

group of their primitive ability to establish colonies exclusively through their own initiative. Hence when, during their nuptial flight, they drift too far away to find workers of their own colony or species at hand to assist them, they are compelled to solicit the aid of workers of another species. The extremely common, widely distributed, and very cowardly ants of the *fusca* and *schaufussi* groups are the ones naturally exploited for this purpose. In the species of the *rufa* group with large queens we probably still have the earlier phylogenetic stages of this development: the parasitic instinct is highly developed, but the stature of the ants has as yet undergone little or no diminution. In the species with diminutive queens, however, like *F. neptidula*, *microgyna* and *consocians*, we have the last stages in this retrogressive development, since the inability of the queen to establish a colony unaided is manifested not only in her parasitic instincts, but also in her diminutive size and frail structure.

Second, the queen may not only seek adoption among alien workers, but she and her progeny may continue to live with their hosts as permanent parasites. This seems to be the case in some of the European ants of the genus *Strongylognathus* and in the workerless species of *Anergates*, *Epæcus*, *Epipheidole* and *Symphheidole*.

Third, the queen may compel her own adoption or may snatch away the pupæ of an alien species and leave to the workers that hatch from them the care of bringing up her own offspring. These may, in turn, take to robbing the worker pupæ from other colonies of the host species and in this manner keep up a permanent mixed colony. This is slavery, or "dulosis," as practiced by the sanguinary ants (*Formica sanguinea*) and the amazon ants (*Polyergus rufescens*) of Europe and their American subspecies and varieties.

Experiments on artificial colonies of *F. sanguinea* subsp. *rubicunda* Emery have given an insight into the method in all probability adopted by this insect while founding its colonies under natural conditions. A detailed account of these experiments will be published in the near future, but the results may be here briefly stated. When a female *rubicunda* from which the wings have been removed is confined in an artificial nest