motion of improved practices in the heavily grazed grasslands has been a major concern of the Food and Agriculture Organization in cooperation with the member countries through special working parties on pasture and fodder developments. FAO also has sought to direct constructive attention to the problems of drainage and salt accumulation in irrigated areas throughout the Middle East, problems that threaten the future stability of agriculture in large areas [FAO, *Report on Near East Regional Meeting on Irrigation and Drainage Practices* (1954)]. Success along these lines will require patient and knowing education aimed at applying present scientific knowledge of grazing and irrigated lands to local situations. Drastic readjustments in land use, land tenure, and community organization will be necessary in many instances. However, even with the most sensitive and effective educational work, there will remain major questions that will be solved only as a result of new research in the field. Thus, the UNESCO encouragement of basic investigations by well-trained staffs should lay the groundwork for extension and development activities a decade later.

In harmony with this effort to encourage some consistent government attention to basic research on problems of aridity in the zone between Cairo and New Delhi, the advisory committee has recommended early publication on an appropriately large scale of maps showing the water budget. Investigators of all aspects of arid lands have recognized the need for understanding water surplus or water deficit. These are covered in a project recently completed by Carter at the Laboratory of Climatology [D. B. Carter, "Climates of Africa and India according to Thornthwaite's 1948 classification," *Lab. Climatol. Publs.* **7**, 4 (1954)].

Financing of this UNESCO program beyond 1956 will depend on authorization from the general conference to be held next November. The arid zone work is listed as one of two "major projects" to be reviewed in the budget at that time. The tentative budget was examined by the executive board last November and now is before the member governments for consideration. At the meeting of the United States National Commission for UNESCO last autumn, there was extensive discussion of the arid zone activities, and there was some talk of organizing a national group or committee to deal with these activities. In a few countries, such as Mexico, this already has been done.

Any effort at international cooperation in encouraging research runs the risk of setting up top-heavy organization. There also is risk of loading the program so fully upon government agencies and, therefore, intergovernmental agreements that the easy, free movement of thought between individual scientific workers or scientific societies is impeded. So far UNESCO seems to have avoided these hazards, just as it has avoided becoming an operating agency on arid zone research. New ideas, fresh illumination, perfected techniques come from men working alone or in small groups. At best, an international organization can make it easier for them to communicate, a good deal easier to find official recognition and support, and much easier to move their findings into the arena of action.

GILBERT F. WHITE
Department of Geography,
University of Chicago

New Marine Biological Laboratory in Brazil

A new marine biological laboratory, the Laboratorio de Biologia Marinha de São Sebastião, was inaugurated last September at the beach of Segredo, 6 kilometers south of São Sebastião, State of São Paulo, Brazil. The laboratory faces the channel between the continent and the mountainous island of São Sebastião. The first main building is equipped with electricity, gas, and tapwater, despite the fact that the whole laboratory is in close proximity to an almost untouched tropical forest on a small hill nearby. Another building was built as living quarters and mess hall for guest investigators and their families.

Segredo Beach borders a small bay limited at both ends by small rocky hills; the beach itself is covered with fine white sand. Being an almost untouched place, it still exhibits the tropical fauna and flora, marine as well as terrestrial, at their best. Its position is not far from the point where the island of São Sebastião southwards comes to an end; this makes available for the laboratory a great variety of biotopes: the channel, the open sea, and rocky and sandy beaches washed by calm as well as rough seas. The main building has a short access to the sea and was built approximately 4 meters from the maximum high tide.

The Laboratorio De Biologia Marinha de São Sebastião can be reached easily by ship (two weekly trips from Santos) or by car or bus (two daily trips, 6 hours from São Paulo). It is operated by a foundation (Fundação de Biologia Marinha), of which the University of São Paulo and its Departamento de Fisiologia Geral e Animal are founding members. It was built partially from grants made available by the University of São Paulo, the National Research Council of Brazil, and the Rockefeller Foundation. It is intended to be a place where Brazilians and foreigners who are interested in marine biology can find adequate means of research. Training courses for graduate students in biological sciences will be part of future laboratory activities. For more information write Prof. Paulo Sawaya, Caixa Postal 2926, São Paulo, Brazil.

PAULO SAWAYA
University of São Paulo

AAAS Socio-Psychological Prize

Through the generosity of an anonymous donor, the AAAS offers an annual prize of $1000 for a meritorious essay in socio-psychological inquiry. The conditions of competition for the prize to be awarded at the 1956 annual meeting, New York, 26–31 Dec., are as follows.

1) The contribution should further the comprehension of the psychological-social-cultural behavior of human beings —the relationships of these hyphenated words being an essential part of the inquiry. Whether the contributor considers himself to be an anthropologist, a psychologist, a sociologist, or a member of some other group is unimportant as long as his essay deals with basic observation and construction in the area variously known as social process, group behavior, or interpersonal behavior. For ease of reference in the rest of this statement, this general area will be called "social behavior."

2) The prize is offered to encourage studies and analyses of social behavior based on explicitly stated assumptions or postulates, which lead to testable conclusions or deductions. In other words, it is a prize intended to encourage in social inquiry the development and application of dependable methodology analogous to the methods that have proved so fruitful in the natural sciences. This is not to state that the methods of any of the natural sciences are to be transferred without change to the study of social behavior, but rather that the development of a science of social behavior is fostered through observation guided by explicit postulates, which in turn are firmly grounded on prior observations. It may be taken for granted that such postulates will include a spatial-temporal framework for the inquiry. It may properly be added that the essay should foster liberation from philosophic-academic conventions and from dogmatic boundaries between different disciplines.

3) Hitherto unpublished manuscripts are eligible, as are manuscripts that have been published since 1 Jan. 1955. Entries may be of any length, but each should present a completed analysis of a problem, the relevant data, and an interpretation of the data in terms of the postulates with which the study began.

Preference will be given to manuscripts not over 50,000 words in length. Entries may be submitted by the author himself or by another person on his behalf. Each entry should be accompanied by four copies of an abstract not to exceed 1200 words in length.

4) Entries will be judged by a committee of three persons considered well qualified to judge material in this field. The judges will be selected by a management committee consisting of the chairman and the secretary of Section K and the executive officer of AAAS. The committee of judges reserves the right to withhold the prize if no worthy essay is submitted.

5) Entries should be sent to Dael Wolfle, Executive Officer, American Association for the Advancement of Science, 1515 Massachusetts Avenue, NW, Washington 5, D.C. Entries should be submitted in quadruplicate. The name of the author should not appear anywhere on the entry itself but should be enclosed on a separate sheet of paper which also gives the author's address and the title of his essay. To be eligible for consideration for the prize that will be awarded at the 1956 annual meeting of the Association, entries must be received *not later than 1 Sept. 1956.*

Mammary Carcinomas in Mice

Alfred Taylor and Roger J. Williams have reported [*Proc. Natl. Acad. Sci. U.S.* **42**, 54 (1956)] a method of control of C3H mouse mammary carcinoma when grown in the yolk sacs of developing chick eggs. They pointed out that a specific tumor grown under these conditions would not be expected to behave in the same way in its normal host and that any success in controlling cancerous growth in their experiments could not be carried over unchanged to the control of cancer in man.

In one control series of eggs inoculated with mouse tumors, 57 out of 58 of the embryos were dead by the sixteenth day of incubation; the one remaining alive bore a large tumor. In a parallel experimental series, treated as described in a subsequent paragraph, out of 140 similarly inoculated eggs, 86 remained alive on the sixteenth day. Of these, 81 contained traces of what may have been viable tumor tissue and five showed no observable tumor tissue. The effect of the treatment had been to reduce the tumor growth, which in untreated eggs is fairly uniform. Tumors in untreated developing chick egg yolk sacs grow rapidly; for example, they double in size from the eleventh to twelfth day of incubation.

The treatment consisted in the combination of an elevated temperature of incubation (40°C instead of the usual 37.2°C), which had previously been found to be effective in slowing tumor growth, and the application of chemicals that by themselves showed some inhibitory effect. The chemicals used were aminopterin (4-aminopteroylglutamic acid) and triethylenemelamine. In a series in which the former compound was used, tumor growth for a 24-hour period at 37.2°C was 62 percent as great as it was in the control eggs; at 40°C in the same experiment, the tumors decreased in size during the test period.

Triethylenemelamine was more effective. In similar experiments, the tumors in treated eggs at 37.2°C averaged only 19 percent as large as those of the controls; those at 40°C either failed to grow or regressed in size.—G. DuS.

News Briefs

■ The design and development by Argonne National Laboratory of a multi-billion-volt particle accelerator to be built at its DuPage County site has been authorized by the U.S. Atomic Energy Commission. The Argonne machine, based on a design conceived by the laboratory's staff of scientists, will greatly ease the usual problems of construction. It will permit the rapid attainment at reasonable cost of an energy greatly in excess of that of any machine now in operation.

■ The Salk vaccine is helping win the battle against poliomyelitis in Canada, reported Martin, the Minister of National Health and Welfare, in a reply tabled last month in the House of Commons. He said:

"The use of the Salk vaccine in Canada during 1955 was the most ambitious mass immunization program ever undertaken in this country. It also provided an opportunity for carrying out a nationwide epidemiological study, the results of which have demonstrated the safety and effectiveness of the vaccine as an immunizing agent. In addition, the whole program offered an outstanding example of cooperation between federal, provincial, and local health authorities and served to bring home to the people of Canada in dramatic fashion the value of public health activities generally."

■ Approval of the sale of 129 tons of heavy water to six nations for assistance in their peacetime applications of atomic energy has been announced by the U.S. Atomic Energy Commission. Sixteen tons of the material have been shipped abroad.

The initial consignments of 11 tons to Great Britain and 5 to France were manufactured at the commission's plant at Dana, Ind. Heavy water also is produced at its facilities in South Carolina. All sales are at the price of $28 per pound announced 8 Aug. 1955.

The total amounts (in tons) approved for sale are as follows: United Kingdom, 50; France, 30; India, 21; Australia, 11; Italy, 10, and Switzerland, up to 7, with 2 tons to be delivered by August 1957.

Scientists in the News

The Kimber Genetics medal of the National Academy of Sciences for 1956 will be presented to SEWALL WRIGHT, professor of genetics at the University of Wisconsin, during the annual meeting of the academy, 23–25 Apr. 1956. Wright has made important contributions in both theoretical and experimental genetics.

The Kimber Genetics award of the academy was established in 1954 by the Kimber Farms Foundation to provide recognition of great achievement in the science of genetics. In selecting recipients for the Kimber award, the academy has the cooperation of the American Association for the Advancement of Science and the Genetics Society of America.

JOHN R. HANSBROUGH of the Northeastern Forest Experiment Station has been named chief of the Division of Forest Disease Research at Washington, D.C., the U.S. Forest Service announced. He succeeds Lee M. Hutchins, who retired 31 Dec. 1955.

WILLARD F. LIBBY, Commissioner of the U.S. Atomic Energy Commission, will be presented with the medal for scientific achievement of the City College of New York Chemistry Alumni Association on 27 April. Libby will deliver the association's eighth bicentennial science lecture on "Peaceful uses of atomic energy."

LOUIS PILLEMER, professor of biochemistry at Western Reserve University, delivered the fifth R. E. Dyer lecture at the National Institutes of Health. He spoke on "The properdin system." Pillemer and his colleagues identified a new blood protein, properdin or "the destroyer," in natural immunity that may prove to be important in radiation sickness, shock, and experimental infections.

BEN PECKHAM, faculty member at the Northwestern University Medical School, will become professor and chairman of the department of obstetrics and gynecology at the University of Wisconsin Medical School on 1 May.