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## New microbombyliids (Diptera: Mythicomyiidae) from Eocene Baltic and Rovno ambers, with notes on previously described amber species

NEAL L. EVENHUIS

*J. Linsley Gressitt Center for Research in Entomology, Bernice Pauahi Bishop Museum, 1525 Bernice Street, Honolulu, Hawai'i 96817-2704, USA. E-mail: neale@bishopmuseum.org*

### Abstract

New mythicomyiids from Baltic and Rovno amber are described and illustrated herein including one new genus: *Riga*, n. gen.; and five new species: *Glabellula aggregata* Evenhuis, n. sp., *Glabellula perkovskyi* Evenhuis, n. sp., *Riga toni* Evenhuis, n. sp., *Carmenelectra shehuggme* Evenhuis, n. sp. and *Carmenelectra pernigra* Evenhuis, n. sp. The genus *Riga* is very closely related to the extant genus *Reissa*, which is known from a single species in the Canary Islands. A key to the seven Tertiary species of *Glabellula* is given. Notes are given clarifying the synonymy of *Glabellula*; and acting as First Reviser, *Mythicomyia dominicana* Evenhuis is selected as a correct original spelling. With the description of the new species in this study, the Tertiary fauna of Mythicomyiidae is now 17 species in 8 genera known from Baltic, Saxon, Bitterfeld, French, Rovno (all Eocene), and Dominican (Miocene) ambers.

**Key words:** Rovno, amber, *Mythicomyia*, *Carmenelectra*, *Reissa*, *Riga*, *Glabellula*, Mythicomyiidae, Baltic, Eocene, Miocene, taxonomy, fossil

### Introduction

Mythicomyiidae are relatively rare in amber. In my review of the Tertiary Mythicomyiidae (Evenhuis, 2002c) where I treated 10 species in six genera, with five species described as new in that work, there were only 35 specimens (in 33 amber pieces) known at that time (one specimen having been described previously [*Piezia dominicana* in Evenhuis, 2002a]). Since that review, two additional species (one species in each publication) were described by Nel & de Ploëg (2004) and Nel (2006), but again based on few specimens. The family continues to be relatively rare in amber discoveries but as more amber sites are found and additional amber inclusions from previous sites are sorted out, additional specimens proving to be new to science have come to light. Due to this relative rarity, it was notable that in the next few years after my review (Evenhuis, 2002c), Dr. Evgeny Perkovsky sent me four specimens of Mythicomyiidae that had been identified from the Rovno amber of Ukraine (see Perkovsky *et al.*, 2010 for a faunal listing of families known to occur on the Rovno amber). All four sent represent new species (including one new genus) and all are based on single amber pieces. An additional purchase by me of a Baltic amber piece proved to also harbor a new species. This paper describes the one new genus and five new species of Mythicomyiidae from Baltic and Rovno amber, thus increasing the known Tertiary mythicomyiid amber fauna to 17 species worldwide (see Table 1).

### Material and methods

Specimens examined during this study derived from or are deposited in the following institutions: BPBM = Bernice Pauahi Bishop Museum, Honolulu; NLE = Neal L. Evenhuis, Honolulu, Hawai'i; SIZK = Schmalhausen Institute of Zoology of National Academy of Sciences of Ukraine, Kiev.

The species description below can serve to give further details of the genus.

**Etymology.** The genus name is named in honor of the asteroid 1796Riga.

**Description.** Female (Fig. 18). Length: 1.9 mm. *Head.* Occiput, vertex, and mentum black; eyes almost holoptic, separated below antennae by width of 3 ommatidia; front and face brown; antennae dark brown; scape minute; pedicel cylindrical, slightly longer than wide; first flagellomere (Fig. 9) cylindrical-lanceolate, length about 1.5 x greatest width; second flagellomere cylindrical, rounded apically, about 1/2 length of first flagellomere; sensillum placed subapically; proboscis brown, length ca. 1/2 head height; palpus not evident.

*Thorax.* Mesonotum, scutellum, and pleura dark brown, broadly yellowish only in prescutellar area; legs dark brown; halter stem and knob dark brown.

*Wing* (Fig. 12). Hyaline; veins brown; costa complete; vein Sc incomplete, ending about at level of origin of Rs; vein  $R_{2+3}$  originates at basal 1/3 of Rs and ends in  $R_1$  forming a triangular submarginal cell; vein  $R_{4+5}$  straight to wing margin, ending in costa beyond level of end of vein  $M_2$ ; vein  $M_1$  straight toward wing margin; vein  $M_2$  fairly straight to wing margin; vein  $A_1$  absent, present only as a fold.

*Abdomen.* Distended; brown, with scattered short hairs. Genitalia not visible.

**Etymology.** The specific epithet is named for Anthony “Tony” Shelley in honor of his many contributions to dipterology.

**TABLE 1.** List of Tertiary amber Mythicomyiidae.

Taxon	Origin
Glbellulinae	
<i>Glbellula brunnifrons</i> Evenhuis, 2002c	Dominican (Miocene)
<i>Glbellula electrica</i> (Hennig, 1966)	Baltic (Eocene)
<i>Glbellula grimaldii</i> Evenhuis, 2002c	Dominican (Miocene)
<i>Glbellula hannemanni</i> Schumann, 1991	Bitterfeld (Eocene)
<i>Glbellula interrupta</i> Evenhuis, <b>n. sp.</b>	Rovno (Eocene)
<i>Glbellula kuehnei</i> Schlüter, 1976	Dominican (Miocene)
<i>Glbellula perkovskiyi</i> Evenhuis, <b>n. sp.</b>	Rovno (Eocene)
<i>Eurodoliopteryx inexpectatus</i> Nel, 2006	France (Eocene)
Psiloderoidinae	
<i>Carmenelectra shechisme</i> Evenhuis, 2002c	Baltic (Eocene)
<i>Carmenelectra shehuggme</i> Evenhuis, <b>n. sp.</b>	Rovno (Eocene)
<i>Carmenelectra pernigra</i> Evenhuis, <b>n. sp.</b>	Baltic (Eocene)
<i>Proplatypygus succineus</i> Hennig, 1969	Baltic (Eocene)
<i>Proplatypygus matilei</i> Nel & De Ploëg, 2004	France (Eocene)
Mythicomyiinae	
<i>Mythicomyia dominicana</i> Evenhuis, 2002c	Dominican (Miocene)
<i>Mythenteles baltica</i> Evenhuis, 2002c	Baltic (Eocene)
<i>Pieza dominicana</i> Evenhuis, 2002a	Dominican (Miocene)
<i>Riga toni</i> Evenhuis, <b>n. sp.</b>	Rovno (Eocene)

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