

amber piece along a new plane in order to see the opening of the acidopore, I shattered and lost the rear part of the abdomen before this opening came into view. Hence I cannot be certain that the ant possessed a typically circular formicine acidopore. Additionally, the absence of a circlet of hairs at the tip of the abdomen and paired bristles on the alitrunk, on which the generic diagnosis rests, could be the result of postmortem deterioration. However, I doubt that such is the case, because the body form as a whole and the entire dorsal cuticular surface were preserved in excellent shape, without the kind of distortion and rupturing usually accompanying severe decay in amber specimens. Also, at least two well-preserved hairs were present on the ventral surface of the gaster, as depicted in Fig. 6.

To ascertain the status of *Protrechina* I surveyed representatives of all of the living genera of Formicinae with reference to the two characters in pilosity. In only two genera, *Oecophylla* and *Campoponotus* (and only in a few species of the latter), is the circlet of acidopore hairs lacking. Conversely, only some of the species of *Acantholepis* and *Brachymyrmex* share the *Paratrechina* trait of coarse paired setae on the alitrunk dorsum. Thus *Protrechina* is not unique among the Formicinae in its possession of the two character states that distinguish it from *Paratrechina*.

Protrechina carpenteri, if I have interpreted its morphological features correctly, is the first member of the Formicinae recorded from a definitely dated Eocene deposit.

SUMMARY

(1) The first ants from the Canadian amber are described as *Sphecomyrma canadensis*, providing a record of the primitive Cretaceous subfamily Sphecomyrminae geographically intermediate between the New Jersey and Siberian collections recorded earlier.

(2) The first specimens of Eocene ants definitely assignable to higher subfamilies have been discovered in amber from Malvern, Arkansas: *Eocenidris crassa* (Myrmicinae), *Iridomyrmex mapei* (Dolichoderinae), and *Protrechina carpenteri* (Formicinae).

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