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A NEW WASP GENUS OF THE TRIBE GORYTINI FROM OLIGOCENE OF THE PRIMOR'SKIY REGION

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The tribe Gorytini comprises more than 400 Recent species in 31 genera, found in all zoogeographical regions [1]. In addition, four fossils, originally thought to belong to this tribe, have been described, but only two of these actually belong to it. The oldest fossil, "*Gorytes*" *statzi* Piton from the Paleocene of France [4], evidently does not belong in the family Sphecidae because its wing covers are entirely uncharacteristic of fossil wasps. The first fossils of a true member of the tribe Gorytini, *Hoplisus archorycus* Cockerell [2], occur in the Eocene (Green River Formation, Colorado, USA). Due to the impossibility of evaluating its many diagnostic characteristics it was not possible to assign this form definitively to a particular genus, though its closeness to the modern and, moreover, highly advanced genera (*Gorytes*, *Lestiphorus*, *Oryttus*, *Psammaletes* and others) is evident. Two sphecids described from the Lower Oligocene in the USA (Florissant locality, Colorado), were originally included in the tribe Gorytini: *Hoplisus sepultus* Cock., closely related to Recent species of *Psammaecius* [5], found only in the Palaearctic, and *Hoplisidea kohliana* Cock., which belongs, as shown by further studies [3], to the tribe Sceliphronini of the subfamily Sphecinae.

A new wasp genus of the tribe Gorytini from the Oligocene of Sikhote-Alinya is described below. The holotype is in the Paleontological Institute of the USSR Academy of Sciences. The author thanks A. P. Pasnitsin for allowing him to examine the material.

FAMILY SPHECIDAE LATREILLE, 1802

SUBFAMILY NYSSONINAE LATREILLE, 1804

Tribe Gorytini Lepeletier, 1845

Biamogorytes Nemkov, gen. nov.

Generic name. After the Biamo River and the genus *Gorytes*.

Type species. *B. handlirschi* sp. nov.

Diagnosis. Sinciput rounded-convex. Collarlet of pronotum weakly raised, its posterior margin nonindented. Shield of mesotergum bearing weakly developed mesial grooves and notopleura, with indistinct parapsidal grooves; its posterolateral corners rounded-angular, with oblique ridges (oblique scutal carina [1]) defining separate concave zones. Sutures between shields of mesonotum and carapace, and also between carapace and posteronotum, with strong transverse ribs. Carapace in center lacking fossae. Episternal suture terminating ventrally on omaulus, in upper part of mesopleurite. Scrobal groove merging anteriorly with episternal furrow. Sternauli united with omauli. Acetabular keel well developed. Metapleura lacking longitudinal folds, gradually narrowing ventrally. Lateral surfaces of intermediate segment with distinct spiracular furrows. Mesial field of intermediate segment sharply bounded, wrinkled over entire surface. In anterior wing summit of 3r lying on anterior margin, appendiculate marginal cell absent; 1m-cu intersecting basal fourth

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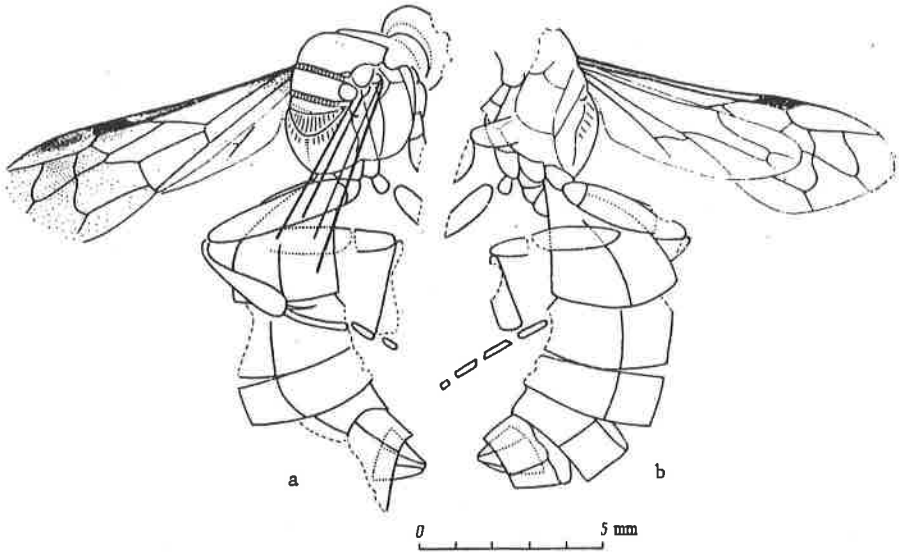

Fig. 1. *Biamogorytes handlirschi* sp. nov.; holotype 3429/1092: *a* - from above, from right, *b* - from below, from left.

of 2rm, 2m-cu -- between 2rm and 3rm, cu-a postfurcal. In posterior wing cu-a postfurcal and strongly curved. First abdominal segment sessile, width at summit approximately equal to width of second segment. Sixth tergite with distinct pygidial field.

Species composition. The type species.

Comparison. Most similar to *Gorytes* (having a similar structure of the thorax and venation of the posterior wings), from which it clearly differs in having a 2m-cu in the anterior wings, interstitial in relation to 2r-m, and in having an enlarged first abdominal segment (in *Gorytes* 2m-cu is strongly antefurcal, and the first abdominal segment is distinctly narrower and shorter than the second).

Remarks. Venation of the anterior wings such as that in *Biamogorytes* is found only in primitive genera *Clitemnestra* and *Ochleroptera* and also in the southern Chinese *Argogorytes tonkinensis* Yasumatsu, which differs sharply in this respect from the remaining species of the genus. But all of these species have a different (more primitive) thoracic anatomy and posterior wing venation, whereas the new genus is similar in these respects to the derived Gorytini.

Biamogorytes handlirschi Nemkov, sp. nov.

Species name. In memory of A. Gandlirsh.

Holotype. PIN 3429/1092, cast and counterpart of the axis with damaged legs and head; Primorskiy territory, Pozhar region, Bol'shoy Svetlovodnaya River (formerly Biamo), upper reaches of Barachek Creek; Upper Oligocene.

Description (fig. 1). Male. Acetabular keel does not quite reach junction of omaulus and sternaulus. Mesial field of interstitial segment with sharp, straight, longitudinal wrinkles that extend beyond its border. Longitudinal depression on posterior surface of interstitial segment with numerous transverse ribs. Lateral surfaces of interstitial segment, in front of spiracular furrow, smooth, behind furrow wrinkled. Pygidial field triangular, with straight lateral margins. Body dark; wings transparent, slightly darkened in region of 3r.

Sizes in mm: Length of body 13.6, length of anterior wing 9.2.

Material. The holotype.

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NEW DATA ON THE ULTRASTRUCTURE OF SABELLIDITIDS (POGONOPHORA?)

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Sabelliditids are the only group of Precambrian Metazoa that consist of organic matter. Sabelliditids are known from China, Canada and the USSR (East European and Siberian platforms). Most sabelliditids are from the Roven horizon of the Upper Vendian [3].

The first described sabelliditid, *Sabellidites cambriensis*, was found in 1925 by M. E. Yanishevskii in "blue clays" in the vicinity of Petrograd [5]. Yanishevskii interpreted this species as a sessile polychaete. Later B. S. Sokolov collected and studied large numbers of sabelliditids from the European USSR and the Siberian platform, and based on anatomical data proposed a pogonophorid affinity for them [1, 2]. To test this hypothesis, the famous Polish scientist A. Urbanek investigated the structures of sabelliditid tubules and the Recent pogonophoran *Zenkevitchiana* sp. with transmission electron microscopy [4, 6]. Urbanek's data did not allow him to test definitively the hypothesis of a pogonophoran affinity for sabellitids. I attempted to continue Urbanek's studies (by investigating the ultrastructure of tubules of *Sabellidites cambriensis* Jan.), but using different, probably more fruitful techniques.

I conducted this work using sabelliditids graciously provided by Sokolov. The material comes from borehole cores (No. 7 d. Paritsa, No. 3 d. B. Ozertsy, No. 21 Lyzhkov region) drilled in the Leningrad oblast. The material is in the Paleontological Institute, USSR Academy of Sciences (PIN AN SSSR), Collection No. 4348.

A 3-5% hydrogen peroxide solution was used both to break down the rock matrix (5-10 min) and to prepare the fossils extracted from it (etched for 24 h or longer). This prepared material was analyzed in the PIN AN SSSR using the Minisem and CamScan No. 4 scanning electron microscopes.

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