

*roponera* species except *H. relict*a (Wheeler). The latter could stand close to the *Rhytidoponera* ancestry.

*Aulacopone* resembles *Heteroponera* in all fundamental structural details referred to in Brown's discussion of features diagnosing or characterising ectatommine genera, except those related to cranial and petiolar structure, and other minor features, as detailed below.

In discussing likely relationships among the ectatommine genera Brown considered *Acanthoponera* to be "the genus surviving with the greatest number of primitive characters". *Heteroponera* was considered "a rather conservative stock" that "can be derived directly from *Acanthoponera*", and *Rhytidoponera* was represented as a genus "very closely related to *Heteroponera*" which "may have originated in the Australian region from some *Heteroponera*-like stock". According to Brown these genera stand apart as a lineage separate from that of the exclusively neotropical genera *Ectatomma* Fr. Smith and *Paraponera* Fr. Smith. *Gnamptogenys*, while difficult to relate precisely to other genera, "seems closer to the *Acanthoponera*/*Heteroponera* line than to *Ectatomma*". All the above genera are essentially epigaeic, in contrast to the two further ectatommine genera, *Proceratium* Roger and *Discothyrea* Roger, which are cryptobiotic and "seem, on the basis of adult characters, to be closest to *Heteroponera*", while "the Baltic Amber species *Bradoponera meieri* (Mayr) looks like a reasonable step in this line".

Workers of *Proceratium* and *Discothyrea* are notable for their possession of cryptobiotic attributes, including medium to small size, with relatively small eyes, reduced sculpture and pilosity, and depigmented coloration. In particular the mesosomal structure is streamlined, through ankylosis of its component sclerites, and the frontoclypeal structure is highly modified. The antennal sockets are exposed in full-face view, through elevation of the lobes of the frontal carinae, and they have migrated anteromedially, carrying the clypeus and frontal area forwards to form a shelf-like process over the mandibles. This is especially prominent in *Discothyrea*, which usually has an erect vertical plate separating the antennal sockets, a structure which in some species is "T" shaped in transverse section and extends back along the head to enclose an antennal scrobe on each side, usually accompanied by a weak parallel longitudinal concavity of the frons. Both *Proceratium* and *Discothyrea* have their tubulate abdominal segment IV reflexed downwards or forwards under the body, a characteristic shared with various *Heteroponera*