

plan for the staff. The report shows clearly how the combined efforts of trustees, staff, volunteers and friends at home and abroad have carried the Museum through its seventieth year of service. The report is well illustrated with appropriate photographs of activities in the Museum.

The Water Research Association

THE period (1959-60) covered by the fifth annual report of the Water Research Association forms a milestone in the development of the organization for two reasons—it is the first year during which a grant has been received from the Department of Scientific and Industrial Research, and it is the last full year which the Association will spend in temporary accommodation at Redhill before moving to new laboratories at Medmenham (Pp. 24+4 plates. Redhill: The Water Research Association, 1960). A large part of the progress report of the Research Division, included with the Association's report, is concerned with laboratory experiments on factors affecting coagulation of suspended matter in water. At Medmenham, where a supply of water drawn from the Thames is available, it will be possible to carry out field trials on improved coagulation processes resulting from the laboratory work.

Problems of Ageing

BECAUSE little is known about the biological phenomenon of ageing and because of the problems which result from the increasing number of older people in the population, the U.S. National Institutes of Health have set up special programmes to stimulate and support research in all health-related aspects of ageing. As part of the research carried on within its own organization, the National Institutes of Health are conducting investigations into ageing in the Gerontology Branch of the National Heart Institute, located at the Baltimore City Hospitals in Baltimore, Maryland, and in the Section of Ageing of the National Institute of Mental Health, located in the Clinical Centre at Bethesda, Maryland. Within the research and training grant activity of the National Institutes of Health, there are many projects bearing directly on problems of ageing, ranging from investigations at the molecular level to investigations at the social level. Work on chronic disease in relation to the ageing process falls between these two extremes.

The Centre for Ageing Research, a component of the Division of General Medical Sciences, fosters additional investigations of all kinds of problems in ageing which are related to health. In addition to the research projects, both intra-mural and extra-mural, which are directly concerned with problems of the ageing process or ageing people, much of the research carried on or supported by the National Institutes of Health has an indirect or secondary bearing on problems of ageing. A booklet has now been prepared giving details of all the projects supported by the National Institutes of Health which have direct or indirect bearing on ageing (U.S. Dept. of Health, Education and Welfare: Public Health Service. Publication No. 761: Activities of the National Institutes of Health in the Field of Gerontology—Research Grant and Training Projects Active on January 31, 1960, and Intramural Research Projects carried on during calendar year 1959 (Washington, D.C.: Government Printing Office. Pp. v+41. 30 cents).

Current Medical Research

A VALUABLE document by the Medical Research Council contains reprints of the articles submitted by the Medical Research Council to Parliament for the year 1958-59 ("Current Medical Research". Pp. v + 56. (London: H.M. Stationery Office, 1960.) 3s. 6d. net). The subjects considered include the following: occupation and coronary heart disease; studies on the chemotherapy of tuberculosis in East Africa and India; clean air in operating theatres; human population genetics; chromosome abnormalities and disease in man; new applications of electron microscopy; the structure of viruses; the structure of muscle in relation to the mechanism of contraction; interferon: the prospects for an anti-viral agent in man; the arthropod-borne viruses; the plasma kinins and some factors in the problem of inattention.

Zoology of Persia

It is, perhaps, surprising that the zoology of Persia is very imperfectly known: the country appears to have been neglected by Western zoological explorers, who have passed it by in concentrating on more distant lands to the east. A recent paper by Dr. Xavier Misonne describes the topography of Iran and the distribution of its mammalian fauna (Institut Royal des Sciences Naturelles de Belgique. Mémoires. Deuxième Série, Fasc. 59: Analyse Zoogéographique des Mammifères de l'Iran. Pp. 157+3 planches. Bruxelles: Institut Royal des Sciences Naturelles de Belgique, 1960). Dr. Misonne was fortunate in being able to participate in the field investigations on the problem of plague transmission sponsored by the World Health Organization. These were particularly concerned with the distribution and biology of the rodents of the genus *Meriones*, to which the author gives special attention. As a result of several visits to the country, Dr. Misonne is able to give a comprehensive account of the distribution and ecology of the mammalian fauna, but he specifically disclaims that his work attempts a systematic revision of the Iranian species. His paper is illustrated with numerous distribution maps and several well-produced plates.

Tunnelling between Semiconductors

THE laboratories of both A. D. Little (Cambridge, Mass.) and the General Electric Company (Schenectady) have extended (*Phys. Rev. Letters*, 5, 461, 464; 1960) the latter's recent work on tunnelling at low temperature through a very thin insulator between two metals (*Phys. Rev. Letters*, 5, 147; 1960) down to temperatures at which both metals are superconducting. They prepared metal-insulator-metal sandwiches by evaporating a thin film of aluminium (transition temperature (T_c) of 1.2° K.) on to glass, exposing it to air to produce an oxide film about 20 Å. in thickness, and superimposing an evaporated layer of a second superconductor such as lead (transition temperature of 7.2° K.) or indium (transition temperature of 3.4° K.). The relationship between current (I) passed and voltage (V) applied across the sandwich then assumes particular interest below 1.2° K. at voltages around 1 mV., having a region for which dI/dV is negative—reminiscent of an Esaki (tunnel) diode for a voltage ~ 0.2 V. Analysis of the relationship has enabled estimates to be made of the distribution of states of electrons in the super-