

from a single nest, so that a given locality may be heavily saturated with them during the period of nuptial flights.

The difficulty of transport of live *Anergates* propagules is real, but far from insurmountable. Females can be carried either as individuals carrying the necessary sperm, or as established inquilines in a *Tetramorium* colony. There is no reason why such a voyage might not be successfully made by a parasite queen, especially when one considers the evidence of Lindroth (ms., personal communication) for transport of faunal fragments to North America in ballast originating in Europe. Furthermore, there is no reason to believe that *Tetramorium* nests, with or without *Anergates*, cannot flourish on shipboard for at least the normal span of these species as colonies, a span which seems to be sufficient even for a long voyage under sail.

The third objection is the least difficult one, for there apparently has been no shortage of suitable host nests at close proximity to the waterfront in at least some of the major western Atlantic ports, perhaps as far back as colonial times. If a colony of the host parasitized by *Anergates* arrived in ballast or otherwise stowed-away, it had only to release its flight of fertile female imagines on the new shore to create a high probability of successful establishment.

A similar series of events may have led to the establishment of the workerless parasite *Xenometra monilicornis* Emery in the West Indies, together with or following the establishment of its host, *Cardiocondyla emeryi* Forel. A *Xenometra* of the same or a very closely allied species lives with *C. elegans* Emery in Italy; Menozzi (1919) thought this was the male of *elegans*, but specimens from his collection indicate instead its affinity with *X. monilicornis*. *Cardiocondyla* is a primarily littoral and riparian genus from the warmer parts of the Old World; records of several species from the New World seem to indicate rather clearly that it has been introduced by man on many separate occasions (M. R. Smith, 1944).

To conclude the discussion of the bearing of parasites on the distribution of *Tetramorium*, I think we may safely consider that introduction of an obligatory parasite, while less probable than the establishment of the host, is nonetheless entirely possible if the opportunities exist for a long enough time, and if a dense host population is available to the immigrant parasite.