

*Kulickamia jantaris* gen. et sp. n.  
from Baltic amber  
(Hemiptera: Fulgoroidea: Cixiidae)

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**ABSTRACT.** A new fossil genus and species *Kulickamia jantaris* of the planthopper family Cixiidae is described. It is closely related to the extant genera *Achaemenes* STÅL, *Flachemus* VAN STALLE and *Eucarpia* WALKER.

**KEY WORDS:** *Kulickamia jantaris* gen. et sp. n., Hemiptera, Fulgoroidea, Cixiidae, Baltic amber.

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INTRODUCTION

Representatives of the planthopper family Cixiidae are quite frequent among Baltic amber inclusions (SZWEDO & KULICKA 1999b). The first description of Cixiidae from this source of fossils comes from the second half of the 19th century (GERMAR & BERENDT 1856), when 9 species were described, although some of them seem to represent Achilidae. Another species, *Oliarus oligocenus*, described by COCKERELL (1910) as a cixiid, also belongs to the Achilidae. Some other Baltic amber inclusions of Cixiidae were mentioned by BURMEISTER (1832), GRAVENHORST (1835), BACHOFEN-ECHT (1949) and LARSSON (1978). The specimen described below is one of the few housed at the collection of the Museum of the Earth, Polish Academy of Sciences in Warsaw (SZWEDO & KULICKA 1999a).

## DESCRIPTIONS

*Kulickamia* gen. n.

Type-species *Kulickamia jantaris* sp. n., here designated.

**Diagnosis**

The new genus is distinct in having the following combination of characters: body laterally flattened; tegmina tectiform, with strongly curved and elevated vein  $A_1$ ; median ocellus present; vertex with a subapical carina; frons with a single, distinct and not bifurcated median carina. It differs from *Achaemenes* STÅL in having indistinct lateral spines of hind tibia and the common part MP+CuA in absent on tegmen. RA and RP more branched than in *Flachemus* VAN STALLE.

**Description**

Head with compound eyes slightly wider than pronotum. Vertex trapezoid, twice as wide at base as at apex, emarginated by elevated lateral carinae. Surface of vertex discoidal, delimited frontally by a low, arcuate subapical carina and a transverse apical carina (Figs. 1, 2). Dorsal part of head fused with facial part at a wide angle. Frontal part of head wide, particularly its lower portions emarginated by arcuate, elevated lateral carinae. Median carina distinctly straight and not bifurcated. Median ocellus placed in the lower part of the median list, slightly above clypeal suture. Postclypeus relatively small, in the form of a rounded triangle, delimited from frons by strongly curved clypeal suture. Anteclypeus with a median carina. Compound eyes oval, about twice as long as wide (in lateral aspect). Lower margin of compound eye without an incision. Pedicellus wide and spherical, flagellum about three times as long as a pedicel diameter. Genal part of head shorter than the clypeal part. Subgenal suture distinct, slightly arcuate. Rostrum slender, reaching hind coxae.

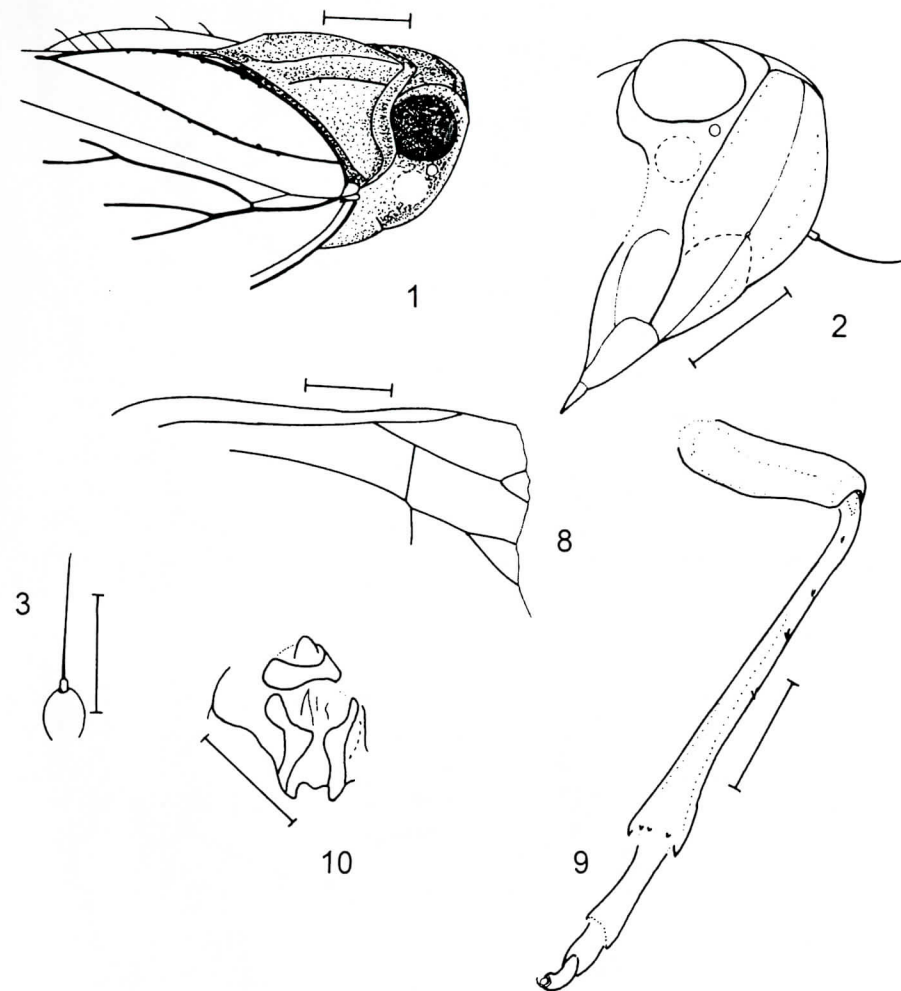
Pronotum collar-like, narrow, visible on whole width.

Mesonotum distinctly depressed laterally, wide, with three longitudinal, almost parallel, elevated carinae. Middle part of mesonotal disc depressed, the scutellar part slightly concave.

Tegula about twice as wide as long.

Forewings (tegmina) tectiform, dark coloured almost on the whole length. Costal field, radial and medial fields subequal in width. Stigma not distinctly visible, triangular, delimited anteriorly by subcostal cell. Clavus elongated, reaching about  $\frac{3}{4}$  tegmen length. All longitudinal veins covered with small tubercles provided with short setae. Common stem Sc+R with both veins distinctly visible. Sc+R and M branching from the basal cell. Vein RP with 3, vein M with 5 branches. Vein CuA bifurcated in the basal  $\frac{1}{3}$  of tegmen length into single branches  $CuA_1$  and  $CuA_2$ . Vein PCu connected with  $A_1$  in half of the internal clavus margin (Figs. 4, 11).

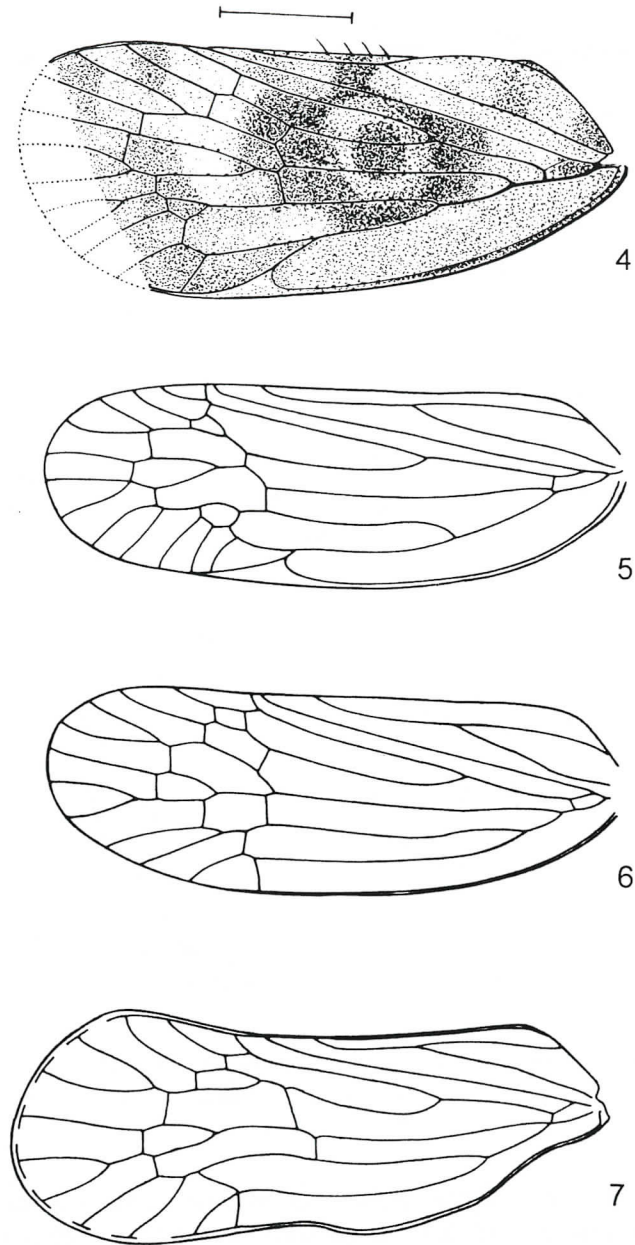
Hind wings hyaline, wide. Vein RP and M bifurcated, transverse veinlets r-m and m-cu relatively long and placed almost in a line (Fig. 8).



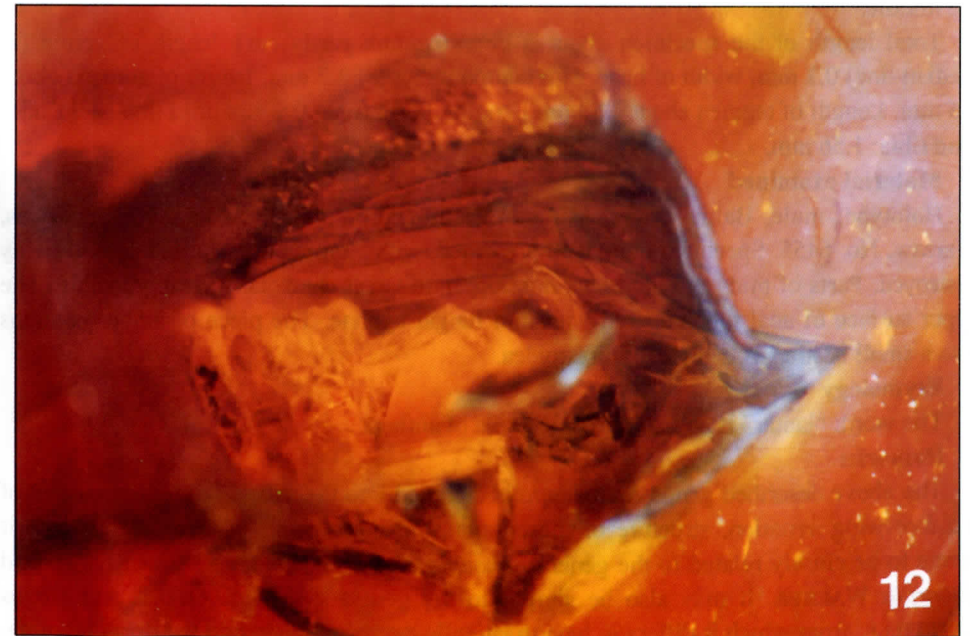
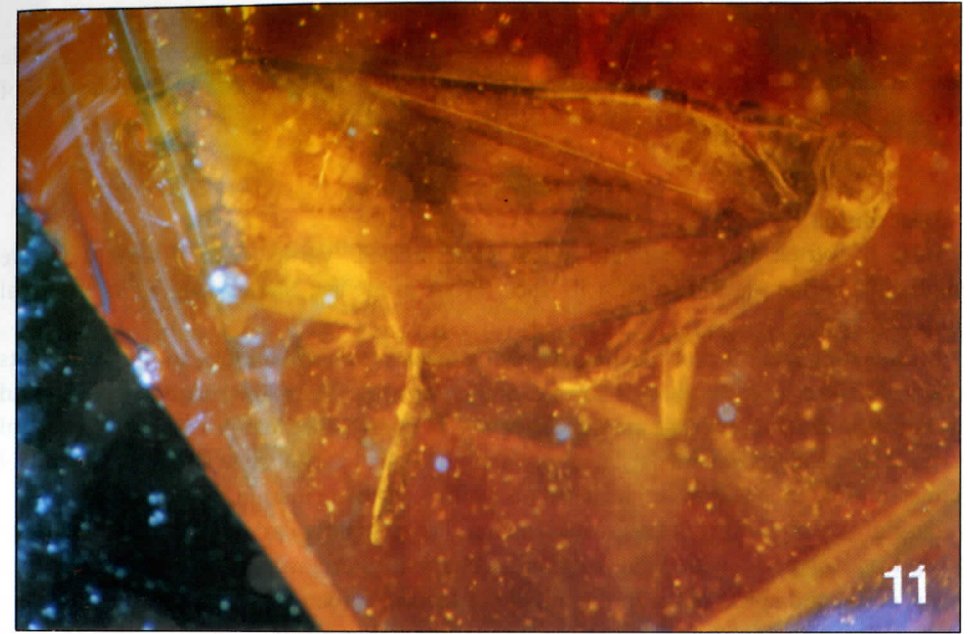
**Figs. 1-3, 8-10.** *Kulickamia jantaris* gen. et sp. n. 1 - anterior part of body in right latero-dorsal view, 2 - facial part in fronto-lateral view, 3 - antenna, 8 - visible part of hind wing, 9 - hind leg, 10 - end of abdomen with male genital block.

Legs slender, fore tibiae slightly shorter than mid tibiae. Hind tibiae with carinate margins, provided with rows of short, strong setae. Tibial lateral spines indistinct, two smaller spines placed proximally, two distal spines slightly bigger. Hind basitarsus slightly longer than the second and the apical tarsal segments together.

Abdomen flattened dorsoventrally. Male genital segment sclerotized, with a deep median incision and a median process on the posterior margin.



**Figs. 4-7.** 4 - *Kulickamia jantaris* gen. et sp. n., right tegmen, 5 - *Flachemus* VAN STALLE, tegmen, 6 - *Achaemenes* STÅL, tegmen, 7 - *Eucarpia* WALKER, tegmen.



**Figs. 11-12.** *Kulickamia jantaris* gen. et sp. n. 11 - right lateral view, 12 - postero-ventral view.

**Etymology**

Named in honour of the late Dr. Róża Kulicka in recognition of her valuable contribution to the study of Baltic amber inclusions from the collection of the Museum of the Earth, Warsaw.

***Kulickamia jantaris* sp. n.****Description**

Base of vertex wider than the apical part, incised. Vertex with a weakly visible longitudinal carina reaching almost its apex. Frons in median line as long as its maximal width (0.6 mm).

Mesonotum about 3 times as long as vertex measured in the middle, to the level of its subapical carina. Tegmen about 2.5 times as long as wide. Vein A<sub>1</sub> strongly curved dorsad and elevated above the claval margin of tegmen (vein A<sub>2</sub>). Median process of the ventral margin of pygopher semicircular, medially incised. Apical part of style strongly curved and elongated. Anal tube very short, its distal part with a complete margin, without incisions.

Disc of vertex dark, with light emargination. Frons slightly darker than the lateral parts of head and clypeus, with light longitudinal carinae. Fore wings dark, particularly on clavus, costal and apical parts. In the middle of tegmen a round spot, similar to Liesegang circle. Veins dark with lighter tubercles, setae quite long (0.2 mm), apical cells lighter in the middle.

Total length of the specimen about 5 mm (tegmina partly cut), length of vertex (in median line) 0.3 mm, width of head with compound eyes: 0.7 mm, length of antenna about 0.5 mm. Length of tegmen about 4.5 mm. Length of fore tibia: 0.9 mm, mid tibia: 1.11 mm, hind tibia: 1.56 mm.

**Material examined**

Holotype: male, Baltic amber, Museum of the Earth, Polish Academy of Sciences, Warsaw, No. 6455. Specimen quite well preserved, with tegmina apex turned up and partly destroyed. Parts of mid- and hind legs missing, hind tarsal chaetotaxy weakly visible. The upper surface of anal tube covered with thin fungal hyphae. The piece of amber contains also a small beetle, probably of Buprestoidea.

**Etymology**

The word: "jantar" is an Old Slavonic name of amber.

**Remarks**

The above described genus *Kulickamia* is included into the tribe Cixiini on the basis of the fore wing venation, structure of mesonotum and male genitalia. Within this tribe it seems to be closely related to the genera *Achaemenes* STÅL, *Flachemus* VAN STALLE and *Eucarpia* WALKER. It may also be similar to the genera *Trirhacus* FIEBER and *Cixius* LATREILLE, from which it differs in having laterally depressed body and tectiform tegmina. *Kulickamia* gen. n. differs from *Eucarpia* WALK. in having a median ocellus and a subapical carina on vertex. Many features of *Kulickamia jantaris* sp. n. resemble representatives of the genus *Achaemenes* STÅL, but the former differs in weak lateral spines

of hind tibiae and in lacking of the common parts of veins MP+CuA on tegmina (these features are distinct in most Afrotropical representatives of *Achaemenes* STÅL). *Kulickamia* differs from the genus *Flachemus* VAN STALLE in the larger number of branches of veins RA and RP.

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