

Species revision of the colorful genus *Chromoteleia* Ashmead.

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Introduction.

The genus *Chromoteleia* (Hymenoptera: Platygastridae s.l.) was described in 1893 by Ashmead for the very colorful type species *Chromoteleia semicyanea* (Fig. 1) collected in Saint Vincent. To date there are six known New World species, described at the beginning of the 20th century, and one Afrotropical species [*C. congolana* (Risbec)] recorded in 1950 from what is currently Ghana. The genus in the fossil records date from Baltic amber (from 40~60 million years old) with the species *Chromoteleia theobaldi* Maneval, 1938.



Figure 1. Male holotype of *Chromoteleia semicyanea* Ashmead

One interesting fact about the genus is the common, potentially aposematic coloration present in most of the species. A black-red/orange-black pattern is found in almost 90% of the currently known Neotropical species. This phenomenon is found in a number of other "scelionid" genera, e.g., *Triteleia* (70% of species), *Acanthoscelio* (70%), *Baryconus* (50%), *Pseudoheptascelio* (40%), *Scelioromorpha* (30%), *Scelio* (30%), *Opisthacantha* (30%), *Macroteleia* (15%), and *Trimorus* (5%). The underlying cause is still speculative.

Results.

After study of 678 specimens we currently have identified 44 morphospecies, most Neotropical, but with two in the Afrotropical region.

Some characters showing important morphological variation are: number and position of antennal multiporous plate sensilla (Fig. 2A), length of fore wing in reference of metasomal length (Fig. 2B), sculpture of mesoscutum, shape and length of metasomal terga 2-5 (Fig. 2A), shape and sculpture of meso- and metascutellum (Fig. 2C), fore wing venation (Fig. 2D), shape of metasomal tergum 6 (Fig. 2E).

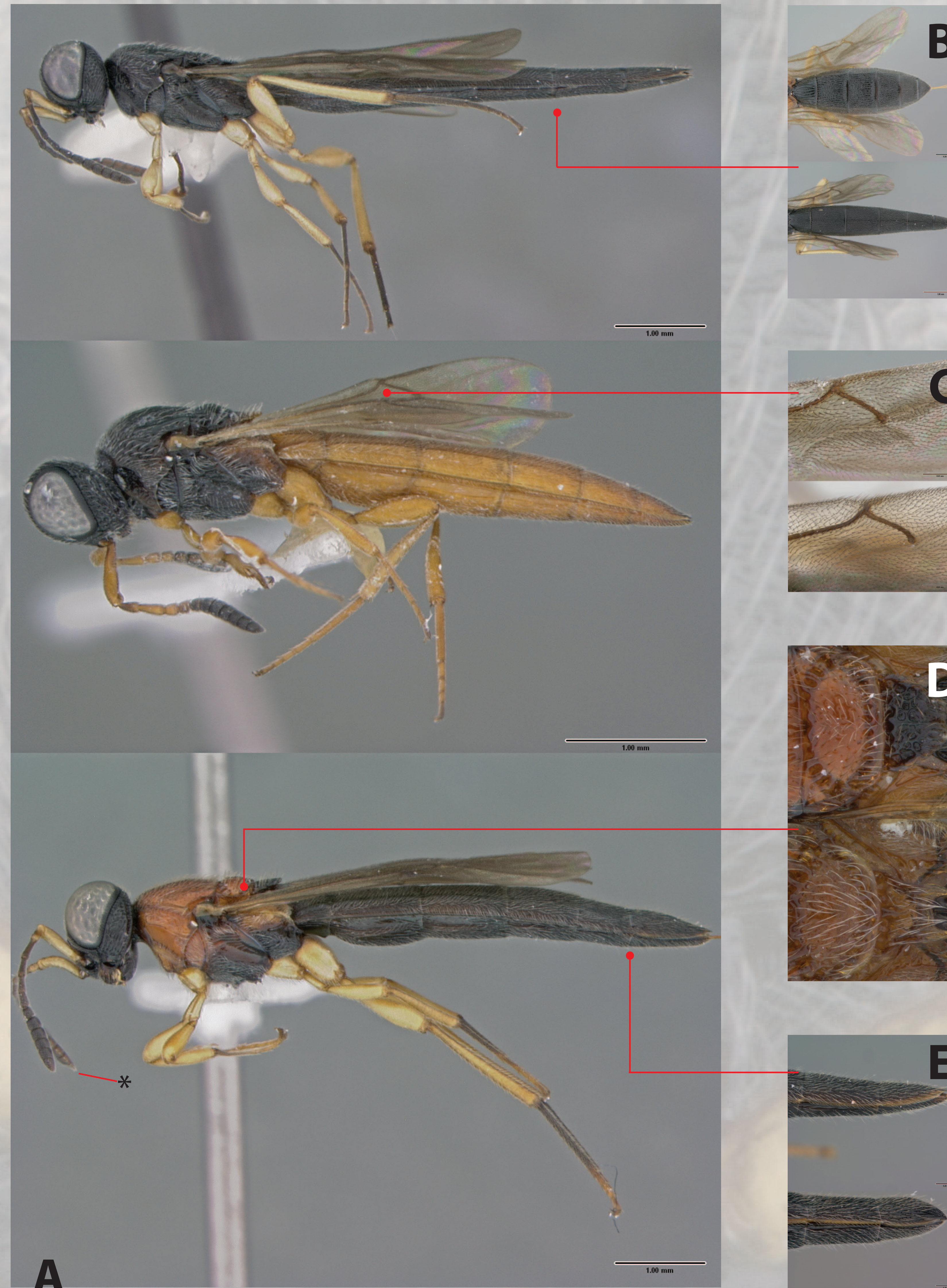


Figure 2. Lateral habitus of some species of *Chromoteleia* Ashmead (A), with morphological variation in wing length (B), wing venation (C), mesosoma (D) and apical metasoma (E).

*: antennal multiporous plate sensilla

The distribution of the genus in the New World ranges from southern Mexico to southern Brazil (see Fig. 3), and it has been noted that they are more commonly present at mid and low elevations in tropical areas.

In the Afrotropical region the genus *Chromoteleia* has been collected in Ghana, Gabon and the Central African Republic. Neither of these species has an "aposematic" color pattern, but are generally brown in color.

A significant gap in our knowledge is that after more than 100 years of knowing its existence there still are no host records for these creatures!



Figure 3. Current known distribution for the genus *Chromoteleia* Ashmead

Important Literature on *Chromoteleia*.

- Ashmead, W.H. 1893. A monograph of the North American Proctotrypidae. *Bulletin of the United States National Museum*, 45: 1-472.
- Brues, C.T. 1908. Hymenoptera. Fam. Scelionidae. *Genera Insectorum*, 80: 1-59.
- Kieffer, J.J. 1909. Nouveaux Scelionides de l'Amerique du Sud (Hym.). *Bulletin de la Société Entomologique de France*, 1909: 247-250.
- Kieffer, J.J. 1910. Description de nouveaux microhyménoptères du Brésil. *Annales de la Société Entomologique de France*, 78: 287-348.
- Kieffer, J.J. 1910. Hymenoptera. Fam. Scelionidae. Addenda et corrigenda. *Genera Insectorum*, 80: 61-112.
- Johnson, N.F. 1992. Catalog of world Proctotrupeoidea excluding Platygastridae. *Memoirs of the American Entomological Institute*, 51: 1-825.
- Maneval, H. 1938. Trois serphoïdes de l'ambre de la Baltique. *Revue Française d'Entomologie*, 5: 107-116.
- Masner, L. 1976. Revisionary notes and keys to world genera of Scelionidae (Hymenoptera: Proctotrupeoidea). *Memoirs of the Entomological Society of Canada*, 97: 1-87.
- Risbec, J. 1950. Contribution a l'étude des Proctotrupidae (Serphiidae). (II) Pages 511-639 in Risbec. *Travaux du Laboratoire d'Entomologie du Secteur Sou-danis de Recherches Agronomiques*. Gouvernement Général de l'Afrique Occidentale Française, Paris. 639 pp.