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## ***Oligocixia electrina* gen. et sp. nov. (Homoptera, Auchenorrhyncha, Cixiidae) from Dominican amber**

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(With 5 figures)

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### **Zusammenfassung**

Ein neues fossiles Insekt, *Oligocixia electrina* gen. et sp. nov., aus dem Dominikanischen Bernstein wird beschrieben. Diese neue Zikade gehört zur Familie Cixiidae (Homoptera: Auchenorrhyncha).

### **Abstract**

A new genus and species of planthoppers, *Oligocixia electrina* gen. et sp. nov., is described from Dominican amber. The specimen belongs to the collection of amber inclusions of the Naturhistorisches Museum in Vienna.

### ***Oligocixia* gen nov.**

**D i a g n o s i s :** Head with eyes narrower than pronotum. Vertex narrow, at base as broad as the eye diameter and slightly protruding beyond the eyeline; along its apical part tapered and bent backwards, provided with long marginal and a short medial carinae. Eyes oval, with a shallow furrow on the lower margin. Medial ocelli missing. Frons convex, shield-like, broadest at the plane of antennae, with a long medial carina. It is strongly produced beyond the lateral surface of head and in profile is merged with the vertex at an almost right angle. Clypeus narrower than frons, in the shape of an isosceles triangle, with lateral and a medial carinae lower than those of the frons. Rostrum somewhat shorter than femora I. Antenna with a club-like pedicellum and arista, which is only slightly longer than the eye length.

**Pronotum:** the central part completely hidden under the posterior head margin, lateral surfaces narrow, invisible from underside.

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Mesonotum broad, shield-like, with strongly produced lateral parts and bearing three longitudinal carinae in the middle, about 1.5 times as long as the vertex.

Forewings long, slightly tapering towards the base and broadly rounded at the apex. Pterostigma distinct, limited by vein RA. Longitudinal veins with numerous and long bristles. Vein RP single, dividing the radial field into two parts of different size; common part of Sc+R+M nearly as long as Sc+R, vein MP strongly shifted towards CuA<sub>1</sub>. In the apical row 5 transverse veins, in the nodal row (at the same plane as pterostigma) conspicuous *rm* and short *mcu*. No transverse vein cup-pcu within the claval field. Vein PCu+A<sub>1</sub> joins A<sub>2</sub> somewhat before the apex of clavus.

Hind wings with five apical fields and branched vein MA. Vein RP single, bent at an almost right angle in relation to Sc+RA.

Hind legs longest, coxae set most closely in the middle of metasternum. Femora III quadrate, with a row of fine spinules on the inner margin. Tibiae triangular, with smooth lateral margins and distally provided with 5 large spines set in groups of 2 and 3, and with an additional row of minute spinules. Two first tarsal segments with 4 apical spines set by twos.

Female anal segment triangular, short and broad. Ovipositor of the saw-piercing type, long, arched and lying in the furrow of pygofer along almost its entire length. Pygofer half as long as valvifer.

Type-species: *Oligocixia electrina* sp. nov.

### *Oligocixia electrina* sp. nov.

(Figs. 1–5)

Description: Forewing with two complementary veins *ir*, which are situated at the same plane as *rm* and lie in front of the branching of vein RP. Tegulae large, almost as long as the lateral part of the pronotum. Praetarsus III elongated, club-like swollen, with long and bent claws. Ovipositor shorter than half abdomen length, with valvae III protruding beyond its apex.

Coloration. Head bright, with dark, almost black carinae and dark spots. Eyes bright, with a dark rim. Pronotum brighter than mesonotum. Forewings transparent with dark-pigmented stripes along veins Sc+R, M, CuA and along the transverse veins. Dorsum of abdomen lighter centrally, posterior margins of tergites adorned with a bright rim. Clypeus, rostrum, hind tibiae, metatarsus and ovipositor covered with fine pubescence.

Female: lengths: body (with wings) 3.5 mm, forewing 3.5 mm, hind wing 2.3 mm, head 0.5 mm.

Holotype: 1 ♀, Dominican amber, Naturhistorisches Museum, Wien, 1984/39/7. The examined amber piece also contained other arthropod species belonging to the following orders: Pseudoscorpionida, Isoptera, Psocoptera and Coleoptera (Elateridae, Platypodidae).



Fig. 1: *Oligocixia electrina*, dorsal view. ( $\times 22$ ).

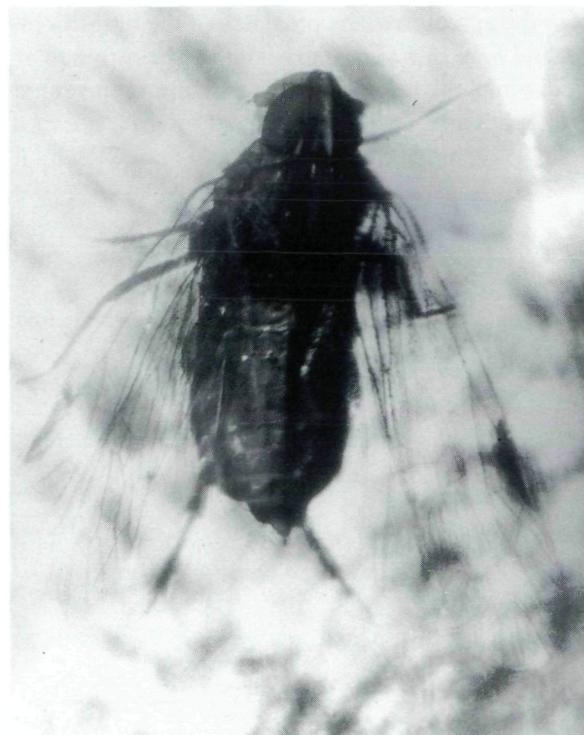


Fig. 2: *Oligocixia electrina*, ventral view. ( $\times 22$ ).

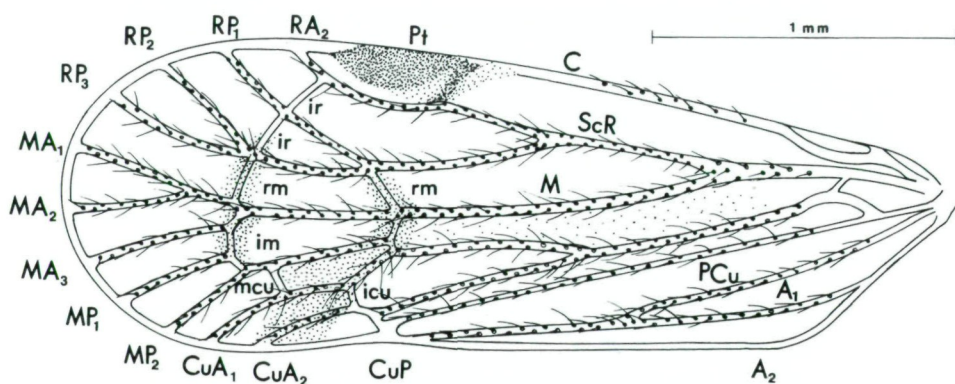


Fig. 3: The forewing.

**Remarks:** Regarding venation type and the density of bristles on forewings, *O. electrina* closely resembles *Myndus* STÅL, which is a recent and widely distributed genus. On the other hand, the fact that the medial margin of the pronotum is hidden by the head, makes it similar to *Nymphocixia unipunctata* VAN DUZEE, which inhabits the mangrove zones of the Atlantic region (KRAMER 1983).

The systematic position of *O. electrina* is not quite clear. Some characters, especially those of the wing structure, are typical of the representatives of the family Cixiidae (SHCHERBAKOV 1981, 1982). In the forewings these include: the grouping of complementary veins in the apical row, the presence of the basal field, the arrangement of nodal veins *rm* and *mcu* in a single row and the occurrence of the distinct pterostigma. In the hind wings the cixiidan characters are represented by the forked vein *M* and the single vein *CuA*. Other attributes, however, are of a clearly delphacidan type: the occurrence in hind wings of the single vein *RP* which

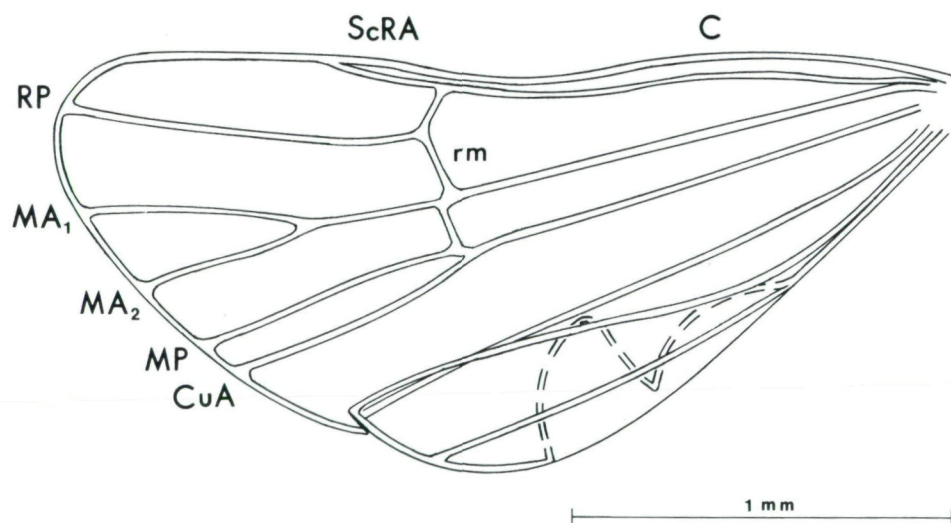


Fig. 4: The hind wing.

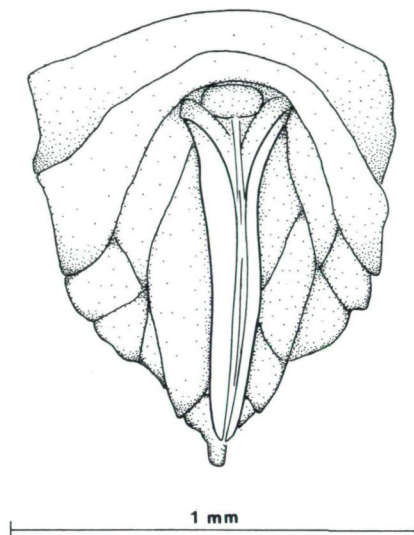


Fig. 5: The apex of the female abdomen (the right valvifer not visible).

reaches the outer wing margin, the lack of median ocellus and especially the structure and the functional type of ovipositor, which is located inside the long furrow of the pygofer and which dorsally lacks a wax field at its base.

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