

## Research Items.

FRAZER MEMORIAL LECTURES.—Some admirers of Sir James Frazer's work in social anthropology have contributed to a fund for the establishment of an annual lecture at Oxford. The first lecture in the course was recently delivered by Dr. E. Sidney Hartland, who naturally selected as his study a subject which he has made his own, "The Evolution of Kinship," based upon the important monograph by Edwin W. Smith and the late Andrew M. Dale on "The Ila-speaking Peoples of Northern Rhodesia." The Ba-ila, or Ila people, inhabit the very centre of the continent, on the banks of the Kafue, a tributary of the Zambesi, being descendants of more than one stream of Bantu immigrants from the north and north-east, coming probably by different routes and at different times. The social organisation of this primitive and hitherto little-known community has been skilfully investigated by Dr. Hartland. Like all Bantu tribes, their civilisation is based on the matrilinear clan, the family being a newcomer into the social field, which is struggling with the clan for influence. Its development into a patrilinear institution is plausibly accounted for by the rule that on marriage a wife goes to her husband's dwelling and makes her home there: he does not come to that of her kindred. Thus the developmental sequence, as among the Australian tribes, is from mother to father right. If succeeding contributors to this foundation maintain the high level of Dr. Hartland's inaugural lecture, the Frazer Memorial Lecture marks an important extension of the study of social anthropology in this country.

AN INSECT DESTRUCTIVE TO FLAX.—In the Scientific Proceedings of the Royal Dublin Society, vol. xvi., April 1922, Mr. J. G. Rhynehart contributes an interesting and well-illustrated paper on the flax flea-beetle (*Longitarsus parvulus* Payk.). This species is a serious enemy of flax and one responsible for considerable loss to growers of the crop in Ireland. It is commonly found throughout Ulster, and of recent years has become a pest in flax-growing districts in Co. Cork. The adult beetle kills many of the seedlings by devouring the cotyledons and growing-point of the flax, but will also eat clovers, grasses, and wild species of flax. The larvæ bore into and feed on the roots of the flax plants, but do not appear to cause any appreciable hindrance to growth. Preventive measures consist of the production of strong, vigorous-growing brairds by the employment of suitable cultivation, seed, and manure; in the destruction or removal of all material likely to afford means of hibernation for the adult beetle; and in the stimulation of attacked seedlings by the application of a light dressing of nitrate of soda. Preliminary experiments indicate the possibility of the use of Bordeaux mixture as a deterrent.

NEW FOSSIL SEA COW FROM FLORIDA.—The hinder part of the right maxillary of a species of *Metaxytherium*, from the phosphate beds of Mulberry, Florida, is described and figured by Mr. O. P. Hay under the trivial name of *M. floridanum* (Proc. U.S. Nat. Mus., vol. lxi.). Its exact geological horizon is uncertain: it belonged probably to the Upper Miocene or Lower Pliocene, while European species belong to the Miocene or in part to the Oligocene.

PALÆONTOLOGY OF THE BURMA OILFIELDS.—For some years Mr. E. Vredenburg has been accumulating data regarding the marine fauna of Tertiary age in

Burma, and the large quantity of material collected by officers of the Geological Survey of India, as well as by the geologists of the principal oil companies, now permits of a marked advance on the results as they were left by Dr. F. Noetling in 1897. A general revision of the Tertiary formations of the Burma oilfields region was published by Mr. Vredenburg last year (Records Geol. Surv. Ind., vol. li., Part 3). This has been followed by a series of papers issued in anticipation of complete monographs on the Tertiary molluscan fauna, which will be considerably delayed for the reproduction of the required illustrations. The papers issued so far cover the four gastropod families of Terebridae (vol. li., Part 4), Pleurotomidae, Conidae, and Cancellariidae (vol. liii., Part 2). The completion of this work, if not unduly delayed, should be of great value to oil geologists in their attempts in Burma to identify in newly explored areas the known horizons of the established oilfields.

CHANGES OF CLIMATE IN AUSTRALASIA.—Mr. R. Speight, as secretary of the Cainozoic Climate Committee, has drawn up a valuable report for the Australasian Association for the Advancement of Science (A. J. Mullett, Government Printer, Melbourne). Evidence is adduced from the fossil floras from W. Australia to New Zealand to show that a general warm temperature prevailed in mid-Cainozoic times. Extensive estuarine deposits with shells, and the occurrence of *Diprotodon*, point to a high rainfall in the Upper Pliocene and early Pleistocene epochs, in what are now arid, or almost arid, regions in Australia. Desiccation followed, extending in the south and centre to the present day. Agreement is expressed with Prof. T. G. Taylor's conclusion that "the climatic belts are moving poleward from the equator. The desert region is encroaching on the southern coasts of the Continent. The northern littoral is getting wetter." The laterites of the northern territory and of northern Queensland are referred to greater aridity here in early Pleistocene times. The cooling that gave rise to a glacial stage, at any rate in New Zealand, may have been as much as 5° C. (9° F.) in southern Australia, and occurred before the aridity set in. The question of a general southern glaciation is, however, not touched on in the report.

NEW SENSITISER FOR GREEN LIGHT.—Dr. W. H. Mills and Sir William Pope of Cambridge (Journal of the Chemical Society, May, p. 946) have discovered a new sensitiser for photographic plates, which they state to be the most powerful sensitiser for green light yet known. It is especially noteworthy also because the gap in the bluish green, which appears almost always when using sensitisers for this region of the spectrum, does not occur with it. The substance, 2-*p*-dimethylaminostyrylpyridine methiodide, is produced as bright red prisms when condensation is caused to take place between *p*-dimethylaminobenzaldehyde and 2-methylpyridine methiodide with the aid of piperidine. Gelatino-bromide plates, after bathing in an aqueous solution containing one part of the dyestuff in thirty or forty thousand parts, show almost uniform sensitiveness to light of all wave-lengths from the blue to about  $\lambda$  5600, at which point the sensitiveness rapidly declines and ends at about  $\lambda$  6200.