

It has already been mentioned that Lady Bruce, who died a few days before him, was his constant companion. No account of the work of David Bruce would be complete, as he himself insisted, without some reference to the important part she played. Being a skilled microscopist and artist, with a practical knowledge of the details of laboratory technique, for which she had a greater patience and aptitude than her husband, she shared the work with him, indeed, to such an extent that it is difficult not to regard David Bruce and his wife as a single unit and to conclude that neither would have achieved success without the other. They worked alone, without help, in Zululand, but on other Commissions were accompanied by various collaborators, whose part in the work was duly acknowledged in the reports, and who contributed in no small measure to the success of the expeditions.

C. M. WENYON.

WE regret to announce the sudden death, at his home in Liverpool, of Mr. Andrew Scott, on Dec. 27, at the age of sixty-three years. Mr. Scott had been on the scientific staff of the Lancashire and Western Sea-Fisheries Committee since 1895, and, at the time of his death, was working in the University of Liverpool, mainly on the plankton collections made by the *Discovery* in the Antarctic Ocean. He had a quite remarkable knowledge of Crustacea, and, with his father, the late Dr.

Thomas Scott, had described collections of Copepoda from all parts of the world. He is survived by his widow and a son and daughter.

DR. JOHANN KIAER, professor of palaeontology in the University of Oslo and head of its Palaeontological Museum, died on Oct. 31, at the age of sixty-two years. Dr. Kiaer was distinguished for his work on the palaeozoic formations of Norway and Spitsbergen and for his descriptions of their corals, trilobites, and, especially, the Silurian and Devonian fishes. He had often visited Great Britain, where he will be deeply mourned by many friends.

WE regret to announce the following deaths:

Mr. James Ford, superintendent of the Radcliffe Science Library, Oxford, on Dec. 18, aged seventy-four years.

Dr. Edward H. Jenkins, formerly director of the Connecticut Agricultural Experiment Station, who carried out important work on the culture, curing, and fermentation of tobacco, on Nov. 7, aged eighty-one years.

Prof. Olin H. Landreth, emeritus professor of engineering in Union College, Schenectady, New York, known for his work in engineering administration and sanitary engineering, on Nov. 5, aged seventy-nine years.

News and Views.

Isolation of Vitamin A.

FOLLOWING closely on the announcement of the probable preparation of vitamin D by several independent workers (NATURE, Jan. 9, p. 50), come two announcements of the isolation of a substance which *prima facie* appears to be the long-sought vitamin A. In a paper published in the issue of *Helvetica Chimica Acta* for December 1931, Prof. P. Karrer, of the University of Zurich, together with R. Morf and K. Schöpp, describes the isolation and purification from the unsaponifiable fraction of the liver oil of the skipper (*Scombrosox saurus*) of an alcohol having the formula $C_{20}H_{30}O$ or $C_{22}H_{32}O$, optically inactive, and possessing the molecular weight 300-320. Esters of acetic and *p*-nitrobenzoic acid were prepared, and the alcohol gave geronic acid on oxidation with ozone. The same substance was obtained by a special method from the liver oil of the halibut (*Hippoglossus hippoglossus*). In an address on "Recent Progress in the Chemical Study of Vitamins", given to the London Section of the Society of Chemical Industry on Jan. 4, Prof. J. C. Drummond stated that he, in collaboration with Prof. I. M. Heilbron and Dr. R. A. Morton, had succeeded in isolating, by a process of fractional distillation, a very potent fraction from the unsaponifiable residue of the liver oil of the halibut. The substance is a heavy, viscid oil of a slightly yellow colour; it is an alcohol, its formula is probably $C_{20}H_{30}O$, and its vitamin potency is of the same order as that of the recently discovered 'calciferol'. Sufficient work has

not yet been done to enable us to say that the substance is pure vitamin A, but it seems very probable that its purity is approximately ninety per cent.

Ouabain.

OUABAIN, $C_{30}H_{46}O_{12}$, a crystalline glucoside occurring in the seeds of *Strophanthus gratus* and in the wood of various *Acocanthera* species, was first isolated from *Acocanthera Schimperii* by Arnaud in 1888 and named ouabain, from ouabaic, an arrow poison. It is described in the German Pharmacopœia (1926) and is included in the United States Pharmacopœia (1926) for use as a standard for the biological control of preparations of digitalis and strophanthus. It is particularly suited for use as a standard substance, since it is easily purified and the purity is readily ascertained by the ordinary methods of chemical analysis, so that the standard is easily reproducible. Ouabain for use as a biological standard is distributed by the Bureau of Standards in the United States, and has been recommended for use by the League of Nations Health Organisation. As a pure substance it offers decided advantages, and may eventually replace the by no means uniform strophanthin of commerce, which consists of a mixture of glucosides derived from *Strophanthus Kombé*, probably in many cases contaminated with other species not readily distinguishable. Ouabain has not hitherto been readily available commercially, but it has been prepared for a number of years past in the experimental laboratories of Messrs. Burroughs

Wellcome and Co. for use in the associated research institutions. It has now been put on sale for research purposes and for use in clinical medicine.

New Biological Station in Bermuda.

A NEW biological station has been established at Shore Hills, St. George's, West, Bermuda. The site for the station and an annual grant for a period of ten years have been provided by the Government of Bermuda, while the Rockefeller Foundation has made a grant of £50,000 for the building and equipment. The station is under the management of an international board of trustees composed of leading biologists of the United States, with representatives of Great Britain and Canada. The president is Prof. E. G. Conklin, and amongst the executive committee and officers are Profs. E. L. Mark, E. V. Cowdry, C. B. Davenport, and R. G. Harrison, and Dr. A. G. Huntsman, the Canadian representative. The two trustees representing Great Britain are Prof. J. H. Ashworth and Dr. E. J. Allen. The station consists of a large building, beautifully situated, with convenient access to the open sea. There is accommodation for a large number of research workers, and every facility will be provided for all kinds of biological work. Dr. J. F. G. Wheeler, who, after a training in marine research at the Plymouth Marine Biological Laboratory, became a naturalist on the *Discovery* Expedition and has published important work on whales, has been appointed director, and is now in Bermuda. According to a telegram from the *Times* correspondent in Bermuda, dated Jan. 6, Sir Thomas Cubitt, Governor of the Colony, has now formally opened the station. It is to be hoped that many English biologists will take advantage of the unique opportunities which the station offers for research.

Association of British Zoologists.

A WELL-ATTENDED meeting of British zoologists was held by the Association in the rooms of the Zoological Society of London on Jan. 9, with Sir Peter Chalmers Mitchell in the chair. After two papers of technical interest, Mr. J. T. Saunders reported on the institution, at Wray Castle, Windermere, of the laboratory of the Fresh Water Biological Association of the British Empire, and invited visiting naturalists to make use of its facilities for research. Prof. E. W. MacBride pointed out the extreme importance of such research for the purpose of guiding legislation and departmental action on river pollution. Lieut.-Col. R. B. Seymour Sewell gave an account of the origin and history of the Zoological Survey of India, and Mr. G. C. Robson urged the need of a comprehensive survey of the fauna of the British Isles. The Council's action in protesting against the curtailment of staff in the Zoological Survey of India was warmly approved by the Association. The Association welcomed the progress made by the Wray Castle laboratory, and agreed with the views expressed of the national and imperial importance of fresh water research, and the immediate need of further help, financial and technical. The meeting requested the Council to examine practical means to be adopted as to the survey of British fauna.

Exhibition of Scientific Instruments and Apparatus.

THE catalogue of the twenty-second Annual Exhibition of Scientific Instruments and Apparatus, held at the Imperial College, South Kensington, on Jan. 5-7 by the Physical and Optical Societies, is an illustrated octavo volume of 160 pages and constitutes a valuable record of the position of scientific and technical instrument making in Great Britain at the present time. Although the number of firms exhibiting was slightly less than last year, the space required for their exhibits was greater, and an additional hall on the lower ground floor of the College was utilised. The circulation of the catalogue a few days before the exhibition opened was of great assistance to those at a distance who wished to purchase apparatus, as it allowed them to see which firms make the apparatus and which stands it was necessary to visit in order to compare their productions. Apparatus not previously exhibited was indicated as usual in the catalogue by an asterisk, but there appears at present to be no sign indicating when new apparatus involves the application of a principle not previously used in that type of apparatus, although there was a number of exhibits to which such a sign might have been attached. The catalogue shows a tendency, which we think should be encouraged, for makers of apparatus to give sectional views and diagrams of electrical connexions instead of pictures of the outsides of the cases containing the apparatus. Present-day purchasers are more likely to be influenced by internal arrangements than by outside appearances. As the exhibits of the firms are given in alphabetical order in the catalogues and the numbering of the stands depends not on the name of the firm but on their position in the exhibition hall, it would save the time of a visitor at a stand, who wishes to turn up in the catalogue the firm exhibiting, if, when the description of the exhibit extends to several pages, the name of the firm appeared either at the head or in the margin of each page.

Exhibition of Electrical Measuring Instruments.

AN article by R. W. Paul, published in the November issue of the *Journal of Scientific Instruments*, is of general interest, as it will help to keep green the memory of the Faraday Centenary Exhibition at the Albert Hall, London, in 1931. He gives excellent descriptions of many of the instruments shown, which illustrate the gradual development of accuracy and quickness in measurement. Ammeters were first made having needles of soft iron polarised by a powerful magnet and having a deflecting coil closely adjacent. In 1881, Ayrton and Perry designed such instruments, the scales being graduated in degrees, which were converted to amperes by the application of a constant. They were the first to use the term 'ammeter' instead of amperemeter. It is interesting to remember that Silvanus Thompson strongly discouraged the use of this word, and asked sarcastically why they did not also use the word 'vometer' for voltmeter. The Director of the Science Museum has arranged that much of the apparatus shown at the Exhibition will be displayed at the museum from February until May 1932.