

said to take the place of the more moisture-loving species of *Formica*, to which they are very closely related. In fact, the two genera differ only in certain minor characters, such as the greater length in the worker and female *Myrmecocystus* of the fourth as compared with the fifth joint of the maxillary palpi and the more parallel frontal carinæ. In many, but not in all, species of the genus the wings of the male lack the discoidal cell, but this is present in the females. Comparison shows that there are certain striking differences between the Old World and North American species. The males of the American forms are small, resemble those of *Lasius* and have very simple genitalia. The workers and females have gular but no mental ammochætæ. In the Old World species the males are much larger and more like those of *Formica*, with more complicated genital valves, and the ammochætæ of the workers and females are developed as a tuft on the mentum and are absent on the gula. All of the Old World species are, moreover, highly carnivorous, whereas those of the New World have a varied diet: some being excessively carnivorous, while others, at least during certain seasons, are aphidicolous or feed on the sweet excretions of plants. Forel, many years ago (1886), called attention to some of these differences between the palearctic and neractic *Myrmecocysti*, and concluded that we ought, perhaps, to separate the latter, "retaining for them the name *Myrmecocystus* and reëstablishing the genus *Cataglyphis* Foerster for the other species." He hesitated to do this, however, because the female of *M. melliger* and *æneovirens*, and the worker and female of *Formica oculatissima* and *aberrans* were unknown and the winged sexes of *M. bombycinus* were imperfectly known. *M. æneovirens* has since been consigned to the genus *Melophorus*, and the winged sexes of certain forms of *M. melliger* have now been found. As they differ very little from those of *M. mexicanus* I believe that *Cataglyphis* should be reinstated, at least as a subspecific name.

Our North American *Myrmecocysti* are known to range over the arid plains and deserts of the southwest from the City of Mexico to Denver, Colorado. Of the two species, *M. melliger* is the more abundant at lower altitudes of about 300–1500 m., whereas *mexicanus* seems to find its optimum environment at about 2000–2500 m.

The earlier descriptions of these species are so meager that for a long time there was much misunderstanding in regard to their identity. Llave in 1832 first described a *Myrmecocystus* under the name of *Formica melligera* from specimens taken near the City of Mexico, but it is impossible to determine which of the species he had under observation, and there are no types in existence. In 1838 Wesmael described some ordinary workers and repletes of a Mexican ant as *Myrmecocystus mexicanus*. His types