

Oliarus kulickae sp. n.
from Dominican amber
(Hemiptera: Fulgoroidea: Cixiidae)

JACEK SZWEDO

Department of Zoology, University of Silesia, Bankowa 9,
40-007 Katowice, Poland
e-mail: szwedo@us.edu.pl

ABSTRACT. *Oliarus kulickae* sp. n. of the tribe Pentastirini is described on the basis of an adult female preserved in Dominican amber.

KEY WORDS: Hemiptera, Fulgoroidea, Cixiidae, *Oliarus kulickae* sp. n., Dominican amber.

INTRODUCTION

Cixiidae are plathoppers quite frequent among Baltic amber inclusions. Only a few representatives of Cixiidae have been mentioned from New World amber: *Oeclixius amphion* FENNAH and *Mnemosyne* sp. from Chiapas amber, Mexico (FENNAH 1963), and *Oligocixia electrina* GĘBICKI et WEGIEREK from Dominican amber (GĘBICKI & WEGIEREK 1993). Some undescribed species are illustrated in papers of MONTGOMERY DE MERETTE (1984) and SCHLEE (1990). Both fossil resins are dated as Oligocene/Miocene, 20–30 Ma (KRUMBIEGEL & KRUMBIEGEL 1996, CARIDAD 1999). According to ITURRALDE-VINENT & MACPHEE (1996) the amberiferous deposits in the Dominican Republic were formed 15–20 Ma ago, during the Late Early Miocene through early Middle Miocene.

The genus *Oliarus* STÅL, 1862 is widespread throughout the world and most abundantly represented in the Old World, in the Afrotropical and Oriental regions (VAN STALLE 1987, 1991). North American species have been revised by MEAD & KRAMER (1982). Only a few species have been recorded from the West Indies (METCALF 1936) but unfortunately have not yet been revised.

DESCRIPTION

Oliarus kulickae sp. n.**Diagnosis**

Tegmen colour pattern as follows: the basal part of wing smoky with a darker claval area, a transverse narrow band in $\frac{1}{3}$ tegmen length, the apical part fumose with an indistinct pattern. Veins Sc+R and Cu forked distad of the union of claval veins. Veins dark with lighter granules bearing setae. Stigma 3 times as long as wide. Ratio of the subapical carina fork and the lateral margin length 1:2.15. Female preabdominal sternum bilobed with a shallow median incision.

Description

Total length 5.36 mm. Similar to other representatives of the genus *Oliarus* STÅL (Fig. 8).

Head with compound eyes 1.2 times narrower than pronotum. Vertex narrow (0.27 mm), about 1.5 times longer in the midline than wide, its surface deeply excavated. Median carina absent or indistinct, lateral carinae foliaceously elevated. Anterior border of vertex slightly arcuate, the posterior border excavated. Lateral areolets 3 times longer than wide. Compound eyes big and convex, their posterior margin reaches beyond the middle part of the posterior margin of pronotum (Figs. 1, 2). Face twice as long as wide, epistomal suture and median ocellus indistinct, median carina well visible, forked, extending on to anteclypeus. Anteclypeus deeply inserted into frons. Lora quite narrow, maxillary plates very narrow (Fig. 3). Rostrum long, reaching hind coxae. Lateral ocellus placed below the lower line of compound eye, close to the lateral margin of the face. Antenna quite long; basal segment subglobose; second segment narrow, elongated; flagellum long (Figs. 2, 3).

Pronotum 1.22 mm wide, slightly widening at sides, deeply emarginate posteriad in the median area, curving laterally. Postocular carinae distinct, running parallel to the margin of compound eyes (Figs. 1, 2).

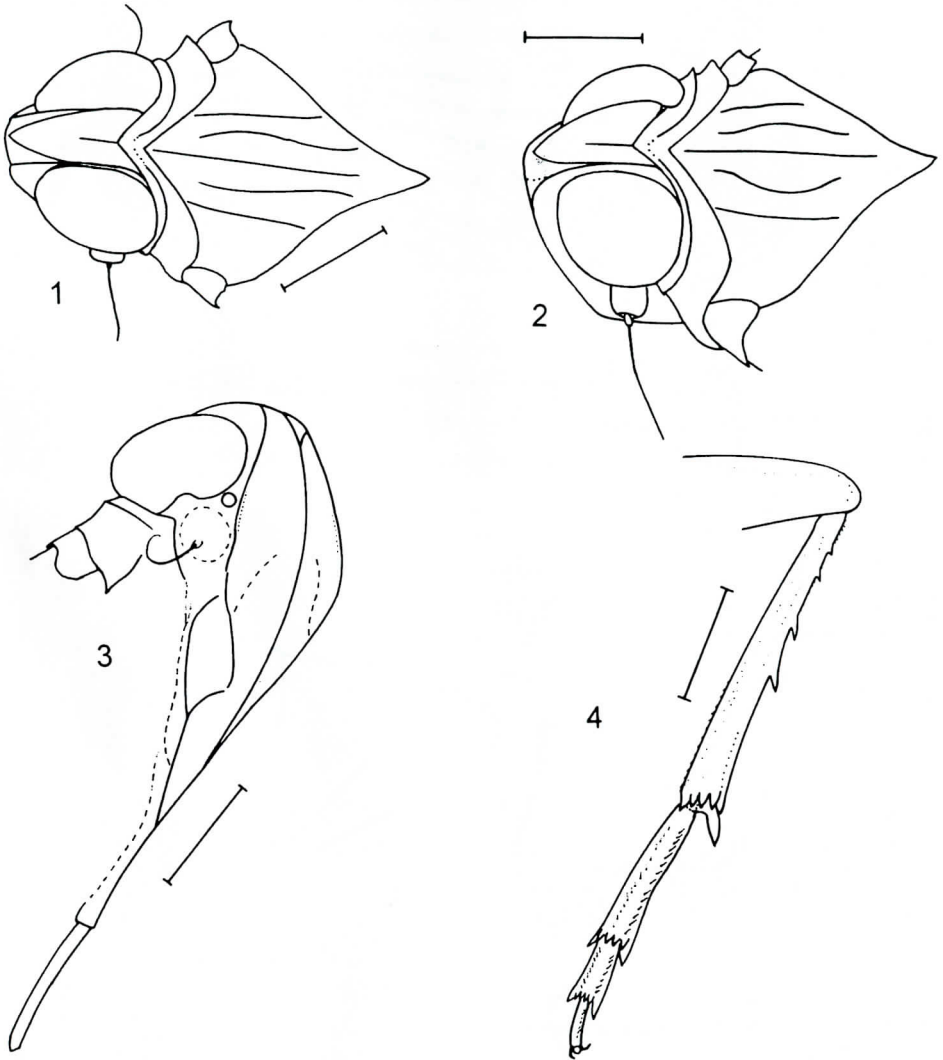
Mesonotum slightly longer than wide (1.13 mm long, 1.16 mm wide), with five carinae, midlateral carinae slightly curved (Figs. 1, 2).

Tegulae quite big, about as wide as long (Fig. 1).

Tegmina hyaline with a distinct colour pattern, 4.39 mm long, 1.37 mm wide. Anterior part of tegmen smoky brown, distinctly darker in the claval area. A transverse narrow band is present in $\frac{1}{3}$ tegmen length. Apical part of tegmen fumose, with an indistinct maculate pattern. Longitudinal veins darker, covered with small lighter granules bearing long setae. Stigma about three times longer than wide. Costal margin smooth, without distinct granules. Clavus reaching $\frac{2}{3}$ tegmen length. Tegmen with 11 apical and 6 anteapical cells. Basal cell almost 4 times as long as wide. Sc+R forks at half length of clavus, R five branched, M five branched, forked near the apex of clavus. Claval veins fork before the middle of clavus (Figs. 5, 8).

Hind wings hyaline, with venation typical of the genus (Fig. 6).

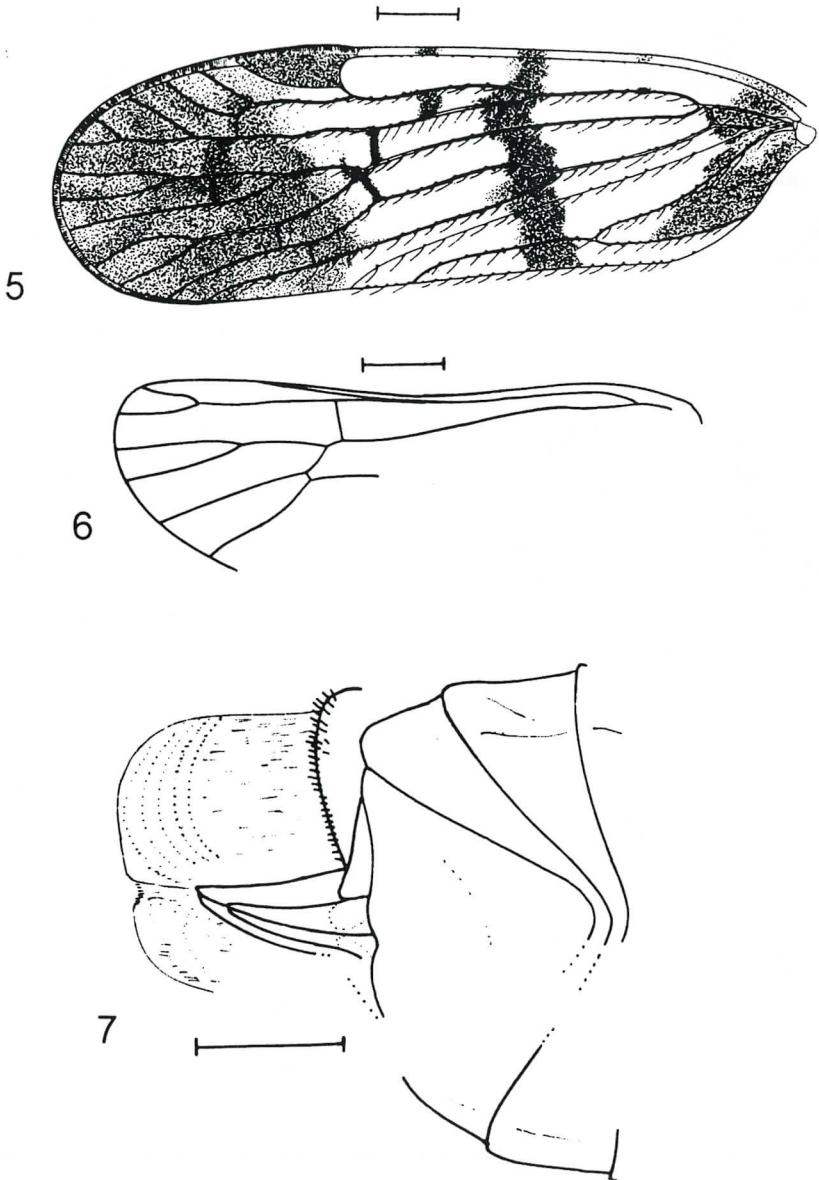
Hind tibia with four (two distinct and two smaller) lateral spines and seven apical spines. First tarsomere longer than the second and third together. The first and second tarsomeres with apical spines (Fig. 4).



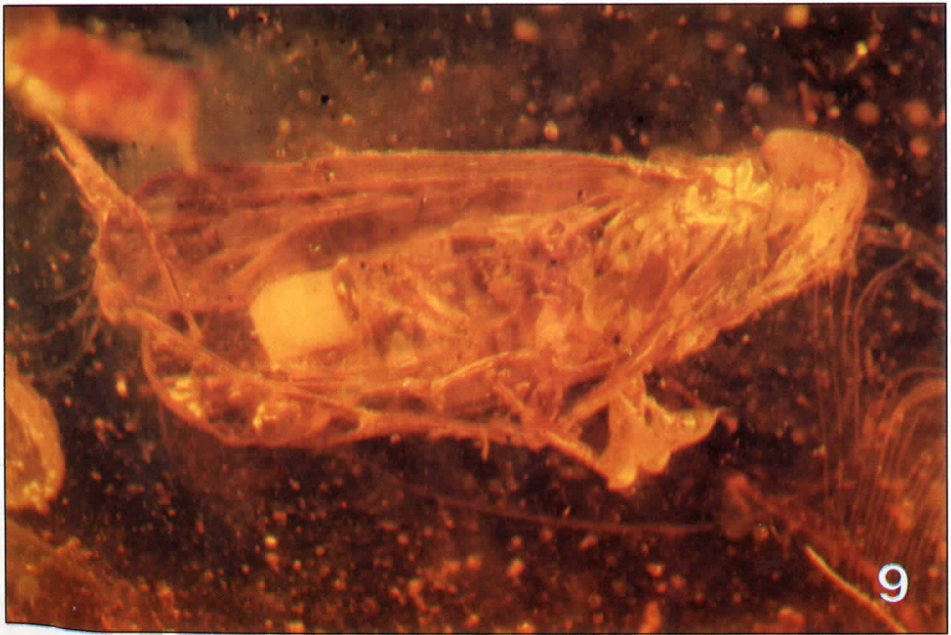
Figs. 1-4. *Oliarus kulickae* sp. n. 1 - anterior part of body in dorsolateral view, 2 - head in laterodorsal view, 3 - face in frontolateral view, 4 - right hind femur, tibia and tarsus. Scale: 0.5 mm.

Female pregenital segment posteriorly bilobed. Ovipositor short (0.49 mm), first valve

reaching 0.8 length of whole ovipositor. Gonapophyses VIII arising from a narrow base and tapered gradually.



Figs. 5-7. *Oliarus kulickae* sp. n. 5 - left tegmen, 6 - left hind wing (visible part), 7 - end of abdomen. Scale: 0.5 mm.



Figs. 8-9. *Oliarus kulickae* sp. n. 8 - dorsal view, 9 - ventral view. Scale: 0.5 mm.

Gonapophyses IX almost completely covered with gonapophyses VIII. Anal segment not visible. End of abdomen (IX tergite) covered with a bunch of dense, longer than ovipositor, wax fibres (Figs. 7, 9).

Material examined

Holotype female, Oligocene/Miocene Dominican amber, quite well preserved, fore- and midlegs partly destroyed, author's collection Do-01F. The piece of amber contains also a small Coleoptera, Diptera and parts (fragments of wings and legs) of an unidentified insect. The holotype will be deposited at Museum of Natural History of the Institute of Systematics and Evolution of Animals in Kraków.

Etymology

The species is named in honour of the late Dr. Róża Kulicka in recognition of her valuable contributions to the study of amber inclusions.

Discussion

The inclusion of ?*Mnemosyne* sp. described in FENNAH (1963) has some features common to the recent genera *Oliarus* STAL and *Mnemosyne* STAL. However, because of the lack of the diagnostic characters of the distal part of tegmen, it cannot be determined (FENNAH 1963). In certain respects *Oliarus kulickae* sp. n. is also similar to this inclusion, but differs in tegmen colouration and in veins Sc+R and Cu, which fork at the same level, distad of the union of claval veins.

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