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NEW GENUS OF THE FAMILY SOJANORAPHIDIIDAE (GRYLLOBLATTIDA) FROM LOWER PERMIAN OF URAL

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Aibolitus medicinus gen. et sp. n. is described from Lower Permian of
European Russia (Chekarda locality, Middle Ural).

KEY WORDS: Grylloblattida, new taxa, Lower Permian.

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Из нижнепермского местонахождения Чекарда (европейская часть России, Приуралье) описан *Aibolitus medicinus* gen. et sp. n.

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INTRODUCTION

Family Sojanoraphidiidae has been revised recently (Storozhenko & Novokshonov, 1994). It consists of single genus *Sojanoraphidia* O.Martynova, 1952 with two species: *S. rossica* O.Martynova, 1952 and *S. martynovae* Storozhenko et Novokshonov, 1994. New genus of Sojanoraphidiidae is found in the Lower Permian locality Chekarda (Ural Mountains).

Family Sojanoraphidiidae O.Martynova, 1952

Genus *Aibolitus* Novokshonov et Storozhenko, gen. n.

Type species - *Aibolitus medicinus* Novokshonov et Storozhenko, sp. n.

DIAGNOSIS. Body of medium size, slender, elongate. Head prognathous, large; eyes oval. Antennae filiform, with more than 21 segments. Pronotum trapezoidal, without paranota. Meso- and metanotum elongate, large. Fore legs shorter than middle or hind ones. Coxae relatively large, with distinct interspace between the base of them. Tarsus with 5 segments. Abdomen longer than head and notum together. Ovipositor long and narrow. Fore wing slightly shorter than body (without ovipositor), membranous, monochomous, without hairs, with broadly rounded apex. The subcosta (*Sc*) terminating on the costa (*C*) about middle of wing. Costal area sending off a series of simple veinlets, narrow: maximum width of costal area is 10.0-11.5 times less than width of wing. The radius (*R*) simple, extending well to the apex of wing. Its sector (*RS*) arising before the middle of wing, anastomosed with anterior branch of media (*MA*); *RS+MA* with 5-8 branches, which pectinated towards the posterior margin of wing. The base of media (*M*) fused with *CuA* near the base of wing; *M* divided on a main anterior branch (*MA*), which anastomosed with *RS*, and a main posterior branch (*MP*) desclerotised near the middle, with 4-6 branches, which are directed towards the posterior margin of wing. The anterior cubitus (*CuA*) forking into two simple branches: the outer (*CuA₁*) and posterior (*CuA₂*). The posterior cubitus (*CuP*) unbranched, concave. The area between *CuA* and *CuP* narrow, with simple cross-veins. Anal area short. The outer anal vein (*A₁*) with short fork; the posterior anal vein (*A₂*) with 3 branches. Cross-veins straight and simple. Hind wing slightly shorter than fore wing. *MA* fused completely with *RS*. *MP* arising from *CuA*, desclerotised near the middle, with 2 branches. *CuA* with 2 branches. *CuP* simple, weak. Anal area broad. *A₁* simple, desclerotised. *A₂* irregularly pectinated.

SPECIES INCLUDED. Type species only.

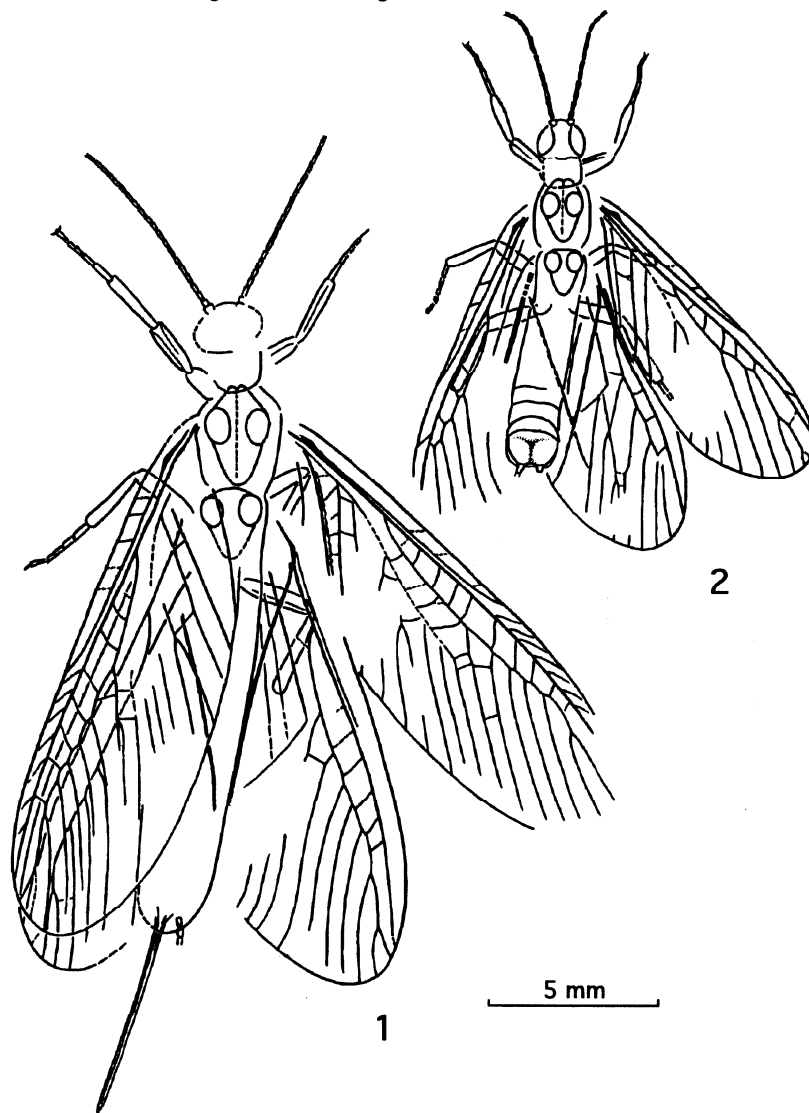
RELATIONS. New genus is closely related to *Sojanoraphidia* but differs by short *Sc*, pectinated *RS+MA* and simple *CuA₁* of fore wing (*Sc* terminating on *C* near apical quarter of wing; *RS* not anastomosed with *MA*, with 4-5 branches directed towards the apex of wing; *CuA₁* with 3 branches in *Sojanoraphidia*).

Aibolitus medicinus Novokshonov et Storozhenko, sp. n.

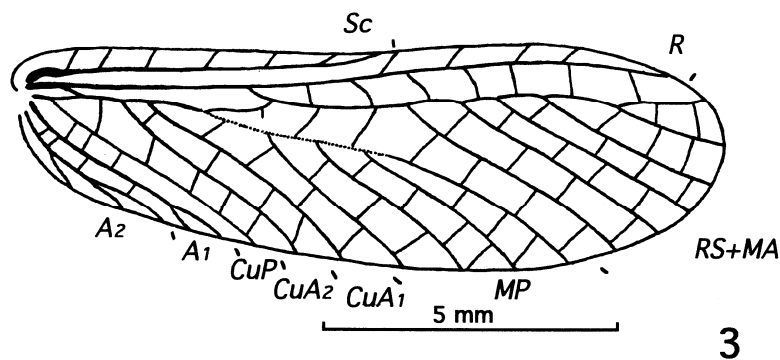
Figs 1-4

MATERIAL. Holotype: imprint of fore wing of male, specimen of Permian University N 2/103; Russia: Perm region, left bank of Sylva River near mouth of Chekarda River; Lower Permian, Kungurian Stage; in collection of Paleontological Institute, Moscow. Paratypes: imprint of female, specimen of Permian University N 1/91 and imprint of male, specimen of Paleontological Institute N 1700/947 from same locality.

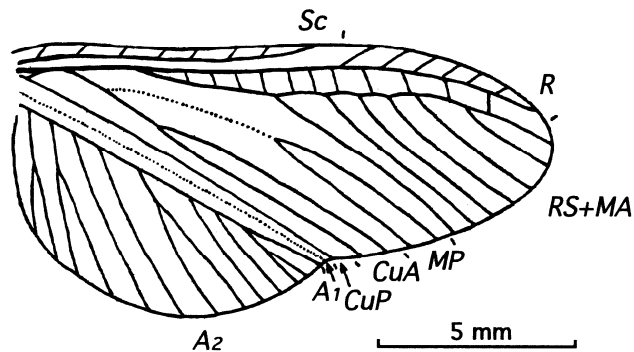
DESCRIPTION. Fore wing is 3.1-3.6 (σ) or 3.4 (φ) times as long as broad; unicolorous light; veins dark. *RS+MA* with 5-6 (σ) or 7-8 (φ) branches. *MP* with 4 (σ), or 6 (φ) branches. Cross-veins straight, simple. Maximum width of *RS* area of fore wing is 1.6-1.8 times broader than width of *Sc* area. Hind wing unicolorous light with dark veins.



Figs. 1-2. *Aibolitus medicinus* sp. n. - 1) female, paratype, spec. N 1/91; 2) male, paratype, spec. N 1700/947.



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Figs. 3-4. *Aibolitus medicinus* sp. n. - 3) fore wing of male, holotype, spec. N 2/103; 4) reconstruction of hind wing of female based on left and right wings of paratype, spec. N 1/91. Explanations of veins are given in the text.

MEASUREMENTS. Length of body: male 10.5, female (without ovipositor) 18.2; fore wing: male 10.0-12.5, female 15.5; hind wing: male 9.0, female 14.2; ovipositor 6.5 mm.

LOCALITY AND OCCURRENCE. Russia: Sylva River (Chekarda); Lower Permian, Kungurian Stage.

REFERENCES

Storozhenko, S.Yu. & Novokshonov, V.G. 1994. Revision of the Permian family Sojanoraphidiidae (Grylloblattida) - Russian Entomological Journal 3(3-4): 37-39.

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