

has been found the species had probably best be assigned to a new genus within this tribe. Professor Wheeler has suggested to me that the prolongation of the clypeus gives somewhat the appearance of the truncated head of the subgenus *Colobopsis*, and this character would agree with the structure of the mandibles as indicating that the ant was a wood-inhabiting species.

The Florissant shales have produced more fossil ants than any of the other deposits, excepting, of course, the Baltic amber. Scudder remarks in his volume on the Tertiary insects of North America that "the ants are the most numerous of all the insects at Florissant, comprising, perhaps, a fourth of all the specimens; they form more than three-fourths, perhaps four-fifths, of all the Hymenoptera; I have already about four thousand specimens of perhaps fifty species (very likely many more)." Some four thousand additional specimens were obtained by the expeditions conducted after 1900, and Mr. S. A. Rohwer tells me that a great number of poorly preserved ants were discarded at the locality. Still further evidence of the abundance of the ants at the time of the existence of the Florissant biota is afforded by the presence of many specimens of fossil fish excrement; apparently consisting of the "hard, indigestible heads of ants" (Wheeler, 1910).

About half of the 12,000 specimens which I have examined are well enough preserved to permit specific determination, and nearly a half of the remainder show details sufficient for generic diagnosis. By far the majority of the specimens are males and females, which are nearly equally represented; only about two per cent. are workers. This scarcity of neuters is obviously due to their inability to fly over the lake, for since only a relatively few specimens were blown from the trees or shrubs into the water, they were rarely preserved as fossils. The same deficiency of workers was observed by Heer in his study of the ants in the Oeningen beds, in which "mit einigen wenigen Ausnahmen finden sich nur geflügelte Individuen vor, weil die ungeflügelten Thiere, hier also die geschlechtslosen Individuen, viel seltener im Wasser verunglückten, als die ersteren." The opposite tendency is naturally found in the Baltic amber fauna, most of which "are workers and belong to more or less arboreal species, but there are also quite a number of males and females. As nearly all of the latter have wings, they must have been caught in the liquid resin just before or after the nuptial flight." (Wheeler, 1910.)

The correlation of the castes of the Florissant ants is very difficult. This is especially so because the females and males of a species do not usually occur even in an approximately equal abundance. The com-