

Snowdrops and Snowflakes

A Study of the Genera *Galanthus* and *Leucojum*. By F. C. Stern. Pp. v+128+14 plates. (London: The Royal Horticultural Society, 1956.) 25s.

FOR all their coy and innocent appearance, snowdrops (*Galanthus*) and, to a lesser degree, snowflakes (*Leucojum*) have been something of a headache to botanists and botanically minded gardeners. They are not easy plants to classify, yet one cannot help feeling that the botanists have sometimes created difficulties by relying too exclusively on the doubtful evidence furnished by herbarium specimens, while the gardeners, equipped with a better knowledge of the living plants, have been overmuch concerned with the exceptional 'sport' or hybrid, refusing to subordinate their love of novelty to the prosaic generalizations of plant taxonomy. It is fortunate that Sir Frederick Stern combines the enthusiasm of the horticulturist with the restraint of the taxonomist, and his detailed study should clear away much of the confusion which has hitherto bewildered students of the two genera. Nothing has been excluded from this book which might assist the botanist or the gardener: there are essays on the history, morphology and classification of the group; keys for identification; full descriptions of each genus, species, subspecies and variety with synonymy and notes on geographical distribution; two chapters on cytology (the *sine qua non* of modern taxonomy); a valuable account of the garden varieties of *Galanthus* (partly contributed by the late Mr. E. A. Bowles) and practical advice on the cultivation of both genera. The drawings and photographs are excellent, and the map shows, at a glance, the distribution of *Galanthus* and *Leucojum* species, with their chromosome numbers.

No doubt more remains to be written on the subject, for many snowdrops and snowflakes come from regions still imperfectly known to the botanist, but the main task has been accomplished, and future workers should have considerably less difficulty in adding the trimmings.

R. D. MEIKLE

Hétéroptères Aquatiques

Par Prof. Raymond Poisson. (Faune de France, 61.) Pp. ii+263. (Paris: Éditions Paul Lechevalier, 1957.) n.p.

THE latest volume in this very useful series is well up to the high standard already set. Prof. Poisson of the University of Rennes is a leading specialist on the water bugs and has already dealt with some of the families in previous papers on the French fauna. This is the first time that the families have been dealt with in a more or less comprehensive manner. I notice, however, that although the littoral Ochteridae and Aepophilidae have been included, the Saldidae, which are very closely related to the latter, have been omitted. Perhaps this is because the Saldids are generally regarded as terrestrial, although the majority of species live along the shores of ponds and rivers, as do the Ochteridae, some species even inhabiting the seashore, as does *Aepophilus*. Indeed, the Saldidae may be said to represent the type of shore bug from which the modern surface bugs have evolved.

The book commences with an introduction in which the classification is briefly described in the light of recent studies and in which a short account is given of general morphology and development in the aquatic bugs. This section concludes with a list of

parasites, a few pages on collecting and preparation of specimens and a faunistic bibliography. Each family is then taken in turn and an account of the biology is given, followed by a taxonomic section with keys to the subfamilies, genera and species. The book ends with a fairly comprehensive bibliography. Altogether twenty-nine genera and eighty-nine species are dealt with. The work is well illustrated with 185 text figures mainly by the author, and should be of great value to British students of the water bugs since all our native species occur in France.

W. E. CHINA

Man's Journey Through Time

A First Step in Physical and Cultural Anthropochronology. By Prof. L. S. Palmer. Pp. xv+184. (London: Hutchinson Scientific and Technical, 1957.) 30s. net.

IN a brief summary of his objectives, Prof. L. S. Palmer argues that from the skeletal remains of man it should be possible by anatomical measurements to follow quantitatively the course of his physical development; and further, from the vast evidence of his cultural remains, it should be practicable to study quantitatively his cultural development by allocating numerical values to his artefacts and to other evidence of his mental attainment. He discusses his methods in some detail and then applies them: (1) to prehistoric skulls; (2) to the remains left by prehistoric cultures. He depends for outside data on several investigators, such as Prof. Zeuner. Should they by chance have not always been quite correct, difficulties in making the graphs might arise. Again, it is not quite clear to the reader how the problem is affected should mankind's development be a spiral rather than a steady progress. All the same, the theory is of interest, and Prof. Palmer has too good a mind for it to be safe to dismiss it out of hand. The pictures of skulls in Chapter 3 form an impressive gallery and will be very useful to students. The chapter on the cultural development is rather more difficult to follow, but is well illustrated. The illustration on page 94, by the way, is from paintings at Castillo, not from Hornos de la Peña, and the original is at 90° to the way shown in the illustration. This is a provocative book, but its theory, like any other, should be considered.

M. C. BURKITT

Algebra

A Text-Book of Determinants, Matrices, and Algebraic Forms. By W. L. Ferrar. Second edition. Pp. viii+220. (London: Oxford University Press, 1957.) 17s. 6d. net.

THE first edition of this book appeared in 1941 and in the interim period there have been five reprintings, which provide adequate testimony to its popularity and satisfactory achievement. The new edition differs only from the original in that slips and misprints have been corrected, and by the addition of a new chapter on latent vectors.

It may be taken, therefore, that the book is quite well known, but for the benefit of those who may be unacquainted with its purpose we may recall that it is written chiefly for undergraduates taking a general honours course in mathematics.

However, its subject-matter is employed so much to-day by engineers and physicists that their attention should be directed to it as constituting a very readable work on the more elementary properties of the mathematical forms indicated by the title and as an easily assimilated text for self-tuition.

S. A. STIGANT