PROCEEDINGS OF THE CLUB

Wednesday, April 26, 1905

This meeting was held at the museum of the New York Botanical Garden, with seventeen persons present and President Rusby in the chair.

A letter from the Brooklyn Institute of Arts and Sciences proposing coöperation in the field excursions of the Club was read and referred to the chairman of the field committee with power to act.

The announced paper by Dr. P. A. Rydberg on "The Composition of the Rocky Mountain Flora" was omitted by reason of the absence of the author.

"Notes on the Wire-Grass Country of Georgia" was the title of the paper presented by Mr. R. M. Harper.

The wire-grass country takes its name from the wire-grass, *Aristida stricta*, which is common all over it. In a broad sense, the wire-grass country coincides with the pine-barrens, which constitute about two thirds of the coastal plain of Georgia, but for the present purposes the term is restricted to the Altamaha Grit region, an area of about 11,000 square miles.

The climate of the region, as compared with New York City, is about 18° warmer in winter and 9° warmer in summer. The rainfall averages about 50 inches a year, and most of it falls in the growing season. The geographical conditions are remarkably uniform throughout, and on account of this uniformity the flora is not very rich, only about one half as many species being known there as in the state of New Jersey, though the area is larger.

The region is naturally forested throughout, but the forests are mainly of long-leaf pine, which gives little shade. Consequently, the most striking feature of the vegetation as a whole is the adaptation to sunlight, usually manifested by reduction of leaf-surface.

The plants of the wire-grass country can be classified according to habitat into 15 or 20 groups. The principal habitats are

rock outcrops (constituting perhaps about one one-hundredth of one per cent. of the area), pine-barrens (over half the area), swamps, ponds, sandhills, hammocks and bluffs, some of these with several subdivisions.

Civilization has influenced the flora principally through agriculture, lumbering, turpentining and fires. Only a small proportion of the land may be said to be under cultivation. Lumbering has little effect on the herbaceous flora, for the removal of the pine trees does not appreciably diminish the amount of shade. The turpentine operators have been practically all over that part of the country, and have done great damage to the forests. Fires sweep over most of the region every spring, being set purposely by stock-raisers to burn off the dead grass, but the fires do little damage where lumbering and turpentining operations have not been carried on.

The known flora of the Altamaha Grit region consists of about 725 native species of flowering plants, 75 weeds, 20 pteridophytes and 60 bryophytes and thallophytes. The lower cryptogams have been little studied. The largest families are Compositae, 100 species, Cyperaceae, 83, Gramineae, 68, Leguminosae, 50, Scrophulariaceae, 30.

Some of the commonest species of the region are *Pinus palustris*, *P. Elliottii*, *P. serotina*, *Taxodium imbricarium*, *Aristida stricta*, *Serenoa serrulata*, *Eriocaulon decangulare*, *Quercus Catesbaei*, *Eriogonum tomentosum*, *Magnolia virginiana*, *Sarracenia flava*, *S. minor*, *Kuhnistera pinnata*, *Cliftonia monophylla*, *Nyssa biflora*, *N. Ogeche*, *Oxypolis filiformis* and *Pinckneya pubens*.

The following species are common in the wire-grass country (each being known from at least three counties), but are seemingly confined to Georgia: *Sporobolus* (a species with terete leaves), *Rhynchospora solitaria* Harper, *Eriocaulon lineare* Small, *Polygonella Croomii* Chapm., *Siphonychia pauciflora* Small, *Viola denticulosa* Pollard (with leaves a foot and a half long), *Dicerandra odoratissima* Harper, *Pentstemon dissectus* Ell., *Baldwinia atropurpurea* Harper, *Marshallia ramosa* Beadle & Boynton, and *Mesadenia* sp. (near *lanceolata*).

One of the most interesting features of the pine-barren flora,

not generally known to botanists, is that the whole region was submerged beneath the sea in Pleistocene times, consequently the species now confined to the pine-barrens (from New Jersey to Texas), perhaps several hundred in number, have probably originated since that time.

Mr. Harper's remarks were illustrated by many photographs and specimens. The paper was discussed by Drs. Britton and Rusby.

Mrs. Britton then spoke of certain interesting southern mosses, especially of *Erpodium*, a curious genus having the habit of a *Frullania* or *Lejeunea*. A species of this collected many years ago by Sullivant at Augusta, Georgia, was published by Austin as a hepatic under the name *Lejeunea biseriata*. Mrs. Britton discussed and exhibited also numerous mosses from the extreme southern part of Florida. A few of these appear to be undescribed but most of them are of species that are widely distributed in the West Indian region.

Dr. Rusby showed specimens of spurious ipecac roots which have found their way into the markets. The true ipecac (from *Cephaëlis Ipecacuanha* of the family Rubiaceae) is now hard to obtain and high-priced. Some of the spurious root comes from other species of the same genus, but the most common adulterant is from the genus *Ionidium* (*Calceolaria*) of the family Violaceae. Dr. Rusby exhibited also specimens of *Porteranthus stipulatus*, which is sometimes called the North American ipecac.

Dr. Britton showed living plants of two species of Crassulaceae which had come into flower in the greenhouses of the New York Botanical Garden. One was *Sedum Nevii*, hitherto described from dried material, a species collected originally in southwestern Virginia, but since found to extend to Indiana. The other was a *Pachyphytum* from Mexico. Dr. Britton stated that in North America north of the Isthmus, 284 species of Crassulaceae may be recognized, distributed in 25 genera. Representatives of all these genera have now been studied in the living state.

Before adjourning, it was voted to hold the next meeting at the Botanical Garden in the afternoon instead of at the Museum of Natural History in the evening. MARSHALL A. HOWE,

Secretary pro tem.