#### POLSKA AKADEMIA NAUK INSTYTUT ZOOLOGICZNY, ODDZIAŁ W KRAKOWIE

# A C T A Z O O L O G I C A C R A C O V I E N S I A

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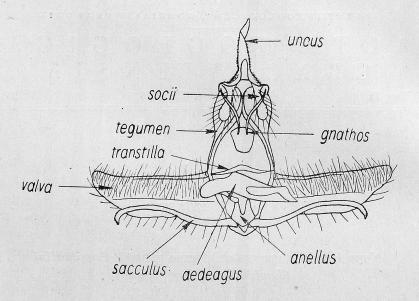
Nowe i malo znane palearktyczne gatunki Cnephasiini (Lepidoptera, Tortricidae)

Новые и мало известные палеарктические виды рода Cnephasiini (Lepidoptera, Tortricidae)

New and little known Palaearctic species of the genus Cnephasiini (Lepidoptera, Tortricidae)

[Pl. LIII—LXII]

In 1955, I received from the Zoologisches Museum der Humboldt Universität zu Berlin a large collection of Tortricidae of the Cnephasiini, and was asked to identify it. While working on the collection, I came across a number of new and little known species described in the following. Only two of the forms dealt with in this paper do not come from the collection referred to. To avoid confusion, I quote the names of parts of male and female genital armature. Instead of the name "huitième tergite", used by ADAMCZEWSKI (1936) I introduce lamella subgenitalis and instead of "plaque génitale", by the same author, I introduce the term lamella antevaginalis. Fig. A and fig. B represent male and female genitalia respectively.



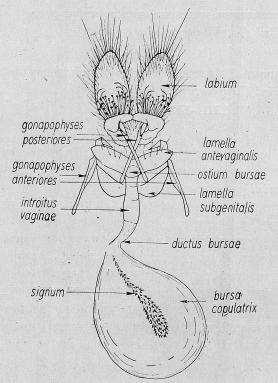


Fig. A. Male genital armature of *Cnephasia* Curt., schematically.

Fig. B. Female genital armature of *Cnephasia* Curt., schematically.

Cnephasia (Anoplocnephasia) margelanensis spec. nov. ♀. [Pl. LIII fig. 1, pl. LX fig. 45]

Costal margin of fore wing almost straight slightly curved at the base. Apex rounded and outer margin markedly oblique. Background of fore wings grey-white, slightly brighter on the outer part. Alar base slightly infuscated and separated from the rest of the wing by a distinct, grey-brown band. At the middle of the alar width, the band is strongly bent; it is less distinct at the posterior margin of the wing. Median band with a distinct inner margin, arched inwards, while the outer margin not clearly set off against the background. Spot at the costal margin of the wing indistinct and almost blending with the background. Below the outer margin a narrow greybrown stripe, as if underlined by a sequence of minute black dots. Entire wing, background as well as pattern, delicately transversely striate. Besides, there are distinct blackish dots on the margins of the pattern. Hind wings grey-brownish at the peripheries and considerably brighter, more grey, towards the base. Cilia slightly brighter than the background of the wings. Head and thorax grey-brown. Length of fore wing 7 mm.

Female genitalia. Proximal margin of eight tergite distinctly concave, subgenital plate at the proximal margin rounded and convex while distal margin concave similarly as in *Cnephasia longana* (HAW.). Ductus bursae fairly long and slender, introitus vaginae transparent. Bursa copulatrix somewhat elongated. Signum exceeding in length half of the bursa copulatrix, its terminal part consisting of three rows of spikes. Gonapophyses, particularly the posterior ones, long.

Hitherto, four females of the species are known; according to the structure of the female genitalia and on evidence of external characters, I place the species in the subgenus *Anoplocnephasia* RÉAL.

All specimens come from the locality Margelan, situated in the southern part of the Uzbek Socialist Republic, in the Fergana valley.

Holotype (female): "Margelan, 24/6". Prep. Nr.: T. 5116.

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Paratypes (3 females): "Margelan 8/6", Prep. Nr.: T. 5117, "Margelan [18] 80 Hbh. [Haberhauer]" Prep. Nr.: T. 5131, "Margelan", Prep. Nr.: 5132.

### Cnephasia (Anoplocnephasia) facetana Kenn. [Pl. LIII, fig. 2]

The collection of the Zoologisches Museum der Humboldt Universität zu Berlin includes a type of this species. N. FILI-PIEV examined its genitalia, but the preparation is lost. The specimen is merely labelled: "tristrami Wlsch., N. Fil.". A photograph of the type of Cnephasia facetana Kenn. is given on plate ... fig. 2.

### Cnephasia (Anoplocnephasia) personatana K<sub>ENN</sub>. [Pl. LIII, fig. 3]

The preparation of the genitalia is missing. It is, therefore, uncertain whether the species belongs to the subgenus *Anoplocnephasia* Réal and I include it in the subgenus morely on evidence of the external appearance of the species.

## Cnephasia (Anoplocnephasia) sedana (Const.) [Pl. LIII, fig. 4]

This species varies considerably in external appearance. A number of species are held by Filipiev as synonyms or as subspecies of *C. sedana* (Const.). Filipiev placed *Cnephasia agathana* Kenn. (1921), having examined the genitalia of the type, among the synonyms of *C. sedana* (Const.). I studied a set of specimens of *C. agathana* Kenn. and arrived at the conclusion that it is a distinct geographic form, closely allied to *C. sedana* (Const.). On base of external characters and slight differences in the structure of the male genital armature I consider it as a separate subspecies.

### Cnephasia (Anoplocnephasia) stachi spec. nov. [Pl. LIII, fig. 5, pl. LVII, fig. 29, pl. LX, fig. 46]

Fore wings narrow and long, costal margin almost straight, apex slightly rounded. Background of wings white. Pattern yellowish, here and there with a darker suffusion. Coloration of the alar base slightly paler than the pattern. Cilia of the colour of the background. Hind wings whitish-yellow, darker at the peripheries. Cilia white. Head whitish, thorax somewhat darker. Underside of fore wings considerably darker than in the hind wings. Length of fore wing in males 8 mm, in females about 10 mm.

Male genitalia. Valvae narrow and elongated, sacculus extending more or less to the middle of the length of the valva. Uneus long. Aedeagus slightly longer than sacculus, apically pointed.

Female genitalia. Gonapophyses long, ends of lamella antevaginalis pointed, introitus vaginae wide. Ductus bursae shorter than signum.

The species is closely related to *Cnephasia sedana* (Const.) and to *C. terebrana* (Ams.). The differences concern shape and coloration of the wings and the structure of genitalia. Only the male copulatory organ is known in *Cnephasia terebrana* (Ams.). Aedeagus of that species resembles very much that of the newly described species.

Holotype: male, "Samarkand", Prep. Nr.: T. 5118. Allotype: female, "Samarkand", Prep. Nr.: T. 5115.

### Cnephasia (Anoplocnephasia) orientana (Alph.) [Pl. LIII, fig. 6, pl. LVII, fig. 30, pl. LV, fig. 47]

Hitherto, illustrations of the genitalia of the species have not been published and I therefore include them in this paper. *Cnephasia orientana* (ALPH.) varies in external appearance, with regard to both size and coloration of the fore-wings. The yellow-brown pattern of fore wings varies in shape and intensity and disappears occasionally. Genitalia of males also differ, particularly with regard to size. On account of the structure of male genitalia I include the species in the subgenus

Anoplocnephasia RÉAL. In females, the structure of genitalia is somewhat different than in other representatives of this subgenus.

### Eana (Eana) hungariae spec. nov. d. [Pl. LIII, fig. 7, pl. LVII, fig. 31]

In the collection of the Zoologisches Museum der Humboldt Universität zu Berlin there is one specimen labelled: "vas. hungariae Kindermann". In external appearance the specimen resembles Eana penziana (Thnbg.), but is more pale. The background in the fore wings is pure white, the pattern indistinct consisting of a band at the alar base, of a medial band and of a scattered design at the apex. The median band is the most distinct component of the pattern. The colour of the design is more or less evenly grey-yellow all over. Under the outer margin there is a row of indistinct yellowish-grey spots. The coloration of cilia is the same as that of the background. Hind wings are also pale, whitish-yellow, with similarly coloured cilia. Palpi, head and thorax of the same colour as the background in the fore wings; the abdomen slightly darker.

Male genitalia of the species in question are similar as in *Eana canescana* (GUEN.); the differences being the far protruding free ends of sacculus and the shorter aedeagus in the new species. Genitalia of a male specimen of *Eana canescana* (GUEN.) are reproduced for comparison.

Holotype: male, [?Hungary], Prep. Nr.: T. 5048.

## Eana (Eana) samarcandae spec. nov. ô. [Pl. LIV, fig. 8, pl. LVII, fig. 33]

The species very similar in coloration to Cnephasia chrysantheana (Dup.).

Costal margin of the fore-wings strongly arched outwards, particularly at the base. The margin is slightly emarginate about the middle of the length of the wing. Apex slightly rounded and the outer margin convex. The hind wings are trape-

zoidal with slightly rounded margins. The background more or less evenly grey-brownish all over the surface of the forewings. The area near the base slightly darker than the rest of the wing and bounded by a dark brown, black-margined band. The band is the most distinct component part of the pattern. At about the middle of the width of the wing, the band is strongly bent, pointing towards the outer margin of the wing. Median band less distinct than the former one and is a more yellowish brown. Its outer margin darker outlined, while the outer one, similarly to the pattern on the outer margin of the wing, is weakly set off against the background. The outer margin more darkly marginate. The coloration of the cilia is more or less the same as that of the background of the wings. The hind wings grey-brown with a slight vellowish tint and with slightly paler cilia. Palpi, head and thorax somewhat darker than the background of the fore wings. Length of the fore-wing 8,5 mm.

Male genitalia. Valvae wide and tapering from the place on where the sacculus is attached. Uncus long and not impressed into tegumen. Socii short, gnathos thin. Transtilla has the shape of a plate markedly convex at the centre. Sacculus very characteristic. It extends up to about 2/3 of the length of the valva to which it is attached on that length. The free end directed downwards outside of the apparatus. Aedeagus almost straight and slightly longer than sacculus. Anellus plate broad, vinculum narrow. The apparatus is poorly covered with hairs.

Holotype: male, "Samarcand, 1/6", Prep. Nr.: T. 5152.

## Eana (Eana) pallifrons spec. nov. &. [Pl. LIV, fig. 9, pl. LVII, fig. 34]

This is a typical representative of the subgenus *Eana* BILB., closely related to *Eana viardi* RÉAL described from the Alps.

Fore wings have an evenly and slightly curved costal margin, apex pointed, outer margin oblique. Background in the fore wings grey-whitish with a slight, seemingly bluish tint. The pattern is grey-brown and consists of a band at the

alar base, most distinct and strongly bent at the middle of length, of a median band and of a design, least distinct, on the outer part of the wing. The bands do not extend further than to the middle of the width of the wing and are most distinct at the costal margin. The median band is reduced at the inner margin to an inconspicuous spot. A delicate transverse striation extends over the entire background in the wing and there are additional somewhat larger spots at the edges of the pattern. Under the outer margin there is a row of black dots. The coloration of the cilia is the same as that of the background of the wings. The hind wings pale, whitish, with a tinge of grey. The coloration of the cilia is the same as that of the wings. Head, frons in particular, brighter than thorax which is grey brown.

Length of the fore-wing 8 mm.

Réal says (1953), while describing Eana viardi Réal, that the species resembles in external appearance C. derivana (Lah.). As regards male genitalia, Eana pallifrons spec. nov. bears greater resemblance to the species described by Réal. Here, the differences consist in the size of the organ, and in the length of uncus and of the free ends of sacculus protruding from the apparatus. Aedeagus entirely smooth, without the small and broad spine attached at the end of the aedeagus in Eana viardi Réal.

Holotype: male, "Urga" [Ulan-Bator, Mongolia], Prep. Nr.: T. 5101.

#### Cnephasia (Cnephasia) tyrrhaenica Ams.

In external appearance the species resembles very much Neosphaleroptera nubilana (HBN.), but differs considerably in the structure of genitalia. In 1951, Réal described also a species resembling N. nubilana (HBN.) under the name Cnephasia ecullyana Réal. In appearance the species described by Réal differs somewhat from Cnephasia tyrrhaenica AMS., however, the differences are so slight that they ought to be regarded as individual. Both male and female genitalia of the two species are identical. I examined the types of both species: Cnephasia tyrrhaenica AMS., male, "Porto Santoru, Sardegna or.

8 VI 1936, H. G. AMSEL, G. U.: 133. Typus", female: the same locality and date, "G. U. 132; Paratypus". *Cnephasia ecullyana* RÉAL, male, "Ecully (Rl.) 10 VI 1922, coll. CLEU, 511, type, prép. RÉAL.".

# Cnephasia (Cnephasiella) incertana (Treitsch.) [Pl. LX, fig. 50]

Variability within the species is notable, particularly as regards external appearance. As to genitalia, variability is limited in males while in females it is more pronounced. Only more extensive studies will make it possible to assess correctly whether *Cnephasia incertana* (Treitsch.) is divided into numerous subspecies or whether the variability of the species is determined morely by individual aberrations. With regard to external variability already several variations are known; they differ in the size and shape of the wings, in coloration and design. Further below I describe three new forms.

### Cnephasia incertana f. proincertana f. nov. ♀. [Pl. LV, fig. 10, pl. LX, fig. 48]

A characteristic external feature of specimens belonging to this variety are the narrow forewings. Hind wings dark at the periphery while distinctly paler at the base. The female genitalia have a very small and narrow signum.

All specimens come from the mountainous districts of Algeria.

Holotype: female, "Prov. d'Oran", Prep. Nr.: T. 5134. Paratypes: 2 females, "Teniet el Haad", [Algeria]; "Prov. d'Alger, Teniet al Haad, DE VAULOGER".

### Cnephasia incertana f. atticana f. nov. ♀. [Pl. LIV, fig. 11]

Two specimens, very pale, milky-grey, uniformly coloured like *Cnephasia abrasana* (Dup.) from Greece.

Holotype: female, "Attica 16 IV 1867". Paratype: female, "Attica [18] 67".

### Cnephasia incertana f. bergüniana f. nov. .

The specimen resembles very much Cnephasia chrysantheana (DUP). Fore wings long and of a more or less even width. Length of the fore wing 9 mm. Background dark, brown-grey, the pattern fairly distinct, much darker than the background. Female genitalia large, gonapophyses longer than in the typical specimens while ductus bursae is shorter. Female genitalia of a typical specimen are reproduced for comparison.

Holotype: female, "Bergün, Helvetia 7 VII 1872". The specimen is in the collection of the Institute of Zoology of the Polish Academy of Sciences in Warszawa.

Cnephasia incertana (Treitsch.) ia swidely distributed species. The collection of the Zoologisches Museum der Humboldt Universität zu Berlin includes a number of specimens from the Caucasus and from the Ural.

### Cnephasia (Cnephasia) hellenica Obr. [Pl. LIV, fig. 13, 14, pl. LVIII, fig. 35]

Greece (1950) the species OBRAZTSOV described from Cnephasia hellenica OBR., hitherto known from one specimen only. I found in SAUDINGER's collection (Berlin) six further specimens of the species, and, therefore, I should like to supplement the description given by Obraztsov. The pattern on the fore wings indistinct, or, as in two of the specimens examined, disappears even entirely. Analogically to the type described by Obraztsov, the coloration of the specimens is pale, but the small black dots are missing. There is an intensive infuscation in the forewings of some further specimens. Two specimens resemble very much Cnephasia pumicana (ZELL.), one of them bearing a distinct pattern in the form of a median and a basal band. The pattern is brown-yellow. The outer part of the wing has a pronounced transverse striation. Coloration of the thorax resembles that of the pattern, while in the remaining specimens it is like that of the background of the wings. The hind wings more or less dark.

Obraztsov's reproduction of the male copulatory apparatus is distorted. The preparation was not unfolded. Therefore, I reproduce an unfolded prepartion which reveals certain details more clearly. A small thorn like appendix attached to the sacculus at a point slightly less than half-way of its length, constitutes a very characteristic feature of the male copulatory organs in *Cnephasia hellenica* Obr. The position of this appendix may vary depending on the pressure exerted on the preparation by the cover-glass. It may protrude from the ventral margin of the valva or lie on it. Subterminally, on the ventral margin of the aedeagus, there is a flattened appendix.

All the specimens discussed are males. This species has been hitherto known from Greece. The specimens investigated by me come from the following localities: "Amasia (19/6)", "Syrat (12/5)" and "San Ildefonso (18/6)" [Spain].

### Cnephasia (Cnephasia) kenneli Obr. [Pl. LV, fig. 15, pl. LVIII, fig. 36]

A regards genitalia, the species resembles very much Cnephasia gueneana (Dup.) but differs from it considerably in external appearance. A detailed description and a coloured reproduction are included in Kennel's monograph of palaearctic Tortricidae (1921) and I therefore present herewith merely a description of genitalia which has not been quoted thus far.

Uncus of about the same length as in *Cnephasia hellenica* Obr.; valva with an almost straight dorsal margin, tapering markedly towards the pointed ends. Sacculus extends over slightly more than 2/3 of the length of valva. Aedeagus narrow slightly bent and terminally pointed. Transtilla is also characteristic, owing to the strongly dilated central part. Socii broad.

### Cnephasia (Cnephasia) nowickii spec. nov. ♀. [Pl. LV, fig. 16, pl. LXII, fig. 55]

The background the fore wings whitish-grey, much paler in the outer part. The pattern brown and it consists of a band at the alar base, of a median band, somewhat wider at the middle of its length, and of a considerable infuscation in the outer part of the wing. Hind wings grey-brown. Cilia pale, whitish. Head and thorax pale, grey-brown. Fore wing 11 mm long.

Labii of the female genitalia are very large and elongated. Lamella subgenitalis is at the proximal margin somewhat concave. Lamella antevaginalis very narrow and both ends of it are very long and pointed. A delicate dentation is visible in the ostium bursae. Introitus vaginae is transparent and grows only slightly wider. Ductus bursae slender and fairly long; bursa copulatrix oval.

This species comes from Mongolia and was determined as *Sciaphila wahlbomiana* (L.). I named it to the honour of the late Professor M. Nowicki, Nestor of Polish entomology.

Holotype: female, "Uliassetai" [Mongolia], Prep. Nr.: T. 5110.

#### Cnephasia (Cnephasia) cinareana Chret. [Pl. LV, fig. 17, 18, pl. LVIII, fig. 37, pl. LXI, fig. 51]

Cnephasia pulmonariana Réal described in 1953 is a synonym of Cnephasia cinareana Chrét. In the description of the new species by Réal there is merely a brief reference to the similarity between the species and the one mentioned before as well as the description of the male genitalia. I found five male specimens and one female, all very much alike; after I received the paratype of the species described by Chrétien, I was convinced that C. pulmonariana Réal is a synonym of C. cinareana Chrét. To avoid further confusion I quote a more detailed description and reproductions of the genitalia of Cnephasia cinareana Chrét.

The species resembles in shape a large specimen of *Cnephasia chrysantheana* (Dup.) The fore wing is long (10—12 mm). The costal margin of the fore wings is in males less, in females more, convexly curved. The background is in these wings grey-yellowish, more or less dark. The pattern is pronounced and more brown. The alar base infuscated and separated from the median part by a band. The median band is wide and

with an uneven margin. At the alar apex there is an infuscation in the shape of a spot and there are infuscations under the outer margin. Cilia are about the same colour as the background of the wings. Hind wings pale, grey-brown. Coloration in the females more intensive than in the males. Background of the hind wings is somewhat darker and the pattern more distinct, brown. There is a dark, transverse striation in the hind wings. Head and thorax are not much paler than the pattern on the fore wings.

Male genitalia are described by RÉAL (1953) and I present merely a reproduction of these.

Female genitalia (unknown heretofore) resemble those of *Cnephasia constantinana* spec. nov. Genitalia are arge, lamella antevaginalis strongly emarginate on the distal side. Edges of the emargination are provided with single hairs. Introitus vaginae slightly sclerosed, sclerosis assuming towards terminally the end the shape of a ring. Ductus bursae slender and long. Bursa copulatrix very large, oval. It is provided with a signum extending almost over its entire length. Anterior and posterior gonapophyses about equal in length.

### Cnephasia (Cnephasia) heringi spec. nov. 3. [Pl. LV, Fig. 19, 20, pl. LVIII, fig. 38, pl. LXII, fig. 58]

This species is somewhat similar to *Cnephasia hellenica* OBR. in its habitus. Costal margin of the fore wings weakly arcuate, the curvature being most distinct at the alar base. Outer margin oblique. Background in this pair of wings pale, white-grey. The band at the alar base narrow but distinct, while the other one, cutting across the centre, exceeds it several times in width and is wider in the middle and at the margins of the wings. Pattern on the outer part of the wings less distinct. There are distinct black dots all over the background and pattern. Coloration of the cilia is almost identical with that of the background. The second pair of wings pale, grey, with a slight admixture of brown. Head and thorax of the same coloration as the background in the fore wings.

Wings in the female slightly narrowed and their costal margin at the alar base more distinctly bent. Coloration of the median band more intensive. Length of the fore wing about 8 mm.

A characteristic feature of the male genitalia is the short sacculus with a marked terminal swelling covered with small hairs. Uncus long and pointed. Aedeagus markedly bent and tapering towards the end; at the apex it is provided with several inconspicuous spikes. Vinculum wide, socii well developed.

Labii of the female genital organs are markedly developed and the gonapophyses long. Lamella subgenitalis narrow and concave at the proximal margin. Lamella antevaginalis also fairly narrow and has a slightly concave distal margin. Introitus vaginae distinctly sclerosed and not much shorter than the ductus bursae. Genital pouch rounded and has a fairly large signum composed of two rows of sharp spikes.

Holotype: male, "Amasia", Prep. Nr.: T. 5037.

Allotype: female, "Amasia 23/6", Prep. Nr.: T. 5039.

Paratypes: two males, "Amasia", Prep. Nr.: T. 5025, and "Mardin", Prep. Nr.: T. 5133.

Cnephasia heringi spec. nov. were labelled as C. incertana (Treit.) or as C. abrasana (Dup.).

I named the species to the honour of Professor Dr. M. HERING to whom I am very much indebted for making available the material which I studied.

## Cnephasia (Cnephasia) constantinana spec. nov. (C. osthelderi Obr. ?)

[Pl. LV, fig. 21, pl. LVll, fig. 30, pl. LXl, fig. 52]

N. Obraztsov (1950) described *Cnephasia osthelderi* Obr. (Filipiev in litt.) and reproduced its male and female copulatory organs. In S. Toll's collection I found specimens of *C. osthelderi* Obr., obtained from Osthelder, on which Filipiev's description was based in part.

However, the description has not been published. Female genitalia match with the reproduction published by Obraztsov, but male genitalia are different. However, the name *C. osthelderi* Obr. should refer to the specimen from Marasch, Prep. No. M. 591 as holotype, while the female quoted by Obraztsov should be regarded as a seperate species. Holotype of *Cnephasia osthelderi* Obr. differs from the male of the new species

first and foremost in the structure of the sacculus. The latter extends in C. osthelderi Obr. over slightly more than 2/3 of the length of the valva and its free end protrudes only slightly beyond the margin of the valva. In the new species it is very long and is attached to the valva over almost the entire length of the latter, and its free end is similarly formed as in C. genitalana P. & M. and protrudes far beyond the valva. The shape of the valva is also somewhat different. Even assuming the differences in the shape of the valvae to be the results of deformations caused while the preparation was made, measurements of the sacculus'length and of the two margins of the valvae (i. e. the ventral and caudal margins) would convince us of considerable differences between the two species. In Cnephasia virgaureana (TREIT.) we are confronted with variations in the length of the sacculus, but then, certain characteristic features, e.g., the shape of the free ends, remain unchanged. The structure of the aedeagus is a constant character in this group. In C. osthelderi OBR., the aedeagus is differently built, namely, the basal part is dilated and rounded and the end very pointed. In the new species, the basal part is strongly bent but not dilated. Aedeagus is gradually and evenly bent. It is more or less equally wide over the entire length. Aedeagus to uncus length ratio is in C. osthelderi Obr. 2, 4 and in the new species 1, 4. Furthermore there are differences in the shape of transtilla, gnathos and socii.

It has been already mentioned that the female genitalia were reproduced in the work by Obraztsov as belonging to a female of *C. osthelderi* Obr.

I name the species Cnephasia constantinana spec. nov.

Habitus as described by Obraztsov. The species is variable, there are pale as well as distinctly dark specimens. Pattern usually well discernible.

Holotype: male, "Constantine", Prep. Nr.: T. 5125.

Allotype: female, "Marasch 6/5 [18] 84 Man.", Prep. Nr.: T. 5140.

Paratypes: "Constantine, Zack.", Prep. Nr.: T. 5189  $\cite{1}$ , "Mardin", Prep. Nr.: T. 5144  $\cite{1}$ , "Marasch, Syria sept. Taurus mer. 700—1100 m. 31, coll. Osthelder  $\cite{1}$ .

Cnephasia (Cnephasia) alfacarana spec. nov. [Pl. LVl, fig. 22, pl. LVll, fig. 40, pl. LXl, fig. 53]

The species is closely related to *Cnephasia osthelderi* Obr. The fore wings bear greatest resemblance to those in *Cnephasia communana* (H.-S.), in females they are slightly shorter. Background in the wings grey with a whitish or brownish shade. Pattern much darker and distinct. Hindwings as in *C. communana* (H.-S.). Length of the fore wings is in the holotype 10 mm, and in the allotype about 8 mm.

The male copulatory organs resemble very much those in *C. osthelderi* OBR. However, uncus in the new species distinctly longer; sacculus extends over not much more than half of the length of the valva; its free end does not hang down and is short. Aedeagus bent merely in the basal part, further on it is almost straight and of a more or less even width.

Female genitalia. Labia large and broad. Gonapophyses posteriores longer than the gonapophyses anteriores. Lamella subgenitalis fairly broad, and slightly bent in at the proximal margin. Lamella antevaginalis narrow, somewhat similar in shape as in *C. communana* (H.-S.), but broader and does not form with the introitus vaginae a three-branched symmetrical rosetta. Distal margin is deeply notched. Introitus vaginae distinctly sclerosed. Its margins are more or less parallel and pass without tapering into the ductus bursae. Ductus is slightly longer than the signum consisting of fairly short plurifarious spikes. Bursa copulatrix oval.

Holotype: male, "Sierra de Alfacar [Spain] 17/6", Prep. Nr.: T. 5198.

Allotype: female, "Sierra de Alfacar", Prep. Nr.: T. 5196. Paratype: male, "Sierra de Alfacar 15/6", Prep. Nr.: T. 5190.

Cnephasia (Cnephasia) microstrigana spec. nov. [Pl. LVl, fig. 24, 25, pl. LlX, fig. 41, pl. LXll, fig. 56]

Similarly to the preceding species it comes from Spain. Already at the very first sight it is distinct in shape and coloration of fore wings. As regards genitalia, it is closely related to *Cnephasia alticolana* (H.-S.). (Compare pl. LIX, fig. 42).

Fore wings grow gradually broader towards the apex. Costal margin evenly convexly arcuate. Outer margin slightly convex and forms with the costal margin an angle of about 60°. Wings in the females much more narrow and the outer margin much more inclined.

The background of the fore wings grey-brownish, slightly brighter suffused. The whole of a rusty shade. Pale suffusion somewhat denser in the area under the outer margin. Pattern not very well discernible on this background; it is of the same colour as the background, but more intensive. This inconspicuous pattern comprises an obfuscation at the alar base, a median band and a spot at the apex. These elements may merge in some places. Most distinct is in the pattern, between the venation, a still darker, length-wise striation. Cilia paler than the pattern. Second pair of wings about the same in colour as the fore wings, but slightly brighter. Cilia are not distinctly set off against the background. Head, thorax and abdomen about the same in colour as the fore wings. Coloration in females more intensive than in males, though one of the female specimens examined has the coloration of a male and broad wings. Length of the fore wings in the holotype 9 mm and in the allotype 8 mm. Average is 8 mm.

Male genitalia. Uncus slender and long, terminally pointed. Valvae are somewhat different in shape than in *C. alticolana* (H.-S.); they are more rounded and grow wider towards the end. Sacculus long and its free end reaches up to the end of the valva.

Aedeagus similar in the shape as in *C. alticolana* (H.-S.), but is much more slender and, at the end of the dorsal margin, the process is delicately dentate. Since the notch is more pronounced than in the related species, the shape of the aedeagus may vary, within certain limits, owing to twisting or constriction. Socii slender.

Females have broad labia and their gonapophyses are longer than in C. alticolana (H.-S.). Lamella subgenitalis has

at the middle of the distal margin a slight convexity. Introitus vaginae strongly sclerosed and long. There is a drop-shaped signum on the bursa copulatrix.

Holotype: male, "Sn. Ildefonso [Spain]", Prep. Nr.: T. 5006. Allotype: female, "Sn. Ildefonso", Prep. Nr.: T. 5016.

Paratypes: (6 males and 2 females) all labelled identically "Sn. Ildefonso".

#### Cnephasia (Cnephasia) cupressivorana (Stgr.)

Cnephasia cupressivorana (Stgr.) was described as a variety of Sciaphila wahlbomiana (L.). The species was again described by Obraztsov (1950) and by Réal (1951).

Obr., and quoted Cnephasia cupressivorana Kenn. (nec Stgr.) as a synonym. This is, however, impossible since Kennel's reproduction of male genitalia is entirely different than that presented by Obraztsov. Filiplev was right in that he recognized C. cupressivorana Kenn. as identical with C. sedana (Const.). The reproduction of male genitalia resembles genitalia of C. cupressivorana (Stgr.) but is somewhat indistinct. Habitus of C. apeninicola Obr. is unlike that of typical C. cupressivorana (Stgr.), but I have seen a number of specimens, similar in coloration, which made up an entire sequence of intermediate forms leading to the typical ones.

Neither is *Cnephasia orthoxyana* RÉAL a seperate species. I found no major differences in male as well as female genital organs as compared to *Cnephasia cupressivorana* (Stgr.). I obtained types of *Cnephasia orthoxyana* RÉAL from the Société Linnéenne de Lyon. These specimens are somewhat different in shape than the typical *C. cupressivorana* (Stgr.). Shape of the fore wings was in males slightly different, while there were no such differences in females. Geographical distribution quoted by RÉAL matches with that of *C. cupressivorana* (Stgr.).

As lectotype of *Cnephasia cupressivorana* (Stgr.) I chose the specimen labelled: "Graecia", paratype: "Brussia". Both specimens are in the collection of the Zoologisches Museum der Humboldt Universität zu Berlin.

### Cnephasia (Cnephasia) parnassicola spec. nov. [Pl. LVI, fig. 25, pl. LIX, fig. 43, pl. LXII, fig. 59]

Wings a light grey, slightly darker at the base. Pattern consists of a parabasal and a median bands and of a spot at the alar apex. Inner margin of the median band markedly bent. Pattern is dark-grey of a slight brownish shade; at the peripheries of the pattern there are black dots. The second pair of wings grey-brown, with similarly coloured cilia. Palpi and thorax of the same colour as the pattern on the fore wings. In females the pattern is more distinct than in males, and the background of the fore wings is brighter. Length of the fore wings 10,5 mm.

Male genitalia very much like those in *Cnephasia cummu-nana* (H.-S.). There are slight differences in the proportions of the aedeagus, and in the structure of sacculus and uncus.

As regards female genitalia, ductus bursae is much less sclerosed and signum is considerably smaller than in *C. communana* (H.-S.).

Holotype: male, "Parnass".

Allotype: female, "Graecia". Both specimens are in the author's collection.

### Cnephasia (Cnephasia) cinereipalpana spec. nov. [Pl. LVI, fig. 27, 28, pl. LXII, fig. 57]

This species is related to *Cnephasia chrysantheana* (Dup.). The group includes also *C. anatolica* Obr. and *C. hispanica* Obr. The species are very much alike as regards both external appearance and copulatory organs. Those hitherto known are from Europe and from Asia Minor; *Cnephasia cinereipalpana* sp. nov. lives in North-east Asia, in Vladivostok.

On the fore wings the background is bright, grey with a brown-yellowish or bluish shade in females or males respectively. Costal margin is in males less convex. Outer margin more oblique than in *Cnephasia chrysantheana* (Dup.). Pattern grey-brown. The band at the alar base does not touch the inner margin. Median band is the most distinct element of the pattern. In the external portion of the wing the pattern

is not very distinct and includes small spots. Cilia are not much paler than the background of the wings. The second pair of wings grey-brown, darker at the copulatory than at the alar base. Cilia pale. Head and thorax are of the same colour as the pattern of the fore-wings. Palpi are grey, pale, particularly on the inner side. Fore wings are 8—11 mm long.

Male genitalia: they are similar to the copulatory organs of the proceding species. Valvae are narrow and have uneven margins. Dorsal margin characteristically bent. Sacculus is slender and extends over more or less 2/3 of the length of the valva. Uncus long and pointed. Socii are short. Aedeagus slender and markedly curved.

Females have a broad lamella antevaginalis which is concave at the middle of the distal margin. Introitus vaginae markedly dilated butless sclerosed than in *Cnephasia chrysantheana* (Dup.). (Obraztsov omitted the female genitalia of the two species he described). Ductus bursae fairly short, bursa copulatrix is ovoid and has a long signum. Gonapophyses, especially the posterior ones, are long.

Holotype: male, "Wladiwostock, 77 Chr. W.", Prep. Nr.: T. 5111.

Allotype: female, "Wladiwostock 17 CHR.", Prep. Nr.: T. 5160.

Paratypes: (all labelled analogically) Prep. Nr.: T. 5100, T. 5112, T. 5159, T. 5161.

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#### STRESZCZENIE

W niniejszej pracy autor opisuje następujące gatunki i formy Cnephasiini.: C. margelanensis sp. nov., C. stachi sp. nov., E. hungariae sp. nov., E. samarcandae sp. nov., E. pallifrons sp. nov., C. incertana f. proincertana f. nov., f. atticana f. nov., f. bergüniana f. nov., C. nowickii sp. nov., C. heringi sp. nov., C. constantinana sp. nov., C. alfacarana sp. nov., C. microstrigana sp. nov., C. parnassicola sp. nov., C. cinereipalpana sp. nov.

Poza tym autor omawia kilka interesujących gatunków, a mianowicie: C. facetana Kenn., C. personatana Kenn., C. sedana ssp. agathana Kenn., C. orientana (Alph.), C. tyrrhaenica Ams., C. hellenica Obr., C. kenneli Obr., C. cinareana Chrét., oraz C. cupressivorana (Stgr.).

**РЕЗЮМЕ** 

В настоящей работе автор описывает следующие новые виды и формы рода *Cnephasiini*.: *C. margelanensis* sp. nov., *C. stachi* sp. nov., *E. hungariae* sp. nov., *E. samarcandae* 

sp. nov., E. pallifrons sp. nov., C. incertana f. proincertana f. nov., f. atticana f. nov., f. bergüniana f. nov., C. nowickii sp. nov., C. heringi sp. nov., C. constantinana sp. nov., C. alfacarana sp. nov., C. microstrigana sp. nov., C. parnassicola sp. nov., C. cinereipalpana sp. nov.

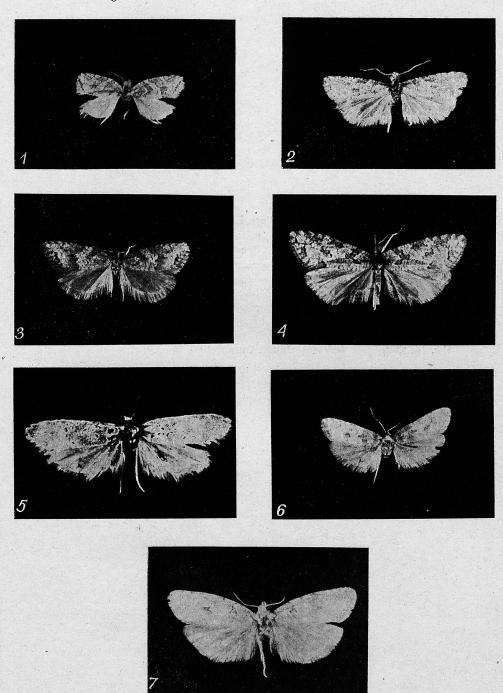
584

Затем автор рассматривает несколько более интересных видов, а именно: C. facetana Kenn., C. personatana Kenn., C. sedana ssp. agathana Kenn., C. orientana (Alph.), C. tyrrhaenica Ams., C. hellenica Obr., C. kenneli Obr. C. cinarcana (Chrét.), и C. cupressivorana (Stgr.).

#### PLATES

#### Plate LIII

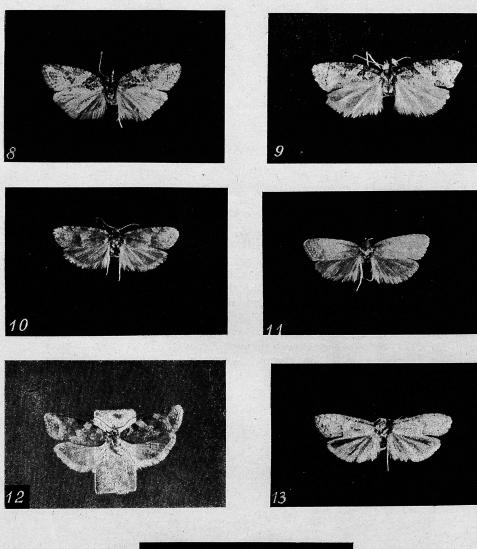
- Fig. 1. Unephasia margelanensis sp. nov. "Margelan, 8/6", Paratypes.
- Fig. 2. Cnephasia facetana Kenn. "Jordanth[al], P. Eigentum, Collection Staudinger Type".
- Fig. 3. Cnephasia personatana Kenn. "28/5 11, Amur sup. 31, Origin, Eigentum, Collection Staudinger.
- Fig. 4. Cnephasia sedana ssp. agathana Kenn. Juldus, 501, Collection Bang-Haas. Typus".
- Fig. 5. Cnephasia stachi sp. nov. "Samarkand, 81 Hbh" [Haberhauer], Holotype.
- Fig. 6. Cnephasia orientana (Alph.) "Rossia m. Sarepta, Stgr. 1889".
- Fig. 7. Eana hungariae sp. nov. "var. hungariae Kindermann", Holotype.
- Fig. 8. Eana samarcandae sp. nov. "Samarcand 1/6", Holotype.



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#### Plate LIV

- Fig. 9. Eana pallifrons sp. nov. "Urga", Holotype.
- Fig. 10. Cnephasia incertana f. proincertana f. nov. "Prov. d'Oran 94. V. de B". Holotype.
- Fig. 11. Cnephasia incertana f. atticana f. nov. "Attica 67." Paratype.
- Fig. 12. Cnephasia incertana f. bergüniana f. nov. "Bergün, Helvetia 7/7 1872". Holotype.
- Fig. 13. Cnephasia hellenica Obr. "S[an] Ildefonso 18/6".
- Fig. 14. Cnephasia hellenica OBR. "Amasia 19/6 75 m.".

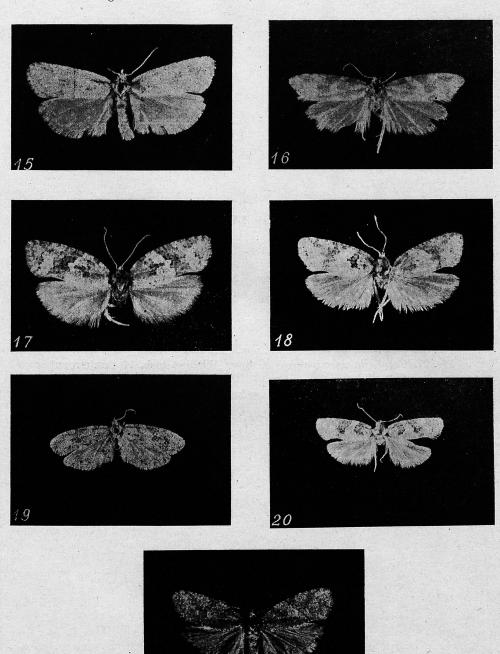




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#### Plate LV

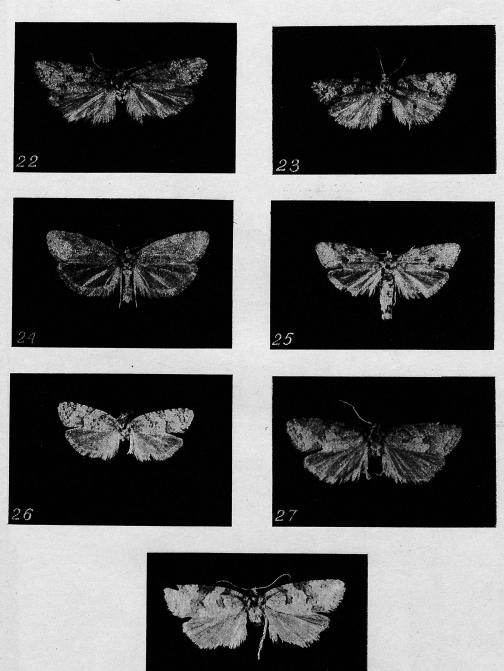
- Fig. 15. Cnephasia kenneli Obr. "Eibes 94, Origin, Eigentum Collection Staudinger".
- Fig. 16. Cnephasia nowickii sp. nov. "Uliassatai", Holotype.
- Fig. 17. Cnephasia cinareana Chrét. "Coll. Led[erer]", female.
- Fig. 18. Cnephasia cinareana Chrét. "H.-Sch.", male.
- Fig. 19. Cnephasia heringi sp. nov. "Amasia 75 m.", Holotype.
- Fig. 20.  $Cnephasia\ heringi\ {\rm sp.\ nov.}\ , {\rm Amasia\ 75\ m.\ 23/6''},\ {\rm Allotype.}$
- Fig. 21. Cnephasia constantinana sp. nov. "Syria sept. Taurus mer. Marasch 700—1100 m. coll. Osthelder", Paratype.



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#### Plate LVI

- Fig. 22. Cnephasia alfacarana sp. nov. "Sierra de Alfacar m. 80. 17/6", Holotype.
- Fig. 23. Cnephasia alfacarana sp. nov. "Sierra de Alfacar m. 80", Allotype.
- Fig. 24. Cnephasia microstrigana sp. nov. "S[an] Ildefonso", Paratype, male.
- Fig. 25. Cnephasia microstrigana sp. nov. "Sciaph. spec. ignota, 677", Paratype, female.
- Fig. 26. Cnephasia parnassicola sp. nov. "Parnass", Holotype.
- Fig. 27. Cnephasia cinereipalpana sp. nov. "Władiwostock. 77 Chr[ISTOPH] W.", Holotype.
- Fig. 28. Cnephasia cinereipalpana sp. nov. "Wladiwostock. 77 CHR[1-stoph]", Paratype.



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#### Plate LVII Male genitalia

Fig. 29. Cnephasia stachi sp. nov. Praep. Nr.: T.: 5118. Holotypus.

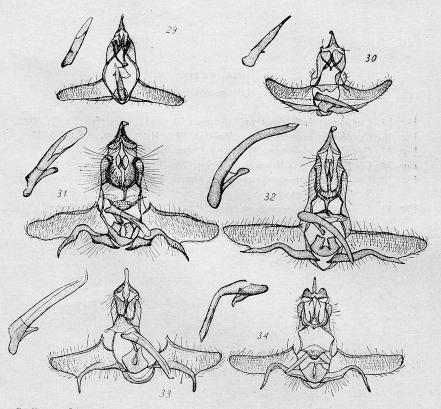
Fig. 30. Cnephasia orientana (Alph.) "Transcauc. Ordubas, Chr[istoph] 1892", Prep. Nr. T. 84.

Fig. 31. Eana hungariae sp. nov. Prep. Nr. T. 5048, Holotype.

Fig. 32. Eana canescana (Guen.), "Smoleń 21. 7. 29 leg. Masłowski".

Fig. 33. Eana samarcandae sp. nov. Prep. Nr. T. 5152, Holotype.

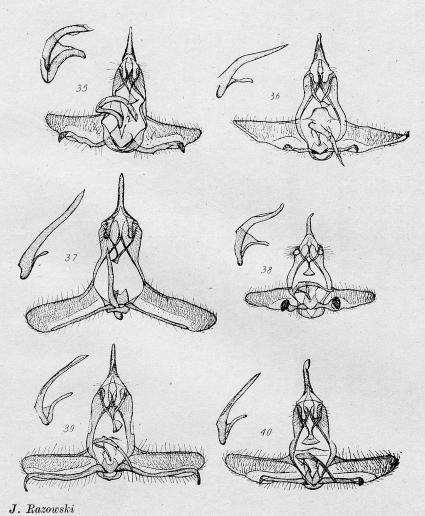
Fig. 34. Eana pallifrons sp. nov. Prep. Nr. T. 5151, Holotype.



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#### Plate LVIII Male genitalia

- Fig. 35. Cnephasia hellenica Obr. "Amasia 75 m. 15/6", Prep. Nr. T. 5022.
- Fig. 36. Cnephasia kenneli Obr. "Malatia 19/5 Mn." Prep. Nr. T. 5231.
- Fig. 37. Cnephasia cinareana (Chrét.) Prep. Nr. T. 5229.
- Fig. 38. Cnephasia heringi sp. nov. Prep. Nr. T. 5037, Holotype.
- Fig. 39. Cnephasia constantinana sp. nov. "Constantinae", Prep. Nr. T. 5125, Holotype.
- Fig. 40. Cnephasia alfacarana sp. nov. Prep. Nr. T. 5198. Holotype.



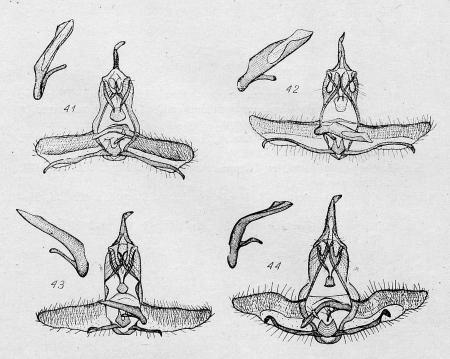
#### Plate LIX Male genitalia

Fig. 41.  $Cnephasia\ microstrigana\ {\rm sp.\ nov.}\ , {\rm Sn.\ Ildefonso}$  Prep. Nr. T. 5006, Holotype.

Fig. 42. Cnephasia alticolana (H.-S.) "Rytro" [Southern Poland].

Fig. 43. Cnephasia parnassicola sp. nov. "Parnass.", Holotype.

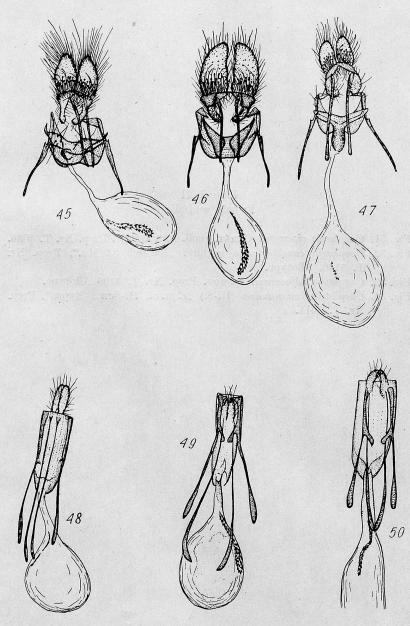
Fig. 44. Cnephasia cinereipalpana sp. nov. Prep. Nr. T. 5111, Holotype.



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#### Plate LX Female genitalia

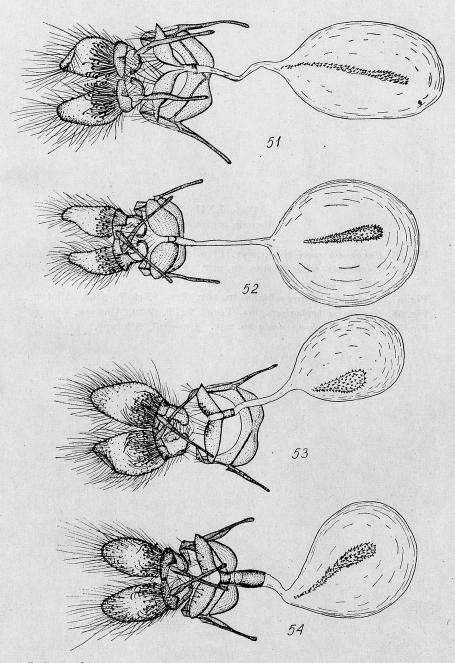
- Fig. 45. Cnephasia margelanensis sp. nov. Prep. Nr. T. 5116, Holotype.
- Fig. 46. Cnephasia stachi sp. nov. "Samarkand. 81 Нвн[Навекначек]." Prep. Nr. T. 5119. Allotype.
- Fig. 47. Cnephasia orientana (Alph.) "Transcauc. Ordubas Снк[ізторн] F. 1893", Prep. Nr. T. 149.
- Fig. 48. Cnephasia incertana f. proincertana f. nov. Prep. Nr. T. 5134, Holotype.
- Fig. 49. Cnephasia incertana f. bergüniana f. nov. Prep. Nr. T. 124, Holotype.
- Fig. 50. Cnephasia incertana (Hbn.) "Kraków 11 VI 1953" Prep. Nr. R. 140.



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#### Plate LXI Female genitalia

- Fig. 51. Cnephasia cinareana Chrét. "coll. Led[erer]", Prep. Nr. T. 5086.
- Fig. 52. Cnephasia constantinana sp. nov. "Marasch 84 Mn.", Prep. Nr. T. 5140, Allotype.
- Fig. 53. Cnephasia alfacarana sp. nov. Prep. Nr. T. 5196 Allotype.
- Fig. 54. Cnephasia communana (H.-S.) "r. m. o., H.-Sch., Typus", Prep. Nr. T. 5011.



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#### Plate LXII Female genitalia

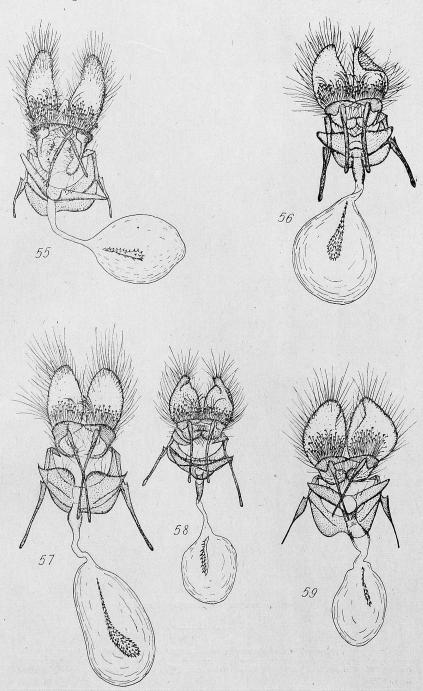
Fig. 55. Cnephasia nowickii sp. nov. Prep. Nr. T. 5110, Holotype.

Fig. 56. Cnephasia microstrigana sp. nov. "Sn. Ildefonso", Prep. Nr. T 5016, Allotype.

Fig. 57. Cnephasia cinereipalpana sp. nov. Prep. Nr. T. 5160, Allotype.

Fig. 58. Cnephasia heringi sp. nov. Prep. Nr. T. 5039. Allotype.

Fig. 59. Cnephasia parnassicola sp. nov. "Graecia", Allotype.



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