

The males of *Eciton* show distinctive species characters, and the temptation has been great to describe an unusual specimen as a new species differing from known males. Menozzi (1926) has been one of the latest describers on this basis, and his *E. (E.) velutatum* from Costa Rica has yet to be correlated with the other castes.

There is no evidence linking *velutatum* with the present described species so that those known in the soldier caste may be considered. Of these species, two have a tooth on the median border of the mandibles as does the Panama species, and it appears to be intermediate between them. They are *lucanoides* Emery, described from Peru, and *quadriglume* (Haliday), described from Brazil. The *lucanoides* soldier has the median mandibular tooth much longer and narrower, becoming almost recurved, while the *quadriglume* soldier has more slender mandibles with the median tooth much less developed.

*Eciton lucanoides* was figured originally by Emery as having a straight, rather than impressed, occipital margin and with the above mandibular characters. Mann (1916) recorded it from Brazil, and Borgmeier (1936) from Nicaragua and Costa Rica. Mann states that he was "unable to distinguish the minors and mediae of *E. lucanoides* from those of *E. hamatum* by any single character." The present Panama species, the sculpture and color of which in the worker caste are those of *hamatum*,<sup>1</sup> shows distinct differences in the pedicel and therefore is not likely to be conspecific with Mann's Brazilian specimens. The question then arises as to the correctness of identification of the Nicaraguan and Costa Rican specimens. They may be conspecific with the Panamanian form, and future study may serve to demonstrate the limits of variability of *lucanoides*.

*Eciton quadriglume* is summarized as follows by Santschi: "Cette belle espèce est facile à distinguer par sa couleur noir et mate chez les ♂ et dont la tête et le dessus du thorax vire au rouge sombre chez les ♀. Les épines épinotales sont bien plus longues que leur intervalle." Bruch's excellent photographs also indicate a darker form than the Panamanian species and one with mandibles with a greatly reduced median tooth, appearing in the photograph as being merely a slight convexity at this site.

<sup>1</sup> Schneirla reports that in life the workers of this species were all distinctly darker in coloration than those of the two colonies of *hamatum* observed in the same (type) locality.