

that nobody really knows. The U.S. Office of Education regularly issues a fairly detailed compilation of what other federal agencies are doing about education, but, according to people in the Office of Education, a number of agencies look askance at its surveys. The reasons for this, says the Office of Education, are that (i) the Office does not rate high enough in the federal hierarchy to command the attention of all other agencies and (ii) a number of agencies are suspicious of the Office of Education's motives, possibly viewing a request for information as the first step toward aggrandizement. The Administration's annual budget report is of little assistance, since agencies frequently have considerable discretion on the use of funds, and money may be going into a fellowship program or an in-service training program without the expenditures specifically listed in the budget.

Whatever the amount of federal aid to education—whether in scholarships, fellowships, research contracts, or otherwise—the money involved is widely thought to bring considerable pressure to bear on many parts of the nation's educational system. For example, the abundance of federal money for graduate science studies makes a poor relation of many humanities departments, which receive scarcely any direct federal support; inadequate reimbursement for the indirect costs of government research diverts university funds that might have gone elsewhere; a variety of federal agencies fish in the same manpower pool, offering stipends that vary by several thousand dollars, without any regard for a broad view of the nation's specialized manpower needs.

A comprehensive survey of federal aid to education, from elementary schools at Air Force bases through fellowships in physics, is now being made by the House Education and Labor Committee. The survey, under the direction of Rep. Edith Green, arose from the pique of Chairman Adam Clayton Powell when he reportedly discovered that education was being legislated in virtually every House committee, without any committee showing very much interest in the activities of its neighbors. The survey is expected to be completed early next year, and it should provide for the first time a good picture of the present patchwork approach on federal aid to education.—D.S.G.

Announcements

An **International Institute of Volcanological Research** has been established in Sicily as a joint project of Italy's Instituto di Vulcanologia (IV), the Centre National de Volcanologie (CNV) in Brussels, and the International Association of Volcanology. The institute, headed by A. Rittman, director of the IV, was formed partly as a matter of convenience between Belgian and Italian interests: Belgium, since loss of the Congo, no longer has active volcanoes to study although CNV funds for volcanological research still exist; Italy, however, has several active and inactive volcanoes, but the IV lacked even the necessary funds to cover administrative expenses during 1960 and 1961.

Students or visiting investigators with self-supported programs are invited to use the institute's facilities, which include specialized equipment and two field stations located on Mount Etna. (IIVR, Corso Italia 55, Catania, Sicily)

The American Phytopathological Society has released summarized results of 1961 **fungicide and nematocide testing projects**. Information on composition and sources of products available for testing is included in the report. (A. B. Groves, Winchester Fruit Research Laboratory, 2500 Valley Ave., Winchester, Va. \$1)

A manual on the use of **computers in biomedicine** has been published by the University of California (Los Angeles). The 200-page book presents various categories of package programming, including regression, multivariate analysis, tabulating, screening and plotting, and time series analysis. (Student Store, UCLA, 308 Westward Blvd., Los Angeles 24. \$3.75)

Meeting Notes

The first annual summer seminar on **alpine tundra ecology** will take place from 25 to 30 June at Estes Park, Colo. Sessions, limited to 40 participants, will be devoted to alpine environment, history of the flora, plant functions in extreme environments, and fauna and vegetation ecology. Registration fee is \$10. (Bettie Willard, Institute of Arctic and Alpine Research, Box 1258, Estes Park)

A conference on the design of **prosthetic communication machines** will be held on 16 May in New York, to encourage the development of a series of talking and writing machines for paralytics. The conference will cover an evaluation of particular patients' requirements, and specifications and engineering-design proposals for components or complete systems. (Carl Berkley, Foundation for Medical Technology, 2 E. 63 St., New York 21)

Papers and scientific exhibits are invited for presentation at the 1962 **International Symposium on Space Technology and Science**, to be held in Tokyo from 27 to 31 August. Deadlines: 10 June (titles); 10 July (100-word abstracts). (Fumio Tamaki, Institute of Industrial Science, University of Tokyo, Shin-Ryudo-cho 10, Minato-ku, Tokyo)

The University of Mississippi is sponsoring a conference on **industrial uses of radioisotopes**, to be held on the campus from 6 to 8 May. An accompanying exhibit will consist of equipment adapted for such uses and for radiation detection and measurement. (Department of Conferences and Institutes, University of Mississippi, University)

The National Science Foundation is sponsoring a summer conference for college teachers of the **history of mathematics**, to be held from 25 June to 20 July in Ann Arbor, Mich. The purpose of the conference is to provide experience with source materials and research procedures as well as background study in the field. Deadline for applications: 1 May. (Phillip S. Jones, Department of Mathematics, University of Michigan, Ann Arbor)

An international symposium on **food protection** will be held from 10 to 12 May at Iowa State University. Discussion topics will cover chemicals in foods, significance of various microorganisms in food products, bacterial toxins, antioxidants, animal growth regulators, and other areas related to food safety. (J. C. Ayres, Department of Dairy and Food Industry, Iowa State University, Ames)

Papers are being solicited for presentation at the 15th annual conference on **Engineering in Medicine and Biology**, to be held in Chicago from 4 to 7 November. Deadlines: 1 June (50-

word abstracts); *1 August* (900-word digest manuscripts). (Program Committee, P.O. Box 1475, Evanston, Ill.)

A conference on environmental control of **fossil and protobionta morphology** will be held at the New York Academy of Sciences from 30 April to 1 May. (Rainer Berger, Lockheed Aircraft Corp., California Division, Burbank, Calif.)

Courses

A summer research-training program in **fertilization mechanisms and gamete physiology** will be offered to pre- and postdoctorals by the Marine Biological Laboratory, Woods Hole, Mass. Deadline for receipt of applications: *1 May*. (Charles B. Metz, Institute for Space Biosciences, Florida State University, Tallahassee)

The following **summer courses** will be held during July at Massachusetts Institute of Technology:

Biological servomechanisms (9–20

July) will cover the general theory of linear and nonlinear dynamic feedback systems, and the problem of modeling biological systems and interpreting their behavior. Experimental demonstration sessions will be included.

Scientific and engineering uses of high-speed photographic measurement techniques (16–20 July) will cover pulsed stroboscopic lighting, optical high-speed cameras, Kerr cells, Faraday shutters, and image converters. Participants will have an opportunity to operate a variety of devices used in the field. (Summer Session Office, Room 7–103, MIT, Cambridge 39)

Films

Chlorpromazine in the Treatment of Psychiatric Disorders; 30 minutes, black and white, free loan; professional audiences only. Reviews 17 case histories illustrating the response of psychotic patients to chlorpromazine (“Thorazine”) therapy. Ten patients are interviewed before and during treatment, with concealed cameras and

microphones. Includes summary of results achieved in schizophrenic and senile patients. (Medical Film Center, Smith Kline & French Laboratories, 1500 Spring Garden St., Philadelphia 1, Pa.)

The Alder Woodwasp and Its Insect Enemies; 27 minutes, color; purchase price, \$240; high-school and university level. Shows the biology of the Alder Woodwasp (*Xiphydria camelus*) and the four hymenopterous parasites that attack it in Britain. Includes detailed close-ups of the hymenopterous ovipositor and the emission of the eggs. (G. H. Thompson, Department of Forestry, University of Oxford, Oxford, England)

Analysis of Nucleon-Nucleon Scattering Experiments; 50 minutes, color, free loan; first-year graduate level. An overall picture of the route followed in passing from single-, double-, and triple-scattering experiments to a description of the scattering in terms of phase shifts. Inclusion of one-pion-exchange effects in the analysis is discussed. (Elton P. Lord, Audio-Visual Branch, Office of Public Information, Atomic Energy Commission, Washington 25)



N.S. Savannah, the first nuclear-powered merchant vessel, developed jointly by the Department of Commerce's Maritime Administration and the Atomic Energy Commission. The 22,000-ton vessel, nearly the length of two football fields, is powered by a 69-thermal megawatt pressurized water reactor that produces a normal cruising speed of 20 knots. The reactor holds 17,000 pounds of uranium oxide fuel capable of operating the ship for 3½ years without replacement. Liquid and solid radioactive wastes are collected in monitor-equipped tanks for disposal into a specially designed barge at port; gaseous wastes will be disposed of at sea through the radio mast, equipped with air-particle and radio-gas detectors. The ship will carry 60 passengers, a crew of 110, and 10,000 tons of dry cargo. [Babcock and Wilcox]

Scientists in the News

Pierre Gloor, assistant professor, and chief of the laboratory of electroencephalography at McGill University's Montreal (Canada) Neurological Institute, has received the Swiss Academy of Medical Sciences' Robert Bing prize.

V. B. Wigglesworth, of the University of Cambridge (England), is lecturing on insect physiology at the University of Chicago during the month of April.

At Carnegie Institution of Washington:

Ronan O'Rahilly, special fellow in the public health service department of embryology, will become director of the department of anatomy at St. Louis (Mo.) University School of Medicine, effective in September.

Sir **Harold Jeffreys**, fellow of Saint John's College in Cambridge, England, has received the institute's \$6000 Gilbert award for research in seismic geology.

Robert B. Woodward, Donner professor of science at Harvard, has received the 1962 Priestley award for his work in organic chemistry. The \$1000 award is presented annually by Dickinson College in Carlisle, Pa.

George J. Huebner, Jr., executive research engineer for Chrysler Corporation, has received the turbine award of the American Society of Mechanical Engineers for his development of the gas turbine engine for passenger cars.

William A. Sodeman, dean of the Jefferson Medical College of Philadelphia, will receive the Clarence E. Shafrey award, presented annually by Saint Joseph's College medical alumni.

Taivo Laevastu, fisheries oceanographer with the U.N. Food and Agriculture Organization, has joined the staff of the University of Hawaii as associate professor of oceanography.

Raymond B. Allen, former director of the U.S. economic mission to Indonesia, has been appointed chief of the Pan American Sanitary Bureau's office of research coordination.

John C. Duncan, emeritus professor of astronomy at Wellesley College, has retired after a 12-year term as visiting professor at the University of Arizona.

Eduardo Eidelberg, former associate research anatomist at University of California (Los Angeles) School of Medicine, has been appointed chairman of the division of experimental neurology at Barrow Neurological Institute, Phoenix, Ariz.

Allan L. Forbes, clinical director of the Veterans Administration hospital in Richmond, Va., has joined the National Institute of Arthritis and Metabolic Diseases as assistant medical program director for the interdepartmental committee on nutrition for national defense.

Ralph L. McCreary, former director of research at Collins Radio Company in Cedar Rapids, Iowa, has been appointed manager of the Motorola, Inc., Systems Research Laboratory in Riverside, Calif.

Recent staff appointments at the University of Cincinnati:

Doris T. Allen, associate professor of psychology, has been designated a Chevalier of the Order of Palmes Academiques—the academic counterpart of the French Legion of Honor—for founding the Children's International Summer Villages.

Ting Yi Li, professor of aeronautical engineering and astronautics at Rensselaer Polytechnic Institute, has been appointed professor of aerospace engineering in the university's College of Engineering.

Hayden C. Nicholson, executive director of the Hospital Council of Greater New York, has been appointed dean of the University of Miami School of Medicine.

Richard S. Berk, senior research biochemist for Magna Products in Anaheim, Calif., has been named associate professor of microbiology at Wayne State University College of Medicine.

Calvin W. Tribiano, pediatrician formerly with Ciba Pharmaceutical Company, has been appointed medical director of Walker Laboratories, Inc., in Mount Vernon, N.Y.

Raymond R. Suskind, associate professor of industrial medicine and dermatology at the University of Cincinnati College of Medicine, will head the newly formed division of environmental medicine at the University of Oregon Medical School.

Walter E. Loomis, professor of plant physiology at Iowa State University, is spending the spring term as visiting professor of botany at Duke University.

Eugene Eichler, of Oak Ridge (Tenn.) National Laboratory's chemistry division, is serving a year as an adviser on nuclear chemistry at the Israel Atomic Energy Commission, Rehovoth, under an International Atomic Energy Agency exchange program.

Francis J. Michelini, recently appointed professor of biology at Wilkes College in Wilkes-Barre, Pa., will be on leave during 1962–63, serving as assistant director of the National Science Foundation's institutes section.

Recent staff appointments at Lockheed Missiles & Space Company in Sunnyvale, Calif.:

Carmine M. Bertone, former research psychologist in the Federal Aviation Agency's human factors research branch, has been named engineering psychologist.

Frank Herman, theoretical physicist formerly with RCA Laboratories in Princeton, N.J., has been named consulting scientist for electronics research.

Recent Deaths

Albert E. von Doenhoff, 51; staff scientist at National Aeronautics and Space Administration's office of space sciences; 23 Mar.

Andrew E. Douglass, 94; emeritus professor of astronomy and dendrochronology, and director emeritus of the Steward Observatory and the Laboratory of Tree-Ring Research at the University of Arizona; 20 Mar.

Thomas R. Goethals, 71; emeritus clinical professor of obstetrics at Harvard Medical School; 23 Mar.

Mary T. Harman, 84; emeritus professor of zoology at Kansas State College; 16 July.

Wendell A. Parker, 54; retired chief of surgery in the Veterans Administration's benefit office; 20 Mar.

George E. Potter, 63; professor in the zoology department at Agricultural and Mechanical College of Texas; 24 Mar.

Erratum: In the announcement of the films "The world within" and "The development of bacteriophage plaques" [*Science* 135, 1053 (23 Mar. 1962)], the prices quoted were not rental fees, but purchase prices. Rental fees are \$10 and \$1.50, respectively.