

**Dates on which the Immature or Mature Sexual  
Phases of Ants have been Observed  
(Hymen.: Formicoidea).**

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Ants, because of their striking polymorphism, offer many difficulties to the taxonomist. It is especially unfortunate that practically all the keys and descriptive matter on these insects have been based on the workers. Queen ants, it is true, can very often be placed specifically with little or no difficulty because of the strong similarity which they bear to the workers. In many cases, however, this resemblance to the workers is more or less elusive and one would not be courageous but foolhardy in attempting to determine queens specifically, unless one knew that they came from the same colony as did the workers, and that they were not temporary or permanent parasitic forms.

As an illustration of the confusion existing in connection with the proper assignment of males and females to the correct species, no group of ants offers a better example than the driver or legionary ants of the subfamily Dorylinae. In this group there are numbers of species known only from one caste, such as the worker, the queen, or the male. Until the sexual phases are taken in the colony with the workers this confusion will continue to exist. Taxonomists are gradually clearing up this perplexing problem by assigning many species to synonymy as they finally link up the various castes of a species. As a typical example one might cite the case of *Eciton (A.) pilosus*, which was described by F. Smith from worker specimens in 1858. A year later Smith erected another species, *E. (A.) mexicanum*, from a collection of male specimens only. For many years the two species stood in literature until 1921 when Wheeler detected that *E. (A.) mexicanum* was the male of *E. (A.) pilosus*. Since the latter name was published first, the name *E. (A.) mexicanum* was very properly relegated to synonymy.

The males of ants are much more difficult to place specifically than either the workers or queens. At the present time one should be very cautious in assigning males to the species unless