

Formicinae as to the number of species. The large number of dolichoderine individuals in the amber is due, however, to the excessive abundance of one species, *Iridomyrmex goepperti* Mayr, of which 5,428 specimens have been found.

It is also evident from the foregoing list that on a basis of their geographical distribution the genera of Florissant ants (excepting those extinct ones whose affinities are not recognized) may be divided into three groups:

1. Those now present in Colorado or neighboring states. As one would expect most of the genera fall within this category, as *Pseudomyrma*, *Pheidole*, *Aphaenogaster*, *Pogonomyrmex*, *Liometopum*, *Iridomyrmex*, *Formica*, *Lasius*, and *Camponotus*.

2. Those which represent a definite neotropical element. Here belong *Archiponera*, gen. nov. (affin. *Dinoponera*) and *Protazteca*, gen. nov. (affin. *Azteca*).

3. Those which represent the old-world fauna, as *Messor* and *Mianeuretus*, gen. nov. (affin. *Aneuretus*).

The significance of this combination of faunas will be discussed later, but it might be noted here that the Baltic amber ants as well are "a mixture of what at the present day we are able to recognize as at least four different faunas, the palearctic, the Indian, the Malayan, and the Australian, with a little more than one-third the genera and nearly one-half of the species palearctic and the remainder belonging to Indomalayan and Australian types." (Wheeler, 1914.)

Comparing the relative numbers of extinct and living ant genera in the amber and Florissant shales, it is interesting to note that 44.1% of the former, and 40% of the latter are extinct. This close agreement is about what should be expected in view of the short interval of time between the Oligocene and the Miocene. It is also instructive to compare the relative number of extinct genera in the other groups of Florissant insects which have been sufficiently well treated. Of the parasitic Hymenoptera, which were studied by Professor C. T. Brues (1910), about 13% of the genera are no longer living. The great difference between this percentage and that of the ants is probably largely due to the fact that in determining the affinities of the fossils Professor Brues was obliged to consider the genera in a somewhat broader sense than has been done with the ants. The Coleoptera, which have been studied very thoroughly by Professor H. F. Wickham, are mainly represented by living genera also, less than 20% being extinct. This is not surprising, however, if we bear in mind that this order is geologically much older than the Hymenoptera, and that many of the living families were well established during the Triassic.