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NEW DATA ON THE LAPPET-MOTHS (LEPIDOPTERA, LASIOCAMPIDAE) OF THE RUSSIAN FAR EAST

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New genus *Orienthrix* **gen.n.** is described. *Orienthrix laeta* (Walker, 1855) (the type species), *O. laeta sulphurea* (Aurivillius, 1894), *O. divisa* (Moore, 1879), **comb. n. et stat. resurr.** and *O. austrina* Lajonquiere, 1978), **comb. n. et stat. n.** are included in a new genus. *Malacosoma castrense* L. is recorded for the first time from Buryatia and Primorskii krai. *Somadasys brevivensis* Butl. is recorded for Southern Sakhalin based upon material.

KEY WORDS: Lasiocampidae, taxonomy, new records, Russian Far East.

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Описан новый род *Orienthrix* **gen. n.** Новый род включает *Orienthrix laeta* (Walker, 1855) (типовой вид), *O. laeta sulphurea* (Aurivillius, 1894), *O. divisa* (Moore, 1879), **comb. n. et stat. resurr.** и *O. austrina* (Lajonquiere, 1978), **comb. n. et stat. n.** *Malacosoma castrense* L. приводится впервые для Бурятии и Приморского края. *Somadasys brevivensis* Butl. указывается для Сахалина на основе достоверно определенного материала.

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INTRODUCTION

During preparing the key to the lappet-moths of the Russian Far East some new faunistic and taxonomic data were obtained. The results of this study are given herein.

Orienthrix Tshistjakov gen. n.

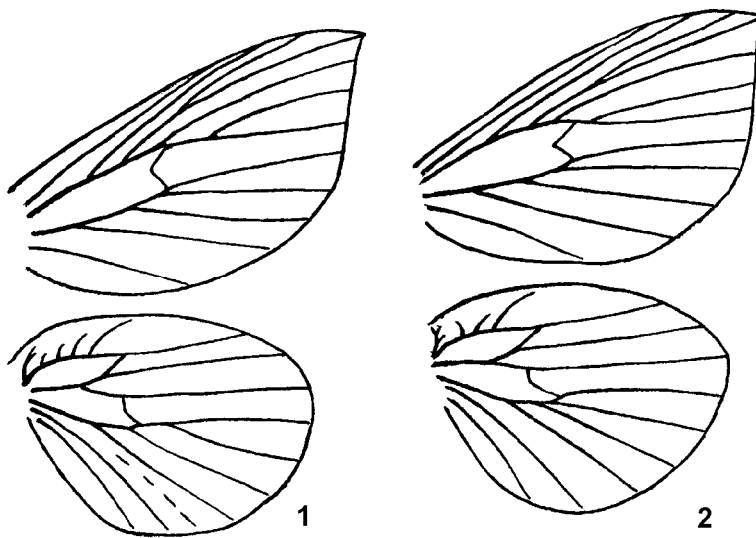
Type species: *Amydona laeta* Walker, 1855

DESCRIPTION. Head with rather narrow brush of appressed scales spreading along 1/4 of inner edge of lashed eye. Labial palps (Fig. 4) of moderate length, 1,5 times longer than eye diameter; middle segment rather stout, no more 3 times longer than its thickness, with dense hair-like long scales dorsally, in female some longer than in male; terminal segment 3 times shorter than middle segment, nearly to triangular in shape. The foreleg tibia (Fig. 6) with epyphysis 2 times shorter than length of femur, hind tibia with pair of spurs of moderate length. Forewing (Fig. 1) elongate, especially in female, with crescent-like acute apex and strong oblique cuted tornus; R_1 from middle of $R-Cu$ cell, R_2 and R_3 stalked, their common stem at middle of distance between R_1 and R_4 , its length almost equal the length of free R_2 ; R_4 from angle of $R-Cu$ cell; common stem R_5+M_1 rather long, nearly to 1/3 of free R_5 ; the bases of M_2 and M_3 are drawn together. Hindwing with 5 humeral veins from additional cell; M_2 and M_3 stalked.

MALE GENITALIA (Figs. 7, 10). Uncus absent; tegumen narrow, with tall hook-like processes at place of its attachment with vinculum; socii look like prolate membraneous lobes bearing long and strong bristles; valva consists from two parts: dorsal process represented by long thin lyre-like bented cucullus, sitting on the crest, which connects it with flat shoulder blade-like sacculus, bearing tall dorsally directed awl-like process along its inner margin; saccus membraneous, heart-like in ventral aspect, with two strongly sclerotized awl-like processes at middle of its caudal margin about 3/4 times as long as processes of cucullus; aedeagus thin and long, saddle-form thickened at base, arched ventrally at middle, vesica goes over a slit with sclerotized crest-like plate on dorsal or dorso-lateral side in distal third before top.

FEMALE GENITALIA (Fig. 11). Papilla analis dome-form; apophysis posterior thin and long, about 8 times longer than apophysis anterior; ostium in the deep sinus, covered from ventral side by convex rounded and jagged along caudal margin a strongly sclerotized antevaginal plate; postvaginal plate looks like a narrow arched band roof above ostium; antrum strongly sclerotized, hemispherical, with narrow slit.

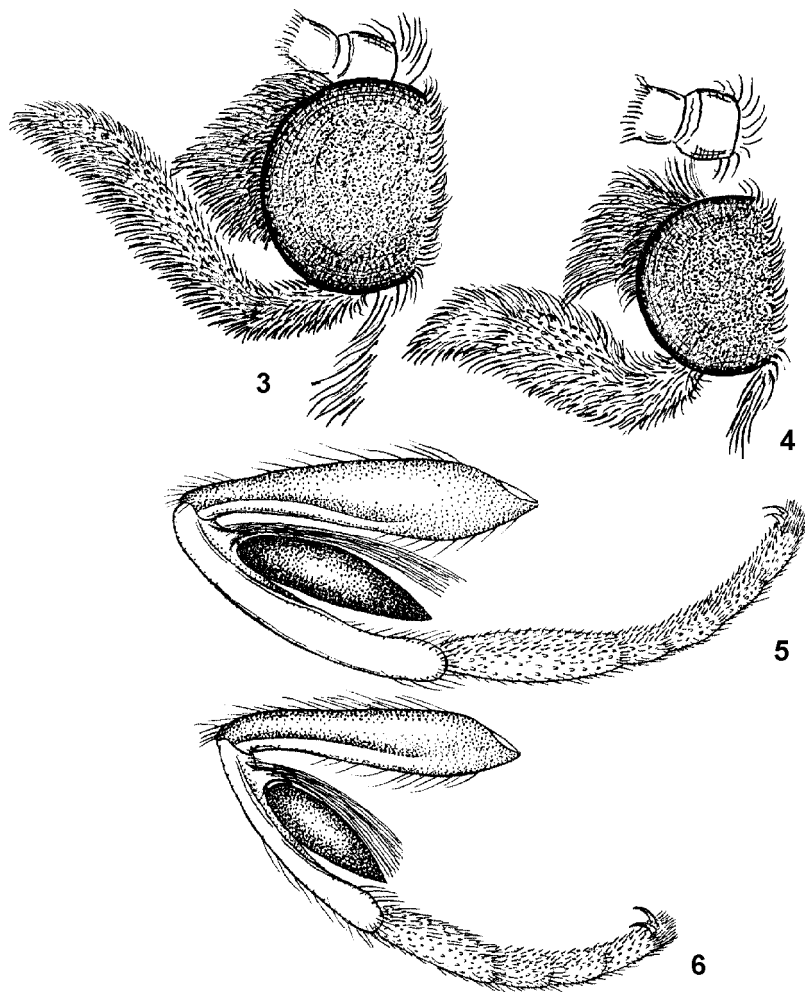
DIAGNOSIS. Based on the habitus (shape of the wings, wing maculation) similarity in the wing venation and some details of male genitalia structure the type species of the genus *Orienthrix* gen. n. is close to the representatives of the genus



Figs. 1, 2. Venation of *Orienthrix* gen.n. and *Euthrix*. 1) *Orienthrix laeta sulphurea*; 2) *Euthrix potatoaria askoldensis*.

Euthrix Meigen, 1830 (= *Philudoria* Kirby, 1892), and due to these peculiarities it was considered for a long time as belonging to the latter, including the last revision of the genus *Philudoria* (Lajonquiere, 1978) and the all following publications (Dubatolov & Zolotuhin, 1992; Zolotuhin, 1992). However, more careful examination has shown the clear differences between the newly described genus and *Euthrix*, which are as follows: labial palps in *Orienthrix* gen. n. remarkably shorter, its middle segment stout, no more 3 times longer than its thickness, while in *Euthrix* (Fig. 3) it is approximately 5 times longer than its thickness; epyphysis in *Orienthrix* gen. n. 2 times shorter than length of femur, its length in *Euthrix* (Fig. 5) consists no less of 2/3 femur length; forewing (Fig. 1) elongate, with strong oblique cuted tornus, in *Euthrix* (Fig. 2) forewing rather wide, with rounded tornus and its venation characterised by common stem R_{2+3} closer to R_4 , R_4 before, but not from angle of $R-Cu$ cell; common stem R_5+M_1 very short, about 1/8 of free R_5 ; the bases of M_2 and M_3 are separated, but not drawn together; hindwing with only 4 humeral veins from additional cell, M_2 and M_3 not stalked.

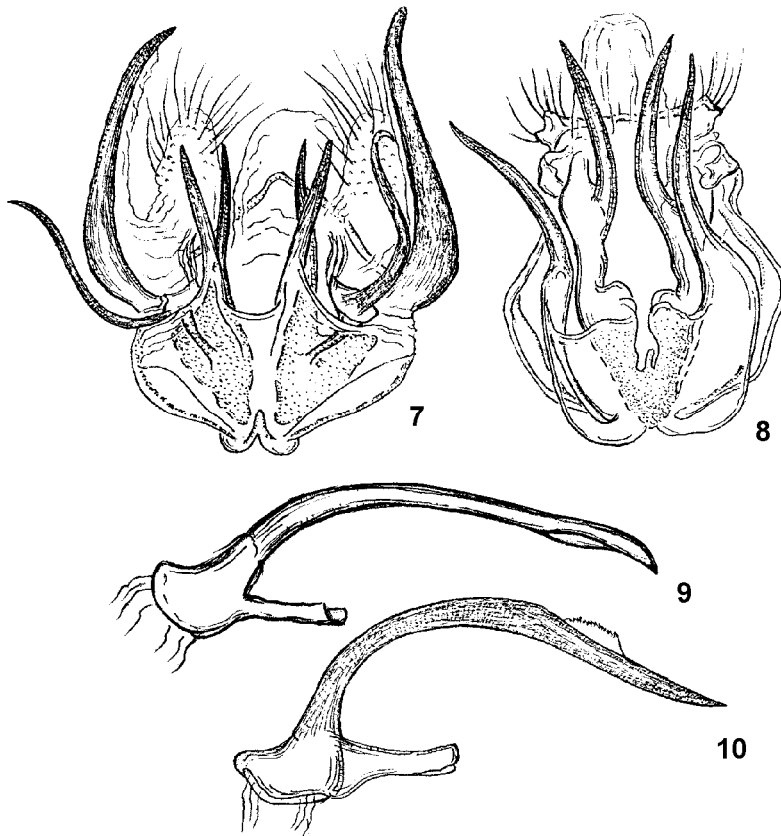
The male genitalia of *Orienthrix* gen. n. clearly differ from those of *Euthrix* by tall hook-like processes at place of attachment tegumen with vinculum, quite another structure of valva, consisting of two parts, by saccus with two strongly sclerotized awl-like processes at middle of its caudal margin and by aedeagus with vesica located on dorsal or dorso-lateral side, while in *Euthrix* (Figs. 8, 9) there are no any processes at place of attachment tegumen with vinculum, valva more or



Figs. 3-6. Labial palps and forelegs of *Orienthrix* gen.n. and *Euthrix*. 3, 5) *Euthrix* *potatoria askoldensis*; 4, 6) *Orienthrix* *laeta sulphurea*.

less integral, without process on sacculus, saccus of another shape - with two sclerotized processes on both sides of its caudal margin and aedeagus with vesica located on ventral side.

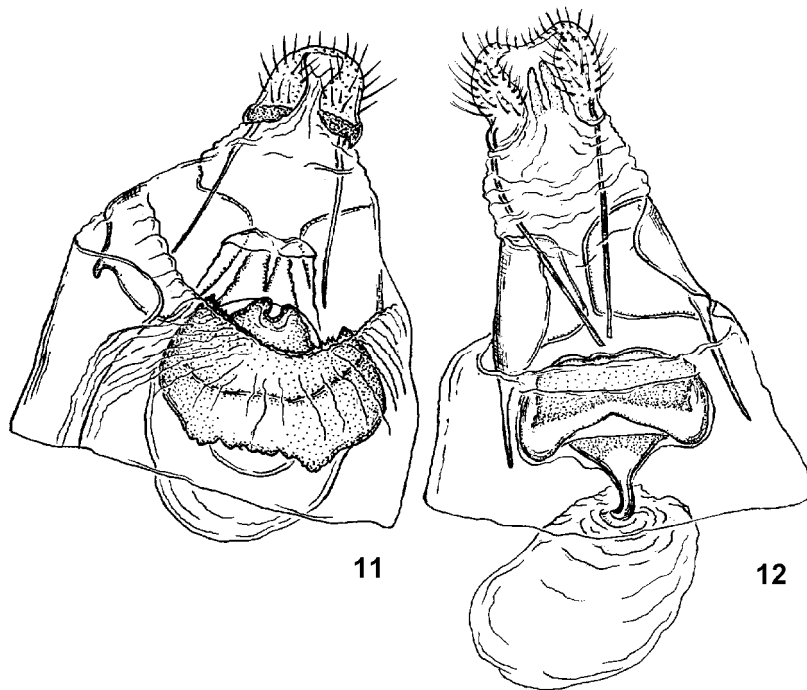
The female genitalia of *Orienthrix* gen. n. differ from those of *Euthrix* by another shape and position of the antevaginal and postvaginal plates and by hemispherical antrum, while in *Euthrix* (Fig. 12) it is crater-form.



Figs. 7-10. Male genitalia of *Orienthrix* gen.n. and *Euthrix*. 7, 10) *Orienthrix laeta sulphurea*; 8, 9) *Euthrix potatoria askoldensis*.

REMARKS. Besides all listed morphological features of imago, both discussed genera quite differ by their larvae and bionomics as well. The larvae of *Euthrix* are phytophagous and feed mainly on graminaceous grasses while the larvae of *Orienthrix laeta sulphurea* are known as dendrophagous and feed on leaves of *Lespedeza bicolor* - one of the common shrub in the continental part of the south Russian Far East.

STRUCTURE. According to the pictures of the male genitalia by Lajonquiere (1978) the new genus includes the following species and subspecies: *Orienthrix laeta* Walker, 1855 (the type species) (NE India, Assam, SE China, Zhejiang) *O. laeta sulphurea* (Aurivillius, 1894) (Russian Far East, NE China, Korea, Japan), *O. divisa* (Moore, 1879) (Ceylon), **comb. n. et stat. resurr.** and *O. austrina* (Lajonquiere, 1978) (Java, Sumatra, Borneo), **comb. n. et stat. n.**



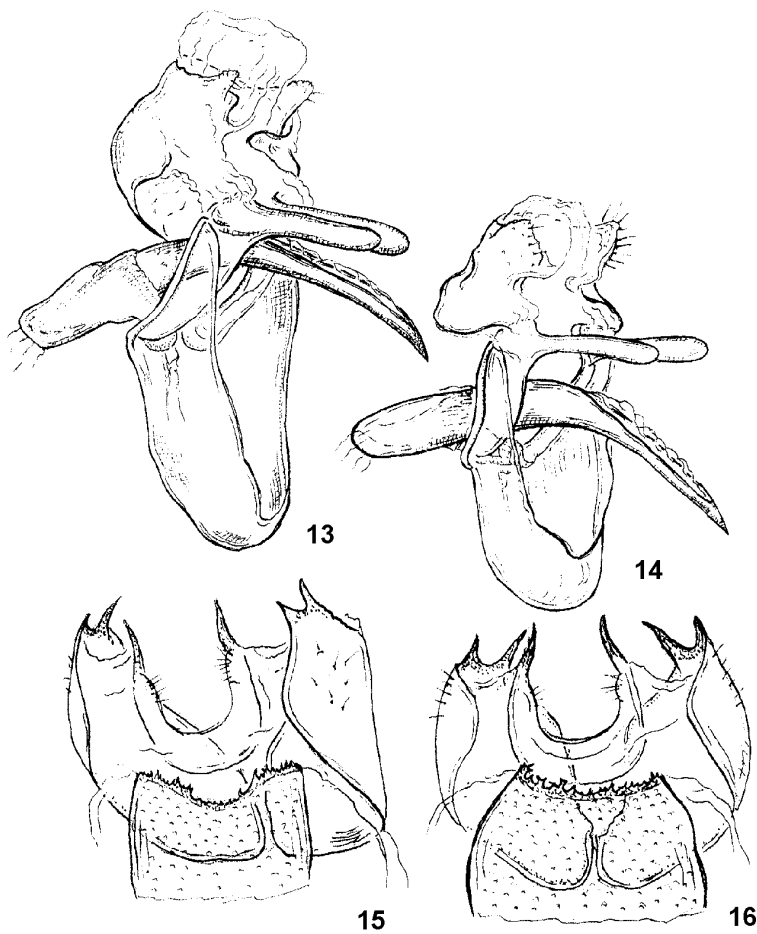
Figs. 11, 12. Female genitalia of *Orienthrix* gen.n. and *Euthrix*. 11) *Orienthrix laeta sulphurea*; 12) *Euthrix potatoria askoldensis*.

Malacosoma castrense (Linnaeus, 1758)

MATERIAL EXAMINED. Buryatia: 1 ♂, Khshok Dabatui River, 26.VII 1963 (Boldaruev). Southern Primorye: 1 ♂, 2 ♀, 10 km N Zanadvorovka, 5.VII 1984 (Yu. Tshistjakov).

DISTRIBUTION. NW Africa, Central and Eastern Europe, Caucasus, Transcaucasus, Asia minor, Middle Asia mountains, Kazakhstan, South of W Siberia, Iran, China (Tibet, Guangxi-Zhuangzu), Southern Mongolia, Buryatia (first record), Southern Primorye (first record).

REMARKS. There is one record (Freina & Witt, 1990) about spreading of this species throughout Eurasia up to Amur region, but without indication any material from Russian Far East. Nevertheless it has not been mentioned from here as in the annotated checklist of the Lasiocampidae of the Russian Far East (Zolotuhin, 1992) so in the list of this family compiled in the scope of the former USSR fauna (Dubatolov & Zolotuhin, 1992). According to the latter publication, the eastern boundary of its range runs in the Southern Mongolia. However, there is one specimen of this



Figs. 13-16. Male genitalia of *Malacosoma*. 13, 15) *M. castrense*; 14, 16) *M. neustrium testaceum*.

species in the collection of the Institute of Biology and Pedology from Buryatia. Moreover, among a great number of the *M. neustrium testaceum* Motschulsky, [1861] specimens, collected by me in the vicinity of Zanadvorovka (Southern Primorye) I found one male and 2 females, undoubtedly belonging to *M. castrense*.

It is rather difficult to say more certainly about taxonomic position of the specimens examined. The specimen from Buryatia seems to be almost identical in appearance with typical form from Europe, while the specimens from Primorye resemble those, belonging to *M. castrense* ab. *brunnea* Tutt of the same nominative form and so all of them could not be allied with any other known subspecies.

The differences between the both mentioned species are given herein in a key:

1. Forewing with antemedian line reaching a hind margin of wing; postmedian line arched between R_4-M_1 , then directed perpendicular to costal margin. In male genitalia (Figs 14, 16) dorsal lobe of valva thin at base, then gradually thickened to top; saccus nearly of the same length as vinculum. Caudal margin of sternit VII more or less straight, without excavation
..... *M. neustrium testaceum* Motsch.
- Forewing with antemedian line not reaching a hind margin of wing, but curved to its base; postmedian line straight between R_4-M_1 , then directed oblique to costal margin. In male genitalia (Figs 13, 15) dorsal lobe of valva of the same thickness through its course; saccus of 1.5 times longer than length of vinculum. Caudal margin of sternit VII with clear excavation at middle
..... *M. castrense* L.

Somadasis brevivensis (Butler, 1885)

MATERIAL EXAMINED: 1 ♂, "S. Saghalien, Ichinosawa" [at present: Solov'yovka, 10 km N Korsakov], 25.VII 1925 (Shibuya).

DISTRIBUTION. Southern Sakhalin, Japan.

REMARK. This species was omitted as in the annotated checklist of the Lasiocampidae of the Russian Far East (Zolotuhin, 1992) so in the list of the former USSR fauna (Dubatolov & Zolotuhin, 1992). Here recorded from Sakhalin Is. following after S. Matsumura (1925) and upon the same material, pointed out by mentioned author, which were examined by me during study of Matsumura's collection in Hokkaido University, Sapporo, Japan.

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