

foraging at the close of the day, and asks if this could be caused by the need of the direct influence of the light for guidance.

In addition to light and the muscular memory there must be some other influence. Two hypotheses are suggested. Either the ant possesses a magnetic sense, or there is some internal organ that records sensations made in describing angles on the outgoing trail.

Ruschkamp (31) found in Holland the first stage of an adoption-colony of *Formica rufa* by *F. fusca*. A single dealated *rufa* queen was in a nest occupied by a weak *fusca* colony. No *fusca* queen was present. This mixed colony was placed in an artificial nest and observed for some time. The alien queen had been completely adopted.

Wasmann (32) describes an extraordinary Staphylinid beetle, found in West Africa with the army ant, *Dorylus (Annoma) nigricans* subsp. *sjostedti*. This beetle, named *Mimanomma spectrum*, is a most striking example of mimicry, with greatly elongated thorax, short, thick antennae and ant-like abdomen. The latter has the first two segments small and constricted, resembling in form the petiole and post-petiole of *Annoma*, and the general form of the body is more ant-like than even the Staphylinid *Mimeciton pulex*, hitherto the most remarkable ant mimic among the beetles. A number of species of the family Staphylinidae are exceedingly similar in form to the ants with which they live; also some of the parasitic Hymenoptera and even Diptera which live with ants resemble them closely, but none are so greatly modified as this new species described by Wasmann.

Wasmann (33) gives a list of some forty species of inquilines recorded from the nests of one species of ant, *Solenopsis geminata*. These represent the orders Coleoptera, Diptera, Hymenoptera, Thysanura, Acarinae and Diplopoda. A number of guests of East Indian species of *Pheidole* are listed also, and several new species of myrmecophilous Coleoptera are described.

Wasmann considers that the adaptations to myrmecophily in the European lady-beetle, *Coccinella distincta*, present a Darwinian paradox. The larva of this beetle lives unmolested in the nests of species of *Camponotus* and *Formica*, where it feeds on scale insects which are fostered by the ants and from which