

with as many as twenty workers of *F. fusca* var. *subsericea* and their brood, she is received with great hostility. At first her conduct is patient and insinuating, or even somewhat timid, but the persistent pulling and tweaking to which she is subjected by the workers soon throws her into a frenzy of rage. She falls upon her tormentors, drives them from their brood and, when they persevere in returning, kills them one by one. With feverish haste she then appropriates the pupæ, secretes them in some corner and carefully guards them, ever on the alert with open mandibles to attack an intruder, till the workers are ready to hatch. She deftly frees the pale drab callow young from their pupal envelopes, and immediately adopts them, thus quickly surrounding herself with the means of nourishing both herself and her own progeny as soon as the latter are brought forth. The immediate result of these tactics is to produce a small mixed colony consisting of a female of one species of *Formica* and a number of workers of another, exactly as in the *consocians-incerta* colony, but with the interesting and important difference that in this case the *incerta* workers are effete or moribund, or at any rate older than the queen, whereas the *subsericea* workers in the case of *rubicunda* are younger than the queen and have before them a lease of life amounting to three or four years. The result, moreover, in the case of *rubicunda* is not achieved passively, by adoption of the queen, as in *consocians*, but actively, by conquest and abduction. Of course, none of these differences is apparent from mere inspection of an incipient mixed colony of *consocians* or *rubicunda*, but can be ascertained only through studying the behavior of the queen during the period that elapses between the nuptial flight and the establishment of her colony.

The author's experiments with queens of our shining amazon (*Polyergus rufescens* subsp. *lucidus*) and workers of the species which it enslaves (*Formica schaufussi*) have, up to the present time, given contradictory results. All of these queens, when introduced into artificial nests containing *schaufussi* workers, were violently attacked. Some of them retaliated by ruthlessly killing all the latter, but remained perfectly indifferent to their larvæ and pupæ. Other queens, however, were more insinuating and far less bloodthirsty and, though equally indifferent