News of Science

Stagnant Deep-Sea Trench to be Studied

Research workers from the Woods Hole Oceanographic Institution recently left Woods Hole in the research vessel *Atlantis* to study a trench in the Caribbean Sea where the deep water is not in motion. Called the Cariaco Trench, the 4680-foot-deep basin is located near the coast of Venezuela. Shut off from the rest of the sea by a sill that permits no ocean water to enter from depths greater than about 500 feet, the trench contains stagnant water in which there is no free oxygen. Similar areas have been known to exist in the Black Sea and in some fjords but had never before been encountered in the open sea until 3 years ago, when the *Atlantis* research team reported the situation in the Cariaco Trench.

Of particular interest is the fact that petroleum is thought to have been laid down under similar anaerobic conditions. Higher forms of life are not possible, and the organic material sinking from surface waters is decomposed by bacteria; a layer of organic material is thus deposited on the bottom of the trench, and inorganic compounds which cannot return to the surface to aid plant growth are released.

Forty-foot cores of sediment will be obtained from the bottom of the trench under the direction of submarine geologist John M. Zeigler, while chemical oceanographer Francis A. Richards will be in charge of the chemical studies of the ocean water. The cruise is supported by funds from the Office of Naval Research. An underwater camera capable of making three-dimensional photographs of the bottom will be used by photographer David M. Owen. The scattering of light in the sea will be measured by David H. Shonting, and Vaughan T. Bowen will obtain large quantities of sea water from various depths for analysis of radioactive elements.

A bottom probe designed to measure the heat-flow from the earth's interior through the bottom sediment also will be tried out by Richard G. Leahy. This probe will be taken next spring to the IGY arctic ice-floe station A. In addition, a continuous profile of the ocean bottom's configuration will be made with the aid of an echo-sounder recorder.

Finally, workers in a fishing program under Herman Tasha will set out a Japanese long-line containing 80 hooks at mid-depths in various places in the Caribbean and in the Windward Passage between Cuba and Hispaniola. Large quantities of tuna have recently been reported off Venezuela. A large deep-freeze has been placed on the deck of the *Atlantis* to bring specimens back to Woods Hole for identification.

Frank J. Mather of the institution's game fish program believes that some of the bluefin tuna reported from the area may turn out to be bigeye tuna. The latter species was not known west of the Azores until 1955, when Mather and H. Bullis identified a bigeye in the Caribbean. Since that time the species has also been identified near Miami and at Ocean City, Md.

The *Atlantis* will return to Woods Hole on 2 December, when she will immediately be made ready for a 7-month cruise to the South Atlantic Ocean and the Indian Ocean under the IGY program.

Nominations for Nutrition Awards

The American Institute of Nutrition invites nominations for the 1958 Borden Award in Nutrition and the 1958 Osborne and Mendel Award for research in nutrition. Nominations may be made by anyone and must be submitted *by 1 January 1958* to the chairman of the appropriate nominating committee. Membership in the American Institute of Nutrition is not a requirement for eligibility, and there is no limitation as to age. For full details about the procedure for nomination, see the September and October issues of the *Journal of Nutrition*.

Radioactive Fallout on Farmland

Farm land at Compton in Berkshire, England, was made temporarily radioactive recently to simulate contamination from a nuclear bomb explosion; farm hands carried out their work in respirators and suits of polythene. The whole area was sealed off with a chain-link fence, and even tractors and farm implements were fitted with plastic covers.

The tests were designed to find out how much radioactive strontium would be taken up from the soil by various crops sown on land that had been subject to radioactive fallout, and what different methods of cultivation affected the amount taken up. The trials, which took place at the Agricultural Research Council Field Station, involved the spraying of the ground (chalk soil) with radioactive strontium 89.

The results published so far suggest that where the soil has a marked calcium deficiency, liming can reduce a plant's absorption of strontium, but that, apart from this, little can be done to bring contaminated land into safe use quickly. Some advantage, however, might be gained by choosing crops less affected by radioactivity, and there is a chance that uptake might be reduced where shallow-rooted crops are grown on soils that have been deep-plowed in one operation. Similar experiments are to be conducted at five other agricultural research centers, each having a different type of soil.

AAUW International Fellowships

The American Association of University Women offers a number of $2000 international fellowships for the academic year 1958–59. They are unrestricted, but the candidate must use them in a country other than his own. The awards are open to women who have completed residence requirements for the doctorate before 1 July 1958. Application forms may be obtained from Miss Mary H. Smith, AAUW Fellowship Program, 1634 I St., NW, Washington, D.C. The deadline date for submission of applications is *15 December*.

Eklund to Head Second International Conference on Atomic Energy

Sigvard A. Eklund, director of research for the Swedish Atomic Energy Company, Stockholm, has been named secretary-general of the second International Conference on the Peaceful Uses of Atomic Energy that is to held under United Nations auspices in Geneva, Switzerland, 1–13 September 1958. Eklund arrived in New York recently, for in his capacity as conference secretary-general, he will serve as an officer of the United Nations Secretariat.

Plans for the second conference have been made by U.N. Secretary-General Dag Hammarskjold and the Advisory Committee on the Peaceful Uses of