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PRUNELLA LACINIATA IN KENT. Mr. W. R. Sherrin has kindly given me a specimen of the above, which he collected near Herne Bay in 1909. This appears to be an addition to v.c. 15. *P. laciniata* is now on record for the following nine counties:—Somerset N. ! (v.c. 6), Hants S. (v.c. 11), Sussex E. ! (v.c. 14), Kent E. ! (v.c. 15), Surrey ! (v.c. 17), Herts (v.c. 20), Berks ! (v.c. 22), Cambridge ! (v.c. 29), and Gloucester E. (v.c. 33).—C. E. SALMON.

SATUREJA MONTANA L. IN HANTS (p. 25). The occurrence of this plant at Beaulieu Abbey must have been surely well-known to botanists of a preceding generation. I have a sheet of specimens, duly named, collected by the late A. Grugeon at Beaulieu Abbey in Aug. 1873.—C. E. BRITTON.

ATRIPLEX CALOTHECA Fries "*A. hastata* L. Wg." teste Lindman, Svensk Fanerogamflora, p. 228 (1918). Mr. Lillie gathered this growing with *A. arenaria* Woods on the east coast of Caithness in Sept. 1918. These are the first certain specimens I have seen from Scotland.—ARTHUR BENNETT.

POA OMEIENSIS (p. 25). In creating this name, Dr. Rendle had overlooked his previous correction (Journ. Bot. 1908, 173) where he had substituted *P. szechuensis* for his *P. gracillima*. *P. omeiensis* is thus an abortive name.

REVIEWS.

ICELAND BOTANY.

The Botany of Iceland. Vol. i. pt. 6. The Lichen Flora and Lichen Vegetation of Iceland. By OLAF GALLØE. Vol. ii. pt. 1. Freshwater Diatoms. By ERNST ØESTRUP. Copenhagen, 1919–1920.

GALLØE has divided his study of Iceland lichens into five sections:—(1) A list of Iceland lichens; (2) a discussion of the means of propagation; (3) the biology of lichens; (4) Ecology; and (5) the vertical distribution. It is the ecology of plants in an island subject to wind-storms and to extreme cold that offers most points of interest. The list of lichens gives us the subject-matter: it contains 285 species, among which the lichens of warmer regions and those that grow on trees are poorly represented: crustaceous rock-lichens and soil-lichens predominate. The author has added to each a statement of its presence or absence in Great Britain on the one hand and Greenland on the other. The large majority are to be found in our islands, though Dr. Galløe has credited us with species the record or which is unknown to our floras; and, at the same time, he has failed to note some of our quite common species. He is also somewhat inconsistent in his citation of authorities, giving sometimes only the earliest, as in "*Coniocybe furfuracea* L.," at others carefully relegating that authority to the usual bracketted position as "*Cladonia coccifera* (L.) Willd."

In the discussion on Ecology the "Associations" are divided into

(1) Bark-lichen, (2) Earth-lichen, and (3) Rock-lichen. Under these headings, which represent the substrata, he describes the occurrence of the lichens, the influence of the varying types of tree, soil, or stone, and the effect even in Iceland of variations of climates. Dr. Galløe considers that severe cold affects the growth of lichens adversely. This has not been altogether the experience of lichenologists in other regions. The boulders in Antarctic areas were found to be completely clothed with lichen vegetation; a great point in their favourable development was the absence of competition with other plants, an advantage which we are told is shared by the rock-lichens of Iceland.

In a previous part of the *Botany of Iceland*, Hesselbo gave much attention to the influence of hot springs on the moss vegetation in their neighbourhood (see Journ. Bot. 1918, p. 278). Some account of the lichens (if there be any) growing in these areas would have been of extreme interest, and it is to be regretted that the opportunity to discuss such an important ecological question has been missed.

As regards vertical distribution, the author concludes from his observations that lichens are least abundant where the cold is most severe: that both as regards the number of species and mass-occurrence, lichens are "very far from covering all the soil on mountain heights which is bare of all other competitors." He found that the same conditions prevailed in rock-lichens, there being fewer on the very high mountains than on the lesser altitudes. The paper abounds in original observation, and shows how much of interest is still to be learned about lichens and their habitats.

The special thanks of British students are due to the author for giving us his study in English. The reference (p. iii) to "Crombie, British Lichens, 1894-1911" requires correction. A. L. S.

Ernst Oestrup's posthumous paper on the Freshwater Diatoms from Iceland is based upon 572 samples of diatom-material, gathered by some sixteen collectors mostly in the east, south, and south-western parts of Iceland. The work is divided into two parts: (1) a systematic list with references to literature and giving descriptions of 57 new species and 13 new varieties which are all figured in the 5 plates; and (2) an alphabetical list with tables showing the distribution of all the 468 species and varieties in Iceland itself, and their wider distribution in the Arctic region and in the five continents of the world. The number of forms previously recorded for the island was 131; so its diatom-flora is now three-and-a-half times as large. In an appendix is a list of the forms collected in hot springs; these include 178 species and varieties, representing 31 genera, and for the most part they were found in the living state—that is, containing endochrome. A. G.

Water Plants, a Study of Aquatic Angiosperms. By AGNES ARBER, D.Sc., F.L.S. 436 pp. and 172 figures. Cambridge University Press, 1920. 31s. 6d. net.

It is always interesting to see how Modern Botany of the Schools will approach the subject of the indigenous flora, and explain what