

information, and would serve as a handy reference for anyone concerned with the rearing and care of salmonids in Britain.

Late Precambrian Fauna in South Australia

IN 1947, R. C. Sprigg first described fossilized soft-bodied animals in what were then believed to be lower Cambrian quartzites near the Ediacara mining area, some 380 road miles north of Adelaide, South Australia. In view of its scientific importance, the area was proclaimed a fossil reserve in May 1958, under the control of the Minister of Education and the authorities of the South Australian Museum. In October 1958, M. F. Glaessner and B. Daily visited the area; they have now described its geology and remarkable fauna (*Rec. South Austral. Mus.*, 13; July 1959). It is estimated that eight hundred fossil specimens have been collected from near the top of the Pound Quartzite at Ediacara. Work on this material is not complete; but it is now thought that the fauna consists not only of medusæ believed to represent the Scyphozoa and Hydrozoa, but also Anthozoa (Octacorallia), Annelida, and at least two entirely new types of invertebrates. One or more elements of this fauna show relations with the fauna of the Nama System of South Africa, and one with *Charnia masoni* Ford from Charnwood Forest, England. Glaessner suggests that stratigraphic and palaeontological evidence supports the placing of this fauna in the Late Precambrian rather than the Lower Cambrian. The fauna is marine, with both pelagic and benthonic elements, and the lithology suggests shallow water. All the forms appear to have been soft-bodied, and have been preserved as moulds and casts, almost entirely on the undersides of the flaggy quartzite beds.

Evidence of Concurrent Translocation

THE problems of translocation in plants remain enigmatic and of perennial interest. In a recent investigation, evidence that different kinds of translocation take place concurrently has been obtained by C. D. Nelson, H. J. Perkins and P. R. Gorham (*Canadian J. Bot.*, 37, No. 6, 1181; 1959). The method used was to trace the pathway of photosynthetically assimilated carbon-14 in the soya bean. They found that when the primary leaf of a soya bean plant was allowed to carry on photosynthesis in labelled carbon dioxide, a small amount of labelled carbon was translocated downward into the root at a velocity of at least 5,040 cm. per hour. This velocity was fifty times greater than the velocity at which sucrose was translocated in the phloem. The rapidly translocated carbon-14 was not moved as carbon dioxide. When the time of translocation was increased from 30 sec. to 10 min. there was an increase in carbon-14 content of the root without any increase in carbon-14 content of the lowest part of the stem. Part of the carbon-14 was translocated through a steam-girdled stem, but under these conditions there was no accumulation in the root. This indicates that the rapid translocation of carbon-14 occurred in both living and dead tissues of the stem. These results were correlated with the localization of carbon-14 in tissue autoradiographs of cross-sections of the stem to show that there were at least three pathways of downward translocation: (a) a slow translocation in the phloem; (b) a rapid translocation in the xylem; and (c) a rapid translocation in either the cortex, the phloem, or the pith.

Grooved Rocks at Apoje, Nigeria

A REPORT of some investigations on grooved rocks at Apoje, near Ijebu-Igbo, Western Nigeria, by William Fagg appeared in the December issue of *Man*. Only a few rocks were studied, but it would appear that there are many more in the region. The grooves, which are deep, wide and rounded, cannot be said to be anything in the way of figures, though circles and ellipses do occur. The problem naturally arises as to the age of these carvings and who made them. They do not recall other rock carvings described by H. Fosbrooke in *Man* during 1952, where it was shown that they were connected with initiation ceremonies. At the same time, these new finds are too carefully made to be merely the result of grinding and polishing stone tools. The modern inhabitants hold them in reverence, and this would suggest a certain antiquity and the probability that they were made by folk who preceded the ancestors of the present population. Maybe when other examples are discovered and studied the answer to these queries will become plain.

Australopithecine Tools

BONE tools at the Kalkbank Middle Stone Age site and the Matapansgat Australopithecine locality, Central Transvaal, are the subject of an article by Prof. R. A. Dart, Dr. Kitching and Revil J. Mason (*Arch. Bull.*, 13, No. 51; Sept. 1958). For some time, Prof. Dart has been studying what kind of bones very early man selected for possible tool-making purposes. Such a selective process would indicate some degree of intelligence. If it can be shown that even the Australopithecine used bone for simple tool-making, and selected certain kinds of bones and perhaps preferred certain animals, then a little more can be suggested as regards the intelligence of these lowly creatures.

Nematology at the Imperial College of Science and Technology

A NEW Nematology Laboratory for the Imperial College of Science and Technology, London, to be built and equipped at the College Field Station at Silwood Park, near Ascot, Berkshire, at a cost of £30,000, will be the first university laboratory in the Commonwealth specifically staffed and equipped for research and training in this subject at postgraduate level. Shell International Chemical Co. is contributing £15,000 towards the cost of building and equipping the Laboratory which, it is hoped, will be completed in time for the new academic year beginning next October. Under Prof. B. G. Peters, who was appointed to a new chair of parasitology in Imperial College in 1955 (see *Nature*, 176, 145; 1955), work on nematology has been developing, and a full-time one-year course in nematology was started in 1958.

Fritz London Award for Low-Temperature Research

NOMINATIONS for the second Fritz London International Award are being solicited from all low-temperature scientists by the selection committee for this award. The first award was made to Dr. Nicholas Kurti, of the Clarendon Laboratory, Oxford, at the fifth International Conference on Low-temperature Physics and Chemistry in Madison, Wisconsin, during August 1957. If a suitable candidate is found the award will be made at the seventh International