

A new species of *Trachonitis* Z. (Lepidoptera, Pyraloidea, Phycitidae) from the Amur region

Новый вид рода *Trachonitis* Z. (Lepidoptera, Pyraloidea, Phycitidae) из Приамурья

A.N. Streltsov
А.Н. Стрельцов

Blagoveshchensk State Pedagogical University, Lenina str. 104, Blagoveshchensk 675000 Russia. E-mail: streltsov@mail.ru.
Благовещенский государственный педагогический университет, кафедра зоологии, ул. Ленина 104, Благовещенск 675000 Россия.

Key words: Phycitid moths, Phycitidae, Pyraloidea, *Trachonitis fuscocristella*, new species, Russia, Amur region.

Ключевые слова: узкокрылые огнёвки, Phycitidae, Pyraloidea, *Trachonitis fuscocristella*, новый вид, Россия, Приамурье.

Abstract. A new species of *Trachonitis* Zeller, 1848 is described from the Amur region. This species, *Trachonitis fuscocristella* Streltsov, sp.n., differs from the European *T. cristella* Hbn. by its darker wing colour and less conspicuous crest of erected scales on the forewings. Differences in genital morphology are also significant: in male genitalia they are 1) harpa shaped like a large triangular crest (in *T. cristella* Hbn. it looks like an oblong protrusion), 2) an oval plate connecting the arms of the transtilla (U-shaped in *T. cristella* Hbn.) and 3) a wider valve, and in female genitalia the differences are a narrower antrum and smaller triangular signum than in *T. cristella* Hbn.

Резюме. Описывается новый вид рода *Trachonitis* Zeller, 1848 из Приамурья — *Trachonitis fuscocristella* Streltsov, sp.n. От европейского *T. cristella* Hbn. новый вид хорошо отличается более тёмной окраской крыльев, менее выраженным гребнем из приподнятых чешуй на передних крыльях. Существенны отличия так же и в строении генитального аппарата. В гениталиях самцов это форма гарпы (у *T. cristella* Hbn. она в виде продолговатого отростка, у нового вида в виде треугольного гребня), форма пластинки, соединяющей ветви транстиллы (у *T. cristella* Hbn. она подковообразной формы, у нового вида овальной), и в целом более широкая вальва; в гениталиях самок отличия заключаются в следующем: более узкий антрум и меньшего размера треугольный сигнум, чем у *T. cristella* Hbn.

The genus *Trachonitis* Zeller, 1848 has hitherto been considered as monotypic [Sinev, 1986] and attributed to Western Palaearctic. Its type species *Tinea cristella* Hübner, 1796 described from Europe, inhabits forest landscapes of the Mid-Western, Central and Eastern Europe, including European Turkey and Russian Caucasus [Sinev, 1986; Sinev, 2008]. In the materials collected by N.A. Zakharova in vicinities of Pobjarkovo vill. in Amurskaya oblast [Streltsov, Zakharova, 2009], the second species of *Trachonitis* was found.

Taking into consideration that the genus *Trachonitis* Z. was firstly recorded for the Far East Asia, the diagnosis of the genus based on the morphological characters of *T. cristella* Hbn. is given before the description of the new species.

Type series deposited in collection of Zoological Museum of Blagoveshchensk State Pedagogical University (Blagoveshchensk, Russia).

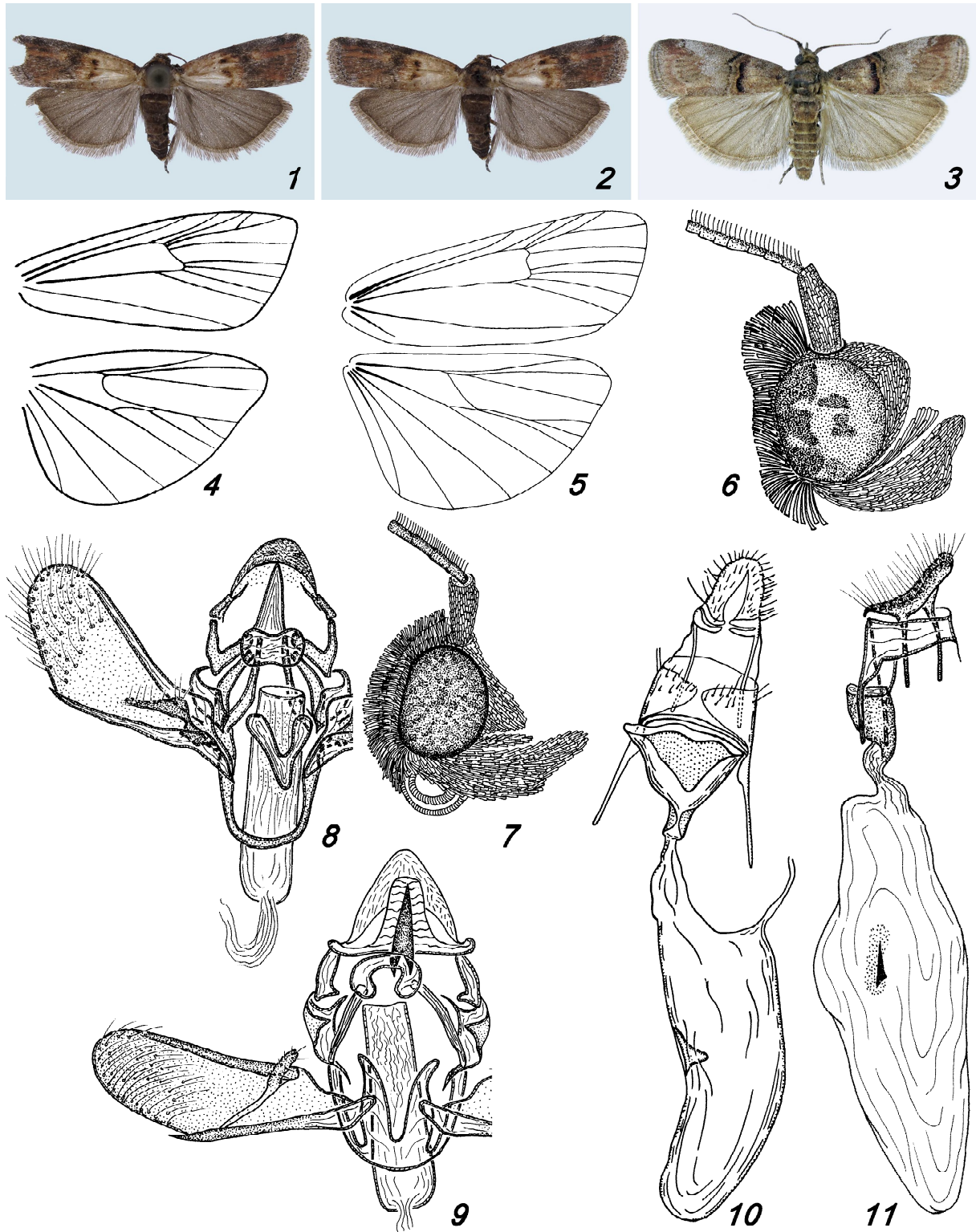
Trachonitis Zeller, 1848

Type species: *Tinea cristella* Hübner, 1796, by monotypy.

Diagnosis. Head with large naked eyes, frons with small tuft of short grayish scales. Labial palps moderately long, approximately equal to the length of eye. Maxillary palps slender, tuft-like (Fig. 7). Proboscis normally developed. Antennae in both sexes with slightly thickened basal segment, flagellum segments covered with short setae (Fig. 5). Free veins R_1 , R_2 and stalked R_3 , R_4 are characteristic in forewing venation (Fig. 4) as well as closed central cell both on fore and hind wings. Stalked M_2 and M_3 are characteristic in hind wings. Fore wings triangular with almost straight outer edge and slightly rounded apex, colouration reddish grey with narrow orange inner fascia margined basally with black stripe of suberect scales and distally with double dark line. Hind wings grey, without pattern (Fig. 3).

Male genitalia (Fig. 9): uncus wide with rounded apex; gnathos slender, sharp-pointed, with U-shaped appendix connecting gnathos arms; valvae wide; harpa as a rather long finger-like projection with minor dents at apex; sacculus with dent at apex; saccus short and wide; aedeagus straight without cornuti and apical dentation. Membranous laminae and small dents at the apex of the aedeagus are illustrated in a paper by Sinev [1996: Fig. 315: 6], which absent in our preparation and in the figure by H.-J. Hanne-mann [1964: fig. 119c].

Female genitalia (Fig. 10): antrum wide, funnel-shaped, with triangular sclerotized plate; ductus narrow membranous; bursa copulatrix with signum shaped as wide blunt tooth [Sinev, 1986].



Figs 1–11. Phycitid moths from genus *Trachonitis* (1, 2, 5, 6, 8, 11 — *T. fuscocristella*; 3, 4, 7, 9, 10 — *T. cristella*): 1–3 — overall view (1 — female, paratype; 2 — female, paratype, reconstruction; 3 — male); 4 — wing venation [from Sinev, 1986]; 5 — wing venation; 6, 7 — head, lateral view; 8, 9 — male genitalia, overall view; 10 — female genitalia [from Sinev, 1986]; 11 — female genitalia.

Рис. 1–11. Огнёвки рода *Trachonitis* (1, 2, 5, 6, 8, 11 — *T. fuscocristella*; 3, 4, 7, 9, 10 — *T. cristella*): 1–3 — общий вид (1 — самка, паратип; 2 — то же, реконструкция; 3 — самец); 4 — жилкование крыльев (по Синёву [Sinev, 1986]); 5 — жилкование крыльев; 6, 7 — голова, вид сбоку; 8, 9 — гениталии самца, общий вид; 10 — гениталии самки (по Синёву [1986]); 11 — гениталии самки.

Systematics notes. This genus differs from the other Phycitid genera in number of apomorphic characters; the most noticeable in general morphology are following: the presence of short setae on the antennae in both sexes, the crest of suberect scales on the forewings and approximation of subcostal and radial stalks on the hind wings. In male genitalia, the presence of a sclerite connecting the base of gnathos and the tips of its arms, the aedeagus without cornuti and apical dents; in female genitalia, the presence of large triangular signum.

Among the East Palaearctic genera the genus *Trachonitis* Z. is closest to *Ceroprepes* Zeller, 1867 (type species *Ceroprepes patriciella* Zeller, 1867) and *Thiallela* Walker, 1863 (type species *Thiallela signifera* Walker, 1863). *Ceroprepes* species differ from *Trachonitis* Z. by simple antennae in females and possessing of long setae in male antennae; absence of a sclerite at the base of gnathos and presence of short dents at the apex of aedeagus in male genitalia; signum in a shape of sharpened tooth in female genitalia [Du et al, 2005]. Species of the genus *Thiallela* Wlk. differ in: antennal flagella in both sexes lack setae and covered with elongate minor scales on the upper side; in male genitalia – aedeagus with cornuti; in female genitalia — characteristic signum in a shape of bulging triangle with long arms [Li, Ren, 2006].

Trachonitis fuscocristella Streltsov, sp.n.

Type locality. Russia: Amurskaya oblast, vill. Pojarkovo (left bank of Amur River).

Material. Holotype, ♂, Russia: Amurskaya oblast, vill. Pojarkovo (left bank of Amur River), 49°37'32.253" N, 128°39'27.3414" E, N.A. Zakharova leg.; paratypes: 1♂, 2♀♀ — ibidem.

Description. Forewing length 8–9 mm, wingspan 18–19 mm. Head with large naked eyes, frons with small tuft of short gray scales. Labial palpi moderately long, approximately equal the length of eye. Maxillary palpi slender, tuft-like (Fig. 6). Proboscis developed normally. Antennae in both sexes with slightly thickened basal segment, flagellum segments covered with short setae (Fig. 6). In forewing venation free veins R_1 , R_2 and stalked R_3 , R_4 are present (Fig. 5), central cell closed on both fore and hind wings. M_2 and M_3 stalked in hind wings. Fore wings triangular with almost straight outer edge and slightly rounded apex. Background of fore wings dark grey; discal and postdiscal fields with dark brown haze. Basal part, spot at top of discal cell, and narrow curved transverse submarginal line tawny. Crest of suberect black scales separates tawny basal part and dark discal part. Hind wings without pattern, grey or grayish brown in colour. Fringe gray on both wings. Sexual dimorphism almost absent.

Male genitalia. Uncus rather short, wide-triangular, covered with short hairs. Gnathos lengthened, with pointed apex. Transtilla arms connected by oval plate. Valva oblong, with rounded apex and strong costa. Harpa as a large

triangular crest. Juxta with rounded tips bifurcate in shape. Aedeagus straight, slightly shorter than valva, without cornuti (Fig. 8).

Female genitalia. Papillae anales oblong. Apophyses posteriores slender, very short, not exceed papillae anales in length. Apophyses anteriores shorter than apophyses posteriores. Antrum funnel-shaped, with sclerotized ring. Ductus very short, membranous. Bursa copulatrix large, oval-shaped with triangular signum (Fig. 11).

Systematics notes. Comparison with the type species *T. cristella* Hbn. (Figs 3, 7, 9, 10) showed that despite of the presence of all generic characteristics, the new species distinct in darker wing colouration, and less conspicuous crest of suberect setae on the forewings. Differences in genital morphology are also significant, in male genitalia they are the triangular shape of harpa (in *T. cristella* Hbn. it looks like an oblong protrusion), the oval shape of the plate connecting the arms of transtilla (U-shaped in *T. cristella* Hbn.) and wider valve; in female genitalia the differences are as follows: narrower antrum and smaller triangular signum than in *T. cristella* Hbn. (Fig. 10).

Distribution. South of Amurskaya oblast (near Pojarkovo village). Most probably this species ranges also in neighboring territory of North China: province Heilongjiang.

Acknowledgements

Author is grateful to Ms. N.A. Zakharova (City ecology and biology centre, Blagoveshchensk) for the materials on Pyraloidea from environs of Pojarkovo village. Author also express sincere gratitude to Dr. S.Yu. Sinev (ZIN RAS, Saint-Petersburg) who kindly sent the comparative materials for study and to Dr. V.V. Dubatolov (IASE SB RAS, Novosibirsk) for his valuable help during the work.

References

- Du Y., Song Sh., Yang D. 2005. New species of *Ceroprepes* Zeller (Lepidoptera: Pyralidae: Phycitinae), with a key to Chinese species // Zootaxa. 1082. P.57–64.
- Hannemann H.-J. 1964. Kleinschmetterlinge oder Microlepidoptera. II. Die Wickler (s.l.) (Cochylidae und Carposinidae). Die Zünslerartigen (Pyraloidea) // Die Tierwelt. Teil.50. Deutschlands. Jena. S.I–VIII, 1–401.
- Li H.-H., Ren Y.-D. 2006. The genus *Thiallela* Walker, 1863 in China (Lepidoptera: Pyralidae: Phycitinae) // Entomological News. Vol.117. No.3. P.323–331.
- Sinev S.Yu. 1986. 57. Fam. Phycitidae // Opredelitel nasekomykh Evropeiskoi chasti SSSR. Vol.IV. Pt.3. L.: Nauka. P.251–340. [In Russian].
- Sinev S.Yu. 2008. Pyralidae // Sinev S.Yu. (Ed.): Catalogue of the Lepidoptera of Russia. Saint-Petersburg, Moscow: KMK Scientific Press. P.156–170. [In Russian].
- Streltsov A.N., Zakharova N.A. 2009. K faune ognеvkoobraznyh cheshuekrylyh (Lepidoptera, Pyraloidea) sela Pojarkovo // Problemy ekologii Verkhnego Priamuria. Vyp. 11. Blagoveshchensk: Izd-vo BGPU. P.107–114. [In Russian].