth, Salt-induced convection and clouds.
- 1309 - R. G. E. Murray, and S. W. Watson, An organelle confined within the cell wall of Nitrosocystis oceanus.
- 1310 - G. W. Mead, Observations on fishes caught over the anoxic waters of the Cariaco Trench, Venezuela.
- 1311 - G. Volkmann, Deep current observations in the western North Atlantic.
- 1312 - K. O. Emery, Oceanographic factors in accumulation of petroleum.
- 1313 - J. M. Moulton, Acoustic orientation of marine fishes and invertebrates.
- 1314 - E. H. Schroeder, North Atlantic temperature at a depth of 200 meters.
- 1315 - E. M. Hulburt, The diversity of phytoplankton populations in oceanic, coastal and estuarine regions.
- 1316 - G. Volkmann, Deep-current measurements using neutrally buoyant floats.
- 1317 - J. H. Steele, J. R. Barrett and L. V. Worthington, Deep Currents South of Iceland.
- 1318 - J. S. Malkus, Tropical rain induced by a small natural heat source.
- 1319 - R. Pratt, Great Meteor Seamount.
- 1320 - W. E. Schevill, and W. A. Watkins, Whale and porpoise voices. (Will not be included in Collected Reprints. A private printing complete with phonograph record.)
- 1321 - C. Rooth, The effect of weak mesoscale circulations on the distribution of marine salt aerosols.
- 1322 - A. R. Miller, Dry squall in the Mediterranean Sea.
- 1323 - A. R. Miller, The oxygen question: the solubility of oxygen in sea water.
- 1324 - W. S. Von Arx, Discussion of F. D. Braddon's paper "Ship inertial navigation".
- 1325 - W. S. Von Arx, Measurement of subsurface currents, by time integration of rudder angles used in steering a submarine on a straight course.
- 1326 - B. A. Warren, Topographic influences on the path of the Gulf Stream.
- 1327 - G. Veronis, On inertially-controlled flow patterns in a B-plane ocean.
- 1328 - G. Veronis, On the approximations involved in transforming the equations of motion from a spherical surface to the B-plane.
- 1329 - R. M. Pratt, Bottom currents on the Blake Plateau.
- 1330 - R. G. Stevens, and L. F. Shodin, A fast response cup anemometer for measurement of turbulent wind over the ocean.
- 1331 - J. L. Squires, Jr., and F. J. Mather, III, Observations on the commercial potential of tuna in the oceanic northeast Atlantic.
- 1332 - G. D. Grice, Two new species of calanoid copepods from the Galapagos Islands with remarks on the identity of three other species.
- 1333 - E. M. Hulburt, The occurrence of Skeletonema costatum in the Gulf Stream and Sargasso Sea.

of Robert R. L. Guillard for a period of approximately three years..... \$71,000 for support of research entitled "Energy Requirements of Marine Organisms and Their Adaptation to Environmental Changes" under direction of John M. Teal for a period of approximately three years.... \$103,700 for support of research entitled "Biological Aspects of Oceanic Deep Scattering Layers" under direction of Richard H. Backus for a period of approximately three years.... \$102,700 for support of research entitled "Studies of Deep-Sea and Shallow Water Benthos" under direction of Howard L. Sanders, for a period of approximately three years.... \$150,000 for support of research entitled "Studies in the Indian Ocean" under direction of Dr. Paul M. Fye for a period of approximately one year.

NEW EMPLOYEES:

Edward Baker, New Bedford, Seaman on ATLANTIS II... Peter H. Koske, Kiel, Germany, Visiting Investigator, working with Dr. Dayton E. Carritt... Dr. William S. Maddux, Trenton, N.J., post-doctoral fellow studying factors affecting primary production in the sea with Dr. John W. Kanwisher... Woolcott Smith, West Tisbury, computer programming... Tommy Ames, Wollaston, Messman on CHAIN... David C. Callahan, Worcester, Second Assistant Engineer on ATLANTIS II... Samuel Vincent, West Falmouth, First Mate on GOSNOLD... James S. Pine, Jr., East Falmouth, Messman on CHAIN... Gerald A. Efinger, Falmouth, Seaman on CHAIN.

CELEBRITY TAGS FISHES:

Frank Mather has received a letter from Bing Crosby stating that he had tagged and released 5 striped marlin off Baja, California... using WHOI tags, of course!

ALIEN REGISTRATION:

All aliens are required by U. S. Federal law to register during the month of January. Forms are available at any U. S. Post Office.

WANTED:

Marine scientists proficient in foreign languages are needed by the United Nations and the National Academy of Sciences to act as interpreters in various scheduled conferences. Prime need is for a scientist fluent in Spanish. For further information contact John Zeigler on Ext. 521.

ALBATROSS IV ... The Fisheries' vessel... is still being fitted out with equipment. Will make one or two day trials. First cruise is tentatively set for January 29.

PEANUT BUTTER CLUB VISITORS:

Cleone Bujalski (receptionist L. O. Bldg) requests that visitors be reported to her by 10 a.m. Friday morning so that arrangements can be made for their lunches.

CONGRATULATIONS:

To Bill and Ann (Hughes) Smith, proud parents of a daughter born last Saturday, January 13.

DEEP SEA RESEARCH VEHICLE PROJECT... welcomes Orrin (Tex) Swinhart, formerly on ATLANTIS and Henry H. (Sandy) Learnard.

WHOI PAPERS (con't)

- 1334 - D. W. Menzel, and J. H. Ryther, The composition and distribution of particulate organic matter and its relation to chlorophyll and C14 assimilation in the western North Atlantic.
- 1335 - D. W. Menzel, E. M. Hulburt, and J. H. Ryther, The effects of enriching Sargasso Sea water on the production and species of the phytoplankton.
- 1336 - R. R. Hessler, Mystocarida. Treatise on Invertebrate Paleontology.
- 1337 - R. R. Hessler, Cephalocarida. Treatise on Invertebrate Paleontology.
- 1338 - R. R. Hessler, Branchiura. Treatise on Invertebrate Paleontology.
- 1339 - R. R. Hessler, Superorder Pancarida Siewing, 1957. Treatise on Invertebrate Paleontology.
- 1340 - R. R. Hessler, Order Euphausiacea Boas, 1883. Treatise on Invertebrate Paleontology.
- 1341 - R. S. Scheltema, and A. H. Scheltema, Pelagic larvae of New England intertidal gastropods.
- 1342 - R. A. Cone, N. S. Neidell and K. E. Kenyon, Studies of the deep-water sediments in the area of Hardangerfjrd, Norway, with the continuous seismic profiler.
- 1343 - L. C. Bennett, and S. M. Savin, Investigation of part of the Hardangerfjrd, Norway using the continuous seismic profiler.
- 1344 - E. L. Mills, Bird observation between Massachusetts and Bermuda, 1961-62.
- 1345 - C. S. Yentsch, and Carol A. Reichert, The effects of prolonged darkness on photosynthesis, respiration and chlorophyll in the marine flagellate, Dunaliella euchlora.
