

*Woodsia*, and if so, the species that Linnæus took it for. Also that, as it is said on good authority to grow in the Crimea, it may really belong also to the mountains of Elba. A. G.

11. *The New Views respecting the nature of Lichenes and their Gonidia.*—The recent bibliography upon this interesting subject is carefully analyzed in the *Revue Bibliographique* of the Bull. Soc. Bot. de France, fasc. 1 of the 20th volume, down to March, 1873—a year ago; from which one gets a good view of the state of the question at that date. M. Bornet's paper, of which we gave some account in our last volume, is one of the latest there noticed. A. G.

12. *Villars*, author of the History of the Plants of Dauphiny, as now appears from a biography by M. Albert, noticed in the *Revue* above cited, really bore the name of *Villar*. As his botanical works were published in his own life-time, and all under the name of *Villars*, it is to be hoped that no one will endeavor to reform the orthography of the genus *Villarsia*. A. G.

13. *Eryngium*; species with parallel-veined leaves.—Prof. DECAISNE made a communication to the Botanical Society of France upon this subject, at the meeting on the last day of January, 1873, which is published in the Bulletin, 20, pp. 19–27. These species are all American, as is the larger part of the genus; and M. Decaisne thinks it a remarkable case, not to say inexplicable upon the now current mode of explaining such things, that the peculiar modification should co-exist with the ordinary forms, and over a wide range. Indeed, the two dozen species with “monocotyledonous foliage” are scattered along the length of the continent, from the Great Lakes at the north to the borders of Patagonia. That this lower form, as indicated by the monocotyledonous foliage, should be confined to the New World, while those with well-developed or compound leaves are common to the Old World also in the northern hemisphere, seems to M. Decaisne incongruous with the reigning ideas of the descent of species and the earlier appearance of the simpler or lower types. He appears to argue that, if the *Eryngia* are all descendants of a primitive stock which had gained a dispersion round the world at the north, before this was “violément disloquée par le cataclysme qui a séparé le globe en deux continents” [which is highly antiquated geology], then the Old World should have had a share of the “monocotyledonous-leaved” species which, *ex hypothesi*, should have been the more ancient, whereas their less wide diffusion indicates that they are more modern.

Now, in the first place, these species may have been in Europe also in the earlier days, along with many other American types which then abounded but have since disappeared. And in the second place, this peculiarity of foliage may be merely an *adaptive* character, parallel to that of the phyllodineous Acacias of Australia. That such leaves in *Eryngium* are petiolar (and not laminal) in nature is fairly made out by a comparative study of our species. And if the typical species, *E. aquaticum* of Linnæus, lived in the medium implied by the name, this kind of foliage

would represent one of the commonest adaptations to aquatic life. It actually grows, however, on drier ground than any other of our species, rendering the name so nearly a misnomer that I have proposed (considering also that Linnæus mixed two or three species under *E. aquaticum*) to drop that name in favor of the later but most appropriate name of *E. yuccæfolium* Michx.

Something like this is probably true of the Mexican and South American species of this group. Even if not themselves aquatic, they are very probably descendants of *Eryngia* which were so, and so inherit an adaptive character which has in its turn been adapted to terrestrial conditions.

From the catalogue which Prof. Decaisne gives of the species represented in the herbarium at the Jardin des Plantes, it is noticeable that several of our United States species are wanting, especially the species of Oregon and California, and *E. Ravenelii* and *E. præaltum* Gray, of the south; of which specimens are desired in order that these desiderata at Paris may be supplied.

A. G.

14. *On the Origin and Metamorphoses of Insects*; by JOHN LUBBOCK. Nature Series. (Macmillan & Co.)—This little book is full of interesting information relating not only to insects, but to various other animals. The facts are presented in a clear and attractive style and are discussed with great candor, in reference to their bearings on the theories of evolution. The illustrations are numerous and well executed.

v.

15. *Man and Apes: an exposition of structural resemblances and differences bearing upon questions of affinity and origin*; by ST. GEORGE MIVART. 8vo, with numerous illustrations. New York. (D. Appleton and Co.)—The facts briefly and clearly expressed in this work have important bearings upon the general subject of evolution, as well as upon the origin of man. The general scope of the work is sufficiently indicated by the table of contents: Part I, External form, habits, geographical distribution and classification; II, External skeleton and internal skeleton; III, Nervous system, visceral anatomy, summary of characters and questions of affinity and origin.

v.

16. *The Comparative Anatomy of the Domesticated Animals*; by A. CHANEAN, translated and edited by George Fleming. 957 pages, large 8vo, 450 illustrations. New York. (D. Appleton & Co.)—This is a valuable and comprehensive treatise, and is undoubtedly the best manual relating to this subject, in the English language.

v.

17. *The Structure of Animal Life. Six Lectures delivered at the Brooklyn Academy of Music, in January and February, 1862*; by LOUIS AGASSIZ. Third edition. New York, 1874. (Scribner, Armstrong & Co.)—This is essentially a mere reprint of the first edition. The typography, otherwise good, is marred by the use of the same rude and often incorrect wood-cuts, apparently copies of hasty black-board sketches, that appeared in the first edition. Many of these are no better than caricatures of nature, for which