

Bureau, the Institute of Social Anthropology, gave courses in anthropology and conducted co-operative field work in Brazil, Columbia, Mexico and Peru.

The International Exchange Service made the first shipments of exchange publications to Japan since the War, and now sends consignments to all countries except Roumania. In return for similar material received from other countries, ninety-four sets of United States official publications, seventy-three copies of the Federal Register, and sixty-six copies of the Congressional Record were sent abroad. Visitors to the National Zoological Park increased by more than 300,000, and the collection at the close of the year totalled 2,797 animals representing 690 different species. The Astrophysical Observatory terminated the sun and sky radiation studies at Camp Lee, but similar studies will continue at the Montezuma and Miami stations. Promising sites for a new high-altitude station were located in Mexico, southern California, and the Hawaiian Islands. The Division of Radiation and Organism substantially completed its studies of the respiration of broad-leaf plants, the effects of environmental factors on the germination of lettuce seeds, and the developmental physiology of grass seedlings.

A total of 165,740 copies of Smithsonian publications was distributed during the year, and a complete list of the publications during the year is appended. The Library received 53,129 publications, and 36,701 pieces from its collection of duplicates were selected for destroyed libraries overseas. About half the 915,987 volumes of the Library are housed as the Smithsonian Deposit in the Library of Congress. The financial report of the executive committee of the Board of Regents and the usual departmental reports are appended.

## LICHENS OF ANTARCTICA

IN a vegetation devoid of vascular plants, as the Antarctic continent is generally believed to be, the lichens assume a quite unusual importance. The meticulous study of the lichens of Antarctica and the subantarctic islands recently published (B.A.N.Z., Antarctic Research Expedition Report. Vol. 7, Lichens and Lichen Parasites, by C. W. Dodge. Adelaide, 1948) is therefore a very significant contribution to knowledge of these remote and inhospitable regions, incomplete as it must necessarily be.

The material was collected by several different expeditions, the Australian Antarctic Expedition of 1911-14, the British, Australian, New Zealand Expedition of 1929-31, and there is some residual material from the British Antarctic Expedition of 1907-9. Unfortunately, a large part of the collections from the subantarctic islands of the Indian Ocean visited by the 1929-31 expedition was lost during the bombing of London, having accidentally been sent to the British Museum; but it is indeed fortunate that the bulk of the collections had been sent to the Herbarium of the Missouri Botanic Garden, in which the most complete set has been retained, and that Dr. Dodge was free to devote the very considerable amount of skilled attention to them that this publication obviously shows.

It is not profitable to summarize the purely taxonomic side of the work which will only concern the specialist, but no plant geographer can afford to

ignore the implications of geographical distribution outlined in the introduction. Three totally distinct floras are discerned, that of Antarctica itself, which is still very imperfectly known, that of Macquarie Island, which seems wholly unrelated to it though with some affinities with both New Zealand and Tasmania, and thirdly "Kerguelia", which is the name used to cover Kerguelen Island, Heard Island, the Crozets and Prince Edward Island groups.

The lichen flora of Kerguelia is remarkable for the very high proportion of endemism in it, possibly all, and certainly 118 out of the total of 124 known species, being in this category. This can only mean very prolonged isolation. The generic affinities, many of which are also endemics, are, however, of even greater interest since they seem to imply remote physical connexions of some kind over immense distances in the most diverse directions, which include Fuegia, the Auckland Islands, South Africa and the Andes. Evidence of this kind, though insufficient in itself to establish major hypotheses such as that of continental drift, is nevertheless closely cognate to any discussion of such problems. This is perhaps the most important aspect of the study of lichen distribution in the southern hemisphere, since lichens, more perhaps than any other form of plant life, have special limitations in their mode of distribution over long distances. It is therefore greatly to be hoped that further contributions will in due course be made to this very promising, though hitherto much neglected and difficult, field of inquiry.

## FORTHCOMING EVENTS

Tuesday, June 7

BRITISH SOCIETY FOR THE HISTORY OF SCIENCE (in the Lecture Theatre, Science Museum, Exhibition Road, London, S.W.7), at 5 p.m.—Dr. A. C. Crombie: "Theory and Experiment in the Science of Robert Grosseteste"; Mr. H. C. King: "The Optical Work of Charles Tillyer".

ROYAL ANTHROPOLOGICAL INSTITUTE (at 21 Bedford Square, London, W.C.1), at 5 p.m.—Dr. Ake Campbell: "The Colonization of Lapland and Culture Contacts between Farmers and Nomads".

Wednesday, June 8

GEOLOGICAL SOCIETY OF LONDON (at Burlington House, Piccadilly, London, W.1), at 5 p.m.—Scientific Papers.

INSTITUTE OF PETROLEUM (at Manson House, 26 Portland Place, London, W.1), at 5.30 p.m.—Symposium on "Combustion of Hydrocarbons".

Thursday, June 9

ROYAL STATISTICAL SOCIETY, RESEARCH SECTION (at the E.L.M.A. Lighting Service Bureau, 2 Savoy Hill, London, W.C.2), at 2.30 p.m.—Symposium on "Stochastic Processes".

RESEARCH DEFENCE SOCIETY (at Manson House, Royal Society of Tropical Medicine and Hygiene, 26 Portland Place, London, W.1), at 3.15 p.m.—Annual General Meeting; Prof. C. Lovatt Evans, F.R.S.: "Physiological Research and the Vivisection Act" (Eighteenth Stephen Paget Memorial Lecture).

Friday, June 10

PHYSICAL SOCIETY (at the Science Museum, Exhibition Road, London, S.W.7), at 5 p.m.—Mr. T. Smith, F.R.S.: "The Contributions of Thomas Young to Geometrical Optics, and their Application to Present-day Questions" (Thomas Young Oration). (Members of the Optical Group are invited.)

GEOLOGISTS' ASSOCIATION (at the Geological Society, Burlington House, Piccadilly, London, W.1), at 6 p.m.—Prof. S. W. Wooldridge: "The Structure and Morphology of the Country around Fernhurst, Sussex".

## APPOINTMENTS VACANT

APPLICATIONS invited for the following appointments on or before the dates mentioned:

LECTURER IN CHEMISTRY—The Secretary, Northampton Polytechnic, St. John Street, London, E.C.1 (June 11).

LECTURERS IN BIOLOGICAL SUBJECTS (Botany and Zoology)—The Principal, Central Technical College, Suffolk Street, Birmingham 1 (June 11).