so soon after its original publication, both as a separate volume and as a contribution to the proceedings of a learned society. It is not merely an exposition of conflicting views; it is a decided contribution to the theory of descent, a perusal of which is rendered both interesting and in a high degree instructive by a notable clearness of statement and a judicious and intelligent arrangement of topics. Every student of the theory of descent will find it of great value, and an English translation, which might render it available for the wide circle of those interested in the present position of the theory of natural selection, is highly desirable.

It may with propriety be added that the book is furnished with an excellent author and subject index and contains a bibliography consisting of over two hundred and sixty references. J. P. McM.

SCIENTIFIC JOURNALS AND ARTICLES.

THE longer articles of the September and October numbers of the *Botanical Gazette* are all ecological. They contain the first half of a long contribution to the ecological plant geography of the province of New Brunswick by Professor W. F. Ganong, of Smith College, entitled 'The Vegetation of the Bay of Fundy Salt and Diked Marshes.' The first instalment discusses the distribution and extent of the marshes (with maps); their geological origin and mode of formation; the economics of the marshes, including crops, prices and mode of reclamation; factors determining the ecological features of the marsh vegetation, including a discussion of the relations of water, temperature, light, soil and animals; and after summarizing the ecological factors the author enters upon a consideration of the vegetation of the marshland.—Mr. G. H. Shull, of the University of Chicago, gives a thorough account of 'The geographic distribution of *Isoetes saccharata*,' a plant limited to the fresh-water portions of Chesapeake Bay and its tributaries. After listing and mapping the known stations of this plant, the author discusses the causes to which its restricted distribution is due. He considers it autochthonous in Chesapeake Bay and the parent of *Isoetes riparia*, its present distribution being explained by the geomorphic movements of the coastal plain.—Mr. S. B. Parish, of San Bernardino, presents 'A Sketch of the Flora of Southern California.' After an extended statement of the orographical features of the region, the deserts, the drainage system, the geological formations and the climate, he describes the phytogeographic areas and discusses the flora peculiar to each. The interrelations of the different life areas, the physiognomic characteristics of the flora, the distribution of the plants, the statistics of classification and the affinities of the flora are successively presented. The paper closes with a comparison of the flora of southern California with that of various other regions east and west, and with a few words on the cryptogamic flora, which has yet been imperfectly explored.—In the October number Professor John W. Harshberger, of the University of Pennsylvania, presents the first part of 'An Ecological Study of the Flora of Mountainous North Carolina.' The topography, drainage, physiography and geology of the region are described, and also the effect of the physiographic changes upon the distribution of plants. After discussing the phenological distribution of plants the author takes up the influence of glaciers upon the flora of North Carolina and the principles underlying the distribution of plants in eastern America, closing this portion with a consideration of the effect of edaphic factors.—The 'Briefer Articles' are more varied. In the September number Professor Charles Thom describes a gall produced by insect larvæ upon a delicate mushroom, *Omphalia campanella*, a phenomenon which has not been previously reported.—Professor W. C. Coker, of the University of North Carolina, shows that the usual absence of dorsal air chambers in the genus *Dumortiera* is dependent upon its semi-aquatic habits, and that it has evidently been derived from forms possessing such structures. He also gives a drawing showing the origin of the branched cells ramifying in the Nostoc-chambers of *Blasia pusilla*. In the sporangium of *Sphærocarpus terrestris* he finds round sterile cells, probably the homo-

logues of elaters, containing chlorophyll bodies which remain green almost to the time of ripening of the spore. In the October number Professors G. F. Atkinson, of Cornell University, and W. C. Coker, of the University of North Carolina, describe a minute new species of *Geaster, G. leptospermus,* belonging to the fornicate section of the genus, which was found growing upon mosses on tree trunks by Professor Coker.—Professor B. M. Davis, of the University of Chicago, notes the occurrence of spores of a *Tilletia* (?) in the capsule of *Ricciocarpus natans,* and Dr. Florence M. Lyon figures a section of the sporophyll and axis of *Selaginella rupestris,* showing two megasporangia, a phenomenon not hitherto reported.—There are the usual reviews of current literature and items of news.

SOCIETIES AND ACADEMIES.

THE TORREY BOTANICAL CLUB,

At a meeting of the club held at the College of Pharmacy on October 15, 1903, Dr. Rusby occupied the chair.

The scientific program consisted of brief informal reports on the summer's work by the different members.

Dr. Britton reported having made a second trip to Cuba, leaving New York the latter part of August. He was accompanied by Mrs. Britton and Mr. Percy Wilson. In part the same ground was covered as in his first expedition, but the journey was continued into the province of Santa Clara. At Sagua a small area was encountered covered by an isolated flora somewhat similar to that found at Madruga on the first trip. Both areas were characterized by an abundance of a peculiar palm that was not seen elsewhere. The species is as yet undetermined, but living specimens have been successfully brought to the garden. Both of these peculiar plant associations are on soil areas quite different from the prevailing coral-limestone formation.

Mr. Earle reported having made a trip to Porto Rico in the interest of the Department of Agriculture during the last of May and the first of June. The trip was mostly for the purpose of noting the diseases of economic plants, and a report has been submitted to the department. One of the most interesting things observed was the occurrence of several fungous diseases of scale insects. Two of these diseases were abundant enough to constitute efficient checks on the scales attacked.

Professor Lloyd reported having spent some weeks on the island of Dominica, accompanied by Mrs. Lloyd. He observed many orchards of limes in poor condition owing to the attacks of scale insects and wood-destroying fungi. He illustrated his exploration of the island by means of a blackboard map showing the position of three volcanic craters and of the highest peak visited, 4,700 feet. A large collection of herbarium material was secured.

Professor Underwood spoke on the ferns of Jamaica. He left New York early in January, spending five months in Jamaica and eastern Cuba. Jamaica is especially rich in ferns, about five hundred species being known from the island. Of these he collected over four hundred, mostly in the Blue Mountain region from an area about equal to that of Westchester County. A hundred species may be taken along the bridle path from Cinchona to Morce's Gap, a distance of three miles. Tree ferns become abundant at an elevation of about 3,000 feet. Thirty species are more or less common. The trunks are often covered by rich growths of filmy ferns, of which about sixty species occur. The John Crow Mountains in eastern Jamaica have never been visited by botanists and the 'Cock Pit Country' in the western end of the island had not been previously visited. He spent a week, accompanied by Mr. Harris, of Hope Gardens, Jamaica, in exploring one corner of this region and found many things of interest.

Mr. Nash reported on his recent trip to Haiti. The country belongs to the negroes and a white man has to take second place. The island is 407 miles long by 195 miles wide, with extremely diversified topography. There are two main ranges of mountains. Large salt lakes occur in the southern portion. In the north-central area there are large pine forests. The strand flora is much like that of the other islands, but as you get into the interior the character entirely changes and there are