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On the taxonomy of the genus Dasypolia Guenée, 1852. Revision of the subgenus Cteïpolia Staudinger, 1896 (Lepidoptera, Noctuidae)

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Abstract – The taxa of the subgenus *Cteïpolia* STAUDINGER are revised, *C. sacelli* STAUDINGER and *C. isotima* PÜNGELER are redescribed and four new species, *C. tertia* sp. n. (Pamir), *C. gansoni* sp. n. (Pamir), *C. mimetica* sp. n. (Tien Shan) and *C. vera* sp. n. (Karasu-Aras Mts, NE Turkey) are described. With 42 figures.

INTRODUCTION

The phylogenetic relationships of the *Dasypolia* GUENÉE complex and the characterization of the subgenera are given by RONKAY & ZILLI (1993). It is mentioned there that the "... species *D. (Cteïpolia) "sacelli"* is also a complex of externally similar, partly sympatric species... The revision of this complex is under preparation." The present paper deals with the taxonomy and distribution of this complex, in a wider sense the species of the subgenus *Cteïpolia* STAUDINGER, 1896.

Cteïpolia was erected as a monotypic genus by STAUDINGER (1896), based on the newly described species, *sacelli* STAUDINGER, 1896. This taxon was discovered in the Issyk-Kul area by TANCRÉ, the syntypes are five female specimens. It is an interesting fact that ALPHÉRAKY and STAUDINGER, two of the most prominent lepidopterists of that era, have a somewhat different opinion about the taxonomic place of the species. ALPHÉRAKY, who had also seen the specimens, mentioned that "Aussi *Dasypolia* pour moi. Morphologiquement voisine de ma *Dasyp. gerbillus*, mais distincte. Je ne vois pas la possibilité de la séparer du genre *Dasypolia*". In the opinion of STAUDINGER, the differences between the structure of the palpi and the elements of the wing pattern of *sacelli* and the other (known) species of *Dasypolia* appear to be significant and provide a basis for their separation on generic level.

The additional species of the genus had already been described in this century (*acrophila* by HAMPSON (1906) from the Himalaya region; *isotima* by PÜNGELER (1914) from the Tien Shan Mts, Djarkent; *lithophila* by KAPUR (1960) from Nepal). KAPUR was the first author who published and figured the genitalia of two species of this genus, although the male genitalia of *"C. acrophila"* were given erroneously (displaying the male genitalia of a *Pseudaletia*, namely *P. separata* WALKER, 1865). The taxa *acrophila* and *lithophila* were transferred into the newly erected subgenus *Sinipolia*, together with the newly described species, *honeyi* and *vignai*, by RONKAY & ZILLI (1993).

In the paper dealing also with the genital morphology of *Cteïpolia* (RONKAY, VARGA & BEHOUNEK 1991) the illustrations of the genitalia of *C. sacelli* (both sexes) and *C. "isotima"* (female) can be found. This latter species was misidentified, as the specimen under discussion belongs in fact to an undescribed species, being relatively remote from the other taxa of the subgenus *Cteïpolia* s.str. (*D. (C.) tertia* sp. n.).

Another problematic moment is the identity of *Cteïpolia "murina* MÉNÉTRIES". There is a male specimen of a *Cteïpolia* species, preserved in the collection of the Zoological Institute, St. Petersburg, labelled as "*murina* MÉNÉTRIES". This peculiar specimen is most similar to *C. isotima*, but its locality – by its labels – is the Ural Mts ("Sibir. Uralens.", "coll. Acad. Petrop."). As far as we know, this taxon has never been published, therefore it is a manuscript name. On the other hand, if the labelling is correct, this subgenus is represented by an *isotima*-like species in the Ural mountains, the far northern place of its distribution. As there are some doubts concerning the identity and the area of this taxon, we desist from describing it as a distinct species, but its male genitalia (prep. No. 8278 RYABOV) are illustrated in Fig. 15.

CHARACTERIZATION OF THE SUBGENUS *CTEÏPOLIA* S. STR.

External morphology (Figs 1-14): small or medium sized species with rather strong body and narrow wings with apex rounded. Head small, thorax broad, roughly hairy; abdomen covered with scales and long hairs. Eyes moderately large, reniform, tongue reduced, palpi very short and slender. Antennae of male shortly biserrate or bipectinate with usually long cilia, those of females filiform, covered with short scales and/or cilia. Wings with scarce hairs only at basal parts, their scaling characteristically erected, giving a reticulated structure; hindwings with veins rr and m1, m3 and cu1 strongly stalked.

Forewing coloration often displays surprisingly large variation within one and the same population, wing pattern, however, regularly constant. Wing pattern relatively simple, crosslines usually diffuse, sinuous, often double, subterminal may be defined with differently darkened fields on two sides. Basal streak of submedian fold sharp, black, regularly short. Orbicular and reniform stigmata present, their shape variable, both may be represented by small black spots only, in some cases orbicular may be fused with basal streak. Hindwing more or less unicolorous with greasy shining, discal spot usually present. Underside of wings very shining, almost patternless but discal spots of both wings sharp, sometimes transverse line also discernible as a pale shadow.

Male genitalia (Figs 15-36): uncus variably long, slender or wider with lateral appendages. Tegumen low and broad, penicular lobes densely hairy. Valvae strong, elongated, distally sclerotized and strongly tapering, often more or less triangular. Cucullus less developed, without costal extension, ventral surface variably but usually strongly setose; corona absent. Harpe strong, long and curved, partly flattened; with apex pointed or slightly rounded. Aedeagus short with invaginated, small plates of carina, ostium ductus ejaculatorii close to distal end of aedeagus. Vesica a simple, dorsally recurved tube, without cornuti or diverticula.

Female genitalia (Figs 37-42): ovipositor long and slender with long gonapophyses, ostium bursae rounded, with medium strong granulate sclerotization. Ductus bursae long, membranous, finely wrinkled; cervix bursae membranous, small or rudimental, rugulose. Corpus bursae sacculiform, membranous, with one (rounded) or two (elongated, bar-like) signa.

TAXONOMICAL ASPECTS

The detailed comparison of the subgenera and species groups of *Dasypolia* is given by RONKAY & ZILLI (1993). It is pointed out that *Cteïpolia*, mostly on the basis of the features of the female genitalia, is clearly distinct from its supposed sister-group, *Sinipolia* RONKAY et ZILLI, 1992 (two species of this subgenus were formerly considered as *Cteïpolia*, see above).

Cteïpolia – the *sacelli*-group – is a highly homogeneous group of species, containing a series of externally very similar taxa. The differences in the morphological characteristics are usually small but rather constant. These differential features are the following:

- external morphology: the elements of the wing pattern (shape and size of orbicular and reniform stigmata, presence or absence of dark streak of submedian fold and discal spots of both wings, strength of transverse lines);
- male genitalia: the shape and size of uncus, fultura inferior, valva, harpe and pulvillus (the vesica is very simplified, displaying no significant differences);
- female genitalia: the size and sclerotization of ostium bursae, the length of ductus bursae, and, especially, the structure, size and number of the signa.

The subgenus contains three close but separable lines, the *sacelli*-, the *mimetica*- and the *tertia*-lines. The autapomorphies of the *sacelli*- and the *tertia*-lines appear in the configuration of the female genitalia: the members of the *sacelli*-line have large, elongated ostium bursae, short and narrow ductus bursae and two more or less bar- or ribbon-like signa consisting of small spiculi and denticuli while in the *tertia*-line the ostium is short, cup-shaped, the ductus bursae is longer and broader and the corpus bursae bears a single, small, rounded signum. The females of the species of the *mimetica*-line are yet unknown, the distinctive feature of this line is the broad uncus with flattened, lateral appendages ("sails").

The *sacelli*- and the *mimetica*-lines show an allopatric speciation, sympatric occurrence of two species is known only in the easternmost Tien Shan Mts (*sacelli* and *isotima* from the vicinity of Aksu; but *sacelli* and *mimetica* are known from the same region – the Issyk-Kul area –, too). The *tertia*-line is represented by a sole species distributed in the southern part of the Tadjik Pamir.

BIONOMICS

The subgenus, like the other related subgenera, contains late autumnal-early spring species overwintering as imagines. In spite of the most subgenera and species of *Dasypolia* s. l., the males of *Cteïpolia* are often overwintering and fly also in the early spring period.

All species live in the higher montane regions of West and Central Asia, their main habitats are rocky slopes, stream valleys and gorges. The imagines are attracted well to artificial light, appearing in the late night period around the light. The moths often resting rather far from the centre of the illuminated zone and hide in the shadow (in small holes, under or behind stones or larger plants).

The early stages and the foodlants are unknown, their life history is possibly similar to the members of the related subgenera of *Dasypolia*.

DISTRIBUTION

For a long time, the group was considered to be characteristic of the Central Asian high mountains. The discovery of a species in NE Turkey was one of the greatest surprises during the recent exploration of the Noctuidae fauna of Turkey. This fact supports the possibility of the correct labelling of *D. (C.) "murina* MÉNÉTRIES" from the Ural Mts. Therefore, the known area of the subgenus extends from the eastern Tien Shan Mts, throughout the Pamir (?and the Ural Mts) to NE Turkey. The known area is strongly sporadic yet but new discoveries in Iran and the central Asian mountains are highly predictable.

The species appear as highly stenochorous, the only species having a presumably larger area is *D. (C.) sacelli* (recorded from the Issyk-Kul region and from Aksu), all other species are known as typical for a restricted part of an Asian high mount[illegible]

CHECKLIST

genus *Dasypolia* GUENÉE, 1852
  subgenus *Cteïpolia* STAUDINGER, 1896
    type species: *Cteïpolia sacelli* STAUDINGER, 1896
    sacelli (STAUDINGER, 1896)
    isotima (PÜNGELER, 1914)

vera RONKAY et SZABÓKY sp. n.
gansoni RONKAY et NEKRASOV sp. n.
mimetica RONKAY sp. n.
tertia RONKAY et NEKRASOV sp. n.

SYSTEMATIC PART

Identification key for the species by the features of the male genitalia

1 (8) Uncus narrow, bar- or wedge-shaped.
2 (7) Cucullus short, only slightly upturned, distal part of valva shorter or almost as long as proximal part.
3 (4) Harpe short, its distal part more or less straight
vera sp. n.
4 (3) Harpe longer, its distal part recurved.
5 (6) Distal part of valva more elongated, almost as long as proximal part; tip of harpe more curved
sacelli (STAUDINGER)
6 (5) Distal part of valva shorter, broader; tip of harpe less curved
isotima (PÜNGELER)
7 (2) Cucullus much longer, strongly upturned, distal part of valva significantly longer than proximal part
tertia sp. n.
8 (1) Uncus broad, flattened, with well-developed lateral lobes.
9 (10) Basal curve of harpe almost rectangular, with a sclerotized dorsal extension
mimetica sp. n.
10 (9) Harpe regularly curved at base, without dorsal extension at this curve
gansoni sp. n.

Identification key for the species by the features of the female genitalia

1 (6) Corpus bursae with two signa.
2 (3) Signa short, corpus bursae semiglobular
isotima (PÜNGELER)
3 (2) Signa (at least one of them) much longer, corpus bursae elongated (elliptical-sacculiform)
4 (5) Dorsal plate of ostium bursae larger but weaker, signa significantly stronger in sclerotization
vera sp. n.
5 (4) Dorsal plate of ostium bursae smaller but strongly sclerotized, signa weaker, more bar-like
sacelli (STAUDINGER)
6 (1) Corpus bursae with one signum
tertia sp. n.

Females of *gansoni* sp. n. and *mimetica* sp. n. are unknown.

Dasypolia (Cteïpolia) sacelli (STAUDINGER, 1896)
(Figs 1, 2, 16-17, 37)

Cteïpolia sacelli STAUDINGER, 1896: 191.

T y p e m a t e r i a l e x a m i n e d. 5 female syntypes, (Kirgizia), Issyk-Kul. One of them is designated here as lectotype, slide No. 4300 (coll. STAUDINGER, ZMHU Berlin).

A d d i t i o n a l m a t e r i a l e x a m i n e d. Kirgizia: 3 males, 5 females from the same locality (coll. ZMHU Berlin, NHM Vienna and ZS Munich). Kazakhstan (?): 1 male, 1 female, Semiretshye, Naryn, 2140 m, 25.I, 31.III. 1908, leg. DAZENKO (coll. ZIN St. Petersburg). China: Aksu (coll. ZS Munich). S l i d e N o s 5521 VARGA (male), 3156 RONKAY (female).

R e d e s c r i p t i o n. Wingspan 26-30 mm, length of forewing 12-14 mm. The external morphology of the species is given in detail by STAUDINGER in the original description, the figures of the genitalia of both sexes are correctly published by RONKAY, VARGA & BEHOUNEK (1991). The diagnoses of the genitalia and the specific differences compared with the other *Cteïpolia* taxa are given below and under *D. (C.) gansoni* sp. n. – M a l e g e n i t a l i a (Figs 16-17): uncus relatively short, thick, fultura inferior large, upper part broad, more or less quadrangular. Saccular part of valva broad, strongly sclerotized, distal half tapering but relatively wide, more or less straight, cucullus acute. Harpe broad-based, curved, handle- (latch-) shaped; pulvillus rather large, elongated, densely setose. – F e m a l e g e n i t a l i a (Fig. 37): ovipositor long, posterior papillae small, weak, gonapophyses long. Ostium bursae elongated, narrow, sclerotized, ventral plate elongated quadrangular, dorsal plate much smaller, narrow calyculate. Ductus bursae short, tubular, membranous, cervix bursae small, conical, wrinkled. Corpus bursae elongated-sacculiform, signa long, bar-shaped, their length variable.

D i a g n o s i s. The most conspicuous external feature of the species is the elongated, black orbicular stigma fused regularly with the sharp, long black streak of the submedian fold. This sharp black streak can also be found in *D. (C.) isotima* (and rarely in *D. (C.) mimetica* sp. n.) but in case of *isotima* the orbicular stigma is rounded, filled with light grey, therefore the streak is fused with the dark outline of the orbicular. Another difference between the two species is the shape and coloration of the reniform stigma which is blackish, bar-like in *sacelli* (defined with some lighter scales which do not form a sharper annulus) while a large, elliptical spot in *isotima*, encircled with blackish and filled with whitish grey and a blackish central line. The specimens of *sacelli* and *mimetica* are sometimes very similar (especially when the black streak of *mimetica* is extremely long), they can be easily distinguished by the shape of the uncus. The differences in the genitalia are given in the identification keys.

D i s t r i b u t i o n. The species is known from two, rather remote regions of the eastern Tien Shan massif (the Issyk-Kul area and the vicinity of Aksu).

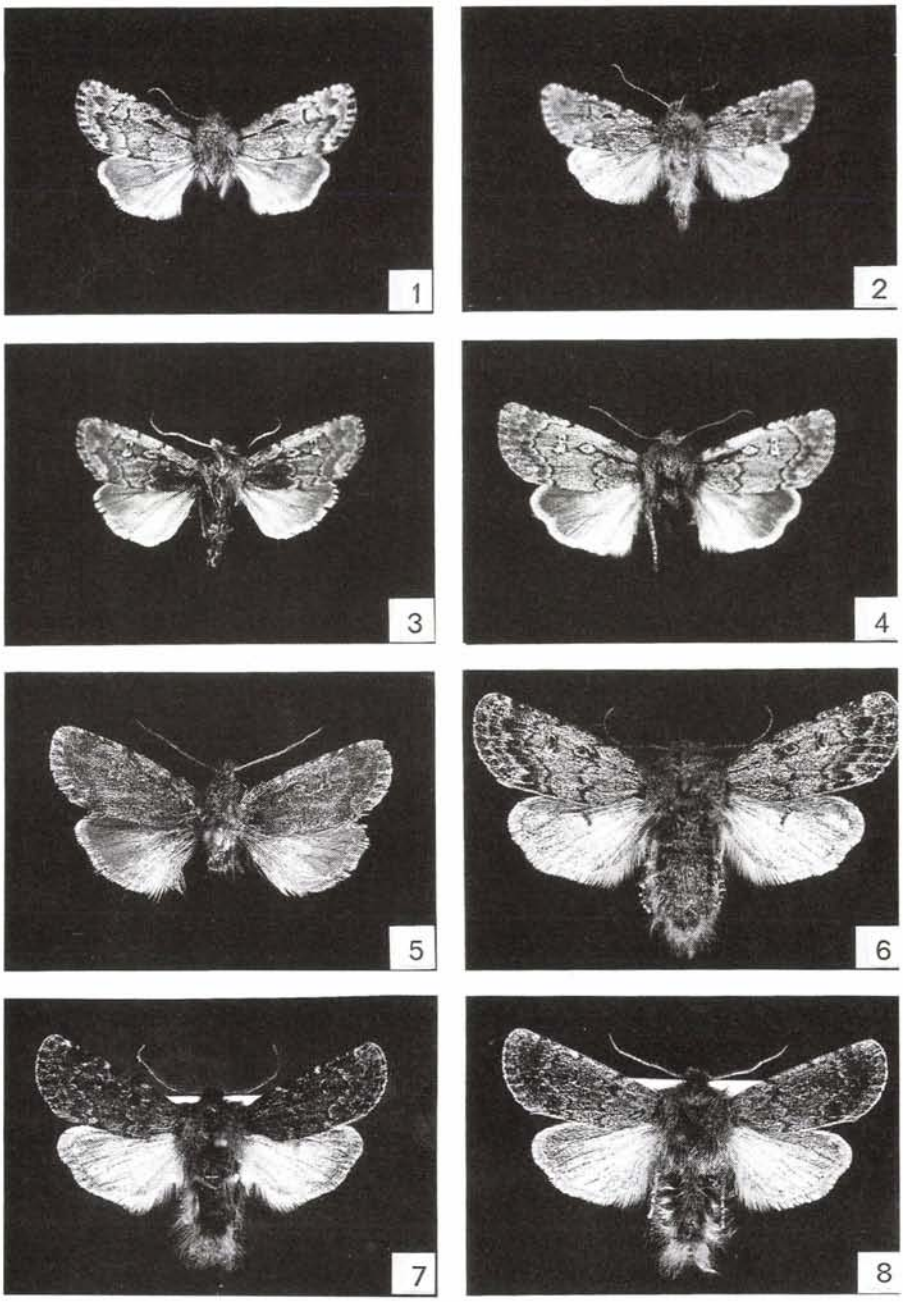
Dasypolia (Cteïpolia) isotima (PÜNGELER, 1914)
(Figs 3, 4, 18-19, 38)

Cteïpolia isotima PÜNGELER, 1914: 41, pl. 2, fig. 11.

T y p e m a t e r i a l e x a m i n e d. Holotype male (designated by PÜNGELER as Type), Tien Shan, Dzharkent, slide No. MB296 BOURSIN (coll. PÜNGELER, ZMHU Berlin); paratype female (designated by PÜNGELER as Cotype), from the same locality, slide No. 4301 RONKAY (coll. PÜNGELER, ZMHU Berlin).

No additional material was found.

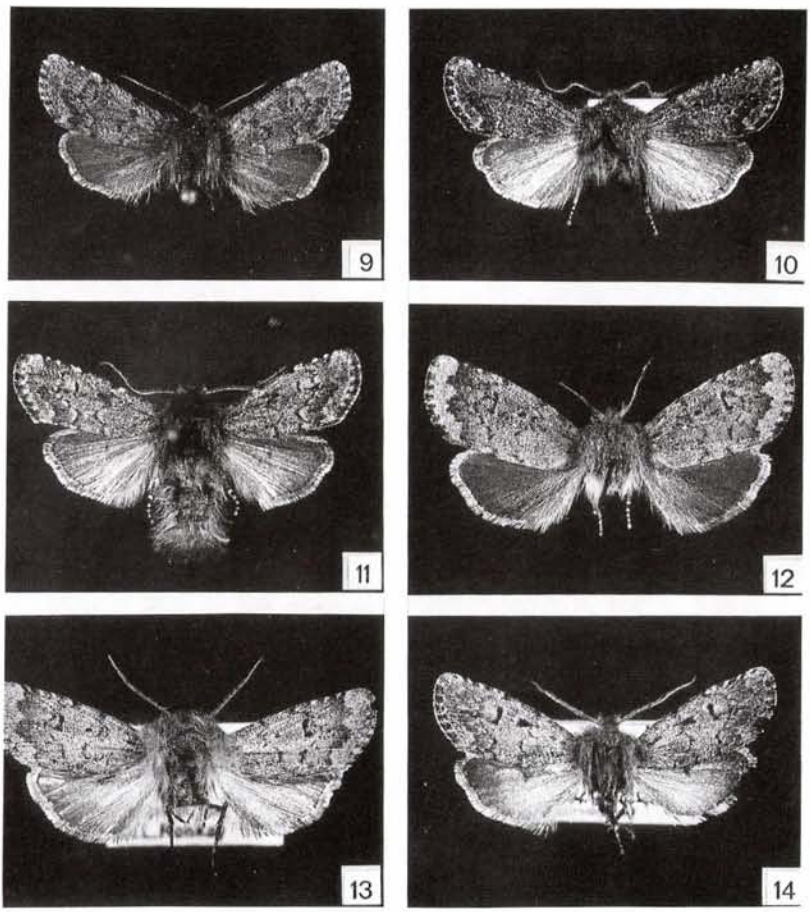
R e d e s c r i p t i o n. The description of the species is satisfactorily made by PÜNGELER in the original description. The figure of the female genitalia published by RONKAY, VARGA & BEHOUNEK (1991) illustrates in fact the female of *D. (C.) tertia* sp. n., therefore the genitalia of *isotima* are yet undescribed. The holotype male was already dissected by BOURSIN, the paratype female, photographed by PÜNGELER, remained intact until our studies. – M a l e g e n i t a l i a (Figs 18-19): uncus narrow, slightly dilated at middle, tegumen low, broad. Fultura inferior broad, shield-like, vinculum short, strong, U-shaped. Valvae strong, more or less triangular, cucullus slightly upturned with apex finely rounded. Sacculus sclerotized, broad, clavus represented by a narrow, flattened, setose surface. Harpe strong, long, curved at base, apical part finely recurved. Aedeagus cylindrical, short, arcuate, carina with fine,



Figs 1-8. 1 = *Dasypolia (Cteïpolia) sacelli* STAUDINGER, lectotype female, Issyk-Kul, 2 = *D. (C.) sacelli*, female, Aksu, 3 = *D. (C.) isotima* PÜNGELER, holotype male, Djarkent, 4 = *D. (C.) isotima* PÜNGELER, paratype female, Djarkent, 5 = *D. (C.)* sp., male, Talassky Alatau, 6 = *D. (C.) vera* sp. n., holotype female, NE Turkey, 7 = *D. (C.) vera* sp. n., paratype male, NE Turkey, 8 = *D. (C.) vera* sp. n., paratype male, NE Turkey

sclerotized bars. Vesica (of the only known male specimen) has not everted. – F e m a l e g e n i t a l i a (Fig. 38): ovipositor long, posterior papillae small, weak, gonapophyses long. Ostium bursae narrow, elongated quadrangular, ventral plate sclerotized, dorsal plate smaller, more or less calyculate. Ductus bursae short, tubular, membranous, cervix bursae small, conical, wrinkled. Corpus bursae semiglobular, signa very short, equal, patch-like.

D i a g n o s i s. *D. (C.) isotima* differs externally from the other species of the subgenus by its well-defined, relatively large orbicular and reniform stigmata encircled with black(ish) and filled with light whitish-grey scales and dark centre, the outline of the orbicular stigma being fused with the sharp, black streak of submedian fold, the combination of these features is typical for this species. The members of the *gansoni-mimetica* and the *tertia*-lines have the stigmata spot and/or bar-like, without sharper outer annuli and/or strong lighter definition, the streak of submedian fold



Figs 9-14. 9 = *Dasypolia (Cteïpolia) gansoni* sp. n., holotype male, Pamir, Khorog, 10 = *D. (C.) mimetica* sp. n., holotype male, Kazakhstan, Issyk, 11 = *D. (C.) mimetica* sp. n., paratype male, Kazakhstan, Issyk, 12 = *D. (C.) tertia* sp. n., holotype female, Pamir, Khorog, 13 = *D. (C.) tertia* sp. n., paratype male, Pamir, Khorog, 14 = *D. (C.) ?tertia* sp. n., female, Pamir, Khorog

is represented by a short blackish line at base of wing. The closest relative of *isotima*, *D. (C.) vera* sp. n., has the stigmata smaller, the lighter filling is absent or much paler and the streak of the submedian fold is significantly shorter, weaker, does not touch the outline of the orbicular stigma. The main differences of the genitalia are given in the identification keys.

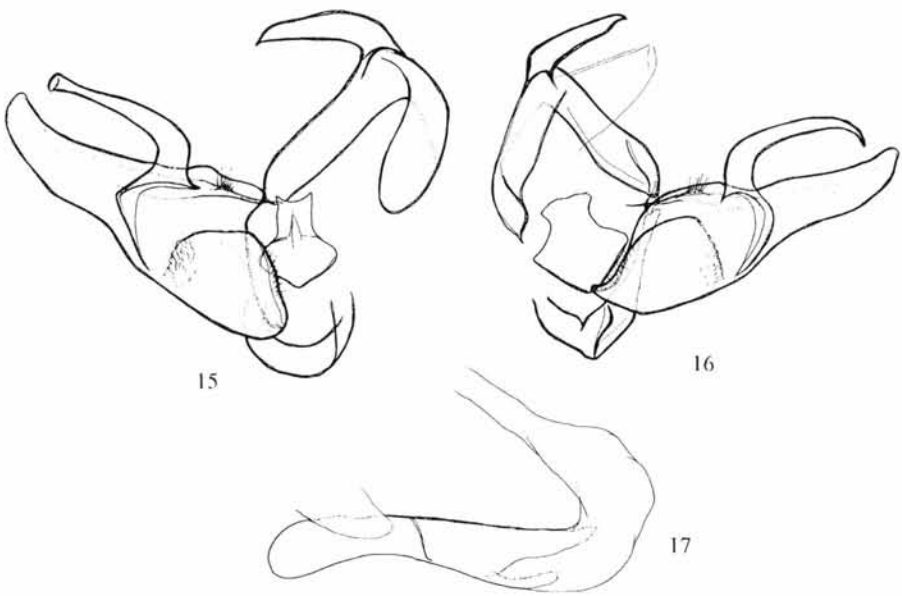
A specimen from Kazakhstan, appearing close to *isotima* (see Fig. 5) represents probably a species distinct from both *sacelli* and *isotima* by some external and genitalic features (see Figs 5, 20-21), but, the authors desisted from describing it on the basis of this single male.

D i s t r i b u t i o n. *D. (C.) isotima* is known from the type locality (vic. Djarkent) only.

Dasypolia (Cteïpolia) vera RONKAY et SZABÓKY, sp. n.
(Figs 6-8, 22-25, 39-40)

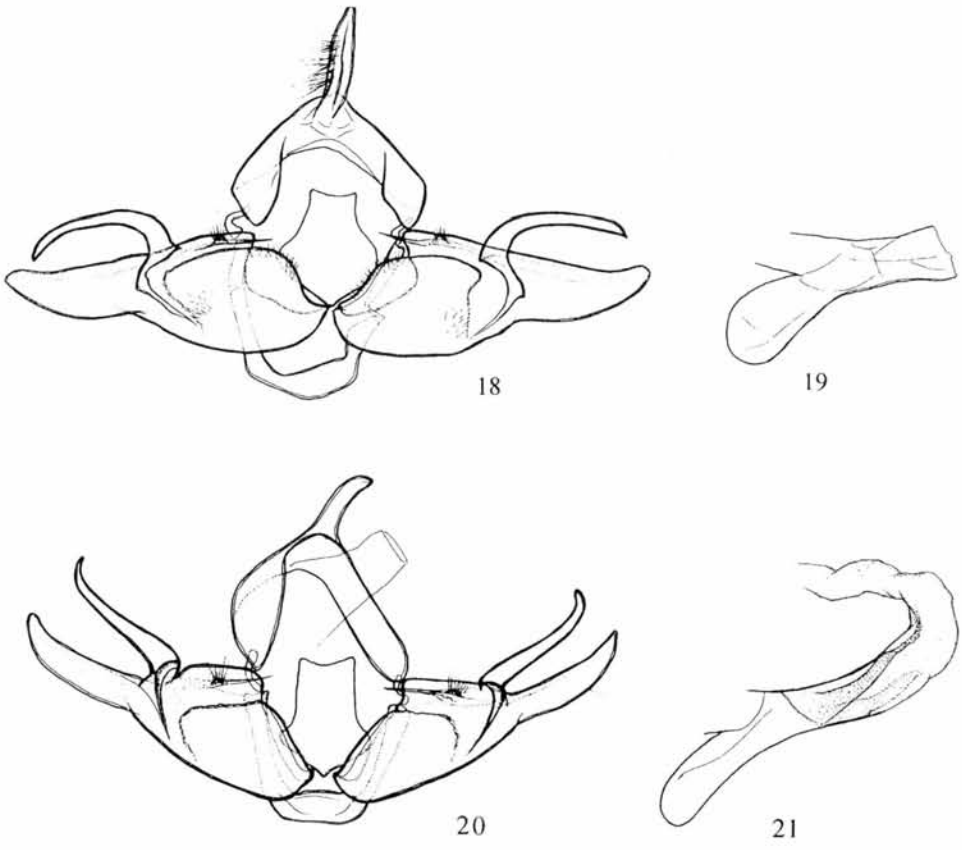
H o l o t y p e: female, Turkey, Prov. Agri, 4 km W of Tahir Gecidi, Sarican, 1800 m, 42° 39'E, 39° 49'N, 19-21.X.1992, leg. M. HREBLAY and G. RONKAY (coll. HNHM). Slide No. 4914 L. RONKAY. – P a r a t y p e s: 8 males from the same locality and data, coll. HNHM, M. HREBLAY and G. RONKAY; 2 females from the same locality; 17.V.1992, leg. & coll. Cs. SZABÓKY and S. SIMONYI; further four males from the same site, 16-17. X.1993, leg. Gy. FÁBIÁN, B. HERCZIG, Gy. M. LÁSZLÓ and K. SZEŐKE (coll. the collectors); 1 male, Turkey, Prov. Erzincan, 5 km S Dalav, 39° 58'E, 39° 45'N, 18.X.1992, leg. M. HREBLAY & G. RONKAY (coll. G. RONKAY); 1 female, Turkey, Prov. Elazig, 30 km S Elazig, Hazar Gölü, 1250 m, 39° 23'E, 38° 40'N, 8-9.IV.1992, leg. M. HREBLAY and T. CSŐVÁRI (coll. M. HREBLAY). S l i d e N o s 3720 HREBLAY, 4507, 4903 RONKAY (males), 4271 RONKAY (female).

D e s c r i p t i o n. Wingspan 26-31 mm, length of forewing 12-14 mm. Pubescence of head and thorax red-brown mixed with darker brown and greyish, abdomen darker brown, sometimes blackish, covered with large, flat brown scales and long, sparse reddish and/or orange hairs. Forewing usually almost unicolorous, its ground colour variable, ochreous or dark reddish brown to blackish brown, irrorated with some dark grey and ash-grey scales; veins often covered with grey. Crosslines sinuous, blackish, defined slightly with ochreous or white-greyish, black streak of submedian fold regularly very short. Orbicular and reniform stigmata small, fine, their outlines often incomplete.



Figs 15-17. Male genitalia of *Dasypolia (Cteïpolia)* spp. 15 = *Dasypolia (C.)* sp. ("*murina* MÉNÉTRIES, Type, Ural"), 16-17 = *D. (C.) sacelli* STAUDINGER, Issyk-Kul, slide No. 5521 VARGA

Orbicular rounded or flattened, represented by a lighter annulus with dark central dot, sometimes fully deleted; reniform always present, narrow, bar- or moon-shaped, encircled with whitish-ochreous (and defined with some darker brown) and filled with blackish. Subterminal a diffuse, ochreous shadow, defined by a broad reddish brown zone between postmedial and subterminal lines. Terminal line a row of blackish spots fused sometimes into a fine, continuous line, terminal area suffused with dark ash-grey; cilia as ground colour, finely spotted. Hindwing shining whitish, irrorated densely with darker grey and brown in costal and marginal areas. Crossline absent, discal spot long, oblique, bar-like; terminal line brown, cilia greyish or orange-brown. Underside of wings whitish with strong greasy shine, forewing strongly, hindwing slightly irrorated with darker grey scales. Crossline present on both wings as a diffuse, darker shadow, discal spots fine, pale or obsolescent on forewings, large, sharpe, lunulate on hindwings. – M a l e g e n i t a l i a (Figs 22-25): uncus narrow, tegumen very low, broad, fultura inferior more or less shield-like, vinculum short, U-shaped. Valva short, triangular, distal part short but broad, cucullus slightly upturned with apex finely pointed. Sacculus short, clavus a narrow, setose surface, pulvillus small, flattened. Harpe strong, curved at base, distal part rather short, more or less straight, apically slightly upturned with tip rounded. Aedeagus short, arcuate, bars of carina long, fine. Vesica tubular, narrow at base, recurved dorsally at basal third. – F e m a l e g e n i t a l i a (Figs 39-40): ovipositor long, posterior papillae weakly sclerotized, papillae anales long. Ostium bursae elongated, sclerotized, ventral plate large, quadrangular with rounded edges, dorsal plate smaller, weaker, its margins less defined. Ductus bursae narrow, tubular, membranous, cervix bursae small, conical, finely wrinkled. Corpus bursae elongated-sacculiform, signa strong, broad, inequal, one of them about twice as long as second one.



Figs 18-21. Male genitalia of *Dasypolia (Cteïpolia)* spp. 18-19 = *D. (C.) isotima* PÜNGELER, holotype, Djarkent, slide No. MB296 BOURSIN, 20-21 = *D. (C.)* sp., Talassky Alatau, slide No. 4082 RONKAY

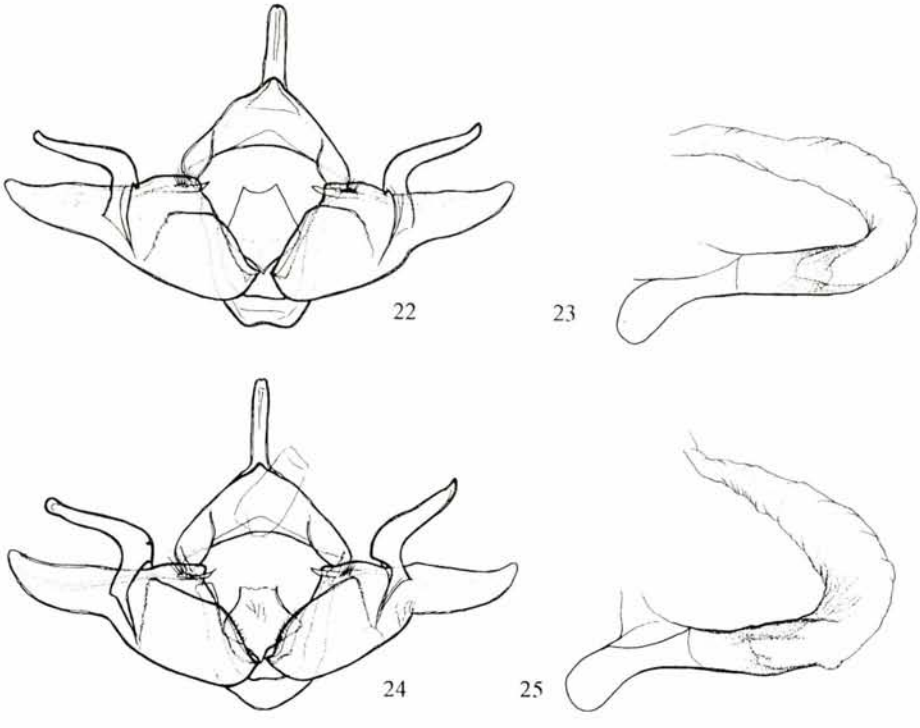
D i a g n o s i s. The new species is closely related to *isotima*, the external differences are discussed under the diagnosis of the preceding species. The male genitalia are also very similar but the whole apparatus of *vera* is smaller, the distal part of the valva is shorter and the harpe is also shorter with more or less straight posterior half. In the female genitalia *isotima* has the dorsal plate of the ostium bursae smaller but more defined and the signa much shorter and weaker and are equal in size.

D i s t r i b u t i o n. The new species is known only from the eastern-northeastern parts of Turkey from the vicinity of the Hazar Lake to the Tahir gorge in the Karasu-Aras Mts.

Dasypolia (Cteïpolia) gansoni RONKAY et NEKRASOV, sp. n.
(Figs 9, 30-31)

H o l o t y p e: male, Tadjikistan, Pamir, Khorog, Botanical Garden, 2800 m, 20-21.X.1989, leg. ZAPRYAGAEV. S l i d e N o. 4081 RONKAY. Deposited in coll. NEKRASOV (Moscow).

D e s c r i p t i o n. Wingspan 26 mm, length of forewing 12 mm. Head and thorax dark fumous grey, mixed with some whitish grey hairs; antennae of male bipectinate with relatively long, fine cilia. Forewing dark grey with some ochreous shade and fine lighter greyish irroration. Crosslines sinuous, rather diffuse, dark grey defined with some lighter scales, streak of submedian fold less conspicuous. Orbicular stigma obsolete, a very pale ochreous ring with somewhat darker centre, reniform a short, small blackish-grey spot defined partly by a fine, lighter annulus. Subterminal obsolescent, an interrupted ochreous shadow defined by a dark brown-grey zone at inner side. Terminal line fine, continuous, blackish grey, cilia ochreous, spotted with darker grey. Hindwing whitish, suffused strongly with darker grey, crossline absent, discal spot strong, slightly lunulate. Terminal line blackish grey, cilia whitish mixed with grey scales. Underside of forewing darker grey-brown, costa irrorated with whitish. Crossline very pale, stronger at costal margin, discal spot less visible, small, rounded. Hindwing whitish, irrorated densely with darker grey,



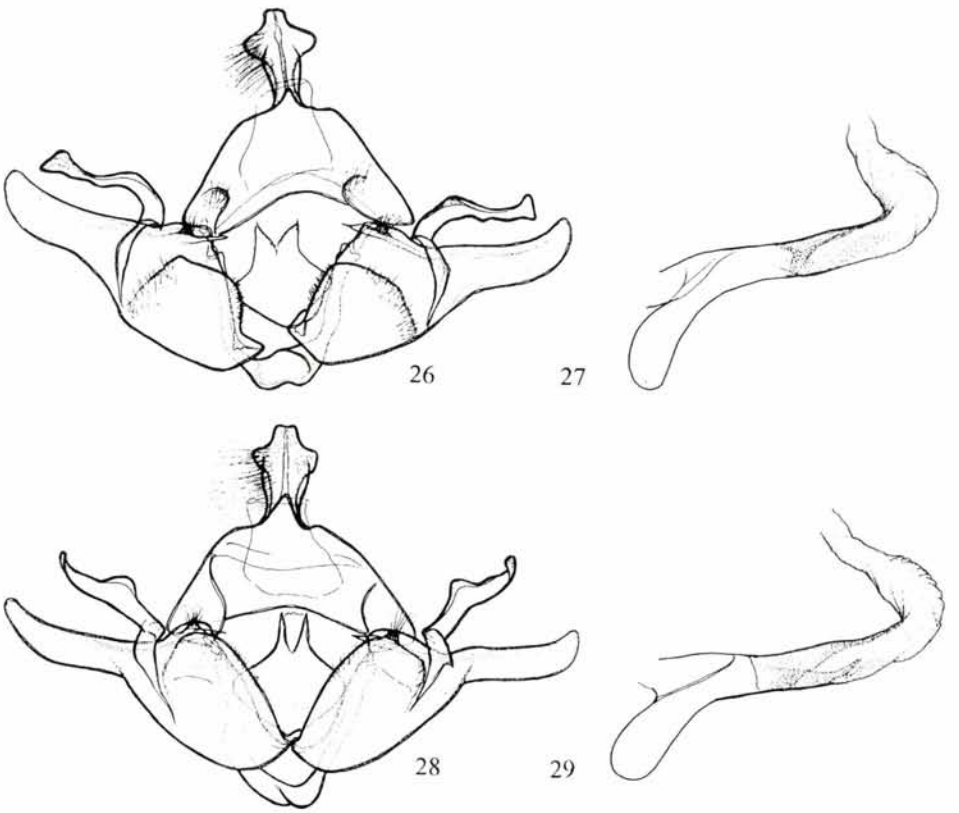
Figs 22-25. Male genitalia of *Dasypolia (Cteïpolia) vera* sp. n., paratypes, NE Turkey, 22-23 = slide No. 4903 RONKAY, 24-25 = slide No. 4507 RONKAY

discal spot strong, dark grey. – M a l e g e n i t a l i a (Figs 30-31): uncus strong, flattened, with large lateral lobes ("sailed uncus"), tegumen low, broad, penicular lobes small, rounded. Fultura inferior a cordiform plate with double-peaked apical part, vinculum very short. Valva strong, distal part tapering but relatively broad, cucullus slightly upturned. Sacculus large, rounded, sclerotized, pulvillus a small, rounded, setose protuberance. Harpe strong, proximal part regularly curved, distal part narrow, flattened, apex slightly dilated and rounded. Aedeagus narrow cylindrical, medially slightly curved, carina with granulosely sclerotized bars. Vesica simple, tubular, membranous, recurved dorsally at proximal third.

D i a g n o s i s. The two species of the *gansoni-mimetica* line resemble *sacelli* in their small, blackish orbicular stigma without larger outer annulus and the rather short, narrow forewings, but regularly easily separable by the lack of the sharp black streak of submedian fold fused regularly with orbicular stigma in *sacelli*. One of the paratypes of *mimetica* has the black streak as long and strong as the typical specimens of *sacelli*, therefore a study of the genitalia (e.g. the uncus!) is necessary for correct identification. The synapomorphy of this line is the characteristic, broad, flattened uncus bearing rounded lateral lobes ("sailed uncus"), this feature can be recognized without dissecting the specimens but only brushing the hairs and scales of the caudal edge of the last tergite. The specific differences of the siblings of this line are given under *D. (C.) mimetica*.

D i s t r i b u t i o n. The species is known from the type locality only.

R e m a r k s. The species is dedicated to Mr. V. A. GANSON.

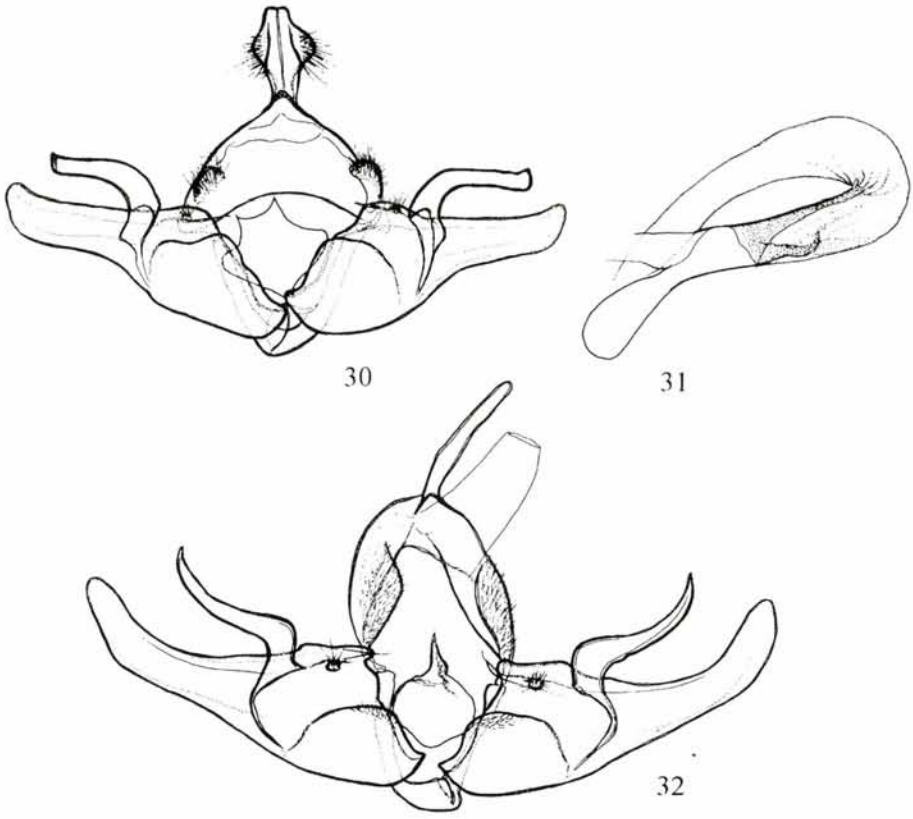


Figs 26-29. Male genitalia of *Dasypolia (Cteïpolia) mimetica* sp. n., Kazakhstan, Issyk, 26-27 = holotype, slide No. 4901 RONKAY, 28-29 = paratype, slide No. 4902 RONKAY

Dasypolia (Cteïpolia) mimetica RONKAY sp. n.
(Figs 10, 11, 26-29)

H o l o t y p e: male, "Kazakhstan, Prov. Almaty, Zailisky Alatau Mts, 15 km S Issyk, Issyk Lake, 1750-2000 m, 3-4.X.1994, leg. GY. FÁBIÁN and GY. M. LÁSZLÓ. Slide No. 4901 RONKAY. Deposited in coll. FÁBIÁN (Budapest). – P a r a t y p e s: Kazakhstan: 3 males from the same data, (coll. HNHM Budapest, GY. FÁBIÁN and G. RONKAY); Kirgizia: Naryn Mts, 2400 m, 20.X.1993, leg. SINIAEV (coll. P. GYULAI). S l i d e N o. 4902 RONKAY (male).

D e s c r i p t i o n. Wingspan 26-29 mm, length of forewing 11-13 mm. Head and thorax dark grey mixed with some whitish-ochreous, abdomen with long ochreous or orange-greyish hairs. Forewing dark slate-grey or brown-grey, irrorated with pale ochreous and red-brownish scales. Streak of submedian fold black, regularly sharp but short, in one case much longer, conjoined with orbicular stigma. Crosslines rather diffuse, sinuous, darker grey defined with ochreous grey. Orbicular and reniform stigmata small, sharp, black, orbicular often flattened, elongated, reniform short, comma- or moon-shaped. Subterminal strongly sinuous, defined by a dark red-brown zone inside and by lighter terminal area on outer side. Terminal line interrupted, blackish grey, cilia brownish, spotted with darker scales. Hindwing whitish, strongly suffused with grey-brown. Crossline absent, discal spot sharp, short. Terminal line dark grey, cilia whitish, outer half brownish. Underside shining whitish, forewing covered with grey, crossline very pale but visible, discal spot small. Hindwing irrorated with dark grey, crossline absent, discal spot sharply defined. – M a l e g e n i t a l i a (Figs 26-29): uncus strong, flattened, tapering to base, lateral lobes large, rounded, densely setose. Tegumen low, broad, penicular lobes relatively big. Fultura inferior large, sclerotized,



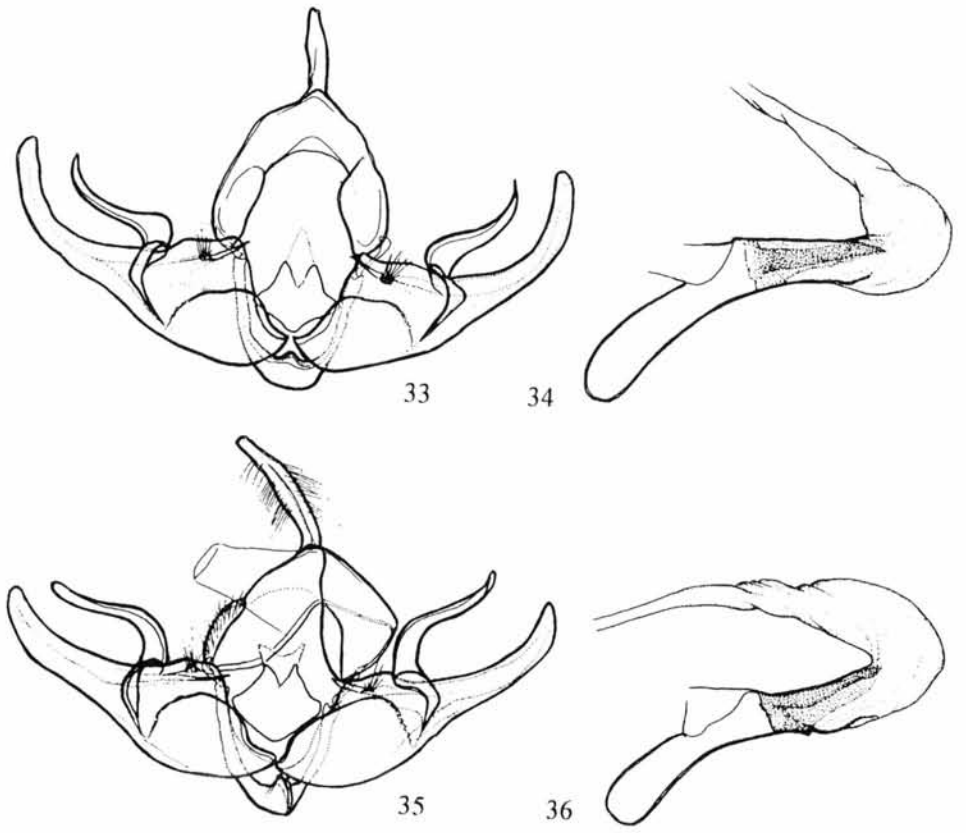
Figs 30-32. Male genitalia of *Dasypolia (Cteïpolia)* spp. 30-31 = *D. (C.) gansoni* sp. n., holotype, Pamir, Khorog, slide NO. 4081 RONKAY, 32 = *D. (C.) ?tertia*, Pamir, Khorog, slide No. 4018 RONKAY

rounded deltoidal with double-peaked apical part; vinculum strong, U-shaped. Valva strong, broad at base, distal half strongly tapering, cucullus finely upturned. Sacculus large, rounded, sclerotized, clavus a flattened, setose surface; pulvillus relatively large, more or less conical, densely setose. Harpe strong, basal curve more or less rectangular (elbow-like) with a sclerotized dorsal extension, distal part narrow, flattened, apically dilated. Aedeagus narrow cylidrical, curved at middle, carina with finely scobinate bars. Vesica tubular, membranous, curved dorsally at basal third.

D i a g n o s i s. The twin species of this lineage, *gansoni* sp. n. and *mimetica* sp. n. differ by the following external and genitalic features:

gansoni sp. n.:

- forewing ground colour darker fumous grey mixed with some dark brown-grey and ashy grey
- orbicular stigma obsolete, represented by a few dark scales defined by a small lighter patch
- coloration of hindwing darker, almost unicolorous dark grey with some lighter hairs at base
- clasping apparatus generally smaller
- fultura inferior smaller, its shape more cordiform
- harpe regularly curved at base, without dorsal extension at curve

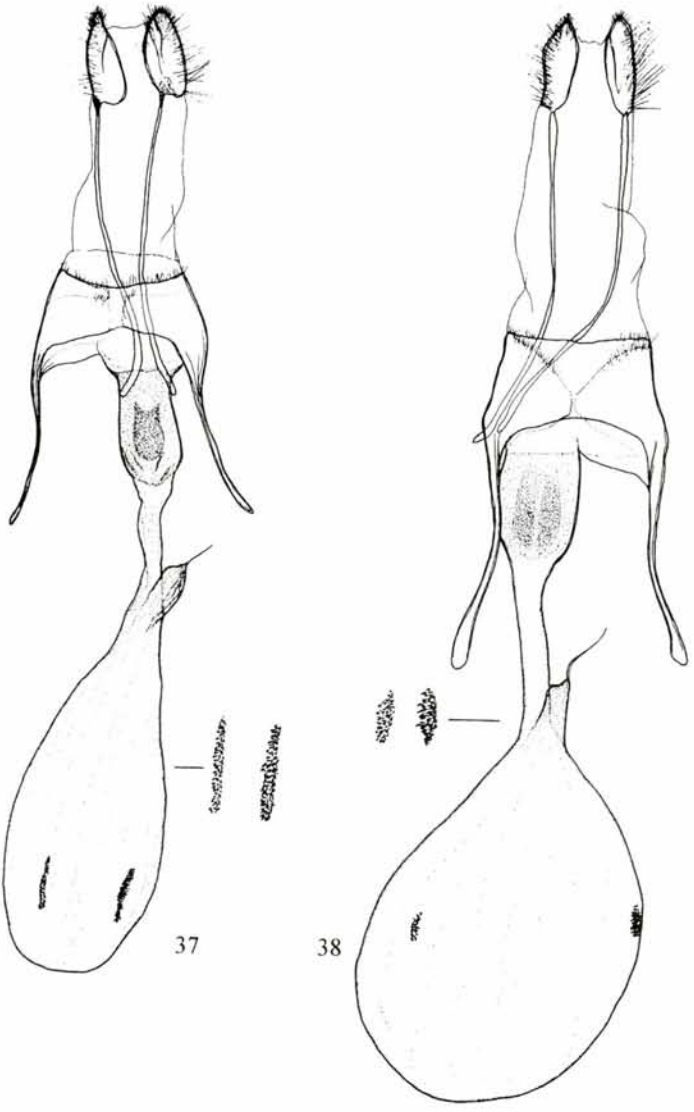


Figs 33-36. Male genitalia of *Dasypolia (Cteïpolia) tertia* sp. n., paratypes, Pamir, Khorog, 33-34 = slide No. 4080, 35-36 = slide No. 4090 RONKAY

- distal part of valva broader
- pulvillus smaller
- vesica completely recurved

mimetica sp. n.:

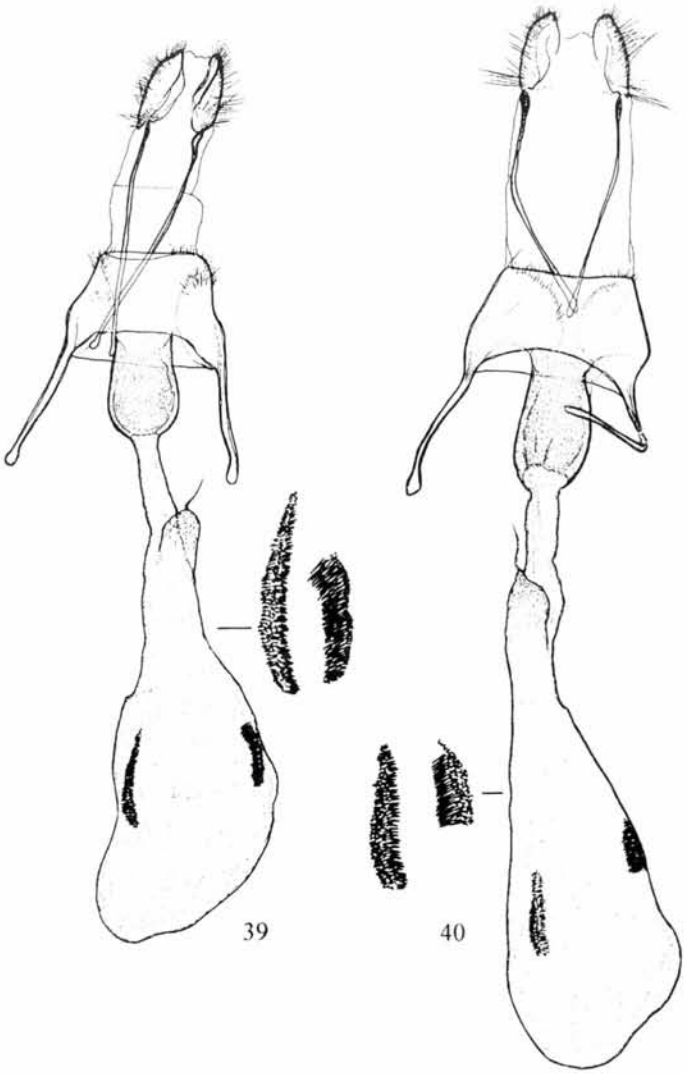
- forewing ground colour lighter, brownish or brown-grey mixed with some darker brown and ochreous grey
- orbicular stigma oblique, flattened, black(ish)



Figs 37-38. Female genitalia of *Dasypolia (Cteïpolia)* spp. 37 = *D. (C.) sacelli* STAUDINGER, lectotype, Issyk-Kul, slide No. 4300 RONKAY, 38 = *D. (C.) isotima* PÜNGELER, paratype, Djarkent, slide No. 4301 RONKAY (signa in larger magnification)

- coloration of hindwing lighter, whitish inner area larger, marginal suffusion grey-brownish.
- clasping apparatus generally larger in size
- fultura inferior larger, lower part more quadrangular
- basal curve of harpe almost rectangular, with a sclerotized dorsal extension
- distal part of valva narrower
- pulvillus somewhat larger, more conical
- vesica upturned dorsally at base but not recurved

Distribution. *D. (C.) mimetica* is known from the central part of the Tien Shan massif, close to the Issyk-Kul area.



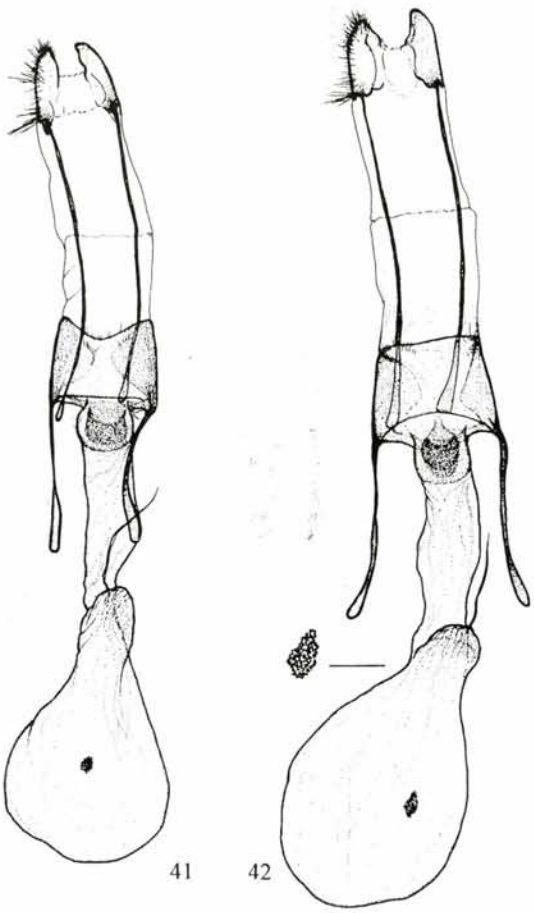
Figs 39-40. Female genitalia of *Dasypolia (Cteïpolia) vera* sp. n., NE Turkey.
39 = holotype, slide No. 4914 RONKAY, 40 = paratype, slide No. 4271 RONKAY (signa in larger magnification)

R e m a r k s. The type locality "15 km S Issyk, Issyk lake" is not identical with the lake Issyk-Kul (Kirgizia), it is a much smaller lake north to Issyk-Kul in the northern side of the Zailisky Alatau in Kazakhstan.

Dasypolia (Cteïpolia) tertia RONKAY et NEKRASOV sp. n.
(Figs 12-13, 33-36, 41-42)

H o l o t y p e: female, Tadjikistan, Pamir, Khorog, Botanical Garden, 2300 m, 28.IV.1989, leg. ZAPRYAGAEV. Slide No. 4110 RONKAY. Deposited in coll. HNHM. – P a r a t y p e s: a series of males and females from the same locality (coll. ZIN St. Petersburg, HNHM, G. BEHOUNEK, A.V. NEKRASOV and G. RONKAY). S l i d e N o s 4080, 4090 RONKAY (males), 3157 RONKAY (female).

D e s c r i p t i o n. Wingspan 32-36 mm, length of forewing 13-17 mm. Head, thorax and forewings light ochreous-grey, pubescence of thorax mixed with darker grey, that of abdomen with light ochreous hairs; forewing with fine darker brownish and whitish-grey irroration. Antennae of male shortly biserrate, with short cilia, those of



Figs 41-42. Female genitalia of *Dasypolia (Cteïpolia) tertia* sp. n., Pamir, Khorog. 41 = holotype, slide No. 4110 RONKAY, 42 = paratype, slide No. 3157 RONKAY (signa in larger magnification)

female thin, filiform, covered with short scales and short, sparse cilia. Forewing rather broad, streak of submedian fold short, sharp, dark grey. Crosslines rather diffuse, sinuous, dark greyish, veins covered with grey at postmedial line. Orbicular and reniform stigmata well-defined, dark grey, often with lighter annuli, orbicular small, round, reniform long, comma- or moon-shaped. Subterminal sinuous, pale, defined mostly by darker inner and much lighter outer parts of marginal area. Terminal line a row of blackish spots, cilia ochreous, spotted with brown. Hindwing rather broad, almost unicolorous grey-brown, inner third of wing only slightly lighter, more ochreous. Crossline absent, discal spot visible but less sharp, rounded or lunulate; cilia ochreous. Underside greasy ochreous, suffused variably strongly with grey-brown, crossline absent or very pale, discal spots strong, long. – M a l e g e n i t a l i a (Figs 33-36): uncus relatively long, narrow, slightly curved, tegumen rather high, less broad, penicular lobes narrow, long. Fultura inferior subrectangular, apical part incised, sometimes with stronger dorsal extension; vinculum short, broad, U-shaped. Valva long, medial part strongly tapering, cucullus long, curved, slightly dilated near apex. Sacculus short, low, clavus represented by some setae, pulvillus small, globular, densely setose. Harpe long, apically tapering, upturned dorsally. Aedeagus cylindrical, short, arcuate, sclerotized bars of carina long. Vesica tubular, recurved dorsally, basal third somewhat broadened. – F e m a l e g e n i t a l i a (Figs 41-42): ovipositor very long, posterior papillae weak, gonapophyses very long, fine. Ostium bursae narrow, sclerotized, dorsal plate smaller, rounded, more or less drop-shaped, ventral plate subrectangular. Ductus bursae long, membranous, cervix bursae short, conical, finely wrinkled. Corpus bursae rather short, semiglobular, weak, with a single, small, more or less rounded signum.

D i a g n o s i s. *D. (C.) tertia* represents a distinct line within the subgenus, characterized by some external and genitalic features as follows: imagines larger in size with forewings broader, uncus rather long, narrow, valvae more elongated, cuculli strongly upturned, vesica broadened at basal third, ovipositor very long, ostium bursae short, ductus bursae much longer, corpus bursae semiglobular, bearing only one signum.

D i s t r i b u t i o n. The species is known from the vicinity of the Botanical Garden in Khorog, Tadjik Pamir Mts.

R e m a r k s. A specimen with some differences in the external morphology and the male genitalia (see Figs 14, 35) represents probably a species distinct from *tertia*. The external differences are rather large (smaller in size, coloration of both wings darker, stigmata larger, sharper) but those are slight in the genitalia (only the apical part of the fultura inferior is different). Further such material, including the female, would be necessary to decide whether this specimen is an extreme form of *tertia* or a sympatric sibling species. It should be noted that the series of *tertia* studied is rather homogeneous in the external features mentioned above, but, on the other hand, this would be the first and only case of sympatric speciation within the same line of the subgenus.

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