



TWO NEW SPECIES OF *ATHAUMASTA* HAMPSON, 1906 FROM KYRGYZSTAN (LEPIDOPTERA, NOCTUIDAE, BRYOPHILINAE)

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Abstract: The present paper contains the descriptions of two new *Athaumasta* species from Kyrgyzstan, *A. kyrkyza* sp. n. and *A. melyakhi* sp. n., the diagnostic comparison is made with *Athaumasta miltina* (Püngeler, 1902). Genital slides of the Type and Cotype of *A. miltina* were remounted, including the evertation of the vesicae, and the vesica structure was studied and illustrated for the first time. The Lectotype and Paralectotype of *A. miltina* are designated here.

Key words: Lepidoptera, Noctuidae, Bryophilinae, *Athaumasta*, new species, Kyrgyzstan, vesica structure

INTRODUCTION

The last comprehensive paper about the taxonomy of the genus *Athaumasta* was published in VOLYNKIN & PEKARSKY (2016), including the description of a new species of the *A. expressa* group. The authors stated that *Athaumasta miltina* (Püngeler, 1902) is characterised by a number of features which enisle this taxon from the other congeners and may support a generic level separation of the lineage from *Athaumasta* s. str. At present, *miltina* is treated as a member of *Athaumasta* genus forming however a distinct species-group comprising three species: *A. miltina*, *A. kyrkyza* sp. n., and *A. melyakhi* sp. n.

Abbreviations: HNHM = Hungarian Natural History Museum Budapest (Hungary); JSL = Johann Stumpf (Lauda-Koenigshofen, Germany); MNHU = Museum für Naturkunde der Humboldt-Universität zu Berlin (Germany); OP = Oleg Pekarsky (Budapest, Hungary); MB = slide made by Charles Boursin.

SYSTEMATIC PART

Athaumasta kyrkyza sp. n.

(Fig. 1)

Type material. Holotype: Male (Fig. 1), Kyrgyzstan, Inner Tian-Shan, Suusamyр Mts, Kyrkyz pass, 2900 m, 29.VII.2000, leg. I. Pljushtch, slide OP2396m (coll. J. Stumpf).

Diagnosis. The new species has similar wing pattern to *A. miltina* and could be separated externally from it only by the shorter pectination of antennae. In the male genitalia, *A. kyrkyza* differs from the two related species by its narrower harpe, larger, more ample vesica, with large, oval-shaped, ventro-basal diverticulum bearing strong, elongated cornutus with fine tip directed clockwise. The two close relatives are characterized by their wider harpe and the different configuration of the vesica. Both species lack the basal diverticulum of the vesica: *A. miltina* has semiglobular vesica with plate-like cornutus whereas *A. melyakhi* has tubular vesica with terminal cornutus directed contraclockwise.

Description. Wingspan 36 mm. Male antennae minutely dentate with short fasciculate cilia. Head, collar, thorax and tegulae orange-brown. Abdomen dark grey with thin, beige rings at borders of segments. Forewing elongated, apex pointed; outer margin evenly curved. Ground colour orange-brown, irrorated with black scales; wing pattern well developed; basal field as ground colour. Crosslines more or less double, dark grey with lighter inner fascia: subbasal line dentate, antemedial line arched, dentate, medial and postmedial lines curved, dentate, subterminal line sinuous, serrate; terminal line a row of black arrows on veins. Reniform and orbicular stigmata filled with ground colour, with fine, whitish marked outlines; claviform stigma rounded, dark grey, filled with ochreous-orange scales. Cilia beige with blackish scales. Hindwing light beige with diffuse, pale grey discal spot, transverse line and rather broad marginal suffusion, basal area of wing irrorated with greyish scales; cilia beige.

Male genitalia (Fig. 5). Uncus strong, curved, laterally flattened, widened medially, tip finely pointed; tegumen broad and relatively short; vinculum U-shaped; valva elongated, moderately broad, costal margin slightly curved, dorsal margin almost straight, apex rounded; harpe narrow, elongated, with fine tip; juxta deltoidal, broadened basally, dorsal part with deep, narrow cleft. Aedeagus cylindrical, medium-long, curved dorso-ventrally; vesica membranous, main chamber almost globular, with oval-shaped ventro-basal diverticulum bearing elongated, heavily sclerotized cornutus with long base.

Female genitalia unknown.

Habitat. (Fig. 9) Montane grasslands (E. Rutjan, pers. comm.).

Distribution. The species is known only from the type-locality, Kyrgyzstan, Suusamyр Mts., Kyrkyz pass.

Etymology. The species name refers to the type-locality of the taxon.



1 *A. kyrkyza* sp. n., HT, OP2396m



2 *A. melyakhi* sp. n., HT, OP3319m



3 *A. miltina*, LT, MB293



4 *A. miltina*, PLT, MB294

Figures 1–4. *Athaumasta* spp., adults. 1) *A. kyrkyza*, Holotype, male, Kyrgyzstan, Inner Tian-Shan (JSL); 2) *A. melyakhi*, Holotype, male, Kyrgyzstan, Pamir-Alai (OP); 3) *A. miltina*, Lectotype, male, Kyrgyzstan, Fergana (MNHU); 4) *A. miltina*, Paralectotype, male, Kyrgyzstan, Fergana (MNHU).

***Athaumasta melyakhi* sp. n.**

(Fig. 2)

Type material. Holotype: Male (Fig. 2) Kyrgyzstan, Pamir-Alai, Turkestanskiy ridge, Kara-Soo river, 3200 m, N39°37'31", E70°16'00", 17.VII.2015, leg. S.F. Melyakh, slide OP3319m (coll. O. Pekarsky).

Paratypes. 1 ♂, with the same data as Holotype (coll. S.F. Melyakh).

Note. One of these specimens was mentioned in KORB et al. (2017) under the name *Oederemia miltina* (Püngeler, 1902).

Diagnosis. The new species is distinguished from the close relatives by its very characteristic diffuse pattern with indistinct crosslines and wide, light ochreous-brown costal area, whereas both *A. miltina* and *A. kyrkyza* have sharply defined crosslines and well-developed outlines of stigmata. The male genitalia of the new species differ from those of all related species by the narrower uncus and the tubular vesica bearing cornutus with tip directed contraclockwise, whereas in the

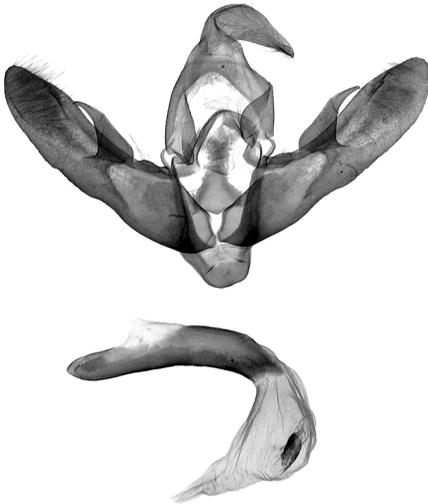
two related species the uncus is much wider medially and the vesica has different configuration: in *A. miltina* the vesica is near semiglobular also *A. kyrkyza* is characterized by the presence of large ventro-basal diverticulum on rather globular vesica.



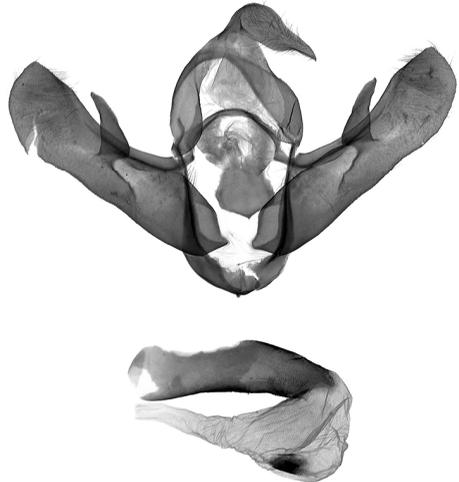
5 *A. kyrkyza* sp. n, HT, OP3319m



6 *A. melyakhi* sp. n., HT, OP3319m



7 *A. miltina*, LT, MB293



8 *L. miltina*, PLT, MB294

Figures 5-8. *Athaumasta* spp. male genitalia. **5)** *A. kyrkyza*, Holotype, Kyrgyzstan (JSL); **6)** *A. melyakhi*, Holotype, Kyrgyzstan (OP); **7)** *A. miltina*, Lectotype, Kyrgyzstan (MNHU); **8)** *A. miltina*, Paralectotype, Kyrgyzstan (MNHU).

Description. Wingspan 37 mm. Male antennae minutely dentate with short, fasciculate cilia. Head, collar, thorax, and tegulae light-brown. Forewing elongated, apex pointed; outer margin evenly curved. Ground colour light ochreous-brown with intense darker olive-grey and grey suffusion in medial and postmedial areas; crosslines less distinct, orbicular and reniform stigmata well-visible. Subbasal line dentate, antemedial line arched, dentate, medial and postmedial lines curved, dentate, subterminal line sinuous, serrate; terminal line a row of black arrows on veins. Reniform and orbicular stigmata filled with ground colour, their outlines diffuse; costal area broadly ochreous-brown; claviform indistinct. Cilia as ground colour with blackish scales. Hindwing ground colour pale ochreous; inner areas widely suffused with darker grey, only costal and marginal areas remained ochreous; discal spot absent; cilia as ground colour.

Male genitalia (Fig. 6). Uncus strong, narrow, evenly curved, valva wide, elongated, slightly curved, apex rounded; juxta rhomboidal; harpe broad, massive; aedeagus cylindrical, medium-long, curved dorso-ventrally; vesica membranous, tubular, with terminal cornutus.

Female genitalia unknown.

Habitat. (Fig. 10) Two male specimens were collected at ultraviolet light in the second half of July, on the eastern slope of the Kara-Soo river valley. Collecting site is a grassy slope damaged by overgrazing and partly covered with juniper trees (S.F. Melyakh, pers. comm.).

Distribution. The species is known only from the type-locality, Kyrgyzstan, Kara-Soo river valley.

Etymology. The new species is named after Sergey Melyakh, the collector of the type series.

***Athaumasta miltina* (Püngeler, 1902)**

(Figs 3, 4)

***Polia miltina* Püngeler, 1902**, Deutsche entomologische Zeitschrift. Gesellschaft Iris zu Dresden, 15, 152, (TL: [Kyrgyzstan] Fergana, Togus-torau; Alexander Mountains).

Type material examined. *Polia miltina* Püngeler, 1902 (Fig. 3). **Lectotype** (here designated) male, [Kyrgyzstan] Fergana, Togus-torau, Rückbeil, 1901, Type, slide MB293, remounted by OP (Fig. 7). **Paralectotype** (Fig. 4) (here designated) male, [Kyrgyzstan] Asia centr., Alexandergebirge, Rückbeil, E. Juni, Cotype, slide MB294, remounted by OP (Fig. 8) (coll. MNHU).



Figures 9, 10. Habitats of *Athaumasta* spp. **9)** habitat of *A. kyrkya*, Kyrgyzstan, Kyrkyz pass; **10)** habitat of *A. melyakhi*, Kyrgyzstan, Kara-Soo river.

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