Discussion

The worker caste of *Daceton boltoni* shares many important character states with that of its sister species *D. armigerum*, including the heart-shaped head, the large eyes located on a low cuticular prominence (Bolton 2000), the number of apical mandibular teeth, and general habitus (figs. 1–8). *Daceton boltoni* differs from *D. armigerum* by the absence of a specialized row of thick setae on the inner (masticatory) margin of the mandibles; by mandibles that are slightly shorter and more stout, which could indicate differences in prey preferences between the two species (B. Bolton, pers. comm.); by a broad gap, when seen in profile, between the bases of the fully-closed mandibles and the margins of the head capsule; by shallow depressions adjacent to and ventral to the mandibular insertions; by long and simple lateral pronotal spines; by a weakly impressed metanotal groove; and by subdecumbent to decumbent hairs on the tergite of abdominal segment IV.

Behaviorally, *D. boltoni* appears to be very similar to *D. armigerum*. However, drop tests conducted at the type locality indicate that *D. boltoni* individuals exhibit weak and inconsistent aerial gliding behavior relative to those of *D. armigerum* (S.P. Yanoviak, pers. comm.).

These characters strongly suggest that *D. boltoni* is a distinct species rather than a variety of *D. armigerum*. These character states are consistent across all 30 specimens examined from two distant localities in South America (Iquitos, Peru, and Manaus, Brazil) where both species co-occur. No intermediate forms were observed to suggest that the two forms are conspecific. Rather, *D. boltoni* is sympatric with *D. armigerum*. Although its known distribution is currently only two locations in the Amazonian forest, it is possible and indeed likely that *D. boltoni* shares a broadly overlapping distribution with *D. armigerum.*

The discovery of a new species in the heretofore monotypic genus *Daceton*, a widely distributed genus of large and conspicuous ants occurring in most South American rainforests, suggests the possibility of a similar pattern in two other ant genera currently regarded as monotypic and likewise widely distributed, *Paraponera* Smith and *Gigantiops* Roger. Individuals of these monotypic genera are, like those of *Daceton*, large and conspicuous. It is well worth considering that, as with *Daceton*, these features may have blinded myrmecologists to the possibility that these "monotypic" genera consist in reality of multiple cryptic species.

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