

New Noctuidae taxa from Asia Minor and the Caucasus  
(Lepidoptera, Noctuidae)\*

by L. RONKAY, Budapest

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**Abstract** - Descriptions of Cerapteryx megalia tugani ssp. n. (NE Caucasus, NE Turkey), Cucullia behouneki korosoi ssp. n. (NE Caucasus) and Apopestes noe sp. n. (Turkey, NE Caucasus) are given. With 17 figures.

In the last two years Hungarian zoologists investigated the fauna of the NE Caucasus as participants of three international zoological expeditions. The lepidopterological studies resulted, besides a large amount of new distribution data, the discovery of some new Noctuidae taxa. The more detailed survey of the expeditions is given by HERCZIG et al. (1990), and a part of the new taxa is described here.

Cerapteryx megalia tugani ssp. n.  
(Figs 1-3, II)

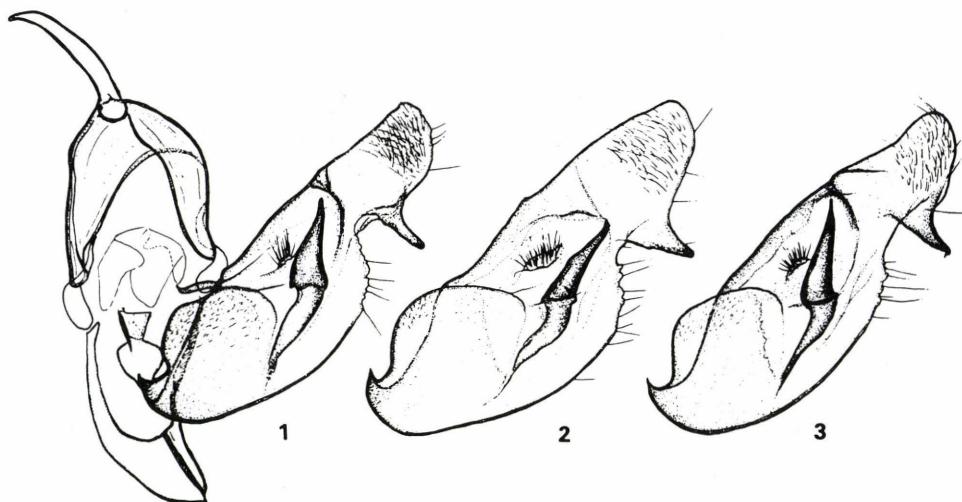
H o l o t y p e - male, USSR, Chechen-Ingous ASSR, Caucasus N, Kezenoi-am, 2100 m, 5-6.VIII.1988, leg. HERCZIG, MÉSZÁROS et SZEŐKE. Slide No. 2990 RONKAY (coll. HNHM).

P a r a t y p e s - several males from the same locality, 5-6.VIII.1988 and 11-14.IX.1990, coll. HNHM, HERCZIG, SZEŐKE, RONKAY, FABIÁN, HREBLAY, GYULAI, MÉSZÁROS; 7 males, Turkey, Prov. Agri, Tahir Gecidi, 1900-2000 m, 7 km W of Aydintepe, 5-6.08.1988, leg. GYULAI, HREBLAY, RONKAY et RONKAY (coll. HNHM and the collections of the collectors); 1 male, Turkey, Prov. Artvin, 5 km E Heveg (= Yavlalar), 1800 m, 03-08.08.1983, leg. DeFREINA (coll. DeFREINA). Slides Nos 2845, 2991 RONKAY.

D e s c r i p t i o n - The western race of Cerapteryx megalia (ALPHERAKY, 1882) bona sp. (vs. POOLE 1989) is similar in external appearance to the nominate megalia but differs from it by the following features: the ground colour of the fore wings of tugani is darker brown, the wing pattern is more contrasty, the median area is narrower and darker, the subterminal line is less waved and the inner part of the marginal field is usually lighter. The outer parts of wings are darker on underside, the marginal suffusion of hind wings is wider in tugani and its borders usually defined by the diffuse stripe of the transverse line.

The male genitalia of the Cerapteryx species are illustrated in Figs 1-11. The differences between graminis (LINNAEUS, 1758), megalia and megalia tugani are relatively slight but characteristic: the cucullus of graminis is concave, the harpe is narrow and curved, the pollex is short and wide. The

\* Results of the Chechen-Ingous - Hungarian Zoological expeditions, No. 3.



Figs 1-3. *Cerapteryx megalia tugani* ssp. n.: 1= holotype, 2-3= paratypes,  
USSR, Caucasus

differences between the two races of *megalia*, as compared with those of *graminis* and *megalia*, are conspicuous: the new race has significantly larger and wider valva (the size of the body and the wings are more or less the same!), longer cucullus, larger and more flattened harpe, longer and more helicoid vesica.

The populations living in the Caucasus and NE Turkey are very probably separated from *megalia* on specific level, but the entirely allopatric distribution, the relatively small genital differences in the genus (and the lack of the female) give the reason to treat them as the western subspecies of *megalia*.

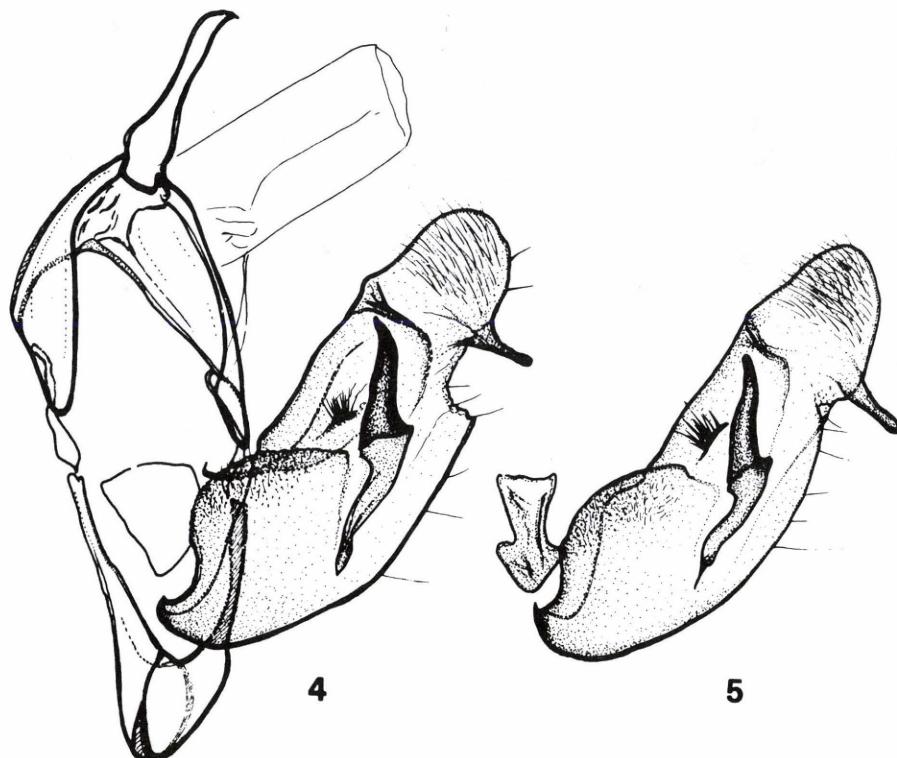
The genus *Cerapteryx* CURTIS, 1833 forms a well-defined group with the closely allied *Monostola* ALPHERAKY, 1892 (type: *asiatica* ALPHERAKY, 1892, the male clasping apparatus is illustrated in Fig. 6). It contains six species (POOLE, 1989) which belong at least into two, very probably not monophyletic lineages, as the SE Chinese taxa (*fumosa* DRAUDT, 1950 and *poecila* DRAUDT, 1950) should be very close to some SE Asian *Orthosia* OCHSENHEIMER, 1816 species (e.g. *alishana* SUGI, 1986), since *albiceps* HAMPSON, 1894 shows affinity to other "Hadeninae" groups. Only a detailed revision of the SE Asian and Himalayan Hadeninae can clarify the exact relationships of the temperate Holartic Hadeninae (sensu HAMPSON).

#### Cucullia behouneki korsosi ssp. n.

H o l o t y p e - male, "USSR, E Caucasus, Daghestan ASSR, Kurush, Kurush Station, 2400 m, 7-11.VII.1989, leg. Z. Korsós" (coll. HNHM).

P a r a t y p e s - 2 males, 1 female from the same locality and data; 1 male, USSR, N Caucasus, Kabardino-Balkarian ASSR, Terskol, MT. Cheget, 21-27.VII.1981, leg. POLTAVSKI (paratype of *C. behouneki*) (coll. HNHM). Slide No. 0513 BEHOUNEK (male).

D e s c r i p t i o n - The new subspecies of *C. behouneki* resembles to a very large and dark *behouneki behouneki* HACKER et RONKAY, 1988 or a light *C. lucifuga* ([DENIS et SCHIFFERMÜLLER], 1775). It differs from the former by its larger size (52-54 mm) and broader wings, darker bluish-grey ground colour of fore wing with more or less strong dark suffusion (especially at in-



Figs 4-5. Cerapteryx megalae ALPHERAKY: 4= Juldus, 5= Issyk-Kul

ner margin), less conspicuous darker pattern (transverse lines, stigmata, black streaks of marginal field), less whitish hind wing and darker blackish-grey pubescence of thorax. The genitalia of the two races show no significant differences. The other similar species, lucifuga has strongly different genital configuration of both sexes.

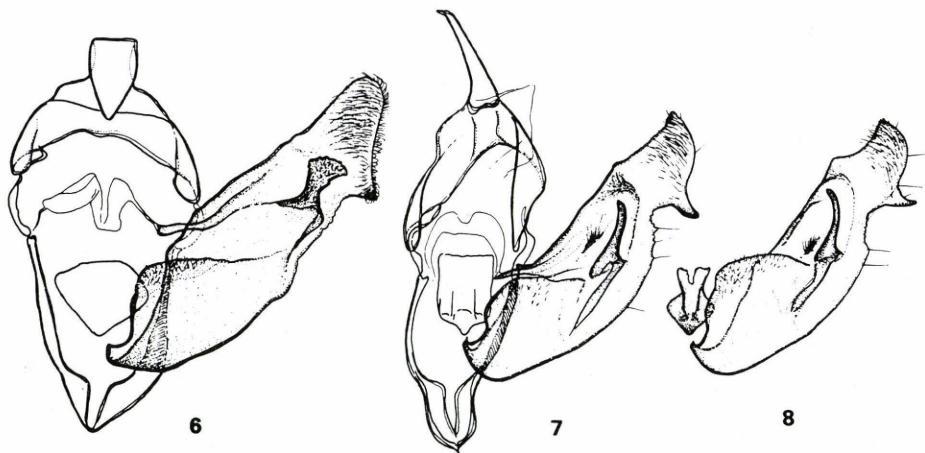
The new subspecies is known from the northern side of the C and E Caucasus since the nominate race is distributed from C Turkey (Gürün) south-eastwards to the Lake Van and the Hakkari Mts. and NE to the Karasu-Aras Mts. (Prov. Agri).

Apopestes noe sp. n.  
(Figs 12-15)

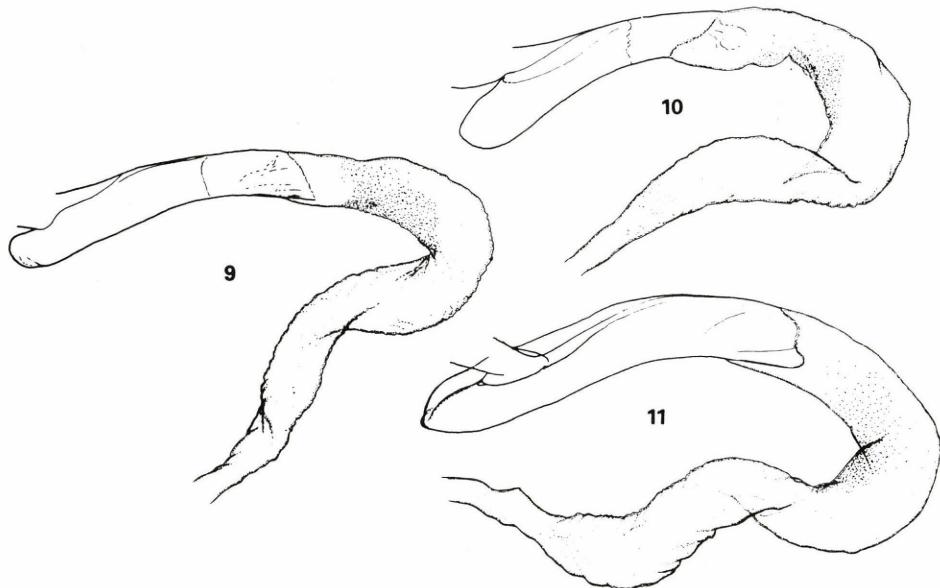
H o l o t y p e - male, "Syr. sept. Taurus, Marasch, VII.29."; "coll. Bartha" (coll. HNHM).

P a r a t y p e s - 5 males from same locality (coll. HNHM); 1 male, Malatia (coll. HNHM), 1 female, "Asia minor, Karadja Bey, Ajtay-Kovács" (coll. HNHM); 1 male, Turkey, Tuz Gölü, 25.IV.1990, leg. et coll. G. RONKAY; 28 males and females from USSR, Chechen-Ingous ASSR, Caucasus N, Kezenoi-am, 2100 m, 5-6.VIII.1988 and 11-14.IX.1990, and USSR, CHIASSR, Kerigo, 1000 m, 9-10.VIII.1988; leg. HERCZIG, MÉSZÁROS, RONKAY et SZEŐKE. (coll. the collectors and the HNHM).

Slides Nos. 443, 444, 3283 RONKAY (males), 3422 RONKAY (female).



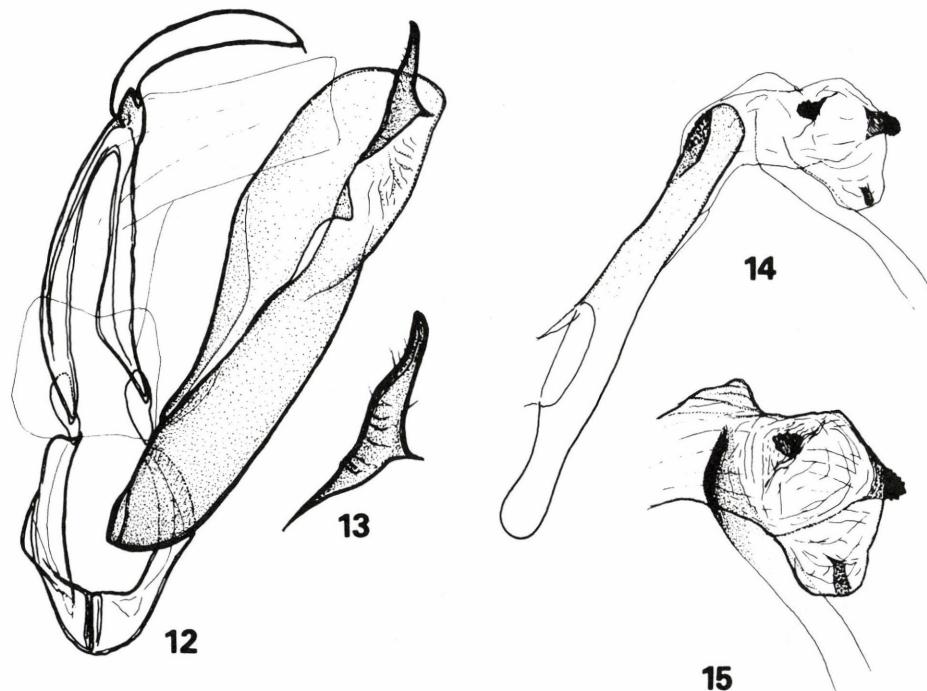
Figs 6-8: Fig. 6. Monostola asiatica ALPHERAKY, Kuku-Noor. - Figs 7-8. Cerapteryx graminis LINNAEUS: 7= Mongolia, 8= Hungary



Figs 9-11: Fig. 9. Cerapteryx graminis LINNAEUS, Mongolia. - Fig. 10. Cerapteryx megalae ALPHERAKY, Juldus. - Fig. 11. Cerapteryx megalae tugani ssp. n. Paratype, Caucasus

Description - wingspan 61-69 mm, length of fore wing 28-34 mm. Head and thorax ochreous-brown, mixed with dark brown and whitish-ochreous hairs; sides of palpi, collar and edges of tegulae darker brown. Abdomen lighter, more ochreous. Fore wing light, very shiny ochreous-brown, irrorated with darker brown scales. Intensity of dark pattern very variable, antemedial and postmedial lines usually diffuse, sinuous, dark brown, medial line a dark shadow. Orbicular spot minute, brown with whitish centre, reniform large, with diffuse whitish outlines. Subterminal line whitish, interrupted, defined by a row of dark brown, triangular patches on inner side. Terminal line light brown with a row of dark spots, cilia brown. Hind wing brown with intensive reddish-ochreous shine, marginal field wide, slightly darker; ghosts of transverse line and cellular lunule pale but visible. Terminal line ochreous-orange, cilia brown. Underside of wings light ochreous-brown, very shiny. Inner parts of wings suffused with darker brown, transverse lines diffuse, wide, darker brown. Cellular lunule of hind wing diffuse but well-discriminable, moon-shaped with lighter centre, often with a darker stripe running from lunule to basis of wing.

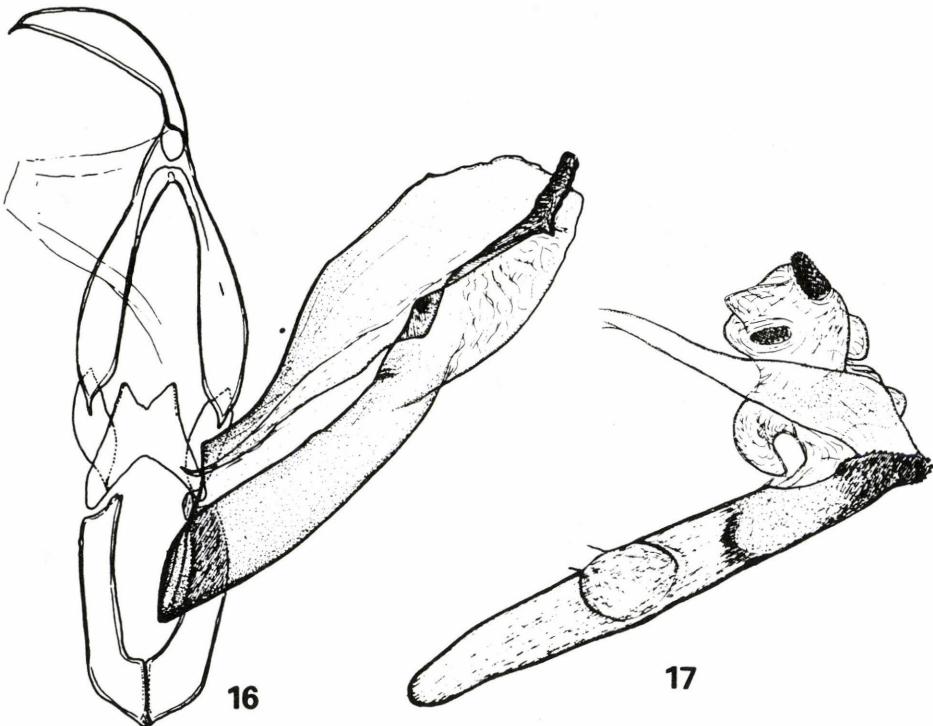
Male genitalia (Figs 12-15) - uncus large, falciform, tegumen narrow and high, peniculi absent, vinculum strong and wide, U-shaped. Valvae elongated, distally slightly dilated, apex rounded. Sacculus long and strong, saccular extension very long and acute. Aedeagus tubular, firmly sclerotized, carina with a dentated plate. Vesica relatively simple, everted ventro-medially. It consists of a broad sac with four small, conical or semi-globular diverticula, three of them bearing sclerotized, dentated plates ("cornuti"). Ductus ejaculatorius situated laterally, its basis with a weakly sclerotized bar.



Figs 12-15. *Apopestes noe* sp. n. Paratype, Caucasus

**F e m a l e g e n i t a l i a -** ovipositor short and wide, gonapophyses short. Ostium bursae sclerotized, calycular. Ductus bursae a difficult complex: posterior part membranous, medial part dilated, twisted and folded, partly heavily sclerotized, proximal part wide, granulose. Bursa copulatrix globular, membranous, with a small, rounded signum.

The genus *Apopestes* HÜBNER [1823] 1816 contains four species, listed by BOURSIN (1955) as *spectrum* (ESPER, 1788), *phantasma* (EVERSMANN, 1843), *centralasiae* WARREN, 1913 and *koreana* HERZ, 1904. In this work he mentioned as good distinctive feature the number of the sclerotized plates of the vesica "(bei *spectrum* Esp. 4 ... , bei *phantasma* Ev. 3, bei *centralasiae* Warr. und *koreana* Herz, 2)". The subsequent authors (RONKAY 1983, POOLE 1989) accepted his opinion and the male genitalia of "*phantasma*" and "*centralasiae*" were illustrated on the basis of this conception. But the study of the syntypes of *phantasma* showed that this species has two plates in the vesica and the saccular extension is shorter than in case of the species having three plates. By the morphological characteristics and the distribution (the type locality of *phantasma* is "Altai"), *phantasma* and *centralasiae* are conspecific, without subspecific splitting. On the basis of the description of the diagnoses of the 'races of *spectrum*' (WARREN in SEITZ 1913) it can be stated that WARREN had also recognized the two distinct taxa but he identified the E Turkish-Caucasian species as "*phantasma*" and, consequently, the real *phantasma* was described by him as *centralasiae*. The well-known Ponto-Armenian spe-



Figs 16-17. *Apopestes phantasma* EVERSMANN. Lectotype, Altai

cies remained undescribed as the other race described by WARREN from Asia Minor (ssp. innotata WARREN, 1913) represents in fact a lighter and less marked form of spectrum.

The major differences between the male genitalia of the three species, spectrum, phantasma and noe are illustrated in RONKAY 1983 (Figs 22-24). Figs 12-17 of the present paper displays also the differences in the vesica of noe and phantasma. The female genitalia of noe is similar in type to that of phantasma but the ostium of the former is more elongate and the ductus bursae has a more or less quadrangular, sclerotized edge on the dorsal surface since this part is rounded in phantasma.

The distribution of the four Apopestes species displays some peculiar moments. The most specialized species, spectrum has a Holo-Mediterranean range from the Maghreb countries to W Turkey, partly overlapping with that of noe. However, it has a big population in the USSR, Turkmenia in the semi-deserts at the Kopet-Dagh Mts, where it may be a pest of cultivated Leguminosae. Phantasma occurs in Central Asia from Afghanistan to Mongolia and Chinese Turkestan and Kashmir, indica MOORE, 1883 (= koreana HERZ) from the Southern Himalaya to Korea and Japan and the Soviet Far East. (Unfortunately, I had no opportunity to study material from Iran which may have importance from zoogeographical point of view.)

#### Designation of the lectotype of Apopestes phantasma (EVERSMANN, 1843)

For the solution of the phantasma-centralasiae problem the designation of the lectotype of phantasma was necessary. There are four original specimens of phantasma in the collection of the Zoological Institute, Academy of Sciences, Leningrad with the label "Altai, coll. Eversmann". One male specimen was selected as lectotype, with the labels "Altai, coll. Eversmann" (whitish label); "Apopestes phantasma Eversmann, lectotype, des. L. Ronkay, 1984" (red label). Slide No. 1870 RONKAY (Figs 16-17).

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