

distractions of her association with her brother, Arthur James Balfour, politician and philosopher. In her earlier days, her bent was shared and encouraged by a younger brother, Prof. F. M. Balfour, already a leader in zoology when he died at the age of thirty-one years. Later she paid particular attention to gardening, so that the garden at Whittingehame became famous for its beauty, and to the collecting of a full series of the butterflies and moths of East Lothian. Her knowledge of the specific characters and local distribution of these and of other living things was thorough, and her inquiries brought her often to the Royal Scottish Museum in Edinburgh, to which she left her natural history collections.

It would be misinterpreting Miss Balfour's life to regard science as dominating her outlook, for her intellectual interests were wide, and her chief activities were social, in the broadest sense, and personal; but it may be said that the sustained pleasure of her life depended upon her love of Nature. J. R.

We regret to announce the following deaths:

Prof. Franklin D. Barker, professor of zoology in Northwestern University, an authority on Trematodes, on July 10, aged fifty-eight years.

M. Louis Bleriot, who made the first flight across the English Channel from Baraques, near Calais, to Dover, on July 25, 1909, in a monoplane having a three-cylinder engine of 22–25 horse-power, on August 1, aged sixty-four years.

Lieut.-General Sir Alfred Keogh, G.C.V.O., G.C.B., director-general of the Army Medical Service 1904–10 and 1914–18, and Rector of the Imperial College of Science and Technology, 1910–22, aged seventy-nine years.

Prof. E. J. Nanson, emeritus professor of mathematics in the University of Melbourne, on July 1, aged eighty-five years.

Dr. F. J. F. Shaw, director of the Imperial Institute of Agricultural Research, Government of India, aged fifty years.

News and Views

Dr. E. J. Allen, C.B.E., F.R.S.

ON July 30, a special meeting of the Council of the Marine Biological Association of the United Kingdom was held in the rooms of the Royal Society in order to appoint Dr. Stanley Kemp, former director of the "Discovery" expeditions to the antarctic, secretary of the Association and director of the Marine Biological Association at Plymouth, the appointment to take effect on October 1. The present director of the Station, Dr. E. J. Allen, retires at his own request on September 30 after forty-two years of arduous service to the Association. During this period, Dr. Allen has seen the Station grow from being a small and poorly equipped second-rate institution to becoming the premier marine biological station of the world. We propose to refer in a later issue to Dr. Allen's great services to zoological science.

Dr. Stanley Kemp, F.R.S.

DR. STANLEY KEMP is probably the leading authority on oceanography at present living. During the years which he spent cruising in the Antarctic, he finally elucidated the circulation of the water in that ocean and proved its bearing on the habits and life-histories of the various species of whale which go south during the brief Antarctic summer in order to feed and grow fat and during this period fall a prey to whalers. He discovered the amazing fact that the largest of them all, the Southern Fin-Whale, feeds practically exclusively on one small species of 'shrimp' about 2 inches long. The baby whale when born is 20 feet long; it grows to a length of 50 feet during its first year, and attains its full size (100 feet long) in less than five years. He showed further that each antarctic summer is characterized

by an enormous growth of diatoms on which these 'shrimps' feed and consequently a rich oxygenation of the sea-water due to photosynthesis. As this water flows north to the antarctic circle it sinks from the surface to an ultimate depth of about 600 fathoms and it takes approximately five years to reach the equator. The sequence of antarctic summers can be traced in the patches of oxygenated water which it contains, and the intensity of the oxygenation of each patch marks the degree of warmth of the corresponding summer. Dr. Kemp's appointment is therefore a happy augury for the future of Plymouth and for fishery science in general. It is becoming increasingly clear that the variations in British fisheries are connected with variations in intensity of a southward flow of arctic water carrying with it stupendous harvests of diatoms and shoals of the most sought-after edible fish. Oceanographic exploration based partly on Plymouth may be as fruitful in the endeavour to elucidate the life-histories of these fish as antarctic exploration has been in unravelling the life-history of the whale.

Archæological Investigations in Syria

SIR LEONARD WOOLLEY'S report on the work of the British Museum's archæological expedition to Sueidia, near Antioch, immediately before closing down work for the season (*The Times*, July 31) records the completion of excavation in the reserved area of the harbour site and the cutting of trial trenches on and around the hill station at Sabounia, two and a half miles inland. At the latter point, while the existence of a walled town at least as early as the Mycenaean age is established, the fall of the walls through the disintegration of the sandstone cliffs, on the edge of

which they were erected, has effectually disposed of the possibility of profitable excavation. Here, however, a find of vessels of copper and implements of bronze and iron has afforded instructive evidence of agricultural practice in Syria in the Byzantine age. At Sheikh Yusuf al Gharib further evidence was afforded of the activity of the port in the second half of the fourth century B.C., in the form of merchants' magazines, which had been burned, but had preserved a detailed picture of trade. A lamp store was stocked with lamps of both the imported and the locally made varieties, lamp fillers and Syrian oil bottles copying Greek models, while the stock of painted Attic *aryballi* bore witness to a common origin in common characteristics which made it possible to trace a definite shipment by a single firm and to date it within a few years. Gold and silver beads and silver coins of Athens, copper ingots and loose quicksilver marked a jeweller's shop. Back to the ninth century this is the most important Greek colony so far excavated. The absence of evidence from the earlier Mycenaean age is to be attributed to the forces of Nature, which have washed away the earlier portions of the site. Yet there is a link in a local copy of a Mycenaean vase and a single sherd of fine hand-made burnished black ware, which alone would suggest an earlier date. Though no inscription has been found, it is suggested that this is the ancient Posidium, mentioned by Herodotus as founded before the Mycenaean age.

Bronze Age Burials in Scotland

A NUMBER of bronze age burials with some remarkable and unusual features, recently disclosed by building operations at Doonfoot, Ayr, and at Riccarton, Ferniegair, Lanarkshire, are described by Mr. Ludovic Mann in *The Scotsman* of July 20. At Doonfoot, no evidence of a cairn was discovered, but at Ferniegair, a structure of stone, of which the over-ground portion had been demolished, had covered a group of burials. Some eighty tons of loose stones, some water-rolled, formed an understructure in which horizontal layers of turf had filled the interstices and survived in the form of black carbonized matter. Both cemeteries have yielded pottery vessels of various types, assignable to successive phases of the bronze age and, therefore, pointing to an occupation covering a considerable period of time. The earliest form is a small squat hand-made food-vessel, with incised and impressed zonal ornament. Traces of carbonized cereal adhere to the interior. The bodies had been placed in the contracted position, looking toward the rising, or, in one instance, the setting sun, at Midsummer. Over one body at Ferniegair was sheeting made from the twisted and plaited stems of the Scottish moss, *Polytrichum commune*. Other examples of this textile material have been found at Mount Vernon, Glasgow, in a bronze age cairn near Stranraer, and a few weeks ago at Craignish, Argyll. Mr. Mann states that the dimensions of the stones of the tomb structures conform with an ancient linear measure, as do the interior dimensions of the chamber; and also that the position of the urn-fields, and other remains,

ancient roads and tracks, conform, in a geometrical convention, also based on a common unit. Both at Doonfoot and Riccarton, adjoining burials contained large cinerary urns, with cremated remains, inverted over squared stone slabs. These overlie burials of the earlier inhumation period. At Doonfoot three burials were superimposed. A further find recorded is at Catacol, Lochranza, Arran, where a six-foot skeleton was found in the extended position in a long narrow chamber, constructed of small side slabs and heavy roofing stones. An iron object was found with the body.

The National Central Library

THE twelfth annual report of the National Central Library refers to anxiety regarding the financial position of the Library due to inability to replace from any other source the £4,000 previously received as an annual grant from the Carnegie United Kingdom Trust. Fortunately, the Treasury grant-in-aid has been increased from £3,000 to £5,000 for a period of five years from April 1, 1936, and as a result the Carnegie Trustees have renewed their previous annual grant for a similar period. The continuance of both grants is conditional upon an increase in annual subscriptions from libraries by at least £2,000 by March 31, 1938. In consequence of the financial situation, expenditure on books has been only £2,338 but in addition to 3,110 volumes purchased, 5,451 volumes have been presented. The total number of volumes lent during the year was 118,288 and there are now 158 outlier libraries containing 6,303,000 volumes from which 10,002 volumes were borrowed. Reference is also made in the report to the extension of the regional system to cover the counties of Cornwall, Devon, Dorset, Gloucester, Hampshire, Oxford, Somerset and Wiltshire. When this system is established, the whole of England and Wales will be covered in eight regional systems, in addition to the London Borough libraries inter-lending system. Volumes lent to university libraries increased by 97 to 2,506. The system was used by 53 university libraries and 1,201 of the volumes were supplied by the National Central Library, 77 by foreign libraries and 1,228 by other university libraries, 80.52 per cent of the inquiries being supplied. The books supplied consist mainly of highly specialized and expensive books, books out of print, foreign books, back numbers of periodicals, or unpublished university theses.

National Research Council of Canada

THE eighteenth annual report of the National Research Council, Dominion of Canada, covers the activities of the Council in 1934-35. During the year, the Associate Committees on Aeronautical Research and on Trail Smelter Smoke were re-organized and three important conferences were held, one on problems of the honey industry, another to formulate a programme of cold-storage investigations, and the third to investigate the potato situation and the utilization of a surplus. The work at the laboratory for laundry research conducted by the Council since 1930 has now led to the formation of a Canadian