identification of the vast collections that have been assembled there is still under way, and has involved taxonomists in many fields from various countries. From a scientific point of view, the inventories of the fauna and flora of the Congo parks, some of which have been published and many of which are still in preparation, make these areas particularly suitable for future ecological studies.

It should also be borne in mind that the Congo parks can be of great economic value, not only on account of their interest to visitors and tourists, but also because they furnish a reservoir of species of future value to the Congo as well as to other tropical areas of Africa. They additionally help to stabilize the climate and water resources for extensive agricultural lands adjoining the park boundaries.

HAROLD J. COOLIDGE
International Union for the Conservation of Nature and Natural Resources, Washington, D.C.

News Notes

Soviet Recovers Dogs from Orbit; U.S. Snares Capsule in Air

The Soviet Union has retrieved two dogs and other unidentified animals from an orbiting satellite; this is the first time that living creatures have been recovered from space. The cabin in which the animals traveled for 24 hours was equipped with television transmitters so that the animals could be studied while in flight. The 5-ton satellite circled the earth 17 times before the cabin was detached (on 20 August) and sent back to earth from an altitude of 198 miles. It landed within 6 miles of a precalculated landing site. All the animals are reported to be in good condition.

The Soviet success overshadowed a United States achievement of the previous day, the retrieval by the Air Force of an ejected Discoverer satellite capsule at an altitude of 10,000 feet, the first recovery to be made in the air. As it parachuted down, the 85-pound payload was snared by a plane equipped with hooks. Eight days earlier the Air Force had succeeded in making the first recovery of a man-made object from orbit when it retrieved from the sea an instrument capsule ejected by Discoverer XIII.

Rabi Attacks Secrecy in Government

I. I. Rabi, Columbia University physicist and Nobel Prize winner, says in the August *Atlantic* that he has been "forced to the conclusion" that many of this country's policy difficulties stem from distortion caused by "the exaggerated secrecy in the military field, and in the atomic field especially." Rabi is former chairman and now a member of the President's Science Advisory Committee. In his article on "The Cost of Secrecy" he warns that although most policy makers, amateur or professional, are not deeply interested in or capable of judging the technological situation, secrecy results in frustration, doubt, and timidity about the exercise of any independent judgment.

"The result," says Rabi, "has been that a number of less inhibited men of greater or lesser scientific or technical accomplishment, but with a low boiling point, have been gaining the public ear on the basis of prestige acquired through a technical accomplishment quite limited in scope. Their policy statements are given weight on the basis of skills not necessarily relevant to the dread subjects of war and peace, which they discuss with confidence.

"Were it not for the secrecy which hides the hard core of the matter, the intelligent public would be quite capable of judging the questions under discussion. The fear of being guilty of judgment based on a partial knowledge of the facts misleads many judicious people into accepting judgments by others whose knowledge is often even more partial but which extends into the dread domain of the top-secret."

Rabi points out that the government cannot act strongly without ample support from public opinion. He says:

"When secrecy intervenes, an informed public opinion can hardly exist. Too often we have, instead, a manipulated public opinion formed by leaks, half-truths, innuendoes, and sometimes by outright distortion of the actual facts. . . .

"The difficulty of secrecy within the government is that, unless administered with the greatest wisdom, it furthers confusion, which comes from ignorance or partial knowledge, and often results in inaction or unwise acts. The farcical snafu of the U-2 incident with all its overtones of tragedy shows how great the costs of secrecy can be, even in the highest echelons of government.

"We can now ask ourselves, what have we really gained from our exaggerated secrecy in the way of real security? Actually, very little. The Russians are not far behind us in atomic weapons, but our allies have been left way behind, after expending an enormous treasure in trying to rediscover facts and techniques already known to the Russians as well as to ourselves."

International Nutrition Congress Holds First United States Meeting

Leading research scientists in the field of nutrition from 59 countries will present reports of their recent investigative work at the fifth International Congress on Nutrition in Washington, D.C., 1–7 September. In addition to a White House representative, Secretary Benson of the Department of Agriculture and Secretary Flemming of the Department of Health, Education, and Welfare will welcome the 2500 or more specialists expected to be present.

W. Henry Sebrell, Jr., of Columbia University, chairman of the program committee, has announced that there will be seven half-day panel discussions led by 50 invited scientists from 20 foreign countries and the United States. There will also be 37 special sessions at which 370 ten-minute papers reporting unpublished results of original research will be presented by approximately 500 investigators from almost every country in the world. The congress will close on 6 September with an all-day symposium on world food needs and food resources, followed by an all-congress banquet. Headquarters hotels will be the Sheraton-Park and Shoreham.

Sponsors and Officers

This is the first time that an International Congress on Nutrition has been held in the United States. This fifth congress is being arranged under the auspices of the International Union of Nutritional Sciences, the American Institute of Nutrition, and the U.S. National Committee of the International Union of Nutritional Sciences of the National Academy of Sciences–National Research Council. Several agencies of the United States Government, as well as American foundations, institutions, and interested segments of industry, are providing financial support.

The organizing committee for the congress is under the chairmanship of Paul György, professor of pediatrics at the University of Pennsylvania, and C.

Glen King, executive director of the Nutrition Foundation, Inc., is congress president. The general secretary is Milton O. Lee of the Federation of American Societies for Experimental Biology.

Sanitary Engineering Survey Launched in Latin America

Gordon M. Fair of Harvard University has been appointed by the Pan American Health Organization to initiate a survey on the teaching of sanitary engineering in Latin America and to present a series of lectures on current sanitary engineering subjects. Fair, who is Harvard's Abbott and James Lawrence professor of engineering and Gordon McKay professor of sanitary engineering, will have toured 11 Latin American nations when he returns to the United States in late September.

He is discussing sanitary problems with government officials and is visiting schools of engineering in Mexico, Guatemala, Panama, Colombia, Ecuador, Peru, Chile, Argentina, Uruguay, Brazil, and Venezuela, in that order. Fair's survey material will also be used as the basic data to be studied at a seminar on the teaching of sanitary engineering which PAHO will sponsor in 1961.

Intergovernmental Oceanographic Commission Recommended

Representatives from 34 countries attended the UNESCO-sponsored International Conference on Oceanography in Copenhagen, Denmark, 11–16 July. The seven-man delegation from the United States was headed by James H. Wakelin, Jr., Assistant Secretary of the Navy for Research and Development.

The conference recommended that UNESCO set up a permanent intergovernmental oceanographic commission (IOC) to coordinate oceanographic research by states and international bodies. The Intergovernmental Oceanographic Commission would work with a special Office of Oceanography within UNESCO's Department of Natural Sciences to coordinate research on a permanent basis, the commission meeting once a year. This is subject to final approval by the General Conference of UNESCO in November.

The conference recognized that one of the chief obstacles to oceanographic research is the lack of qualified oceanographers, and it recommended that the number of fellowships financed by UNESCO be appreciably increased so as to offer greater training facilities for such specialists. UNESCO was also asked to organize a conference of deans of science faculties or science professors from all parts of the world to discuss the means of developing university teaching in the marine sciences.

Other steps toward international cooperation recommended by the conference are standardization and intercalibration of methods and equipment, the collection and exchange of oceanographic data, and the organization of joint research programs in specified regions by groups of countries, such as the one planned for the Indian Ocean. The conference also voted a resolution asking governments and international organizations to take immediate steps to prevent pollution of the sea and to intensify research in this field.

Funds for Basic Research Estimated at $1 Billion a Year

The National Science Foundation estimates that total funds for the performance of basic research in the United States reached a level of $1 billion in the year 1959–60. The amount is based on a new statistical report, "Funds for the Performance of Basic Research in the United States, 1953–58," the 22nd publication in the NSF series *Reviews of Data on Research & Development.*

The recent survey indicates that basic research funds rose from about $430 million in 1953–54 to more than $830 million in 1957–58, an increase of 93 percent. However, throughout this period funds for basic research continued at a level of about 8 percent of the total estimated research and development funds, which reached a $12 billion annual level for 1959–60. The substantial rise in the level of basic research funds is part of a "long-term increase in scientific and technological activity," the foundation said.

The series indicates that colleges and universities expended about half the national total in the performance of basic research in the 1957–58 survey year. The industry sector reported using about a third of total national funds for the same purpose. Performance of basic research by both the federal government and other nonprofit institutions accounted for a relatively smaller portion of funds, 13 and 6 percent, respectively.

The federal government provided the largest amount of basic research funds in the 1953–58 period.

No important change was found in the distribution of total funds for the performance of basic research by field of science over the years covered. The physical sciences reached a total of more than $550 million, or approximately two-thirds of all the natural sciences funds in 1957–58. The life sciences accounted for the remainder of the basic research funds, or about $280 million.

For survey purposes, the foundation defines basic research as scientific inquiry in which the primary aim of the investigator is a fuller knowledge or understanding of the subject, rather than a practical application. (*Reviews of Data on Research & Development*, No. 22, is available from the Superintendent of Documents, U.S. Government Printing Office, Washington 25, D.C., 15 cents.)

Mental Health Research Foundation Established

The National Association for Mental Health, New York, has announced that it has set up a foundation to conduct its research activities. The association, which has 800 affiliates in 45 states, also conducts a nationwide program of services to the mentally ill and their families, as well as a program of mental health education.

The new research unit, the Research Foundation of the National Association for Mental Health, will allocate grants for projects and programs concerned with the causes, prevention, treatment, and cure of the many different mental illnesses. It will also provide fellowships for medical students interested in research on mental illness. The foundation will thus assume the functions of the association's research department, which has been operating since early 1959.

Harold Elley of Wilmington, formerly chief of research of E. I. du Pont de Nemours Company, is the foundation's first president. Its director is William Malamud, who also serves as director of professional services of the National Association for Mental Health.

News Briefs

Deep Freeze's sixth season. Christchurch, New Zealand, is the advance base for United States antarctic operations, called Operation Deep Freeze. With the coming of the New Zealand spring, fleets of long-range aircraft bring men and supplies for the air and sea lift to Antarctica.

The first supplementary base personnel reached Christchurch at the beginning of August, 2 weeks earlier than usual, to prepare for Deep Freeze's sixth season. Support forces are expected on 2 September, and the airlift is to start in the first week of October. In the following few weeks about 1250 men will pass through Christchurch on their way to the antarctic bases.

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AFC aid to nuclear education. The Atomic Energy Commission has announced that it has extended through 30 June 1964 its programs of assistance for nuclear education in United States nonprofit educational and medical institutions. Some of the programs were scheduled to terminate in 1961. Assistance will be continued on the same bases as in the past, except in one of the programs. In the reactor technology program, no further grants will be made for the construction or purchase of teaching reactors. However, the commission will continue to loan to qualified institutions, without charge, source and special nuclear materials for use in teaching reactors.

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Fungi center planned. The National Science Foundation has awarded a $32,300 grant to a Dartmouth College botany department team to establish a national center for supplying fungi widely used in teaching and research. Raymond W. Barrett will direct the project, assisted by William Ogata.

Between 1000 and 2000 genetic strains of *Neurospora* and *Aspergillus*, fungi useful in teaching and research in genetics, biochemistry, and biological analysis, will be collected and maintained. Scientists and teachers will be able to order stocks free of charge from lists that will be published by the center.

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Biological engineering. A new society, the Biological Engineering Society, was inaugurated at a meeting held at the Royal College of Surgeons in June. The purpose of the society is to bring together members of different disciplines —from hospitals, research institutes, and industry—to further the applications of engineering to biological and medical problems. R. Woolmer, professor of anesthesia at the Royal College of Surgeons, was elected first president. The acting secretary is Dr. A. Nightingale, Physics Laboratory, St. Thomas's Hospital, S.E. 1, London.

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Materials research centers. The Department of Defense, through the Advanced Research Projects Agency, has recently awarded large contracts to three universities—Cornell, Pennsylvania, and Northwestern—to undertake basic research which could lead to the development of new materials for military purposes. The level of support over a 4-year period will be, respectively, $6.1 million, $4.4 million, and $3.4 million. These funds will cover the operating costs of the new research centers as well as provide equipment and facilities. Establishment of additional laboratories at other universities is contemplated. The program is designated Project Pontus.

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Chemical society to meet. Some 1500 papers will be presented at the 138th national meeting of the American Chemical Society, which will be held in New York, 11–16 September. "A Chemist Looks at the World Population Explosion" is the title of the chief address, to be given by Albert L. Elder, president of the 90,000-member society and director of research of the Corn Products Company, Argo, Ill. Five Nobel Prize chemists are on the meeting program: Frederick Sanger of Cambridge University, Severo Ochoa of New York University, Glenn T. Seaborg of the University of California, Peter J. W. Debye of Cornell University, and Linus Pauling of California Institute of Technology.

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Atomic energy and health. Eight United States experts will participate in an International Symposium on Legal and Administrative Problems of Protection in the Peaceful Uses of Atomic Energy. The symposium will be sponsored by the European Atomic Energy Community (EURATOM) 5–8 September, at Brussels, Belgium. It is the first of its kind to be held in Europe. Experts in the legal and technical fields from 15 nations and several international organizations will discuss international legal and administrative problems of health protection raised by the increasing use of atomic energy for peaceful purposes.

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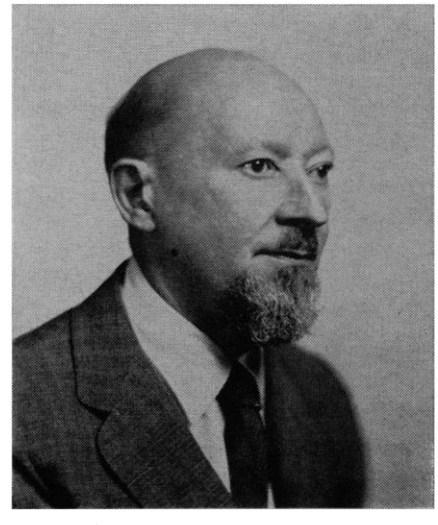
U.N. resolution on abstracting. A resolution calling for a study of abstracting services in various branches of science and technology as a basis for future action in the field of scientific inquiry has been adopted unanimously by the Coordinating Committee of the United Nations Economic and Social Council. The adoption of the resolution followed 2 days of debate on a special report on "the survey of the main trends of inquiry in the field of the natural sciences, the dissemination of scientific knowledge and the application of such knowledge for peaceful ends."

Scientists in the News

S. A. Schelkunoff, assistant vice president of Bell Telephone Laboratories and an internationally recognized mathematician, retires from Bell Laboratories on 1 September after nearly 35 years of service. He has been appointed professor of electrical engineering at Columbia University.

During his telephone career, Schelkunoff made fundamental contributions in the field of electromagnetic theory, in theoretical studies of waveguides for transmitting microwaves, and in research on antennas for radio communication. He is the author of four books, and some 50 technical articles, and he has been granted 15 patents.



S. A. Schelkunoff

L. C. Birch has been named Challis professor of zoology and head of the department at the University of Sydney. Birch, well known for his studies in ecology, evolution, and population genetics, spent a year at the University of Chicago in 1946–47 and another at Columbia University in 1954. In 1959 he was visiting professor of zoology at the University of Minnesota.

Frederick J. Stare of the department of nutrition at Harvard University has been appointed a member of the AAAS–Theobald Smith Award judging committee to replace Arnold D. Welch of Yale University School of Medicine, who found it necessary to resign from the committee.

Two members of the Chemistry Division of Argonne National Laboratory, **Henry R. Hoekstra** and **Herbert H. Hyman**, have begun 1-year research assignments at the United Kingdom Atomic Energy Establishment, Harwell, England, under a staff exchange program between Argonne and the British laboratory.

Robert Bruce, psychologist and dean of the Graduate School at the University of Wyoming, has been named chief of the Graduate Fellowship Program (Title IV) of the National Defense Education Act. He will assume his post at the U.S. Office of Education in Washington in September. Bruce succeeds **Henry E. Bent**, who has returned to his position as dean of the graduate faculty and professor of chemistry at the University of Missouri.

E. J. L. Lowbury, member of the British Medical Research Council's scientific staff at the Industrial Injuries and Burns Research Unit, Birmingham Accident Hospital, Birmingham, will attend the International Congress on Research in Burns that will be held in Washington, D.C., 19–22 September. His itinerary includes: New York; Cleveland and Cincinnati, Ohio; Fort Sam Houston and Galveston, Tex.; Louisville, Ky.; and Boston.

Austin C. Wagenknecht has been employed by General Mills, Inc., Central Research Laboratories, Minneapolis, as principal scientist in charge of lipid research in the fundamental food research department. Wagenknecht joins the laboratories from the New York State Agricultural Experiment Station, Cornell University, Geneva, where he held the position of associate professor of biochemistry in the department of food science and technology.

Carl A. Bunde, clinical pharmacologist, has been appointed medical research director of the Wm. S. Merrell Company, Cincinnati. From 1937 to 1949 Bunde held various teaching positions at the University of Oklahoma School of Medicine, Baylor College of Medicine, and Southwestern Medical School.

Ronald Singer, professor of anatomy at the University of Capetown, has returned to his university after a year as a visiting professor in the anatomy department at the University of Illinois College of Medicine. This year the department will have a visiting associate professor, **John Gamble** of St. Mary's Hospital Medical School, University of London.

In the same department, **James C. Plagge**, professor of anatomy, will return in September after a 2-year leave of absence in Saigon, South Vietnam, where he served as Medical Educator for the International Cooperation Administration.

John A. Clausen, chief of the Laboratory of Socio-Environmental Studies at the National Institute of Mental Health, Bethesda, Md., has been appointed director of the Institute of Human Development and professor of sociology and social institutions at the University of California, Berkeley. He succeeds the late distinguished psychologist, Harold E. Jones, who headed the research installation from 1935 until his death in June.

Terrell L. Hill, professor of chemistry at the University of Oregon, will be on sabbatical leave during 1960–61 in the department of theoretical chemistry, Cambridge University, England.

Arthur B. Cummins, manager of the Central Chemical and Physical Research Department at the Johns-Manville Research Center in Manville, N.J., has retired after 36 years of service. He is an authority on asbestos mining, mineralogy, and filtration technology of silica and diatomaceous earth, and holds 17 patents on silicates, diatomite, magnesia, and scientific apparatus.

Theodore A. Ashford, professor of chemistry at St. Louis University, has been appointed director of the Division of Natural Sciences and Mathematics at the University of South Florida, Tampa. The division will include the departments of chemistry, physics, astronomy, geology, zoology, botany, engineering drawing, and mathematics.

Paul C. Tompkins, for the past 11 years scientific director of the U.S. Naval Radiological Defense Laboratory, San Francisco, Calif., has been appointed chief of the research branch, Division of Radiological Health, U.S. Public Health Service, Washington, D.C. **Eugene P. Cooper**, associate scientific director of the San Francisco laboratory since 1953, succeeds Tompkins as director.

Recent Deaths

Harold L. Alling, Pillsford, N.Y.; 72; geologist; professor at the University of Rochester from 1925 until his retirement in 1953; author of *Interpretative Petrology;* 27 July.

Sigurdur Jonsson, Chapel Hill, N.C.; 41; professor of pharmaceutical chemistry at the School of Pharmacy, University of North Carolina; 16 July.

Arthur W. Klein, Norwalk, Conn.; 79; a retired professor of mechanical engineering at Lehigh University; 13 July.

Harry E. Kleinschmidt, Mystic, Conn.; 76; a retired physician and public health specialist; former health and education director of the National Tuberculosis Association, which he served from 1927 to 1942; author of textbooks on health; 24 July.

Maud L. Menten, East Windsor, Ont.; 81; professor emeritus of pathology at the University of Pittsburgh School of Medicine; 17 July.

Norman S. Olsen, Remsen, N.Y.; 42; biochemist and assistant director of the Masonic Medical Research Laboratory, Utica, N.Y.; previously on the teaching staffs of the University of Michigan, the University of Illinois, Washington University, and Thayer Veterans Administration Hospital (Nashville, Tenn.); 7 July.

Earl D. Osborne, Buffalo, N.Y.; 65; dermatologist and retired professor of dermatology at the University of Buffalo, where he taught for 34 years; 23 July.