

THE FUNGUS GNATS OF NORTH AMERICA. By Oskar A. Johannsen, Ph.D. Parts I-IV, from Bulletins 172, 180, 196 and 200. Maine Agricultural Experiment Station, Orono, Me.

The concluding part of this admirable work was issued in June of the present year, the first part having appeared in Dec., 1909, and the second and third parts in June, 1910, and Dec., 1911, respectively. It is a work of 306 pages, whose aim is to "present a synopsis of the fungus gnats, or Mycetophilidæ, of North America, giving descriptions of and tables to all the genera and species and life-histories when known." On account of their small size and unattractive appearance, these flies have hitherto received little attention from systematic entomologists, so that the preparation of the keys and descriptions of the 82 genera and 428 species must have been a task of unusual difficulty, demanding an exceptional amount of patience and industry on the part of the author, who is therefore the more to be congratulated upon his having so successfully accomplished it.

In the first part the general characters of the family in their various stages are discussed, special attention being given to the venation and the form of the hypopygium of the male. There is also a short discussion of the habits and economic relations of the groups as a whole and an analytical key to the eight subfamilies. The remainder of Part I is devoted to the systematic treatment of the first five subfamilies (Bolitophilinæ, Mycetobiinæ, Diadocidiinæ, Ceroplatinæ and Macrocerinæ), all of which are comparatively small groups. Fifteen genera and 71 species, of which 11 are new, are described in this part.

Part II deals with the Sciophilinæ, and includes a short account of their habits and earlier stages, in addition to the tables and descriptions. Twenty-nine of the 69 species described in this part are new, most of these belonging to the two largest genera, *Sciophila* and *Mycomya*.

Parts III and IV treat of the Mycetophilinæ and Sciarinæ, the two groups of the most economic importance. The former is the largest of the subfamilies, embracing 48 genera and 110 species, of which 54 are described as new. In the Sciarinæ 9 genera and 56 species are described, 46 of the latter belong to *Sciara*, including 22 new species.