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A BRIEF ACCOUNT OF THE THYRIDIDAE (LEPIDOPTERA) OF THE RUSSIAN FAR EAST

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An annotated list of 6 species of Thyrididae, belonging to 4 genera is given; of them 2 species - *Rhodoneura shini* Park et Byun and *Rh. erecta* (Leech) are recorded for the first time from Russia. The data on faunistic and distribution of all observed species are summarised. The male and female genitalia of discussed species are illustrated.

KEY WORDS: Thyrididae, faunistics, Russian Far East.

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Дан аннотированный список 6 видов из 4 родов; из них 2 вида - *Rhodoneura shini* Park et Byun и *Rh. erecta* (Leech) впервые указываются для фауны России. Обобщены сведения по фауне и географическому распространению всех рассматриваемых видов. Приводятся рисунки гениталии их самцов и самок.

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INTRODUCTION

Family Thyrididae remains practically unstudied in the Russian Far East and all data about the species are limited by the only report (Moltrecht, 1929), where 4 species were mentioned. In addition to that there is another two papers including the descriptions of new species from this territory - *Thyris unifenestrella* Bryk (Bryk, 1942) from South Kuril and *Th. fenestrella ussuriensis* Zag. (Zagulajev, 1985) from Amur and Ussuri regions. Material on this family (excluding, perhaps, only *Th. fenestrella ussuriensis*) is rather poorly represented in the native collections. Nevertheless, in the course of taxonomic study of the Thyrididae of the Russian Far East I discovered here 6 species from 4 genera, of them 2 species – *Rhodoneura shini* Park et Byun and *Rh. erecta* (Leech) turned out to be new for Russia.

The paper based mainly on the author's material and on collection of the Institute of Biology and Pedology (the latter given in the survey without special indication). Besides some material deposited in the Zoological Museum of Moscow State University [ZMMU] was used also; it is indicated in the text under proper abbreviation.

LIST OF THE SPECIES

***Thyris fenestrella ussuriensis* Zagulajev, 1985**

Figs 1, 2

Thyris ussuriensis Zagulajev, 1985: 782.

Thyris fenestrella: Moltrecht, 1929: 26.

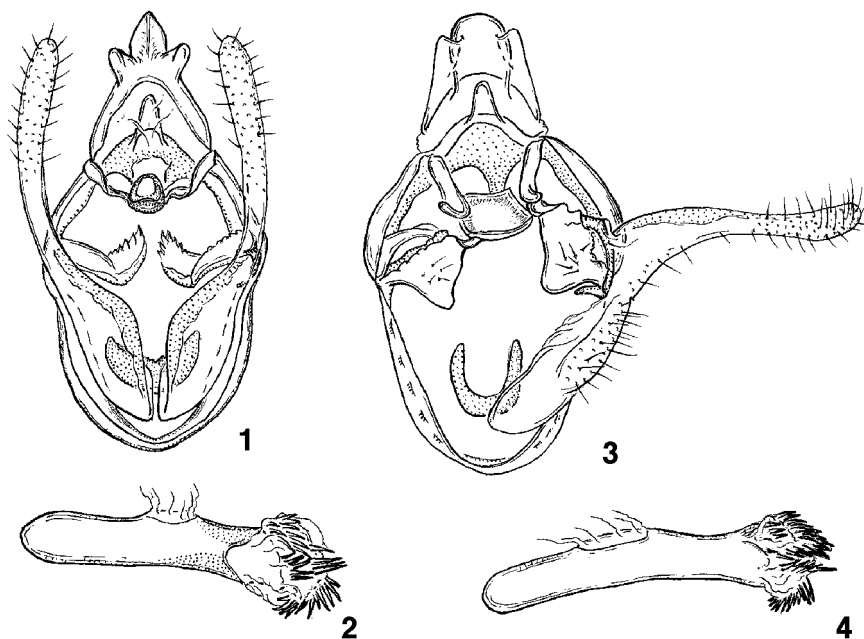
Thyris usitata: Moltrecht, 1929: 26 (part.).

Thyris fenestrella ussuriensis: Park & Byun, 1990: 71.

MATERIAL. Russia, Khabarovskii krai: 1 ♂, Komsomol'sk-na-Amure, 13.VI 1977 (V. Mutin). Primorskii krai: 1 ♂, 1 ♀, "Upper Iman river" [now: Bol'shaya Ussurka river, 32 km NWW Dal'negorsk], 1, 19.VI 1971 (Yu. Tshistjakov); 1 ♀, Staro-Varvarovka, 15.VII 1974 (V. Meshcheryakov); 25 ♂, 12 km E Dersu, mouth of Armu river, 16.VI 1990 (Yu. Tshistjakov); 1 ♂, 3 km E Vostrezovo, 21.VI 1990 (Yu. Tshistjakov); 4 ♂, 1 ♀, Lasovskii Nature reserve, 29.V 1991 (Yu. Tshistjakov); 2 ♂, 4 km W Ulegorsk, 2.VI 1994 (Yu. Tshistjakov). Sakhalin: 1 ♂, 1 ♀, "Cent. Exp. Sta." [Konuma, now: Novo-Aleksandrovsk], 15.VII 1943 (Tonnoi); 1 ♂, "Sacalin" 23.VII 1919 (S. Issiki).

DISTRIBUTION. Russia: Khabarovskii krai, Primorskii krai, Sakhalin I.

REMARKS. *Thyris ussuriensis* was erroneously treated as subspecies of *Th. usitata* But. (Thiele, 1986). The male genitalia (Figs 1, 2) are very similar to those of *Th. fenestrella* and somewhat vary in shape of uncus and, especially, in denticles number on the costal margin of ampulla, but all these differences are not principal. Following after Park and Byun (1990) I consider this taxon as subspecies of *Th. fenestrella*.



Figs 1-4. Male genitalia of *Thyris*. 1, 2) *Th. fenestrella ussuriensis*: 1) caudal view without aedeagus, 2) the aedeagus; 3, 4) *Th. usitata*: 3) caudal view without aedeagus, 4) aedeagus.

***Thyris usitata* Butler, 1879**

Figs 3, 4

Thyris unifenestrella Bryk, 1942: 87, fig. 3.

MATERIAL. Russia, Kuril Is.: 2♂, Iturup I., Lesozavodskii settl., 20.VII 1963 (N. Azarova).

DISTRIBUTION. Russia: South Kurils (Iturup). Japan.

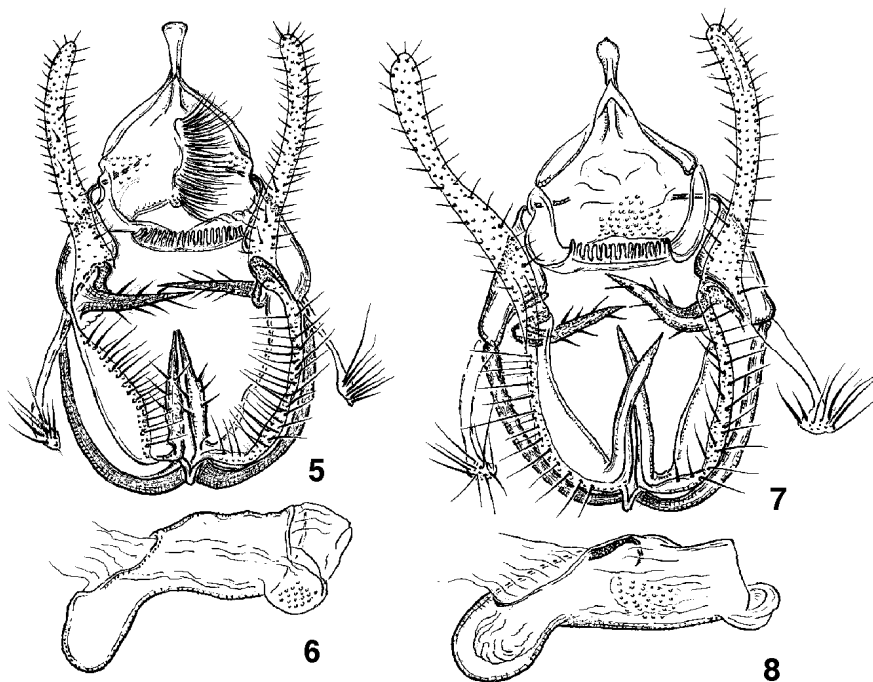
REMARKS. Previously was erroneously reported as occurring within Amur and Ussuri regions (Moltercht, 1929). Actually in the Russian Far East it is registered from the Southern Kuril only. Easily distinguishing from the preceding in appearance (namely by a single translucent dot on the forewings) so in male genitalia (Figs 3, 4) with rounded tip of uncus and by toothless ampulla.

***Striglina cancellata* (Christoph, 1881)**

Figs 5, 6, 14

Timandra cancellata Christoph, 1881: 55.

Striglina scitaria: Moltrecht, 1929: 26.

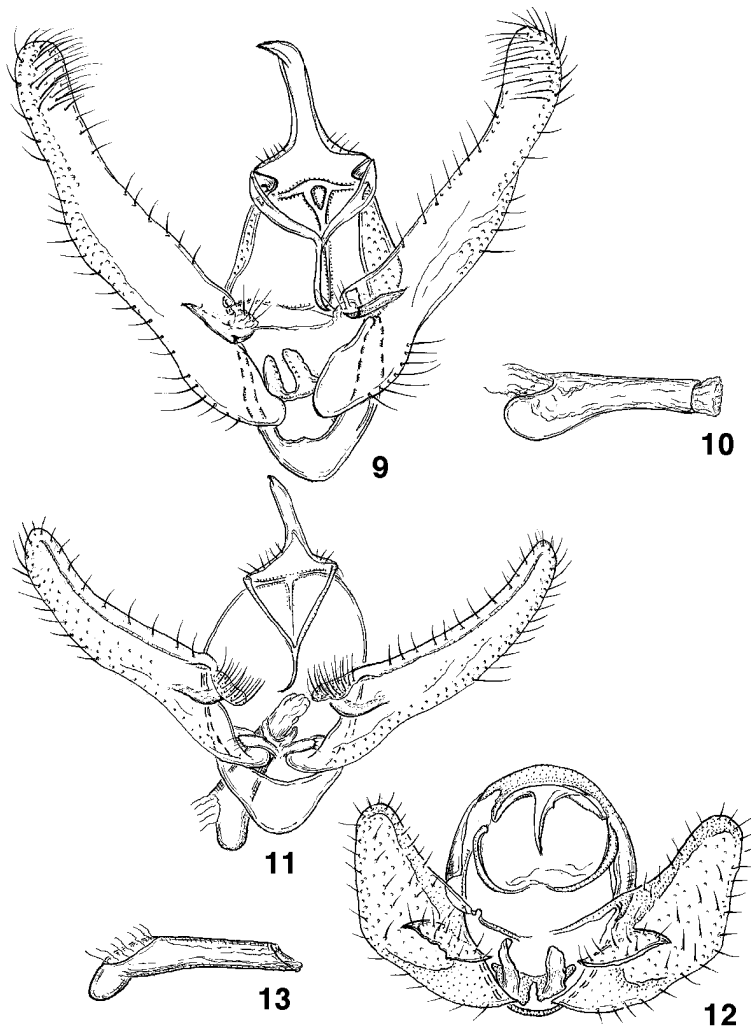


Figs 6-8. Male genitalia of *Striglina*. 5, 6) *S. cancellata*: 5) caudal view without aedeagus, 6) aedeagus; 7, 8) *S. venia*: 7) caudal view without aedeagus, 8) aedeagus.

MATERIAL. Russia, Primorskii krai: 1 ♀, Gribnoe, 24.VI 1995 (Yu. Tshistjakov); 1 ♂, 18 km SE Ussuriisk, Gornotaezhnoe, 1.VI 1994 (V. Dubatolov); 2 ♂, 30 km SE Ussuriisk, Kaimanovka, 24.VI, 4.VII 1966 (A. Zvetaev) [ZMMU]; 2 ♀, 18 km SE Ussuriisk, Gornotaezhnoe, 14.VI 1996 (Yu. Tshistjakov); 1 ♂, Ussuriiskii Nature reserve, "Maihe river" [now: Suvorovka river], 31.V 1959 (D. Kononov); 1 ♀, Anisimovka, 3.VI 1994 (Yu. Tshistjakov).

DISTRIBUTION. Russia: Khabarovskii krai, Primorskii krai. China, Korea, Japan.

REMARKS. In appearance very similar to *S. venia* Whalley, 1976 known from China, Korea and Japan, surely distinguishing from it by male genitalia (Figs 5, 6) only, especially by flattened tip of uncus, while that in *S. venia* (Figs 7, 8) with pointed tip. A dim of numerous cornuti in aedeagus, typical for both mentioned species (see: Park & Byun, 1990: 73, fig.12 and 74: fig.14), seems to be very easely can be lost and only the places of their attaching on vesica (as a plot of dimples on membrane) are usually visible. Female genitalia (Fig. 14) with sclerotized ostium, its triangular lateral processes with sharply pointed tips reaching surface of papilla anales; corpus bursa prolongate, with two-pieces of crescent-shaped, dentated signa.



Figs 9-13. Male genitalia. 9, 10) *Rhodoneura shini*: 9) caudal view without aedeagus, 10) aedeagus; 11) *R. erecta*, caudal view; 12,13) *Sericophara guttata*: 12) caudal view without aedeagus, 13) aedeagus.

***Rhodoneura shini* Park et Byun, 1990**

Fig. 9, 10, 15

MATERIAL. Russia, Primorskii krai: 1 ♀, 17 km SSW Krounovka, 27.VII 1990 (Yu. Tshistjakov); 1 ♂, 1 ♀, 18 km SE Ussuriisk, Gornotayozhnoe, 1,14.VI 1990 (Yu. Tshistjakov); 2 ♂, 1 ♀, Kedrovaya Pad' Nature reserve, 28, 30.VI 1991

(Yu. Tshistjakov); 12♂, 20 km SE Ussuriisk, Kaimanovka, 4, 8.VII 1966 (A. Zvetaev, ZMMU); 6♂, 3♀, Ussuriiskii Nature reserve, 13.VII 1990 (Yu. Tshistjakov); 3♂, Okeanskaya, near Vladivostok, 12, 22.VII 1994 (Yu. Tshistjakov).

REMARKS. In Primorian specimens coloration of wings darker, yellowish-brown; all elements of wing pattern well developed, subterminal line in forewing more or less angled at vein R_3 , somewhat incurved below it, not straight oblique as it is pointed out and shown by Park and Byun (1990: 85, fig.36) and reaching Cu_2 .

There is one mistake in the description of this species male genitalia and in its figure supplied by Park and Byun (1990: 81, fig.25, 26). In their figure membraneous process at base of valva is shown (and treated in the text of description) as a tubular or stick-like appendix directed from base to tip of valva. Actually it has quite another shape and looks like a broad flattened crista sticking out on inner surface of valva positioned along costa and directed caudally; generally male genitalia of the specimens from Primorye (Figs 9, 10) somewhat differing from those figured in description, namely valva wider and more rounded at top, its costal margin not so strong sclerotized, as it is shown for the Korean specimen. Female genitalia in frontal aspect on figure by Park and Byun (1990: 82, fig. 27) not clear enough, so here its structure is shown in lateral aspect (Fig. 15): lamella postvaginalis strongly sclerotized, looks like a broad gutter-form plate with slightly incurved distal margin, conjoint by narrow lateral sides with tergum VIII; ductus bursa gradually widened to bursa; bursa with typical stellate signum.

DISTRIBUTION. Russia (new record): Primorskii krai. Korea.

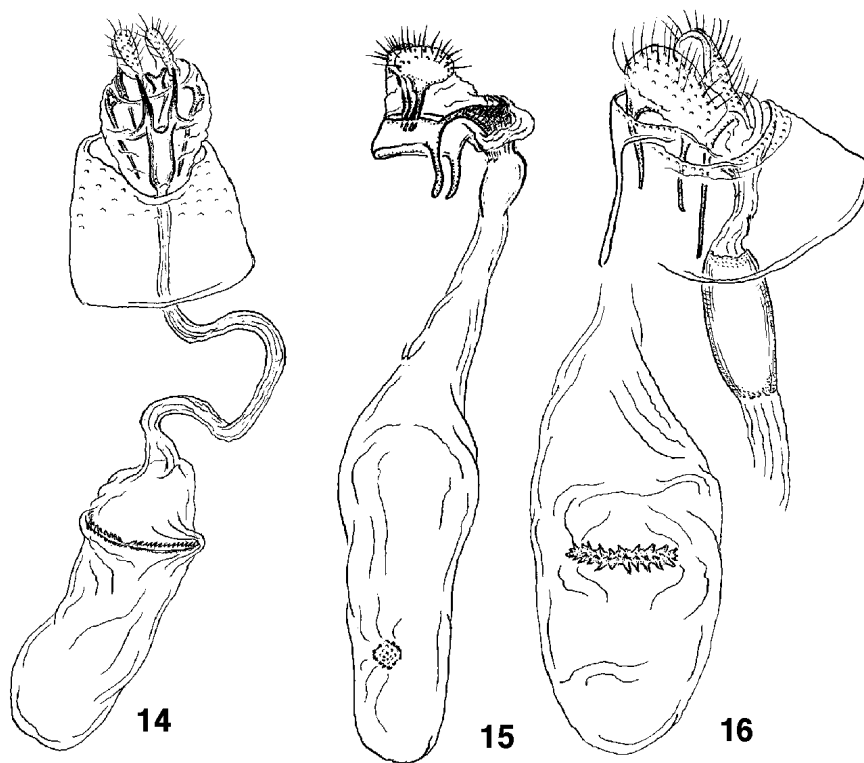
***Rhodoneura erecta* (Leech, 1889)**

Figs 11, 16

MATERIAL. Russia, Primorskii krai: 3♂, 4♀, Ryasanovka, 14 km SSW Slavyanka, 16-19.VII 1992 (E. Belyaev).

DISTRIBUTION. Russia (new record): Primorskii krai. Korea, Japan.

REMARKS. On figure of this species male genitalia by Park and Byun (1990: 79, fig.21, 22) a membraneous process at base of valva is shown as triangular appendix directed from base to tip of valva. Actually, as in the case with *Rh. shini*, it looks like broad at base and rounded along distal margin flattened crista sticking out on inner surface of valva positioned along costa and directed caudally. Externally the specimens from Primorskii krai have not clear differences from the Korean ones, but male and female genitalia somewhat differ from those of the specimens from Korea: Fig. 11 vs. Fig. 21, 22 in: Park & Byun (1990) and Fig. 16 vs. Fig. 23 in the same paper. Males from southern part of Primorskii krai have valva with well marked excavation along basal third of ventral margin and, on the contrary, its ventral margin in distal third is nearly to straight, not incurved; juxta with the lobes band-like, but not triangular. In females sclerotized part of ductus longer and signum on bursa righteous, without interception at middle.



Figs 14-16. Female genitalia. 14) *Striglina cancellata*; 15) *Rhodoneura shini*; 16) *Rhodoneura erecta*.

***Sericophara guttata* Christoph, 1881**

Figs 12, 13

Sericophara guttata Christoph, 1881: 64.

Rhodoneura guttata: Moltrecht, 1929: 26.

MATERIAL. Russia, Primorskii krai: 2♂, 12 km E Dersu, mouth of Armu river, 15, 17.VI 1990 (Yu. Tshistjakov); 1♂, Anisimovka, 1.VI 1997 (Yu. Tshistjakov).

DISTRIBUTION. Russia: Primorskii krai. Korea.

REMARKS. Wing pattern seems to be rather variable, transparent yellowish marks along costa and the same marks, forming median row well marked or reduced. However all examined specimens have no maculation near apex, as on figure by Park & Byun (1990: 85, fig. 37). Male genitalia of the specimens from Primorskii krai also have essential differences from those of Korean specimen

(Figs 12, 13 vs. Figs. 28, 29 in: Park & Byun, 1990): valva much more shorter, without process on costa, its top wider and more rounded, excavation along its ventral margin weakly marked, nearly to indistinct; aedeagus without denticles at tip, curved near coecum, but not at middle. Such differences in external characters and in male genitalia structure could be considered even as of specific rank and most likely the Korean specimens belong to separate species. To make more certain decision could be possible after examination additional material from Korea and Primorskii krai.

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