

M. triangulatus separatus Sudbury, 1958, in place of *M. separatus separatus*.

M. triangulatus fimbriatus (Nicholson, 1868), in place of *M. separatus fimbriatus*.

M. triangulatus similis (Elles and Wood, 1913), in place of *M. separatus similis*.

M. triangulatus predecipiens Sudbury, 1958, in place of *M. separatus predecipiens*.

M. triangulatus triangulatus (Harkness, 1851), in place of *M. separatus triangulatus*.

M. triangulatus major Elles and Wood, 1913, in place of *M. separatus major*.

M. triangulatus extremus Sudbury, 1958, in place of *M. separatus extremus*.

I should like to thank Prof. Dr. Bedřich Bouček for drawing my attention to this matter, and Mr. R. V. Melville for helpful discussion.

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INTRUSION-BRECCIA OF DUNMORE, Co. DONEGAL

SIR.—In a recent account of the intrusion-breccia at Dunmore, Co. Donegal, attention is drawn to the association between gas-drilled tuffisitic pipes and post-tectonic plutons (French and Pitcher, 1959). My own work in West Cork has revealed the occurrence of tuff-filled pipes penetrating folded Coomhola series sediments and raises the question of the possibility of the Southern Ireland fold belt concealing a pluton at no great depth.

The West Cork bodies, a complete description of which is in hand, have many points in common with the Dunmore breccia. The most important of these are (a) the occurrence of pipes or vents with sharp and steep contacts, (b) the emplacement due to gas-stream action, and (c) the petrographical similarity of texture and mineralogy of the matrices, except locally where the mineralogy is modified by the mechanical incorporation of comminuted country rock. Certain features of the West Cork bodies are not shared by any of those described intrusions which are more obviously associated with plutons. A significant fact may be that although three plug-like bodies have been recorded the bulk of the intrusions are dykes. Twenty dykes are known with a range in width from a few inches to 15 feet. All these intrusions post-date the main phase of folding. A second distinctive feature of the West Cork plugs is the heterogeneity of the fragments and blocks forming the breccia. Graded zones can be defined, (a) containing blocks readily identified with the local succession and (b) containing exotic blocks and crystals from coarse hornblendite and calc-silicate rocks to gneisses. Single crystals of amphibole up to 6 inches in diameter occur. Thirdly, the degree of metamorphic change is minimal, suggesting that the gas was dry and not hot.

Other evidence suggestive of the proximity of a pluton in West Cork includes:—

(1) The regional metamorphism (which, although never high grade is not simply dynamic).

(2) The sulphide mineralization which elsewhere is associated with granite.

(3) The style of deformation in which cleavage folding predominates. The significance of this is discussed by L. U. de Sitter (1956).

(4) The presence of exposed granite bodies in the easterly continuation of the fold belt in South-West England.

Finally I would like to draw attention to yet another gas emplaced breccia, wholly in granite, occurring at the northern end of the Leinster massif and described by J. C. Brindley (1957).

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THE DEPARTMENT OF GEOLOGY,
THE UNIVERSITY,
EXETER.

26th February, 1959.

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- BRINDLEY, J. C., 1957. The Blackrock Granite-Breccia, Co. Dublin—An Interpretation. *Sci. Proc. Roy. Dublin Soc.*, xxvii, 283–6.
 FRENCH, W. J., and W. S. PITCHER, 1959. The Intrusion-Breccia of Dunmore, Co. Donegal. *Geol. Mag.*, xcvi, 69–74.
 DE SITTER, L. U., 1956. The Strain of Rock in Mountain-Building Processes. *Amer. Journ. Sci.*, ccliv, 585–604.

REVIEWS

INTRODUCTION TO THE STUDY OF CRETACEOUS OSTRACODA. By H. V. HOWE and L. LAURENICH. 536 pp., numerous text-figs. Louisiana State University Press, Baton Rouge, 1958. Price \$7.50.

This volume attempts to figure and describe every species of ostracod from the Cretaceous System introduced into the literature up to the close of 1956. Some papers which appeared in 1957 are also included, and a two-page appendix annotates a list of supplemental literature. In fact, the authors have achieved a fairly comprehensive survey up to that date, and have even illustrated the twenty general and many more species which in recent years have been described in Russian periodicals by Mandelstam and his colleagues—literature which provincial students in Europe and America still find difficult to consult. The genera are not arranged taxonomically, but alphabetically; the systematic position of each genus is stated if known. This scheme obviates the need for an index, and is easier to use than might be supposed. A 35-page Introduction includes a statement as to the stratigraphical limits of the Cretaceous. Perhaps fortunately the authors have avoided controversy in discussing either the Wealden or Danian in Europe, and have contented themselves by clearly indicating what criteria they have used in determining whether to include species from the marginal horizons. The latter half of the Introduction is devoted to certain aspects of the morphology of the ostracod carapace. Particular attention is paid to the form of the muscle-scars and the nomenclature and classification of the hinge. This section is no mere summary of existing practice, but includes an elaborate nomenclature in which more than half of the sixteen terms used are introduced for the first time. Likewise, the systematic part of the work is not confined to a survey of the literature, and four new genera are proposed. The figures are mainly reproductions of pen-and-ink drawings. They vary much in quality, as is inevitable considering that many are copied from inadequate originals. The majority are clear, and some are quite beautifully executed and a pleasure to study. But few will agree with the authors when they suggest that, in the illustration of the Ostracoda, drawings are very much better than photographs; nor would they necessarily concur with the stipulation that, if photographs are to be used, they should be mounted on a white rather than a black background.

The study of Mesozoic ostracods during the last ten years has gained greatly in impetus, and each year sees the addition of an increasing number of new recruits. The production of the present volume is therefore timely. It will be quite indispensable to all those working with Cretaceous ostracods, and a valuable asset to those with interests confined to the Jurassic or Tertiary. By utilizing the photo-offset process of lithography from a typescript original, costs have been kept relatively low, and the volume is strongly bound in cloth.

P. C. S.-B.