

# Far Eastern Entomologist

Дальневосточный энтомолог

Journal published by Far East Branch  
of the Russian Entomological Society  
and Laboratory of Entomology,  
Institute of Biology and Soil Sciences,  
Vladivostok

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Number 94: 1-23

ISSN 1026-051X

November 2000

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## A CHECK-LIST OF NOCTUIDAE (LEPIDOPTERA) OF THE RUSSIAN PART OF THE WEST SIBERIAN PLAIN

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A check-list of 481 noctuid species from the Russian part of the West Siberian plain is given, with distribution data for of each species throughout administrative provinces and landscape zones. The examined material is given for the new records. A list of doubtful identifications and records is given.

KEY WORDS: Noctuidae, West Siberia, check-list, fauna.

Г. С. Золотаренко, В. В. Дубатолов. Список совок (Lepidoptera, Noctuidae) российской части Западно-Сибирской равнины // Дальневосточный энтомолог. 2000. N 94. С. 1-23.

Приводится список 481 вида совок российской части Западно-Сибирской равнины с указанием распространени каждого вида по административным областям и географическим поясам. Для новых находок приводится материал. Дан список видов, ошибочно или сомнительно указанных для региона.

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### INTRODUCTION

The Russian part of the West Siberian plain includes the main part of the Tyumenskaya oblast' (without the mountain territories), the entire Kurganskaya

oblast', Omskaya oblast', Tomskaya oblast', Novosibirskaya oblast' and the main part of Altaiskii krai. The border between the Altai mountains and piedmont plain of the Altai, which is included in the West Siberian plain, is assumed to be the 500 m above sea level, thus, Krasnoshchekovo, Gornyak and Zmeinogorsk are located on the West Siberian plain. The materials from these localities were included in West Altai. On the contrary, the materials from Kolyvan', Chineta, Tulata, Tigirek belong to the mountain part of Altaiskii krai. The easternmost territories of the Sverdlovskaya oblast' and Chelyabinskaya oblast', as well as the northernmost regions of the Kemerovskaya oblast' and the regions east of the Yenisei River (Krasnoyarskii krai) belong to West Siberian plain also, but the noctuid fauna of these regions is still poorly known.

The study of Noctuidae in Siberia began after the Russian Academy expeditions in XVII century. In 1870 A.F. Middendorff investigated the Baraba forest-steppe, but his materials were not published and later have been lost. All material from Siberia collected till the second half of XIX century was summarized by Erschoff & Fild (1870). They listed 298 noctuid species from West Siberia, but included in this region all territories northwards the line of the Karabogazgol Bay – Aral Sea – Tian Shan.

After that numerous taxonomic and faunistic works, as well as papers on pest species and the data on phenology, occurrence and host plants of noctuids of West Siberia have been published (Meinhard, 1904, 1905; Krulikowsky, 1910; Tshugunov, 1911a, 1911b, 1915; Shchuko, 1915, 1916; Meinhard, 1916; Portnyagin, 1919; Iogansen, 1923; Tshugunov, 1925; Vnukovskii, 1926a, 1926b; Lavroff, 1927; Vnukovskii, 1929, 1931; Vnukovskii & Ermolajew, 1935; Ruzsky, 1937; Voskresenskii, 1959; Zolotarenko, 1959, 1961; Kostrowicki, 1961; Zolotarenko & Korshunov, 1963; Terskov & Kolomiets, 1966; Voskresenskii, 1969; Korshunov, 1973; Sukhareva, 1973; Zolotarenko & Tumaikina, 1978; Bubnova, 1980; Leraut, 1980; Lafontaine et al., 1983, 1987a; Zolotarenko & Utkin, 1988; Poole, 1989; Utkin, 1990; Varga & Ronkay, 1991; Utkin, 1993; Gyulai & Ronkay, 1994; Dubatolov & Zolotarenko, 1996; Sviridov & Sitnikov, 1996; Mikkola, 1998; Utkin, 1998, 1999). A review of West Siberian cut worms (Noctuinae) was given by G.S. Zolotarenko (1970).

This paper is based on the rich Noctuidae collection of the Siberian Zoological Museum (SZMN) of the Institute of Animal Systematics and Ecology, Siberian Branch of the Russian Academy of Sciences (Novosibirsk), on the cards index of identified species by G.S. Zolotarenko, as well as on literature data. Z.F. Kljuchko (Kiev, Ukraine), K. Mikkola (Helsinki, Finland) and L. Ronkay (Budapest, Hungary) studied Noctuidae in SZMN collection and corrected some old determinations.

#### A CHECK-LIST OF NOCTUIDAE

The check-list of Noctuidae is given below in the table. The follow abbreviations are used for parts of West Siberian plain: AL – Altaiskii krai (without mountain regions); KU – Kurganskaya oblast'; NS – Novosibirskaya oblast'; OM – Omskaya oblast'; TO – Tomskaya oblast'; TU – Tyumenskaya oblast' (without mountain regions); for zone: t – tundra; t/f – forest-tundra; f – forest; f/s – forest-steppe; s – steppe. The identified material deposited in SZMN (Novosibirsk) marked in the table as (+), in other museums – as (x).

The numbers (1-59) in the table correspond to those of references. The remarks and new records are marked by asterisk (\*); the data on specimens and comments are given in the section «Comments and new records».

**Table**

**List of Noctuidae of West Siberian plain**

Species	TU	KU	OM	NS	AL	TO	Zone
1	2	3	4	6	7	8	9
<b>Hermiiniinae</b>							
<i>Paracolax tristalis</i> (F., 1794)	34	+		+	+	21	f-s
(= <i>derivalis</i> Hbn., 1796)							
<i>Simplicia rectalis</i> (Ev., 1842)		42		+			f-f/s
<i>Macrochilo cribrumalis</i> (Hbn., 1793)		41		+		+	f-f/s
<i>Zanclognatha lunalis</i> (Scop., 1763)	+	+		+	+	+	f-f/s
<i>Z. tarsipennalis</i> (Tr., 1835)		+	16	+	+	27	f/s
<i>Z. tristriga</i> (W.Kozh., 1929)				+			f/s
<i>Z. tenuialis</i> Rbl., 1899				+		+	f/s
<i>Pechipogo strigilata</i> (L., 1758)	+	+	+	+	+	+	f-s
<i>Polypogon tentacularia</i> (L., 1758)	+	+	+	+	1, 50	+	f-f/s
<i>Herminia grisealis</i> ([D. et S.], 1775)		+		+	58	+	f/s
<i>H. tarsicrinalis</i> (Knoch, 1782)	31	+	16	+		+	f/s
<i>H. stramentacealis</i> (Brem., 1864)				41			f/s
<b>Rivulinae</b>							
<i>Rivula sericealis</i> (Scop., 1763)	34	+		+	+		f-f/s
<i>Colobochyla salicalis</i> ([D. et S.], 1775)	34	+		+			f-f/s
<i>Parascotia fuliginaria</i> (L., 1761)	34	+		+	58		f-f/s
<i>P. cognata</i> Stgr., 1892				+	+		f-f/s
<i>Phytometra viridaria</i> (Cl., 1759)	34	+	16	+	x		f-s
<b>Hypenodinae</b>							
<i>Hypenodes humidalis</i> Dbld., 1850				+			f-f/s
<b>Hypeninae</b>							
<i>Hypena proboscidalis</i> (L., 1758)	+	+		+	1	+	f-f/s
<i>H. tristalis</i> Led., 1857		+		+	+	+	f-f/s
<i>H. rostralis</i> (L., 1758)	31	+	+	+	+	+	f-f/s
<i>H. obesalis</i> Tr., 1828	41	+		+	+	20	f/s
<i>H. crassalis</i> (F., 1787)	+			+		+	f
<b>Nycteolinae (Sarothripinae)</b>							
<i>Nycteola degenerana</i> (Hbn., [1825])		+	16	+	+	+	f-f/s
<b>Chloephorinae</b>							
<i>Earias clorana</i> (L., 1768)	34	+	16	+	+	+	f-s
<i>Pseudoips prasinanus</i> (L., 1758)	34	+	+	+	+	+	f-s
(= <i>faganus</i> F., 1781)*							
<b>Nolinae</b>							
<i>Nola aerugula</i> (Hbn., 1793)		+	16	+	+	+	f-s
<i>Meganola albula</i> ([D. et S.], 1775)	34	+		x			f/s
<b>Catocalinae</b>							
<i>Catocala neonympha</i> (Esp., [1805])			16	+	+		f/s-s
<i>C. fraxini</i> (L., 1758)	+	51	16	+	+	+	f-s
<i>C. nupta</i> (L., 1767)	+	+	16	+	+	+	f-f/s
<i>C. adultera</i> Mñn., 1856	+			+	+	x	f-f/s
<i>C. puerpera</i> (Giorna, 1791)				+	+		s
<i>C. pacta</i> (L., 1758)	34	+	+	+	+	+	f-s
<i>C. fulminea</i> (Scop., 1763)	34	+	16	+	+	+	f-s

Table (continued)

1	2	3	4	6	7	8	9
<i>Minucia lunaris</i> ([D. et S.], 1775)		+					f/s
<i>Euclidia glyphica</i> (L., 1758)	+	x	+	+	+	+	f-f/s
<i>E. dentata</i> Stgr., 1871					+		f/s
<i>E. fortalium</i> (Tausch., 1809)			16	+	+	21	f/s-s
<i>Gonospileia triquetra</i> ([D. et S.], 1775)		+	16	+	+		s
<i>Callistege mi</i> (Cl., 1759)	+	51	+	+	+	20, 27	f-f/s
<i>Lygephila ludicra</i> (Hbn., 1790)	34	+	16	+	+	20	f-s
<i>L. viciae</i> (Hbn., [1822])	34	+	16	+	+	+	f-s
<i>L. cracca</i> ([D. et S.], 1775)		+	x	+	+	+	f-s
<i>L. pastinum</i> (Tr., 1826)	+	+		+	1, 58	+	f-f/s
<i>L. lubrica</i> (Frr., 1846)				+	+	+	f-s
<i>Calyptra thalictri</i> (Borkh., 1790)	34	+	16	+	+	+	f-s
<i>Chrysorhynchum flavomaculatum</i> (Brem., 1861)	34		16	+	+	20	f
<i>Drasteria cailino</i> (Lef., 1827)				+	+		s
<i>Laspeyresia flexula</i> ([D. et S.], 1775)				+	x	20	f-f/s
<i>Aedia funesta</i> (Esp., 1786)		+		+	+		f-s
<i>Tyta luctuosa</i> ([D. et S.], 1775)	34	+	16	+	+	46	f-s
<b>Scoliopteryginae</b>							
<i>Scoliopteryx libatrix</i> (L., 1758)	+	+	+	+	+	+	f-s
<b>Acontiinae</b>							
<i>Eublemma purpurina</i> ([D. et S.], 1775)		51	16				f/s
<i>E. pusilla</i> (Ev., 1837)				+			s
<i>Trisateles emortualis</i> ([D. et S.], 1775)		+		+			f-s
<i>Protodeltote pygarga</i> (Hfn., 1766)	+	+		+	+	+	f-f/s
<i>Deltote bankiana</i> (F., 1775)	34	+	16	+	+	+	f-s
<i>D. uncula</i> (Cl., 1759)	34	+	16	+	+	20	f-s
<i>D. deceptor</i> (Scop., 1763)		+	+	+	+	20	f-f/s
<i>Pseudeustrotia candidula</i> ([D. et S.], 1775)	+	+	16	+	+	+	f-s
<i>Phyllophila oblitterata</i> (Rbr., 1833)				+	x		s
<i>Emmelia trabealis</i> (Scop., 1763)	34	+	+	+	+		f-s
<i>Acontia lucida</i> (Hfn., 1767)	34	+	+	+	+	20	f/s-s
<i>Elaphria venustula</i> (Hbn., 1790)		+	16	+			f-f/s
<b>Plusiinae</b>							
<i>Abrostola tripartita</i> (Hfn., 1766)(= <i>triplasia</i> auct.)	+	+	16	+	1	+	f-f/s
<i>A. triplasia</i> (L., 1758) (= <i>trigemina</i> (Wern., 1864)	34	+		+	+	+	f-f/s
<i>A. asclepiadis</i> ([D. et S.], 1775)	34					20	f
<i>Trichoplusia ni</i> (Hbn., [1803])					1		s
<i>Polychrysis esmeralda</i> (Obth., 1880)	34	+		+	+	+	f-f/s
<i>P. splendida</i> (Butl., 1878)				+	+	x	f-f/s
<i>Panchrysis deaurata</i> (Esp., 1787)				+	+		f/s-s
<i>P. ornata</i> (Brem., 1864)					+		f/s
<i>Euchalcia variabilis</i> (Pill. & Mitt., 1783)	34			+	+	+	f-f/s
<i>E. consona</i> (F., 1787)				+	+		f/s-s
<i>E. modestoides</i> Poole, 1989 (= <i>modesta</i> auct.)	34	+		+	1, 50	+	f-f/s
<i>E. renardi</i> (Ev., 1844)				x	+		f/s
<i>Plusidia cheiranthi</i> (Tausch., 1809)	34	+	16	+	+	+	f-f/s
<i>Lamprotes c-aureum</i> (Knoch, 1781)	34	+		+	+	+	f-f/s
<i>Diachrysis chrysitis</i> (L., 1758)	34	+	16	+	+	+	f-s
<i>D. zosimi</i> (Hbn., [1822])	34	52	16	+	+	+	f-s
<i>D. chryson</i> (Esp., 1789)	34	+		+	+	+	f-s

Table (continued)

1	2	3	4	5	6	7	8
<i>Macdunnoughia confusa</i> (Steph., 1850)	+	+	+	+	+	+	f-s
<i>Autographa bractea</i> ([D. et S.], 1775)	34		16		+	20	f-f/s
<i>A. gamma</i> (L., 1758)	+	51	+	+	+	18	f-s
<i>A. excelsa</i> (Kretschm., 1862)	34	+		+	+	+	f-f/s
<i>A. pulchrina</i> (Haw., 1809)(=v-aureum auct.)	34		16	+	+	+	f-f/s
<i>A. buraetica</i> (Stgr., 1892)	9			+	+		f-f/s
<i>A. mandarina</i> (Frr., 1846)	34	+	16	+	+	+	f-s
<i>A. jota</i> (L., 1758)	34						f
<i>A. macrogamma</i> (Ev., 1842)	+	52	16	+	+	+	f-s
<i>Plusia festucae</i> (L., 1758)	+	+	+	+	+	+	t/f-s
<i>P. putnami</i> Grote, 1873, ssp. <i>festata</i> Graes., [1889] 1888	+	+		+	+	+	f-s
<i>Syngrapha interrogationis</i> (L., 1758)	+	+	16	+	50	+	t-f/s
<i>S. ain</i> (Hochenw., 1785)	34			+	x	+	f-f/s
<i>S. diasema</i> (Bsdv., 1829)	34				+		t/f- f/s
<i>S. hohenwarthi</i> (Hochenw., 1785)	+					20*	t-f
<i>Cornutiplusia circumflexa</i> (L., 1767)				+		20	f/s-s
<b>Cuculliinae</b>							
<i>Orbona fragariae</i> (View., 1790)	34			+	+	x	f-f/s
<i>Xylena vetusta</i> (Hbn., [1813])	34	+		+	+	+	f-s
<i>X. exsoleta</i> (L., 1758)			16	+	+	28	f-s
<i>Conistra vaccinii</i> (L., 1761)	+	+	16	+	+	18, 20	f-s
<i>C. rubiginea</i> ([D. et S.], 1775)		+					f/s
<i>Lithophane hepatica</i> (Cl., 1759) (=socio Hfn., 1766)	34	+		+	+	+	f-f/s
<i>L. lambda</i> (F., 1787)	34			+		27	f-f/s
<i>L. consocia</i> (Borkh., 1792)					1	20	f/s
<i>Eupsilia transversa</i> (Hfn., 1766)		+		+	+	20	f-f/s
<i>Agrochola lota</i> (Cl., 1759)					+		f/s
<i>A. helvola</i> (L., 1758)	34			+	+		f-f/s
<i>A. vulpecula</i> (Led., 1853)				+	+		f-f/s
<i>Xanthia togata</i> (Esp., 1788)	34	+	+	+	+	+	f-s
<i>X. icteritia</i> (Hfn., 1766)	34	51	+	+	+	+	f-s
<i>X. gilvago</i> ([D. et S.], 1775)			+	+	+		f-s
<i>X. ocellaris</i> (Borkh., 1792)		+		+	+	+	f-s
<i>Brachylomia viminalis</i> (F., [1777])	34			+		+	f-f/s
<i>Antitype chi</i> (L., 1758)						20	f
<i>Sympistis heliophila</i> (Payk., 1793)	+						t-f
<i>S. funesta</i> (Payk., 1793)	+					27	t-f
<i>S. lapponica</i> (Thunb., 1791)	+						t-t/f
<i>Dasyptilia templi</i> (Thunb., 1792)		51		+	+	46	f-f/s
<i>Blepharita amica</i> (Tr., 1825)		+	+	+	+	20	f-f/s
<i>Mniotype adusta</i> (Esp., 1790)	34			+	1	20	f-s
<i>M. bathensis</i> (Lutzau, 1905)	34						f/s
<i>M. satura</i> ([D. et S.], 1775)	34	+		+	1	+	f-s
<i>Ammocoinea caecimacula</i> ([D. et S.], 1775)				+	+		f/s
<i>Lithomoia solidaginis</i> (Hbn., [1803])	34	30		x		+	f-f/s
<i>Brachionycha nubeculosa</i> (Esp., 1785)		+	16	+	+	20	f-f/s
<i>Oncocnemis campicola</i> Led., 1853					+		f/s
<i>O. nigricula</i> (Ev., 1847)				+			f/s-s
<i>O. senica</i> (Ev., 1856)				+			f-s
<i>Cucullia magnifica</i> Frr., 1840		51	16	+	+		s

Table (continued)

1	2	3	4	5	6	7	8
<i>C. splendida</i> (Stoll, 1782)	29	+	+	+	+	+	f-s
<i>C. scopariae</i> Dorf., 1853			16	+	+	20	f/s-s
<i>C. fuchsiana</i> Ev., 1837					1	+	f-f/s
<i>C. fraudatrix</i> Ev., 1837	34	+	+	+	+	+	f-s
<i>C. absinthii</i> (L., 1761)	34	+	16	+	+	+	f-s
<i>C. argentea</i> (Hfn., 1766)		+	+	+	+	+	f-s
<i>C. spectabilisoides</i> Poole, 1989 (= <i>spectabilis</i> Hbn., 1813)			16		1		f/s
<i>C. artemisiae</i> (Hfn., 1766)	34	+	16	+	+	+	f-s
<i>C. cineracea</i> Fr., 1842				+	+		f/s-s
<i>C. praecana</i> Ev., 1857						+	f
<i>C. mixta</i> Fr., 1841				+			s
<i>C. xeranthemi</i> Bsdv., 1840				37	1		f/s
<i>C. propinqua</i> Ev., 1842				+	+		f/s-s
<i>C. mandschuriae</i> Obth., 1884					+		f/s
<i>C. lactucae</i> ([D. et S.], 1775)	34	51	16	+	+	20	f-s
<i>C. fraterna</i> Butl., 1878	34				+		f-f/s
<i>C. lucifuga</i> ([D. et S.], 1775)			16	+	x		f-f/s
<i>C. umbratica</i> (L., 1758)	34	+	+	+	+	+	f-s
<i>C. biornata</i> F. de W., 1840		51	+	+	+		f/s-s
<i>C. gnaphalii</i> (Hbn., [1813])	31	30			1		f/s
<i>C. tanacetii</i> ([D. et S.], 1775)				37			f/s
<i>C. dracunculi</i> (Hbn., [1813])				37		20	f/s
<i>C. virgaureae</i> Bsdv., 1840		x		+	+		f/s-s
<i>C. amota</i> Alph., 1887				+	+		s
<i>C. asteris</i> ([D. et S.], 1775)		+	16	+	1	20	f/s-s
<i>C. argentina</i> (F., 1787)		51	16	+	1		s
<i>Calophasia lunula</i> (Hfn., 1766)	34	+	16	+	+	+	f-s
<b>Amphipyrinae</b>							
<i>Sidemia spilogramma</i> (Ramb., 1871)					+		f/s
<i>Apamea crenata</i> (Hfn., 1766)	34	+	16	+	+	+	f-s
<i>A. lateritia</i> (Hfn., 1766)		+	+	+	+	+	f-s
<i>A. monoglypha</i> (Hfn., 1766)	34	+		+	+	+	f-f/s
<i>A. leucodon</i> (Ev., 1837)				+	+	+	f-s
<i>A. oblonga</i> (Haw., 1809)	34	52	+	+	+	+	f-s
<i>A. remissa</i> (Hbn., [1809])	34	+		+	+	x	f-s
<i>A. sordens</i> (Hfn., 1766)	34	+	+	+	+	+	f-s
<i>A. anceps</i> ([D. et S.], 1775)		51	32	+	+		f/s-s
<i>A. furva</i> ([D. et S.], 1775)	+			+	x		f-s
<i>A. lithoxylea</i> ([D. et S.], 1775)				+			f
<i>A. rubrivena</i> (Tr., 1825)	34						f
<i>A. altijuga</i> (W.Kozh., 1925)					+		f/s
<i>A. pseudaltijuga</i> Grosser, 1985	34						f
<i>A. unanimitis</i> (Hbn., [1813])	+			+			t/f-
<i>A. illyria</i> Fr., 1846	34						f/s
<i>A. scolopacina</i> (Esp., 1788)				+	+		f
<i>A. ophiogramma</i> (Esp., 1794)	34	51		+		+	f-f/s
<i>A. askoldis</i> (Obth., 1880)					+		f/s
<i>Eremobina pabulatricula</i> (Brahm, 1791)	34	+		+	+	+	f-f/s
<i>Oligia strigilis</i> (L., 1758)				+	+	20	f-f/s
<i>O. latruncula</i> ([D. et S.], 1775)	34			+	+	+	f-s
<i>O. leuconephra</i> Hmps., 1908				+	+		f-f/s

Table (continued)

1	2	3	4	5	6	7	8
<i>Mesoligia literosa</i> (Haw., 1809)				+	1		f-s
<i>M. furuncula</i> ([D. et S.], 1775)	34	+	16	+	+	+	f-s
<i>Mesapamea secalis</i> (L., 1758)*	34	+	16	+	+	+	f-s
<i>M. moderata</i> (Ev., 1843)				+	+		s
<i>M. hedeni</i> (Graes., [1889] 1888)	34	+		+	+	+	f-s
<i>Luperina zollikoferi</i> (Frr., 1836)					+		f/s-s
<i>Staurophora celsia</i> (L., 1758)	+	51	+	+	+	+	f-s
<i>Xylomoia graminea</i> (Graes., [1889])	34	+		+	+		f-f/s
<i>X. retinax</i> Mikk., 1998				23			f
<i>Hydraecia micacea</i> (Esp., 1789)	34	+	+	+	+	+	f-s
<i>H. nordstroemi</i> Horke, 1950				+	+		f/s-s
<i>H. mongoliensis</i> Urbahn, 1967	34		+	+	x		f-s
<i>H. petasitis</i> (Dbld., 1847)			16	+	+	+	f-f/s
<i>Amphipoea oculaea</i> (L., 1761)	34	51*					f-f/s
<i>A. fucosa</i> (Frr., 1830)	+	+	+	+	+	+	f-s
<i>A. lucens</i> (Frr., 1845)	34	+		+	1	+	f-f/s
<i>A. bifurcata</i> Gyulai et Ronk., 1994				+			s
<i>A. asiatica</i> (Burr., 1912)				+	+		f/s-s
<i>A. sp.</i>				5			
<i>A. ochreola</i> (Stgr., 1882)				5			s
<i>Mycteropus puniceago</i> (Bsdv., 1840)			+	+	+		f/s-s
<i>Celaena haworthii</i> (Curt., 1829)	34	52		+	+	+	f-s
<i>C. leucostigma</i> (Hbn., 1808)	34	+	16	+	+	+	f-s
<i>Calamia tridens</i> (Hfn., 1766)	34		16	+	+		f-s
<i>Gortyna flavago</i> ([D. et S.], 1775)	+	30	16	+	+	+	f-s
<i>Nonagria typhae</i> (Thunb., 1784)	34	+	+	+	x	+	f-s
<i>Archanara sparganii</i> (Esp., 1790)	34	51		+		+	f-s
<i>A. dissoluta</i> (Tr., 1825)	34			+	+		f-s
<i>A. algae</i> (Esp., 1789)		30		+		20	s
<i>Chortodes fluxa</i> (Hbn., [1809])	34	+	16	+	1	20	f-s
<i>C. pygmina</i> (Haw., 1809)				+			f/s
<i>C. extrema</i> (Hbn., [1809])	34						f/s
<i>C. elymi</i> (Tr., 1825), ssp. <i>procera</i> (Stgr., 1889)					1		f/s
<i>C. stigmatica</i> (Ev., 1855)	34			37	+		f/s
<i>C. brevilinea</i> (Fenn, 1864)				+			f/s-s
<i>Arenostola phragmitidis</i> Hbn., [1803])	34			+			f/s
<i>Rhizedra lutosa</i> (Hbn., [1803])	34	+	16	+	+		f/s-s
<i>Photedes captiuncula</i> (Tr., 1825)				+			f/s
<i>Oxytrypia orbiculosa</i> (Esp., 1799)				+			s
<i>Euplexia lucipara</i> (L., 1758)	34	+	16	+	+	+	f-f/s
<i>Hyppa rectilinea</i> (Esp., 1788)	+	+	16	+		+	f-f/s
<i>Auchmis mongolica</i> (Stgr., 1896)					+		f/s-s
<i>Actinotia polyodon</i> (Cl., 1759)	34	51				20	f-f/s
<i>Dypterygia scabriuscula</i> (L., 1758)	34	x	+	+	+		f-f/s
<i>Rusina ferruginea</i> (Esp., [1785])	34	x		+	+		f-f/s
<i>Trachea atriplicis</i> (L., 1758)		51			+		f/s
<i>Brachyxanthia zelotypa</i> (Led., 1853)			+			+	f
<i>Hoplodrina octogenaria</i> (Goeze, 1781)							
(= <i>alsines</i> auct.)	34	+		+	+	33	f-s
<i>H. blanda</i> ([D. et S.], 1775)	34				1*		f-s
<i>Chilodes distracta</i> (Ev., 1848)	34			+	+		f-f/s
<i>C. maritima</i> (Tausch., 1806)		+		+			f/s-s

Table (continued)

1	2	3	4	5	6	7	8
<i>Caradrina (Caradrina) morpheus</i> (Hfn., 1766)	34	+	16	+	+	+	f-s
<i>Paradrina flavirena</i> Gn., 1852	34						f/s
<i>P. clavipalpis</i> (Scop., 1763)	31	+	16	+	+	+	f-s
<i>P. selini</i> (Bsdv., 1840)				+			
<i>Platyperigea albina</i> (Ev., 1848)			+	+	+		f/s-s
<i>P. montana</i> (Brem., 1861) (= <i>apatelica</i> Pglr., 1914)	34						f
<i>P. grisea</i> (Ev., 1848)		+	16	+	+	+	f-s
<i>P. terrea</i> (Frr., 1840)	34	+		+	+		f-s
<i>Athetis furvula</i> (Hbn., [1808])	34	+	16	+	1	+	f-s
<i>A. gluteosa</i> (Tr., 1825)				33	+	20	f/s-s
<i>A. lepigone</i> (Muschl., 1860)				+			f-f/s
<i>A. palustris</i> (Hbn., [1808])	34			+	+	33	f-f/s
<i>A. correpta</i> (Pglr., 1907)	34						f-f/s
<i>Amphipyra pyramidea</i> (L., 1758)	34						f
<i>A. perflua</i> (F., 1787)				+	+	+	f-f/s
<i>A. livida</i> ([D. et S.], 1775)	34	+		+	+	+	f-f/s
<i>A. tetra</i> ([D. et S.], 1775)			16	+			f-s
<i>A. tragopoginis</i> (Cl., 1759)	31	+				20	f-f/s
<i>A. sergei</i> Stgr., 1888					+		s
<i>Enargia paleacea</i> (Esp., 1788)	+	+	16	+	+	+	f-s
<i>E. ypsilon</i> ([D. et S.], 1775)	34			+			f-f/s
<i>E. abluta</i> (Hbn., [1803])					+		s
<i>Parastichtis suspecta</i> (Hbn., 1817)	+	+		+	+	+	f-f/s
<i>Cosmia affilis</i> (L., 1767)					+		f/s-s
<i>C. trapezina</i> (L., 1758)			+				f/s
<i>C. pyralina</i> ([D. et S.], 1775)	34			+	+	+	f-f/s
<i>Ipimorpha subtusa</i> ([D. et S.], 1775)	34			+	+	+	f-f/s
<i>I. retusa</i> ([D. et S.], 1775)	34	+		+		+	f-f/s
<i>I. contusa</i> (Frr., 1849)*				x			f-f/s
<i>Pseudohadena immunda</i> (Ev., 1842)				+			f/s
<i>P. argyllostigma</i> (Varga & Ronk., 1991)				+			s
<i>Eucarta amethystina</i> (Hbn., [1803])	34	+		+	+	20	f-f/s
<i>E. arcta</i> (Led., 1853)				+			f-f/s
<i>E. virgo</i> (Tr., 1835)		x		x	+	x	f-f/s
<i>Mesogona acetosella</i> ([D. et S.], 1775)			16				f/s
<i>M. oxalina</i> (Hbn., [1803])			16	+	+		f/s-s
<b>Heliothinae</b>							
<i>Heliothis maritima</i> Grasl., 1855		+	+	+	+		f-s
<i>H. viroplaca</i> (Hfn., 1766)	34	+	16	+	+		f/s-s
<i>H. ononis</i> ([D. et S.], 1775)			16	+	+	20	f/s
<i>H. armigera</i> (Hbn., [1808])					+		s
<i>Protoschinia scutosa</i> ([D. et S.], 1775)		+	+	+	+		f/s-s
<i>Pyrrhia umbra</i> (Hfn., 1766)	34	+	16	+	+	+	f-s
<i>P. exprimens</i> (Wlk., 1857)		+			+	+	f-f/s
<i>Pyrocleptria cora</i> (Ev., 1837)			16	+			f/s
<b>Hadeninae</b>							
<i>Mamestra brassicae</i> (L., 1758)	34	+	+	+	+	+	f-s
<i>Melanchnra persicariae</i> (L., 1758)	34	+	x	+	+	+	f-s
<i>M. pisi</i> (L., 1758)	34	+	16	+	+	+	f-s
<i>Hypobarathra icterias</i> (Ev., 1843)				+	+		f/s
<i>Lacanobia aliena</i> (Hbn., [1809])			+	+	+	20	f/s-s



Table (continued)

1	2	3	4	5	6	7	8
<i>L. w-latinum</i> (Hfn., 1766)				37	+	18, 20	f/s
<i>L. splendens</i> (Hbn., [1808])				x	+		f/s-s
<i>L. oleracea</i> (L., 1758)	+	+	+	37	+	+	f-s
<i>L. suasa</i> ([D. et S.], 1775)	34	51	+	+	+	+	t/f-s
<i>L. thalassina</i> (Hfn., 1766)	34	+	+	+	+	+	f-s
<i>L. contigua</i> ([D. et S.], 1775)	34		+	+	+	+	f-f/s
<i>L. blenna</i> (Hbn., [1824])				+	+		f/s-s
<i>Hyssia cavernosa</i> (Ev., 1842)	31		16	+	+		f/s-s
<i>Aetheria cappa</i> (Hbn., [1809])			16*				?f/s-s
<i>A. dysodea</i> ([D. et S.], 1775)				+	+		f/s-s
<i>A. bicolorata</i> (Hfn., 1766)	34	+	+	+	+	+	f-s
<i>Papestra biren</i> (Goeze, 1781)	+	30		+	+	35	f-f/s
<i>Heliophobus reticulata</i> (Goeze, 1781)	34	+	+	+	+	+	f-s
<i>Sideridis turbida</i> (Esp., 1790)							
(= <i>albicolon</i> Hbn., [1813])		51		+	+		f/s-s
<i>S. egena</i> (Led., 1853)			+	+	+		f/s-s
<i>S. rivularis</i> (F., 1775)	34	30	+	+	+	+	f-s
<i>Hadena capsincola</i> ([D. et S.], 1775)							
(= <i>bicruris</i> auct.)	34	+	16	+	x	20	f-f/s
<i>H. compta</i> ([D. et S.], 1775)		x	16	+	+	+	f-f/s
<i>H. confusa</i> (Hfn., 1766)	34	51	16	+	48		f-f/s
<i>H. variolata</i> (Smith, 1888), ssp.							
<i>dealbata</i> (Stgr., 1892)					+		f/s
<i>H. aberrans</i> (Ev., 1856)					+		f/s
<i>H. irregularis</i> (Hfn., 1766)		51	16	+	+		f/s-s
<i>H. corrupta</i> (Herz, 1905)					+	+	f/s
<i>H. perplexa</i> ([D. et S.], 1775) (= <i>lepida</i>							
Esp., 1790)	34	+		+	+	+	f-s
<i>H. albimacula</i> (Borkh., 1792)			16	+	+	+	f-s
<i>H. filigrana</i> (Esp., 1788)							
(= <i>consparsata</i> Fr., 1844)				+	x		s
<i>Enterpia picturata</i> (Alph., 1882)				5			s
<i>Conisania arida</i> (Led., 1855)				+	+		f-s
<i>C. leineri</i> (Frr., 1836)	34						f/s
<i>C. luteago</i> ([D. et S.], 1775)	34	+	16	+	+		f-f/s
<i>Hadula trifolii</i> (Hfn., 1766)	+	+	+	+	+	+	f-s
<i>H. stigmata</i> (Christ., 1887)	+	+	+	+	+		f-s
<i>H. furca</i> (Ev., 1852), s. lat.					1		f/s-s
<i>H. dianthii</i> (Tausch., 1809)				+	1		f/s-s
<i>H. melanopa</i> (Thunb., 1791)	34						t/f
<i>Polia nebulosa</i> (Hfn., 1766)	34	+	16	+	+	+	f-s
<i>P. trimaculosa</i> (Esp., 1788) (= <i>hepatica</i>							
auct.)	34	x	16	+	+	+	f-s
<i>P. bombycina</i> (Hfn., 1766)	34	+	+	+	+	+	f-s
<i>P. altaica</i> (Led., 1853)					+	20, 21	f-s
<i>P. richardsoni</i> (Curt., 1835)	+						t
<i>Pachetra sagittigera</i> (Hfn., 1766)					+		s
<i>Mythimna turca</i> (L., 1758)	34	+	16	+	+	+	f-f/s
<i>M. conigera</i> ([D. et S.], 1775)	34	+	16	+	+	+	f-s
<i>M. ferrago</i> (F., 1787)	34	+	16	+	+	+	f-s
<i>M. vitellina</i> (Hbn., [1808])					x		f/s
<i>M. pudorina</i> ([D. et S.], 1775)		+		+	x		f-s
<i>M. straminea</i> (Tr., 1825)	34		16	+			f-s

Table (continued)

1	2	3	4	5	6	7	8
<i>M. impura</i> (Hbn., [1808])	34	+		+	+	+	f-s
<i>M. pallens</i> (L., 1758)	+	+	+	+	+	+	f-s
<i>M. atrata</i> Remm et Viid., 1979				+			s
<i>M. velutina</i> (Ev., 1846)			16	+	+	35	f?-s
<i>M. albipuncta</i> ([D. et S.], 1775)		52	16				s
<i>M. l-album</i> (L., 1767)				37		20	f/s
<i>M. comma</i> (L., 1758)	34	x	16	+	+	x	f-s
<i>M. obsoleta</i> (Hbn., [1803])	34		16	+			f-s
<i>M. opaca</i> (Stgr., 1900)				+	+		f/s
<i>M. alboradiosa</i> (Ev., 1852)				+			s
<i>Senta flammea</i> (Curt., 1828)	34	+		+			f/s
<i>Saragossa siccanorum</i> (Stgr., 1870)				+			s
<i>S. porosa</i> (Ev., 1854)				+			s
<i>Lasionycta proxima</i> (Hbn., [1809])	34	+		+	+	+	f-s
<i>Hada plebeja</i> (L., 1761)(= <i>nana</i> Hfn., 1766)	+				1		f-f/s
<i>Cerapteryx graminis</i> (L., 1758)	34	+		+	1	+	f-f/s
<i>Perigrapha circumducta</i> (Led., 1855)			+	+	+		f/s
<i>Tholera decimalis</i> (Poda, 1761)	+	30	16	+	+	+	f-s
<i>T. cespitis</i> ([D. et S.], 1775)	34	30	16	+	1	x	f-s
<i>Eriopygodes imbecilla</i> (F., 1794)	34	x	16	+	+	+	f-f/s
<i>Orthosia incerta</i> (Hfn., 1766)	+	+		+	+		f-s
<i>O. populeti</i> (F., 1781)	34	+		+			f
<i>O. gothica</i> (L., 1758)	34	+	16	+	+	20	f-f/s
<i>O. gracilis</i> ([D. et S.], 1775)	34	+	16	+	+	20	f-f/s
<i>O. munda</i> ([D. et S.], 1775)				+			f-f/s
<i>O. cerasi</i> (F., 1775)(= <i>stabilis</i> [D. et S.], 1775)				+	+		f-s
<i>O. opima</i> (Hbn., [1809])	34						f
<i>Egira conspicillaris</i> (L., 1758)		+					f/s
<i>Coranarta cordigera</i> (Thunb., 1788)	+					27*	t/f-f
<i>Panolis flammea</i> ([D. et S.], 1775)	+	+		+	1, 50	+	f
<b>Noctuidae</b>							
<i>Cryptocala chardinyi</i> (Bsdv., 1829)	34	+		+		+	f-s
<i>Noctua interposita</i> (Hbn., 1790)		+	+	+			f/s-s
<i>Spaelotis ravida</i> ([D. et S.], 1775)	+	51	+	+	+	+	f-s
<i>S. clandestina</i> (Harris, 1841)	34			+			f-f/s
<i>S. lucens</i> (Butl., 1881)					+		f/s
<i>Graphiphora augur</i> (F., 1775)	+	+	+	+	+	+	f-s
<i>Protolampra sobrina</i> (Dup., 1843)	10		55	+		+	f-f/s
<i>Paradiarsia punicea</i> (Hbn., [1803])	34		16	+	+	+	f-f/s
<i>P. coturnicola</i> (Graes., 1892)(= <i>herzi</i> Christ., 1893)						+	f?
<i>Opigena polygona</i> ([D. et S.], 1775)	55		16	+		+	f-f/s
<i>O. albifurca</i> (Ersch., 1877)					1		f/s-s
<i>Xestia c-nigrum</i> (L., 1758)	55	55	+	+	+	+	f-s
<i>X. triangulum</i> (Hfn., 1766)	55	+	+	+	+	+	f-s
<i>X. ditrapezium</i> ([D. et S.], 1775)	34	+	55	+	+	35, 55	f-s
<i>X. ashworthii</i> (Dbl., 1855)	34	+		+	50	+	f
<i>X. descripta</i> (Brem., 1861)				+			f/s
<i>X. staudingeri</i> (Muschl., 1862)	+						t
<i>X. baja</i> ([D. et S.], 1775)	55	+	+	+	+	+	f-s
<i>X. collina</i> (Bsdv., 1832)	34			55	55		f
<i>X. tecta</i> (Hbn., [1809])	+						t/f-f
<i>X. okakensis</i> (Pack., 1867)	14						f

Table (continued)

1	2	3	4	5	6	7	8
<i>X. speciosa</i> (Hbn., [1813])	+					55	t/f-f
<i>X. borealis</i> (Nordstr., 1933)							f*
<i>X. sincera</i> (H.-S., 1851)	+						f
<i>X. rhaetica</i> (Stgr., 1871)	+						f
<i>X. albuncula</i> (Ev., 1851)	+						t/f-f
<i>X. gelida</i> (Sp.-Schn., 1883)					+		f
<i>X. quieta</i> (Hbn., [1813])	+						t-t/f
<i>X. thula</i> Laf. & Kon., 1983	+						t
<i>X. liquidaria</i> (Ev., 1848)	+						t-t/f
<i>X. aequaeva</i> (Benj., 1934) (= <i>brachyptera</i> Kon., 1981)	13						t
<i>Lycophotia cissigma</i> (Mñn., 1859)				+			f-f/s
<i>Eugraphe sigma</i> ([D. et S.], 1775)	+	+	+	+	+	55	f-f/s
<i>E. miniago</i> (Frr., 1838)				+	+		s
<i>Coenophila subrosea</i> (Stgr., 1871)	+			+		+	f-f/s
<i>Eugnorisma chaldaica</i> (Bsdv., 1840)					10		f-f/s
<i>Netrocerocora quadrangula</i> (Ev., 1844)				+	+		f/s-s
<i>Eurois occulta</i> (L., 1758)	+	51	+	+	+	+	t/f-s
<i>Sineugraphe exusta</i> (Butl., 1878)				+	+	+	f-s
<i>Cerastis rubricosa</i> ([D. et S.], 1775)	+			+	+	+	f-f/s
<i>C. leucographa</i> ([D. et S.], 1775)				+			f-f/s
<i>Naenia typica</i> (L., 1758)		+		+	+	+	f-f/s
<i>Anaplectoides prasina</i> ([D. et S.], 1775)	10	51	16	+	+	+	f-s
<i>Pseudohermonassa melancholica</i> (Led., 1853)				+	+		f-f/s
<i>P. ononensis</i> (Brem., 1861)					10		
<i>Rhyacia arenacea</i> (Hmps., 1907) (= <i>auguroides</i> auct.)				+	+		f/s-s
<i>R. simulans</i> (Hfn., 1766) (= <i>augurides</i> Roth., 1914)	10	30		+	+	+	f-s
<i>Chersotis deplanata</i> (Ev., 1843) (= <i>deplana</i> Frr., 1845)	34			+	55	+	f-f/s
<i>C. cuprea</i> ([D. et S.], 1775)	34			+			f-f/s
<i>C. andereggii</i> (Bsdv., 1832)					+		f/s
<i>C. transiens</i> (Stgr., 1897) (= <i>ocellina</i> auct.)			+	+	+		f/s-s
<i>C. elegans</i> (Ev., 1837)			16			20	f-f/s
<i>Protexarnis squalida</i> (Gn., 1852) (= <i>balanitis</i> Grote, 1873)		52	+	+	+		f/s-s
<i>Axylia putris</i> (L., 1761)	34	+	55	+	+	+	f-s
<i>Diarsia rubi</i> (View., 1790)	34		16	+	55	55	f-f/s
<i>D. brunnea</i> ([D. et S.], 1775)	34		55	+	+	20, 55	f-f/s
<i>D. dahlii</i> (Hbn., [1813])	+		16	+	x	+	f-f/s
<i>D. mendica</i> (F., 1775)	+	52	55	+		+	f-f/s
<i>Nyssocnemis eversmanni</i> (Led., 1853)			16	+	+	18	f-s
<i>Yigoga signifera</i> ([D. et S.], 1775)			55				f/s
<i>Y. lutescens</i> (Ev., 1844)			16				f/s-s
<i>Dichagyris vallesiaca</i> (Bsdv., 1832)			55		+		f/s
<i>D. candelisequa</i> ([D. et S.], 1775)					1, 55		f/s
<i>Actebia fennica</i> (Tausch., 1806)	10		16	+	55	+	t/f-
							f/s
<i>A. praecox</i> (L., 1758)	10				+	55	f-f/s
<i>A. praecurrens</i> (Stgr., 1888)					+		f/s-s
<i>Ochropleura plecta</i> (L., 1761)	34		16	+	+	+	f-s
<i>Albocosta musiva</i> (Hbn., [1803])			16	+	+	+	f-s
<i>Agrotis ipsilon</i> (Hfn., 1766)	10	+		55	+	+	f-s

Table (continued)

1	2	3	4	5	6	7	8
<i>A. tokionis</i> Butl., 1881						+	f
<i>A. trifurca</i> Ev., 1837		+		+	+	+	f-s
<i>A. vestigialis</i> (Hfn., 1766)	34	+	16	+	+		s
<i>A. cinerea</i> ([D. et S.], 1775)	34						f-f/s
<i>A. exclamationis</i> (L., 1758)	31, 55	+	+	+	+	+	f-s
<i>A. desertorum</i> Bsdv., 1840 (=ripae auct.)			55	+	+		f/s-s
<i>A. basigramma</i> (Esp., [1790]) (=crassa Hbn., [1803])					55		f/s-s
<i>A. clavis</i> (Hfn., 1766)	55		16	+	1	55	f/s-s
<i>A. segetum</i> ([D. et S.], 1775)	10	+		+	+	+	f-s
<i>Euxoa adumbrata</i> (Ev., 1842) (=lidia auct.)	55	51	16	+	+	+	f-s
<i>E. sibirica</i> (Bsdv., 1832)				55	1	+	f-f/s
<i>E. deserticola</i> I.Kozh., 1937				+	+		f/s-s
<i>E. cursoria</i> (Hfn., 1766)	34		16	+	+	55	f-s
<i>E. phantoma</i> I.Kozh., 1928			+	+	+	+	f-s
<i>E. obelisca</i> ([D. et S.], 1775)			16	+	+	20	f-f/s
<i>E. goetria</i> I.Kozh., 1929					55		s
<i>E. hastifera</i> (Donz., 1847)				+		+	f/s-s
<i>E. ochrogaster</i> (Gn., 1852), ssp. rossica (Stgr., 1881)	55		55	+	+	+	t/f-s
<i>E. basigramma</i> (Stgr., 1870)				+	+		f/s-s
<i>E. agricola</i> (Bsdv., 1829)			+	x	+	+	f-f/s
<i>E. aquilina</i> ([D. et S.], 1775)	34		55	+	+	+	f-f/s
<i>E. distinguenda</i> (Led., 1857)				+	+		f/s-s
<i>E. tritici</i> (L., 1761)	+	51	55	+	+	+	f-s
<i>E. deserta</i> (Stgr., 1870)				+	+		s
<i>E. mustelina</i> (Christ., 1876)				+	+		s
<i>E. nigricans</i> (L., 1761)	10	30	+	+	+	+	f-s
<i>E. fissa</i> (Stgr., 1895)				+	+	+	f/s
<i>E. recussa</i> (Hbn., [1817])			16	+	+	+	f-f/s
<i>E. varia</i> (Alph., 1889)				+	+	+	f/s-s
<b>Acronictinae</b>							
<i>Trichosea ludifica</i> (L., 1758)	+					35	f
<i>Panthea coenobita</i> (Esp., 1785)				+	+	+	f-f/s
<i>Colocasia coryli</i> (L., 1758)	+	+	+	+	+	20	f-s
<i>Moma alpium</i> (Osb., 1778)	34		16	+	+	+	f-f/s
<i>Acronicta concerpta</i> (Drdt., 1937)*	34	+	+	+	+	+	f-s
<i>A. major</i> (Brem., 1861), ssp. atritaigensa Dubat. et Zol., [1996]				+			f/s
<i>A. aceris</i> (L., 1758)		30					f/s
<i>A. leporina</i> (L., 1758), s. lat.*	+	+	16	+	1, 50	+	f-s
<i>A. alni</i> (L., 1767)	34	+		+	+	20	f-f/s
<i>A. cuspis</i> (Hbn., [1813])			16		x	20	f/s
<i>A. tridens</i> ([D. et S.], 1775)	31, 11		16	54	+	11	f-f/s
<i>A. psi</i> (L., 1758)	+	+	+	+	+	20	f-s
<i>A. strigosa</i> ([D. et S.], 1775)	34			+	1*		f-f/s
<i>A. auricoma</i> ([D. et S.], 1775)	+	51		+	+	20	f-f/s
<i>A. menyanthidis</i> (View., 1790)	34						f
<i>A. cinerea</i> (Hfn., 1766) (=abscondita Tr., 1835)	34	+			+		f-f/s
<i>A. euphorbiae</i> ([D. et S.], 1775)		51	+		1, 11		f/s
<i>A. rumicis</i> (L., 1758)	34	+	16	+		+	f-f/s
<i>A. lutea</i> (Brem. et Grey, 1853)					+		f/s

Table (continued)

1	2	3	4	5	6	7	8
<i>Athaumasta siderigera</i> (Christ., 1893)					+		s
<i>Simyra nervosa</i> ([D. et S.], 1775)		51	16	+	x		f/s-s
<i>S. splendida</i> Stgr., 1888					+		s
<i>S. albovenosa</i> (Goeze, 1781)	34	+		+			f/s-s
<i>Cryphia fraudatricula</i> (Hbn., [1803])	34						f
<i>Poliobrya umovii</i> (Ev., 1846)	34			+			f-f/s

## COMMENTS AND NEW RECORDS

## Rivulinae

***Parascotia cognata* Stgr.** - Novosibirskaya oblast': 2 specimens, Novosibirsk, Akademgorodok, 23.VII 1988, 28.VII 1992 (Dubatolov); Altaiskii krai: 2 specimens, Barnaul, zaimka of Goretovsky, 3.VII 1902, 1.VII 1903 (Rodd); 3 ♂, 2 ♀, 100 km S from Barnaul, Soldatovo, 16.VI-18.VII 1990 (Vasilenko). Kazakhstan: 2 ♂, Serebryansk, 24.VI 1994 (Kolpakova), 6.VII 1998 (Zintshenko).

## Catocalinae

***Minucia lunaris* D. et S.** - 1 ♀, Kurgan, 15.VII 1990 (Duda).

***Euclidia dentata* Stgr.** - It was firstly recorded for Upper Ob' basin in the Altaiskii krai by V. V. Dubatolov et al., (1995).

***Drasteria cailino* Lef.** - 1 ♂, Altaiskii krai, Klyuchi, 27.V 1952 (Zolotarenko); was also collected near Karasuk (L. Ronkay, pers. comm. to V.S. Kononenko).

***Aedia funesta* Esp.** - 3 specimens, Kurganskaya oblast', Kipel', 10, 22.VII 1986 (Utkin); 1 specimen, 10 km N from Novosibirsk, 16.VII 1991 (Bulycheva); 4 specimens, Novosibirsk, 5.VIII 1985; 4 specimens, 13 km W from Karasuk, 15, 24.VII 1985, 15.VII 1988 (Zolotarenko); 9 specimens, 100 km S from Barnaul, Soldatovo, 12.VI-17.VII 1990 (Vasilenko); 2 specimens, Gornyak, 2-10.VII 1989 (Prokopets).

## Acontiinae

***Eublemma pusilla* Ev.** - 1 ♂, Novosibirskaya oblast', 13 km W from Karasuk, near Krotovaya Lyaga Lake, 18.VI 1998 (Dubatolov).

***Phyllophila obliterated* Rbr.** - 1 ♂, Novosibirskaya oblast', 13 km W from Karasuk, near Krotovaya Lyaga Lake, 15.VI 1981 (Nikitina).

## Plusiinae

***Polychrysis splendida* Btl.** Besides the known records from the Altai and its "submountain plain" (Bubnova, 1980), the species was found in Novosibirskaya oblast': 1 ♂, Om' river, near Kreshchenskoe, Lis'i Norki, 3.VIII 1987 (Vasilenko).

***Euchalcia renardi* Ev.** - 1 ♀, Barnaul, 27.VII 1909 (Rodd), L. Ronkay det.

***Syngrapha ain* Hochenw.** - 1 ♀, Novosibirskaya oblast', Iskitim district, Kalinovka, 27.VI 1972, ex larva (Tibatina).

***Syngrapha diasema* Bsd.** - 2 ♂, Altaiskii krai, Zav'yalovo, 27.VII 1976.

***Cornutiplusia circumflexa* L.** - 1 ♀, Novosibirskaya oblast', Zheleznodorozhnyi, VIII 1972 (Litvina).

## Cuculliinae

***Conistra rubiginea* D. et S.** - 2 specimens, Kurgan, 5.V 1998 (Kryukov).

*Agrochola helvola* L. - 1 ♂, Novosibirsk, Akademgorodok, 28.VIII 1989 (Dubatolov); 1 specimen, Barnaul, 9.IX 1966 (Shabalina).

*Sympistis lapponica* Thnb. - 1 ♀, Yamal, Shchuch'e, 30.VII 1968 (Korshunov), K. Mikkola det.

*Oncocnemis nigricula* Ev. - 1 ♂, Novosibirskaya oblast', 13 km W from Karasuk, near Krotovaya Lyaga Lake, 27.VIII 1982 (Dubatolov).

*Oncocnemis senica* Ev. - 1 ♂, Novosibirskaya oblast', 13 km W from Karasuk, near Krotovaya Lyaga Lake, 10.VIII 1990 (Dubatolov).

*Cucullia fuchsiana* Ev. - 1 ♂, Tomsk, Timiryazev, 23.VII 1968 (Kolomiets).

*Cucullia mandschuriae* Obth. - 1 ♀, Altaiskii krai, Krasnoshchekovo, 5.VIII 1977 (Bubnova).

*Cucullia fraterna* Btl. - 2 ♀, Barnaul, 16.VI 1923 (Rodd), L. Ronkay det.

*Cucullia amota* Alph. - 1 ♂, Novosibirskaya oblast', 13 km W from Karasuk, 16.VII 1987 (Zolotarenko), L. Ronkay det.

#### Amphipyridae

*Sidemia spilogramma* Rbr. - 1 ♀, Barnaul, 16.VIII 1903 (Rodd); 1 ♂, Biisk, 21.VII 1933.

*Apamea furva* D. et S. - 1 ♀, Tyumenskaya oblast', Nature Reserve Yuganskii, Ugut, 19.VII 1987 (Pereyaslovets); 2 ♀, Novosibirsk, Kudryashevskii pine forest, 19.VII 1962, 28.VII 1972 (Zolotarenko). All specimens were determined by L. Ronkay.

*Apamea altijuga* V. Kozh. - 1 ♂, Altaiskii krai, Zmeinogorsk, 21.VII 1977, L. Ronkay det. Formerly was determined as "*Apamea rubrivena* Tr." (Bubnova, 1980).

*Apamea askoldis* Obth. - 1 ♀, Altaiskii krai, Zmeinogorsk, 21.VII 1977 (Bubnova). It was determined by T.V. Bubnova (1980) as *Apamea ophiogramma* Esp.

*Xylomonía graminea* Graes. - 1 ♂, Kurgan, 20.VI 1984 (Utkin); 1 ♂, Altaiskii krai, Talapkar, 23.VI 1990 (Petrov).

*Hydroecia mongoliensis* Urbahn - 1 ♂, Omsk, 20.VII 1963 (Pushov); 1 ♀, Novosibirskaya oblast', Iskitim district, Nizhnyaya Tal'menka, VII 1973 (Samsonova).

*Amphipoea oculatea* L. It was recorded from Kurgan by N.M. Voskresenskii (1959); nevertheless we consider this record as doubtful, because there are no any specimen of this species among the vast material of Dr. N.A. Utkin and V. Kryukov from the Kurganskaya oblast'.

*Arenostola phragmitidis* Hbn. - 1 ♀, Novosibirskaya oblast', Om' river, near Krashchenskoe, Lis'i Norki, 3.VIII 1987 (Vasilenko).

*Photedes captiuncula* Tr. - 1 ♂, Novosibirskaya oblast', Kargat district, Sherstobitovo, a bog, 7.VIII 1982 (Zintshenko).

*Auchmis mongolica* Stgr. - 1 ♀, Altaiskii krai, Zav'yalovo, 27.VII 1976 (Palkina), L. Ronkay det.

*Hoplodrina blanda* D. et S. was cited from Krasnoshchekovo (Altaiskii Krai). We haven't found the mentioned specimen, but other specimens with same labels in SZMN collection were redetermined as *H. octogenaria* Goeze.

*Paradrina selini* Bsdv. - K. Mikkola kindly let us know that he collected 1 ♀ in Novosibirsk, Akademgorodok, 28.VI 1984.

*Platyperigea terrea* Frr. - Kurganskaya oblast': 2 ♂, 10 km SE from Polovinnoe, Lake Solenoe, 3.IX 1997 (Zintshenko, Barkalov); Novosibirskaya oblast': 3 ♂, 1 ♀, 13 km W from Karasuk, Troitskoe, 13.VIII 1989 (Zolotarenko),

10.VIII 1990 (Dubatolov, Ronkay); 2 ♂, 2 ♀, 25 km W from Karasuk, 11.VIII 1990 (Dubatolov, Ronkay); 4 ♂, 4 ♀, 5 km NW from Kukarka, 54° 15' N, 78° 22' E, 17.VIII 1990 (Dubatolov, Ronkay); 1 ♂, 1 ♀, 5 km NW from Kozhevnikovo, 55° 05' N 78° 12' E, 14.VIII 1990 (Dubatolov, Ronkay); Altaiskii krai: 1 ♂, 1 ♀, Krasnoshchekovo, 8.VIII 1977 (Bubnova). All specimens from the Novosibirskaya oblast' and Altaiskii krai were determined by L. Ronkay.

*Athetis lepigone* **Musch.** - 1 ♂, Novosibirsk, Akademgorodok, 4.VI 1989 (Dubatolov), Kononenko det.

*Amphipyra sergei* **Stgr.** - 1 ♂, Altaiskii krai, Gornyyak, 24.VIII 1989 (Prokopets).

*Enargia abluta* **Hb.** - 1 ♂, 1 ♀, Altaiskii krai, Gornyyak, 4.VIII 1990 (Bubnova).

*Cosmia affinis* **L.** - 1 ♂, Altaiskii krai, Gornyyak, 27.VII 1989 (Bubnova).

*Ipimorpha contusa* **Frr.** - It was collected also in Kemerovo (K. Mikkola, personal communication).

*Eucarta arcta* **Led.** - 2 ♂, Novosibirsk, Akademgorodok, 28.VI 1984 (Dubatolov), L. Ronkay det.

#### **Heliothinae**

*Heliothis viroplaca* **Hfn.** - 1 ♀, Kurganskaya oblast', Ketovo district, Temlyakovo, 23.VI 1988 (Utkin); 1 ♂, Kurgan, 7-8.VI 1999 (Kryukov); 1 ♂, 1 ♀, Novosibirskaya oblast', 13 km W from Karasuk, Krotovaya Lyaga Lake, 28-29.V 1981 (Dubatolov); Altaiskii krai: 1 ♂, Barnaul, 9.VII 1906 (Rodd); 1 ♀, Kaltai pine forest, zaimka of Lavrent'ev, 27.VI 1903 (Rodd). It was recorded as *Heliothis dipsacea* **L.** from Tomsk (Meinhard, 1905), but this record might belong to a sibling species *Heliothis maritima* **Grasl.**

*Heliothis armigera* **Hb.** - 1 ♀, Altaiskii krai, Gornyyak, 16.VII 1989 (Bubnova).

#### **Hadeninae**

*Aetheria cappa* (**Hbn., [1809]**). There are no any modern materials of this species from West Siberia, but we consider this record as reliable, because this is a migrant species.

*Hadena confusa* **Hfn.** - Novosibirskaya oblast': 2 ♂, Novosibirsk, Akademgorodok, 25, 30.VI 1992 (Dubatolov); 1 ♀, Novosibirsk, Ob' power station, 25.VI 1979 (Ustjuzhanin); Tomskaya oblast': 1 ♂, Tomsk, Timiryazev, 23.VI 1970 (Kolomiets).

*Hadena variolata dealbata* **Stgr.** - 2 ♂, Altaiskii krai, Krasnoshchekovo, 30.VI, 7, 15.VII 1977 (Zolotarenko, Bubnova). These specimens were cited by T.V. Bubnova (1980) as *H. confusa* **Hfn.** They were redetermined by L. Ronkay as *H. dealbata*.

*Hadena aberrans* **Ev.** - 1 ♀, Altaiskii krai, Zmeinogorsk, 22.VII 1977 (Bubnova).

*Hadena corrupta* **Herz** - 1 ♀, Altaiskii krai, Zonal'naya, 17.VII 1950, L. Ronkay det.; 1 ♀, Tomsk, Timiryazev, 15.VII 1969 (Kolomiets).

*Hadena filigrana* **Esp.** - 1 ♀, Novosibirskaya oblast', 13 km W from Karasuk, Lake Krotovaya Lyaga, 20.VI 1953 (Zolotarenko), *Hadena consparcata* **Frr.**, Danilevskii det.

*Conisania arida* **Led.** - 1 ♂, Novosibirskaya oblast', Ordynskoe district, Chingisy, 25.VI 1970.

*Polia altaica* **Led.** - 1 ♂, 1 ♀, Altaiskii krai, Krasnoshchekovo, 26.VI 1977 (Bubnova).

*Mythimna atrata* **Remm et Viid.** - 1 ♂, Novosibirskaya oblast', 13 km W from Karasuk, Lake Krotovaya Lyaga, 18.VI 1981 (Nikitina).

*Mythimna opaca* Stgr. - 1 ♂, Novosibirsk, Akademgorodok, 4.VI 1992 (Dubatolov); 2 ♂, Altaiskii krai, 31.V 1976 (Bubnova).

*Mythimna alboradiosa* Ev. - 1 ♂, 1 ♀, Novosibirskaya oblast', 13 km W from Karasuk, Lake Krotovaya Lyaga, 2.VI, 1.VII 1981 (Dubatolov).

*Senta flammea* Curt. - 1 ♀, Novosibirskaya oblast', 15 km W from Karasuk, Lake Krotovaya Lyaga, 1.VI 1981 (Dubatolov).

*Egira conspicillaris* L. - 1 ♂, Kurgan, Uval, 18.V 1990 (Kryukov).

*Coranarta cordigera* Thnb. was recorded by D.F. Portnyagin (1919) from the Ob'-Enisei canal (north-east part of the Tomskaya oblast'). This record needs in clarification because the species was divided by D. Lafontaine et al. (1987b) into two species - *C. cordigera* (Thunb., 1788) which occurs in North Europe east to Transuralian [the easternmost locality is Oktyabr'skoe on the Ob' river (1 ♀, 2.VII 1963, Korshunov leg.)] and *C. carbonaria* (Christ.) which occurs east from the Enisei valley.

#### Noctuidae

*Spaelotis lucens* Btl. - 1 ♀, Altaiskii krai, Gornyak, 27.VII 1989 (Bubnova).

*Xestia staudingeri* Muschl. - 1 ♀, Gydan, Mammoth Peninsula, Matyui-Sale trading post, Salyam-Lakardambda River, 19.VII 1990 (Zhukov).

*Xestia borealis* Nordstr. was recorded for the West Siberian plain only from the northern part of the Kemerovo Province: Tyazhin (Zolotarevko, 1970). The specimen is deposited in SZMN collection.

*Xestia gelida* Sp.-Schr. - 1 ♀, Altaiskii krai, Zmeinogorsk, 22.VII 1977 (Bubnova), "*Xestia gelida sublima* Kozh." Det. V. Kononenko.

*Xestia quieta* Hb. - Yamal: 1 ♂, left bank of the Tanlovayeran river, 26.VII 1968 (Korshunov); 2 ♂, Shchuch'e, 28.VII 1968 (Korshunov); 1 ♀, Khadyta river, 18.VII 1981 (Ol'shvang).

*Xestia thula* Laf. et Konon. - 2 ♀, Gydan, Mammoth Peninsula, Matyui-Sale trading post, Salyam-Lakardambda River, 13, 15.VII 1990 (Zhukov), Det. V. Kononenko.

*Xestia liquidaria* Ev. - 11 ♂, 11 ♀, Gydan, Mammoth Peninsula, Matyui-Sale trading post, Salyam-Lakardambda River, 13-19.VII 1990 (Zhukov); 1 ♂, bank of the Ob' bay, Taumbe-Yakha, 3.VIII 1988 (Zhukov).

*Dichagyris vallesiaca venosa* I. Kozh. - 3 ♂, Barnaul, 22.VII 1902 (Rodd), 23.VII 1965, 4.VIII 1966.

*Euxoa mustelina* Christ. - 2 ♂, Novosibirskaya oblast', 13 km W from Karasuk, Krotovaya Lyaga Lake, 13.VIII 1967, 6.VIII 1969; Altaiskii krai, Krasno-shchekovo, 4.IX 1977 (Bubnova), L. Ronkay det.

#### Acronictinae

*Trichosea ludifica* L. - 1 ♀, Tyumenskaya oblast', near Oktyabr'skoe, 27-29.VI 1963 (Korshunov).

*Acronicta concerpta* Drdt. Recently V.S. Kononenko et al. (1998) found that specimens from the Russian Far East, formerly identified as *A. megacephala* D. et S., differ well from the topotypical ones from the Viena (Austria), as well as from other European ones (Germany, Hungary, Finland, Russian Moskovskaya Oblast') by the harpe length, aedeagus curvature, the vesica shape and cornuti structure. Hence, the Far Eastern and other Siberian specimens (from the Altai, Novosibirsk, Irkutsk, etc.), were attributed by them to *A. concerpta* Drdt. described from China.



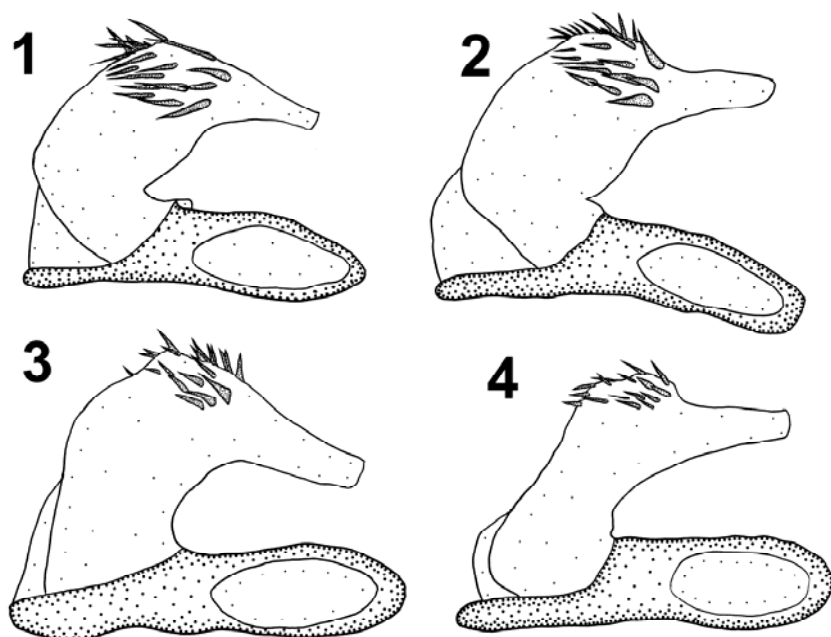


Fig. 1-4. *Acronicta leporina*, aedeagus with everted vesica: 1) *A. l. leporina*, Bryansk vic., Poluzh'e; 2) transitional specimen between *A. l. leporina* and *A. l. vulpina*, Kurganskaya oblast', Temlyakovo; 3) *A. l. vulpina*, Novosibirsk; 4) *A. l. vulpina*, Primorskii krai, Ussuriiskii Reserve.

***Acronicta leporina* L.** - It was separated into two species (Mikkola et al., 1991): *A. leporina* L. from Europe and *A. vulpina* Grote from Siberia (*A. v. leporella* Stgr.) and North America (*A. v. vulpina* Grote). These species differ slightly by fore wing coloration (*A. leporina* specimens are whiter), but most noticeably by the cornuti structure: they are longer, up to 1.2 mm, in the former and shorter in the latter, approximately, 0.5 mm (Fig. 1-4). The westernmost specimens of *A. v. leporella* were determined from the Novosibirskaya oblast'. We studied specimens of *A. leporina* from the Kurganskaya oblast' and found them as transitional (Fig. 2).

***Acronicta strigosa* D. et S.** - It was recorded by T.V. Bubnova (1980) from Zmeinogorsk, Kolyvan and Chineta (Altaiskii krai). Unfortunately, we did not find specimens from Zmeinogorsk, but 1 ♂ and 1 ♀ from Kolyvan (11.VIII 1976, Bubnova leg.) belong, according to L. Ronkay's determination, to *A. adaucta* (Warren, 1909); they do not differ from *A. adaucta* specimens from Russian Far East (Primorskii krai and Kunashir Is.).

***Acronicta lutea* Brem. et Grey** - 1 ♂, Altaiskii krai, Zyat'kovo, 21.VI 1958; 1 ♀, Altai Republic, Ulus-Cherga, 5.VII 1980 (Korshunov).

***Athaumasta siderigera* Christ.** - 2 ♂, Altaiskii krai, Krasnoshchekovo, 29.V, 3.VI 1977 (Bubnova), Zolotarevko det.

*Simyra splendida* Stgr. - 1 ♂, Altaiskii krai, Krasnoshchekovo, 14.VII 1976 (Bubnova).

*Polybrya umovii* Ev. - 1 ♀, Novosibirskaya oblast', Rovenskoe, 27.VI 1974.

#### DOUBTFUL IDENTIFICATIONS AND RECORDS

*Nycteola revayana* Scop. - Upper Ob' basin and Kulunda steppe (Zolotarenko & Tumaikina, 1978); Krasnoshchekovo (Altaiskii krai) (Bubnova, 1980). According to SZMN collections these records belong to *N. degenerana* Hb.

*Catocala elocata* Esp. - It was mentioned from Kurganskaya oblast' (Utkin, 1999), Omsk (Lavrov, 1927), Upper Ob' basin and Kulunda steppe (Zolotarenko, Tumaikina, 1978). All these records are considered as erroneous. We have redetermined several determination of "*C. elocata*" from the Kurgan Pedagogical University collection, all of them belongs to *C. nupta*. We also haven't found any *C. elocata* in materials from Upper Ob' basin, Kulunda steppe and any other territory in West Siberia; according to SZMN materials some *C. puerpera* Giorn. specimens were wrongly determined as *C. elocata* Esp.

*Catocala electa* Bkh. - It was mentioned from the south part of West Siberia [Kulunda steppe] (Zolotarenko, 1959). There are no specimen of this species in SZMN collection from the Kulunda steppe including materials of G.S. Zolotarenko; most probably this is a misidentification of *C. pacta* L.

*Catocala hymenaea* D. et S. - It was mentioned from Slavgorod (Zolotarenko & Tumaikina, 1978). There are no specimen of this species in SZMN collection from West Siberia. The species was cited based on materilas of Z. Tumaikina. Most probably, it was a misidentification of *C. fulminea*, because the larvae of this species were collected and reared on *Padus*. The only another yellow-wing *Catocala*-species in West Siberia is *C. neonympha*; its food plant is *Glycyrrhiza*.

*Lygephila lusoria* L. - It was mentioned from Krasnoshchekovo (Altaiskii krai) (Bubnova, 1980); Tomsk (Meinhard, 1905), Bolschoj Kokuj, Altaiskii krai (Vnukovskii & Ermolajew, 1935). We consider these records as doubtful, because there is no material on this species from West Siberia.

*Diachrysis tutti* Kostr. - It was mentioned from Krasnoshchekovo (Altaiskii krai) (Bubnova, 1980) and Tyumenskaya oblast' (Sviridov & Sitnikov, [1996]). The specific status of this taxon is doubtful. We consider that these records belongs to *Diachrysis chrysitis* L.

*Diachrysis nadeja* Obth. - It was recorded from Ob'-Enisei canal (Portnyagin, 1919). Most probably, this record belongs to *D. chrysitis* L. Nevertheless, this species occurs in South Siberian mountains, including Altai.

*Plusia microgamma* Hbn. - It was mentioned between Tom' and Ob' rivers (Terskov & Kolomiets, 1966). This record, most probably, belongs to *Syngrapha ain* Hochenw. In the vast materials of N.G. Kolomiets from the Tomsk vicinity there are no specimens of *P. microgamma* Hbn., but several specimens of *S. ain* present.

*Polychrysis moneta* F. - It was mentioned from Krasnoshchekovo (Altaiskii krai) (Bubnova, 1980). According to the materials of T. Bubnova from Altai this record belongs to *Polychrysis esmeralda* Obth.

*Syngrapha hohenwarthi* Hochenw. - It was recorded from the Tomsk vicinity (Meinhard, 1905) and the Ob'-Enisei canal (Portnyagin, 1919). We consider these

records as doubtful. Most probably they belong to a well known *S. ain* Hochenw. which was not recorded by both authors.

***Lithophane furcifera* Hfn.** - The record from Kurgan (Voskresenskii, 1959), most probably, belongs to similar species (*L. lambda* F. or *L. consocia* Borkh.).

***Shargacucullia thapsiphaga* Tr.** - It was mentioned from Tatarsk vicinity (Novosibirskaya oblast') (Tschugunov, 1911). We consider this record as doubtful; there are no specimen of this species from West Siberian plain in SZMN collection.

***Phragmatiphila nexa* Hb.** - We consider record from Tomsk (Meinhard, 1905) as doubtful; there are no specimen of this species from West Siberian plain.

***Tarpinostola* sp. (*musculosa* Hb.?)** - It was mentioned from Omsk (Lavroff, 1927). This record is vague.

***Luperina lacunosa* Kozh.** - It was mentioned from Novosibirskaya oblast', Karachi (Vnukovskii, 1926b). According to V.S. Kononenko (pers. comm.) the identity and status of this taxon is unclear.

***Caradrina morosa* Ld.** - The specimens from Krasnoshchekovo, as well as specimens with same determinations by T.V. Bubnova (1980) from North-Western Altai, were redetermined by L. Ronkay as *Platyperigea terrea* Frr.

***Caradrina (Platyperigea) kadenii* Frr.** It was recorded from Baraba as questionable (Tshugunov, 1911). This record is doubtful, because of this species occur in Asia minor, Middle and South Europe only.

***Hoplodrina ambigua* D. et S.** - It was mentioned from Tyumenskaya oblast' (Shchuko, 1916). This record we consider as doubtful, because the author didn't studied the genitalia of this European-Centralasian species.

***Sideridis lampra* (Schaw., 1913).** It was mentioned as *S. evidens* Hb. from Krasnoshchekovo and Zmeinogorsk (Altaiskii krai) (Bubnova, 1980). There are no specimens of this species from West Siberian plain in SZMN collection, where T.V. Bubnova materials are deposited, so we consider this identification as doubtful. This species probably occur here, because it inhabit Altai Mts.

***Xestia kollari* Led.** It was mentioned from Baraba forest-steppe (Zolotarenko, 1970). This record based on 3 ♀ from "Barnaul", 24, 27.VII 1907 (Rodd). Actually, E. Rodd in July, 1907 collected insects in Chemal (Altai). The materials from July, 1907 got to the SZMN collection mostly without locality labels, only with data labels, so some were incorrectly labeled as collected from Barnaul, because in this city E. Rodd collected the main part of his collection.

***Xestia hyperborea* Zett.** It was mentioned from Oktyabr'skoe, Tomskaya oblast' and Taimyr (Zolotarenko, 1970). These materials were redetermined later by G.S. Zolotarenko as *X. albuncula* Zett. Probably, the record from the Ob'-Enisei canal (Portnyagin, 1919) also belongs to this species.

***Chersotis margaritacea* de Vill.** We consider the record from Omsk (Lavroff, 1927) as doubtful; there are no specimens of this species from West Siberian plain in SZMN collection.

***Chersotis rectangula* D. et S.** It was mentioned from Barnaul, Biisk (Kozhantshikov, 1937; Zolotarenko, 1970). According to the male genitalia figure in this work these records belong to *Ch. andereggii* Bsdv.

***Chersotis alpestris* Bsd.** - It was mentioned from Kurgan (Voskresenskii, 1969) and the southern part of the Tyumenskaya oblast' (Shchuko, 1916). We consider this record as doubtful, follow A. Sviridov & P. Sitnikov, (1996).

*Parexarnis fugax* Tr. It was mentioned from Tomskaya oblast', Ob'-Enisei canal, (Portnyagin, 1919). This is an erroneous record, because the species occur only in mountains of Europe and Caucasus.

*Euxoa vitta* Esp. (=vitta Hb.) We consider the record from Tomsk (Meinhard, 1905) as doubtful; there are no specimens of this species from West Siberian plain in SZMN collection.

#### ACKNOWLEDGEMENTS

Authors are grateful to all colleagues who contributed the materials mentioned in this paper, to V.S. Kononenko (Vladivostok, Russia) and to Kauri Mikkola (Helsinki, Finland) for valuable consultations, including the data on current specific and generic names, and for the sending of references. We thank V. Kryukov (Kurgan) for the loan of the material from Kurgan State Pedagogical University collection, and A.L. Lvovsky (St.-Petersburg) for confirmation of some references. We are also grateful to Dr. O.E. Kosterin for the improving of English version of manuscript.

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## SHORT COMMUNICATION

**J. Ch. Paik<sup>1)</sup> & S. Yu. Storozhenko<sup>2)</sup>. TO THE SYNONYMY OF *TETRIX SUBULATA* L. (ORTHOPTERA: TETRIGIDAE). - *Far Eastern Entomologist*. 2000. N 94: 23-24.**

**Ё.Ч. Пак, С.Ю. Стороженко. К синонимии *Tetrix subulata* L. (Orthoptera: Tetrigidae). - *Дальневосточный энтомолог*. 2000. N 94. С. 23-24.**

During examination of Korean Orthoptera of the family Tetrigidae a new synonym is established: *Tetrix subulata* L. = *Formosatettix slivae* Kostia, **syn. n.**

### ***Tetrix subulata* (Linnaeus, 1761)**

*Gryllus subulatus* Linnaeus, 1761: 236 (holotype - ♀, Sweden).

*Tetrix subulata*: Storozhenko et al, 1994: 9, figs 12-22; Liang & Zheng, 1998: 149, fig. 101.

*Formosatettix slivae* Kostia, 1993: 423 (holotype - ♀, North Korea: Ryangang prov., Ohomulong, 1600 m, 7.VIII 1989), **syn. n.**; Kostia, 1995: 264, figs 15-24 (♂, Korea: North Pyongan prov., Myohyang-san Mts., Manpok Valley, 1100 m, 13.VIII 1992).

REMARK. *Formosatettix slivae* Kostia, 1993 was described from North Korea [1]. The female and male [1, 2] of *F. slivae* are quite different from other species of the genus *Formosatettix* Tinkham, 1937 [3, 4] by having of well developed wing pads and by smooth valvae of ovipositor, and similar in this aspects with the last instar larvae of the genus *Tetrix* Latreille, 1802. The description and figures of *F. slivae* well agrees with adult of *Tetrix subulata* [4, 5, 6] except slightly less size of body and its parts, and the shape of anterior pronotal margin. The adult of *Tetrix* species have the straight anterior margin of pronotum while the larvae have triangular one. Moreover, *T. subulata* inhabit high mountains (900-1400 m) in the south part of Russian Far East [7] and *F. slivae* are known from the same elevation (1100-1600 m). Undoubtedly that under the name *F. slivae* the last instar larvae of *T. subulata* was described.

DISTRIBUTION. North and Central Europe, Caucasus, Central Asia, Russia, North Mongolia, North China, North Korea, North America.

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