

# *Xylena czernilai* Volynkin, 2011: New data on the distribution and description of female (Insecta: Lepidoptera: Noctuidae)

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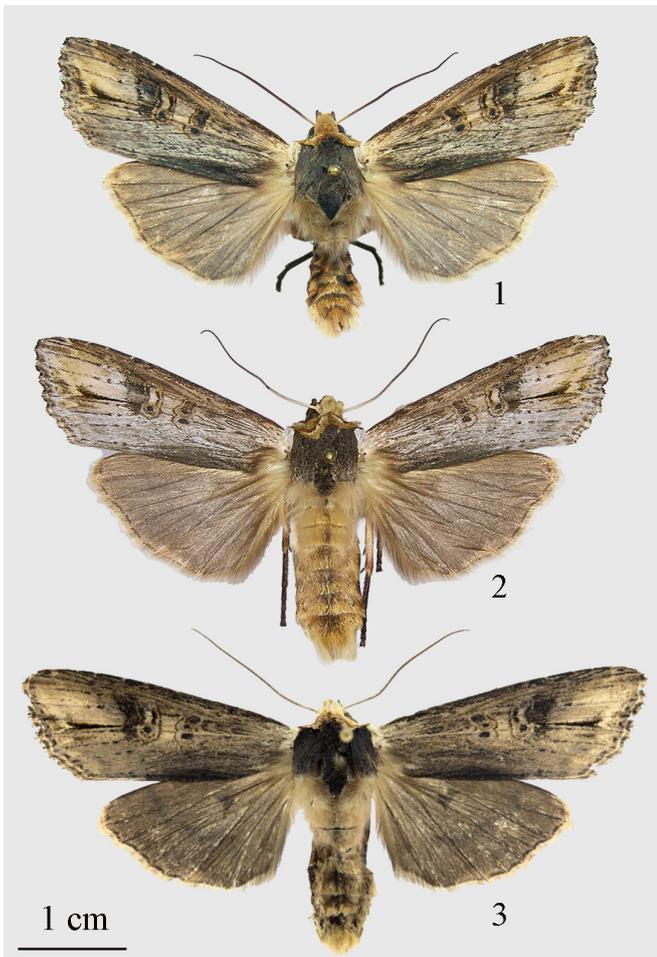
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**ABSTRACT:** A poorly-known noctuid species *Xylena czernilai* Volynkin, 2011 is recorded from North-West Altai and East Sayan (Russian Federation, Southern Siberia: Altai Territory and Buryatia Republic). The new locations proved its wide distribution in the mountains of Southern Siberia. The female of the species is described for the first time.

The genus *Xylena* Hübner, [1821] belongs to the subfamily Noctuinae Latreille, 1809, tribe Xylenini Guenée, 1837, subtribe Xylenina Guenée, 1837 (Lafontaine and Schmidt 2010). The genus includes more than 20 species distributed throughout the Holarctic (Ronkay *et al.* 2001; Kononenko 2003; Fibiger *et al.* 2010). Most of the species distributed in the Palaearctic in the Himalayan-Pacific region. In the South Siberia only three species of the genus

was known: *X. (Lithomoia) solidaginis* (Hübner, [1803]), *X. (Xylena) exsoleta* (Linnaeus, 1758) and *X. (Xylena) vetusta* (Hübner, [1803]) (Kononenko 2005). In 2011, a fourth species *X. (Xylena) czernilai* Volynkin, 2011 was described based on a single male. The type specimen of *X. czernilai* (Figures 1 and 4) was collected in the vicinity of Belyi Bom (Ak-Bom) village, Ongudai district, Aigulaksky Ridge, Altai Republic, Russia (Volynkin 2011). The species previously considered endemic to Central Altai (Volynkin 2012).

Recent collecting trips to South Siberia provided large *Xylena* material. During the study of collected specimens, two females of *X. czernilai* were found (Figures 2 and 3). One specimen was collected in North East Altai ("02–04. ix.2012, Russia, Altai territory, Tigireksky Ridge, vicinity of Tigirek village, 500 m, 51°08'35" N, 83°02'06" E, Volynkin A.V. leg."), and the second – in East Sayan Mts. ("Russia, Buryatiya, Eastern Sayan mts., Mt. Khulugaisha



**FIGURES 1-3.** *Xylena czernilai*: 1) adult, male, holotype, Altai Mts., Belyi Bom; 2) adult, female, Altai Mts., Tigireksky Ridge; 3) adult, female, East Sayan, Mondy village.



**FIGURES 4-5.** *Xylena czernilai*: 4) male genitalia of the holotype, slide AV0434 Volynkin; 5) female genitalia, Altai Mts., Tigireksky Ridge, slide AV0767 Volynkin.

near Mondy vill., 1800 m, 51°43'15.08" N, 100°59'31.73" E., S.A. Knyazev leg."). These new localities vastly expand the known geographical distribution of this poorly-known species (Figure 6). Adults of *X. czernilai*, as well as other Siberian members of the nominate subgenus, fly in autumn and after overwintering emerge the next spring to feed and copulate. The species occurs in mountain taiga zone (Figures 7, 8). Both Altaian specimens (holotype male and female) were collected to bait consisting of red wine and sugar, a specimen from East Sayan was collected to bait consisting fermented fruit and sugar.

#### DESCRIPTION OF FEMALE.

**External morphology.** The female (Figures 2 and 3) is very similar habitually with the male (Figure 1), but has

larger size (wingspan 54–57 mm) and filiform antennae.

**Female genitalia** (Figure 5). Ovipositor short, conical; apophyses anteriores and posteriores long, thin; ostium bursae very broad, trapezoidal, strongly sclerotized, connected to ductus bursae with membranous neck; ductus bursae broad, moderately long, curved, strongly sclerotized; appendix bursae large, rounded-conical, well sclerotized; corpus bursae large, sack-like, rugose, with two long band-like signa.

**Diagnosis.** The female genitalia of *X. czernilai* well differ from those of the related species *X. vetusta* by much larger and strongly sclerotized ostium bursae, broader and stronger sclerotized ductus bursae, longer and stronger sclerotized appendix bursae, shorter corpus bursae with two shorter signa.



FIGURE 6. Distribution map of *Xylena czernilai*.



FIGURES 7-8. *Xylena czernilai*, collecting sites: 7) Tigireksky Ridge near Tigirek village (photo by E. Davydov); 8) East Sayan, near Mondy village.



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