Malaria must be carried by mosquitoes. The Crustacea which carry disease are parasitic. It looks as if an animal parasite were necessary for the transmission of yellow fever. The course of the disease in man is rapid. In the mosquito it is slow. Rapid reproduction is characteristic of a non-sexual method; slow reproduction of a sexual method. It is probable that there is an alternation of generations in the mosquito and man. Characteristic Protozoa which carry disease may be Rhizopoda, Flagellata or Sporozoa. It is probable that the yellow fever parasite belongs to one of these classes.

The second paper was a report of 'The New York Meeting of the American Ornithologists' Union,' by Dr. T. S. Palmer. This meeting has been reported in full elsewhere.

The third paper was by Mr. W. W. Cooke, on 'Discontinuous Breeding Ranges of Birds.' The speaker showed many lantern slides illustrating the facts of summer range, winter range, breeding range, and how in some cases these coincide, in others these overlap, and in still others these are quite separate seasonally, and again even geographically, sometimes by distances almost hemispherical.

E. L. MORRIS,
Recording Secretary.

THE TORREY BOTANICAL CLUB.

The club met at the New York Botanical Garden, October 25, 1905, with Professor Underwood in the chair and eighteen persons present.

The announced program consisted of 'Further remarks on the vegetation of the Bahamas,' by Drs. N. L. Britton and C. E. Millspaugh.

Dr. Millspaugh in opening the discussion remarked that the flora of the Bahamas is so locally distributed that all the islands must be visited before a complete enumeration can be attempted, and that a thorough exploration of the archipelago at an early date is very desirable. He then reviewed the history of the exploration of the Bahamas, mentioning the work of Brace, Britton, Catesby, Coker, Cooper, Eggers, Hitchcock, Howe, Madiana,

Millspaugh, Nash, Mrs. Northrop and Swainson (?); and summarizing the work done upon each island.

It is pretty certain that the islands have all been submerged at a very recent geological period, so that the question as to whether they were ever previously connected with the mainland has no significance for the present plant population. The flora seems to have more in common with Cuba and Hayti than with any other region.

Dr. Britton then described some of the noteworthy features of the flora, exhibiting specimens of several of the recently discovered endemic species, and of the palms.

Dr. Howe discussed some of the marine algæ of the Bahamas, remarking upon the apparently very local distribution of some of the species. He exhibited specimens of a new *Halimeda*, and of a new genus, *Cladocephalus*, soon to be described by him in the *Bulletin*.

Dr. Barnhart remarked that he had recently found some evidence about one Swainson, who is supposed to have collected plants in the Bahamas between 1830 and 1842. Some doubts had been expressed as to whether this could have been William Swainson, the zoologist, who is not known to have been in that part of the world at the time indicated, but the evidence goes to show that the specimens in question had been collected for Swainson by some unknown correspondent, and by him communicated to the herbarium at Kew, where they are now found.

Dr. MacDougal exhibited a mounted series of leaves of two hybrid oaks, *Quercus Rudkini* Britton (supposed to be a hybrid between *Q. marylandica* and *Q. Phellos*), the original specimens of which were recently found to be still growing near Cliffwood, N. J.; and *Q. heterophylla* Bartr. (supposed to be a hybrid between *Q. Phellos* and *Q. rubra*) from Staten Island. The specimens exhibited showed an interesting range of variation, and acorns of both hybrids have been planted, so that they can be studied hereafter in the light of recent theories of evolution.

ROLAND M. HARPER,
Secretary pro tem.