

Apamea nekrasovi, a new species of Noctuidae
(Lepidoptera) from the Pamir Mountains

K. Mikkola, Z. Varga and P. Gyulai

Apamea nekrasovi, a new species of Noctuidae (Lepidoptera) from the Pamir Mountains – Description of *Apamea nekrasovi* sp. n. from the Eastern Pamir plateau. With 8 figures.

INTRODUCTION

This paper is the first one in a series of descriptions of numerous new taxa collected in Central Asiatic countries of the former Soviet Union. Authors demonstrate the faunistic richness of these areas and the necessity of further surveys with modern collecting methods. Besides the new taxa to be described in this series, also numerous insufficiently known species were collected, in some cases in large numbers. They will be discussed in some revisional papers concerning taxonomically problematic genera.

Apamea nekrasovi sp. n.

Holotype: male, Tadjikistan, E Pamir Mts, Murgab, 3600 m, 04-08.08.1994, Titov leg. (coll. P. Gyulai, deposited in HNHM, Budapest). Paratypes: 22 males and 27 females with the same data (coll. Gyulai), 1 male and 1 female with the same data (coll. Hungarian Natural History Museum, Budapest = HNHM), 1 male and 1 female dto. (coll. Finnish Museum of Natural History, Helsinki), 2 males and 2 females dto. (coll. Z. Varga, Dept. Zoology & Evolution, Kossuth Lajos University, Debrecen = ZIUD), 1 male and 1 female dto. (coll. G. Ronkay, Budapest), 1 male from the same locality, 05. 08. 1994, Murzin leg. (coll. Gyulai, Miskolc), 1 male and 1 female, "Pam[irski] Post, 21. VII/ coll. John" (coll. ZIN, St. Petersburg), 1 female, East Pamir, Biostation Chechekty, 3860 m, 28. VII. 1983, V. Mikhajlov leg., 1 male, East Pamir, Zarechnaja, 35 km E Murgab, 3500 m, 2. VIII. 1983., L. Kaabek leg., 1 female, Central Pamir, Lake Yashilkul, 3700 m, 6. VIII. 1985, Nekrasov leg., 1 male and 3 female, East Pamir, Murgab, 3400 m, 27. VII. 1994., A. Sotschivko leg. (coll. A. V. Nekrasov, Moscow).

Slides: males 6944 (Varga), 639 (Gyulai), 1112 (Nekrasov), KM 201288 (Mikkola), female 6945 (Varga)

The new species is named in honour of Ing. A. V. Nekrasov (Moscow) who discovered several new and rare species of Noctuidae in the Central Asiatic regions of the former Soviet Union.

Diagnosis: resembling *A. lateritia* (related) and *A. vicaria* (not related) due to its ochraceous-reddish-brownish coloration, but transversal lines on forewings extremely crenulate. Male genitalia: digitus short, straight; female genitalia: ovipositor huge, extremely sclerotized.

Description. One of the larger species of the genus *Apamea*. Length of forewings 17 mm (holotype), 16.5–18 mm (paratype, males) and 17.5–19 mm (paratype, females), resp. Wingspan: 34.5 mm (holotype, male), 35–36.5 mm (paratype, males) and 35–37 mm (paratype, females), resp.

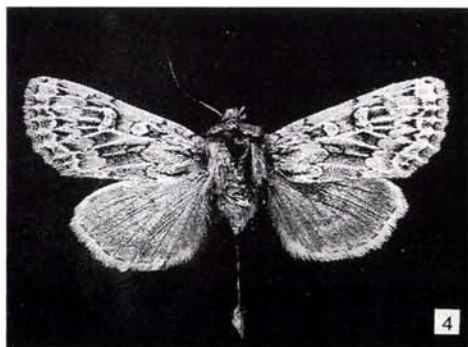
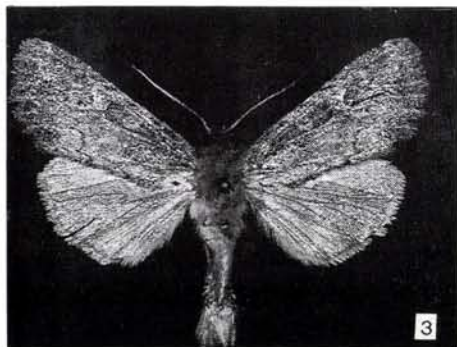
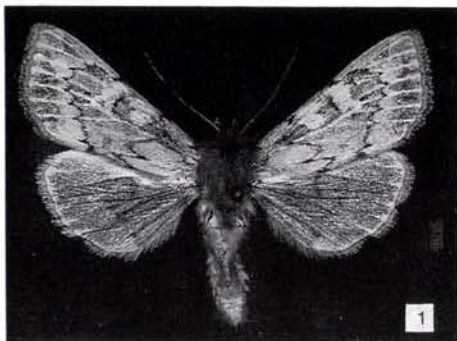
Antennae filiform, finely ciliated (male), thin and without cilia (female). Head and thorax brownish, with ochraceous-yellowish and light reddish hairs. Abdomen dull ochraceous, with darker tufts on the 1–2 segments; coremata present. Forewing pale ochraceous-yellowish or pale brownish-ochraceous with finely dispersed orange-reddish, reddish-brown or – in some specimens – dark greyish-brown scales. Intensity of darker suffusion extremely variable. Veins covered by lighter ochraceous scales. Reniform and orbicular regular, pale ochraceous, more greyish than ground-colour; claviform obsolescent. Transversal lines blackish-brown, heavily marked, antemedial more regularly, post-medial extremely irregularly crenulate. Submarginal line obsolescent, marginal field with darker suffusion, dissected by pale ochraceous veins. Fringe brownish. Hindwing nearly unicolorous ochraceous brown with greyish suffusion. Medial line and lunule obsolescent. Underside of wings greyish-ochraceous or dull ochraceous, postmedial line and lunules well-marked (Figs 1–3).

Male genitalia (Figs 5–7) display some general similarity with those of *Apamea lateritia* (Hufnagel, 1766). Valvae with well-developed cucullus and corona. Digitus short, straight. Ampulla thin, at the basal third angulate. Clavus (= “dorsal extension of sacculus” sec. Lafontaine) finely granulose, covered by short setae. Juxta medium-sized, broad, basally with a broad, more sclerotized bulge, upper part with small, U-shaped incision. Aedeagus slightly arcuate, carina heavily sclerotized with a ventral dentition, vesica with two small, acute cornuti with sclerotized basal plates.

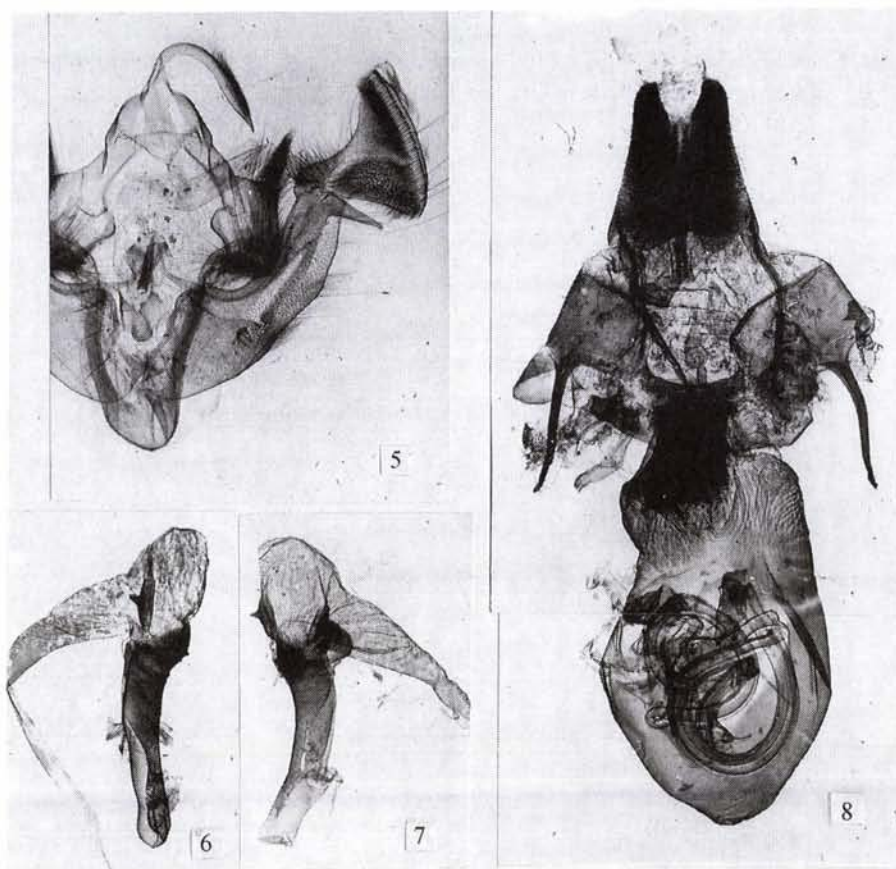
Female genitalia highly characteristic (Fig. 8). Ovipositor huge, posterior lobes heavily sclerotized and covered by short, thick setae. Ostium extremely broad, U-shaped, ductus bursae densely folded, rugulose and granulose, heavily sclerotized.

Remarks. The new species is rather, but not very closely related to *A. lateritia* (Hufnagel, 1766). *Apamea vicaria* (Püngeler, 1902) (Fig. 4) having some external similarity by its wing markings belongs to a completely other species group within the genus *Apamea* and is very closely related to the *A. maillardi-zeta* species group, perhaps only an extremely marked subspecies of the very polytypic and polymorphic *A. zeta* (Treitschke, 1825).

The new species can easily be separated from all known *Apamea* species by its wing markings and by its very specialized female genitalia displaying some convergent similarity with those of *Resapamea* species: huge posterior lobes of ovipositor, densely folded, rugulose and granulose ductus bursae (see: Varga & Ronkay 1992), connected probably with the specialized oviposition “technics” into the vaginae of leaves of Gramineae species, which is typical for the members of the tribe Apameini. It seems to be confined to the extremely dry and continental mountain semi-desert areas of the Eastern Pamir Mountains.



Figs 1–4. *Apamea nekrasovi* sp. n., holotype, male; 2 = dto, paratype, female; 3 = dto, very dark specimen, paratype, male; 4 = *Apamea vicaria* (Püngeler), holotype, male



Figs 5–8. *Apamea nekrasovi* sp. n., paratype, male, genital capsula; 6–7 = dto, aedeagus with everted vesica from two different views; 8 = paratype, female genitalia

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REFERENCE

- Varga, Z. and Ronkay, L. (1992): Studies on Palaearctic Noctuidae, sect. Amphipyrinae, III. The *Mesapamea hedeni* Graeser-complex (Lepidoptera). – *Acta zool. hung.* **38**(1–2): 113–124.

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