

## *Episema gozmanyi* sp. n. from Crete (Lepidoptera : Noctuidae)

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### Zusammenfassung

*Episema gozmanyi* sp. n. aus Kreta wird beschrieben. Die neue Art steht habituell den kleinen, gräulichen und fast zeichnungslosen Populationen von *Episema tersa* ([DENIS & SCHIFFERMÜLLER], 1775) aus Anatolien am nächsten. Die Genitalunterschiede sind beträchtlich. Insbesondere das männliche Genital unterscheidet sich stärker von *E. tersa* D. & S. als dies bei den am nächsten verwandten Arten der Gattung, *Episema glaucina* (ESPER, 1789) und *Episema gruneri* BOISDUVAL, 1832 der Fall ist.

Die neue Art bleibt zunächst auf Kreta beschränkt. Ähnlich wie bei einem anderen «Endemiten» dieser Insel, *Ammonoconia reisseri* RONKAY & VARGA, 1984, ist allerdings das Vorkommen auf dem Süd-Peloponnes nicht ausgeschlossen.

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On 8th September 1980, Dr. L. GOZMANY and his wife, on a visit to Crete, collected moths on the Omalos plateau in the foothills of the White Mountains using a powerful flashlight, bought locally, and a white sheet taken from their hotel room in Chania.

Amongst this material were two specimens which approached very closely *Episema tersa* ([DENIS & SCHIFFERMÜLLER], 1775), a species recorded from Crete by REISSER (1962), but which nevertheless appeared sufficiently different to warrant a check of the genitalia. It should be remembered that the study of the Cretan fauna has occasionally revealed some interesting endemic races or species, very similar to their mainland counterparts.

In this case also, the dissection of the male specimen revealed significant differences in the genitalia when compared with the other species of the genus. Instigated by this preliminary result, the authors decided to investigate all the available material from Crete, collected mainly by REISSER and HACKER, and to compare these with *Episema* material from several countries of southern Europe and Asia Minor. We have found



that the entire Cretan material represented a single undescribed species, while the other specimens studied proved assignable to either *tersa* or *glauçina*. The new species, differed significantly from the related species in the structure of the genitalia of both sexes. As well as the description of the new species, the species-group to which it belongs within *Episema* is also characterized.

***Episema gozmanyi* sp. n.** (Plate I, Figs. 1-8)

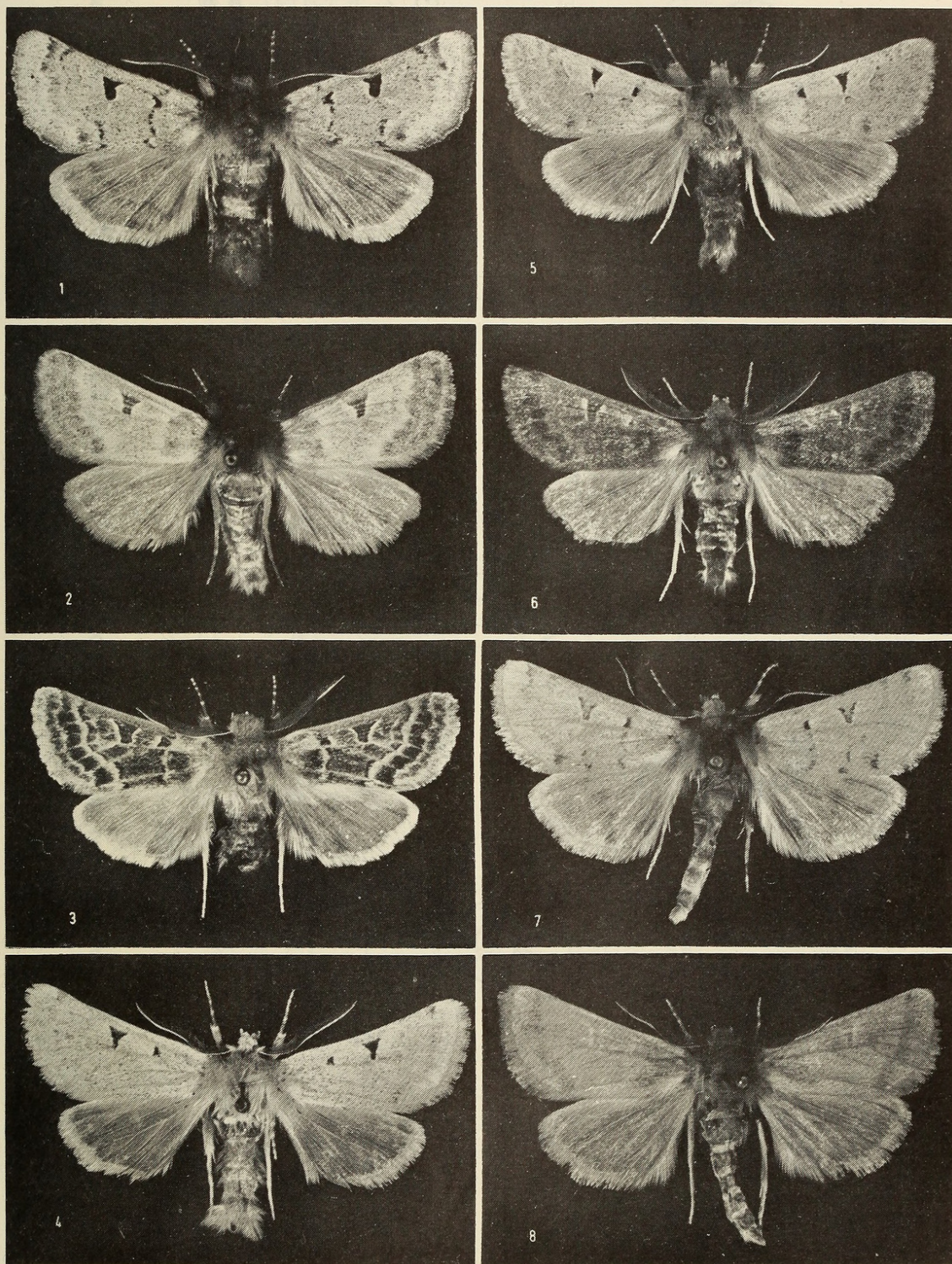
**Holotype** : Male, "Hellas, Criti, Omalos, 8.X.1982, leg. GOZMÁNY" Slide No. 1072 RONKAY, in coll. Hungarian Natural History Museum, Budapest.

**Paratypes** : More than two hundred specimens, from the following localities : Assites, Pevkos, Topolia, Pyrgos, Piskokephalon, Mallaes, Psychro, Askyprou, Apesanes, Vai, Vrysses, Knossos, Pantanassos, Ano Archanes, Hagia Galini, Melidoni Epi Mylop., Vasiliakon, Schinokapsala, Prines, Kalamafka, Palaeokastron, Elounda, Kritsa, Spili, Vorisia, Varvara, Vaion and Maronia from the beginning of September to the second half of October. Slide Nos. : 1120, 2381, 2739 (HACKER), 1358, 1359, 1360, 1361, 1369, 1372 (RONKAY). (Deposited in coll. Landessammlungen für Naturkunde Karlsruhe, Zoologische Staatssammlung, Munich, HHNM Budapest, coll. HACKER, coll. DERRA, Naturhistorisches Museum, Wien and coll. VARTIAN).

**Description** : Alar expanse 27-38 mm, length of fore wing 12-18 mm. Antennae strongly bipectinate. Labial palpi relatively short with long, dark hairs on basal joint. Forewing comparatively narrow, elongate, apex pointed. Basic colour of head, thorax and forewing very variable, usually pale ochreous grey or ochreous red, in some cases brown or pure light grey. Wing pattern also very variable, but transverse lines usually more or less indistinct or absent, orbicular large, rounded, reniform similarly large, its margins pale or absent. The dark triangular patch between them small, narrow, usually pointed ; the small dark point on antemedial line at orbicular usually well discernible. In some cases transverse lines strong and dark with lighter margin. Abdomen and hindwing greyish brown with a yellowish shade and some pearl grey reflexion at base. Cilia ochreous or reddish grey with a fine sub-basal line. Underside uniform ochreous or reddish grey, hind wing paler or much paler.

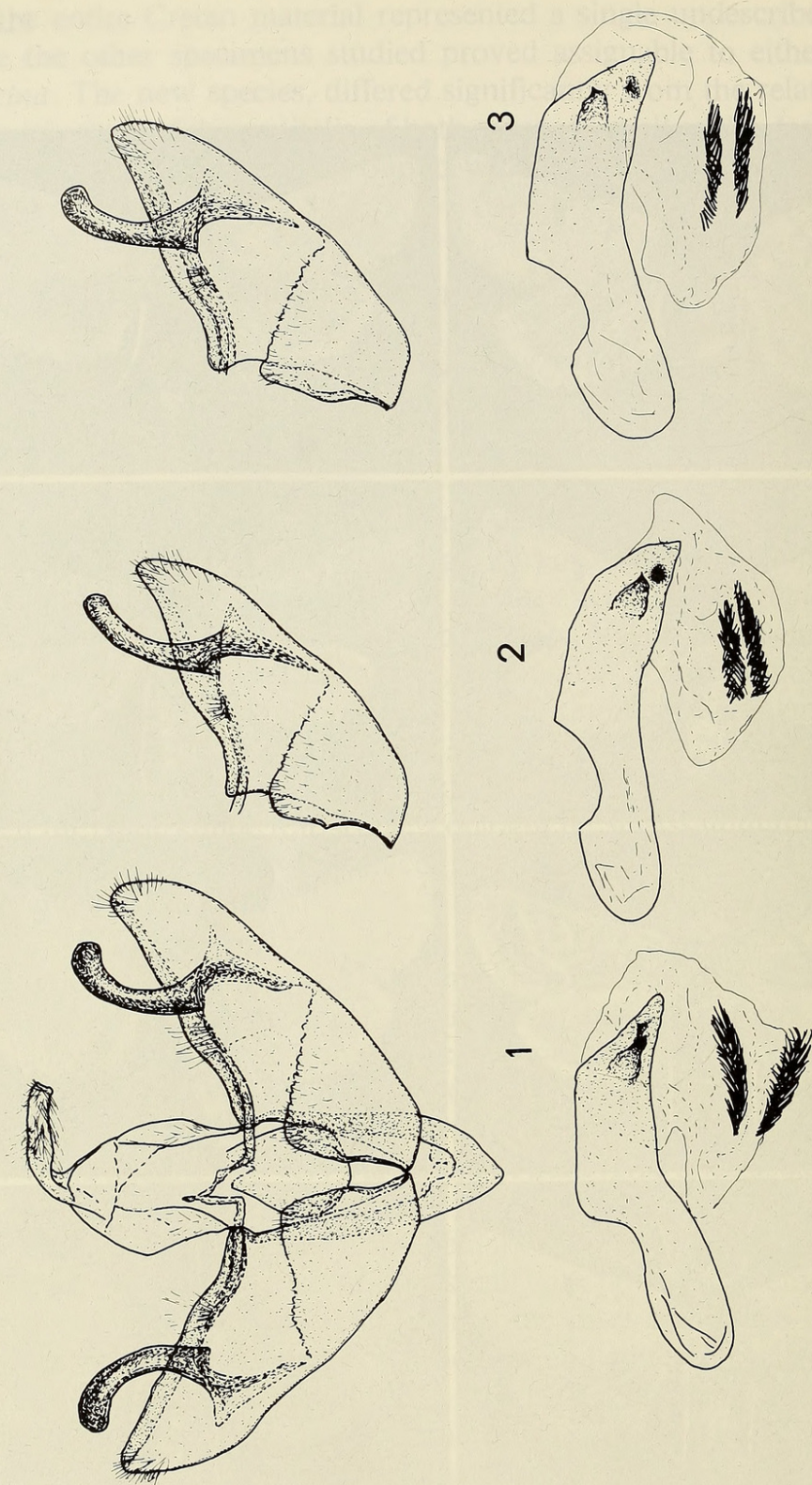
**Male genitalia** (Figs. 1-3) : Uncus relatively short and narrow, wider at apex. Valvae more or less elongate, costa strongly sclerotized. Cucullus





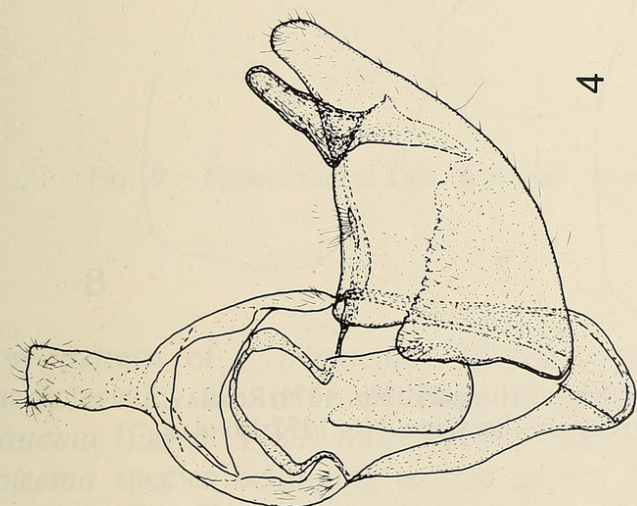
FIGS. 1-8. — *Episema gozmanyi* sp. n. Paratypes, variability of the wing pattern.



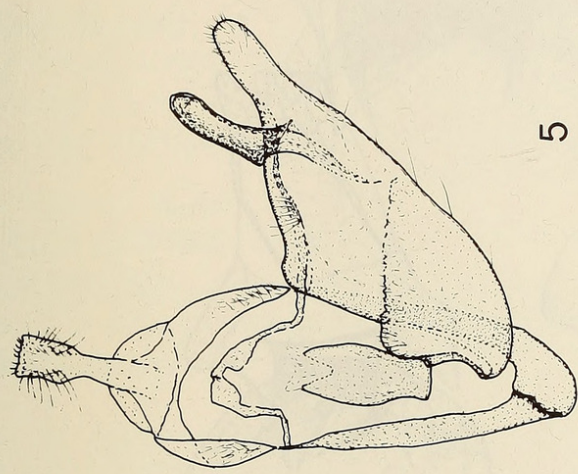


Figs. 1-3. - *Episema gozmanyi* sp. n. 1 : Holotype, No. 1072 RONKAY, 2-3 : Paratypes, Nos. 1359, 1361 RONKAY.

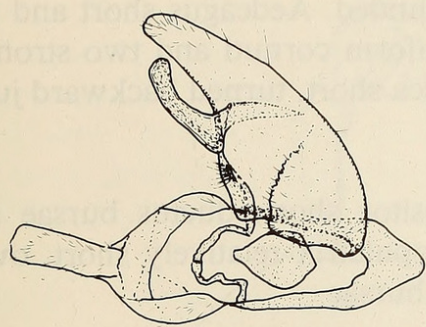




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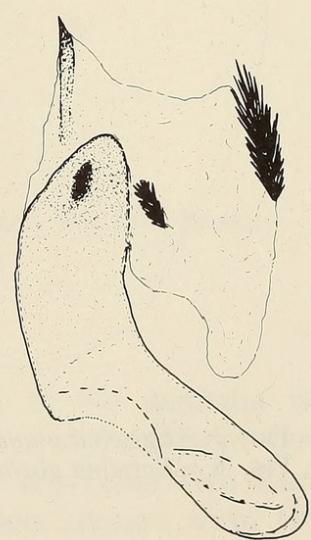


FIG. 4. - *Episema tersa* DEN. & SCHIFF., Sicily, No. 1994 RONKAY  
 FIG. 5. - *Episema glaucina* ESPEL, Sicily, No. 1368 RONKAY.  
 FIG. 6. - *Episema gruneri* BOISDUVAL, Spain, Albarracin, No. 1392 RONKAY.



wide, short, less pointed. Harpe very long and strong, incurved, sacculus wide, fultura inferior wide and rounded. Aedeagus short and thick, less arcuate, with two bundles of spiniform cornuti and two strong, basally widened cornuti at distal end ; vesica short, turned backward just at apex of aedeagus.

**Female genitalia** (Fig. 8): Ovipositor short, ductus bursae short and wide, heavily sclerotized. Bursa copulatrix relatively short, oval with a sclerotized superior part at ductus bursae.

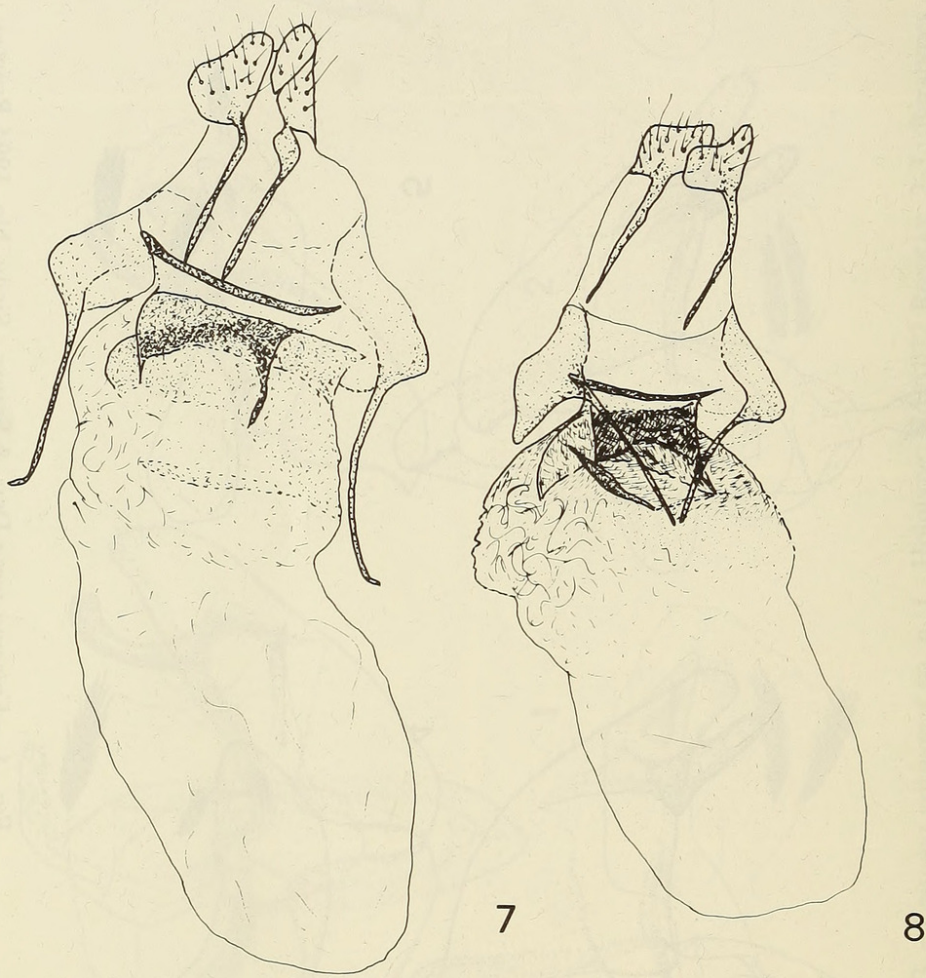


FIG. 7. - *Episema glaucina* ESPER, Hungary, No. 1371 RONKAY.

FIG. 8. - *Episema gozmanyi* sp. n., Paratype, No. 1372 RONKAY.

**Comparative description** : The new species is very similar in appearance to *Episema tersa* ([DENIS & SCHIFFERMÜLLER], 1775) ; it has all the forms *tersa* displays in colouration and wing pattern (plate I) except the dark



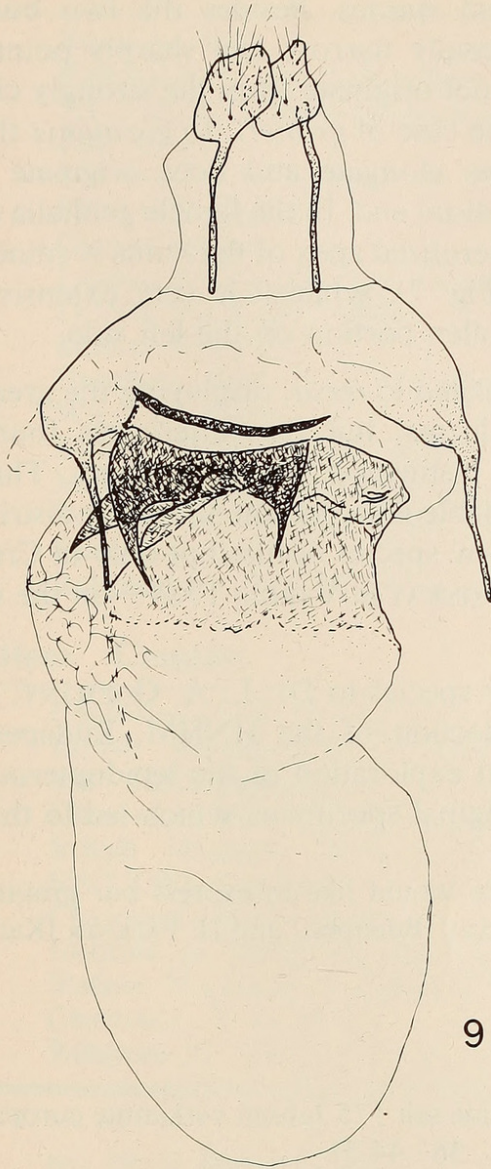


FIG. 9. – *Episema tersa* DEN. & SCHIFF., Hungary, No. 1370 RONKAY.

grey pattern of f. *trimacula*. The structure of the genitalia is very characteristic, the male genitalia of *gozmanyi* differs from *tersa* or *glaucina* (ESPER, 1789) more widely than do any other two European *Episema* species belonging to this group. These species, *tersa* (Fig. 4), *glaucina* (Fig. 5) and *gruneri* BOISDUVAL, 1832 (Fig. 6) have a strongly porrected, long cucullus, which is short and wide in *gozmanyi*. The new species has the strongest costa, longest harpe and widest fultura inferior ; the valvae are less wide at the base than in *tersa* and *glaucina*. In the



aedeagi of the related species, besides the two bundles of spiniform cornuti, there is a basally narrow and sharply pointed cornutus at the distal end ; this does not originate from the strongly chitinized part of the aedeagus except in the case of *gruneri*. In *gozmanyi* the same cornutus is basally wide and less elongate and does originate from the strongly chitinized part of the distal end. In the female genitalia of *gozmanyi* a small part of the heavily sclerotized apex of the bursa is smooth, this character is absent in *glaucina* (Fig. 7), while it is very extensive in *tersa* (Fig. 9), displaying also a swollen portion on the left side.

The new species is related to *tersa*, displaying the greatest similarity with the pale Anatolian forms, but the differences found in the genitalia indicate the strong distinction between them. This pair of species, according to the available data, has an allopatric distribution, but it is not impossible that the new species occurs not only in Crete, but – similar to *Ammoconia reisseri* RONKAY et VARGA, 1984 – on the southern part of the Peloponnesus, also.

We dedicate the new species to Dr. L. A. GOZMÁNY, previous Keeper of the Lepidoptera Collection of the HNHM, Budapest, and one of the organizers of a recent exploration of the lepidopterous fauna of Greece, who collected the original specimens which led to this thorough study.

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