

from some recent European investigations. Forel¹ long ago showed that this ant is unique among the old world *Lasius* (and the new world species may be included in this statement) in its odor, the great size of its colonies, its habit of foraging in long files in the broad day-light and in constructing carton nests in old tree-trunks. Wasmann² has recently called attention to its ability to form new colonies by sending off detachments of queens and workers after the manner of *Formica rufa*. Like *rufa* it also possesses another method of colony formation, namely, through temporary parasitism. Unlike the queens of the common *Lasius niger*, the queen of *fuliginosus*, after fecundation on her marriage flight and on returning to the earth, is unable to start a colony unaided, and if prevented from rejoining the maternal colony or a detachment of workers of her own species, has to seek out a colony of *L. umbratus* and have her young brought up by the workers of this ant. The *umbratus* queen must be killed either by her own workers or by the intrusive *fuliginosus* queen, so that the host species is destined eventually to die off and leave a pure and thriving *fuliginosus* colony. That this method of colony formation is actually adopted by *fuliginosus* queens is clearly indicated by the following observations which have been slowly accumulating during the past few years: In 1908 de Lannoy³ stated that in 1904 he found at Knoche-sur-Mèr in Belgium a few workers of *L. mixtus* (a subspecies of *umbratus*) living in a large colony of *fuliginosus*, and that in 1906 he found several similar colonies. Emery⁴ and Forel⁵ interpreted these observations to mean that the queen *fuliginosus* founds her colony with the aid of *umbratus* workers, in a manner analogous to that employed by the North American and European *Formicæ* of the *rufa*, *exsecta* and

¹"Les Fourmis de la Suisse," *Nouv. Mém. Soc. Helv. Sc. Nat. Zürich*, XXVI., 1874, pp. 1-447, 2 pls.

²"Ueber gemischte Kolonien von *Lasius*-Arten," *Zool. Anzeig.*, XXXV., 1909, pp. 129-141.

³"Notes sur le *Lasius niger* et le *Lasius fuliginosus*," *Ann. Soc. Ent. Belg.*, LII., 1908, pp. 47-53.

⁴"Remarques sur les observations de M. de Lannoy touchant l'existence de *L. mixtus* dans les fourmillières de *L. fuliginosus*," *Ann. Soc. Ent. Belg.*, LII., 1908, pp. 182, 183.

⁵"Lettre à la Société Entomologique de Belgique," *Ann. Soc. Ent. Belg.*, LII., 1908, pp. 180, 181.