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New data of Macrolepidoptera for the fauna of Mongolia. II

(Insecta, Lepidoptera)

by

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Summary: The paper reports about 14 taxa of Macrolepidoptera found for the first time in Mongolia: *Holcocerus vicarius* (WALKER, 1865), *Cossus cossus cossus* (LINNAEUS, 1758), *Gobibatyr colossus* (STAUDINGER, 1887) (Cossidae), *Carcharodus flocciferus* (ZELLER, 1847), *Muschampia antonia* (SPEYER, 1879) (Hesperiidae), *Melitaea athene* STAUDINGER, 1881, *Brenthis hecate* ([DENIS & SCHIFFERMÜLLER], 1775) (Nymphalidae), *Coenonympha pamphilus* (LINNAEUS, 1758), *Chazara enervata* (STAUDINGER, 1881), *Lasiommata maera* (LINNAEUS, 1758) (Satyridae), *Palaeophilotes triphysina* (STAUDINGER, 1891), *Rimisia miris* (STAUDINGER, 1881) (Lycaenidae), *Hemaris ducalis* (STAUDINGER, 1887), *Hemaris alaiana* (ROTHSCHILD & JORDAN, 1903) (Sphingidae). A new subspecies, *Palaeophilotes triphysina lama* YAKOVLEV subspec. nov. (locus typicus: Khubsugul aimak, Mongolia) is described. The presence of a longitudinal biogeographical split previously not mentioned in Altai Mountain Country–Arshantyn-Nuruu range (W. Mongolia, Khovd aimak)-as an eastern limit of distribution of some Lepidoptera species is considered.

Резюме: В статье приводятся 14 таксонов Macrolepidoptera впервые обнаруженных в Монголии: *Holcocerus vicarius* (WALKER, 1865), *Cossus cossus cossus* (LINNAEUS, 1758), *Gobibatyr colossus* (STAUDINGER, 1887) (Cossidae), *Carcharodus flocciferus* (ZELLER, 1847), *Muschampia antonia* (SPEYER, 1879) (Hesperiidae), *Melitaea athene* STAUDINGER, 1881, *Brenthis hecate* ([DENIS & SCHIFFERMÜLLER], 1775) (Nymphalidae), *Coenonympha pamphilus* (LINNAEUS, 1758), *Chazara enervata* (STAUDINGER, 1881), *Lasiommata maera* (LINNAEUS, 1758) (Satyridae), *Palaeophilotes triphysina* (STAUDINGER, 1891), *Rimisia miris* (STAUDINGER, 1881) (Lycaenidae), *Hemaris ducalis* (STAUDINGER, 1887), *Hemaris alaiana* (ROTHSCHILD & JORDAN, 1903) (Sphingidae). Описывается новый подвид *Palaeophilotes triphysina lama* subspec. nov. (locus typicus: Khubsugul aimak, Mongolia). Обсуждается наличие меридионального биогеографического барьера ранее не отмеченного для Алтайской горной страны – хребта Аршантын-Нуруу (З Монголия, аймак Ховд) где прохпдит восточная граница ареалов миогих видов Lepidoptera.

A series of expeditions to SW. Mongolia organized by the South-Siberian Botanical Garden of Altai State University (Barnaul) and by entomologists from Moscow, Barnaul, and Chelyabinsk, has resulted in the discovery of a good number of new taxa of Lepidoptera; a bulk of new data on the distribution of Lepidoptera in W. Mongolia, especially in Mongolian Altai, was also obtained. This information was published in those paper listed in the first part of the present series of publications (YAKOVLEV et al., in print); descriptions of the new taxa are given in the last (V) volume of the lepidopterological journal "Helios" (CHURKIN, 2004a, b; CHURKIN et al., 2004; KOLESNICHENKO & CHURKIN, 2004; KOLESNICHENKO & YAKOVLEV, 2004; YAKOVLEV, 2004).

In July 2004, a Russian biological expedition composed of botanists S. A. Dyachenko and P. A. Kosachev (Barnaul), ornithologist D. V. Ryzhkov (Barnaul), and entomologists V. V. Doroshkin (Chelyabinsk) and R. V. Yakovlev (Barnaul) visited the hardly accessible area in the west and south-west of Khovd aimak of Mongolia along the route Khovd (Kobdo) – Bulgan (Bulugun) – Bulgan river basin – Dzungarian Gobi and back. A number of species of Macrolepidoptera previously never reported for Mongolia has been found during the trip. Besides the collected material, some materials of the Museum of Thomas Witt (Munich, Germany), Landessammlungen für Naturkunde (Karlsruhe, Germany), Zoologisches Forschungsinstitut und Museum Alexander Koenig (Bonn, Germany), and the collection of Roman Yakovlev (Barnaul, Russia) are also treated.

List of abbreviations
LNK – Landessammlungen für Naturkunde (Karlsruhe, Germany)
MWM – Museum of Thomas Witt (Munich, Germany)
RYB – collection by Roman Yakovlev (Barnaul,Russia)
VDC – collection by Vyatcheslav Doroshkin (Chelyabinsk, Russia)
ZFMK – Zoologisches Forschungsinstitut und Museum Alexander Koenig (Bonn, Germany)
ZSSM – Zoologische Staatssammlung des Bayerischen Staates (Munich, Germany)

Cossidae

Holcocerus vicarius (Walker, 1865)
Cossus vicarius Walker, 1865, List. Lep. Brit. Mus. **32** (Suppl. 2): 584.
The species is wide spread in the E. Palaearctis (E. and C. China, Korea, SE. Russia) (Daniel, 1959). The following specimen is a first report for Mongolia.
1 ♂, Mongolia, Central aimak, 25 km W Erdenesant, 15.VI.2003, 47°22' N, 104°13' E, A. Saldaitis, 1260 m (MWM).

Cossus cossus cossus (Linnaeus, 1758)
Phalena Bombyx cossus Linnaeus, 1758, Systema Naturae Per Regna Tria Naturale, Secundum classes, ordines, genera, species, Cum characteribus, differentiis, synonymis, locis. – Holmiae, Impenspit Direct. Laurentii Salvii (Ed. 10) **1**: 504.
The species is common in the Palaearctis: Europe (Zagulyaev, 1973; de Freina, 1996), Siberia (Yakovlev, 2004), Russian Far East, Korea, China (Daniel, 1956). Until the present it was only known from SW. Mongolia (SW, or Dzhungarian macroslope of the Mongolian Altai), where it is represented by the quite specified subspecies *Cossus cossus deserta* Daniel, 1969 (Yakovlev, in print). The only specimen from C. Mongolia belongs probably to the nominative subspecies of this wide spread species, but material available is not enough to be absolutely sure of this at the moment. As preliminary analysis of the author's material from Buryatia (the Selenga valley) shows, a zone of intergradation of the two subspecies—nominative and *Cossus cossus chinensis* Rothschild, 1912 (LT: Tsingtau, China)—is probably situated there.
1 ♂, Mongolia, Selenga, Okhindii-Khondii, 14 km NW from Schaanar, 18.VII.2003 (MWM).

Gobibatyr colossus (Staudinger, 1887)
Cossus colossus Staudinger, 1887, Stettin. ent. Ztg. **48**: 86.

The single specimen of this extremely rare species has been collected by the botanist S. A. Dyachenko. The finding of this specific Dzhungarian species distributed in Kazakhstan, Kyrgyzstan, and W. China (Yakovlev, in print) at the Arshantyn-Nuruu range proves once more the fact that the entomofauna of this range belongs to the Kazakhstanian-Altai-Dzungarian biogeographical region (Shmakov, 1996; Kamelin, 1998; Yakovlev, 2003b). Considerable number of taxa with West-Palaearctic or Kazakhstanian-Central Asian distribution, not reported for Mongolia until the last time, were found in the basin of the small river Bayan-gol. Typical specimens of Mongolian endemic *Gobibatyr ustyuzhanini* Yakovlev, in print, included into the type series, were also collected in the valley of Uenchijn-gol (i. e. close to the presently known limit of distribution of the most closely related species—*Gobibatyr colossus* (Staudinger, 1887). This fact as well as many others given herein and in some previous papers on the fauna of Mongolia (Yakovlev, 2002 and 2003a; Yakovlev et al., in print), such as findings at the Arshantyn-Nuruu range and at the right bank of Bulgan-gol (Bulugun) of the following species: *Smerinthus kindermanni* Lederer, 1853, *Hemaris ducalis* (Staudinger, 1887), *Hemaris (Mandarina) alaiana* (Rothschild & Jordan, 1903) (Sphingidae); *Pseudophilotes (Inderskia) svetlana* Yakovlev, 2003 (Lycaenidae); *Carcharodus flocciferus* (Zeller, 1847); *Muschampia antonia* (Speyer, 1879) (Hesperiidae); *Lasiommata maera* (Linnaeus, 1758); *Coenonympha pamphilus* (Linnaeus, 1758); *Hyponephele lupina* (Costa, 1836); *Melanargia russiae* (Esper, [1783]); *Chazara enervata* (Staudinger, 1881) (Satyridae); *Pieris krueperi* Staudinger, 1860 (Pieridae); *Melitaea athene* Staudinger, 1881; *Brenthis hecate* ([Denis & Schiffermüller], 1775) (Nymphalidae) demonstrates the presence of a rather considerable biogeographical limit running along the Arshantyn-Nuruu range and the right bank of Bulgan-gol. Besides the entomological data, information on findings of some plant species at the eastern limit of their distribution at the Arshantyn-Nuruu range is also available (Dr. Dmitry German, pers. comm.). Further investigations of the range are planned.
1 ♀, W Mongolia, Khovd aimak, Bulgan-gol basin, Bayan-gol basin, middle stream of Ulyastain-Sala river, 2100 m, 23.VI.2004, S. Djachenko leg. (RYB).

Sphingidae

Hemaris (Mandarina) alaiana (Rothschild & Jordan, 1903) (col. pl. XXIc, fig. 1)
Haemorrhagia tityus alaiana Rothschild & Jordan, 1903, Novit. Zool. **9** (Suppl.): 451.
Distributed in Kazakhstan and Kyrgyzstan (Danner et al., 1998); this finding is the first made in Mongolia.
1 ♂, W Mongolia, Khovd aimak, Bulgan-gol basin, Bayan-gol basin, 2000 m, 13.V.2002, R. Yakovlev leg. (RYB).

Hemaris (Cochrania) ducalis (Staudinger, 1887) (col. pl. XXIc, fig. 2)
Macroglosa [sic!] *ducalis* Staudinger, 1887, Stettin. ent. Ztg. **48**: 66.
The species was described from Namangan (Uzbekistan); widespread in Kazakhstan (up to S. Altai to the north), Uzbekistan, Kyrgyzstan, Tajikistan, Pakistan (Danner et al., 1998); found in Mongolia for the first time.
1 ♂, W. Mongolia, Khovd aimak, Bulgan-gol basin, Bayan-gol basin, middle stream of Ulyastain-Sala river, 2100 m, 21.–23.VI.2004, R. Yakovlev & D. Ryzhkov leg. (RYB).

Hesperiidae

Muschampia antonia (Speyer, 1879)
Hesperia antonia Speyer, 1879, Stettin. ent. Ztg. **40**: 342.
A rather common Central Asian (from S. Altai to C. Tibet) species (Tuzov et al., 1997), reported here for Mongolia for the first time (Korshunov & Solyanikov, 1976; Korshunov, 1977).
3 ♂♂, W Mongolia, Khovd aimak, Bulgan-gol basin, Bayan-gol basin, middle stream of Ulyastain-Sala river, 2100 m, 21.–23.VI.2004, V. Doroshkin, R. Yakovlev, D. Ryzhkov leg. (VDC, RYB).

Carcharodus flocciferus (Zeller, 1847)
Hesperia flocciferus Zeller, 1847, Isis **4**: 286.
The representative of a genus new for Mongolia—*Carcharodus* Hübner, 1819—is widespread in steppe and forest-steppe zones of the W. Palaearctis. First report for Mongolia (Korshunov & Solyanikov, 1976; Korshunov, 1977).
13 ♂♂, 9 ♀♀, W. Mongolia, Khovd aimak, Bulgan-gol basin, Bayan-gol basin, middle stream of Ulyastain-Sala river, 2100 m, 21.–23.VI.2004, V. Doroshkin, R. Yakovlev, D. Ryzhkov leg. (VDC, RYB).

Pieridae

Colias thisoa Ménètriès, 1832
Colias thisoa Ménètriès, 1832, Cat. rais. zool. Caucase: 244.
Common in mts. of Eurasia: Caucasus, Khorasan, Altai, Tian-Shan, Hissar, Darwas, Pamir-Alai (Tuzov et al., 1997; Verhulst, 2000); new species for Mongolia (Korshunov & Solyanikov, 1976; Korshunov, 1977).
2 ♂♂, 2 ♀♀, W. Mongolia, Khovd aimak, Bodonchijn-gol basin, upper stream of Zagduultai river (left bank), 60 km N of Altai somon, 2500 m, 14.VI.2004, R. Yakovlev & D. Ryzhkov leg. (RYB).

Nymphalidae

Melitaea athene Staudinger, 1881
Melitaea athene Staudinger, 1881, Stettin. ent. Ztg. **42** (7–9): 266.
Distributed in E. Kazakhstan (S. Altai, Dzungarian Alatau) (Tuzov et al., 2000), NE. China (Huang et al., 2000); our finding is the first record for Mongolia (Korshunov & Solyanikov, 1976; Korshunov, 1977).
4 ♀♀, W. Mongolia, Khovd aimak, Bulgan-gol basin, Bayan-gol basin, middle stream of Ulyastain-Sala river, 2100 m, 21.–23.VI.2004, R. Yakovlev & D. Ryzhkov leg. (VDC, RYB).

Brenthis hecate ([Denis & Schiffermüller], 1775)
Papilio hecate [Denis & Schiffermüller], 1775, Ank. Syst. Werk. Schmett. Wienergegend: 179.
A wide spread West-Palaearctic species, new for Mongolia (Korshunov & Solyanikov, 1976; Korshunov, 1977).
3 ♂♂, W. Mongolia, Khovd aimak, Bulgan-gol basin, Bayan-gol basin, middle stream of Ulyastain-Sala river, 2100 m, 21.–23.VI.2004, R. Yakovlev & D. Ryzhkov leg. (VDC, RYB).

Satyridae

Coenonympha pamphilus (LINNAEUS, 1758)
P[apilio]. D[anaus]. pamphilus LINNAEUS, 1758. Systema Naturae Per Regna Tria Naturale, Secundum classes, ordines, genera, species, Cum characteribus, differentiis, synonymis, locis. - Holmiae, Impenspit Direct. Laurentii Salvii (Ed. 10) **1**: 472.
A steppe West-Palaearctic species, reported herein for the first time for Mongolia. Very common in the valley of Bayan-gol and its branch Ulyastain-Sala in the middle belt of Arshantyn-Nuruu range.
10 ♂♂, 6 ♀♀, W. Mongolia, Khovd aimak, Bulgan-gol basin, Bayan-gol basin, middle stream of Ulyastain-Sala river, 2100 m, 21.-23.VI.2004, V. DOROSHKIN, R. YAKOVLEV, D. RYZHKOV leg. (VDC, RYB).

Lasiommata maera (LINNAEUS, 1758)
P.[apilio] N[ymphalis]. Mæra LINNAEUS, 1758, Systema Naturae Per Regna Tria Naturale, Secundum classes, ordines, genera, species, Cum characteribus, differentiis, synonymis, locis. - Holmiae, Impenspit Direct. Laurentii Salvii (Ed. 10) **1**: 473.
Wide spread West-Palaearctic species, new for Mongolia.
3 ♀♀, W. Mongolia, Khovd aimak, Bulgan-gol basin, Bayan-gol basin, middle stream of Ulyastain-Sala river, 2100 m, 21.-23.VI.2004, V. DOROSHKIN, R. YAKOVLEV, D. RYZHKOV leg. (VDC, RYB).

Chazara enervata (ALPHERAKY, 1881)
Satyrus enervata ALPHERAKY, 1881, Horae Soc. ent. Ross. **16** (1-2): 85.
Distributed from Kopet-Dagh to S. Altai; new for Mongolia.
The single couple was collected in the steppe belt of the Arshantyn-Nuruu range. The perfect condition of the material means apparently that the flying period has just begun, which is the reason of poor collecting.
1 ♂, 1 ♀, W. Mongolia, Khovd aimak, Bulgan-gol basin, Bayan-gol basin, middle stream of Ulyastain-Sala river, 2100 m, 21.-23.VI.2004, V. DOROSHKIN, R. YAKOVLEV, D. RYZHKOV leg. (VDC, RYB).

Lycaenidae

Palaeophilotes triphysina (STAUDINGER, 1891) (col. pl. XXIc, figs. 3, 4; text figs. 1, 2)
Lycaena triphysina STAUDINGER, 1891, Deutch. ent. Z. Iris **4**: 235-236. (Locus typicus: Kaschgar [W. China]).
Palaeophilotes triphysina (STAUDINGER, 1891) - FORSTER, 1938: 105 (Central Asia).
Palaeophilotes triphysina (STAUDINGER, 1891) - WANG & FAN, 2002: 363 (Xinjiang).
Paleophilotes [sic!] *triphysina* (STAUDINGER, 1891) - ZHDANKO, 2004: 68-74, figs. 6-7 (W. China, Kashgaria).
The single couple from Mongolia was discovered in the collection of Landessammlungen für Naturkunde (Karlsruhe, Germany). The specimens well differ from the topotypes of *Palaeophilotes triphysina*, and are described here as a new subspecies:

Palaeophilotes triphysina ***lama*** YAKOVLEV **subspec. nov.**
(colour plate XXIc, figs. 5, 6; text figs. 3, 4)

Material
Holotype ♂: Arasagun-gol, Sayan [River Arsajn-Gol, west bank of Khubsugul lake, Khubsugul aimak, Mongolia] (LNK).
Paratype: 1 ♀, Arasagun-gol, Sayan (LNK).

Description
Male. Forewing length 12 mm. Wing upperside darkbrown. Fringe darkbrown, somewhat lighter than the wing surface. Wing underside brown. Forewing with very thin marginal light border, the row of submarginal semilunar dots are margined from the inside and from the outside by light strokes; postdiscal row of black spots is strongly curved, spots are big, white-rimmed; discal spot and spot in the discal cell are big, black, white-rimmed. Hindwing underside with very thin light marginal border and submarginal row of black, white-margined strokes; postdiscal and discal rows of black spots are complete, spots big, white-rimmed. Male genitalia structure in general strongly resembles that of the nominative subspecies, but differs well by having a well-developed semiround projection on the lower margin of the valva.
Female strongly resembles male, but wing underside is much lighter. Forewing length 13 mm.

Taxonomical notes
Until now this extremely rare species was only known from Xinjiang-Uygur autonomous region of China (E. Turkestan: Kuldzha, Kashghar). The finding of the species strongly extends its dis-

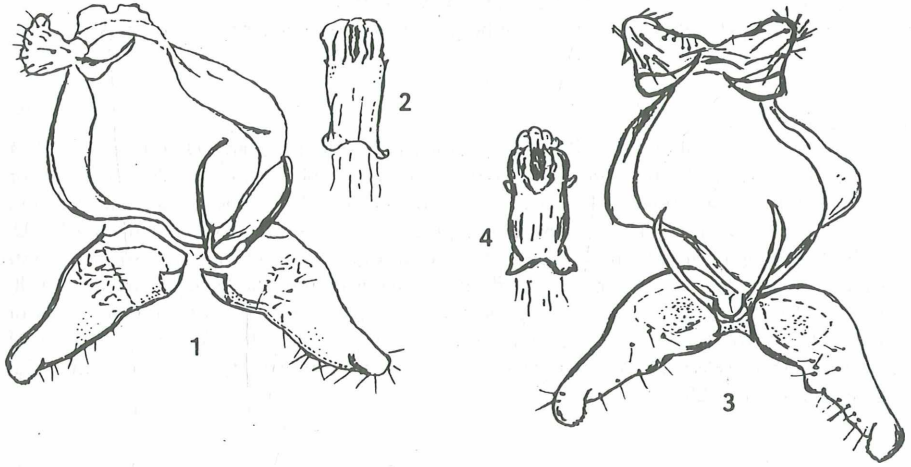

Fig. 1: Male genitalia of *Paleophilotes triphysina* (STAUDINGER, 1891), frontal projection (Kaschgar).
Fig. 2: Aedeagus of *Paleophilotes triphysina* (STAUDINGER, 1891), frontal projection (Kaschgar).
Fig. 3: Male genitalia of *Paleophilotes triphysina lama* YAKOVLEV subspec. nov., frontal projection.
Fig. 4: Aedeagus of *Paleophilotes triphysina lama* YAKOVLEV subspec. nov., frontal projection.

tribution area to the north-east. Investigation of habit and genitalia on the serial material from Mongolia will probably result in up-ranking the status of the described subspecies. The new subspecies well differs from the nominative one in much lighter underwings, especially in the females, widened light strokes, emphasizing the semilunar spots of the submarginal row of black spots, and more dispersed pattern of wing underside. There are also some differences in the genitalia structure: well-developed semiround projection on the lower margin of valva.
Thus, the distribution area of the genus *Palaeophilotes* FORSTER, 1938 becomes more clear. At the present time the genus includes 2 subgenera (ZHDANKO, 2004): nominative subgenus with type species *Palaeophilotes triphysina* (STAUDINGER, 1891) (constituted by 3 subspecies: *triphysina* (STAUDINGER, 1891); *yuliana* LEE, 1963 (LT: Yuli, Xinjiang), and *lama* YAKOVLEV, subspec. nov.), and subgenus *Inderskia* KORSHUNOV, 2000 with three species: *P. panope* (EVERSMANN, 1851) (W. Kazakhstan, West-Kazakhstanian oblast region), *P. svetlana* (YAKOVLEV, 2003) (SW. Mongolia, Arshantyn-Nuruu range), and *P. marina* ZHDANKO, 2004 (E. Kazakhstan, Arkaly mts.). All these species occur in the arid and semiarid regions of Central Asia, forming an allopatric complex of closely related taxa, included into the subgenus *Inderskia,* which probably was separated from the species (group of species?) *Palaeophilotes triphysina* more or less long ago.
It is noteworthy that Dr. ZHDANKO in his article with new combinations *P. panope* (EVERSMANN, 1851) and *P. svetlana* (YAKOVLEV, 2003) (ZHDANKO, 2004) had incorrectly used the genus epithet *Paleophilotes* instead of the original *Palaeophilotes* established by Dr. W. FORSTER (1938).

Rimisia miris (STAUDINGER, 1881)
Lycaena miris STAUDINGER, 1881, Stett. ent. Ztg. **42**: 263.
Distributed from N. Iran to S. Altai and NW. China; new for Mongolia.
The single male was collected in the Dzhungarian Gobi desert.
1 ♂, W Mongolia, Khovd aimak, 15 km E of Bulgan, 30.VI.2004, V. DOROSHKIN leg. (VDC).

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YAKOVLEV, R. V. (2003b): Butterflies (Lepidoptera, Diurna) of Altai Mountain Country. [Dissertation autoreferate] Altai State University, Barnaul. 16 pp. (in Russian).
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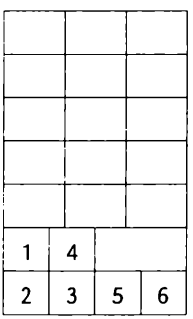
ZHDANKO, A. B. (2004): Notes on the systematic position of *Inderskia* KORSHUNOV, 2000, with the description of *Paleophilotes (Inderskia) marina* sp. n. from East Kazakhstan (Lepidoptera, Lycaenidae). - Helios **5**: 68-74.

Explanation of colour plate XXIc (p. 487):

Fig. 1: *Hemaris (Mandarina) alaiana* (ROTHSCHILD & JORDAN, 1903), ♂, W. Mongolia, Hovd aimak, Bulgan-gol basin, Bayan-gol basin, 2000 m, 13.V.2002, R. YAKOVLEV leg. (RYB).
Fig. 2: *Hemaris (Cochrania) ducalis* (STAUDINGER, 1887), ♂, W. Mongolia, Hovd aimak, Bulgan-gol basin, Bayan-gol basin, middle stream of Ulyastain-Sala river, 2100 m, 21.-23.VI.2004, R. YAKOVLEV & D. RYZHKOV leg. (RYB).
Fig. 3: *Paleophilotes triphysina* (STAUDINGER, 1891), ♂, Kaschgar (topotype) (ZFMK), underside.
Fig. 4: *Paleophilotes triphysina* (STAUDINGER, 1891), ♀, Kaschgar (topotype) (ZFMK), underside.
Fig. 5: *Paleophilotes triphysina lama* YAKOVLEV subspec. nov., holotype ♂ (LNK), underside.
Fig. 6: *Paleophilotes triphysina lama* YAKOVLEV subspec. nov., paratype ♀ (LNK), underside.



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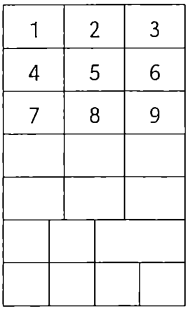
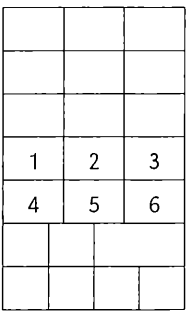
Colour plate XXIa



DUBATOLOV, V. V. & V. O. GURKO: A new *Oroncus* species from the Pamirs, Tajikistan (Lepidoptera, Arctiidae). – Atalanta **35** (3/4): 399–402.

Fig. 1: *Oroncus bundeli* spec. nov., holotype ♂, Tadzhikistan, S.-W. Pamirs, Dzhilandy, 25.VII. 1987, V. V. SHCHERBINA leg. (Siberian Zoological Museum collection).
Fig. 2: *Oroncus bundeli* spec. nov., paratype ♂, Tadzhikistan, Pamirs, Khorog, near botanical garden, river Sangou-Dara, h = 3500 m, 12.VII.1970, ZAPRJAGAEV leg. (ex collection of BUNDEL, Zoological Institute).
Fig. 3: *Oroncus bundeli* spec. nov., paratype ♂, Tadzhikistan, Central Pamirs, Rushan District, the Rushan Range near the Lake Sarez, 5 km N of Irkht meteorological station (towards the Usoi Goaf), h = 4800 m, 10.–20.VII.1996, V. GURKO leg., in his collection.
Fig. 4: *Oroncus bundeli* spec. nov., paratype ♀, Tadzhikistan, Central Pamirs, Rushan District, the Rushan Range near the Lake Sarez, 5 km N of Irkht meteorological station (towards the Usoi Goaf), h = 4800 m, 10.–20.VII.1996, V. GURKO leg., in his collection.
Fig. 5: *Oroncus bundeli* spec. nov., paratype ♀, Tadzhikistan, Central Pamirs, 50 km west of Murghab, 28.VII.2004, ex larva (by courtesy of T. OTTMÜLLER, in his collection).
Fig. 6: *Oroncus tancrei urania* (PÜNGELER, 1904), ♂, China, Chantengri, Kuldscha.
Fig. 7: *Oroncus tancrei alaicus* O. BANG-HAAS, 1927, ♀, Kyrghyzstan, Alai Range, Taldyk Pass, 3650 m, 10.VII.1981, V. KIPNIS leg. (Siberian Zoological Museum collection).
Fig. 8: *Oroncus tancrei alaicus* O. BANG-HAAS, 1927, ♀, Kyrghyzstan, Transalai Range (Chon-Alai range), headwater of rivulet Taldy-Bulak between Nura and Irkeshtam (less than 1 km from the Chinese border), 18.VII.2003, R. DUDKO leg. (Siberian Zoological Museum collection).
Fig. 9: *Oroncus tancrei* (STAUDINGER, 1887), ♀, Central Tien Shan, Naryn (Zoological Institute collection).

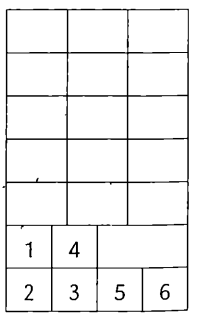
Colour plate XXIb



DUBATOLOV, V. V.: A new genus is established for *Bombyx lineola* FABRICIUS, 1793, with systematic notes on the genus *Aloa* WALKER, 1855 (Lepidoptera, Arctiidae). – Atalanta **35** (3/4): 403–413.

Fig. 1: *Micraloa lineola* (FABRICIUS, 1793), ♂, N.[ord] Indien, Dr. RADDE (ZIN).
Fig. 2: *Micraloa emittens* (WALKER, 1855), ♀, Ceylon, Dr. RADDE (ZIN).
Fig. 3: *Paramsacta marginata* (DONOVAN, 1805), ♂, N.[ew] S.[outh] Wales (ZIN).
Fig. 4: *Paramsacta moorei* (BUTLER, 1876), ♂, [Pakistan], Karachi, on light, 15.VII.1960, coll. A. WHEED (ZIN).
Fig. 5: *Aloa lactinea* (CRAMER, 1777), from: SEITZ, 1910.
Fig. 6: *Aloa cardinalis* (BUTLER, 1875), from: ROTHSCHILD in SEITZ, 1914.

Colour plate XXIc



YAKOVLEV, R. V. & V. V. DOROSHKIN: New data of Macrolepidoptera for the fauna of Mongolia. II (Insecta, Lepidoptera). Atalanta **35** (3/4):390–398.

Fig. 1: *Hemaris (Mandarina) alaiana* (ROTHSCHILD & JORDAN, 1903), ♂, W. Mongolia, Hovd aimak, Bulgan-gol basin, Bayan-gol basin, 2000 m, 13.V.2002, R. YAKOVLEV leg. (RYB).
Fig. 2: *Hemaris (Cochrania) ducalis* (STAUDINGER, 1887), ♂, W. Mongolia, Hovd aimak, Bulgan-gol basin, Bayan-gol basin, middle stream of Ulyastain-Sala river, 2100 m, 21.–23.VI. 2004, R. YAKOVLEV & D. RYZHKOV leg. (RYB).
Fig. 3: *Paleophilotes triphysina* (STAUDINGER, 1891), ♂, Kaschgar (topotype) (ZFMK), underside.
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Fig. 6: *Paleophilotes triphysina lama* YAKOVLEV subspec. nov., paratype ♀ (LNK), underside.

Colour plate XXIa–c