

Montana. In eastern North America the intermorphs predominate in the material described by Heinze (1989).

(III) Morphologically the new material exactly matches the specimens described from the eastern localities: Compared to ordinary *Leptothorax* species the male petiole has a very low node, female mandibles have rudimentary subapical teeth, the gynomorph thorax is bulky, the wings of the intermorphs are reduced in the same way as depicted by Heinze (1989), the postpetiole is armed with a ventral tooth both in males and females, and both female morphs have a dense foveate-reticulate sculpture except for the shiny gaster. The wing venation of male and gynomorph is largely identical to that of the host gyne as depicted in Heinze (1989).

Queen dimorphism occurs in both areas. We suspect that long range dispersal occurs with fully alate females, and that local colonization with brachypterous flightless queens is of some selective advantage for *L. wilsoni*, as was demonstrated for *Leptothorax* sp. A in eastern North America (Buschinger and Heinze 1992). It is difficult to speculate about the selective value of queen dimorphism in *L. wilsoni* as yet. According to our observations in Alberta and Montana, the host species (*Leptothorax* sp. B) is widespread and occurs in considerable densities, which are not markedly higher in the sites where we found *L. wilsoni* than in surrounding forests. One common feature of all three new sites, however, is that the forest is clearly less dense than in neighboring stands where we found the host species only. Colonies # 3 and # 4 were in a rocky landslide area with only few trees. Assuming that *L. wilsoni* needs more insolation and higher temperatures than its host species, it might be useful to have flightless queens colonizing such favorable climatic islands, as well as fully winged queens that may be able to reach similar distant sites.

(IV) The new material confirms the absence of host species queens in parasitized colonies, and the monogyny of *L. wilsoni*. Heinze (1989) described fighting between newly mated *wilsoni* intermorphs and the apparent elimination of a host queen through stinging by a parasite queen. Other corresponding features are the apparently small size of parasitized colonies both in eastern and western North America, and the relative rarity of the parasite. Mature *L. sp. B* colonies often comprise 100–200 workers.