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Brachypicritus ribesi n. gen., n. sp., a new fossil Cardiastethini (Hemiptera: Heteroptera: Anthocoridae) from the Eocene Baltic amber

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Abstract

A fossil flower bug of the family Anthocoridae (*s. l.*) belonging to the tribe Cardiastethini Carayon (Lyctocorinae) from the Upper Eocene Baltic amber is reported for the second time. *Brachypicritus ribesi* **n. gen., n. sp.** is described and illustrated here.

Key words: Heteroptera, Anthocoridae, Lyctocorinae, Cardiastethini, Dufouriellini, *Brachypicritus* **n. gen.**, Baltic amber, fossil flower bugs.

Resumen

Brachypicritus ribesi *n. gen., n. sp., un nuevo Cardiastethini fósil* (*Hemiptera: Heteroptera: Anthocoridae*) *del ámbar báltico del Eoceno*

Se da a conocer por segunda vez un fósil de chinche de la familia Anthocoridae (*s. l.*) perteneciente a la tribu Cardiastethini Carayon (Lyctocorinae) del ámbar báltico del Eoceno Superior. Se describe e ilustra *Brachypicritus ribesi* **n. gen., n. sp.**

Palabras clave: Heteroptera, Anthocoridae, Lyctocorinae, Cardiastethini, Dufouriellini, *Brachypicritus* **n. gen.**, ámbar báltico, antocóridos fósiles.

Laburpena

Brachypicritus ribesi *n. gen., n. sp., Cardiastethini* (*Hemiptera: Heteroptera: Anthocoridae*) *fosil berria Eozenoko anbar baltikokoa*

Cardiastethini Carayon (Lyctocorinae) tribuari dagokion eta Goi Eozenoko anbar baltikokoa den Anthocoridae (*s. l.*) familiako zimitz baten fosil bat ezagutarazten da bigarren aldiz. *Brachypicritus ribesi* **n. gen., n. sp.** deskribatu eta irudiztatzen da orain.

Gako-hitzak: Heteroptera, Anthocoridae, Lyctocorinae, Cardiastethini, Dufouriellini, *Brachypicritus* **n. gen.**, anbar baltikoa, antokorido fosilak.

Introduction

The heteropteran family that is most frequently met with in different ambers is the modern family Anthocoridae (the flower bugs), including about 100 recent genera and 600 species (Péricart, 1996). Their numerous representatives are widespread in all zoogeographical regions. The majority of these bugs are predatory, feeding on other insects and mites in decaying vegetable matter or under bark; they are

FIGURE 1. *Brachypicritus ribesi* **n. gen., n. sp.**: Holotype, ♂, BB A HE 5, dorsal view (Scale bar = 1 mm).

also known to feed on pollen, aphids, and other small invertebrates. The first representatives of the subfamily Lyctocorinae were recorded from the Saxonian (Bitterfeld) amber and are referred to the extant genus *Xylocoris* (Barthel and Hetzer, 1982). Later on, some members of the Lyctocorinae were described from Baltic and Ukrainian (Rovno) ambers, in particular *Persephonocoris kulckae* by Popov and Herczek (2001) and six other of the extinct genus *Lyctoferus* by Popov (2003). The latter were placed by him into the special tribe Lyctoferini. In the most recent work (Popov *et al.*, 2011) two members of the Cardiastethini (Dufouriellini) were described from Baltic amber as *Xyloesteles parvulus* and *Xyloesteles kerneggeriorum*. Judging by the examination of ca. 100 specimens from different amber collections, belonging to Lyctocorini, Lyctoferini, Cardiastethini (Lyctocorinae), Anthocorini and Oriini (Anthocorinae) in Baltic, Ukrainian, and Saxonian (Bitterfeld) ambers, Anthocoridae are one of the common bug groups in amber resins, especially in the Eocene Baltic amber (Popov, pers. obs.).

One of the reviewers of this paper, D.L. Carpintero, had paid special attention to the genus *Dufouriellus* Kirkaldy, 1906 in his article (Carpintero and Dellapé, 2008). In that paper, based on known and new characters as regards the type genus *Dufouriellus* Kirkaldy, 1906 of the tribe Dufouriellini Van Duzee, 1916, they excluded it from this tribe and transferred to Anthocorini. Therefore, Dufouriellini became (Carpintero and Dellapé, 2008) a junior synonym of Anthocorini. Consequently, the name Cardiastethini established by Carayon (1972) was fairly restored by these authors and we also implicitly accept this taxonomic change.

Taxonomy

Order **Hemiptera** Linnaeus, 1758

Suborder **Heteroptera** Latreille, 1810

Infraorder **Cimicomorpha** Leston, Pendergrast & Southwood, 1954

Family **Anthocoridae** Fieber, 1836

Subfamily **Lyctocorinae** Reuter, 1884

Tribe **Cardiastethini** Carayon, 1972

Brachypicritus Popov & Herczek n. gen.

Type species: *Brachypicritus ribesi* **n. sp.**

Description:

Male. Small species, not longer than 2.5 mm. Dorsal surface of body smooth, with uniformly distributed, dense, erect hairs. Head of moderate size and short, weakly produced anteriorly; eyes large, nearly joined from below; strongly flattened and covering almost 2/3 of head; almost reaching rostrum from below; ocelli of moderate size, elevated, and setting on vertex between eyes. Rostrum very short and thick, hardly reaching anterior margin of prothorax; frons straight, finely punctate. Antennae relatively short, 3 times as long as body length and covered with quite dense, short hairs; antennal segment II longest, combined length of antennal segments III and IV almost equal to length of segment II. Pronotum trapezoidal, convex, finely punctuated, strongly transverse, almost 3.5 times as wide as long; collar absent;

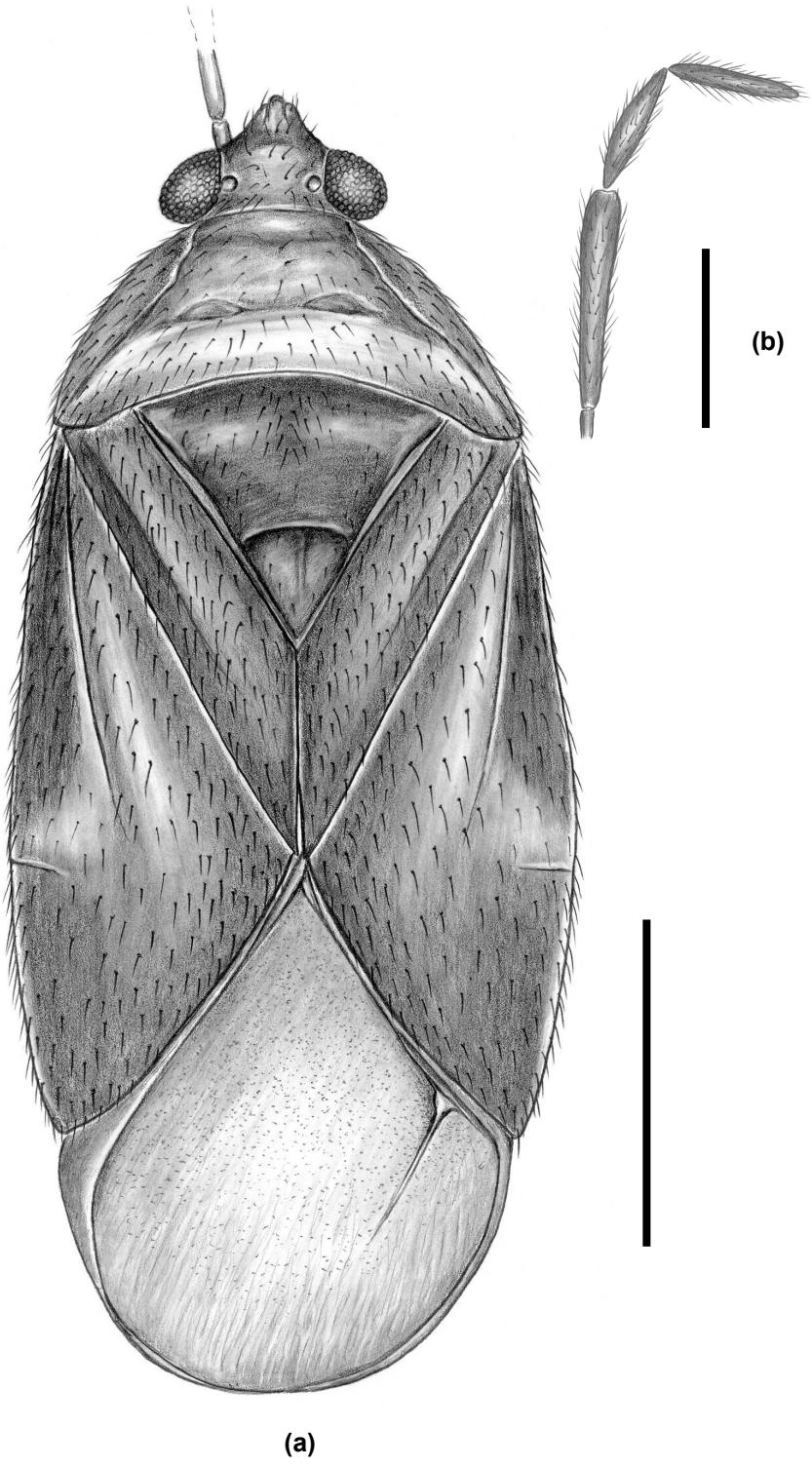

FIGURE 2. *Brachypicritus ribesi* **n. gen., n. sp.**: Holotype, ♂, BB A HE 5: (a) Dorsal view; (b) Left antennae (Scale bars: (a) = 0.5 mm; (b) = 0.2 mm).

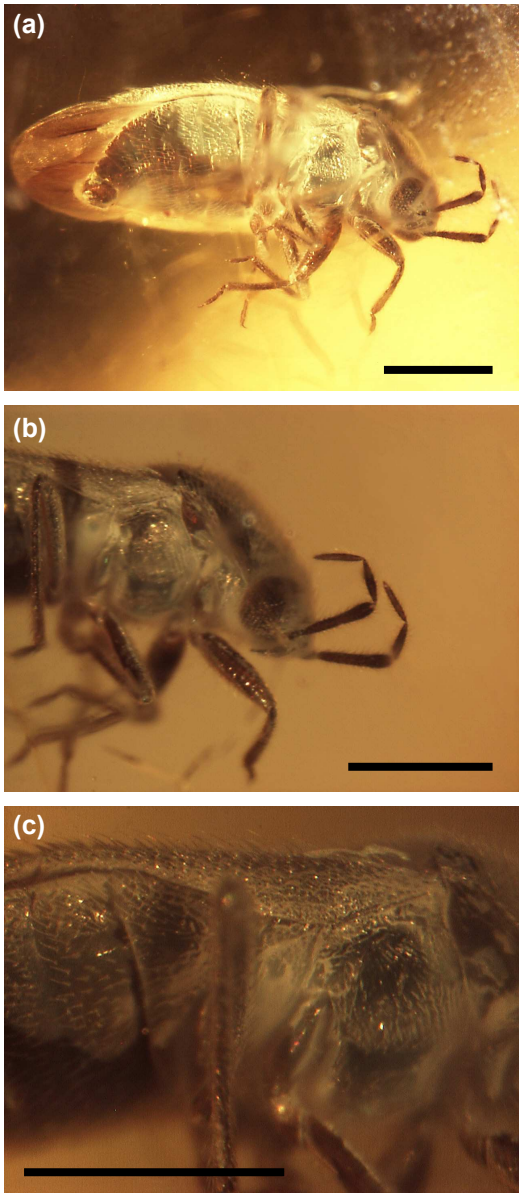

FIGURE 3. *Brachypicritus ribesi* **n. gen., n. sp.**: Holotype, ♂, BB A HE 5: (a) Lateral view; (b) Head and thorax, lateral vew; (c) Metapleural area (Scale bars = 0.5 mm).

lateral margins widely carinate, posterior margin distinctly emarginate. Mesoscutum glabrous and more than twice as long as scutellum. Hemelytra uniformly dark and covered with dense pale hairs; cuneal fracture indistinct; membrane with one very weakly visible supplementary vein. Fore femora with microscopic denticles on inner side; tibiae of all pairs of legs with thin spines on their inner side; tarsal segment I shortest, one half length of segment II and one third length of segment III; segments II and III almost equal size; claws straight, weakly curved.

Differential diagnosis:

This new genus is closely related to *Brachysteles* Mulsant & Rey, 1852, *Xyloecocoris* Reuter, 1879, and *Dysepicritus* Reuter, 1884 for its very short rostrum reaching only the base of head, but it can easily be recognized by a shorter rostrum which does not extend even to the base of head, as well as by the presence of carinate margins of pronotum, short scutellum, and the number and disposition of spines and setae on the legs.

Etymology:

Derived from a combination of the recent generic names *Brachysteles* and *Dysepicritus*. Gender masculine.

Brachypicritus ribesi Popov & Herczek n. sp.

(Figs. 1-3)

Type material:

HOLOTYPE: ♂, Baltic amber, Nr. BB A HE 5, light yellowish small-sized piece of amber (7.8 × 10 mm) of irregular shape. The dorsal side (most of clavus, mesoscutum, and scutellum) is obscured by milky coverings. The holotype is deposited in the collection of Ernst Heiss, Tiroler Landesmuseum, Innsbruck, Austria.

Description:

As in generic description. General coloration uniformly dark.

Measurements (type; all in mm):

♂: body length 2.4, width 1.06; length of head 0.28, width of head 0.42; width of vertex 0.13; width of eye 0.13, height of eye 0.24; length of antennal segments: I-IV equal to 0.06 : 0.34 : 0.17 : 0.17; rostral segments: equal to 0.05 : 0.06 : 0.07; pronotum: maximum length 0.25, anterior width 0.41, posterior width 0.86; mesoscutum length 0.37, mesoscutum width 0.56; scutellum length 0.15, scutellum width 0.34; claval commissure 0.36; fore leg : length of femur 0.67, tibia 0.33, tarsus 0.1 (0.02 : 0.05 : 0.06); hind legs: length of femur 0.57, tibia 0.57, tarsus 0.16 (0.03 : 0.06 : 0.07).

Etymology:

This species is named in honor of the eminent Catalonian heteropterist Jordi Ribes on the occasion of his 80th birthday.

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