

has also made many helpful suggestions and I am especially appreciative of his interest and encouragement, which has attended the work throughout.

Very little study has previously been made on the fossil ants of American deposits. Scudder described (1877a, 1878) four supposed ants from the Green River formation, and five others (1877b) from the Quesnel beds in British Columbia. Cockerell, more recently (1906, 1927), has described three species from Florissant, two from the Green River shales (1921, 1923b), and one from a small deposit in Brazos County, Texas (1923a). Professor Wheeler has briefly referred to these fossils in his general works on ants (1910, 1926, 1928), and in his study of the mountain ants of western North America (1917) has listed the genera of Florissant which he recognized by a cursory examination of the material at his disposal.

As a result of this neglect of the American forms, our knowledge of the geological history of the ants has been based almost exclusively upon the fossils found in the Tertiary formations of Europe, of which the most important is the Baltic amber (Oligocene). The ants contained in this resin belong to ninety-two species, referred by Mayr (1867) and Wheeler (1914) to the following genera: *Prionomyrmex*,* *Bradoponera*,* *Ectatomma*, *Electroponera*,* *Platythyrea*, *Euponera*, *Ponera*, *Sima*, *Monomorium*, *Erebomyrma*, *Vollenhovia*, *Stenammas*, *Aphaenogaster*, *Electromyrmex*,* *Agroecomyrmex*,* *Myrmica*, *Nothomyrmica*,* *Leptothorax*, *Stiphomyrmex*,* *Enneamergus*,* *Protaneuretus*,* *Paraneuretus*,* *Dolichoderus*, *Iridomyrmex*, *Liometopum*, *Asymphylomyrmex*,* *Pityomyrmex*,* *Plagiolepis*, *Rhopalomyrmex*,* *Dimorphomyrmex*,¹ *Gesomyrmex*, *Prodimorphomyrmex*,* *Oecophylla*, *Prenolepis*, *Lasius*, *Formica*, *Glaphyromyrmex*,* *Pseudolasius*, *Dryomyrmex*,* and *Camponotus*. The Formicidae of the much rarer Sicilian amber were studied by Professor Carlo Emery (1891, 1913), who recognized the following genera: *Ectatomma*, *Ponera* (?), *Cataulacus*, *Hypomyrmex*,* *Podomyrmex*,* *Aëromyrmica*, *Meranoplus*, *Leptothorax*, *Tapinoma*, *Technomyrmex*, *Plagiolepis*, *Gesomyrmex*, and *Oecophylla*. The two most productive of the Tertiary rock deposits of Europe, as far as insects are concerned, are at Radoboj in Croatia, and Oeningen in Baden. The ants of the Radoboj formation were described by Heer before our present conception of the genera of ants had been reached, so that the species were lumped into *Formica*, *Myrmica*, *Ponera*, and *Attopsis*. Fortunately, Mayr was able to examine a number of speci-

* Extinct.

¹ Recently shown by Wheeler to be synonymous with *Gesomyrmex* (Psyche, 36, p. 1-12, 1929).