

# NEUE ENTOMOLOGISCHE NACHRICHTEN

aus dem Entomologischen Museum  
Dr. Ulf Eitschberger

Beiträge zur Ökologie, Faunistik  
und Systematik von Lepidopteren

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VADIM V. DUBATOLOV

Three contributions to the  
knowledge of palearctic Arctiinae

(Lepidoptera, Arctiidae)

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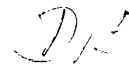
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## Three contributions to the knowledge of palearctic Arctiinae

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by

VADIM V. DUBATOLOV

1. *Sinowatsonia*, a new genus of Arctiidae from Tibet (China)  
(on the systematics of the genus *Micrarctia* SEITZ s. l., Part 2) . 5
2. A review of the genus *Palearctia* FERGUSON  
(on the systematics of the genus *Micrarctia* SEITZ s. l., Part 3) . 9
3. A list of the Arctiinae of the territory of the former U.S.S.R. 39



**1. *Sinowatsonia*, a new genus of Arctiidae from Tibet (China)  
(on the systematics of the genus *Micrarctia* SEITZ s. l., Part 2)  
(Lepidoptera: Arctiidae)**

by

V. V. DUBATOLOV

The genus *Micrarctia* SEITZ, 1910 s. l. was divided by FERGUSON (1984) and DUBATOLOV (1987) into several genera: *Micrarctia* SEITZ, 1910 (*M. trigona* (LEECH, 1899)), *Sinoarctia* DUBATOLOV, 1987 (*S. kasnakovi* DUBATOLOV, 1987, *S. sieversi* (GRUM-GRSHIMAILO, 1891), *S. forsteri* (DANIEL, 1943) and (a personal communication of the late W. THOMAS) *S. mussoti* (OBERTHÜR, 1911)), *Ocnogynodes* DUBATOLOV, 1987<sup>1</sup> (*O. y-albula* (OBERTHÜR, 1886)), *Sibirarctia* DUBATOLOV, 1987 (*S. kindermanni* (STAUDINGER, 1867), *S. buraetica* (O. BANG-HAAS, 1927)), and *Paleoarctia* FERGUSON, 1984 (a series of Central-Asian species). However, there are two species described by DANIEL (1943) from East Tibet, which do not belong to any of these genera: *Micrarctia hoenei* DANIEL, 1943, and *Micrarctia batangi* DANIEL, 1943. They turned out to belong to a separate genus within the tribe Spilosomini. This new genus is described in this paper.

The author expresses his sincere gratitude to Dr. A. WATSON at The Natural History Museum, London, for offering the male and female of *M. hoenei* (DANIEL)<sup>2</sup> and the photographs of *M. batangi* (DANIEL) for this study. I wish to express my thanks to Dr. O. E. KOSTERIN (Novosibirsk) for his help in translating the manuscript. This work was partly supported by the International Science Foundation and the Russian Academy of Natural Sciences.

***Sinowatsonia* gen. nov.**

Type-species: *Micrarctia batangi* DANIEL, 1943.

The wings are well developed in both sexes. The forewing is rather narrow, its apex slightly prominent (colour plate fig. 1a, b). The pattern consists of fused spots forming an Y-like pattern, with one branch oriented along the cubitus to the wing apex and the other from the cubitus to the tip of vein 1 (A). Vein 11 (R<sub>1</sub>) starts from the apex of the cell, vein 10 (R<sub>2</sub>) from the 7+8 (R<sub>4+5</sub>) vein. The hindwing colouration varies from white to carmine-red.

In the males the head is densely covered with long erect hairs, in females they are substantially shorter. The palpaе are moderately long, covered with thin hairs, in the males their underside is covered with long erect hairs. The eyes are naked, in the males relatively large, hemispheric, in the females oval, slightly convex. The antennae are bipectinate in males and serrate in females. The proboscis is reduced. The body is rather narrow, covered with sleeky hairs in males and sleeky scales in females. The fore tibia is simple, a little longer than half of the femora, the epiphysis is shorter than the tibia. The middle tibia is armed with a single pair, the hind tibia with two pairs of almost wedge-shaped spurs, which are slightly shorter than the tibia diameter.

Male genitalia (figs 1, 2). The anterior part of the tegumen is wide, forming a "collar", the valva is narrow, with a wide rounded tooth on the internal edge.

The female genitalia have not been studied.

1 The genus *Ocnogynodes* DUBATOLOV, 1987 was united with *Lithosarctia* DANIEL, 1954 by DE FREINA & WITT (1994). Now this genus includes three species: *L. hoenei* DANIEL, 1954, *L. y-albula* (OBERTHÜR, 1886) and *L. thomasi* DE FREINA & WITT, 1994.

2 It should be noted that the female of *M. hoenei* (DANIEL) in the collection of the The Natural History Museum (London) was determined as "*Micrarctia sieversi* GR.-GR."

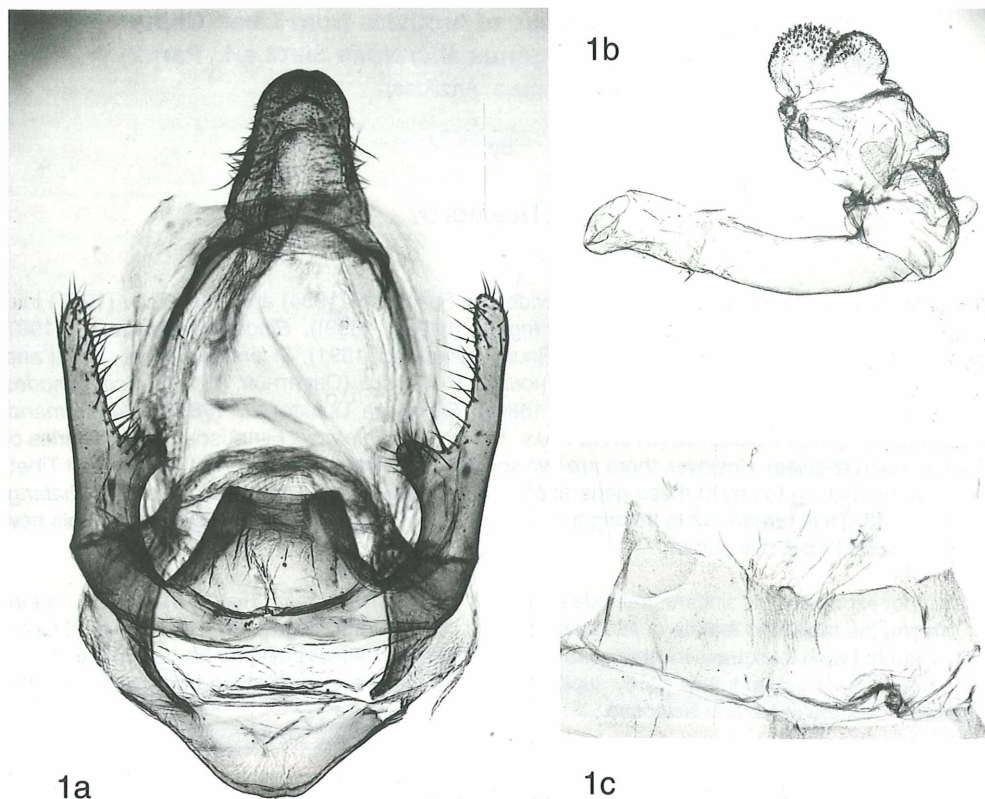


Fig. 1: Male genitalia of *Sinowatsonia batangi* (DANIEL, 1943). Holotype. a – general view, b – the aedeagus with the vesica everted, c – VIII. sternite. Photo by courtesy of Dr. A. WATSON.

Notes. Concerning the structure of the male genitalia, the two species of the new genus, *S. hoenei* (DANIEL) and *S. batangi* (DANIEL), are very similar to the species of the genus *Ocnogyna* LEDERER, 1853, especially to *O. parasita* (HÜBNER, [1790]). However, they have two pairs of spurs on the hind tibia, the fore tibia is simple, and the females have normally developed wings (while all *Ocnogyna* species have a single pair of spurs on the hind tibia, a short fore tibia much widening to the tip, where it almost lacks scales and bears a large tooth; the females are wingless or brachypterous). These characters are shared with the genus *Maurica* DE FREINA & WITT, 1984. However, our species differ from the representatives of the latter genus by more prolonged forewings with the apices drawn off, by the presence of a tooth on the valva, and the presence of a “collar” on the tegumen (the *Maurica* species have rather short and broad wings, stick-shaped valvae, and the tegumen without a “collar”). Whereas the species of the genus *Lithosarctia* DE FREINA & WITT (= *Ocnogynodes* DUBATOLOV) resemble *S. hoenei* (DANIEL) and *S. batangi* (DANIEL) by wing colouration, they lack the “collar” on the tegumen (the presence of which is a characteristic of several genera of the tribe Spilosomini) and have the valva of quite a different shape. The wing colouration of the two species of *Sinowatsonia* gen. nov. resembles to some extent that of the representatives of the genera *Eospilarctia* KÔDA, 1988, and *Paraspilarctia* KÔDA, 1988, which also have the “collar” on the tegumen, but greatly differ from them by the shape of the valva, aedeagus, its vesica and by some other characters.



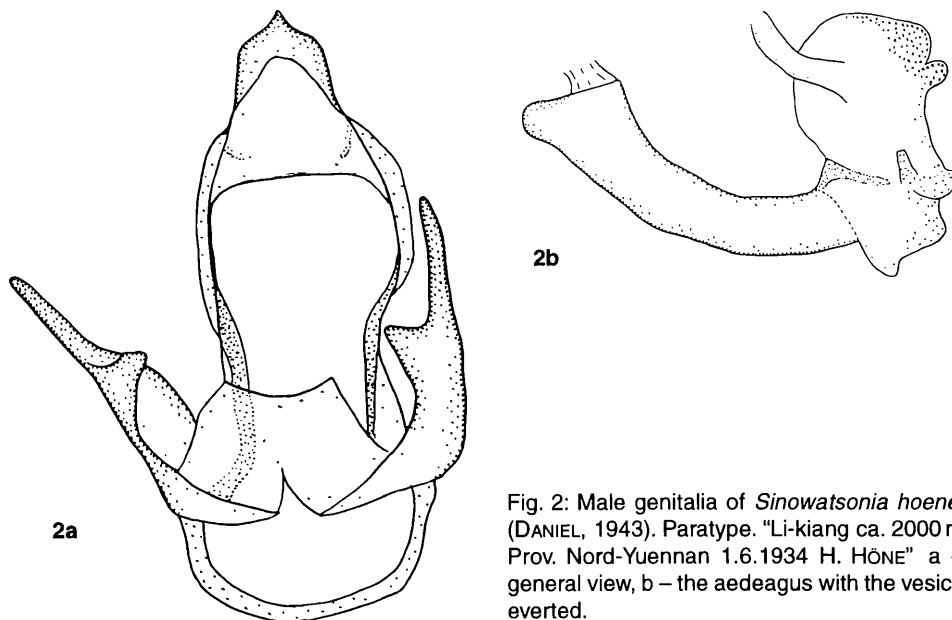


Fig. 2: Male genitalia of *Sinowatsonia hoenei* (DANIEL, 1943). Paratype. "Li-kiang ca. 2000 m Prov. Nord-Yuennan 1.6.1934 H. HÖNE" a – general view, b – the aedeagus with the vesica everted.

#### Key to the species of *Sinowatsonia*

- 1 (2) The hindwing is evenly pinkish-red in males and carmine-red in females. The distal part of the valva is three times narrower than the narrowest point of its proximal part.  
*S. hoenei* (DANIEL, 1943) **comb. nov.** (China: Sichuan, Yunan, Tibet (FANG, 1982))
- 2 (1) The hindwing is white with pink bases in males, females are unknown. The distal part of the valva is two times narrower than the narrowest point of its proximal part.  
*S. batangi* (DANIEL, 1943) **comb. nov.** (China: Sichuan (FANG, 1982))

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Explanation of the colour plate (p. 89):

1a	1b	1b

Fig. 1a: *Sinowatsonia batangi* (DANIEL, 1943). Holotype ♀. "Batang (Tibet) Im Tal des Yangtze (ca. 2800 m) 26.7.1936 H. HÖNE". Photo by courtesy of Dr. A. WATSON.

Fig 1b: *Sinowatsonia hoenei* (DANIEL, 1943). The female from the collection of The Natural History Museum (London) and its labels. Photo by courtesy of Dr. A. WATSON.

## 2. A review of the genus *Paelearctia* FERGUSON (on the systematics of the genus *Micrarctia* SEITZ s. l., Part 3)

(Lepidoptera: Arctiidae)

by

V. V. DUBATOLOV

The genus *Paelearctia* FERGUSON, 1984 was described by D. C. FERGUSON while dividing the genus *Micrarctia* SEITZ, 1910, s. l. At first it included seven species: *P. glaphyra* (EVERSMANN, 1843), *P. buraetica* (O. BANG-HAAS, 1927), *P. kindermanni* (STAUDINGER, 1867), *P. rupicola* (GRUM-GRSHIMAILO, 1890), *P. postflavida* (HAMPSON, 1894), *P. erschoffii* (ALPHERAKY, 1882), and *P. ladakensis* (O. BANG-HAAS, 1927). However, the genus in this sense still remained heterogeneous. Later (DUBATOLOV, 1987) two species, *P. kindermanni* (STGR.) and *P. buraetica* (B.-H.), were separated into a new genus *Sibirarctia* DUBATOLOV, 1987, while four more species from the former genus *Micrarctia* SEITZ were added to the genus *Paelearctia* FERG., namely *Micrarctia wagneri* (PÜNGELER, 1918), *M. gratiosa* (GRUM-GRSHIMAILO, 1890), *M. variabilis* DANIEL, 1966, and *M. mongolica* (ALPHERAKY, 1888). In the same paper the genus *Paelearctia* FERG. was erroneously united with *Tancrea* PÜNGELER, 1898. Indeed, these two genera are closely related, as can be inferred from the male genitalia structure and the wing pattern. However, *T. pardalina* PÜNGELER, 1898 has the hind tibiae with only one pair of spurs, whereas all the species of *Paelearctia* FERG. have two pairs of spurs on the hind tibiae; this was noted later in the description of *P. mira* DUBATOLOV & TSHISTJAKOV, 1989. Besides, these genera also differ by the presence or absence of the tympanal apparatus. The representatives of *Paelearctia* FERG. lack a tympanal apparatus, while *T. pardalina* PÜNGL. shows an apparatus consisting of two large chitinized bubbles on either side of the abdomen base. Thus, I include into the genus *Paelearctia* FERG. the majority of species formerly considered within *Micrarctia* SEITZ, s. l., except for: *Micrarctia* (s. str.) *trigona* (LEECH, 1899), the species of the genera *Sinoarctia* DUBATOLOV, 1987, *Ocnogynodes* DUBATOLOV, 1987<sup>1</sup>, *Sibirarctia* DUBATOLOV, 1987 and *Sinowatsonia* DUBATOLOV, 1996. The systematic position of *Oroncus ladakensis* O. BANG-HAAS, 1927 deserves special discussion. This species was referred to the genus *Micrarctia* SEITZ s. l. by DRAUDT (1931) and, later, to *Paelearctia* FERG. by FERGUSON (1984). Thanks to Prof. H. J. HANNEMANN I have received the type specimen, a female, for investigation, and found out that this species should be placed into the genus *Arctia* SCHRANK, 1802—*Arctia ladakensis* (O. BANG-HAAS, 1927) **comb. nov.**—because it is closely related to *A. intercalaris* (EVERSMANN, 1843). These two species can be easily distinguished by the female antennae, which are simple in *A. ladakensis* (B.-H.) and serrate in *A. intercalaris* (Ev.).

In the course of this revision of the genus *Paelearctia* I have studied the collections of the Zoological Museum of the Institute of Animal Systematics and Ecology (former: Biological Institute) of the Siberian Branch of the Russian Academy of Sciences in Novosibirsk, Russia, the Zoological Institute of the Russian Academy of Sciences in St.-Petersburg, Russia, the Zoological Museums of Moscow State University, Russia, and Kiev State University, Ukraine, the Schmalhausen Institute of Zoology of the Ukrainian Academy of Sciences in Kiev, Ukraine, and the Institute of Biology and Pedology of the Far East Branch of the Russian Academy of Sciences in Vladivostok. I am very thankful to Drs. A. L. LVOVSKY, A. V. SVIRIDOV, V. RAEVSKII and YU. A. TSHISTJAKOV for their help during my work with these collections. Some type specimens were kindly sent to me by Prof. H. J. HANNEMANN of the Zoological Museum of the Humboldt University, Berlin, Germany, and the colour slides of some taxa by Dr. A. WATSON of The Natural History Museum (London), England. Besides, I am greatly indebted for receiving materials to P. V. BOGDANOV, V. A. GANSON, L. V. KAABAK, V. G. MAKHAT, V. S. MURZIN,

1 The genus *Ocnogynodes* DUBATOLOV, 1987 was united with *Lithosarctia* DANIEL, 1954 by DE FREINA & WITT (1994). Now this genus includes three species: *L. hoenei* DANIEL, 1954, *L. y-albula* (OBERTHÜR, 1886) and *L. thomasi* DE FREINA & WITT, 1994.

A. V. NEKRASOV, S. K. SAZONOV, G. A. SHAPIRO, E. A. TARASOV (Moscow, Russia), A. I. IVANOV, L. V. PETRIKEVICH, V. N. PRASOLOV (St.-Petersburg, Russia), V. N. OLSCHWANG (Ekaterinburg, Russia), Yu. E. PERUNOV (Barnaul, Russia), I. G. PLYUSTSH (Kiev, Ukraine), K. ČERNÝ (Innsbruck, Austria). I also wish to express my gratitude to Dr. O. E. KOSTERIN (Novosibirsk) for correcting the original manuscript.

This work was partly supported by the International Science Foundation and the Russian Academy of Natural Sciences.

### Genus *Palearctia* FERGUSON, 1984

Proc. Entomol. Soc. Wash. **86** (2): 454–456.

Type-species: *Arctia glaphyra manni* ALPHERAKY, 1881.

The genus was carefully described by FERGUSON, so there is no reason to make a new description.

### Key to Subgenera

- 1(2) The body is covered with light, whitish or yellowish hairs and scales. The tegumen is very long, dorsally with a knob-like projection. The uncus is strongly broadened proximally. The moths inhabit semideserts and deserts of Central (Inner) Asia. *Centrarctia* DUBATOLOV
- 2(1) The body is covered with dark hairs and scales. The tegumen is short, without a projection. The uncus is not broadened proximally. The moths inhabit high mountains of Middle, Central (Inner) and South Asia. *Palearctia* FERGUSON

### *Palearctia* FERGUSON, 1984

Subgenus *Centrarctia* DUBATOLOV, 1990

Chlenistonogie i gel'minty. Novosibirsk: 157.

Type-species: *Arctia mongolica* ALPHERAKY, 1888.

### *Palearctia mongolica* (ALPHERAKY, 1888)

Stett. Ent. Ztg. **49**: 67 (*Arctia mongolica*).

= *Arctia serarum* GRUM-GRSHIMAILO, 1899, Ann. Mus. Zool. Imp. Acad. Sci. St.-Petersb. **4**: 463–464, **syn. nov.**

= *Arctia serum* GRUM-GRSHIMAILO, 1902, Ann. Mus. Zool. Imp. Acad. Sci. St.-Petersb. **7**: 204, **syn. nov.**

Type locality: "Dschungor; 16. August 1884. (POTANIN)" (ALPHERAKY, 1888). The type specimen has labels in Russian: "16. VIII. 1884 / Kil'ya / Dzhongor", "*Mongolica* / ♂. ALPH. / "Original", "kol. Vel. Kn. / NIKOLAYA / MIKHAILOVICH" [coll. Grand Duke NIKOLAI MIKHAILOVICH]. The species was described on the materials of G. N. POTANIN's expedition in 1883–1884. Judging from POTANIN's book (1950), in these days (11.–17. August 1884) he was in the headquarters of DZHUNGAR (Dzhongor), the prince of the Ordos nomads, nearly 180 km SE of Baotou (Nei Mongol, China), 55 "versts" (i. e. nearly 59 km) from the Huang He River.

Distribution: Tuva: the southern part of the republic within the Ubsu Nur intermontane hollow. Mongolia: Uvs, Chovd, Gov'-Altaj (Gobi Altai), Ömnögov' (South Gobi), and Dornogov' (East Gobi) aimaks; Töv (Central) aimak (DANIEL, 1968), Dornod (East, or ojbalsan) aimak (DANIEL, 1967), Bajanchongor and Öbörchangaj aimaks (DANIEL, 1965). China: Nei Mongol (Ordos and Yin Shan).

Description. In addition to the characters mentioned in the key, it should be noted that the forewings are white with a light yellowish-rose tint. The hindwings are rose-red with bright contrasting dark-brown spots (figs 7a–c). The forewing pattern varies considerably: the subbasal costal spot ( $M_1$  band<sup>2</sup>) may be reduced to two strokes, the discoidal spot ( $D+M_2$ ) to 2–3 separate spots, the submarginal spot may also be reduced (figs 7b, c). The hindwings always have the discoidal spot fused with the costal one ( $M_2$ ), a row of submarginal spots ( $E_3$ ) and, sometimes, the costal spot of the band  $M_1$ . Genitalia. See fig. 1.

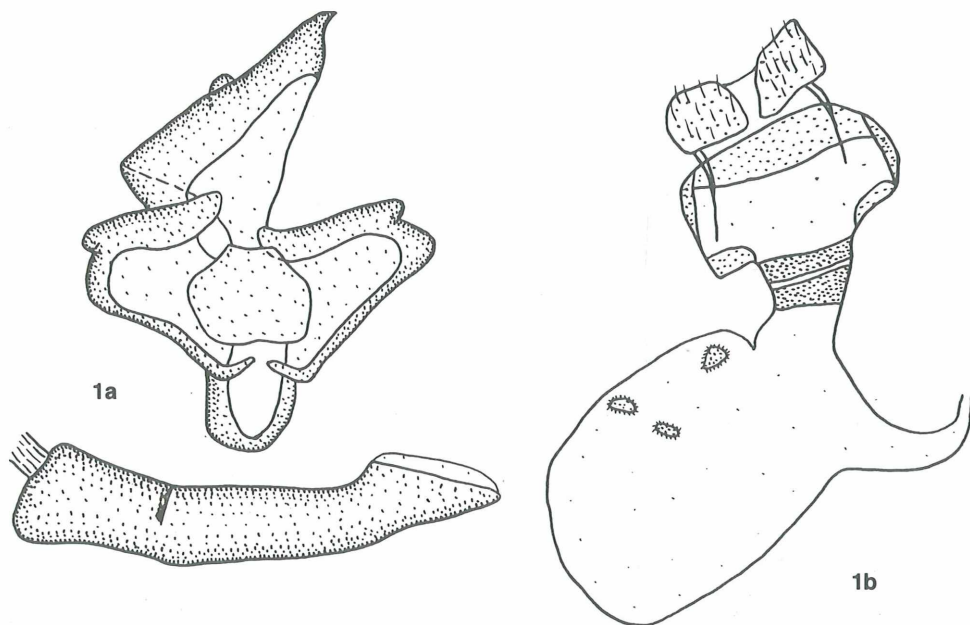


Fig. 1: Genitalia of *P. mongolica* ALPH. a — male (Lake Ubsu-Nur, Tuva), b — female (S. Mongolia).

Biology. The moths fly from the end of June until the middle of August. The caterpillars have been found on *Artemisia sieversiana* by A. L. LVOVSKY in the South Gobi aimak of Mongolia; in captivity they feed on various dicotyledonous plants (DUBATOLOV, 1985).

Notes. A moth with a split dark pattern of the forewing was described as *Arctia serarum* GRUM-GRSHIMAILO, 1899. Later, this author (GRUM-GRSHIMAILO, 1902) wrote that this name resulted from a misprint, the correct name would be *Arctia serum* GR.-GR. (from Latin "Sera"—China). The type locality was reported as "... montibus Mongoliae meridionalis, 1871, ..., N. M. PRZEWALSKI ..." I have studied the type specimen, a male (fig. 7b) which is supplied with the following labels (in Russian): "17930", "Dolina Khuan-khe / i In'-shan' / PRZHEVAL'SK. 71" [the Huang He valley / and the Yin Shan / PRZHEVALSKY]. In genitalia structure it appears to be identical with the type specimen of *Arctia mongolica* ALPH. The type-localities of both taxa are situated not far from each other and from the Huang He river in Nei Mongol (China). The light form (f. *serarum* GR.-GR.) occurs both in Mongolia and North China (Nei Mongol). It was described by DANIEL (1965) in detail. For a long time *P. mongolica* (ALPH.) was confused with *Sibirarctia kindermanni* (STGR.), for example, by FANG CHENG-LAI (1982). The

figure of *P. mongolica* (ALPH.) (FANG CHENG-LAI, 1982: t. 68, fig. 1564) is given with the erroneous identification "*Micrarctia kindermanni* (STAUDINGER)" In the description of the species' range, FANG CHENG-LAI (1982:211) listed Heilongjiang, Liaonin, Nei Mongol, Hebei, Ningxia-Huizu, Xinjiang, Mongolia, and the USSR, evidently confusing the data of the two species, since *P. mongolica* (ALPH.) does not seem to occur in Heilongjiang and Liaonin. A note by KURENTZOV (1965) that "*Micrarctia mongolica* ALPH." occurs in Transbaikalia is also misleading. The examination of that particular specimen (♂, [the Chita region], Kruchina, forest-steppe, 20.VIII.1955, A. I. KURENTZOV), now kept in the Institute of Biology and Pedology in Vladivostok, has shown that it is in fact *Sibirarctia kindermanni* (STGR.).

**Material.** Tuva: 1 ♂, Ovyurskii distr., Sachan, 6.VII.1971 (KOROTYAEV); 2 ♂♂, Khol'-Oozhu, 7.VII.1968 (KOSTYUK), 22.VII.1971 (KOROLEVSKAYA); 1 ♂, Lake Ubsa (Uvs or Ubsu) [northern side], 6.VII.1914 (TOMASHINSKII). Mongolia: Uvs aimak: 2 ♂♂, 1 ♀, 50 km E of Ulaangom, 5., 6.VIII.1970 (KERZHNER, CHOVSOMDZHAV, EMEL'YANOV); 2 ♂♂, 40 km S of Naryn-Bulak, 6.VII.1969 (KOSTYUK); Chovd aimak: 1 ♂, 17.VII.1969 (KOSTYUK); Gov'-Altaj (Gobi Altai) aimak: 3 ♂♂, Ushiin-Bulak spring, 30 km NW of Beger, 13.VII.1970 (EMEL'YANOV); Ömnögov' (South Gobi) aimak: 1 ♂, Dargan-mod terrain, 30 km SE of Mt. Khan-Bogdo, 24.VI.1971 (EMEL'YANOV); 1 ♀, Bulgan, 24.VI.1972 (MEDVEDEV); 1 ♀, ex larva, 30 km S of Shine-Dzhinst, mid VII.1981, 1 pupa 16.–18.VIII., 1 imago 1.IX.1981 (LVOVSKY); Dornogov' (East Gobi) aimak: 1 ♂, Aragut, 27.VI.1971 (KERZHNER); 1 ♂, 30 km SSE of Lake Shokhoi-Nur, Namt-Ula, 4.VIII.1971 (KERZHNER); 1 ♂, 20 km W of Altai, 14.VII.1980 (KERZHNER). China, Nei Mongol: 1 ♂ (the type specimen of *Arctia mongolica* ALPH.), Kil'ya Dzhongor [the headquarters of prince DZHUNGAR], 16.VIII.1884 (POTANIN); 1 ♂ (the type specimen of *Arctia serarum* GR.-GR.), N 17930, Huang He valley and Yin Shan (PRZHEVALSKY).

Subgenus *Palearctia* FERGUSON, 1984

Proc. Entomol. Soc. Wash. **86** (2): 454–456.

Type species: *Arctia glaphyra mannii* ALPHERAKY, 1881.

#### Key to the species

- 1 (2) On the forewing upperside the dark pattern consists of longitudinal strokes divided by light veins. Vein 2 (Cu<sub>2</sub>) is light. The species inhabits the Altai.  
*P. mira* DUBATOLOV & TSHISTJAKOV
- 2 (1) On the forewing upperside the pattern consists of angular spots or transversal bands. If it consists of broad longitudinal strokes, then vein 2 (Cu<sub>2</sub>) is dark.
- 3 (8) The forewing upperside has a V-shaped stroke distally of the cell, near the beginning of veins 2 and 3 (Cu<sub>1</sub> and Cu<sub>2</sub>). If this stroke is divided into two branches, then there is a short longitudinal stroke distally of the beginning of vein 2 (Cu<sub>2</sub>), which is parallel to the veins 1 and 2 (A and Cu<sub>2</sub>).
- 4 (5) On the forewing upperside the dark pattern is of even intensity. The hindwing is not white. The valvae are rhombus-shaped. The aedeagus bears spurs distally.  
*P. glaphyra* (EVERSMANN)
- 5 (4) On the forewing upperside the medial and basal spots are darker than the marginal ones. The valvae are not rhombus-shaped, otherwise the hindwing is white.
- 6 (7) The valvae are rhombus-shaped. The hindwing is white. The aedeagus bears no spurs distally. The species inhabits the Kirghiz Ala-Tau (Alexander Mts.). *P. golbecki* spec. nov.

- 7(6) Valvae with a costal projection. The hindwing may be of various colours. The aedeagus bears spurs distally. *P. gratiosa* (GR.-GR.)
- 8(3) The forewing upperside has neither V-shaped nor a longitudinal stroke distally of the cell (near the beginning of the veins 2 and 3 ( $Cu_1$  and  $Cu_2$ )).
- 9(10) The basal third of the hindwing upperside, up to the tornal angle, is contrasting dark. The species inhabits the Himalayas. *P. marxi* (B.-H.)
- 10(9) The basal part of the hindwing upperside is light or has dark veins, otherwise the dark basal spot is not contrasting and does not reach the tornal angle.
- 11(12) On the forewing upperside the vein 2+3 ( $Cu_{1+2}$ ) is very dark at the point of dichotomy. The median part of the forewing has two dark transversal bands. The species inhabits Central Tien Shan, the Sarydzhas region. *P. wagneri* (PÜNGELER)
- 12(11) On the forewing upperside the vein 2+3 ( $Cu_{1+2}$ ) is not dark or has only a few dark scales at the point of dichotomy.
- 13(14) The hindwing underside has a dark transversal stroke near the costa base. *P. gracilis* spec. nov.
- 14(13) The hindwing underside has no dark transversal stroke near the costa base.
- 15(16) On the forewing the dark medial transversal bands usually are discontinuous between veins 1 and 2 (A and  $Cu_2$ ). The hind angle of the fore spot of the first median band ( $M_1$ ) is not sharp. The aedeagus is without spurs distally. *P. erschoffii* (ALPH.)
- 18(17) On the forewing the dark medial bands are not interrupted, otherwise the hind angle of the fore spot of the first median band ( $M_1$ ) is sharp. The aedeagus bears spurs distally. *P. ferghana* (STGR.)

***Palearctia mira*** DUBATOLOV & TSHISTJAKOV, 1989

Zool. Zhurnal **68**(11):141–143.

Type locality: Altai, Kurai Range, the upper course of the Yarly-Yarly river near the town Aktash.

Distribution. Known only from the Kurai Range in the Altai.

Biology. The moths were collected on alpine meadows from the 10th of July until the beginning of August, at 2700 m above sea level.

Description (fig.2). In the males the wing pattern is similar to that of *Grammia quenseli* (PAYKULL, 1793) (DUBATOLOV & TSHISTJAKOV, 1989: 142, fig. 1), but the strokes in the cell and in front of vein 1 (A) on the forewing are darker. In general, the pattern is not contrasting, but is rather diffuse. In the females the pattern is reduced, consisting of strokes on the basal half of the cell, in front of vein 1 (A), two stroke-like spots between veins 2 and 3 ( $Cu_1$  and  $Cu_2$ ), one spot between veins 5 and 6 ( $M_1$  and  $M_2$ ), and two apical spots. The hindwing is dark-grey in males and yellowish-grey in females, with weakly expressed diffuse spots. Genitalia. See DUBATOLOV & TSHISTJAKOV, 1989: 143, f. 2a, b.



Fig. 2: *P. mira*, holotype ♂, Altai

***Palearctia glaphyra* (EVERSMANN, 1843)**

Bull. Soc. Imp. Nat. Mosc. **16**(3): 544, t. 10, f. 4 (*Euprepia glaphyra*).

Type locality: “ promontoriis Altaicis australibus” [in front of the mountains of the South Altai]. Two specimens were identified by Prof. E. EVERSMANN in his collection as *Euprepia glaphyra* Ev. (BREMER, 1870). The second one, a male from Kyakhta (Transbaikalia), which is not the type, in fact turned out to be *Sibirarctia buraetica* (B.-H.). The first one, the type specimen, has two labels: “Noor Saisan / gegend” and “coll. EVERSMANN”

Many authors doubted that the materials of EVERSMANN, including the types of *P. glaphyra* (Ev.), *Arctia intercalaris* (Ev.), *Parnassius actius* Ev. and *P. delphius* (Ev.), and some others, originated from the Altai, because all these species do not inhabit these mountains. That was admitted long ago by LEDERER (1853) and BANG-HAAS (1927). The former author (LEDERER, 1853: 353), according to a report given by A. KINDERMANN, mentioned that these materials were collected by “ Herrn SCHRENCK, einem Botaniker aus Petersburg in der Tarbagataischen und Allakanischen [possibly, Alakol'? – V. D.] Gebirgen ” In my opinion, the environs of Lake Zaisan should be assumed to be the type locality, as it is indicated on the type's label. Most likely, this specimen was collected in the mountains south of this lake. However the data available indicates the Dzhungarian Alatau as the north-eastern most point of the range of *P. glaphyra* (Ev.).

Distribution. Kazakhstan: mountains near Lake Zaisan (?); Dzhungarian Alatau, including the Tyshkantau<sup>3</sup> and the Trans-Ili Alatau. Kyrgyzstan: Kirghiz Ala-Tau (Alexander Mts.), Kungei Ala-Tau, Terskei Ala-Tau; Central and Inner Tien Shan west to Naryn and the Dolon pass. China, Xinjiang: East Tien Shan, Kuruktag, Hotan (?). The nominative subspecies occurs in the mountains of East Kazakhstan from the Dzhungarian Alatau to Lake Zaisan (?) and, probably, in neighbouring regions of Xinjiang (China).

Biology. The moths fly from the middle of June until 20th of August at 2200–3000 m above sea level (according to my material), or at 6,000–10,000 feet (ALPHERAKY, 1891). Caterpillars, according to observations by S. K. SAZONOV (pers. comm.), are polyphagous on various dicotyledonous plants.

Description. The main characters of the species are indicated in the key. The groundcolour of the forewing may vary from white to yellow, the dark pattern is variable, the spots may be fused along the veins to form dark strokes, or across the veins to form two median bands, often being narrowly split between veins 1 and 2 (A and Cu<sub>2</sub>). Sometimes the vein tips have light scales on the dark marginal band (E<sub>1+2</sub>). The hindwing is often bright red but may vary from yellowish-orange to black. The usual arrangement of the hindwing spots is as follows: a dark discoidal spot always present, three submarginal spots (E<sub>3</sub>), a narrow dark margin (E<sub>1</sub>) from the costa to vein 3 (Cu<sub>1</sub>), sometimes to the tornal angle. The pattern of the underside is poorly developed, reduced or, on the hindwing, sometimes absent.

In females the wing pattern is more reduced than in males, the marginal band (E<sub>1+2</sub>) is strongly reduced and sometimes absent, as well as the spots along the costa, the hindwing as in males. Several aberrations have been described: ab. *obscurata* BÖTTCHER (= *tristis* SEITZ, = *fumosa* NIEPELT), characterized by a dark forewing with spots fused along the margin; ab. *amabilis* BÖTTCHER, characterized by the forewing with a large white space between bands M<sub>1</sub> and M<sub>2</sub>; ab. *rosearia* SEITZ, characterized by a rose forewing; ab. *flava* O. BANG-HAAS, characterized by a yellow forewing; ab. *illustrata* O. BANG-HAAS, characterized by a white hindwing; ab. *nigroradiata* O. BANG-HAAS, characterized by the hindwing veins suffused by black scales; ab. *puengeleri* BÖTTCHER, characterized by a black hindwing; ab. *gratiosata* BÖTTCHER, characterized by the absence of the discoidal spot on the hindwing.

The nominative subspecies is characterized by its small size (forewing length 13 mm) and by more marked orange hindwings (fig. 8a).

3 The author saw a male specimen of *P. glaphyra* (Ev.) at the Tyshkantau Mts., 46 km N of Dzsharkent, the headwaters of Chiliksai-1 brook (the 2nd left tributary to the Sargir river, the left tributary to the Bolshoi [Great] Usek river), at 3000 m, on a subalpine meadow with juniper bushes, 31.VII.1994.



Genitalia. See figs 3–4; the nominative subspecies: 3a, 4a.

While studying the taxa *manni* STGR. and *naryna* B.-H., FERGUSON (1984) found out that their vesicae of the aedeagus are different. For this reason he separated *P. naryna* (B.-H.) as a good species. As it appeared from my materials collected from different regions of the Tien Shan, there are some differences in the structure of the vesica between Transilian, Central Tien Shanian and East Tien Shanian specimens. Based on a strong similarity of the wing pattern and other features of genitalia, and taking into account the allopatry of distribution, I consider the moths inhabiting these mountain systems to represent a series of subspecies.

Material. Kazakhstan: 1 ♂ (the holotype of *Euprepia glaphyra* Ev.), Noor Saisan [Lake Zaisan] gegend (coll. EVERSMANN); Dzhungarian Alatau: 3 ♂♂, 40 km ENE of Tekeli, the upper reaches of the Kora river, NW slope of the Semenov-Tian-Shanskij Pass, 2950–2970 m, an alpine meadow with small juniper bushes, 6.VIII.1994 (DUBATOLOV, KOSTERIN).

### ***Palearctia glaphyra dublitzkyi* (O. BANG-HAAS, 1927)**

Horae Macrolepid. 1:63, t. 8, f. 29, 30 (*Micrarctia glaphyra dublitzkyi*).

Type locality: "Berg Khoum Bel beim Ort Alma Ata" [Kumbel Mt. near Alma-Ata].

Distribution. Kazakhstan: Trans-Ili Alatau; Kungei? Ala-Tau in Kazakhstan and Kyrgyzstan.

Description (fig. 8b). On the forewing the groundcolour is usually golden-yellow, the spots are smaller than in the nominotypical subspecies. The dark spots on the hindwing underside are well developed. The forewing length is 15–17 mm.

Material. Kazakhstan: Trans-Ili Alatau: 1 ♂ (TSVETAEV); 5 ♂♂, a ridge top, 3 km SW of Medeo, 24.VII.1980 (DUBATOLOV); 1 ♂, near the Tuyuksu glacier, 2300 m, 1.VII.1975 (coll. PLYUSTSH); 1 ♂, Srednii [Middle] Talgar river, 26.VII.1978 (coll. PERUNOV); 1 ♂, same locality, 2600 m, 10.VII.1985 (KOSTYUK); Issyk [town]: 2 ♂♂, 15.–27.VII.1936, 2 ♂♂ of ab. *puengeleri* B.-H., 24.VII.1937, 3 ♂♂, 10.VII.1940 (coll. SHELJUZHKO), 1 ♂, 25.VIII.1954 (coll. TSVETAEV); 9 ♂♂, 2 ♀♀, same locality, Kaskasu terrain (IONOV); 1 ♂, Lake Mus-Kol', 3000 m, 23.VII.1936 (coll. TSVETAEV); 6 ♂♂, Kumbel' terrain, 24.VII.–12.VIII.1924, 25.VII.1925 (KRASNITSKII).

### ***Palearctia glaphyra aksuensis* (O. BANG-HAAS, 1927)**

Horae Macrolepid. 1:63, t. 8, f. 26, 27 (*Micrarctia glaphyra aksuensis*).

= *Micrarctia glaphyra naryna* O. BANG-HAAS, 1927, Horae Macrolepid. 1:63, t. 8, f. 28, **syn. nov.**

Type locality: "Gebirge nördlich von Aksu" [the mountains north of Aksu] (China, Xinjiang).

Distribution. Kyrgyzstan and China, Xinjiang: Inner and Central Tien Shan north to the Terskei Ala-Tau; the southern part of the East Tien Shan; Kuruktag, ?Hotan.

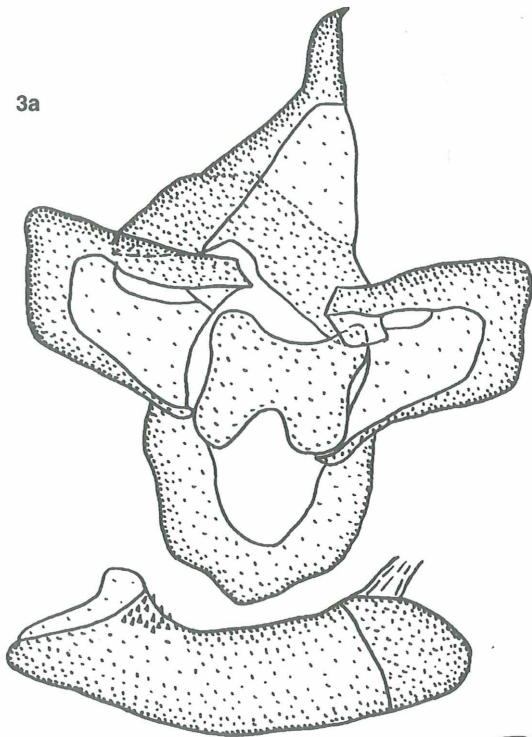
Description (figs 8c, 8d, 10f). The dark pattern on the forewing is well developed, the spots being sometimes fused. The dark spots on the hindwing are usually not large, often reduced on the underside. The forewing length is 13–16 mm.

Note. I consider two subspecies described by BANG-HAAS (1927), *naryna* B.-H. and *aksuensis* B.-H., as conspecific, because:

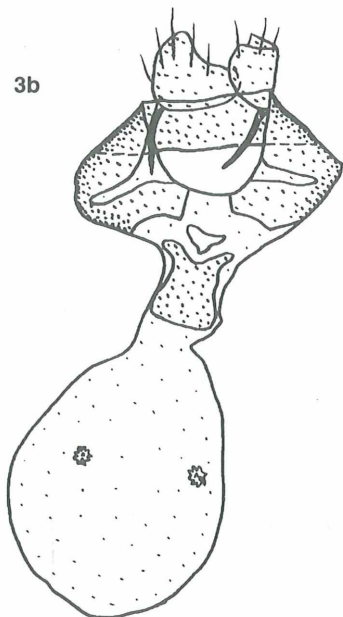
1) in some parts of the species' range, for example at the Dolon pass or in the environments of Naryn (see: BÖTTCHER, 1905: f. 4–14), specimens occur either with the pattern typical for *aksuensis* B.-H. or with fused spots (*naryna* sensu FERGUSON, 1984, which differs by the wing pattern from *naryna* B.-H. and is identical to ab. *tristis* SEITZ or *obscurata* BÖTTCHER);

2) the vesica of the aedeagus of all studied specimens from Inner and Central Tien Shan and Kuruktag are almost identical and correspond to fig. 13a in FERGUSON (1984: 455), which shows *P. naryna* sensu FERGUSON. It should be noted that the published figure of the *P. naryna* imago (FERGUSON, 1984: 453, f. 6) represents not a typical specimen, but an extreme variant of ab. *obscurata* BÖTTCHER;

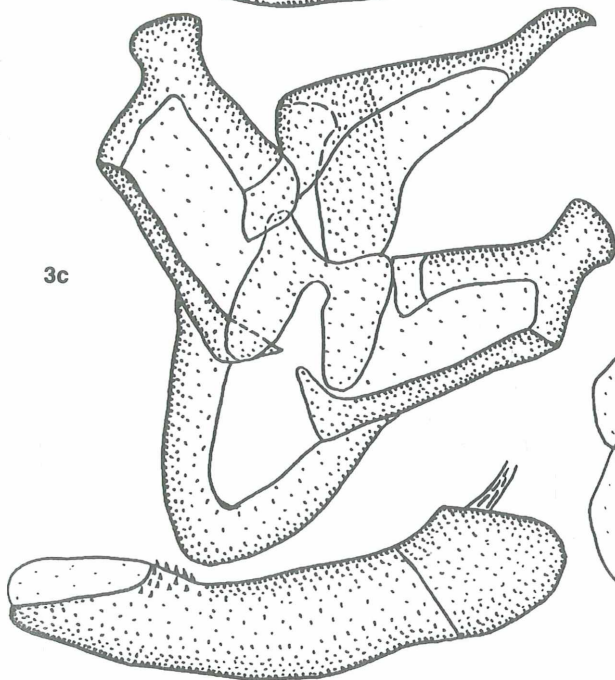
3a



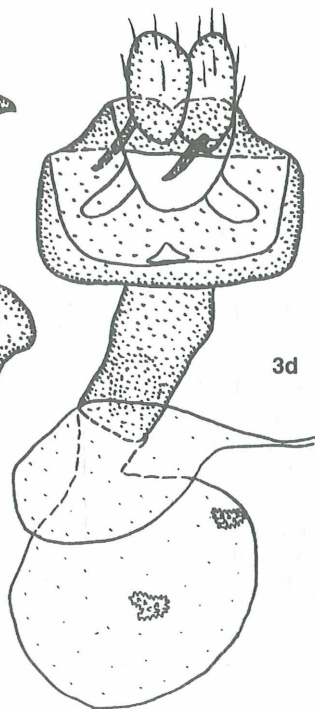
3b

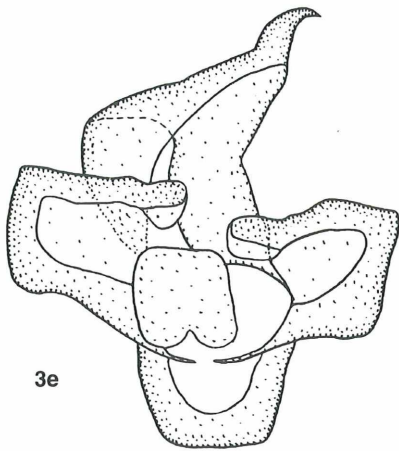


3c

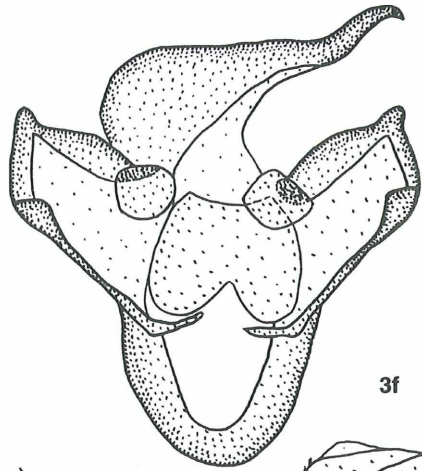


3d

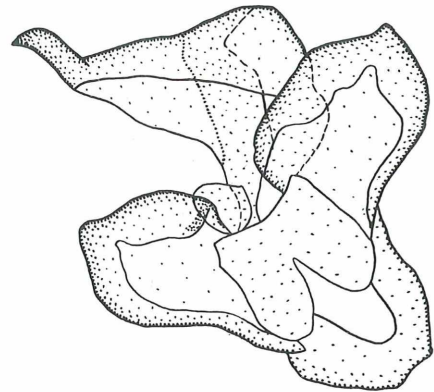
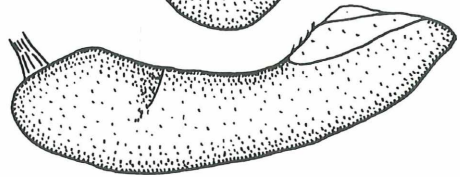
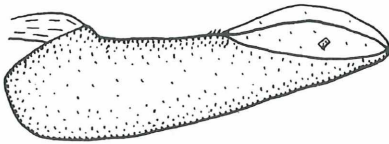




3e



3f



3g

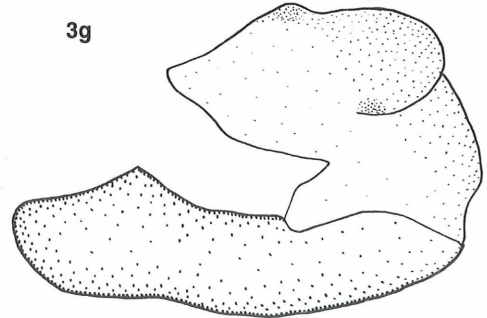


Fig. 3: Genitalia of *Paelearctia* species. a — *P. g. glaphyra* Ev., holotype; b, e — *P. g. manni* STGR. (East Tien Shan); c, d — *P. gratiosa flavala* sub-spec. nov.; f — *P. wagneri* PÜNGL. (Kaingdy-Katta mountain range, Central Tien Shan); g — *P. golbecki* spec. nov., holotype. b, d — females, others: males.

3) since *aksuensis* B.-H. and *naryna* B.-H. were described in the same work on the same page, I assume as a senior name *aksuensis* B.-H., as it was described before *naryna* B.-H.

Material. Kyrgyzstan: Terskei Ala-Tau: 1 ♂, VII.1974 (BAKUROV); 5 ♂♂, Pokrovka, 27., 30.VII.1955, 13.VII., 2.VIII.1967 (TSVETAEV); 1 ♂, Borskaun river, 9.VII.1978 (PETRIKEVICH); 1 ♂, 10 km SW of Przhevalsk, 13.VII.1980 (DUBATOLOV); 2 ♂♂, 20 km of the Karakol gorge, 28.VII.1985; 2 ♂♂, Ken-suu (PLYUSTSH); 8 ♂♂, Naryn, 11., 15.VII.1906 (AKULIN), 10.VI.1910 (KSENZOPOLSKY), 9.VII.1904, 20., 27.VI.1915 (NEZHIVOV), 26.VII.1967 (TSVETAEV); 6 ♂♂, Dolon pass, 31.VII.1967, 2.–5.VIII.1969 (TSVETAEV), 9.VII.1979 (STHERBINA), 20.VII.1989; 28 ♂♂, 5 ♀♀, Kaingdy-Katta mountain range, Tashkoro, 19.–28.VII.1982, 2.–9.VII.1989, 6., 19.VII.1986 (PLYUSTSH, MAKHAT, SAZONOV), 4.–6.VII.1988 (BOGDANOV); 1 ♂, 2 ♀♀, Inyl'chek-Tau mountain range, Tashkoro, 19.VII.1982 (PLYUSTSH). China, Xinjiang: 1 ♂, Aksu, 1914 (G. RÜCKBEIL); 1 ♂, 1 ♀, "Kuruk-tag, pascus Ak-Tash, init. VII 1914" (RÜCKBEIL); 2 ♀♀, Hotan (BABKIN).

### ***Palaearctia glaphyra manni* (STAUDINGER, 1881)**

Stett. Ent. Ztg. **17**: 402 (*Arctia glaphyra manni*).

= *Arctia glaphyra manni* ALPHERAKY, 1882, Horae Soc. Entomol. Ross. **17**: 29, t. 1, f. 32.

Type locality: Kungess (Kunes He) river upper course, Arshan (Arxan) terrain in China, Xinjiang.

Distribution. North-East Tien Shan at the Ili river headwaters.

Description (figs 8e, f). A rather large moth, the forewing length being 16–17 mm. The wing pattern is well developed and consists of separate spots on the forewing, and (the main character!) large spots on the hindwings.

Notes. The type series of the subspecies was collected by S. ALPHERAKY in the upper course of the Kungess river (Kunes He) in 1874. Several specimens, which were supplied with the name *mannii*, were sent to O. STAUDINGER. The latter author described them in his work, but with another spelling — *manni*. As the paper of S. ALPHERAKY was published one year later, the subspecies should be named according to the spelling of STAUDINGER and with his authorship.

Material. China: Xinjiang: 1 ♂, the lectotype of *A. g. manni* ALPH., Arshan, 1.VII.1874 (ALPH[ERAKY]); 1 ♂, "Thian-chan", N 568 (STAUD[INGER]); 1 ♂, "Alatau", N 835, 1882 (STAUD[INGER]); 1 ♂, "Thianchan", N 520, 16.VII.1912 (coll. A. MEINHARD); 4 ♂♂, Juldus (E. LE MOULT); 1 ♂, Kuldja [Gulja] (coll. Zoological Museum of Helsinki University, Finland); 1 ♀, same locality.

### ***Palaearctia wagneri* (PÜNGELER, 1918)**

Z. öster. Ent. Ver. **3**: 46, textfig. (*Arctia wagneri*).

Type locality: "Sary-Djas" [Sarydzhas] (Central Tien Shan) in Kyrgyzstan.

Distribution. Since the type had been collected all the known specimens of this species originated from the Kaingdy-Katta Range in Central Tien Shan in Kyrgyzstan.

Biology. The moths were collected at 3200 m above sea level in the first half of June.

Description (fig. 8g). This species is mostly related to *P. glaphyra* (Ev.), but differs by the presence of the fused narrow transversal bands M<sub>1</sub> and M<sub>2</sub> on the forewing upperside and also by the presence of black scales on the cubital veins.

Genitalia. See figs 3f, 4d.

Notes. According to the male genitalia structure, including the vesica, *P. wagneri* (PÜNGL.) and *P. glaphyra* (Ev.) are very similar. Nevertheless, the differences in wing pattern, with respect to a full sympatry of both taxa at the Kaingdy-Katta Range, proved them to be different species.

Material. Kyrgyzstan: 3 ♂♂, 1 ♀, Kaingdy-Katta mountain range, Tashkoro, 5.–6.VII.1984, 11., 18.VII.1986 (SAZONOV, MAKHAT, GANSON, PLYUSTSH).

***Palearctia golbecki* spec. nov.** (figs. 10a, b)

Male. The forewing length is 9.5 mm in the holotype and 11.0 mm in the paratype, the wing expanse being 20 and 23.5 mm, respectively. The head is covered with bristly hairs, which are dark brown and light grey. The antennae are bipectinate, with equal branches 4 times longer than the diameter of an antenna unit. The body is short, 7.5–9.0 mm, stumpy, covered with thick brownish-black hairs. The margins of the patagia, tegulae, two longitudinal bands on the thorax, the lateral sides, end and underside of the abdomen are covered with light-grey hairs. The femorae are covered with long dark-brown and light-grey hairs, the tibiae and tarsi with light-grey scales. The fore tibia is short, 1.5 mm in length, with a large epiphysis. The single pair of spurs on the middle tibia and the two pairs of spurs on the hind tibia are slightly shorter than the tibia diameter. The wings of the holotype are narrow, those of the paratype are slightly wider, with sharp apices. The wing pattern is as in *P. gratiosa* (GR.-GR.), but the basal, medial and discoidal spots are very dark, while the margin is much lighter. The hindwing is white with dark veins, a discoidal spot and a wide margin. The pattern on the underside is similar, but the bands  $M_1$  and  $M_2$  on the forewing are reduced; the hindwing has a diffuse brown spot at the costa base.

Genitalia. See fig. 3g. The general structure as in *P. glaphyra*, but the aedeagus has dorsally no spurs at the distal part, and the vesica structure is different.

Female. The forewing length is 9.5 mm, the wing expanse being 21 mm. The head is covered with brownish-grey sleeky hairs. The palpi are stretched forward. The antennae are biserrate. The body is thick, cylindrical, 11.5 mm in length, covered with dense brownish-black hairs. The margins of the tegulae, patagia, two longitudinal bands on the thorax and abdomen underside, as well as the evenly coloured legs, are covered with brownish-grey scales. The spurs are short, not longer than half of the tibia diameter. The wings are very narrow, with contrasting black strokes: one in the middle of the cell, another behind the base of vein 2 ( $Cu_2$ ); a discoidal spot, a transversal spot between the bases of veins 2 and 3 ( $Cu_1$  and  $Cu_2$ ), a spot between veins 5 and 6 ( $M_1$  and  $M_2$ ), another one at the distal part of vein 2 ( $Cu_2$ ), and three spots along vein 1 (A) and in front of it. The marginal part of the wing is slightly darkened. The hindwing is almost entirely dark-brown with a clear lightened space between veins 3 and 4 (M and  $Cu_1$ ) and a weakly lightened space behind vein 2 ( $Cu_2$ ). The pattern of the wing underside is similar, but strongly lightened.

Material. Holotype ♂, "Prov. Syr-Darja, Jug. Alexandrinum, Loc. Tshai-Sandyk, 910.VI.25, A. GOLBECK" (TSCHETVERIKOV collection in the Zoological Institute, St.-Petersburg). Paratypes: 1 ♀, same locality and date; 1 ♂, Kirgizskaya SSR, Kirgiz Range (Alexander Mts.), Tyuz-Ashu pass, 3400 m, 17 VII.1977 (V. MURZIN).

***Palearctia gratiosa*** (GRUM-GRSHIMAILO, 1890)

Mém. lépidop. Ed. N. M. ROMANOFF 4: 533, T. 14, f. 5 (*Arctia glaphyra gratiosa*).

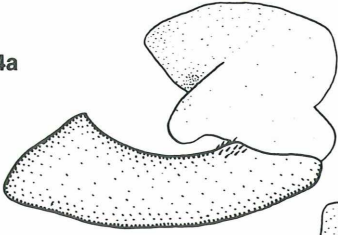
Type locality: "Artcha-Basch", 9,500 p. (Alai Range). The type specimen could not be found in the Zoological Institute, St.-Petersburg.

Distribution. Uzbekistan: West Tien Shan (Chatkal mountain range), Alai-Pamir (Turkestan and Zeravshan mountain ranges); Kyrgyzstan: Chatkal, Kirghiz Alatau (Alexander Mts.), Terskei Alatau, and Alai Ranges; Tajikistan: Turkestan, Hissar, Peter-the-Great and Trans-Alai Ranges, Pamirs); Afghanistan (Karakoram); India (Kashmir). West China, including Sichuan (DANIEL, 1961). It should be noted that the moth depicted on fig. 1565 (t. 68) in FANG CHENG-LAI (1982), in my opinion, is not "*Micrarctia glaphyra* (EVERSMANN)", as it is mentioned, but instead *P. gratiosa* (GR.-GR.). The nominotypical subspecies occurs in the Alai, Peter-the-Great Ranges and the West Pamir.

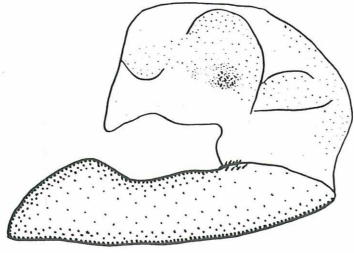
Biology. The moths were found at 2200–4500 m above sea level, the caterpillars are polyphagous on dicotyledonous plants.

Description. The main characters are noted in the key. The groundcolour varies from white to yellowish, pinkish or greyish. The forewing pattern is very variable (figs 10c–d). The hindwings may be of

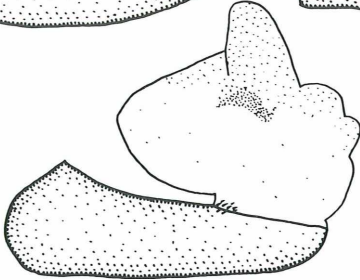
4a



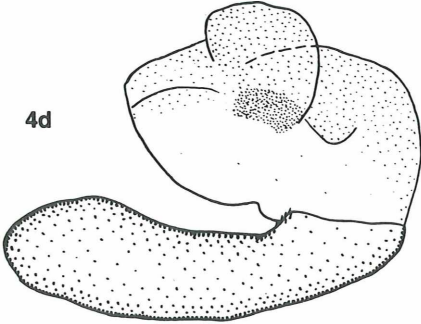
4b



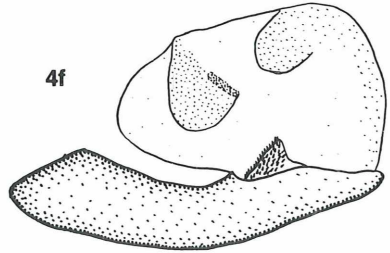
4c



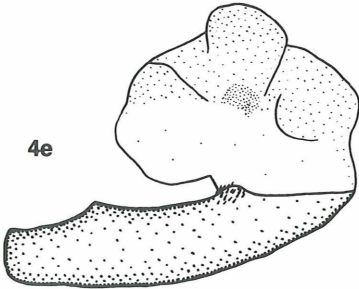
4d



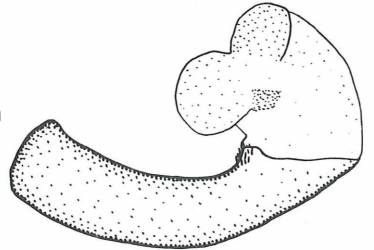
4f



4e



4h



4g

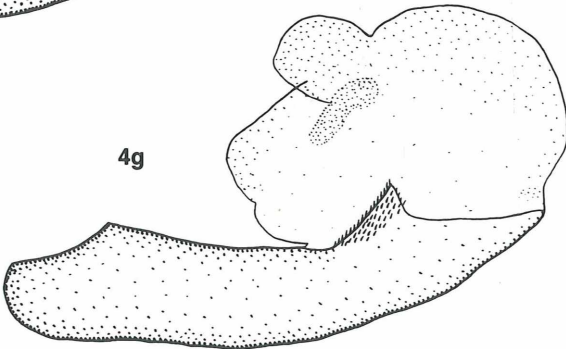


Fig. 4: Aedeagus of *P. glaphyra*, *P. wagneri* and *P. gratiosa*. a — *P. g. glaphyra* Ev., holotype; b — *P. g. dublitzkyi* O. BANG-HAAS (Trans-Ili Alatau); c — *P. g. manni* STGR. (East Tien Shan); d — *P. wagneri* PÜNGL. (Kaingdy-Katta mountain range, Central Tien Shan); e — *P. g. aksuensis* O. BANG-HAAS (Kaingdy-Katta mountain range); f — *P. gr. caroli* subsp. nov., holotype; g — *P. gr. sergei* subsp. nov., holotype; h — *P. gr. gratiosa* GR.-GR. (Alai Range); i — *P. gr. rupicola* GR.-GR. (Pamirs); j — *P. gr. flavala* subsp. nov., holotype.

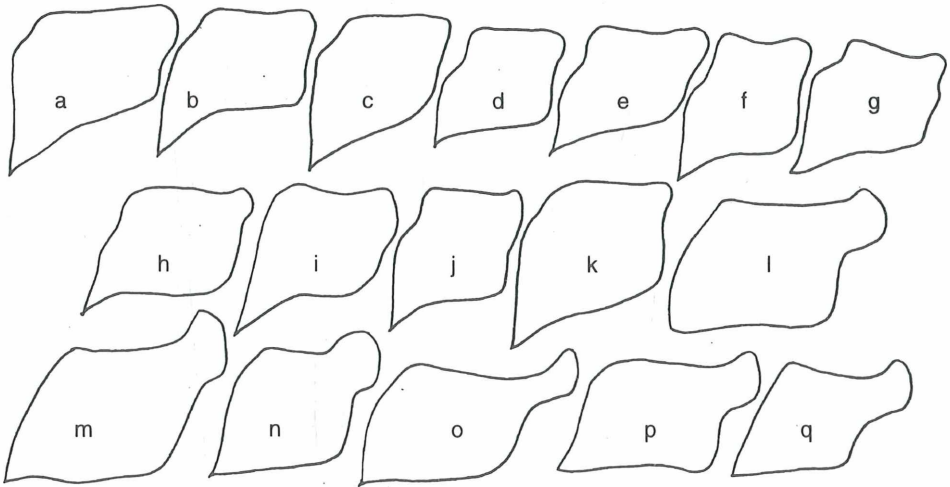
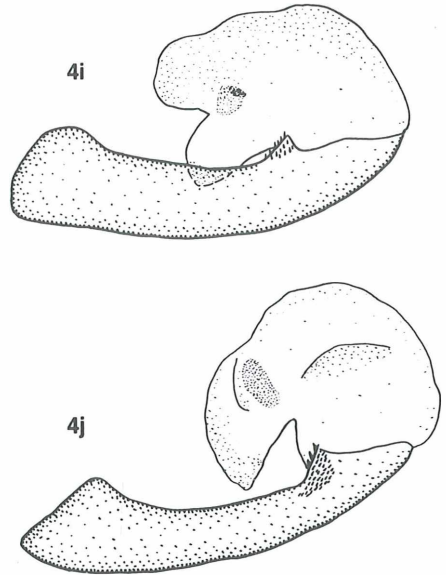
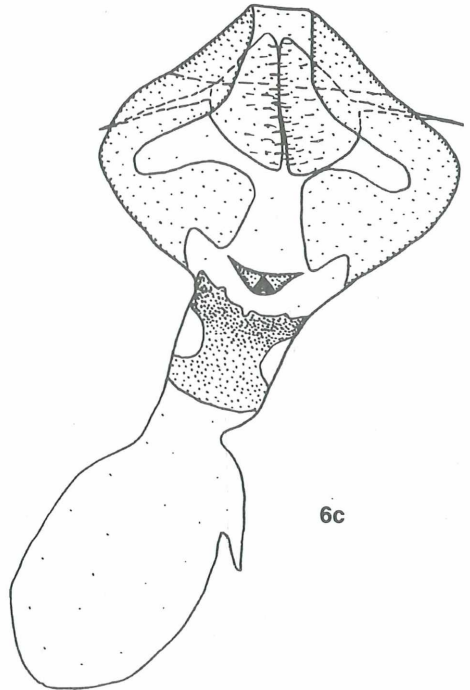
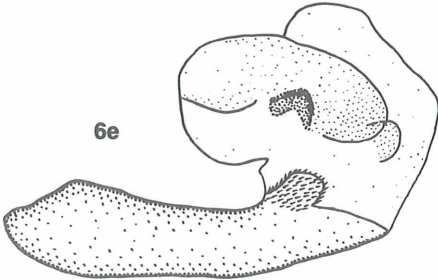
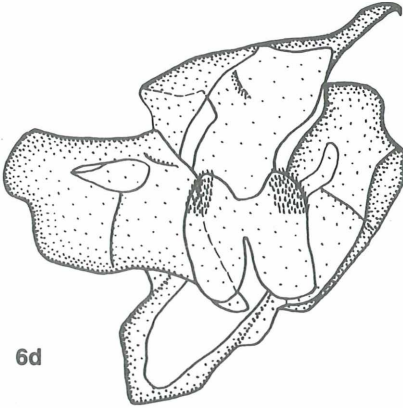
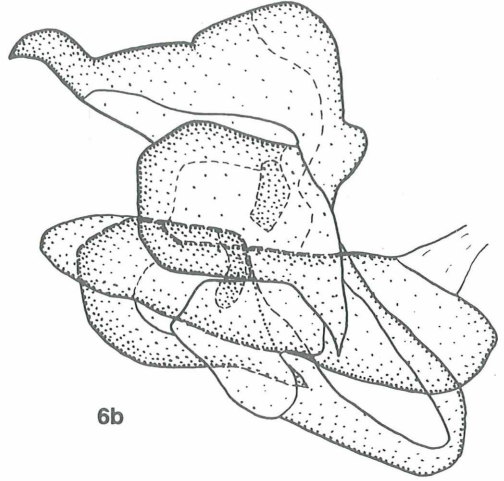
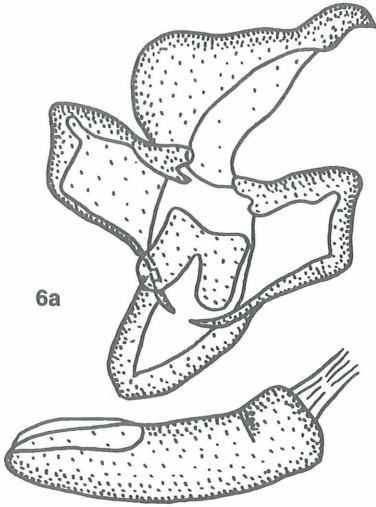


Fig. 5: Variation of male valvae of *P. glaphyra* (a-k) and *P. gratiosa* (l-q). a-b — *P. g. dublitzkyi* O. BANG-HAAS (Trans-Ili Alatau); c-g, i-j — *P. g. aksuensis* O. BANG-HAAS (c — "Alatau", d — Przhevalsk, e-g — Terskei Ala-Tau, i — "Thian-Shan", j — Kaingdy-Katta mountain range); h — *P. g. "ab. illustrata"* O. BANG-HAAS, Tien Shan; k — *P. g. manni* STGR. (East Tien Shan); l — *P. gr. caroli* subsp. nov. (Chatkal mountain range); m — *P. gr. sergei* subsp. nov. (Terskei Ala-Tau); n — *P. gr. gratiosa* GR.-GR. (Alai Range); o — *P. gratiosa* GR.-GR. ?ssp. (Turkestan mountain range); p — *P. gr. flavala* subsp. nov. (Hissar mountain range); q — *P. gr. rupicola* GR.-GR. (Trans-Alai Range).





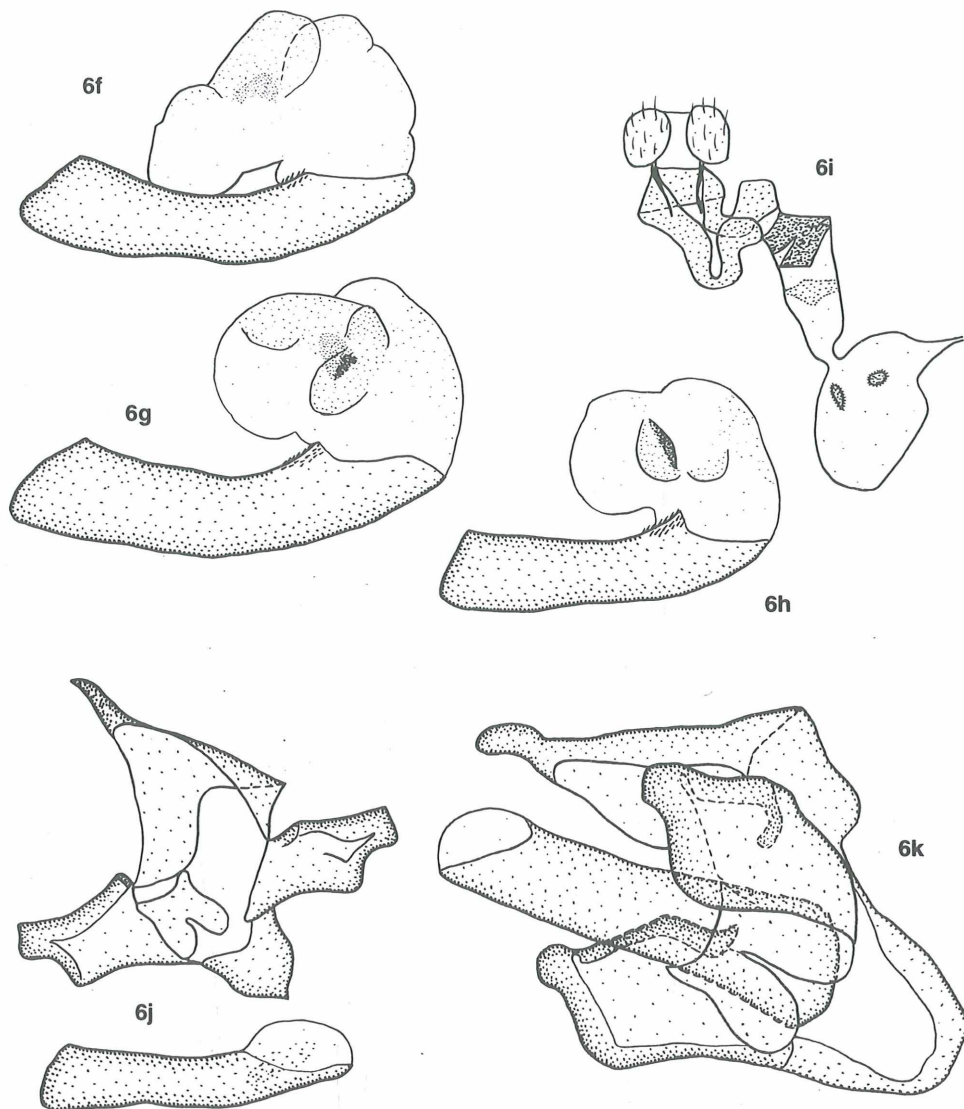


Fig. 6: Genitalia of *Palearctia*. a, c — *P. erschoffii* ALPH. (East Thian-Shan); b — lectotype of "*Arctia erschoffii issyka* STGR."; d, e, i — *P. ferghana* STGR. (Alai Range); f — *P. f. schottlaenderi* STRAND (Tien Shan); g — *P. f. susamyra* subsp. nov., holotype; h — *P. f. turkestana* subsp. nov., holotype; j — *P. gracilis* spec. nov., paratype (Chatkal mountain range); k — *P. marxi* O. BANG-HAAS, holotype. c, i: females, e – h: male aedeagus.

different colouration, normally red, sometimes orange, yellow, greyish-white or of different colours: pinkish at the base, yellowish at the margin. The discoidal spot may be well developed or fully absent. The marginal spots also vary. The veins are usually invisible, but often set with black scales at the wing base. Several aberrations have been described: ab. *flava* B.-H., with yellow hindwings, ab. *nigromarginalis* B.-H., with a continuous black margin at the hindwing. The nominotypical subspecies is characterized by a bright red hindwing without a discoidal spot. The V-shaped stroke is well developed, sometimes narrowly interrupted.

Genitalia. See figs 3–5.

Material. Kyrgyzstan: 1 ♂, "mts. Alaiensis centr., cl. merid., fl. Koksū, pr. Kosch-Dube, 3900 m, 8.VIII.1964" (BUNDEL); Alai Range: 1 ♂<sup>4</sup>, Iordan, the Ulyumur terrain, 16.VII.1935 (TSVETAEV); 2 ♂♂, Gao-mysh pass, above Khaidarken, 3500–3600 m, 16.–17.VII.1983 (SAZONOV); 1 ♂, Kuruksai Mountain Range, Alaudin river, 3600 m, 27.VII.1987 (TARASOV). Tajikistan: 1 ♂, "Buchara or., Jg. Petri Magni, val. fl. Kara-schura, lc. Gursy-Tasch", 11.VII.1911 (coll. TSCHETVERIKOV); Peter-the-Great Range: 1 ♀, Tupehek, 13000 feet, 14.VII.1913 (KOCHUBEI); 1 ♂, Ganoshou near Tadzshikabad, 3500 m, 16.VII.1971 (TSVETAEV); 1 ♂, terrain Sus (Darai-Nazarak), 3000 m, 8.VII.1984 (PETRIKEVICH); Pamirs: 1 ♂, Vanch Range, terrain Lyangar, Kashtiga river, 3500 m, 31.VII.1973; 1 ♂, Shugnan Range, terrain Sangou-Dara, 3500 m, 18.VII.1965 (TSVETAEV); 1 ♂ of ab. *flava* B.-H., "Pamir S.W., Jugum Want-schesis, fl. Gudjiwas, 3000 m, 4.VIII.1955" (BUNDEL); 1 ♂, Russian Geographical Society glacier, 29.VII.1983 (KAABAK).

#### ***Palearctia gratiosa caroli* subsp. nov.**

Distribution. Uzbekistan: Chatkal Mountain Range; Kyrgyzstan: Chatkal Mountain Range, Kirghiz Alatau (Alexander Mts.). Most probably this subspecies will be found on other ranges of the West Tien Shan.

Description (figs 9a–c). The hindwing usually has an uneven groundcolour: darker reddish at the base and the center and lighter yellowish at the external and costal margins. This yellowish zone may be very narrow or extremely wide, nearly reaching the wing base. The discoidal spot is narrow or absent. The veins bear few black scales at the base. On the forewing upperside the V-shaped stroke is always interrupted behind the cell and the origin of vein 2 (Cu<sub>2</sub>), forming two separate medial bands (M<sub>1</sub> and M<sub>2</sub>).

Material. Holotype ♂, ex larva, "UdSSR – Kirghisia, Thian-Shan Mts., Alaarcha valley, 2200–2700 m, 6.83, ČERNÝ". Paratypes: 1 ♀ ex ovo, "USSR – Kirghisia, Frunzenskaya region, Kirghizskij Ala-Tau, Alaarcha valley, 2600–3000 m, ČERNÝ"; the Kirghiz Ala-Tau: 1 ♀, Uzun-Gyr, 31.VII.1981 (PLYUSTSH); 1 ♂, Ala-Archa, 3500 m, 31.VII.1986 (NEKRASOV); 1 ♂, Chatkal mountain range, Aksu river, 3300 m, 3.VIII.1950 (BUNDEL). The name is given in honour of KAREL ČERNÝ, Innsbruck, Austria.

#### ***Palearctia gratiosa sergei* subsp. nov.**

Distribution. The southern slopes of the Terskei Ala-Tau in Inner Thian-Shan, Kyrgyzstan.

Description (fig. 8h). The largest subspecies, the forewing being 15 mm in length, the wing expanse is 31.5 mm. The hindwing is uniformly orange with a large contrasting discoidal spot, submarginal spots and dark veins. The spots of the forewing are contrasting, the V-shaped spot being well developed.

Material. Holotype ♂, SE of the Terskei Ala-Tau, 6 km upstream of the Molo gorge, 12 km of the Kuilyu river (Sary-Dzhaz tributary), 19.VII.1984 (SAZONOV). Paratypes: 3 ♂♂, 2 ♀♀, same locality (SAZONOV). The name is given in honour of SERGEI SAZONOV (Moscow).

4 This specimen may have originated from Uzbekistan, because the Iordan town belongs to this country, but the neighbouring mountains to Kyrgyzstan.

***Palaearctia gratiosa flavala* subsp. nov.**

Distribution. Uzbekistan: Zeravshan and Turkestan mountain ranges; Tajikistan: Zeravshan, Turkestan, and Hissar mountain ranges.

Description (figs 9e–g). The forewing as in *P. g. gratiosa*, but the hindwing is always yellow. The discoidal spot is weakly expressed or fully absent.

Material. Holotype ♂, "Samarkand", [Magiyan river, northern slope of the Hissar Range, 30 km SE of Pendzhikent], No 34, 1886 (HABERHAUER). Paratype ♀, same locality.

Additional material: 1 ♂, Samark[and] region, [Hissar mountain range], Laudan pass, 17.VII.1912 (KIRICHENKO); 1 ♀, Zeravshan mountain range, Sary-ob (pr. Vory), 26.VI.1925; 3 ♂♂, Turkestan mountain range, Kumbel pass, 3000–3200 m, 7.VII.1976, 7.VII.1982 (GANSON, TSVETAEV, SAZONOV); 2 ♂♂, Hissar mountain range, Anzob pass, 3300 m, 5.VIII.1962 (TSVETAEV), 12.VII.1979 (PRASOLOV); 1 ♂, "Fanskie Gory" Mts., Zigrat pass, 6.VII.1981 (FILEVA).

***Palaearctia gratiosa rupicola* (GRUM-GRSHIMAILO, 1890)**

Mém. Lépidop. Ed. N. M. ROMANOFF 4: 535, t. 19, f. 6 (*Arctia rupicola*).

= *Arctia glauca* STAUDINGER, 1892, Dtsch. Entomol. Zeit. IRIS 4: 251, t. 3, f. 5.

Type locality: Aram [Aram-Kungei], Trans-Alai Range.

Distribution. Kyrgyzstan: eastern part of the Trans-Alai Range. Tadzhikistan: eastern part of the Trans-Alai Range, East and South-West Pamirs, westwards to the eastern part of the Shugnan Range.

Description (figs 9d, 9i, 10e). The hindwings are white, greyish-white, or black, the wing pattern is rather contrasting, as in the nominative subspecies.

Material. Trans-Alai Range: 1 ♀ (the holotype of *Arctia rupicola* GR.-GR.), "Arom-Kungei", 17.VII.1886 (kol. b. Vel. KN. NIKOLAYA MIKHAILOVICH) [coll. former Grand Duke NIKOLAI MIKHAILOVICH] (labels in russian); 1 ♀, same locality, 3.VII.1908 (AVINOV); 1 ♂, Kzhyl-Art pass, 20.VII.1982 (TARASOV). Pamirs: 1 ♂, Koitezek pass, 24.VII.1982 (SAZONOV); 1 ♂, Shugnan Range, Dzhilandy, 4500 m, 11.VIII.1989 (BOGDANOV).

***Palaearctia gratiosa kashmirica* FERGUSON, 1985 comb. nov.**

Entomography, Ann. Rev. Biosyst., Sacramento 3: 222, f. 44, 101–102 (*Palaearctia kashmirica*).

Type locality: Baltistan, Kashmir, India.

Description (colour plate fig. 2). This race is very similar to *P. g. rupicola* (GR.-GR.) but the wing pattern is very diffuse.

Genitalia. Do not differ from those of *P. gratiosa* (GR.-GR.) (FERGUSON, 1985: f. 101, 102).

***Palaearctia gratiosa postflavida* (HAMPSON, 1894)**

Moths Ind. 2: 18, f. 5; Cat. Arct. Agar. coll. Br. Mus.: 238, 132 (*Ocnogyna postflavida*).

Type locality: Kashmir, Skoro-la, 15,000 f.

Description. The hindwing is orange-yellow, the forewing pattern is diffuse.

Genitalia. Do not differ from those of *P. gratiosa* (GR.-GR.) (cf. FERGUSON, 1984: 456, f. 114, 14a).

Notes. DANIEL (1961) reported on a male of "*Micrarctia postflavida* HMPS." from Sichuan (China), Omeishan, leg. STÖTZNER. This specimen was not figured and described, so it belonging to subspecies *P. g. postflavida* (HMPS.) has to be confirmed, but I have no doubt that it belongs to the species *P. gratiosa* (GR.-GR.).

***Palearctia gratiosa lochmatteri* (REICH, 1933) comb. nov.**

Int. Ent. Zeit. **27**: 312 (*Micrarctia lochmatteri*).

Type locality: "Drittes Seitental des Shyok-Tals, 4800 m, ..., 3.VIII.1929 von Fr. LOCHMATTER"

Description. I haven't examined this taxon. The original description as follows: "Steht in Größe, Gestalt und Aussehen etwa in der Mitte zwischen *Micr. glaphyra gratiosa* ab. *flava* O. BANG-HAAS und *Phragmatobia (Oroncus) SEITZ wagneri* PÜNGELER. Flügelspannung: 31 mm. Beide Flügel stark schwärzlich überstäubt, so daß die hellen Zeichnungen sehr zurücktreten. Vorderflügel schwarzbraun. Schwarze rundliche Flecken in der Mitte und am Ende der Zelle, ferner in der Mitte des Innenrandes und am Außenwinkel und unterhalb der Spitze. Die Mittelbinde ist verschmälert und unvollständig, nur bis zu der weißen Submediana reichend. Die äußere Binde sehr verschmälert, scharf nach außen gewinkelt. Hinterflügel blaß gelblich, mit einem deutlichen Discalfleck, der bei *wagneri* ganz fehlt, und einer 2 mm breiten ganz zusammenhängenden Randbinde. Unterseite der Vorderflügel mit einer breiten dunklen Binde schräg von der Costa zur Querrippe und einer dunklen Randbinde. Unterseite der Hinterflügel wie oben, aber verwaschener und nicht so stark schwarz gesäumt. Körper oben schwarz, seitlich und unten gelb. Palpen schwarz mit orangegelber Spitze." According to this description I consider this taxon most probably belonging to *P. gratiosa* (GR.-GR.), but as a distinct subspecies.

***Palearetia erschoffii* (ALPHERAKY, 1882)**

Horae Soc. Entomol. Ross. **17**: 29, t. 1, f. 33 (*Arctia erschoffii*).

= *Arctia erschoffii issyka* STAUDINGER, 1887, Stett. Ent. Ztg. **48**: 82, **syn. nov.**

= *Micrarctia kindermanni korlana* BANG-HAAS, 1927, Horae Macrolepid. **1**: 67, t. 8, f. 47.

Type locality: "Julduz" [a river, Xinjiang, China].

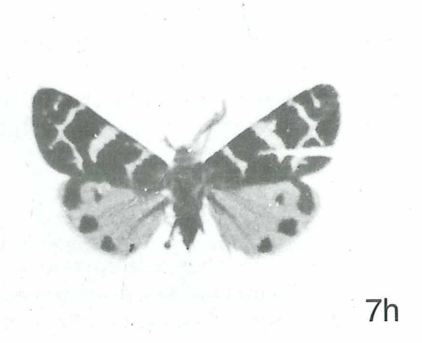
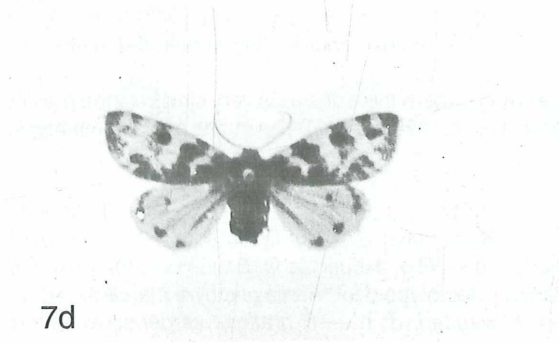
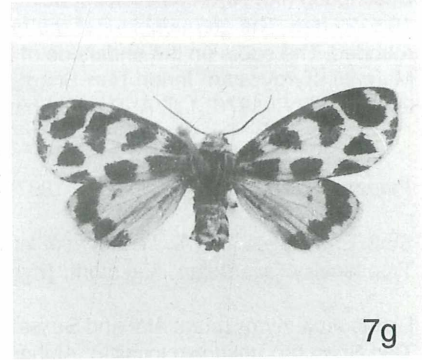
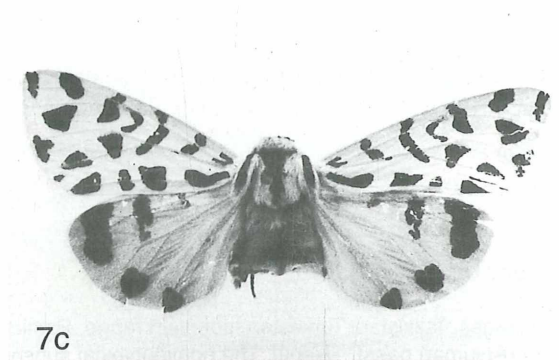
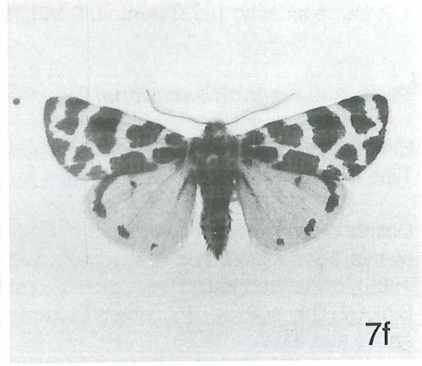
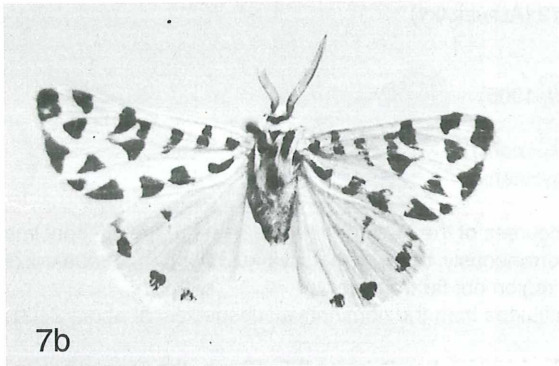
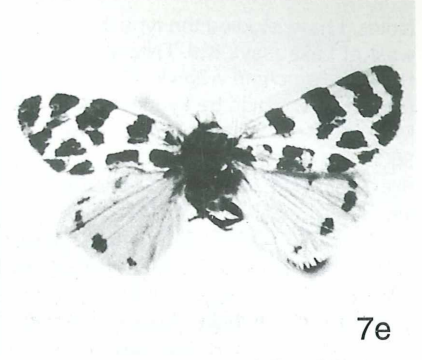
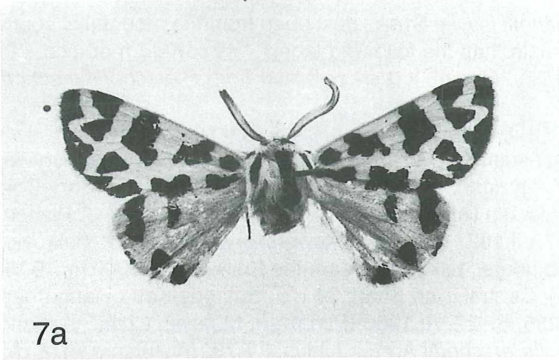
Distribution. Uzbekistan?: Chatkal mountain range. Kyrgyzstan: Chatkal and Sussamyr mountain ranges, Kirghiz Alatau, Kungei Alatau, Terskei Alatau, Inner Tien Shan (Naryn), Central Tien Shan (Sarydzhas, Kaingdy-Katta mountain range). Kazakhstan: Trans-Ili Alatau, ?Kungei Alatau. China in Xinjiang: East Tien Shan: Julduz, Kuruktag Range. The nominotypical subspecies occurs in almost all parts of the species' range excluding the Naryn region.

Biology. The moths of the nominotypical subspecies have been collected at altitudes of 3000–3400 m above sea level, and, according to ALPHERAKY (1891), from 8000 to 9000 feet. The imagines fly from July to September, seldom already in June.

Description The forewing pattern is rather peculiar (figs 7f, g; colour plate fig. 5). The groundcolour varies from white to yellowish. The dark spots may vary slightly in size and form, rarely the costal spots of bands  $M_1$  and  $M_2$  are fused with the corresponding hind spots of these bands. Sometimes the costal and hind spots are stretched along the wing margins. The groundcolour of the hindwing is red, sometimes yellowish (ab. *flava* B.-H.). The discoidal spot is absent or, rarely, present only as few black scales. The submarginal spots ( $E_3$ ) are narrow. The pattern of the hindwing underside is the same as on the upperside, but at the middle of the costa there may be a black stroke, sometimes fused with the discoidal spot. The nominotypical subspecies is characterized by its larger size (forewing length 12–15 mm, wing expanse 23–29 mm). The forewing groundcolour varies from white to slightly yellowish with black, less frequently brownish spots, but always more pointed than in the next subspecies. The hind spots on the forewing are usually fused along the margin.

Genitalia. See figs 6a–c.

Fig. 7: Imagines of *Palearctia*. a — *P. mongolica* ALPH., ♂, S. Tuva; b — holotype ♂ of "*Arctia serarum* GR.-GR."; c — *P. mongolica* ALPH., ♀, S. Mongolia; d — *P. ferghana ferghana* STGR., lectotype ♀; e — *P. erschoffii selmonsi* BÖTTCH., ♂, At-Bashi; f — *P. erschoffii erschoffii* ALPH., lectotype ♂; g — *P. erschoffii erschoffii* ALPH., ♀, East Tien Shan; h — *P. ferghana turkestanica* subsp. nov., holotype ♂.



Notes. I have studied the type of *Arctia erschoffii issyka* STGR., described from the mountains south-west of Lake Issyk-Kul. This specimen, a male, has the following labels: "Issyk-Kul / mer.-occ. / 88 RCKBL.", "*erschoffii* v. *issyka* STGR.", "Zool. Mus. / Berlin" It does not differ from *P. erschoffii erschoffii* (ALPH.) and should be synonymized with it.

Material. Kazakhstan: Trans-Ili Alatau: 1 ♂, Oj-dzhejlau, 13.VIII.1935 (IONOV); 1 ♂, Turgen' river, 3000 m, 22.VIII.1983 (GAMAYUNOVA). Kazakhstan/Kyrgyzstan: Kungei Ala-Tau: 1 ♂, Kshi-Yuryukty river, 3200 m, 21.VII.1974 (coll. SHAPIRO). Kyrgyzstan: 1 ♂, Chatkal mountain range, Lake Sary-Chelek, 3000 m, 4.VIII.1983 (MURZIN); Kirghiz Ala-Tau (Alexander Mts.): 1 ♂ (TRUSSEVICH); 1 ♂, Pishpek [Bishkek], 25.V.1907; 1 ♂, Kegety-pass, 17.VII.1927 (JANKOWSKY); Terskei Ala-Tau: 1 ♂, Pokrovka, 3000 m, 2.VIII.1935 (TSVETAEV); 2 ♂♂, Molo gorge, 12 km upstream the Kuilyu river, 3300 m, 19.VII.1984 (SAZONOV); Issyk-kul: 3 ♂♂, (TANCRE); Central Tien Shan: 34 ♂♂, Kaingdy-Katta Range near Tashkoro, 10.VII.1982 (TARASOV), 21.VII.1985, 5.–22.VII.1986 (PLYUSTSH, MURZIN). China, Xinjiang, East Tien Shan: 1 ♂, the lectotypus of *Arctia erschoffii* ALPH., Juldus, ".7.79" (ALPH[ERAKY]); 2 ♂♂, 1 ♀, same locality; 1 ♂, Tsamma, 9.VIII.1879 (ALPHERAKY).

### ***Palaearctia erschoffii selmonsi* (BÖTTCHER, 1905)**

Ent. Zeit. **19**:62, f. 18–21 (*Arctia erschoffii selmonsi*).

Type locality: Naryn, Inner Tien Shan, Kyrgyzstan.

Distribution. Inner Tien Shan in the upper courses of the Naryn River and its tributaries. A specimen of this subspecies, which was reported erroneously from Lake Issyk-kul, Rybach'e (DUBATOLOV, 1985), originated in fact from the At-Bashi region not far from Naryn.

Biology. This subspecies occurs at lower altitudes than the nominative subspecies, at about 2400 m above sea level.

Description (fig. 7e). A small subspecies, the forewing length being 9.5–10 mm, the wing expanse is 19.5–21 mm. The groundcolour of the forewing is always yellowish, the spots are brownish, slightly rounded. The spots on the underside of the forewing are not fused along the margin.

Material. Kyrgyzstan: Inner Tien Shan: 2 ♂♂, Naryn, 16.VII.1914 (NEZHIVOV), 1 ♂, same locality, 2400 m, 15.VII.1976; 1 ♂, At-Bashi, Char river, IX.1969 (material of D. I. BERMAN's expedition).

### ***Palaearctia ferghana* (STAUDINGER, 1887) comb. nov.**

Stett. Ent. Ztg. **48**:82 (*Arctia erschoffii ferghana*).

Type locality: "Margelan, Alai mont." [Kyrgyzstan / Uzbekistan?].

Distribution. Kyrgyzstan: Alai and Sussamyrg Ranges. Tajikistan: Turkestan mountain range, Pamirs? Tien Shan (an unknown locality). Afghanistan (Anjuman pass), ?Nepal. The nominotypical subspecies occurs in the Alai Range.

Biology. According to V. S. MURZIN (pers. comm.) the moths occur in July at altitudes higher than 3000 m above sea level.

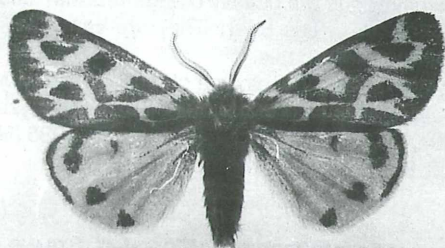
Description (figs 7d, 10i; colour plate fig. 6). In wing pattern this species is very similar to the previous one; the wing pattern can vary to a great extent (DANIEL, 1966: Tab. 3). The moths of the nominotypical

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Fig. 8: Imagines of *P. glaphyra* Ev. (a–f), *P. wagneri* PÜNGL. (g) and *P. gratiosa* (GR.-GR.) (h). a — *P. g. glaphyra* Ev., holotype ♂; b — *P. g. dublitzkyi* O. BANG-HAAS, ♂, Trans-Ili Alatau; c — *P. g. aksuensis* O. BANG-HAAS ab. *obscurata* BÖTTCH., ♂, Naryn; d — *P. g. aksuensis* O. BANG-HAAS ab. *puengeleri* BÖTTCH., ♂, Terskei Ala-Tau; e — *P. g. manni* STGR., lectotype ♂ of "*Arctia glaphyra manni* ALPH."; f — *P. g. manni* STGR., ♀, East Tien Shan; g — *P. wagneri*, ♂; h — *P. gratiosa sergei* subspec. nov., holotype ♂.



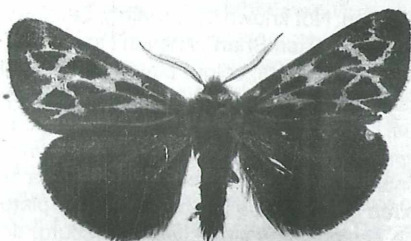
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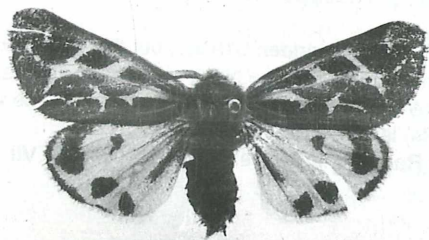
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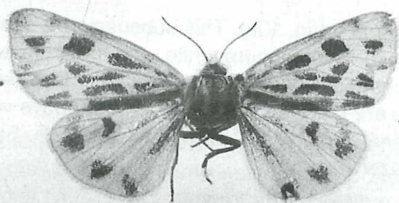
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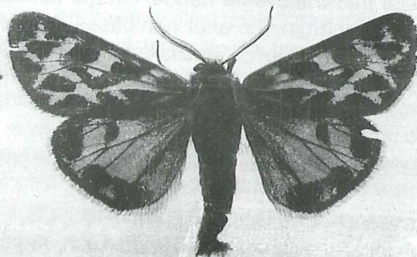
8e



8f



8g



8h

subspecies are almost identical with *P. erschoffii* (ALPH.), but the forewing spots are more angular. The hindwings are usually orange-red with small spots.

Genitalia. See figs 6d–h. They are very characteristic, therefore by their structure the species is easily distinguishable.

Material. 1 ♀<sup>5</sup>, the lectotype of *Arctia erschoffi ferghana* STGR., “48”, “origin”, “Horae Macrolep. Vol. 1 abgebildet t. 8, f. 50 beschrieb. p. 67” Kyrgyzstan: 1 ♂, Alai Range, Dugoba river, 3000 m, 17 VII. 1984, 1 ♀, ex larva, same locality, 5.VIII.1985 (MURZIN); 1 ♂, “mts. Alaiensis cent., cl. merid., fl. Koksu, pr. fl. Kere-Kasyk, 4.VIII.1954” (BUNDEL).

***Palearctia ferghana schottlaenderi* (STRAND, 1912)**

Int. Ent. Zeit. (Guben) **6**:2 (*Arctia schottlaenderi*).

Type locality: “Thianschengebirge”, without exact locality.

Distribution. Not known by certainty, because all the examined specimens of this subspecies are old and labelled “Tien Shan”. I haven't found any specimens from our days.

Description (fig. 10j; colour plate figs 3, 4). The groundcolour of the forewing is rose, the spots are diffuse. The hindwing is carmine-red, the submarginal spots ( $E_3$ ) are very small.

Notes. Dr. A. WATSON kindly sent me a colour slide of the type specimen of *Arctia schottlaenderi* ab. *infrapicta* STRAND (colour plate fig. 3), which depicts a female, not a male, as mentioned in the original description (STRAND, 1912), and a colour slide of a water-colour figure of the *Arctia schottlaenderi* STRAND type specimen (colour plate fig. 4). The two specimens studied from the collection of the Zoological Institute (St.-Petersburg) do not differ from the specimens on these slides.

Material. 2 ♂♂, Tien Shan, NN 516, 517 (coll. MEINHARD).

***Palearctia ferghana susamyra* subsp. nov.**

Description (fig. 10k). This subspecies is similar to *P. f. schottlaenderi* STRAND, but the groundcolour of the forewing is pure white, and the transverse bands are fused. The black submarginal spots ( $E_3$ ) and the discoidal spot on the hindwing are large; on the costal margin and at the bases of the veins there are black scales; the hindwing above vein 7 (Rs) is yellowish.

Material. Holotype ♂, “Kirghizskaya SSR, Susamyr Range, the Ala-bel' pass, 3300 m”, 14.VII.1977 (MURZIN).

***Palearctia ferghana turkestanica* subsp. nov.**

Description (fig. 7h). The groundcolour of the forewing is white, while the spots are increased so as to fuse into transverse bands. On the hindwing there are a narrow discoidal spot and large spots along the margin, the anal vein bases are suffused with black scales.

Material. Holotype ♂, Tadzhikistan, Turkestan mountain range, the Shakhristan pass, 16.VII.1980 (PRASOLOV).

***Palearctia ferghana variabilis* (DANIEL, 1966), comb. nov.**

Mitt. Münch. Ent. Ges. **56** (7): 161–163, t. 3, f. 4–16 (*Micrarctia variabilis*).

Type locality: Afghanistan, Hindu Kush, Anjuman pass.

5 In the original description it was erroneously considered as a male.



Distribution. Afghanistan: Hindu Kush and South Badakhshan.

Description. According to the figures in the original description (DANIEL, 1966: f. 4–16), the taxon is extraordinarily variable in forewing pattern. The hindwing has a distinct and contiguous black margin or is fully black. Regarding the male genitalia structure (DANIEL, 1966: 162, Abb. 2) this taxon is conspecific with *P. ferghana* (STGR.).

Biology. The moths were collected from 12.VII. to 12.VIII.1963 at 2900 m above sea level in Badakhshan and at 3900–4300 m in Hindukush.

***Palearctia ?ferghana mustangbhoti* (DANIEL, 1961)**

Veröff. Zool. Staatssaml. München 6(4): 155, t. 11, f. 8 (*Micrarctia mustangbhoti*).

Type locality: Nepal, Mustangbhot, Tange-Khola, 5000 m, 31.VIII.55.

Description. I haven't studied the type specimen of this taxon. The original description as follows: "Wenig größer als das Bild von *postflavida* bei SEITZ, plumper. Auf der schwarzbraunen Vorderflügel-Grundfarbe sind die Querbinden im Diskus und Außenteil der Vorderflügel wesentlich reicher, während der Wurzelstrahl fehlt. Die Hinterflügel-Grundfarbe ist rot, an der Basis und am Innenrand breit, am Außenrand schmal schwarz tingiert, mit kräftigem Zellschlußfleck. Am Außenrand ist zwischen Mediana 2 und 3 ein roter Zahn, der den Saum erreicht. Die Fransen beider Flügel sind dunkel mit schwacher Teilungslinie (*postflavida* hat leuchtend gelbe Hinterflügel-Fransen). Die Vorderflügel-Unterseite ist heller, alle Zeichnungen breiter und verschwommener. Die Hinterflügel sind hellrot mit schwächerer Zeichnung als oberseits. Die Fühler sind schwach gezähnt wie bei *maculosa* GERN. Der Kopf, Thorax und das Abdomen sind kräftig dunkel behaart, ohne laterale Aufhellungen, Der Aderverlauf entspricht völlig dem der Urbeschreibung von *postflavida* beigegebenen Bild." According to this description and to the photograph (DANIEL, 1961: t. 11, f. 8), it is possible to conclude that this taxon is related to *P. ferghana* (STGR.) and probably conspecific with it. In this case it differs from the other subspecies of *P. ferghana* (STGR.) by the expanded white groundcolour and a contiguous band  $M_2$  on the forewings, by large discoidal and marginal ( $E_3$ ) spots on the hindwing and, mostly, by a strong black suffusion at the base and anal spaces of the hindwing.

***Palearctia gracilis spec. nov.* (fig. 10g–h)**

Male. The forewing length is 12–13.5 mm, the wing expanse being 23–26 mm. The head is covered with long dark brown and yellow-grey hairs, bristly on the vertex and semisleaky on the frons. The palpi are stretched forward, slightly longer than the frons hairs. The antennae are bipectinate, the short branches being three times and the long ones four times longer than an antenna unit diameter. The body is narrow, 8.5–11 mm long. The thorax is covered with long bristly black-brown and yellowish hairs, the latter concentrating along the margins of the patagiae and tegulae. The abdomen is covered with scales of the same colour, its tip being covered with hairs. On the dorsal side the light scales concentrate along the hind margins of the segments. The ventral part of the abdomen has two rows of black spots on the sternite sides. The legs are covered with yellow scales, the femora with bristly hairs. Sometimes the femorae, and, rarely, the tibiae are black laterally. The fore tibia is 1.5 mm long, with a big epiphysis. One pair of spurs is present on the middle tibia and two pairs of spurs on the hind tibia, nearly equal to the tibia diameter or slightly shorter. The wings are wide, the forewing is rounded apically. The groundcolour of the forewing is yellowish. There are two basal spots, often fused; the costal spot of the band  $M_1$  is triangular or quadrangular in shape, sometimes narrow, often with rough margins, extended behind the cubitus. The costal spot of the band  $M_2$  is fused with the discoidal one forming a rounded quadrangular or reniform spot with the hind inner angle drawn off and crossing vein 2 ( $Cu_2$ ). The hind spots of the median bands are fused into a trapezoid or parallelogram-formed spot with one or two incisions on its fore margin. There are three spots of the submarginal band ( $E_3$ ): the first one on the costa is quadrangular or composed of two fused

triangles, it reaches vein 4 ( $M_3$ ); the second one at the middle is triangular; the third one, lying on the hind margin, is also triangular; sometimes all these spots are fused into a single band. Some specimens have the spots fused along the hind margin. The external margin ( $E_{1+2}$ ) has widenings at the apex and between veins 4–5 ( $M_2$ – $M_3$ ) and 1–2 ( $A$ – $Cu_2$ ). The hindwings of the holotype are rose, those of the paratypes vary from yellow (ab. *flava* SHELJUZHKO in litt.) to bright red. The hindwing base has black veins or is entirely black up to 2/3 of the anal margin length. Sometimes the band  $M_1$  is developed. The discoidal spot is dark, rounded or reniform. The submarginal spots ( $E_3$ ) are large, the costal one being reniform, the middle (between veins 2–3 or  $Cu_1$ – $Cu_2$ ) and tornal ones are rounded. The margin is narrow and black. The wing underside is yellow, on the forewing the pattern is weakly developed and consists of two basal spots, a rounded spot at the middle of the cell, and a large discoidal spot. The costal spot of the  $E_3$  band is of the same shape as on the upperside, the medial one is reduced, the margin ( $E_{1+2}$ ) is developed up to vein 2 ( $Cu_2$ ), it is crossed by light veins. The hindwing underside has a costal stroke at the base or, instead of the band  $M_1$ , a discoidal bracket-shaped stroke and three submarginal spots of band  $E_3$ .

Genitalia. See fig. 6j. The valva have elongate tips, they are prominent basally, the aedeagus has no teeth.

Material. Holotype ♂, "holotypus ♂ *gracilis* SHELJ.", "Fergana S., Jug. Tshatkal, fontes flum. Ning-Dzilki", 19.VII.1929 (JANKOWSKIJ, Mus. Zool. Univers. Kiev). Paratypes: 5 ♂♂, same locality, 20.VII.1929 (JANKOWSKIJ); 1 ♂, "Fergana S., Jug. Tshatkal, the Tshanatsh-pass, 7.VII.1932" (MOTOV); 1 ♂, Fergana, [Sary-Chelek], Khadzi-Ata river, 8,000 [feet], 29.VIII.1904 (GRUM-GRSHIMAILO); 4 ♂♂, Kyrgyzstan, Chatkal Range, Sary-Chelek, 2700–3000 m, 26.VII.1983, 5.VIII.1983 (MURZIN).

Note. The new species differs strongly from the others by wing pattern and male genitalia structure. For the first time, the species was found in the collection of the Zoological Institute (St.-Petersburg), some specimens were kindly given for investigation by V. S. MURZIN. Later the species was found in the collection of the Zoological Museum of Kiev State University as an unpublished subspecies "*Micrarctia erschoffi gracilis*". So, I preserve SHELJUZHKO's name for this species.

### ***Palaearctia marxi* (O. BANG-HAAS, 1927) comb. nov.**

Horae Macrolep. 1: 68, t. 8, f. 51 (*Micrarctia kindermanni marxi*).

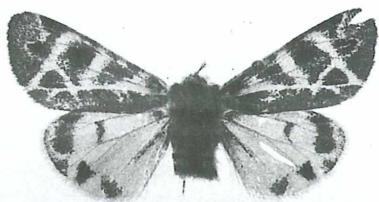
Type locality: "Bashahr Staten, Poo nordöstlich Simla" [India, Himachal-Pradesh]. The type specimen, a male, was kindly loaned for investigations by Prof. H. J. HANNEMANN. It bears the labels: "49", "Bashahr / India sept.", "Type / O. BANG-HAAS", "*Micrarctia kindermanni / marxi* O. B.-HAAS", "Horae Macrolep. / Vol. I. abgebildet / t. 8 f. 51 / beschrieb. p. 68", "Zool. Mus. / Berlin"

Description (colour plate fig. 7). A good colour figure of this species was published in the original description. The forewing have contiguous narrow transversal bands; the hindwing is red with a contrasting black base and large discoidal and submarginal spots ( $E_3$ ).

Genitalia. See fig. 6k. Very similar to *P. gracilis* spec. nov., but the tips of the valva and uncus are rounded.

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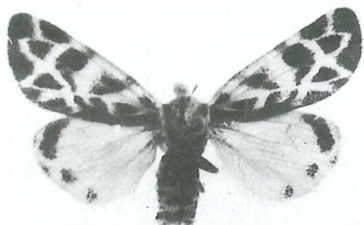
Fig. 9: Imagines of *P. gratiosa* GR.-GR. *P. gr. caroli* subsp. nov. (a–c): a — ♂, Chatkal mountain range, b — holotype ♂, c — paratype ♀, Kirghiz Ala-Tau; d — *P. gr. rupicola* GR.-GR., ♂; e–g — *P. gr. flava* subsp. nov. (e — holotype ♂, f — paratype ♀, g — ♂, Anzob pass, Hissar mountain range); i — *P. gr. rupicola* GR.-GR., holotype ♂.



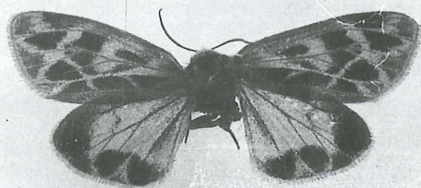
9a



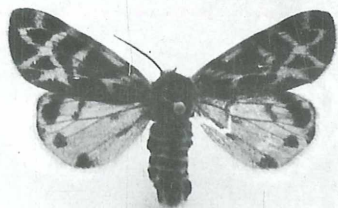
9e



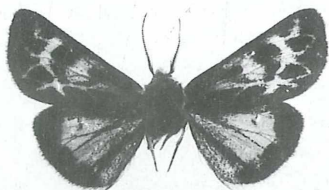
9b



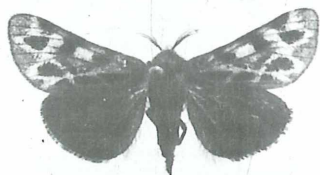
9f



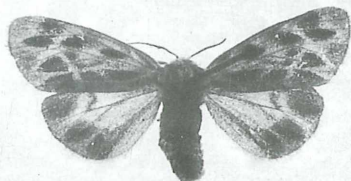
9c



9g



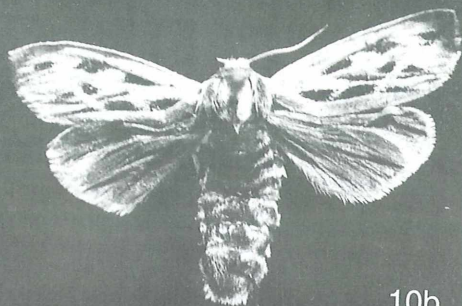
9d



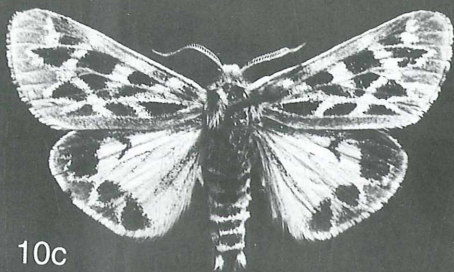
9h



10a



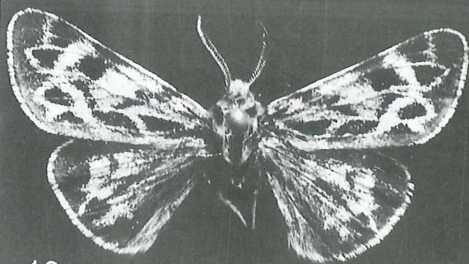
10b



10c



10d



10e



10f



10g



10h

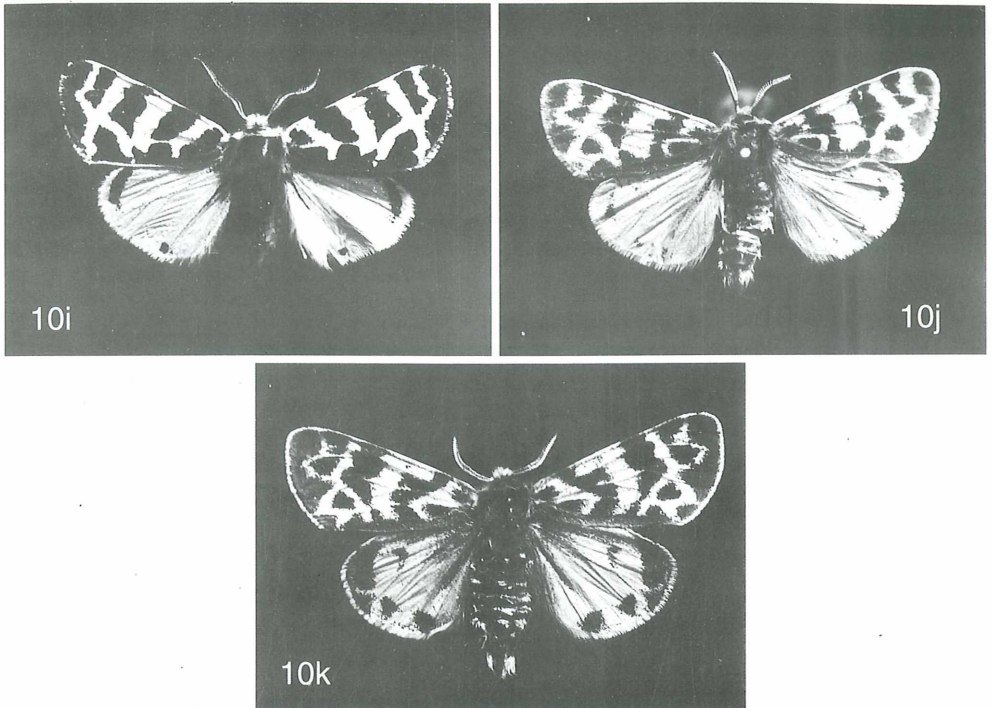


Fig. 10: Imagines of *Palearctia*. a–b — *P. golbecki* spec. nov. (a — holotype ♂, b — paratype ♀); c–d — *P. gratiosa gratiosa* GR.-GR. (c — ♂, Alai Range, d — ♂, Pamirs, glacier of the Russian Geographical Society); e — *P. gratiosa rupicola* GR.-GR., ♂, Pamirs, Shugnan Range; f — *P. glaphyra aksuensis* O. BANG-HAAS, ♂, Kaingdy-Katta mountain range, Central Tien Shan; g–h — *P. gracilis* spec. nov. (g — holotype ♂, h — ♂, Khadzhi-Ata river Bary-Chelek); i — *P. ferghana ferghana* STGR., ♂, Alai Range; j — *P. ferghana schottlaenderi* STRAND, ♂, Tien Shan; k — *P. ferghana susamyra* subspec. nov., holotype ♂.

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Explanation of the colour plate (p. 89):

2	5	
3	6	
4	7	

Fig. 2: *Palearctia kashmirica* FERGUSON, 1985. Holotype. Now — *P. gratiosa kashmirica* FERG. Photo by courtesy of Dr. A. WATSON.

Fig. 3: *Arctia schottlaenderi* ab. *infrapicta* STRAND, 1912. Holotype. Now — *P. ferghana schottlaenderi* (STRAND). Photo by courtesy of Dr. A. WATSON.

Fig. 4: *Arctia schottlaenderi* STRAND, 1912. A water-colour figure of the holotype. Now — *P. ferghana schottlaenderi* (STRAND). Photo by courtesy of Dr. A. WATSON.

Fig. 5: *Arctia erschoffi issyka* STAUDINGER, 1887. Type. Now a synonym of *P. erschoffii erschoffii* (ALPH.).

Fig. 6: *Arctia erschoffi ferghana* STAUDINGER, 1887. Lectotype. Now *P. ferghana* (STGR.).

Fig. 7: *Micrarctia kindermanni marxi* O. BANG-HAAS, 1927. Holotype. Now *P. marxi* (O. B.-H.).





### 3. A list of the Arctiinae of the territory of the former U.S.S.R.

(Lepidoptera, Arctiidae)

by

V. V. DUBATOLOV

**Summary:** This is the first survey of the Arctiinae fauna of the former USSR territory, which occupied the major part of the Palearctic. It contains 98 species of these moths. This paper is the third of a series of checklists of Heterocera from the former USSR territory (as it was before the year 1990) and concerns the tiger-moths, Arctiinae. The moth fauna of the Palearctic is still insufficiently known. The western part (Western Europe and North-West Africa) is better studied because of DE FREINA & WITT's nice monograph<sup>1</sup> (1987) dealing with Bombycoidea, Sphingidae and some Noctuoidea, while the Asiatic fauna is rather poorly studied yet.

The first part includes a list of species and subspecies with their synonymy and geographic distribution, based on the collections of the Zoological Institute (St.-Petersburg, Russia), the Zoological Museum of Moscow State University (Moscow, Russia), the Zoological Museum of the Institute of Animal Systematics and Ecology (former: Biological Institute) (Novosibirsk, Russia), the Institute of Biology and Pedology (Vladivostok, Russia), the Yakutian Institute of Biology (Yakutsk, Sakha-Yakutia: Russia), the Zoological Museum of Kiev State University (Kiev, Ukraine), the Zoological Museum of the Zoological Institute (Kiev, Ukraine), and, partly, from literature. The main faunistic reviews are: ALPHERAKY (1876 and 1908) on the Taganrog region (near the Azov Sea), BRYK (1942) on the Kuril Is., BUDASHKIN (1987) on the Crimea, CHRISTOPH (1877, 1884, 1887, 1889) on South Turkmenistan, DERZHAVETS et al. (1986) on the St.-Petersburg region, DIDMANIDZE (1978) on Georgia in Transcaucasia, DARITSHEVA & DUBATOLOV (1989) on Turkmenistan, DUBATOLOV (1985b, 1990d) on the mountains of South Siberia, DUBATOLOV (1991a) on southern Sakhalin and the Kunashir Is. (Kuril Is.), DUBATOLOV (1994) giving a distribution list of Arctiinae throughout the regions and countries of the former USSR, DUBATOLOV & ZOLOTARENKO (1991) on the West Siberian plain, EFETOV & BUDASHKIN (1987 and 1990) on the Crimea, FALKOVIISH (1969) on Central Kazakhstan, GROSSER (1983) on Bashkiria, INOUE (1961) on Sakhalin, KAISILA (1947) on Karelia, KONOVALOVA (1968) on the Kuril Is., KOSHANTSCHIKOV (1923–1925) on the Minusinsk region in South Siberia, KUMAKOV & KORSHUNOV (1979) on the Saratov region (Lower Volga), KOSTJUK & GOLOVUSHKIN (1994) on East Transbaikalia (Chita region), KUZNETSOV (1960) on the Kopetdagh Mts. in Turkmenistan, KUZNETSOV & MARTYNOVA (1954) on the Ural river in Western Kazakhstan, LVOVSKY (1971) on the Astrakhan region (Lower Volga), MERZHEEVSKAYA et al. (1976) on Belarus, LAVROV (1927) on the Omsk region in West Siberia, MIRZOYAN & ARUTYUNYAN (1980) on Armenia in Transcaucasia, MOLTRECHT (1929) on southern Far East, REMM & VIDALEPP (1986) on Estonia, SACHKOV (1992) on the Samara region, SEDYKH (1974) on the Komi republic in North-Eastern Europe, SEDYKH (1979) on Kamchatka, SHAPOSHNIKOV (1904) on the North-Western Caucasus, SHELUZHKO (1941) on the Ukraine, STSHETKIN (1960) on South-Western Tajikistan, SUVORTSEV (1894) on the Semipalatinsk region in North-Eastern Kazakhstan, TCHARUSHINA & SHERNIN (1974) on the Vyatka region in North-Eastern Europe, TSCHETVERIKOV (1993) on the Gorkii

1 Meanwhile two new generic names have been described in the Arctiidae. The first one is *Canararcia* DUBATOLOV, 1990, Redkie gelminty, klestshi i nasekomye. Novosibirsk: 85, with the type species *Liparis rufescens* BRULLE, 1836 (= *Rhyparia rufescens* (BRULLE)) from Canary Is. This genus was attributed to the tribe Spilosomini as relating to the genus group *Ocnogyna* LED. The second one is *Atlantarcia* DUBATOLOV, 1990, Novosti faunistiki i sistematiki. Kiev: 90 (Arctiini), from the Western Mediterranean, with *Euprepia dido* WAGNER, 1941 from E. Algeria and Tunisia and the type species, *Arctia oberthueri* (OBERTHÜR, 1890) from Algeria and Tunisia, *A. ungemachi* LE CERF, 1924 from Morocco, and *A. fasciata* (ESPER, 1785) from S. France, N. Italy and the Iberian Peninsula.

(Nizhnii Novgorod) region (Middle Volga), TSHISTJAKOV (1992) on the Khingan Nature Reserve in the Amur Region, SHLYKOV (1988) on the Penza region, SULCS & VIIDALEPP (1967) on the Baltic Provinces, VIIDALEPP (1979) on Tuva in Siberia, and VIIDALEPP & REMM (1982) on Sakhalin.

The distribution of the Arctiinae species throughout the regions and countries of the former USSR is summarized in DUBATOLOV (1994). Information on the Arctiinae distribution abroad was taken mainly from the works of DE FREINA & WITT (1987) for Europe, FANG CHENG-LAI (1982) for China, and INOUE (1982) for Japan.

The second part of this paper includes descriptions of new species and subspecies. This work was partly supported by the International Science (Soros) Foundation and the Russian Academy of Natural Sciences.

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## Part I: List of Arctiinae

### Callimorphini

#### *Callimorpha* LATREILLE, 1809

Genera Crust. Insect. 4:220.

(= *Panaxia* TAMS, 1939, Entomologist 72: 73).

#### 1. *Callimorpha dominula* (LINNAEUS, 1758)

Baltic Provinces; Belarus; Ukraine, Crimea; Moldova; European Russia, north to Southern Karelia (KAISILA, 1947), the headwaters of the river Volga, Nizhnii Novgorod, and Bashkiria; Caucasus; Transcaucasia; South Turkmenistan (Kushka). West Europe, north to Southern England, South Scandinavia (except for the southern part of the Iberian peninsula); Turkey; Iraq; Iran.

##### a. *Callimorpha dominula dominula* (LINNAEUS, 1758)

Syst. Nat. (Edn. 10) 1:509 (*Phalaena*).

Baltic Provinces; Belarus; Ukraine, Crimea; Moldova; European Russia. Central Europe.

##### b. *Callimorpha dominula rossica* KOLENATI, 1846

Mel. Ent. fasc. 5:95 (*Callimorpha*).

(= *Callimorpha dominula lutea* STAUDINGER, 1861, Cat. Ed. 1:214; = *C. d. teberdina* SHELJUZHKO, 1934, Ent. Zeit. 48:74; = *C. d. swanetica* REICH, 1935, Ent. Rundschau 53:9).

Caucasus; Transcaucasia, except for the Talysh Mts.

##### c. *Callimorpha dominula philippsi* BARTEL, 1906

Soc. Ent. 21 (6):41 (*Callimorpha philippsi*).

(? = *Callimorpha dominula persica* LE CERF, 1913, Ann. Hist. Nat. Paris Ent. 2:82, t. 1, f. 10).

Azerbaijan (Talysh Mts.); South Turkmenistan (Kushka).

*Euplagia* HÜBNER, [1820] 1816

Verz. bekannter Schmett.: 180.

2. *Euplagia quadripunctaria* (PODA, 1761)

Baltic Provinces (Lithuania, Latvia); Belarus; Ukraine, Crimea; Moldova; European Russia, north to the St.-Petersburg region, Middle Volga, and Southern Urals; Caucasus; Transcaucasia; South Turkmenistan (Kopetdagh Mts.). South and Middle Europe, north to Southern England (except for the North Sea and Baltic coasts); Turkey; Syria; North Iran.

a. *Euplagia quadripunctaria quadripunctaria* (PODA, 1761)

Insecta Mus. Graec.: 89, No. 20 (*Noctua*).

(= *Phalaena hera* LINNAEUS, 1767, Syst. Nat. (Edn. 12) 1 (2): 834).

Baltic Provinces; Belarus; Ukraine; Moldova; European Russia; Caucasus. West Europe.

b. *Euplagia quadripunctaria fulgida* (OBERTHÜR, 1896)

Et. Ent. 20: 56, t. 10, f. 174 (*Callimorpha hera*).

Transcaucasia; South Turkmenistan (Kopetdagh Mts.). S. Greece; Turkey; Syria; North Iran.

3. *Euplagia splendidior* (TAMS, 1922)

Entomologist 55: 196 (*Callimorpha quadripunctaria*).

(= *Callimorpha quadripunctaria tkatshukovi* SHELJUZHKO, 1935, Zeitschr. Öster. Ent. Ver. Wien 20: 21).

South Transcaucasia (Armenia, Azerbaijan: Nakhichevan). East Turkey; North Iraq; West Iran (Zagros Mts.).

*Eucallimorpha* DUBATOLOV, 1990

Taksonomiya nasekomykh i gelmintov. Novosibirsk: 99–100.

4. *Eucallimorpha principalis* (KOLLAR, 1844)

In: HÜGEL, Kaschmir 4 (2): 465, t. 20, f. 2 (*Euprepia*).

Tajikistan (Pamirs). Afghanistan; Pakistan; India (Kashmir, Himalaya); Nepal; China (Zhejiang, Jiangxi, Sichuan, Yunan, Tibet).

a. *Eucallimorpha principalis fedtschenkoi* (GRUM-GRSHIMAILO, 1902)

Ezheg. zool. Muz. 7: 197 (*Callimorpha principalis*).

Tajikistan (Pamirs).

*Cymbalophora* RAMBUR, 1866

Cat. syst. Lepid. Andalousie (2): 231.

5. *Cymbalophora rivularis* (MÉNÉTRIÈS, 1832)

Cat. raison.: 263 (*Chelonia*).

Transcaucasia (Armenia, West Azerbaijan); East Caucasus (Daghestan). Central Italy; the Balkans; Turkey; ? West Iran ("Turkey", Balaban, 70 km East of Van, 8.X.1986, leg. MOBERG & HILLMAN, in the collection of the Természettudományi Múzeum, Állattára, Budapest, Hungary. I have found this locality on the map of Turkey to be in fact on the Iran territory, 70 km east of Lake Van).

*Carcinopyga* FELDER, 1874

in FELDER & ROGENHOFER, Reise öst. Fregatte Novara (Zool.) 2 (Abt. 2): t. 101, f. 3.  
(= *Euarctia* STAUDINGER, 1887, Stett. Ent. Ztg. 48:79).

6. *Carcinopyga lichenigera* FELDER, 1874

In FELDER & ROGENHOFER, Reise öst. Pregatte Novara (Zool.) 2 (Abt. 2): t. 101, f. 3.  
Tadjikistan: Pamirs (DUBATOLOV, 1990). East Afghanistan; North Pakistan; India (Kashmir, Ladakh).

7 *Carcinopyga proserpina* (STAUDINGER, 1887)

Stett. Ent. Ztg. 48:79 (*Euarctia*).  
Tadjikistan (Zeravshan, Hissar, and Darvaz Mts., Pamirs). East Afghanistan. It can also be found in Uzbekistan, for example, in the western parts of the Zeravshan and Hissar Mts.

8. *Carcinopyga lindti* ČERNÝ, 1986

Neue Entomol. Nachrichten 19 (1/2):31.  
Uzbekistan (West Tien Shan: Chatkal, Karzhantau, and Pskem Mts.); Kyrgyzstan (Chatkal, Kirghiz Alatau Mts., Issyk-Kul: Kungei Alatau and Terskei Alatau Mts.). Possibly it can be found also in South Kazakhstan, for example, in the Karzhantau Mts.  
Taxonomical note: I do not agree with THOMAS (1989) and consider *C. lindti* ČERNÝ a good species.

*Axiopoena* MÉNÉTRIÈS, 1842

Bull. Acad. Imp. Sci. St.-Petersb. 9:42.

9. *Axiopoena maura* (EICHWALD, 1830)

Zool. spec. 2: 196 (*Bombyx*).  
(= *Axiopoena fluviatilis* SWINHOE, 1885, Trans. Ent. Soc. Lond.: 351, t. 9, f. 7).  
Transcaucasia: Azerbaijan (Nakhichevan: Ordubad); Turkmenistan (Great Balkhan and Kopetdagh Mts., Badkhyz: Gezgyadyk Mts.). Iran; Afghanistan; North Pakistan.

10. *Axiopoena karelini* MÉNÉTRIÈS, 1863

Cat. lep. Petersb. 3: 160, t. 17, f. 5 (*Axiopoena*).  
(= *Axiopoena maura transcaucasica* SHELJUZHKO, 1926, Dtsch. Ent. Zeit. IRIS 40:58).  
Western Caucasus (Sochi in Russia; Abkhasia); Transcaucasia (Georgia, Armenia, Azerbaijan; Nakhichevan). East Turkey; North Iraq.  
Note: In my revision of the genus *Axiopoena* MÉN. (DUBATOLOV, 1989) there is a mistake in fig 1. It must be read as follows: a – *A. karelini*; b – *A. maura*.

*Tyria* HÜBNER, [1819] 1816

Verz. bekannter Schmett.: 166.  
(= *Hipocrita* HÜBNER, [1806], Tentamen determinationis digestionis : [1] (rejected and invalid work);  
= *Euchelia* BOISDUVAL, 1828, Eur. Lepid. Index meth.:39).

11. *Tyria jacobaeae* (LINNAEUS, 1758)

Syst. Nat. (Edn. 10) 1:511 (*Phalaena*).

Baltic Provinces; Belarus; Ukraine, Crimea; Moldova; European Russia, north to Vologda and Vyatka; Caucasus; Transcaucasia (Georgia, Armenia, West Azerbaijan); West Siberia, north to Tyumen and Tomsk, east to Krasnoyarsk and Minusinsk; North Kazakhstan and the mountains of East Kazakhstan; the mountains of eastern Middle Asia (in South Kazakhstan, Uzbekistan, Kyrgyzstan and North Tajikistan). West Europe, north to Ireland, southern parts of Scotland and Scandinavia; Asia Minor; China (Xinjiang); North America: from the end of '50s it was introduced into Canada (British Columbia) and the USA (Oregon, California) (NAGEL & ISAACSON, 1974).

*Dodia* DYAR, 1901

Jl. N. Y. ent. Soc. **9**: 85.

(= *Hyalocoa* HAMPSON, 1901, Cat. Lep. Phal. Br. Mus. **3**:xi, 5, 202).

12. *Dodia diaphana* (EVERSMANN, 1848)

The mountains of South Siberia from the Altai to Transbaikalia and the Stanovoi Mts.; Amur region; Sikhote-Alin Mts.; Central and East Yakutia; Magadan region (Upper Kolyma and Omolon rivers). North Mongolia (Chovsgol region).

a. *Dodia diaphana diaphana* (EVERSMANN, 1848)

Bull. Soc. Imp. Nat. Moscou **21** (3):212 (*Lithosia*).

The mountains of South Siberia; Amur region; Sikhote-Alin Mts.; Central Yakutia. North Mongolia.

b. *Dodia diaphana arctica* TSHISTJAKOV, 1988

Entomol. Obozr. **67**: 641, f. 7

East Yakutia; southern part of the Magadan region.

13. *Dodia albertae* DYAR, 1901

Jl. N. Y. ent. Soc. **9**: 85.

The mountains of South Siberia from the East Sayan Mts. to Transbaikalia and the Stanovoi Mts.; Polar Siberia (North Urals, southern part of the Taimir peninsula); Yakutia; Magadan region (Upper Kolyma). North Mongolia; Alaska; Canada, east to Quebec.

a. *Dodia albertae atra* (A. BANG-HAAS, 1912)

Dtsch. Ent. Zeit. IRIS **26**: 109 (*Hypocrita*).

(= *Hyperborea kozhantshikovi* SHELJUZHKO, 1918, Neue Beitr. syst. Insektenk. **1** (13): 104).

Mountains of South Siberia; Yakutia; southern part of the Magadan region. North Mongolia.

b. *Dodia albertae eudiopta* TSHISTJAKOV, 1988

Entomol. Obozr. **67**: 638, f. 5.

Polar Urals; Taimir; North-West Yakutia.

14. *Dodia sazonomi* DUBATOLOV, 1990

Chlenistonogie i gelminty. Novosibirsk: 148–149, f. 2 1.

Altai (Aktash).

15. *Dodia kononenkoi* TSHISTJAKOV & LAFONTAINE, 1984

Transbaikalia (Khamar-Daban Mts., Chita region: Sokhondo Mt., Yablonovi, and Udokan Mts.); Sikhote-Alin Mts.; Magadan region (Upper Kolyma). Canada (Yukon territory).

a. *Dodia kononenkoi kononenkoi* TSHISTJAKOV & LAFONTAINE, 1984

Canad. Entomol. **116**: 1553, f. 5, 6, 9.

Magadan region (Upper Kolyma). Canada (Yukon territory).

b. *Dodia kononenkoi transbaikalensis* TSHISTJAKOV, 1988

Entomol. Obozr. **67**: 634, f. 2.

Transbaikalia.

Note: The preservation place of the subspecies holotype was given incorrectly in the description: in must be read as the Zoological Institute (St.-Petersburg).

c. *Dodia kononenkoi sikhotensis* TSHISTJAKOV, 1988

Entomol. Obozr. **67**: 636, f. 3.

Primorye (Sikhote-Alin Mts.).

### *Lacydes* WALKER, 1855

List Specm. lepid. Ins. Colln. Br. Mus. **3**: 685.

(= *Acymba* RAMBUR, 1866, Cat. syst. Lepid. Andalousie (2): 235; = *Palparctia* SPULER, 1906, Schmett. Eur. **2**: 133; = *Volgarctia* ALPHERAKY, 1908, Horae Soc. Ent. Ross. **38**: 606).

### 16. *Lacydes spectabilis* (TAUSCHER, 1806)

South-East Ukraine (PLJUSTSH, KOSTJUK, 1988); eastern part of European Russia, north to Penza and Vyatka; southern part of West Siberia (steppe and forest steppe belts: Kurgan region, Karasuk in the Novosibirsk region, and the Kulunda steppe in the Altaiskii Krai); Kazakhstan; Middle Asia; Southern Transcaucasia (Armenia). East Turkey; North Iraq; Iran; Afghanistan; China (Xinjiang); South Mongolia (a male in the collection of the Természettudományi Múzeum, Állattára, Budapest, Hungary).

a. *Lacydes spectabilis spectabilis* (TAUSCHER, 1806)

Mem. Soc. Nat. Univ. Imp. Mosc. **1**: 212, f.

(= *Eyprepia intercissa* FREYER, 1842, Neuere Beitr. Schmett. **4**: 118, pl. 356; = *Eyprepia incissa* FREYER, 1842, Neuere Beitr. Schmett. **4**: pl. 356).

South-East Ukraine; eastern part of European Russia; West Siberia; Kazakhstan; Middle Asia, including the plane part of Turkmenistan. Afghanistan; China (Xinjiang); South Mongolia.

b. *Lacydes spectabilis annelata* (CHRISTOPH, 1887)

Mem. lepidop. Ed. N. M. ROMANOFF **3**: 55, t. 3, f. 2 (*Arctia spectabilis*).

(= *Volgarctia kendevani* SCHWINGENSCHUSS, 1937, Zeit. öst. Ent. Ver. **22**: 60, t. 3, f.)

Turkmenistan (Kopetdagh and Great Balkhan Mts.). Iran (Elburs).

c. *Lacydes spectabilis sheljuzhkoii* DUBATOLOV, 1996 subspec. nov. (see p. 70)

Southern Transcaucasia (Armenia). East Turkey.

### *Spiris* HÜBNER, [1819] 1816

Verz. bekannter Schmett.: 169.

(= *Emydia* BOISDUVAL, 1828, Eur. Lepid. Index meth.: 39).

### 17. *Spiris striata* (LINNAEUS, 1758)

Syst. Nat. (Edn. 10) **1**: 502 (*Phalaena*).

(= *Phalaena grammica* LINNAEUS, 1758, Syst. Nat. (Edn. 10) 1:822; = *Euprepia funerea* EVERSMANN, 1847, Bull. Soc. Imp. Nat. Moscou 20 (3): 77, t. 5, f. 5; = *Coscinia striata strandi* OBRATZSOV, 1936, Festschr. E. STRAND 2:239; = *Coscinia striata wisniewskii* WOJCIUSIAK & NIESOLOWSKI, 1946, Acta Mus. Hist. nat. Acad. polon. 6:62).

Baltic Provinces; Belarus; Ukraine, Crimea; European Russia, north to the St.-Petersburg region (Luga) and the Upper Volga; Caucasus; Transcaucasia (Georgia, Azerbaijan); North and East Kazakhstan; South Siberia, north to Kurgan, Tomsk, Krasnoyarsk, Irkutsk, and Central Yakutia; it is extreme rare in Transbaikalia (1 ♂, Petrovskii Zavod in the Chita region, in the collection of the Kiev State University). South and Central Europe (except for the North Sea coast and the western and southern parts of the Iberian peninsula); Asia Minor; Syria; China (Xinjiang); West Mongolia; it is rare in Central Mongolia, too.

18. *Spiris bipunctata* (STAUDINGER, 1892)

Dtsch. Ent. Zeit. IRIS 5:345 (*Emydia striata*).

(= *Spiris bipunctata* ab. *nigrina* DUBATOLOV, 1985, Chlenistonogie Sibiri i Dalnego Vostoka. Novosibirsk: 137, an aberration with uniformly black wings).

Siberia: southern slopes of the West Sayan Mts. (Sayano-Shushenskii Nature Reserve) in the southern part of Krasnoyarskii Krai; Tuva; Transbaikalia; Middle Amur. Central and Eastern Mongolia; China (Xinjiang, Qinghai, Shanxi, Heilongjiang).

*Coscinia* HÜBNER, [1819] 1816

Verz. bekannter Schmett.: 169.

19. *Coscinia cribraria* (LINNAEUS, 1758)

Syst. Nat. (Edn. 10) 1:507 (*Phalaena*).

(= *Phalaena cribrum* LINNAEUS, 1761, Fauna Suecica (Edn. 2):302; = *Emydia cribrum sibirica* STAUDINGER, 1892, Dtsch. Ent. Zeit. IRIS 5:346; = *Coscinia cribraria fumidaria* O. BANG-HAAS, 1927, Horae Macrolepid. 1: 58, t. 8, f. 3; = *Coscinia cribraria nikitini* O. BANG-HAAS, 1938, Entomol. Zeit. 52 (22): 179).

Baltic Provinces; Belarus; North Ukraine; European Russia, north to Karelia and Vyatka, south to Samara; North Kazakhstan; South Siberia, north to Tyumen, Tomsk, the Ob-Enisei canal (Aleksandrovskii Shlyuz, 59°N), the middle part of the Angara river, and Central Yakutia; it is rare in the Chita region and Middle Amur. West Europe, north to South-Eastern England and South Scandinavia (except for the south-western part of the Iberian peninsula); North Africa; North Mongolia; China (North Xinjiang, Heilongjiang).

*Epimydia* STAUDINGER, 1892

Dtsch. Ent. Zeit. IRIS 5:346.

20. *Epimydia dialampra* STAUDINGER, 1892

Dtsch. Ent. Zeit. IRIS 5:346, t. 3, f. 2.

The mountains of South Siberia from the south-eastern Altai and the Kuznetskii Alatau to the Chita region; Yakutsk; mountains of East Yakutia. North Mongolia. ?Tien Shan (see: DUBATOLOV, 1985b).

*Utetheisa* HÜBNER, [1819] 1816

Verz. bekannter Schmett.: 168.

(= *Deiopeia* CURTIS, 1827, Br. Ent. 4:169).

21. *Utetheisa pulchella* (LINNAEUS, 1758)

Syst. Nat. (Edn. 10) 1:534.

Transcaucasia; Middle Asia. Migrates north to Latvia, Belarus, Karelia, the lower part of the Kama river in Europe and Semipalatinsk in Kazakhstan. The Mediterranean, migrates north to South England and South Scandinavia; Africa; West and South Asia; not recorded in China (FANG, 1982), Korea (WITT, 1980, 1985) and Japan (INOUE, 1982).

## Arctiini

*Parasemia* HÜBNER, [1820] 1816

Verz. bekannter Schmett.: 181.

(= *Nemeophila* STEPHENS, 1828, *Illust. Br. Ent. (Haustellata)* 2:55, 72).22. *Parasemia plantaginis* (LINNAEUS, 1758)

(= *Nemeophila macromera* BUTLER, 1881, *Trans. ent. Soc. Lond.*: 5; = *Nemeophila macromera leucomera* BUTLER, 1881, *Trans. ent. Soc. Lond.*: 5; = *Nemeophila melanomera* BUTLER, 1881, *Trans. ent. Soc. Lond.*: 5; = *Parasemia plantaginis japonica* INOUE & KOBAYASHI, 1956, *Tinea* 3: 138, t. 17, f. 4–6; = *Parasemia plantaginis jezoensis* INOUE, 1976, *Bull. Fac. domest. Sci. Otsu Univ.* 12: 170, pl. 2, f. 47).

Baltic Provinces; Belarus; North Ukraine, mostly in the Carpathians; European Russia, north to Murmansk and Ukhta (Komi republic), south to Krasnodar and Saratov; Caucasus; Transcaucasia; North-East Kazakhstan (Altai and Saur Mts.); Siberia, north to Beryozov (lower course of the Ob river), the Nizhnyaya Tunguska, Vilui, and Aldan rivers; the South of the Magadan region; Kamchatka, north to Verkhoturov Is. (about 60°N); Amur basin; Primorye; Sakhalin; Northern and Southern Kuril Is. West Europe (except for South Italy and South Greece); Asia Minor; North Iran (Elburs Mts.); Mongolia; China (Xinjiang, Qinghai, Sichuan, Shanxi, Nei Mongol, Dunbei) Korea; Japan (Hokkaido, Honshu); ?Alaska; North and West Canada; Western USA.

a. *Parasemia plantaginis plantaginis* (LINNAEUS, 1758)Syst. Nat. (Edn. 10) 1:501 (*Phalaena*).

(= *Phalaena hospita* [DENIS & SCHIFFERMÜLLER], 1775, *Ankündigung syst. Werkes Schmett. Wien-ergendend*: 316; = *Parasemia plantaginis uralensis* KRULIKOVSKY, 1904, *Rus. Entomol. Obozr.* 4(1): 30; = *P. p. carpathica* DANIEL, 1939, *Mitt. Münch. ent. Ges.* 29: 358).

Baltic Provinces; Belarus; North Ukraine; European Russia; South Siberia, except for high mountains. West Europe, excluding the Balkans; Mongolia, except for high mountains.

b. *Parasemia plantaginis caucasica* (MÉNÉTRIÈS, 1832)Cat. raison.: 262 (*Chelonia*).(= *Parasemia plantaginis passanauriensis* ALBERTI, 1973, *Atalanta* 4(6): 389).

Caucasus; Transcaucasia. Asia Minor.

c. *Plantaginis plantaginis sifanica* GRUM-GRSHIMAILO, 1891

Horae Soc. Ent. Ross. 25: 462.

(= *Parasemia plantaginis altaica* SEITZ, 1910, *Gross-Schmett. Erde* 2: 81, f. 16f).

High mountains of the Altai, Sayan and Tannu-Ola. Mongolia (high mountain areas); China (Qinghai).

d. *Parasemia plantaginis nycticans* (MÉNÉTRIÈS, 1859)Bull. Acad. Imp. Sci. St. Petersb. 17: 217 (*Lithosia*).(= *P. p. nycticans* auct., nec MÉNÉTRIÈS, 1859; = *Nemeophila plantaginis* ab. *melas* CHRISTOPH,



1893, Dtsch. Ent. Zeit. IRIS 6:88; [= *P. p.*] *trybomi* BRYK, 1942, Dtsch. Ent. Zeit. IRIS 56:31, nomen nudum).

The northern part of West Siberia; Evenkia; Yakutia; Magadan region.

e. *Parasemia plantaginis floccosa* (GRAESER, 1888)

Berl. Entomol. Ztg. 32: 115 (*Nemeophila plantaginis*).

Middle Amur; Primorye. North-East China; Korea.

f. *Parasemia plantaginis sachalinensis* MATSUMURA, 1927

J. Coll. Agr. Hokk. Imp. Univ. 19:59.

Sakhalin.

g. *Parasemia plantaginis araitensis* MATSUMURA, 1929

Ins. mats. 3: 168 (*Parasemia plantaginis* f. *araitensis*).

(= *Parasemia plantaginis paramushira* BRYK, 1942, Dtsch. ent. Zeit. IRIS 56: 30; = *Parasemia plantaginis kamschadalus* BRYK, 1942, Dtsch. ent. Zeit. IRIS 56:29, nomen nudum).

Kamchatka; Northern Kuril Is. (Alaid (= Araitō or Atlasov) and Paramushir Is.).

h. *Parasemia plantaginis kunashirica* BRYK, 1942

Dtsch. Ent. Zeit. IRIS 56:29, t. 1, f. 11.

Southern Kuril Is. (from Urup to Kunashir).

*Hyphoraia* HÜBNER, [1820] 1816

Verz. bekannter Schmett.: 182.

23. *Hyphoraia aulica* (LINNAEUS, 1758)

Baltic Provinces; Belarus; Ukraine; Moldova; European Russia, north to South Karelia and Vyatka; Caucasus; Transcaucasia (Georgia); North Kazakhstan; South Siberia, north to Tyumen, Omsk, Novosibirsk, Minussinsk, the middle part of the Angara river; Transbaikalia; Amur basin; Primorye. Central Europe, west to South Belge and East France, south to Austria, Pannonia and the North Balkans; South Scandinavia; northern part of Asia Minor; ?Mongolia, China (Xinjiang, Heilongjiang, Liaonin); Korea; Japan (Hokkaido).

a. *Hyphoraia aulica aulica* (LINNAEUS, 1758)

Syst. Nat. (Edn. 10) 1:505.

(= *Hyphoraia aulica rishiriensis* MATSUMURA, 1927, J. Coll. Agr. Hokk. Imp. Univ. 19:59, t. 4, f. 3).

Baltic Provinces; Belarus; Ukraine; Moldova; European Russia; Siberia; the south of the Far East. West Europe; ?Mongolia, China; Korea; Japan.

b. *Hyphoraia aulica testudinarioides* (SOVINSKY, 1905)

Rus. Entomol. Obozr. 5(3–4): 109–110 (*Arctia aulica*).

Caucasus; Transcaucasia (Georgia). ?Turkey.

*Pararctia* SOTAVALTA, 1965

Suom. hyont. Aikak. [Acta Ent. Fenn.] 31: 173.

24. *Pararctia lapponica* (THUNBERG, 1791)

European Russia, polar regions only: Kola peninsula, Mesen, Kanin peninsula, Pechora river (Ust-Tsilma), Polar Urals; Yamal peninsula; Taimir, south to Igarka; East Sayan Mts.; mountains of

Transbaikalia, Stanavoi Mts., Yakutia; Magadan region; Chukotka; Wrangel Is.; Kamchatka. Polar Scandinavia; North America (Alaska; North-West Canada, east to Quebec).

a. *Pararctia lapponica lapponica* (THUNBERG, 1791)

Diss. ent. sistens Insecta Suecica 2:40, f. 7

(= *Bombyx festiva* BORKHAUSEN, 1790, Eur. Schmett. 3: 191; = *Bombyx avia* HÜBNER, 1804, Samml. europ. Schmett. 2: 230, 247; = *Hyphoraia festiva rosea* SHELJUZHKO, 1929, Ent. Anz. 9: 424).

Entire polar Eurasia; Yakutia south to the Verkhojanskii Mts.; Kamchatka. ?Mountains of East Sayan and Transbaikalia.

b. *Pararctia lapponica lemniscata* (STICHEL, 1911)

Berl. Ent. Ztg. 56:99 (*Arctia festiva*).

The systematic position of the East Sayan specimens needs revision.

Mountains of East Yakutia (Suntar-Khayata and Cherskii Mts.), Vilui river.

25. *Pararctia tundrana* TSHISTJAKOV, 1990

Novosti sistematiki nasekomykh Dalnego Vostoka. Vladivostok: 97–98, f. 1–3.

Polar Ural; Yamal; Gydan; Taimir; Polar Yakutia; ?mountains of South Yakutia (Stanovoi Mts.: ?Tokko); Chukotka; northern part of Koryakia.

Note: The species was formerly considered as *Pararctia subnebulosa* (DYAR, 1899), Ent. News Philad. 10: 130 (*Hyphoraia*), which inhabits Polar America: Alaska and the Yukon territory. These species differ in male genitalia structures (TSHISTJAKOV, 1990).

*Borearctia* DUBATOLOV, 1984

Entomol. Obozr. 63:337–339.

26. *Boreoarctia menetriesii* (EVERSMANN, 1846)

Bull. Soc. Imp. Nat. Moscou 19(3):84 (*Euprepia*).

Karelia; lower course of the Ob river (Oktyabrskoe); North-East Kazakhstan ("Songoria"); Altai and Sayan Mts.; Evenkia; Yakutia; Middle Amur; Primorye (Sikhote-Alin Mts.); Central Sakhalin: Poronai river (HORI, 1926). Finland. ?China (I think that "*Callimorpha principalis*" of FANG CHENG LAI (1984) from Heilongjiang may belong to this species).

*Acerbia* SOTAVALTA, 1963

Suom. hyont. Aikak. 29:263.

27. *Acerbia alpina* (QUENSEL, 1802)

In: ACERBI, Travels through Sweden, Finland and Lapland to the North Cape, 1798 & 1799, 2:253.

(= *Arctia thulea* DALMAN, 1823, Analecta Entom. Holmiae: 92; = *Hyphoraia alpina sibirica* O. BANG-HAAS, 1927, Horae Macrolepid. 1: 70, t. 9, f. 2).

Russia: Polar Urals; southern part of Yamal peninsula; Taimir peninsula; Wrangel Is.; Altai, Sayan, and Stanovoi Mts.; mountains of East Yakutia. North-East Kazakhstan: Altai Mts. Mountains of polar Scandinavia (Torne Lappmark in Sweden and Lapponia enontekiensis in Finland); North Mongolia (Chovsgol region); Alaska; North-West Canada.

28. *Acerbia seitzii* (A. BANG-HAAS, 1910)

Dtsch. Ent. Zeit. IRIS **24**: 30, t. 3, f. 17 (*Arctia*).

(= *Arctia strandi* NIEPELT, 1911, Int. Ent. Ztg. **5**: 274; = *Phragmatobia niepeltiana* STRAND, 1919, Lep.

Cat. **22**: 416; = *Hyphoraia seitzii khumbeli* O. BANG-HAAS, 1927, Horae Macrolepid. **1**: 70, t. 9, f. 4).

Tien Shan: Zailiiskii (Trans-Ili) Alatau Mts. (Kazakhstan); Kungei Alatau Mts., Naryn (Kyrgyzstan); Chimgan Mt. (prope Tashkent in Uzbekistan).

*Platarctia* PACKARD, 1864

Proc. ent. Soc. Philad. **3**: 109.

29. *Platarctia atropurpurea* (O. BANG-HAAS, 1927)

The middle course of the Yenisei river; Altai and Sayan Mts.; Tuva; Transbaikalia; Yakutia (except for the polar part); the southern part of the Magadan region. Mongolia.

a. *Platarctia atropurpurea atropurpurea* (O. BANG-HAAS, 1927)

Horae Macrolepid. **1**: 117 (*Hyphoraia ornata*).

(= *Arctia ornata* STAUDINGER, 1896, Dtsch. Ent. Zeit. IRIS **9**: 188, t. 4, f. 1, 2).

The middle part of the Yenisei river; mountains of South Siberia; South Yakutia. Mongolia.

b. *Platarctia atropurpurea sotavaltai* DUBATOLOV, 1996 subspec. nov. (see p. 70)

Mountains of East Yakutia; the southern part of the Magadan region.

*Stauropolia* SKALSKI, 1988

Vestnik zoologii (4): 22.

† *S. nekrutenkoi* SKALSKI, 1988

Vestnik zoologii (4): 22.

Russia: Stavropol region (Miocene).

*Oroncus* SEITZ, 1910

Gross-Schmett. Erde **2**: 82.

30. *Oroncus tancrei* (STAUDINGER, 1887)

Stett. Ent. Ztg. **48**: 81 (*Arctia*).

(= *Phragmatobia urania* PÜNGELER, 1904, Soc. Ent. **19**: 121).

Kyrgyzstan: Inner and Central Tien Shan (Naryn, Sarydzhas). China: Kinjiang (East Tien Shan: a mountain area north of Korla).

31. *Oroncus fasciata* O. BANG-HAAS, 1927

Horae Macrolepid. **1**: 61, t. 8, f. 17 (*Oroncus tancrei*).

East Kazakhstan (Dzhungarian Alatau Mts.).

32. *Oroncus alaica* O. BANG-HAAS, 1927

Horae Macrolepid. **1**: 61, t. 8, f. 19, 20 (*Oroncus tancrei*).

The Turkestan mountain range (the border between Uzbekistan and Tajikistan); Alai (Kyrgyzstan); Trans-Alai (Zaalaiskii Mts.), Pamirs (Tajikistan).

*Gonerda* MOORE, 1879

Proc. zool. Soc. Lond.:395.

*Gonerda perornata* MOORE, 1879

Proc. zool. Soc. Lond.:395, t. 32, f. 2.

India (Kashmir). In the collection of the Zoological Institute (St.-Petersburg) is a male of this species labelled "Przhevalsk" (now Karakol in Kyrgyzstan); I consider this label to be a mistake.

*Arctia* SCHRANK, 1802

Fauna Boica 2(2): 152.

(= *Hypercompe* HÜBNER, [1806], Tentamen determinationis digestionis [1] (rejected and invalid work); = *Eyprepia* OCHSENHEIMER, 1810, Schmett. Eur. 3: 299; = *Euprepia* HÜBNER, [1819] 1816, Verz. bekannter Schmett.: 181; = *Chelonia* GODART, [1823] 1822, Hist. nat. Lepid. Papillons Fr. 4: 299; = *Arctinia* EICHWALD, 1830, Zool. spec. 2: 195; = *Callarctia* PACKARD, 1864, Proc. ent. Soc. Philad. 3: 114).

33. *Arctia caja* (LINNAEUS, 1758)

Baltic Provinces; Belarus; Ukraine, Crimea; Moldova; European Russia, north to Arkhangelsk and Ukhta (the latter in the Komi republic); Caucasus; Transcaucasia; North Kazakhstan; mountains of eastern Middle Asia and East Kazakhstan; South Siberia, north to Khanty-Mansiisk, Ket river in the Tomsk region, Angara river, Central Yakutia and the Magadan region (upper course of the Kolyma river); Kamchatka; Amur basin; Primorye; Sakhalin; Southern Kuril Is. (from Iturup to Kunashir). West Europe (except for the polar regions, the southern part of the Iberian peninsula and Greece); Asia Minor; north-western Iran; mountains of Afghanistan and Pakistan; Mongolia; China (Xinjiang, Henan, Nei Mongol; Hebei; Dunbei); Korea; Japan (Hokkaido, Honshu); North America (Canada; USA, including Alaska).

a. *Arctia caja caja* (LINNAEUS, 1758)

Syst. Nat. (Edn. 10) 1:500 (*Phalaena*).

(= *Arctia caja confluens* REBEL, 1910, in: BERGE, Schmett. Buch (ed. 9):430; = *Arctia caja rebeli* VNUKOVSKY, 1929, Zool. Anzeiger 83 (9/10):223).

Baltic Provinces; Belarus; Ukraine, Crimea; Moldova; European Russia; Caucasus; North and East Kazakhstan; South Siberia, east to the Angara river. West Europe; North-West China (Xinjiang).

b. *Arctia caja ossetica* DUBATOLOV, 1996 subspec. nov. (see p. 71)

Western Caucasus.

c. *Arctia caja wiskotti* STAUDINGER, 1879

Horae Soc. Ent. Ross. 14:333.

Transcaucasia. Asia Minor.

d. *Arctia caja tshimgana* SHELJUZHKO, 1935

Mitt. Münch. ent. Ges. 25:31, t. 3, f. 7.

Uzbekistan: West Tien Shan. Possibly also in Kazakhstan and Kyrgyzstan.

- e. *Arctia caja pamiroalaica* STSHETKIN, 1982  
Izv. Akad. Nauk Tadz. SSR, Otd. biol. nauk (1):39–43.  
Alai-Pamirs in Tajikistan and, possible, in South Kyrgyzstan. Afghanistan.
- f. *Arctia caja sajana* O. BANG-HAAS, 1927  
Horae Macrolepid. 1: 72, t. 9, f. 6.  
East Sayan Mts.; Baikal; Transbaikalia; Yakutia (excluding the polar regions); Magadan region.  
Mongolia.
- g. *Arctia caja kamtschadalis* DRAUDT, 1931  
In: SEITZ, Macrolepid. World, Suppl. 2:87, f. 7f.  
Kamchatka.
- h. *Arctia caja phaeosoma* (BUTLER, 1877)  
Ann. Mag. Nat. Hist. (4)20:395 (*Euprepia*).  
Amur basin; Primorye; Sakhalin; Southern Kuril Is. (from Iturup to Kunashir). East China;  
Korea; Japan.
34. *Arctia olschwangi* DUBATOLOV, 1990  
Taksonomiya nasekomykh i gelmintov. Novosibirsk: 89–93, f. 1a, 2 l.  
Polar Ural; Yamal peninsula; Yakutia: Lena river delta.
35. *Arctia flavia* (FUESSLY, 1779)  
Mag. f. Liebhaber d. Ent. 2:70, t. 1, f. 11 (*Phalaena (Bombyx)*).  
(= *Arctia flavia campestris* GRAESER, 1892, Berl. Ent. Ztg. 37:212; = *A. f. uralensis* HEYNE, 1899, Soc.  
Ent. 14:98; = *A. f. sibirica* HEYNE, 1899, Soc. Ent. 14:98; = *A. f. lederi* O. BANG-HAAS, 1927, Horae  
Macrolepidop. 1:75, t. 9, f. 12; = *A. f. baicalensis* O. BANG-HAAS, 1927, Horae Macrolepid. 1:74, t. 9,  
f. 11).  
North Ukraine<sup>2</sup>, including the Carpathians; European Russia east of Tver, north to Syktyvkar  
(Komi republic), south to the Saratov region and Orenburg; North Kazakhstan; South Siberia,  
north to Khanty-Mansiisk, Tomsk, and the Podkamennaya Tunguska river; Central Yakutia; Maga-  
dan region (Upper Kolyma); Amur basin; Shantar Is.; Primorye. West Europe (Alps, Balkan pen-  
insula: Rila Mts.); Mongolia; China (Xinjiang, Nei Mongol, Hebei).
36. *Arctia rueckbeili* PÜNGELER, 1901  
Dtsch. Ent. Zeit. IRIS 14:190, t. 3, f. 11.  
Central Tien Shan in Kyrgyzstan (Sarydzhas river); Turkestan Mts. at the border between Uzbek-  
istan and Tajikistan; Alai in Uzbekistan and Kyrgyzstan; Alai valley in Kyrgyzstan (DUBATOLOV,  
1987b). China (Xinjiang).
37. *Arctia intercalaris* (EVERSMANN, 1843)  
East Kazakhstan (Dzhungarian Alatau Mts.; Trans-Ili (Zailiiskii Alatau) Mts.); Tien Shan and Alai-  
Pamirs in South Kazakhstan, Uzbekistan, Kyrgyzstan, and Tajikistan (excluding the south-west-  
ern region). Mountains of Afghanistan and North-West Pakistan; India (from Kashmir to Kulu).

2 Material: 1 ♂, Prov. Kijev, Teterjev, 1914, A. HUTSHEK leg. (SHELJUZHKO coll.); 1 ♀, the Carpathians,  
Krasnogorsk, 14.VII.1984, ТИХОМИРОВ leg. (КААБАК coll.). Both localities need confirmation.

a. *Arctia intercalaris intercalaris* (EVERSMANN, 1843)

Bull. Soc. Imp. Nat. Moscou **16** (3):544, t. 10, f. 1a, b (*Euprepia*).

(= *Arctia intercalaris boettcheri* O. BANG-HAAS, 1927, Horae Macrolepid. **1**:72).

Mountains of East Kazakhstan (south from Lake Zaisan); Tien Shan in South Kazakhstan, Kyrgyzstan, and North-East Uzbekistan).

b. *Arctia intercalaris alpherakyi* STAUDINGER, 1886

Ent. Month. Mag. **22**:258.

(= *Arctia intercalaris badakhshana* WILTSHIRE, 1961, Beitr. naturk. Forsch. SW Deutschl. **19** (3):340).

Alai-Pamirs Mts. in South-Eastern Uzbekistan, South Kyrgyzstan, and Tajikistan (excluding the south-west region). Afghanistan (Badakhsban).

*Arctia ladakensis* (O. BANG-HAAS, 1927)

Horae Macrolep. **1**:116 (*Oroncus*).

I have seen three female specimens of this species from the Aksu river in Central Tien Shan (China: Kinjiang) (VI.1912, RÜCKBEIL leg.), in the collection of the Zoological Institute (St.-Petersburg). This locality is situated near the border to Kyrgyzstan. They are all similar to the type specimen of this species which is kept in the collection of the Zoological Museum of the Humboldt University (Berlin). These specimens have simple, not dentate antennae as in *Arctia intercalaris* (Ev.).

*Epicallia* HÜBNER, [1820] 1816

Verz. bekannter Schmett.: 182.

38. *Epicallia villica* (LINNAEUS, 1758)

South Baltic Provinces (Lithuania and Latvia); Belarus; Ukraine, Crimea; Moldova; European Russia north to St.-Petersburg and Vyatka; Caucasus; Transcaucasia; West Siberia (Kurgan). Central and South Europe, north to South England; North-West Africa; Asia Minor; the Near East; North-West and North Iran, east of the Shahkuh Mts..

a. *Epicallia villica villica* (LINNAEUS, 1758)

Syst. Nat. (Edn. 10) **1**:501 (*Phalaena*).

South Baltic Provinces; Belarus; Ukraine, Crimea; Moldova; European Russia; West Siberia; Caucasus; Transcaucasia (excluding the Talysh Mts.). Central Europe.

b. *Epicallia villica confluens* (ROMANOFF, 1884)

Mem. lepidop. Ed. N. N. ROMANOFF **1**:87, t. 4, f. 9 (*Arctia villica*).

South-East Transcaucasia (Azerbaijan: Talysh Mts.). North Iran.

*Eucharia* HÜBNER, [1820] 1816

Verz. bekannter Schmett.: 181.

(= *Ammobiota* WALLENGREN, 1885, Skand. Heterocer-Fjarilar **2**:304).

39. *Eucharia festiva* (HUFNAGEL, 1766)

Baltic Provinces (South Lithuania, Latvia); Belarus; Ukraine, Crimea; Moldova; European Russia, north to Kaluga, Sormovo 30 km N of Nizhnii Novgorod (TSCHETVERIKOV, 1993), and the lower

course of the Kama river; Caucasus; Transcaucasia; Kazakhstan; the eastern part of Middle Asia (Uzbekistan: Tashkent, Alai); West Siberia, north to Kurgan, Omsk, Novosibirsk; West Altai; Tuva; South Transbaikalia. Central and South Europe (except for the southern part of the Iberian peninsula, West France, the North Sea and Baltic coasts, the Alps, the north-western and southern parts of the Balkans); Asia Minor; Mongolia; China (Xinjiang, Nei Mongol; Hebei).

a. *Eucharia festiva festiva* (HUFNAGEL, 1766)

Berl. Mag. 2: 416, 437 (*Phalaena*).

(= *Phalaena hebe* LINNAEUS, 1767, Syst. Nat. (Edn. 12) 1 (2): 820; = *Chelonia interrogationis* MÉNÉTRIÈS, 1863, Cat. lep. Pet. 3: 147, t. 15, f. 1; = *Arctia hebe sartha* STAUDINGER, 1886, Stett. Ent. Ztg. 47: 401; = *Arctia festiva nivea* O. BANG-HAAS, 1927, Horae Macrolepidop. 1: 75, t. 9, f. 14, 15).

South Baltic Provinces; Belarus; Ukraine, Crimea; Moldova; European Russia; Caucasus; Transcaucasia; North Kazakhstan; West Siberia. Central and South Europe; Asia Minor; West China.

Note: The type locality of *Chelonia interrogationis* MÉN. is Kolyvan in Altaiskii Krai (West Altai). I have seen the type specimen in the collection of the Zoological Institute (St.-Petersburg) as well as other specimens from this region. They are all similar to *E. festiva festiva* (HFN.) but differ from Transbaikalian, Tuvian, Mongolian and North Chinese specimens which I consider as *E. festiva collaris* (GR.-GR.).

b. *Eucharia festiva iliensis* (WAGNER, 1913)

Int. Ent. Zeit. 7(1): 4 (*Arctia hebe*).

(= *Arctia festiva philippsi* O. BANG-HAAS, 1927, Horae Macrolepidop. 1: 76, t. 9, f. 20; = *A. f. interposita* O. BANG-HAAS, 1927, Horae Macrolepidop. 1: 76, t. 9, f. 21, 22).

South Kazakhstan; Uzbekistan (Tashkent and the Alai Mts.).

c. *Eucharia festiva collaris* (GRUM-GRSHIMAILO, 1899)

Ezegod. Zool. Muz. Imp. Akad. Nauk 4: 462 (*Arctia hebe*).

(= *Chelonia culoti* OBERTHÜR, 1912, Et. lep. comp. 6: 322–323, 116, f. 10–28).

Tuva; South Transbaikalia. Mongolia; China (Nei Mongol, Hebei).

*Pericallia* HÜBNER, [1820] 1816

Verz. bekannter Schmett.: 182.

(= *Pleretes* LEDERER, 1853, Verh. zool.-bot. Ver. Wien 2 (Abh.): 77).

40. *Pericallia matronula* (LINNAEUS, 1758)

Syst. Nat. (Edn. 10) 1: 509 (*Phalaena*).

(= *Phalaena matrona* HÜBNER, [1803]; Eur. Schmett. 2: f. 238, 239; = *Pericallia matronula centralasiae* O. SCHULTZ, 1905, Ent. Zeit. 18(31); = *Pleretes matronula agassizi* SPULER, 1906, Schmett. Eur. 2: 140; = *Pericallia matronula amurensis* SHELJUZHKO, 1926, Dtsch. Ent. Zeit. IRIS 40: 56; = *P. m. sachalinensis* DRAUDT, 1931, in: SEITZ, Macrolep. World, Suppl. 2: 84, f. 7).

Baltic Provinces; Belarus; North and Central Ukraine (including the Carpathians); Moldova; European Russia, north to St.-Petersburg, the Upper Volga, and the lower Kama rivers, south to Saratov; North Kazakhstan; South Siberia, north to Tobolsk (SITNIKOV, 1992), the Chulym river (Tomsk region), the middle course of the Angara river, Irkutsk, and Transbaikalia; Middle Amur; Primorye; Southern Sakhalin; Southern Kuril Is. (Kunashir). Central Europe (East France, South and Central Germany, the Alps, East Europe from Central Poland south to Hungary and Romania: in the Carpathians); North Mongolia; China (Dunbei, Hebei), Korea, Japan (Hokkaido, Honshu).

## Micrarctiini

### *Divarctia* DUBATOLOV, 1990

Regkie gelminty, klestshi i nasekomye. Novosibirsk: 84.

#### 41. *Divarctia diva* (STAUDINGER, 1887)

Stett. Ent. Ztg. **48**: 84 (*Ocnogyna*).

(= *Arctia haberhaueri* ALPHERAKY, 1888, Stett. Ent. Ztg. **49**: 67).

Mountains of Middle Asia: South-West Kyrgyzstan (Ferghanian mountain range); Uzbekistan (the West Tien Shan: Chatkal, Pskem, and Karzhantau Mts.; Alai-Pamirs: Turkestan, Zeravshan, and Hissar Mts.); Tajikistan (Turkestan, ?Hissar, Vakhsh, Peter-the-Great, and Khozratishokh mountain ranges).

### *Tancrea* PÜNGELER, 1898

Soc. Ent. **13**: 57.

#### 42. *Tancrea pardalina* PÜNGELER, 1898

Soc. Ent. **13**: 57.

Kazakstan: deserts of the Ili river basin; Turkmenistan: Kara-kum desert (DUBATOLOV, 1991b).  
China (Xinjiang: Ili and Kungesse rivers).

### *Holoarctia* FERGUSON, 1984

Proc. Entomol. Soc. Wash. **86** (2): 452–454.

#### 43. *Holoarctia cervini* (FALLOU, 1864)

Ann. Soc. Ent. France **4** (4): 23, t. 1, f. 2 (*Nemeophila*).

Khibiny Mts. (Kola peninsula); South Urals, Altai, East Sayan, Khमार-Daban, and Stanovoi Mts.; mountains of East Yakutia (Verchoyanskii mountain range); Kamchatka (Ichinskaya Sopka Mt.); Chukotka. West Europe: the Alps; mountains of polar Scandinavia (Torne Lappmark in Sweden); North-West Mongolia; North Korea (KÓDA, 1988: as "*Hyperborea czekanowskii*"); Alaska. Canada: Alberta (ssp. *sordida* McDUNNOUGH, 1921, Canad. entomol. **53**: 167).

##### a. *Holoarctia cervini fridolini* (TORSTENIUS, 1971)

Entomol. Ts. Arg. **92** (3–4): 173–177, f. 1, 2 (*Orodemnias cervini*).

Khibiny Mts.; South Urals; Verkhoyanskii Mts.; Chukotka; ?Kamchatka. Polar Scandinavia; Alaska.

##### b. *Holoarctia cervini perunovi* DUBATOLOV, 1990

Chlenistonogie i gelminty. Novosibirsk: 152.

Altai. North-West Mongolia.

##### c. *Holoarctia cervini puengeleri* (O. BANG-HAAS, 1927)

Horae Macrolepidop. **1**: 60, t. 8, f. 14 (*Orodemnias*).

East Sayan, Khमार-Daban, Stanovoi Mts. (there is a female in the V. A. GANSON (Moscow) collection, which is labelled "Okhotskoe Sea").



44. *Holoarctia marinae* DUBATOLOV, 1985 (January)  
Chlenistonogie Sibiri i Dalnego Vostoka. Novosibirsk: 152, fig. 2v, 3b; 1985 (December), Ann. Ent. Fenn. **51** (2):57 (the holotype below, nec above!).  
Altai (Terektinskii and Kuraiskii Ranges).
- Palearctia* FERGUSON, 1984  
Proc. Entomol. Soc. Wash. **86** (2):454–456.
45. *Palearctia mira* DUBATOLOV & TSHISTJAKOV, 1989  
Zool. Zhurnal **68** (11): 141, f. 1a, b, 2.  
Russia: the south-eastern part of the Altai (Kuraiskii Range).
46. *Palearctia glaphyra* (EVERSMANN, 1843)  
Mountains of East Kazakhstan: "Lake Zaisan", Dzhungarian Aatau, Trans-Ili (Zailiiskii) Alatau mountain ranges; Kyrgyzstan: Kirghiz Alatau, Kungei Alatau, and Terskei Alatau Mts.; Central Tien Shan, west to Naryn and the Dolon pass. China (Xinjiang: East Tien Shan, Kuruktag Mts., ?Khotan).
- a. *Palearctia glaphyra glaphyra* (EVERSMANN, 1843)  
Bull. Soc. Imp. Nat. Moscou **16** (3):544, t. 10, f. 4 (*Euprepia*).  
East Kazakhstan, from Lake Zaisan to the Dzhungarian Alatau, including the Tyshkantau.
- b. *Palearctia glaphyra dublitzkyi* (O. BANG-HAAS, 1927)  
Horae Macrolepidop. **1**:63, t. 8, f. 29, 30 (*Micrarctia glaphyra*).  
Kazhakstan: Trans-Ili (Zailiiskii) Alatau Mts.; Kyrgyzstan: Kungei Alatau, ?Kirghizskii Alatau mountain ranges.
- c. *Palearctia glaphyra aksuensis* (O. BANG-HAAS, 1927)  
Horae Macrolepidop. **1**:63, t. 8, f. 26, 27 (*Micrarctia glaphyra*).  
(= *Micrarctia glaphyra naryna* O. BANG-HAAS, 1927, Horae Macrolepidop. **1**:63, t. 8, f. 28).  
Kyrgyzstan: Central Tien Shan, south from the Terskei Alatau mountain range and east from Naryn. China (Xinjiang: Aksu region).
47. *Palearctia wagneri* (PÜNGELER, 1918)  
Z. Öster. Ent. Ver. **3**:46, textfig. (*Arctia*).  
Kyrgyzstan: Central Tien Shan (Sarydzhas region).
48. *Palearctia golbecki* DUBATOLOV, 1996  
Neue Ent. Nachr. **37**: 19.  
Kyrgyzstan: Kirghiz Alatau mountain range.
49. *Palearctia gratiosa* (GRUM-GRSHIMAILO, 1890)  
Uzbekistan: West Tien Shan (Chatkal mountain range), Alai-Pamirs (Turkestan and Zeravshan mountain ranges); Kyrgyzstan: Chatkal, Kirghiz and Terskei Alatau, Alai Mts.; Tajikistan: Turkestan, Hissar, Peter-the-Great, and Trans-Alai mountain ranges, Pamirs. Afghanistan (Karakorum); India (Kashmir). West China (fig. 1565 with "*Micrarctia glaphyra* (EVERSMANN)" of FANG, 1982).

- a. *Palearctia gratiosa caroli* DUBATOLOV, 1996  
Neue Ent. Nachr. **37**: 24.  
Uzbekistan: Chatkal Mts.; Kyrgyzstan: Chatkal and Kirghizskii Alatau Mts.
- b. *Palearctia gratiosa sergei* DUBATOLOV, 1996  
Neue Ent. Nachr. **37**: 24.  
Kyrgyzstan: south-eastern part of the Terskei Alatau mountain range.
- c. *Palearctia gratiosa gratiosa* (GRUM-GRSHIMAILO, 1890)  
Mem. lepidop. Ed. N. N. ROMANOFF **4**:533, t. 19, f. 5 (*Arctia glaphyra*).  
Kyrgyzstan: Alai; Tajikistan: Alai and Peter-the-Great mountain ranges, North-West Pamirs.
- d. *Palearctia gratiosa flavala* DUBATOLOV, 1996  
Neue Ent. Nachr. **37**: 25.  
Uzbekistan: Zeravshan and Turkestan mountain ranges; Tajikistan: Zeravshan, Turkestan, and Hissar mountain ranges.
- e. *Palearctia gratiosa rupicola* (GRUM-GRSHIMAILO, 1890)  
Mem. lepidop. Ed. N. M. ROMANOFF **4**:535, t. 19, f. 6 (*Arctia*).  
(= *Arctia glauca* STAUDINGER, 1892, Dtsch. Ent. Zeit. IRIS **4**:251, t. 3, f. 6).  
Kyrgyzstan: the eastern part of the Trans-Alai; Tajikistan: the eastern part of the Transalai mountain range, East and South-West Pamirs.
50. *Palearctia erschoffii* (ALPHERAKY, 1882)  
Uzbekistan?: Chatkal Mts.; Kyrgyzstan: Chatkal, Sussamy, Kirghizskii Alatau, Kungei Alatau, and Terskei Alatau mountain ranges, Inner Tien Shan (Naryn), Central Tien Shan (Sarydzhas); Kazakhstan: Trans-Ili (Zailiiskii) Alatau, ?Kungei Alatau mountain ranges. China (Xinjiang): East Tien Shan (Juldus).
- a. *Palearctia erschoffii erschoffii* (ALPHERAKY, 1882)  
Horae Soc. Ent. Ross. **17**:29, t. 1, f. 33 (*Arctia*).  
(= *Arctia erschoffii issyka* STAUDINGER, 1887, Stett. Ent. Ztg. **48**:82).  
Entire Tien Shan within Uzbekistan, Kyrgyzstan, Kazakhstan, and China, except for the Naryn region in Kyrgyzstan.
- b. *Palearctia erschoffii selmonsi* (BÖTTCHER, 1905)  
Ent. Zeit. **19**:62, f. 18–21 (*Arctia erschoffii*).  
Kyrgyzstan: Inner Tien Shan (Naryn region).
51. *Palearctia ferghana* (STAUDINGER, 1887)  
Kyrgyzstan: Alai, Sussamy Mts.; Tajikistan: Turkestan mountain range, ?Pamirs. Tien Shan (an unknown locality). Afghanistan (Anjuman pass), ?Nepal.
- a. *Palearctia ferghana schottlaenderi* (STRAND, 1912)  
Intern. Ent. Zeit. (Guben) **6**:2 (*Arctia*).  
Tien Shan (unknown locality).
- b. *Palearctia ferghana sussamyra* DUBATOLOV, 1996  
Neue Ent. Nachr. **37**: 30.  
Kyrgyzstan: Sussamy Mts.

- c. *Palearctia ferghana ferghana* (STAUDINGER, 1887)  
Stett. Ent. Ztg. **48**: 82 (*Arctia erschoffi*).  
Kyrgyzstan: Alai Mts.
- d. *Palearctia ferghana turkestanica* DUBATOLOV, 1996  
Neue Ent. Nachr. **37**: 30.  
Tajikistan: Turkestan mountain range.
- ? *Palearctia ferghana variabilis* (DANIEL, 1966)  
Mitt. Münch. Ent. Ges. **56** (7): 161, t. 3, f. 4–16 (*Micrarctia*).  
It can be found in the Pamirs within Tajikistan.
52. *Palearctia gracilis* DUBATOLOV, 1996  
Neue Ent. Nachr. **37**: 31.  
Uzbekistan and Kyrgyzstan: West Tien Shan (Chatkal Mts.).
- Centrarctia* DUBATOLOV, 1990  
Chlenistonogie i gelminty. Novosibirsk: 157
53. *Centrarctia mongolica* (ALPHERAKY, 1888)  
Stett. Ent. Ztg. **49**: 67 (*Arctia*).  
Southern Tuva (Ubsu-nur hollow). Mongolia; China (Nei Mongol).
- Sibirarctia* DUBATOLOV, 1987  
Nasekomye, klestshi i gelminty. Novosibirsk: 36–40.
54. *Sibirarctia kindermanni* (STAUDINGER, 1867)  
South Urals; Omsk; Novosibirsk; Krasnoyarsk; Altai; Khakasia; the southern banks of Lake Baikal; Transbaikalia; Middle Amur; South Primorye. Mongolia; China (Qinghai, Shanxi, Heilongjiang; Liaonin).
- a. *Sibirarctia kindermanni kindermanni* (STAUDINGER, 1867)  
Stett. Ent. Ztg. **28**: 102–103 (*Arctia*).  
South Urals; South-West Siberia east to the Yenisei river.
- b. *Sibirarctia kindermanni pomona* (STAUDINGER, 1897)  
Dtsch. Ent. Zeit. IRIS **10**: 326, t. 9, f. 23 (*Arctia kindermanni*).  
(= *Micrarctia kindermanni roseni* O. BANG-HAAS, 1927, Horae Macrolepidop. **1**: 65, t. 8, f. 40).  
The southern banks of Lake Baikal; Transbaikalia; Upper Amur. Mongolia.
- c. *Sibirarctia kindermanni pretiosa* (STAUDINGER, 1887)  
Mem. lepidop. Ed. N. M. ROMANOFF **1**: 65, t. 8, f. 40 (*Arctia kindermanni*).  
(= *Micrarctia kindermanni ussuriensis* O. BANG-HAAS, 1927, Horae Macrolepidop. **1**: 65, t. 8, f. 42).  
The Middle Amur; Primorye. China (Heilongjiang).

55. *Sibirarctia buraetica* (O. BANG-HAAS, 1927)

The south-eastern part of the Altai; Tuva; East Sayan Mts.; Baikal; Transbaikalia; Central Yakutia; mountains of East Yakutia. North and Central Mongolia.

a. *Sibirarctia buraetica buraetica* (O. BANG-HAAS, 1927)

Horae Macrolepidop. 1:64, t. 8, f. 35, 36 (*Micrarctia*).

(= *Micrarctia buraetica elwesi* O. BANG-HAAS, 1927, Horae Macrolepidop. 1:64, t. 8, f. 38).

The south-eastern part of the Altai; Tuva; Baikal; Transbaikalia; Central Yakutia. Mongolia.

b. *Sibirarctia buraetica validus* (O. BANG-HAAS, 1927)

Horae Macrolepidop. 1:64, t. 8, f. 37 (*Micrarctia buraetica*).

South-western Transbaikalia (Kyakhta district in Buryatia).

c. *Sibirarctia buraetica chajataensis* DUBATOLOV, 1996 subspec. nov. (see p. 71)

Mountains of East Yakutia (Suntar-Khayata mountain range, Oimyakon region).

*Chelis* RAMBUR, 1866

Cat. syst. Lepid. Andalousie (2):256.

(= *Cletis* KIRBY, 1892, Synonymic Cat. Lepid. Heteroc. 1:263).

56. *Chelis maculosa* (GERNING, 1780)

Frankf. Beitrag. Wiss. 2:862, t. 2, f. 1–3 (*Phalaena*).

Ukraine; Crimea; European Russia: Don and Volga rivers, north to the lower course of the Kama river; South Urals; North Kazakhstan; South-West Siberia (Karasuk). West Europe: Central Spain, Central and Southern France, Central and Southern Germany, Austria, Hungary; South Poland; the northern and south-eastern parts of the Balkans (Macedonia, Bulgaria, West Turkey); China (Xinjiang).

a. *Chelis maculosa mannerheimi* (DUPONCHEL, 1836)

Hist. nat. Lep. France, Suppl. 3:49, t. 4, f. 2 (*Chelonia*).

Ukraine; Crimea; the southern part of European Russia; North Kazakhstan; South-West Siberia. China (Xinjiang).

57. *Chelis caecilia* (KINDERMANN in LEDERER, 1853)

Verh. zool.-bot. Ges. Wien 3:364 (*Arctia maculosa*).

(= *Cletis maculosa insularia* W. KOSHANTSCHIKOV, 1924, Ezhegod. Gos. Muz. im. Martjanova 2(1):69, **syn. nov.**, according to a good redescription of "*Arctia maculosa* var. *caecilia* KINDERM. in litt." in: STAUDINGER, 1867, Stett. Ent. Ztg. 28: 105–106).

North-East Kazakhstan: Altai Mts.; Russia: Altai Mts.; Khakasia, West Buryatia. Mongolia.

58. *Chelis reticulata* (CHRISTOPH, 1887)

Caucasus (Teberda; South Daghestan); Transcaucasia; Turkmenistan (Kopetdagh Mts.). Asia Minor; Syria; North Lebanon; North Iran.

a. *Chelis reticulata reticulata* (CHRISTOPH, 1887)

Stett. Ent. Ztg. 48: 163 (*Arctia maculosa*).

Turkmenistan (Kopetdagh Mts.).

- b. *Chelis reticulata transcaucasica* DUBATOLOV, 1988  
Taksonomiya zhiivotnykh Sibiri. Novosibirsk: 92, f. 2d.  
Caucasus; Transcaucasia.
59. *Chelis ferghana* DUBATOLOV, 1988  
Taksonomiya zhiivotnykh Sibiri. Novosibirsk: 92, f. 1n, 2e.  
West Tien Shan: Uzbekistan (Chatkal, Mts., Chimgan Mt.); Kazakhstan (Talas Alatau Mts. in the Aksu-Dzhebagly Nature Reserve); Kyrgyzstan: (Chatkal Mts., east of Toktogul).
60. *Chelis thianshana* DUBATOLOV, 1988  
Taksonomiya zhiivotnykh Sibiri. Novosibirsk: 93, f. 1k, 1l, 2g.  
Kyrgyzstan: Kirghiz Alatau, Sussamy, and Terskei Alatau mountain ranges, Inner Tien Shan; Kazakhstan: Trans-Ili (Zailiiskii) Alatau, Dzhungarian Alatau, and Tarbagatai mountain ranges. China (Xinjiang: East Tien Shan).
61. *Chelis dahurica* (BOISDUVAL, 1832)  
Icones hist. Lep. 2: 126, t. 60, f. 1 (*Chelonia*).  
(= *Arctia gruner* STAUDINGER, 1867, Stett. Ent. Ztg. 28: 104; = *Arctia maculosa sojota* TSCHEKVERIKOV, 1904, Rus. Entomol. Obozr. 4 (2–3): 79).  
South Urals; South-West Siberia (Kurgan and Omsk regions; Novosibirsk region: Lake Chany; Barnaul); North-East Kazakhstan (Altai and Saur Mts.); mountains of South Siberia: Altai, Khasakia, Tuva, Sayan Mts., west and south of the Irkutsk region, and Transbaikalia; ?the south-western part of the Primorye territory (Pogranichnyi (Grodekovo)). North and Central Mongolia.  
Note: *Phragmatobia maculosa* ab. 5. *strigulosa* (STGR. ined.), HAMPSON, 1901, Cat. Lep. Phal. Br. Mus. 3: 236 was established with a poor diagnosis: "Fore wing with the black spots larger, the veins more clearly streaked" and without the designation of the type locality. So, I consider it impossible to use this name (DUBATOLOV, 1988).
- Grammia* RAMBUR, 1866  
Cat. syst. Lepid. Andalousie (2): 261.  
(= *Orodemnias* WALLENGREN, 1885, Skand. Heterocer-Fjarilar 2(3): 315).
62. *Grammia quenseli* (PAYKULL, 1793)  
Kola peninsula; Polar Urals; North-East Kazakhstan (Saur Mts.); Altai; Tuva; East Sayan Mts.; Transbaikalia; the middle part of the Amur basin; the northern part of the Khabarovsk region, Yakutia; Magadan region; Wrangel Is.; Kamchatka. The Alps; the Carpathians (Transylvanian Alps); Polar Scandinavia (Tromsø, Finmark, Lule Lapmark, Torne Lapmark, Lapponia kemensis, Lapponia enontekiensis); North Mongolia (Chovsgol aimak); Japan (Hokkaido: Daisetsu Mt.); polar regions and mountains of North America: from Labrador throughout the North-West and Yukon territories to Alaska, south to Manitoba and Quebec.
- a. *Grammia quenseli quenseli* (PAYKULL, 1793)  
Skr. Naturh.-Selsk. Kiøbenhavn 2(2): 99, f. (*Bombyx*).  
Kola peninsula; Polar Urals; Wrangel Is.; Saur Mts. (Kazakhstan). Polar Scandinavia.
- b. *Grammia quenseli liturata* (MÉNÉTRIÈS, 1859)  
Bull. Acad. ph.-mat. St. Pet. 17: 500 (*Chelonia quenseli*).  
(= *Orodemnias quenselii daisetsuzana* MATSUMURA, 1927, Ins. matsumur. 1: 110, 113).

East Altai; Tuva; East Sayan Mts.; Transbaikalia; Middle Amur; the northern part of the Khabarovsk region (Khaikan river, the left tributary of the upper Uchur is the type locality of this subspecies); Yakutia; Magadan region; Kamchatka. North Mongolia; Japan (Hokkaido).

63. *Grammia philippiana* FERGUSON, 1985

Entomography. Ann. Rev. Biosystematics. Sacramento, 3:229–230, fig. 53–54.  
Wrangel Is.; Alaska.

a. *Grammia philippiana olga* DUBATOLOV, 1990, **comb. nov.**

Redkie gelminty, klestshi i nasekomye. Novosibirsk: 79, f. 1a, 2a (*G. olga*).  
Wrangel Is.

64. *Grammia turbans* (CHRISTOPH, 1892)

Horae Soc. Ent. Ross. 26:460 (*Arctia*).

Khakasia; East Sayan Mts.; the southern part of the Baikal region; Transbaikalia; the middle part of the Amur basin; Central Yakutia. Mongolia; Canada (Alberta, Saskatchewan, Manitoba, North-West territories).

*Hyperborea* GRUM-GRSHIMAILO, [1900] 1899

Ezhegod. zool. Muz. Imp. Acad. Nauk 4:464.

65. *Hyperborea czekanowskii* GRUM-GRSHIMAILO, [1900] 1899

Ezhegod. zool. Muz. Imp. Acad. Nauk 4:464.

Evenkia (Nizhnyaya Tunguska river); North Yakutia (Olenek and Yana rivers, Suntar-Khayata mountain range, Oimyakon region); Kolyma river; Koryakia; Chukotka; Wrangel Is.; Kamchatka; Stanovoi mountain range; the northern part of the Chita region (Udokan mountain range).  
Alaska.

*Diacrisia* HÜBNER, [1819] 1816

Verz. bekannter Schmett.: 169.

66. *Diacrisia sannio* (LINNAEUS, 1758)

Baltic Provinces; Belarus; Ukraine; Crimea; Moldova; European Russia, north to Karelia, Arkhangelsk region, and Ukhta (Komi republic); Caucasus; Transcaucasia (east to West Azerbaijan); North Kazakhstan; mountains of East Kazakhstan, North Uzbekistan and Kyrgyzstan (south to the Alai valley); South Siberia, north to Oktyabr'skoe (the lower course of the Ob river), Ket river (Tomsk region), and Angara river; Transbaikalia; Central Yakutia. West Europe, north to Middle Scandinavia (except for the south-western part of the Iberian peninsula, Greece, and West Turkey); North-East Turkey; West China; Mongolia.

a. *Diacrisia sannio sannio* (LINNAEUS, 1758)

Syst. Nat. (Edn. 10) 1:506 (*Phalaena*).

(= *Phalaena russula* LINNAEUS, 1758, Syst. Nat. (Edn. 10) 1:510; = *Phalaena vulpinaria* LINNAEUS, 1758, Syst. Nat. (Edn. 10) 1:520; = *Nemeophila russula pallida* STAUDINGER, 1892, Dtsch. Ent. Zeit. IRIS 5:347).

Baltic Provinces; Belarus; Ukraine; Crimea; Moldova; European Russia; Kazakhstan; Siberia. Western Europe; Mongolia.

- b. *Diacrisia sannio caucasica* SCHAPOSCHNIKOFF, 1904  
Ezhegod. Zool. Mus. Imp. Akad. Nauk **9**:253.  
(= *Diacrisia sannio caucasiana* STRAND, 1919, Lep. Catal. **22**:416).  
Caucasus; Transcaucasia. North-East Turkey.
- c. *Diacrisia sannio mortua* (STAUDINGER, 1887)  
Stett. Ent. Ztg. **48**:78 (*Nemeophila russula*).  
(= *Diacrisia sannio uniformis* A. BANG-HAAS, 1907, Dtsch. Ent. Zeit. IRIS **20**:69; = *D. s. syrdarja* STRAND, 1919, Lep. Catal. **22**:416).  
Mountains of Middle Asia (within North Uzbekistan, Kyrgyzstan, and South Kazakhstan).
67. *Diacrisia irene* BUTLER, 1881  
Trans. Entomol. Soc. Lond.:6.  
(= *Diacrisia russula amuri* STAUDINGER, 1892, Mem. lepidop. Ed. N. M. ROMANOFF **6**:277; = *Diacrisia sannio rubrocentralis* BRYK, 1948, Ark. Zool. **41A**(1):44; = *Diacrisia sannio rishiriensis* MATSUMURA, 1930, Ins. matsumur. **5**:35, t. 1, f. 2).  
Middle part of the Amur basin; Primorye, Sakhalin; Southern Kuril Is. (Kunashir). East China; Korea; Japan (Rishiri, Hokkaido, Honshu).
- Rhyparioides* BUTLER, 1877  
Ann. Nag. nat. Hist. (4)**20**:395.
68. *Rhyparioides nebulosa* BUTLER, 1877  
Ann. Mag. nat. Hist. (4)**20**:396.  
(= *Rhyparioides simplicior* BUTLER, 1881, Trans. ent. Soc. Lond.:6).  
South Primorye; Southern Kuril Is. (Kunashir). China (Dunbei, Nei Mongol); ?Korea; Japan (Hokkaido, Honshu).
69. *Rhyparioides amurensis* (BREMER, 1861)  
Bull. Acad. Imp. Sci. St. Petersburg. **3**:477 (*Chelonia rubescens*).  
Middle part of the Amur basin; Primorye; Southern Kuril Is. (Kunashir). China (Dunbei, Hebei, Shanxi, Shaanxi, Zhejiang, Fujiang, Jiangxi, Jiangsu, Hubei, Hunan, Guangxi, Sichuan, Yunan); Korea; Japan (Hokkaido, Honshu, Shikoku, Kyushu).
70. *Rhyparioides metelkana* (LEDERER, 1861)  
Wien. entomol. Monatschr. **5** (5):162, t. 3, f. 12 (*Nemeophila*).  
(= *Chelonia flavida* BREMER, 1861, Bull. Acad. Imp. Sci. St. Petersburg. **3**:477).  
South Ukraine (Kherson region); Russia: Azov sea (Taganrog); Daghestan (Derbent); Volga delta near Astrakhan (KÖNIG, 1985); South-West Siberia: Karasuk (DUBATOLOV, 1985c); the middle part of the Amur basin; Primorye; ?Shantar Is. Local in West Europe (South-West and North France, South Belgium, Germany: Berlin region, South Slovakia, Hungary, West Romania and the Danube delta); China (Heilongjiang, Jiangxi, Jiangsu, Nei Mongol); Korea; Japan (Hokkaido, Honshu, Shikoku, Kyushu, Tsushima, Yaku, Okinawa).

*Rhyparia* HÜBNER, [1820] 1816  
Verz. bekannter Schmett.:183.

71. *Rhyparia purpurata* (LINNAEUS, 1758)

Baltic Provinces; Belarus; Ukraine; Crimea; Moldova; European Russia, north to Karelia, the Upper Volga, and Vyatka; Caucasus; Transcaucasia; North Kazakhstan; mountains of East Kazakhstan; North Kyrgyzstan, including the territory around Lake Issyk-kul; South Siberia, north to Khanty-Mansiisk, Tomsk, Krasnoyarsk, and the Angara river; Baikal area; Transbaikalia; Amur basin; Primorye. West Europe, north to Southern Scandinavia (except for the North Sea coast, North France, central and southern parts of the Iberian peninsula and South Greece); Asia Minor; Syria; Mongolia; China (Xinjiang, Jilin, Jiangxi, Heilongjiang); Korea; Japan (Honshu).

a. *Rhyparia purpurata purpurata* (LINNAEUS, 1758)

Syst. Nat. (Edn. 10) 1:505 (*Phalaena*).

(= *Phalaena purpurea* LINNAEUS, 1767, Syst. Nat. (Edn. 12) 1 (2): 828; = *Rhyparia purpurata uralensis* SPULER, 1906, Schmett. Europ. 2: 131; = *Rhyparia purpurata barteli* KRULIKOWSKII, 1909, Materialy k poznaniyu fauny i flory Ross. Imp. Otd. Zool. 9: 172).

Baltic Provinces; Belarus; Ukraine; Crimea; Moldova; European Russia; Kazakhstan; North Kyrgyzstan; Siberia. West Europe; Asia Minor; Mongolia.

b. *Rhyparia purpurata caucasica* (ALPHERAKY, 1867)

Horae soc. Ent. Ross. 10: 14 (*Arctia*).

Caucasus; Transcaucasia. ?Turkey.

c. *Rhyparia purpurata gerda* WARNECKE, 1918

Int. Entomol. Zeit. 12: 81.

Middle part of the Amur basin; Primorye. East Mongolia; North-East China; Korea; Japan.

*Amurrhyparia* DUBATOLOV, 1985

Sistematika i biologija tshlenistonogikh i gelmintov. Novosibirsk: 66–68.

72. *Amurrhyparia leopardinula* (STRAND, 1919)

Lep. Catal. 22: 185 (*Diacrisia*).

(= *Chelonia leopardina* MÉNÉTRIÈS, 1859, Bull. Acad. Sci. St. Petersb. 17: 218; = *Diacrisia leopardinula mandshurica* O. BANG-HAAS, 1936, Entomol. Zeit. & Int. Ent. Zeit. 50 (30): 348).

South-East Transbaikalia; the middle part of the Amur basin; Primorye. China (Heilongjiang, Shanxi, Gansu, Qinghai, Tibet, Sichuan).

Spilosomini

*Ocnogyna* LEDERER, 1853

Verh. zool.-bot. Ver. Wien 2 (Abh.): 78.

(= *Somatrichia* KIRBY, 1892, Synonymic Cat. Lepid. Heterocera 1: 274; = *Trichosoma* RAMBUR, 1832, Anns ent. Soc. Fr. (1)1: 272).

73. *Ocnogyna parasita* (HÜBNER, [1790])

Moldova; Crimea; Lower Volga; ?Caucasus (?Abkhasia), ?Armenia. Local in West Europe: South-East France, the Alps, Central Europe from South Slovakia to the North Balkans; Zakynthos Is. (Greece); Asia Minor; ?Iraq.



- a. *Ocnogyna parasita parasita* (HÜBNER, [1790])  
Beitr. Gesch. Schmett. **2** (2): 42, t. 2, f. 1 (*Phalaena*).  
Moldova, Crimea. The Alps and Central Europe.
- b. *Ocnogyna parasita rothschildi* A. BANG-HAAS, 1912  
Dtsch. Ent. Zeit. IRIS **26**: 108, t. 6, f. 3 (*Ocnogyna*).  
Lower Volga (Samara region).
74. *Ocnogyna armena* STAUDINGER, 1871  
Daghestan; East Transcaucasia (Armenia; Azerbaijan); Turkmenistan (Kopetdagh Mts., Badhyz);  
South Uzbekistan: Kashkadarinskaya region (STSHETKIN, 1975; TILAVOV, 1978); South-West Tajikistan  
(STSHETKIN, 1975). ?East Turkey; ?Iraq; Iran; North Afghanistan.
- a. *Ocnogyna armena armena* STAUDINGER, 1871  
Cat. Lepidop. Europ. Faunengeb. (Edn. 2): 59 (*Ocnogyna loewii armena*).  
East Transcaucasia (Armenia, Azerbaijan). ?East Turkey.
- b. *Ocnogyna armena daghestana* DUBATOLOV, 1996 subspec. nov. (see p. 71)  
East Caucasus (Daghestan).
- b. *Ocnogyna armena pallidior* CHRISTOPH, 1884  
Mem. Lepidop. Ed. N. M. ROMANOFF **1**: 109, t. 7, f. 1a, 1b (*Ocnogyna loewii pallidior*).  
Turkmenistan (Kopetdagh Mts., Badhyz); South Uzbekistan; South-West Tajikistan. North Iran;  
Afghanistan.  
Note: According to the male genitalia structure (fig. 1), *Ocnogyna loewii* (ZELLER, 1846), Entomol. Zeit. **7**: 9–11 (*Trichosoma*) (= *Trichosoma clathrata* LEDERER, 1855, Verh. zool.-bot. Ges. Wien **5**: 202, t. 2, f. 7) from Asia Minor (Taurus Mts.) and the Near East differs well from *O. armena* STGR., including *O. a. pallidior* CHR. The uncus of the former species is gradually tapering to the tip, the apex is not wider than 0.1 mm; the latter species has the uncus forming a short and wide processus at the tip, 0.2 mm wide or wider, its tip is blunt. *O. cypriaca* O. BANG-HAAS, 1934, Ent. Zeit. **48**: 48 (*Ocnogyna loewii cypriaca*) from Cyprus Is. is a good species, differing better from the both mentioned species by the presence of many cornuti in the aedeagus vesica and a different structure of the valvae.
- Tajigyna* DUBATOLOV, 1990  
Redkie gelminty, klestshi i nasekomye. Novosibirsk: 82–83.
75. *Tajigyna gansoni* DUBATOLOV, 1990  
Redkie gelminty, klestshi i nasekomye. Novosibirsk: 83–84, f. 1b, 2g.  
Tajikistan (Peter-the-Great mountain range near Komsomolabad).
- Watsonarctia* DE FREINA & WITT, 1984  
Entomofauna **5** (28): 324.  
(= *Eurachia* DUBATOLOV, 1985, Chlenistonogie Sibiri i Dalnego Vostoka. Novosibirsk: 147; = *Eucastana* LERAUT, 1985, Linneana belg. **10**: 43).

76. *Watsonarctia deserta* (BARTEL, 1902)

North and Central Ukraine; European Russia: Penza, Simbirsk (= Ul'yanovsk), and Samara regions; Bashkiria; Caucasus; Transcaucasia; North Kazakhstan; mountains of East Kazakhstan; South Siberia: Barnaul region, Altai, Khakasia, Minusinsk; the middle part of the Angara river; Irkutsk. Central and South Europe (except for the western and central parts of the Iberian peninsula, the Alps; the Adriatic coast and Greece); Asia Minor; North Mongolia; China (Xinjiang).

a. *Watsonarctia deserta deserta* (BARTEL, 1902)

Dtsch. Ent. Zeit. IRIS 15: 226–227 (*Arctia casta*).

(= *Bombyx casta* ESPEY, 1784, Schmett. in Abbildungen nach der Natur 3: 177, t. 33, f. 2; = *Phragmatobia esperi* KOÇAK, 1980, Comm. Fac. Sci. Univ. Ankara, C, 24(2):10; = *Eucharja casta sibirica* W. KOSHANTSCHIKOV, 1924, Ezhegod. Gos. Muz. im. Nartjanova 2(1):68).

Ukraine, the south part of European Russia; Caucasus; North-West Kazakhstan; South Siberia. West Europe; North Mongolia.

b. *Watsonarctia deserta karduchena* (DE FREINA, 1983)

Mitt. Münch. ent. Ges. 72: 105, Abb. 20 (*Eucharja deserta*).

Transcaucasia. East Turkey.

c. *Watsonarctia deserta centralasiae* (O. BANG-HAAS, 1927)

Horae Macrolepidop. 1: 59, t. 8, f. 9 (*Eucharja casta*).

Mountains of East Kazakhstan. China (Xinjiang: East Tien Shan).

*Chionarctia* KÔDA, 1988

Tyô to Ga 39(1): 54–58.

(= *Gigantospilosoma* DUBATOLOV, 1990, Taksonomia nasekomykh i gelmintov. Novosibirsk: 95–96).

77. *Chionarctia niveum* (MÉNÉTRIÈS, 1859)

Bull. phys.-math. Acad. Sci. St. Petersburg. 17: 218 (*Dionychopus nivea*).

?Irkutsk; Middle Amur; Primorye; Southern Sakhalin; Southern Kuril Is. (Kunashir). China (Dunbei, Hebei, Nei Mongol, Shaanxi, Henan, Shandong, Zhejiang, Fujiang, Hubei, Hunan, Guangxi, Sichuan); Korea; Japan (Hokkaido, Honshu, Shikoku, Kyushu, Tsushima).

*Alphaea* WALKER, 1855

List Spec. lepid. Insects Colln. Br. Mus. 3: 683.

78. *Alphaea melanostigma* (ERSCHOFF, 1872)

Horae Soc. Ross. 8(4): 316 (*Spilosoma*).

(= *Spilarctia karakorunica* DANIEL, 1961, Mitt. Münch. ent. Ges. 51: 159).

Uzbekistan: Zeravshan, Alai mountain ranges; Kyrgyzstan: Alai; Tajikistan: Hissar mountain range, Pamirs. Afghanistan; Pakistan; North India (Himalaya, south to Sikkim and Assam). ?China (Qinghai).

*Andala* WALKER, 1855

List Spec. lepid. Insects Colln. Br. Mus. 3: 774.

79. *Andala guttata* (ERSCHOFF, 1874)

In: FEDTSCHENKO, Puteshestvije v Turkestan 2: 32, t. 2, f. 28 (*Arctia*).

Uzbekistan: West Tien Shan (Chimgan Mt.), ?Zeravshan mountain range; Tajikistan: Hissar mountain range. East Afghanistan.

80. *Andala transversa* (MOORE, 1879)

Proc. Zool. Soc. Lond.: 398 (*Cycnia*).

(= *Spilosoma puella* STAUDINGER, 1887, Stett. Ent. Ztg. 48: 85).

Tajikistan: Peter-the-Great and Darwaz mountain ranges, West Pamirs. East Afghanistan; West Pakistan.

*Hyphantria* HARRIS, 1841

Rep. Insects Mass. injurious to Veg.: 255.

81. *Hyphantria cunea* (DRURY, 1773)

Illust. nat. Hist. exot. Insects 2: index to vol. 1; 1770, ibidem 1: 36, t. 18, f. 4 (*Phalaena*).

(= *Hyphantria textor* HARRIS, 1828, Rep. Insects Mass. injurious to Veg.: 255).

Moldova (since 1970); Ukraine (since 1952): Transcarpathians, Odessa, Kherson, Nikolaev, and Zaporozhje regions, Crimea; the south part of European Russia (since 1975): Krasnodar and Stavropol regions, North-West Caucasus, east to the west coast of the Caspian Sea (SHAROV & IZHEVSKIJ, 1987) and the southern parts of the Samara region (since the '90s) (SACHKOV, 1992); Baltic Provinces (Lithuania and Estonia, since the '80s). South-West France; South Italy; Switzerland, Central Europe, north to South Germany, East Austria and South Slovakia; North Turkey; South Mongolia; North-East China: Liaoning (FANG, 1981), Japan (Honshu, Shikoku, Kyushu); North America (South Canada and USA).

*Diaphora* STEPHENS, 1827

in: Anonymous, Retrospective Review (2)1: 244.

82. *Diaphora mendica* (CLERCK, 1759)

Icon. Insect. rariorum 1: t. 3, f. 5 (*Phalaena*).

(= *Phalaena rustica* HÜBNER, 1791, Beiträge zur Geschichte der Schmett. 2: 64, pl. 3, 2, pl. 3, 2, H;

= *Diaphora mendica malatiana* BYTINSKI-SALTZ, 1936, Ent. Rec. 48: 2 (sep.).

Baltic Provinces; Belarus; Ukraine; Crimea; Moldova; European Russia, north to Karelia and the southern part of Komi republic; Caucasus; Transcaucasia; North Kazakhstan; South Siberia north to Tobolsk, Tomsk, the middle part of the Angara river, and Irkutsk; south of the Baikal region. West Europe, north to South Scandinavia (except for North Ireland, North Scotland, the southern regions of the Iberian peninsula and Greece); North Turkey; Syria; Lebanon.

*Eudiaphora* DUBATOLOV, 1990

Taksonomiya nasekomykh i gelmintov. Novosibirsk: 93–95.

83. *Eudiaphora turensis* (ERSCHOFF, 1874)

In: FEDTSCHENKO, Puteschestvie v Turkestan 3: 33, t. 2, f. 29 (*Spilosoma*).

(= *Diaphora turensis maracandica* SEITZ, 1910, Gross-Schmett. Erde 2: 92, f. 17d; = *Diaphora afghanistanensis* DANIEL, 1966, Mitt. Münch. ent. Ges. 56(7): 163, t. 3, f. 1).

Turkmenistan: Kopetdagh and Kuhitang mountain ranges, Amu-Darja river (Chardzhou), Kazakhstan: Syr-Darja, Chu and Ili river valleys; Ketmen mountain range; Kyrgyzstan: Ferghanian mountain range; Uzbekistan: the Karzhantau and Zeravshan mountain ranges, Tajikistan: Hissar and Turkestan mountain range, West Pamirs. Afghanistan; China (Xinjiang).

*Spilosoma* CURTIS, 1825

Br. Ent. 2: f. 92.

84. *Spilosoma lubricipedum* (LINNAEUS, 1758)

Syst. Nat. (Edn. 10) 1:505 (*Phalaena lubricipeda*).

(= *Bombyx menthastri* [DENIS & SCHIFFERMÜLLER], 1775, Ankündigung syst. Werkes Schmett. Wiener-gegend: 54; = *Diacrisia menthastri chishimana* MATSUMURA, 1929, Ins. matsumur. 3:167; = *Diacrisia masuensis* MATSUMURA, 1930, Ins. matsum. 5:34, t. 1, f. 1; = *S. menthastri elegans* BRYK, 1948, Ark. Zool. 41A(1):43).

Baltic Provinces; Belarus; Ukraine, Crimea; Moldova; European Russia, north to Karelia, Arkhangelsk region and Komi republic; Caucasus; Transcaucasia (except for East Azerbaijan); North Kazakhstan; South Siberia, north to Tobolsk, Ket river (Tomsk region), and Angara river; Transbaikalia; Amur basin; Primorye; Sakhalin; Southern Kuril Is. (from Urup to Kunashir). West Europe, north to Middle Scandinavia (except for the central and south-western parts of the Iberian peninsula, South Italy, South Greece); northern part of Asia Minor; ?Mongolia; China (Dunbei, Hebei, Nei Mongol, Shaanxi, Jiangsu, Zhejiang, Anhui, Jianxi, Fujiang, Hubei, Sichuan, Guizhou, Yunan); Korea; Japan (Hokkaido, Honshu, Shikoku, Kyushu, Tsushima, Yaku).

85. *Spilosoma punctarium* (STOLL in CRAMER, [1782])

Uitlandsche Kapellen 4:233, t. 398, f. D (*Bombyx*).

(= *Arctia punctigera* MOTSCHULSKY, [1861], Et. Ent. 9:31, t. 1, f. 7; = *Spilosoma roseiventer* SNELLEN, 1863, Tijds. 6:143; = *Spilosoma dornesii* OBERTHÜR, 1879, Diagnoses Espèces nouv. Lepid. Ile d'Askold: 6; = *Spilosoma doerriesi* OBERTHÜR, [1881] 1880, Et. Ent. 5:31, t. 1, f. 7; = *Spilosoma punctarium miserata* BRYK, 1942, Dtsch. Ent. Zeit. IRIS 56:33).

Middle Amur; Primorye; Southern Kuril Is. (from Urup to Kunashir). China, west to Tibet; Korea; Japan (Hokkaido, Honshu, Shikoku, Kyushu, Yaku).

86. *Spilosoma urticae* (ESPER, 1789)

South Lithuania; Ukraine; Crimea; Moldova; European Russia, north to Bryansk, Moscow, and the Middle Volga, there is some old material from St.-Petersburg, too; Caucasus; Transcaucasia; Kazakhstan; Kyrgyzstan (Bishkek, Osh); Uzbekistan: West Tien Shan and Ferghana valley; South Siberia, north to Kurgan, Chulym river (Tomsk region), and the middle part of the Angara river; Transbaikalia (Ulan-Ude); Middle Amur (Blagovestshensk); South Primorye; ?Southern Kuril Is. (?Kunashir). West Europe, north to South England and South Scandinavia, south to North Italy and the Northern Balkans; ?Turkey; North Iran (Chelus); China (Xinjiang, Sichuan, Jiangsu).

a. *Spilosoma urticae urticae* (ESPER, 1789)

Schmett. 3:20, t. 83, f. 2 (*Phalaena*).

South Lithuania; Ukraine, Crimea; Moldova; European Russia; Caucasus; Transcaucasia; Kazakhstan; Kyrgyzstan; North Uzbekistan; South Siberia; Middle Amur. West Europe.

b. *Spilosoma urticae mandli* SCHAWERDA, 1922

Zeit. Öst. Ent. Ver. 7:11 (*Spilosoma mandli*).

(= ?*Spilosoma sangaica* WALKER, [1865], List. Spec. Lepid. Insects Colln. Br. Mus. 31:294<sup>3</sup>).

South Primorye; ?Kunashir.

87 *Spilosoma streltzevi* DUBATOLOV, 1996 spec. nov. (see p. 76)

Middle Amur, Primorye.

*Spilarctia* BUTLER, 1875

Cistula ent. 2:39.

Note. "*Spilarctia tschitaensis* DANIEL", 1953, Mitt. Münch. ent. Ges. 43: 252, t. 7, f. 11, which was described from Chita (Transbaikalia) is a synonym of *Isochlora grumi* ALPHERAKY, 1892, Horae Soc. Ent. Ross. 26: 448 (Noctuidae).

88. *Spilarctia luteum* (HUFNAGEL, 1766)

Baltic Provinces; Belarus; Ukraine; Crimea; Moldova; European Russia, north to Karelia and Kotlas; West Caucasus; West Transcaucasia (West Georgia); North Kazakhstan; South Siberia, north to Tobolsk, Chulym river (Tomsk region), Krasnoyarsk, and Irkutsk; Middle Amur; Primorye; Sakhalin; Southern Kuril Is. (from Urup to Kunashir); possibly absent from Transbaikalia. West Europe, north to South Scandinavia (except for the central, southern and eastern parts of the Iberian peninsula); the northern part of Asia Minor; China (Dunbei, Hebei, Shaanxi); Korea; Japan (Hokkaido, Honshu, Shikoku, Kyushu).

a. *Spilarctia luteum luteum* (HUFNAGEL, 1766)Berlin. Mag. 2:412 (*Phalaena*).(= *Phalaena zatima* STOLL, 1781, Pap. Exot. 4:182, t. 381, f. F).

Baltic Provinces; Belarus; Ukraine; Crimea; Moldova; European Russia; West Caucasus; West Georgia; North Kazakhstan; South Siberia. West Europe; the northern part of Asia Minor.

b. *Spilarctia luteum japonicum* (ROTHSCHILD, 1910)Novit. Zool. 17: 131 (*Diacrisia lutea japonica*).

(= *Spilarctia obliqua ursulina* BRYK, 1942, Dtsch. Ent. Zeit. IRIS 56:31–32; = *S. obliqua bergmani* BRYK, 1942, Dtsch. Ent. Zeit. IRIS 56:31; = *Diacrisia lutea rhododactyla* BRYK, 1948, Ark. Zool. 41A(1):41).

Middle Amur; Primorye; Southern Sakhalin; Southern Kuril Is. (from Urupto Kunashir). East China; Korea; Japan.

89. *Spilarctia seriatopunctatum* (MOTSCHULSKY, [1861])Et. Ent. 9:31 (*Spilosoma seriatopunctata*).

(= *Spilarctia ione* BUTLER, 1875, Cistula ent. 2:41; = *Spilarctia mollicula* BUTLER, 1877, Ann. Mag. nat. Hist. (4)20: 395; = *Spilosoma striatopunctata* OBERTHÜR, 1879, Diagnoses especes nouv. Lepid. Ile d'Askold: 6; = *Spilarctia casigneta flavomaculosa* KARDAKOFF, 1928, Ent. Mitt. 17:415; = *S. casigneta sjoquisti* BRYK, 1942, Dtsch. Ent. Zeit. IRIS 56: 32; = *Diacrisia seriatopunctata varians* BRYK, 1948, Ark. Zool. 41A(1):41).

Middle Amur; Primorye; Southern Sakhalin; Southern Kuril Is. (from Urup to Kunashir). China (Heilongjiang, Jilin, Jiangxi, Fujiang, Sichuan); Korea; Japan (Hokkaido, Honshu, Shikoku, Kyushu, Tsushima, Yaku, Amami, Okinawa).

3 According to the type-specimen (♀) colour figure (BUTLER, 1879b: pl. XLII, fig. 5) it resembles *Spilosoma urticae* (ESPER) very much by the wings (elongate fore wing with well marked black dots and almost white hind wing). *S. urticae mandli* SCHAW. has the same wings. However, the introduction of the new synonymy demands the investigation of the specimen in the collection of The Natural History Museum (London).

90. *Spilarctia obliquizonatum* (MIYAKE, 1910)  
Jl. Coll. Agric. Imp. Univ. Tokyo 2:208 (*Diacrisia obliquizonata*).  
Southern Sakhalin; Bouthern Kuril Is. (Kunashir). Japan (Hokkaido, Honshu, Shikoku, Kyushu).
91. *Spilarctia subcarneum* (WALKER, 1855)  
List Spec. lepid. Insects Colln. Br. Mus. 3:675–676 (*Spilosoma subcarnea*).  
(= *Aloa bifrons* WALKER, 1855, List Spec. lepid. Insects Colln. Br. Mus. 3:705; = *Spilosoma rybakovi* ALPHERAKY, 1897, Mem. lepidop. Ed. N. M. ROMANOFF 9:171, t. 10, f. 9).  
South Primorye. China, from Dunbei south to Taiwan, Guangdong and North Yunan; Korea; Japan (Hokkaido, Honshu, Shokoku, Kyushu, Tsushima, Yaku, Okinawa).
- a. *Spilarctia subcarneum charbini* (DANIEL, 1943)  
Mitt. Münch. ent. Ges. 33(3):696, t. 19, f. 7, 8 (*Spilarctia subcarnea*).  
South Primorye. North-East China (Dunbei).  
Notes. 1) This species was reported from the Kamchatka peninsula by KURENTOV (1966) as a pest of *Betula ermanii*. I haven't found any specimen from Kamchatka in KURENTOV's collection in the Institute of Biology and Pedology (Vladivostok). It is quite possible that he determined the species by the larvae only, and that this determination might be wrong. 2). There are two male specimens of this species originating from South Primorye, Kaimanovka, 24.VIII. 1981, PETRIKEVITSH leg., with a yellow, not red abdomen. These specimens have been collected together with the typical form. I haven't found any significant differences between them in the male genitalia. I propose a new name for specimens with yellow abdomen: *Spilarctia subcarneum* f. **lydia** DUBATOLOV, **forma nov.**

*Lemyra* WALKER, 1856

List Spec. lepid. Insects Colln. Br. Mus. 7:1690.  
(= *Thanatarctia* BUTLER, 1877, Ann. Mag. nat. Hist. (4)20:395).

93. *Lemyra inaequalis* (BUTLER, 1879)

Ann. Mag. nat. Hist. (5) 4:351 (*Spilarctia*).  
(= *Diacrisia rhodophila japonensis* ROTHSCHILD, 1914, in: SEITZ, Gross-Schmett. Erde 10:239, f. 21e).  
*L. inaequalis* (BTL.) is distributed in Japan only (Honshu, Shikoku, Kyushu, Tsushima, Yaku). In the Lower Amur, the mountain taiga of Primorye and Korea occurs a related species. It will be described by YU. A. TSHISTJAKOV and Y. KISHIDA. Such a specimen was figured by FANG CHENG-LAI (1982: t. 69, fig. 1587) as "*Spilarctia japonensis* ROTH." The mentioned author gave its distribution in China as follows: Heilongjiang, Liaonin, Jilin, Zhejiang,

94. *Lemyra jankowskii* (OBERTHÜR, [1881] 1880)

Et. Ent. 5:31–32, t. 8, f. 3 (*Spilosoma*).  
(= *Diacrisia jankowskii korearctia* БРЯК, 1948, Ark. Zool. 41A(1):42).  
Middle Amur; Primorye. China (Heilongjiang, Liaonin, Hebei, Shandong, Shaanxi, Jiangsu, Zhejiang, Shanxi, Sichuan, Tibet, Yunan).  
Note: This species was reported to occur also in the Kuril Is.: Kunashir (KONOVALOVA, 1968). I consider this a mistake, because this species does not inhabit Japan.

*Phragmatobia* STEPHENS, 1828

Illust. Br. Ent. (Haustellata) 2:55, 73.

95. *Phragmatobia fuliginosa* (LINNAEUS, 1758)

Baltic Provinces; Belarus; Ukraine; Crimea; Moldovia; European Russia, north to Murmansk, Arkhangelsk region, and Komi republic; Caucasus; Transcaucasia; Kazakhstan; all the countries of Middle Asia, except for deserts; Siberia, north to Beryozov (the lower course of the Ob river), Podkamennaya Tunguska river, Central Yakutia, and the upper course of the Kolyma river; Kamchatka; Bering Is. (DYAR, 1899). The south-easternmost locality in Russia is the Nerchinsk surroundings in Transbaikalia. West Europe; North-West Africa; Asia Minor; the Near East; Iraq; North Iran; Afghanistan; China (Xinjiang, Qinghai, Nei Mongol).

a. *Phragmatobia fuliginosa borealis* (STAUDINGER, 1871)

Cat. Lep. Europ. Faunengeb. (Edn. 2): 59 (*Spilosoma fuliginosa*).

The northern part of Eurasia (the northern regions of European Russia; Siberia, except for the southern part; Scandinavia).

b. *Phragmatobia fuliginosa fuliginosa* (LINNAEUS, 1758)

Syst. Nat. (Edn. 10) 1: 509 (*Phalaena*).

(= *Spilosoma fuliginosa fervida* STAUDINGER, 1871, Cat. Lep. Europ. Faunengeb. (Edn. 2): 59; = *Phragmatobia fuliginosa lurida* ROTHSCHILD, 1910, Novitat. Zool. 17: 115).

?Baltic Provinces; Belarus; Ukraine; Crimea; Moldovia; central and southern regions of European Russia; North Kazakhstan; South Siberia. Central and South Europe.

c. *Phragmatobia fuliginosa taurica* DANIEL, 1970

Zeitschr. der Arbeitsgemeinschaft Österr. Entomologen 22: 9–10.

Caucasus; Transcaucasia (excluding the main part of Azerbaijan and Armenia). East Turkey; the Near East; mountains of northern and north-western Iran.

d. *Phragmatobia fuliginosa paghmani* LENEK, 1966

Zeit. Wiener Ent. Ges. 51: 105.

South-East Transcaucasia (Azerbaijan and Armenia); all the countries of Middle Asia; South Kazakhstan. Iran; Afghanistan. China (West Xinjiang).

Note: *P. f. pulverulenta* ALPHERAKY, 1889, Mem. Lepidop. Ed. N. M. ROMANOFF 5: 84 (*Spilosoma fuliginosa*) = *P. f. pallida* ROTHSCHILD, 1910, Novitat. Zool. 17: 116 = *P. f. thibetica* STRAND, 1919, Lep. Cat. 22: 416, occurs only in China: East Xinjiang, Qinghai, Nei Mongol; and South Mongolia (DARITSHEVA, DUBATOLOV, 1989).

96. *Phragmatobia amurensis* SEITZ, 1910

Middle Amur; Primorye; Southern Sakhalin; Southern Kuril Is. (from Iturup to Kunashir). China (Dunbei, Hebei); Korea; Japan (Hokkaido, Honshu).

Note: For a review of distinguishing characters see DUBATOLOV (1990d). The males of *Ph. amurensis* SEITZ have pectinate antennae, those of *Ph. fuliginosa* (L.) simple ones.

a. *Phragmatobia amurensis amurensis* SEITZ, 1910

Gross-Schmett. Erde 2: 79, f. 16b (*Phragmatobia fuliginosa*).

(= *Phragmatobia fuliginosa chosensis* BRYK, 1948, Ark. Zool. 41A(1): 40).

Middle Amur; Primorye. North-East China; Korea.

b. *Phragmatobia amurensis japonica* ROTHSCHILD, 1910

Novitat. Zool. 17 (2): 116 (*Phragmatobia fuliginosa*).

Southern Sakhalin; Southern Kuril Is.; Japan.

97 *Phragmatobia placida* (FRIVALDSZKY, 1835)Mag. Tud. Tars. Evk. 2:271, t. 7, f. 5 (*Euprepia*).

South Crimea (KOSTJUK &amp; PLJUSTSH, 1987); Transcaucasia (Armenia). The Balkans; Turkey; Syria; North Iraq; North Iran.

*Epatolmis* BUTLER, 1877

Trans. ent. Soc. Lond.: 348.

98. *Epatolmis caesarea* (GOEZE, 1781)Ent. Beyträge 3(3):63 (*Phalaena*).(= *Phalaena luctifera* ESPEL, 1784, Schm. Abbild. Natur. 3: 222, t. 43, f.1-5; = *Atolmis japonica* WALKER, [1865] 1864, List Specm. lepid. Insects Colln. Br. Mus. 31: 223; = *Estigmene moerens* BUTLER, 1885, Cist. Ent. 3: 114).

Baltic Provinces; Belarus; Ukraine; Moldova; European Russia, north to Luga (St.-Petersburg region), Vasil'sursk (120 km east of Nizhnii Novgorod) (TSCHEKVERIKOV, 1993), and Vyatka, south to the Azov Sea and ?Saratov; Transcaucasia (Borzhomi in Georgia and Kirovabad (Gyandzha) in West Azerbaijan); South Siberia: Tobolsk, Barnaul, Khakasia, Minusinsk; southern banks of the Baikal region; Transbaikalia; Middle Amur (Blagowestshensk); South Primorye. Central Europe: Central and South France, South Germany, Austria and Czechoslovakia, south to North Italy and the North-East Balkans; Asia Minor; Mongolia; China (Heilongjiang, Jiangxi, Hebei, Nei Mongol, Shanxi, Shandong, Shaanxi, Jiangsu, Hunan, Sichuan, Yunan); Korea, Japan (Honshu, Shikoku, Kyushu).

**Part II: Descriptions of New Species and Subspecies*****Lacydes spectabilis sheljuzhkoii* subsp. nov.**

(Fig. 2a)

The wing expanse of the holotype is 33 mm. The wing pattern is as in *L. spectabilis spectabilis* (TAUSCHER), the spots on the forewing lack distinct borders of black scales, which is typical for *L. spectabilis annelata* (CHRISTOPH). The main character of the new subspecies is a clear yellowish, not whitish groundcolour of the wings, and the spots on the forewing being dark yellow, without a greyish-brown tint, which is typical for both of the other known subspecies.

Material. Holotype ♂, Armenia, "Transcauc. m., pag. Engidzha ad fl. Arax (prope stat. Norashen), 12.IX.1931, M. RJABOV leg." Paratypes: 1 ♂, same data; 4 ♂♂, Norashen, fl. Arax, 12.-13.IX.1931, M. RJABOV leg.; 2 ♂♂, Erivanj, 2.-23.IX.1938. All the specimens belong to L. SHELJUZHKO's collection, kept in the Zoological Museum of Kiev State University.

***Platarctia atropurpurea sotavaltai* subsp. nov.**

(Fig. 2g)

The wing expanse is 33-38 mm in females, and 32 mm in the male. The forewing is greyish-brown with the pattern typical for this species. The main character of the new subspecies is the size of the yellow antemedian and postmedian spots in the space 1 (between veins 1 and 2) on the forewing. These spots are small, either of equal size or the antemedian spot being smaller than the postmedian one. *P. atropurpurea atropurpurea* (BANG-HAAS) has a large antemedian spot in the space 1, elongated between the veins, and usually this spot is twice as long as the postmedian one. In addition, the hindwing in the new subspecies has separate rose spots, being brighter in the females. The



corresponding spots in *P. atropurpurea atropurpurea* are usually fused, being bright yellow in the females and yellow, but rose along the costa in the males.

Material. Holotype ♀, E. Yakutia, 180 km ENE of the settlement Khandyga, the upper course of the East Khandyga River, the stream Kyurbelyakh, 7.VII.1985, V. DUBATOLOV, L. POPOVA leg. Paratypes: 2 ♀♀, same locality, 8.VII.1985, V. DUBATOLOV leg., 4.VII.1986, L. POPOVA leg.; 1 ♀, Yakutia, the southern part of the Verkhoyansky mountain range, the upper part of the Kele river, the stream Charkymbal, 11.VII.1989, L. POPOVA leg.; 1 ♂, Magadan region, Kolyma River, near Mt. Aborigen, a black larva 8.–11.VIII.1986, pupa 26.VII.1986, imago 10.IX.1986, V. DUBATOLOV leg.

This subspecies is named in honour of Prof. Dr. O. SOTAVALTA (Finland), who firstly mentioned this species from North-East Siberia (SOTAVALTA, 1965).

***Arctia caja ossetica* (O. BANG-HAAS et SHELJUZHKO, in litt.) subspec. nov.**

(Fig. 2d)

The wing expanse is 60–64 mm in males, 75 mm in the female. This subspecies is transitional between the european *A. caja caja* (LINNAEUS) and the Transcaucasian *A. caja wiskotti* ROMANOFF. The colour of the forewing and the shape of the spots are the same as in the mentioned subspecies, but the colour of the hindwing is peculiar, it is bright yellowish-orange in the new subspecies, bright red in *A. caja caja*, and pale yellow in *A. caja wiskotti*.

Material. Holotype ♂, Caucasus, "Ossetia s., Buron, 1250 m, 10.VIII.1940 (lumine), L. SHELJUZHKO leg." Paratypes: 2 ♂♂, 2 ♀♀, same locality, 10., 13.VIII.1940, L. SHELJUZHKO leg.; 1 ♂, Ossetia, Sadovskije Rudniki, 31.VII.1904. All the specimens belong to L. SHELJUZHKO's collection kept at the Zoological Museum of Kiev State University.

This subspecies was firstly designated by O. BANG-HAAS and L. SHELJUZHKO in his collection. For unknown reasons a description was never published.

***Sibirarctia buraetica chajataensis* subspec. nov.**

(Fig. 2j)

The wing expanse is 26–28 mm. The forewing is very dark, the white bands being reduced to very narrow stripes: the subterminal one is W-shaped, sometimes poorly developed, not wider than 0.25 mm. The postmedial band is better developed but does not exceed a 0.4 mm width. The medial band is reduced to a single small spot inside the cell. Other transversal bands are absent, but there is a good developed stripe between veins 1 and 2, being 0.25 mm wide. The fused part of vein 2+3 and the base of vein 1 are covered with light scales. The hindwing as in *S. b. buraetica* (BANG-HAAS).

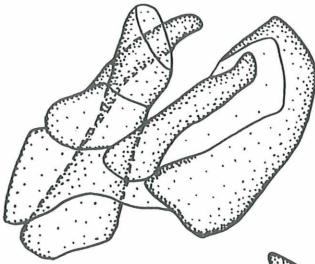
Material. Holotype ♂, E. Yakutia, 180 km ENE of the Khandyga settlement, the upper course of the East Khandyga River, near the mouth of the stream Kyurbelyakh, a shingly river bank, 29.VII.1985, V. DUBATOLOV & L. POPOVA leg. Paratypes: 1 ♂, same locality, 17.VII.1985, L. POPOVA leg., 1 ♂ ex larva 29.VI.1989, S. SAZONOV leg.

***Ocnogyna armena daghestana* subspec. nov.**

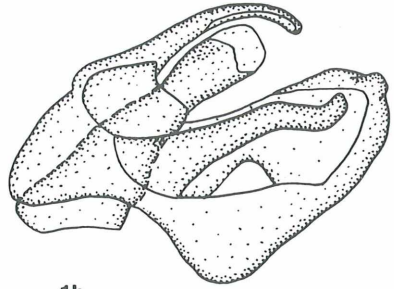
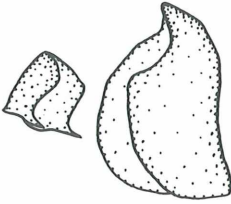
(Fig. 2i)

The wing expanse is 28 mm. The wing pattern is characteristic for this species, but all the spots are light-brown with darker borders, not evenly dark-brown as in the other *O. armena* STAUDINGER subspecies. The spots on the hindwing are strongly widened, the subterminal one forming a wide band from the costa to vein 2, with an additional spot in the tornal angle. The discoidal spot is also large.

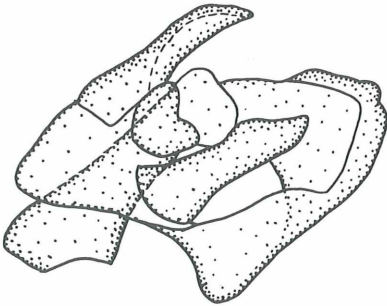
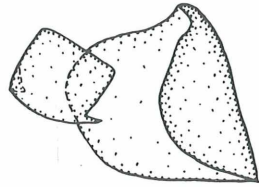
Material. Holotype ♂, East Caucasus, "Dagestan, Derbent, 16.X.1910, Coll. A. XIEZOPOLSKY (*armena*, L. SHELJUZHKO det.)" The type belongs to L. SHELJUZHKO's collection kept at the Zoological Museum of Kiev State University.



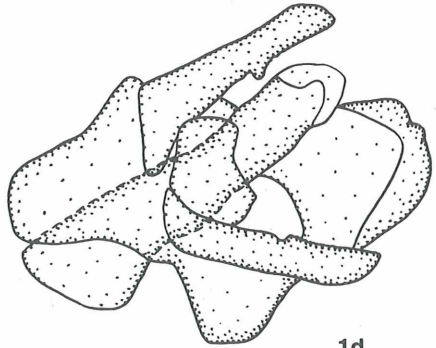
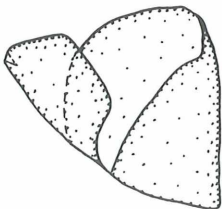
1a



1b



1c



1d

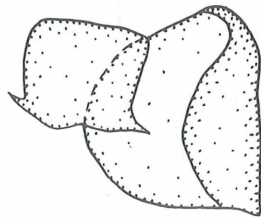
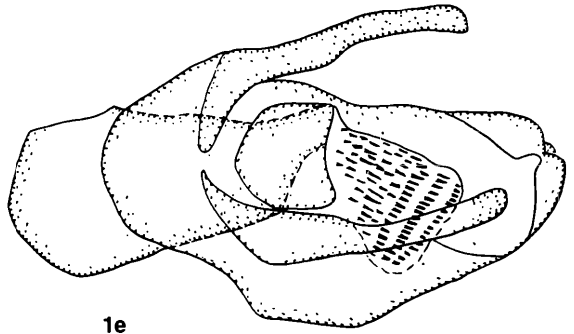


Fig. 1: Male genitalia and VIII. tergites of *Ocnogyna (loewii (ZELL.))*. a - *O. loewii* (ZELL.), Taurus; b - *O. armena armena* STGR., Armenia, Erevan; c - *O. a. daghestana* subsp. nov., Caucasus, Daghestan, Derbent, holotype; d - *O. a. pallidior* CHA., Turkmenistan, West Kopetdagh, Sumbar river; e - *O. cyprica* O. BANG-HAAS, Cyprus, Limassol, co-type (paratype).



1e

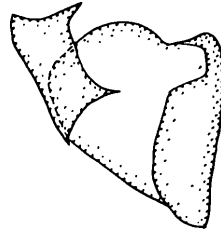
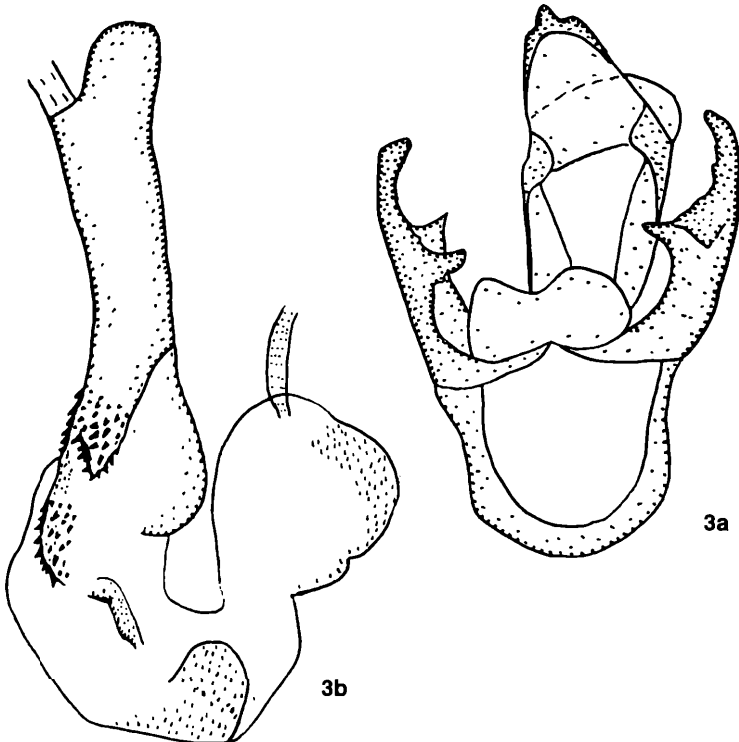


Fig. 3: Male genitalia of *Spilosoma streltzevi* spec. nov. a - general view, b - aedeagus with everted vesica.



3a

3b

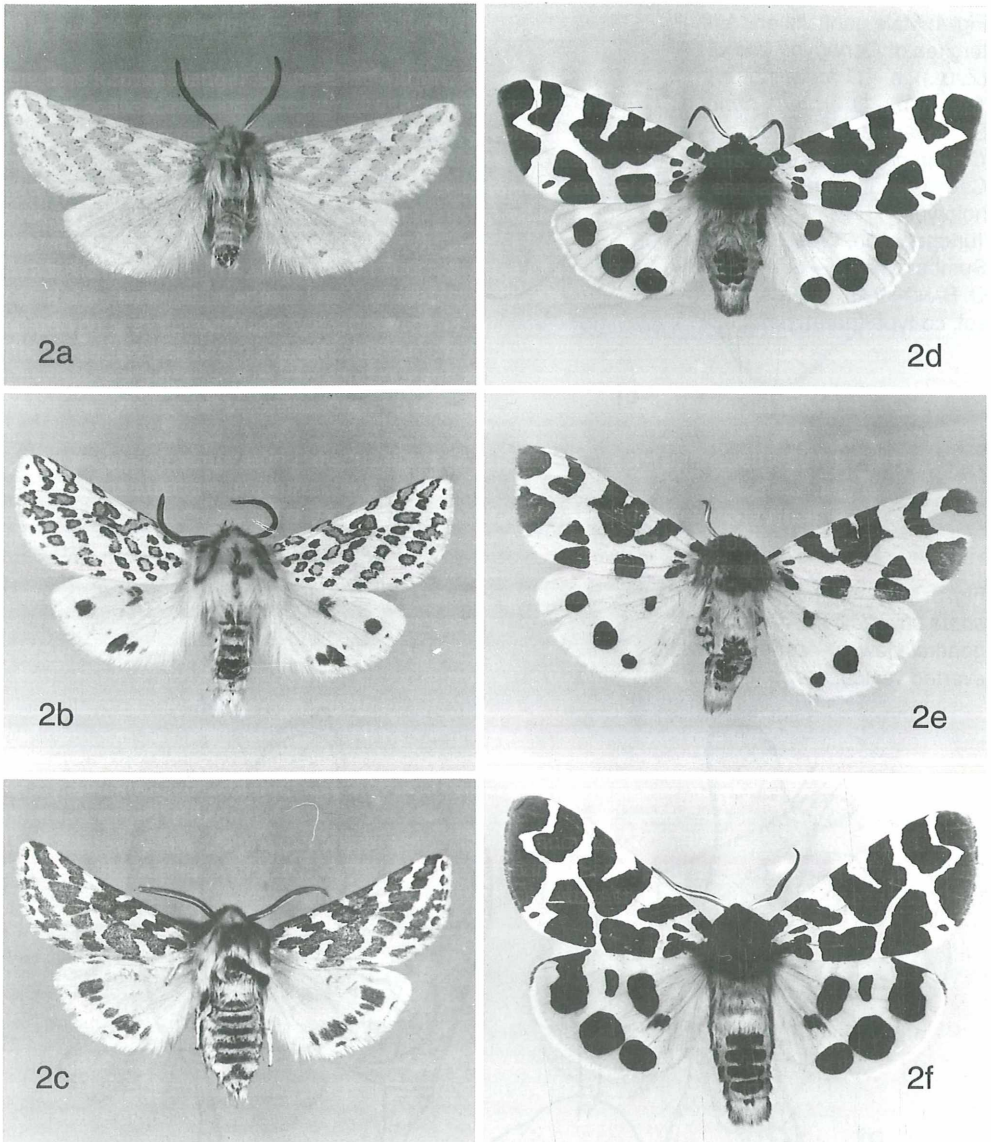
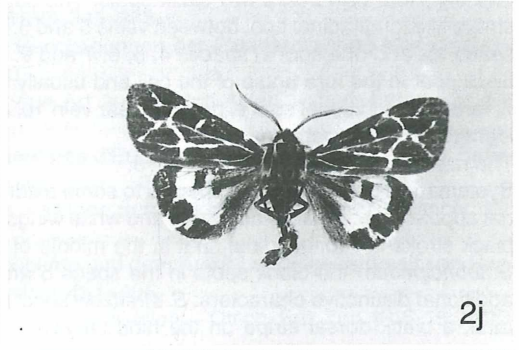
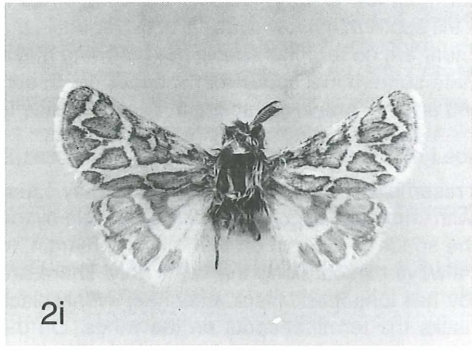
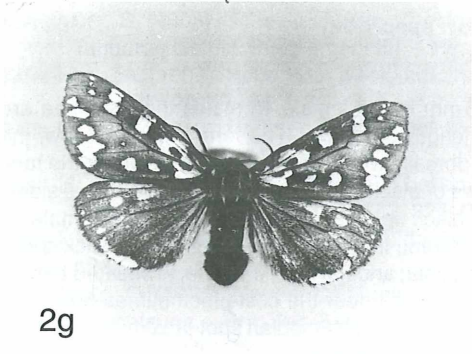
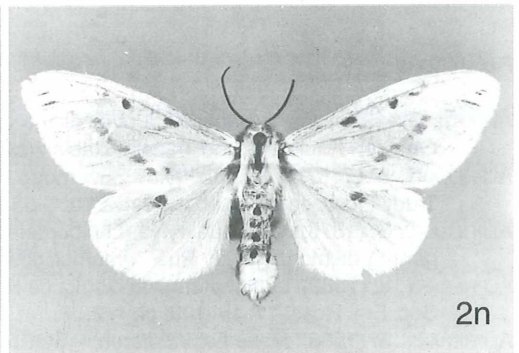
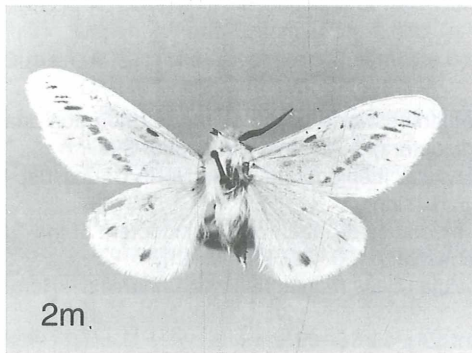
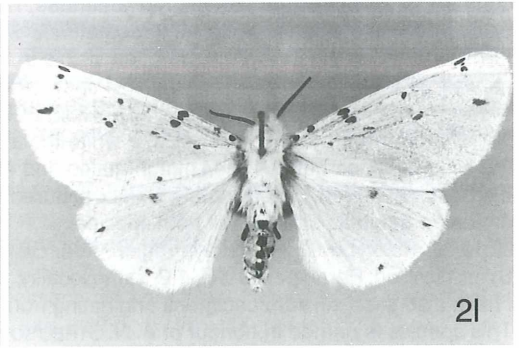
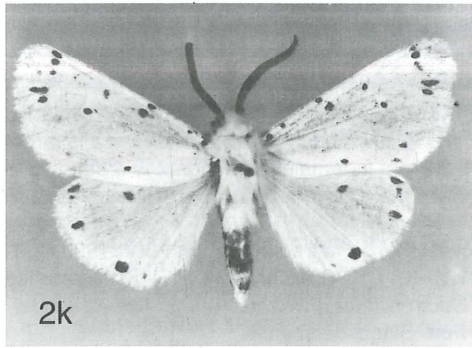


Fig. 2: Imagines of tiger moths. a – *Lacydes spectabilis sheljuzhkoii* subspec. nov., holotype; b – *L. s. annelata* (CHR.), Turkmenistan, Kopetdagh Mts., Dushak Mt.; c – *L. s. spectabilis* (TAUSCH.), N.E. Kazakhstan, Semipalatinsk region, Glukhovka; d – *Platarctia atropurpurea sotavaltai* subspec. nov., East Yakutia, upper East Khandyga river, holotype; e – *P. a. atropurpurea* (O. BANG-HAAS), Chita region, Kalar district, Udokan; f – *Arctia caja ossetica* subspec. nov., Ossetia, Buron, holotype; g – *A. c. wiskotti* STGR., Armenia, Lake Sevan, Semenovka; h – *A. c. caja* (L.), Novosibirsk region, Lake Chany; i – *Sibractia buraetica chajataensis* subspec. nov., East Yakutia, upper East Khandyga river, holotype; j – *Ocnogyna armena daghestana* subspec. nov., Daghestan, Derbent, holotype; k – *Spilosoma streltzovi* spec. nov., male, Blagovestshensk, paratype; l – *S. streltzovi* spec. nov., female, Blagovestshensk, paratype; m – *Lemyra (inaequalis)* (BTL.), male, Primorye, Ternei; n – *L. (inaequalis)* (BTL.), female, Nikolaevsk-na-Amure.



i j  
Lege  
verte



***Spilosoma streltzevi* spec. nov.**

(Fig. 2k, l)

The wing expanse is 37–38.5 mm in males, and 43 mm in the female. In males the antennae are uniformly black, long, only slightly shorter than the length of the cell. The fore femur is yellow, the middle and hind ones white. All the tibiae are white, dorsally with a contrasting black stripe, the tarsi are black. The abdominal tergites are yellow with rows of black spots on the dorsal and lateral sides. The sternites are whitish, the traces of two rows of black spots being visible only in the female. In males the wings are opaque, in the female semitransparent, they are all white with small black spots. The forewing has a basal and a subbasal spot on the costa; another one, if visible, is situated behind the median vein. Two or three antemedian spots are present near the costa, sometimes one more spot is added at the middle of vein 1. The female has one more antemedian spot proximally of vein 2. The discoidal vein bears two black spots. The subterminal row is very variable, but always has a stroke-like longitudinal spot between veins 5 and 6. A full subterminal row consists of two spots in the space 1b, and one spot in spaces 4, 5, 6, 7 and 9. There are no terminal spots. The hindwing has a black spot in the fore angle of the cell and usually three subterminal spots in the spaces 1c, 5, and 7; rarely an additional spot is present near vein 1b, and another one in the space 6. The underside is identical to the upperside.

The male genitalia are shown on fig. 3.

**Systematical notes.** The new species to some extent resembles *S. lubricipedum* (LINNAEUS) by external appearance: a yellow abdomen and white wings with small black spots. It is distinguishable by the black stroke-like longitudinal spot in the middle of the space 5, 1.5 mm off the forewing margin. In *S. lubricipedum* the black spots in the space 5 are always placed along the veins only. There are additional distinctive characters: *S. streltzevi* spec. nov. has longer and black antennae, evenly black tarsi, a black dorsal stripe on the hind tibiae and lacks the terminal spots on the wings. On the contrary, *S. lubricipedum* has shorter antennae, no more than 2/3 of the cell length, covered with black and white scales, white tarsi, sometimes with an incomplete black dorsal stripe, the black terminal dots on the forewings are often visible in the Far Eastern specimens. By these characters, as well as the valva shape, *S. streltzevi* spec. nov. mostly resembles the chinese *S. mienshanica* DANIEL, 1943, Mitt. Münch. Ent. Ges. **33**(3): 732, t. 20, f. 20–21, ab. 27–28 (from Shanxi and Shaanxi), but differs from it by its smaller size, a white thorax and yellow abdomen. *S. mienshanica* is larger, the wing expanse being 41–44 mm in males and 48–49 mm in females, the thorax is cream-white, the abdomen is red. Unfortunately, DANIEL pictured only a male valva, so it is impossible to compare the entire genitalia structure of both species.

**Material.** Holotype ♂, Amurskaya region, near Blagovestshensk, attracted by light, 6.VI.1990, A. N. STRELTsov leg. Paratypes: 3 ♂♂, 1 ♀, same locality, 31.V.–8.VI.1990, 15.III.1994, A. N. STRELTsov leg. I have also seen similar specimens originating from South Primorye.

This species is named in honour of A. N. STRELTsov from Blagovestshensk.

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## Colour plate

1a	1b	1b
2	5	
3	6	
4	7	

DUBATOLOV, V. V.: Three contributions to the knowledge of palearctic Arctiinae. 1. *Sinowatsonia*, a new genus of Arctiidae from Tibet (China) (on the systematics of the genus *Micrarctia* SEITZ s. l., Part 2) (Lepidoptera: Arctiidae). – *Neue Ent. Nachr.* **38**: 5–8.

Fig. 1a: *Sinowatsonia batangi* (DANIEL, 1943). Holotype ♀. "Batang (Tibet) Im Tal des Yangtze (ca. 2800 m) 26.7.1936 H. HÖNE". Photo by courtesy of Dr. A. WATSON.

Fig. 1b: *Sinowatsonia hoenei* (DANIEL, 1943). The female from the collection of The Natural History Museum (London) and its labels. Photo by courtesy of Dr. A. WATSON.

DUBATOLOV, V. V.: Three contributions to the knowledge of palearctic Arctiinae. 2. A review of the genus *Palearctia* FERGUSON (on the systematics of the genus *Micrarctia* SEITZ s. l., Part 3) (Lepidoptera: Arctiidae). – *Neue Ent. Nachr.* **38**: 9–37.

Fig. 2: *Palearctia kashmirica* FERGUSON, 1985. Holotype. Now — *P. gratiosa kashmirica* FERG. Photo by courtesy of Dr. A. WATSON.

Fig. 3: *Arctia schottlaenderi* ab. *infrapicta* STRAND, 1912. Holotype. Now — *P. ferghana schottlaenderi* (STRAND). Photo by courtesy of Dr. A. WATSON.

Fig. 4: *Arctia schottlaenderi* STRAND, 1912. A water-colour figure of the holotype. Now — *P. ferghana schottlaenderi* (STRAND). Photo by courtesy of Dr. A. WATSON.

Fig. 5: *Arctia erschoffii issyka* STAUDINGER, 1887. Type. Now a synonym of *P. erschoffii erschoffii* (ALPH.).

Fig. 6: *Arctia erschoffii ferghana* STAUDINGER, 1887. Lectotype. Now *P. ferghana* (STGR.).

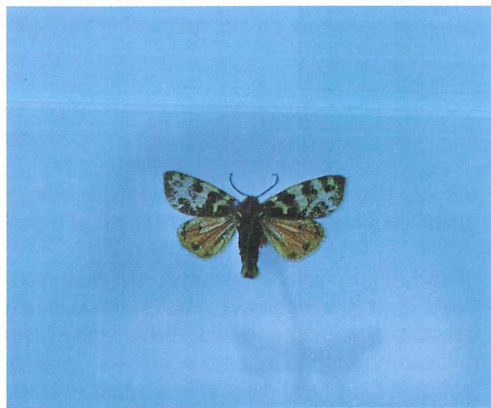
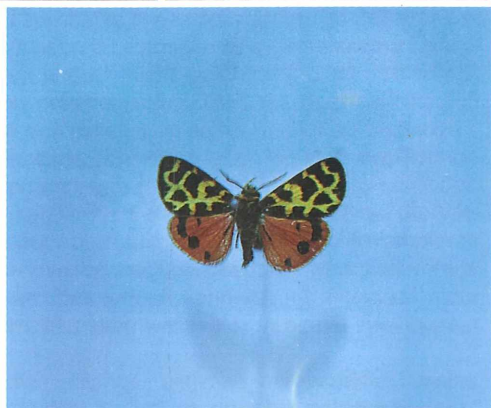
Fig. 7: *Micrarctia kindermanni marxi* O. BANG-HAAS, 1927. Holotype. Now *P. marxi* (O. B.-H.).



*Microrhiza*  
*saiveri*, G. G. Sh.

Yunnan  
1918  
G. Forrest

M. J. Mansfield  
Coll.  
B. M. 1950-244.





## **Demokratie in Deutschland oder Diktatur der Bürokraten**

Jeder Verleger in Bayern ist gezwungen, zwei Freiemplare von jedem Druckerzeugnis kostenfrei an die Bayerische Staatsbibliothek in München und ein weiteres an die Deutsche Bibliothek in Frankfurt am Main zu senden. Dies habe ich als gerade noch tragbar empfunden. Seit der Vereinigung gibt es jetzt zwei nationale Bibliotheken: Eine in Frankfurt/Main und eine in Leipzig. Diese in Leipzig ist nun zusätzlich mit einem Pflichtexemplar zu beschenken. Dies halte ich für unannehmbar, untragbar und für Unrecht. Das gesamte deutsche Schrifttum kann durch eine "Deutsche Nationalbibliographie" schnell und zuverlässig angezeigt werden. Im Zeitalter der Datenverarbeitung und Computer kann auch von beiden Bibliotheken eine gemeinsame Datenbank aufgebaut und genutzt werden. Es existieren ja auch nicht gleichzeitig BND und STASI (oder doch?!) oder zwei Verteidigungsministerien nebeneinander. Statt mit Sparmaßnahmen voranzugehen, fordern Staat und Politiker nur, um sich gleichzeitig selbst maßlos zu bedienen. Gegen das Unrecht vorzugehen ist nun fast aussichtslos, schließlich leben wir in einem Rechtsstaat. Bevor Verfassungsbeschwerde erhoben werden kann, muß der Instanzenweg erschöpft sein, d.h. das Verwaltungsverfahren muß durchlaufen werden. Nach Erfolglosigkeit hat die Verwaltungsgerichtsbarkeit über die Rechtmäßigkeit der Ablieferungspflicht des Pflichtexemplares zu entscheiden. Erst dann ist eine Verfassungsbeschwerde möglich. Bis dahin wären allerdings Prozeßkosten von etwa DM 10 000,- zu bezahlen. Das jedoch kann ich mir finanziell nicht leisten. Somit wird der Weg, Recht zu bekommen, blockiert, weil wir ja in einem Rechtsstaat leben.

Aus diesem Grund veröffentliche ich obige Zeilen solange, bis man mir verbietet, meine Meinung über diese Demokratie und diesen Rechtsstaat zu äußern, oder bis sich couragierte, vermögende Leute finden, die gegen das Unrechtsgesetz ankämpfen bis es zurückgenommen wird.

## **Democracy in Germany or dictatorial beaurocracy**

Every publisher in Bavaria is made to give two free examples of each publication to the Bavarian State Library (Munich) and a further example to the German Library (Frankfurt/Main). This was just about acceptable for me.

Since the joining of East and West Germany, we now have two national libraries, one in Frankfurt and one in Leipzig. Now the library in Leipzig is to be additionally provided with one. This I find totally unacceptable and unjust. All German literary works could be quickly gattered together in the form of a "German National Bibliography". We live in the age of data processing and computer technology, and it would be possible to build up a data base from both libraries. The BND (Germany's "Secret Service") and the "STASI" (former East Germany's "Secret Service") do not exist side by side, or do they? Two Ministries of Defence also do not exist next to one another, so why two State Libraries? The State and politicians should be setting an example to the people, and yet all they seem to do is serve themselves.

Although we live in a state where the people has the rights, it is pointless to fight such injustice. Through the beaurocracy of our state and in our society, we must go from one stage to the next a bit like an obstacle course. Unless we have a good case it is pointless to spend appr. DM 10,000 required to get to the finish. The chance is there naturally for those with a good case and the finance, but who has this? Those that have the money would rarely attempt this anyway. Our democracy gives us the opportunity, but our beaurocracy hinders our attempts.

On these grounds I'm publishing the above statement until someone refuses to let me speak my mind or until someone with the finance makes it possible to fight the injustice.



## HERBIPOLIANA

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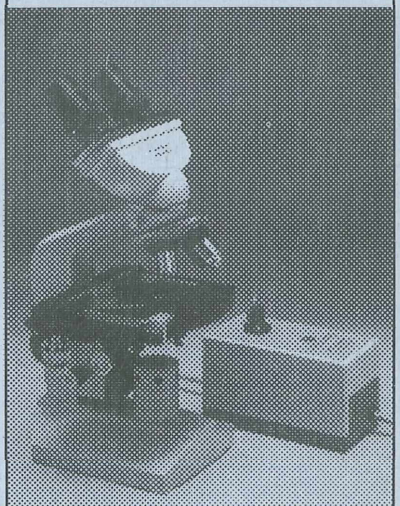


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