New species of Apospasta Fletcher, 1959 and Homonacna Fletcher, 1961 from Kenya and Tanzania (Lepidoptera, Noctuidae)

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Abstract – Descriptions of *Apospasta elgonensis* sp. n. (Kenya) and *Homonacna pocsi* sp. n. (Tanzania) are given. The formerly unknown female and the genitalia of both sexes of *A. eriopygioides* (AURIVILLIUS) are illustrated. With 18 figures.

INTRODUCTION

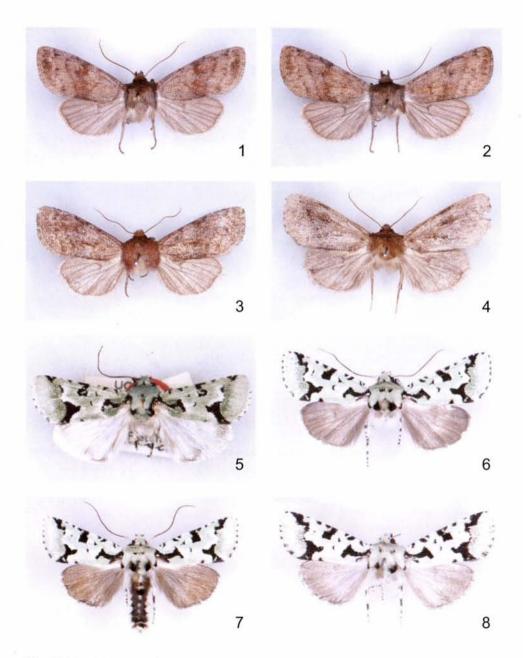
The mountains of the equatorial Africa are of exceptional ecological and biogeographical interest not only because of the strikingly different flora and fauna from those of the surrounding tropical, subtropical terrains but because of the hereto less explored biogeographical relationships with the Palaearctic Region. This connection could exist throughout the large mountain systems of eastern and north-eastern Africa towards the Ethiopian high plateau and the high massifs of the Arabian Peninsula. This paper is the first of a series of contributions on the Lepidoptera materials collected mainly by Hungarian zoological expeditions in Eastern Africa (DEMETER 1982, PEREGOVITS 1987, VOJNITS 1990, MERKL 1993).

Apospasta elgonensis sp. n.

(Figs 1-2, 9-10, 13)

Holotype: male, "KENYA, Mt. Elgon N.P., nr Kimothon river, 3200 m, subalpine Ericaceae bush, at light, 11–22.I.1992, No. 454, A. LOBMAYER, O. MERKL & G. VÁRKONYI"; slide No. RL4268 (deposited in coll. HNHM Budapest).

Paratype: female, with the same data as the holotype (HNHM Budapest). Slide No. RL5910 (female).



Figs 1–8. 1 = Apospasta elgonensis sp. n., holotype, male; 2 = A. elgonensis sp. n., paratype, female; 3 = A. eriopygioides (AURIVILLIUS), male; 4 = A. eriopygioides (AURIVILLIUS), female; 5 = Homonacna alpnista FLETCHER, holotype male; 6 = H. pocsi sp. n., holotype, male; 7 = H. pocsi sp. n., paratype, male; 8 = H. pocsi sp. n., paratype, female

Diagnosis: the new species is closely related to A. eriopygioides AURIVILLIUS, 1910, the characteristic species of the Lobelia zone of the Kilimanjaro. Externally the two species are very similar, but the new species is somewhat larger in size with its forewings more elongated, the ground colour is slightly paler, more ochreous brown, the crosslines are somewhat more distinct, the dark red-brownish irroration is less intense. The male genitalia of A. elgonensis differ from those of A. eriopygioides (Figs 3–4, 11–12) by its much smaller, narrower cucullus, more evenly tapering medial part of valva, larger, stronger fultura inferior, stronger, longer ventral extension of carina and larger medial cornuti field of vesica. The female genitalia of A. elgonensis has the sclerotized part of ductus bursae significantly longer, stronger, more folded and cristate than in A. eriopygioides (Fig. 14), otherwise the simplified genitalia of the two related species are very similar.

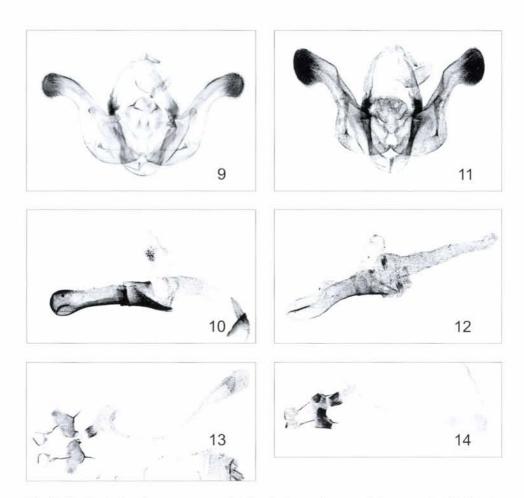
Description: wingspan 46–52 mm, length of forewing 22–24 mm. Male. Head and thorax dark ochreous brown, mixed with some greyish, antennae finely ciliate. Abdomen somewhat paler, more greyish. Forewing elongated, relatively wide, with apex finely pointed, outer margin evenly arcuate. Ground colour shining, light ochreous brown, irrorated with darker grey and brown. Wing pattern diffuse, ante- and postmedial lines simple, less sinuous, red-brownish, former oblique, latter almost straight below cell. Median fascia represented by wide, diffuse red-brown stripe, subterminal line obsolescent, ochreous, slightly sinuous, defined by some brownish arrowheads inside and by variably dark red-brownish zone at outer side. Orbicular and reniform stigmata pale ochreous, orbicular with smaller, reniform with larger dark brown central spot; claviform absent. Terminal line fine, ochreous, cilia ochreous brown, finely spotted with darker brown. Hindwing dark greyish brown, veins and wide marginal area somewhat darker, discal spot diffuse, narrow. Terminal line brown, cilia whitish-ochreous, with darker brown medial line. Underside of wings pale ochreousgrey, forewing strongly suffused, hindwing scarcely irrorated with dark brownish grey. Discal spots diffuse, shadow-like, transverse line of hindwing diffuse, wide. Female: similar but larger in size, forewings somewhat broader; antennae filiform.

Male genitalia (Figs 9–10): uncus very short, narrow, with apex obtuse; anal tube sclerotized ventrally. Tegumen narrow, moderately high, penicular lobes small. Fultura inferior lanceolate, with stronger, rounded basal and tapering, weaker apical portion; vinculum very short but strongly sclerotized, U-shaped. Valva rather short, basally broadened, distally strongly tapering, apical third slightly dilated, curved ventrally. Cucullus narrow, rounded, densely setose. Sacculus broad, clavus setose, rounded triangular lobe, saccular process tiny, spiniform, situated close to ventral margin. Harpe with long, straight, narrow basal bar, erected part short, sclerotized, medially finely peaked. Aedeagus medium-long, cylindrical, carina with long, beak-shaped ventral extension. Vesica tubular, upturned, relatively short, basal part with very long, narrowly tubular, scobinate diverticulum and a small group of flattened, peaked denticles, medial part with elliptical cornuti field consisting of a group of longer spinules centrally and of numerous tiny spiculi surrounding these longer spinules.

Female genitalia (Fig. 13): ovipositor relatively short, weakly sclerotized, gonapophyses short. Ostium bursae membranous, small, ductus bursae short, tubular, medial part strongly sclerotized, partly cristate and folded. Cervix bursae small, semiglobular, wrinkled, corpus bursae very long, more or less tubular, membranous with fine wrinkles, fundus dilated, discoidal-globular.

Bionomics and distribution: the species is a typical member of the high montane Lobelia zone, presumably endemic to the Mt. Elgon.

Taxonomic notes: the genus Apospasta was erected by FLETCHER (1959) for the species A. sabulosa FLETCHER, 1959, discovered in the Ethiopian highlands. A few years later, LAPORTE (1976) established a new genus Batuana for two newly described species, B. rougeoti LAPORTE, 1976, and B. lobeliarum LAPORTE, 1976, occurring also in the high mountain regions of Ethiopia. These species, together with some previously known



Figs 9–14. Genitalia of *Apospasta* spp.: 9-10 = A. *elgonensis* sp. n., holotype, male; 11-12 = A. *eriopygioides* (AURIVILLIUS), male, Kilimanjaro. 13 = A. *elgonensis* sp. n., paratype; 14 = A. *eriopygioides* (AURIVILLIUS), female, Kilimanjaro.

and/or later described taxa (e.g. A. eriopygioides, B. exspectata LAPORTE & ROUGEOT, 1981, B. abbahoyegarana ROUGEOT, 1983, etc.) form a characteristic group of species occurring in the East African and Ethiopian high mountains, above the forest zone, inhabiting regularly the Lobelia-Senecio belts, displaying in their morphological features and the bionomics a striking similarity with the taxa of the Palaearctic genus Dasypolia GUENÉE, 1852. The genus Apospasta seems heterogeneous in some respects; on the other hand, the members of the genus Batuana appear to be closely related to the type species of Apospasta. According to the high diversity of the species treated as Apospasta (see POOLE 1989) and the rather high number of undescribed Apospasta (s. l.) species known from Africa, a full revision of the genus is required for solving the taxonomic problems; until then, Batuana is not synonymized formally with Apospasta.

Homonacna pocsi sp. n. (Figs 6–8, 15–16, 18)

Holotype: male, "TANZANIA, W Usambara Mts, Shume Forest Gh., 1900 m, 14.II.1985, No. 77, leg. L. Peregovits"; "Usambaras Rain Forest Res. Project"; slide No. RL4459 (deposited in coll. HNHM, Budapest).

Paratypes: 1 male, 1 female, with the same data as the holotype (coll. HNHM). Slide No. RL5914 (female).

Diagnosis: the new species is an allopatric sibling of *H. alpnista* FLETCHER, 1961, described from the upper forest zone of the Ruwenzori. The most conspicuous external difference between them is the colouration of the hindwing which is dark grey-brown in the new species, ochreous-whitish with irregular, darker marginal area in *H. alpnista* (Fig 5). The forewing of *H. pocsi* is narrower, its ground colour is darker, more vivid greenish, the elements of the black pattern are stronger, more expressed. The male genitalia of the two sibling species are very similar, but the harpe of *H. pocsi* is longer, finer, more arcuate apically, the cucullus is somewhat broader, more rounded ventrally than those of *H. alpnista* (Fig. 17).

Description: wingspan 35 mm, length of forewing 15 mm. Head and thorax whitish green, sides of palpi, collar, edges of tegulae and metathoracic tuft marked with black. Antennae of male with very short pectination, those of female filiform. Abdomen dark grey-brown, tip of dorsal crest, lateral ridges and anal tuft pale greenish-ochreous. Forewing elongated-triangular, with apex pointed, outer margin evenly arcuate. Ground colour dark whitish green in pastel shade, marginal area scarcely irrorated with blackish. Wing pattern incomplete but sharply defined, black, partly defined by silvery white. Streak of submedian fold long, broad, antemedial and medial crosslines represented by their costal patches and a few other spots below cell. Postmedial conspicuous, continuous, strongly sinuous, defined by silvery white and darker green, its upper part fused with costal patch of subterminal, lower parts of subterminal deleted; tornal black patch large, oblique. Stigmata present but rather indistinct, orbicular almost completely, reniform and claviform partly encircled with black and some silvery white. Terminal line missing, cilia white, spotted with blackish. Hindwing dark greyish brown, inner area slightly paler, veins slightly, wide marginal area much darker, discal spot diffuse, small. Cilia pure white, inner half spotted with brown. Underside shin-

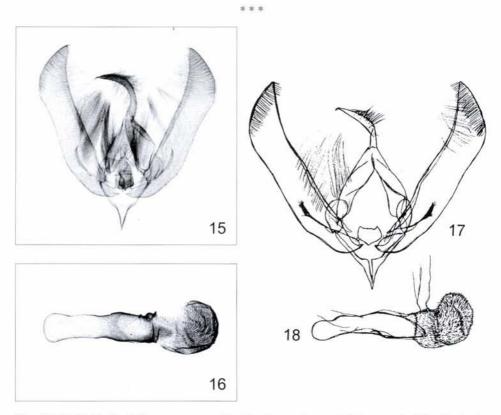
ing silvery whitish, strongly suffused with dark grey-brown, only marginal and costal parts remain whitish.

Male genitalia (Figs 15–16): uncus relatively long, slender, curved, apically finely hooked, tegumen low, narrow, penicular lobes narrow, densely hairy. Fultura inferior small, pentagonal, intersegmental sclerite large, flat, vinculum short, acute, V-shaped. Valva long, narrow, its margins almost parallel, cucullus long, triangular with apex acute; corona very long. Sacculus very small, narrow, clavus reduced; harpe situated basally, fine, slender, slightly arcuate, apex acute. Aedeagus short, cylindrical, carina with short, bill-like ventral plate. Vesica small, globular, densely covered with fine spiculi, ductus ejaculatorius originating at base of vesica, projected dorso-laterally.

Female genitalia (Fig. 18): ovipositor short, broad, weakly sclerotized, gonapophyses fine, short. Ostium bursae broad, fused with the long, flattened, smoothly sclerotized posterior half of ductus bursae. Anterior half of ductus bursae tubular with strong, parallel wrinkles extending deeply into cervix and corpus bursae. Cervix bursae large, with a partly strongly sclerotized, partly ribbed and cristate, broad curve; apical part hyaline, weak. Corpus bursae rather small, more or less semiglobular, finely scobinate.

Bionomics and distribution: The species known from the type locality only.

Etymology: The new species is dedicated to our friend, Prof. TAMÁS PÓCS, the renowned bryologist, one of the organizers of the Integrated Research Project – Usambara Rain Forest.



Figs 15–18. Genitalia of *Homonacna* spp.: 15–16 = *H. pocsi* sp. n., holotype, male, 17 = *H. alpnista* FLETCHER, paratype, Uganda, Ruwenzori; 18 = female genitalia of *H. pocsi* sp. n., paratype

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