Two new species of the tribe Gnorimoschemini (Lepidoptera, Gelechiidae) from Palaearctic Asia

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Abstract

Scrobipalpa gorodkovi sp. n. is described from the mountains of Tadzhikistan and Klimeschiopsis sinevi sp. n. is described from the Northern Iran, Eastern Georgia and Azerbaijan (Talysh). The external appearance of the adult and genitalia of new species are illustrated.

Zusammenfassung

Scrobipalpa gorodkovi sp. n. wird von Tadzhikistan und Klimeschiopsis sinevi sp. n. wird von Nord Iran, Ost Georgia und Azerbaijan (Talysh) beschrieben. Sowohl Falter als auch genitalien der neuen Arten werden abgebildet.
Introduction

The tribe Gnorimoschemini comprises about 900 described species worldwide, with nearly 450 species in the Palaearctic region (POVOLNÝ, 2002; LEE et al., 2009; KARSHOLT & HUEMER, 2010). In spite of intensive faunistic and taxonomic study, a large number of Palaearctic Gnorimoschemini remains still undescribed. Many new taxa are regularly described from different regions (FALKOVITSH & BIDZILYA, 2003, 2006, 2009; BIDZILYA, 2009; BIDZILYA & LI, 2010; KARSHOLT & HUEMER, 2010).

In the course of my study of collection materials deposited in the Zoological Institute, Russian Academy of Sciences (ZIN, St-Petersburg), a new species of the genus Scrobipalpa Janse, 1951 and new species of the genus Klimeschiopsis Povolný, 1967 were discovered from the central Palaearctic region. The descriptions of these new species are given below.

Scrobipalpa gorodkovi sp. n.


Diagnosis: Adult (fig. 1). Wingspan 8.2-9.0 mm. Head light grey with rare brown-tipped scales, frons light grey to off-white; labial palpus light brown, inner surface pale, underside of segment 2 with brush of short modified scales, segment 3 narrow, acute, 3 times narrower and as long as a length of segment 2; scapus light grey with rare brown scales, others antennal segments light brown. Thorax and tegulae grey mixed with brown. Forewing evenly covered with light grey brown-tipped scales, fringes grey with dark tips. Hidwings light grey.

Male genitalia (fig. 3). Tegumen narrow, prolonged. Uncus nearly twice longer as broad, slightly constricted in middle length, posterior margin with distinct medial depression. Gnathos short, narrow, weakly curved. Valva narrow, evenly curved, apical ¼ broadly rounded, slightly exceeding top of uncus. Sacculus about 1/3 length of valva, very narrow, weakly curved inwards, with pointed tips, fused in basal half with vincular processes. Vincular processes short and broad, inner margin rounded, with pointed tip, separated by deep and broad medial incision. Tegumen moderately broad. Sacculus gradually narrowed apically. Aedeagus nearly as long as length of tegumen with uncus, basal portion swollen, distal portion straight, apex weakly broadened with distinct, strongly curved cornutus.

Female genitalia (fig. 5). Papilla analis suboval, sparsely covered with short setae. Apophyses anteriores moderately broad, about as long as the length of segment VIII, straight, five times shorter than apophyses posteriores. Segment VIII about as long as broad, weakly narrowed posteriorly, subgenital plates narrow, broadly separated, evenly covered with granulated sculpture. Subostial lobes broad, rounded apically, slightly exceeding proximal margin of segment VIII, covered with granulated sculpture, separated by broad triangular incision. Ductus bursae gradually broadened towards
corpus bursae, colliculum narrow, ring-shaped. Corpus bursae rounded, signum long and very thin, sickle-shaped, with distinct tooth before middle, placed at the right side of the entrance of bursae copulatrix.

Remarks: *S. gorodkovi* sp. n. is similar externally to other uniformly light brown *Scrobipalpa* species as *S. acuta* (POVOLNY, 2001) and *S. sinica* BIDZILYA & LI, 2010. The male genitalia are characterized by very narrow sacculus in combination with broad vincular processes, remotely resembling those of *S. lagodes* (MEYRICK, 1926), but differ in broader vincular processes, saccus short, pointed apically rather than blunt, and broader uncus. The female genitalia resemble those of *S. pulchra* POVOLNY, 1967, having sternite VII strongly covered with granulated sculpture, but well differ in subostial lobes, that are strongly demarcated from subgenital plates and by more curved signum with distinct tooth and broader basal sclerite.

Distribution: Tadzhikistan (East Pamir).

Etymology: The species is named after Konstantin GORODKOV, a well known specialist in Diptera, who collected the type series of the new species.

**Klimeschiopsis sinevi** sp. n.

Material: Holotype ♂, N. Iran, Mazandaran, Sari, Armeh jungle, h=500 m, at light, 10.06.2005 (Sinev) (gen. prep. 68/08) (ZIN). Paratypes 1 ♀, N. Iran, Mazandaran, Amol, Archappech, h=150 m, at light, 8.06.2005 (Sinev) (gen. prep. 76/08) (ZIN); 2 ♀, Vost. Gruzia, Lagodekhskiy zapovednik, na svet, 14.07.1986 (Seksjaeva) (gen. prep. 66/08) (ZIN); 3♀, Gruzinskaya SSR, Lagodekhskiy zap., 450 m, 12.07.[1]986, na svet (Sinev); 1 ♀, Talysh, Lenkoranskiy r-n, Avrora, na svet, 8.07.1977 (Logvinenko) (ZIN).

Diagnosis: Adult (fig. 2 a, b). Wingspan 11.8-12.0 mm. Head black with bright dark, yellow black-tipped scales on each side, frons yellow; labial palpus blackish-brown mottled with yellow, inner surface light-yellow, apex with yellow belt; segment 3 slightly shorter and 2.5 times narrower as segment 2, acute; scapus blackish, other antennal segments blackish-brown with dark yellow basal rings. Thorax and tegulae black, mottled with yellow-tipped scales. Forewing black, with diffuse dark yellow oblique blotch at base, from 1/5 of costa to middle width of wing and a second one at ¼ from middle wing nearly to half length of dorsal margin; these two blotches integrated in narrow fascia in paratypes; diffuse yellow pattern in cell; dorsum distinctly mottled with yellow; paratypes with slightly or clearly connected yellowish spots at ¾ of costal and dorsal margin; cilia black, yellow-tipped. Hindwing and its cilia dark grey.

Male genitalia (fig. 4). Tegumen twice longer as broad with deep anteromedial emargination; uncus broader than long, distal sclerite of gnathos broadly rounded; culcitula well developed; valva curved in middle, slightly exceeding posterior margin of uncus; saccus about 4/5 length of valva and same width, with pointed apex; vinculum broad with well developed subtriangular processes, separated by very narrow and deep incision; saccus long, narrow, pointed apically. Aedeagus straight, basal portion slightly broader than distal portion, apex with distinct beak-shaped sclerite, distinctly longer than tegumen.
Female genitalia (fig. 6). Segment VIII trapezoid, subgenital plates weakly defined, broadly separated by membranous zone with microtrichia; apophyses anteriores straight, slightly longer than segment VIII; apophyses posteriores long and narrow; antrum well defined, funnel-shaped, broadly rounded or narrowed anteriorly; ductus bursae gradually broadened towards corpus bursae, posterior part with weakly sclerotized sclerite; corpus bursae pear-shaped; signum a long weakly curved hook with short basal arms and weakly sclerotized base.

Remarks: The new species is well defined externally by unique dark yellow patterns on the forewing, whereas others species of this genus have blackish-white forewing. The male genitalia of *K. sinevi* sp. n. differ from other *Klimeschiopsis* species by broad and short uncus, and large subapical sclerite in the aedeagus. The female genitalia differ from those of *K. discontinuella* (Rebel, 1899) by the longer signum, and from *K. kiningerella* (Duponchel, 1843) by anteriorly narrower antrum.

Distribution: Northern Iran (Mazandaran), Eastern Georgia, Azerbaijan (Talysh).

Etymology: The species is named after Sergei SINEV (Zoological Institute Russian Academy of Sciences, St Petersburg), who collected a part of type series of the new species, including the holotype.

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**References**


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Legends to the figures

1. Scrobipalpa gorodkovi sp. n. Paratype
2a. Klimeschiopsis sinevi sp. n. Holotype
2b. Klimeschiopsis sinevi sp. n. Paratype
3. Scrobipalpa gorodkovi sp. n., male genitalia
4. Klimeschiopsis sinevi sp. n., male genitalia
3. Scrobipalpa gorodkovi sp. n., female genitalia
4. Klimeschiopsis sinevi sp. n., female genitalia