Lepidoptera of the Kola Peninsula, northwestern Russia[1]

Michail V. Kozlov & Jukka Jalava

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The annotated list of 585 species of Lepidoptera from the Kola Peninsula is the first comprehensive account from the area. It is based on results of a recent 14-years collecting as well as on the old materials collected by Finnish entomologists and on all the data published earlier. For each species, the localities are listed; position of all localities is indicated on the map; species numbers from localities and UTM squares are summarized. Eight species are new for Russia; six species collected along the White Sea coast were never recorded in Northern Fennoscandia. Eight species erroneously reported from the Kola Peninsula are excluded from the list.

Michail V. Kozlov, Laboratory of Ecological Zoology, University of Turku, FIN-20500 Turku, Finland
Jukka Jalava, Finnish Museum of Naturl History, P.O.Box 17, FIN-00014 University of Helsinki, Finland

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1. Introduction

The territory of the Kola Peninsula belongs geographically to Northern Fennoscandia, the Lepidopteran fauna of which is quite well studied. Comprehensive reviews have been published for Finnish Lapland (Krogerus 1972, Koponen et al. 1982, Linnaluoto & Koponen 1980) and for the Finnmark area in Norway (Opheim 1975, 1977, 1978, Aagaard 1979). Compared with these areas, Kola Peninsula has practically been a "white spot", except the old Finnish territory (Petsamo area: Valle 1933, northern parts; Krogerus 1943, southern parts).

Most of the materials collected by Finnish entomologists in central, southern and eastern Kola in the last and at the beginning of this century (see Silfverberg 1988 for history) are deposited in the Zoological Museum in Helsinki (MZH), but hardly any results have been published earlier. However, Tengström (1869, 1873) published some records. Two short lists are known from the Murmansk area (Djakonov 1911, Miller 1915). Some species were reported from Rybatshij peninsula (Kotzsch 1933). Ecology of insect communities in the Chibiny mountains was studied by Fridolin (1935, 1936), but only a few species of Lepidoptera (especially butterflies) were mentioned. In his fauna of the northern parts of Russian Carelia, Peltonen (1947) published a few records from Kouta (our points 62 and 66). Recently fragmentary data have been published in taxonomic (e.g. Nielsen & Johansson 1980), faunistic (Kozlov 1981a, 1983a, b, c, 1984a, 1987, Sinev 1988) and applied (Znamenskaja 1962, Novitskaja 1962, Vershinina 1981, Kozlov 1981b, 1984b) papers. Some records are mentioned in faunistic reviews of different taxonomic groups (e.g., Nordström et al. 1955, 1961, 1969).

[1]Report no. 1 from the research project on the Entomological Bioindicators on Kola Peninsula

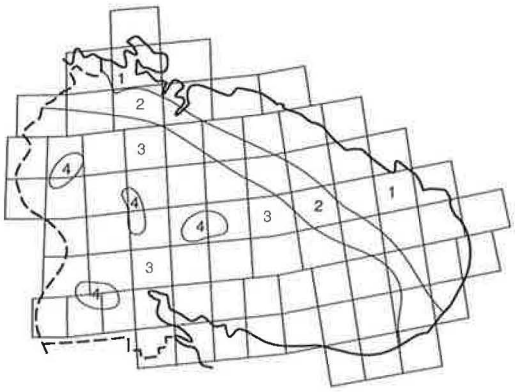

Fig. 1. Zonal types of vegetation on Kola Peninsula (after Gribova et al. 1980): 1 – southern tundra, 2 – birch woodlands, 3 – northern taiga, 4 – mountain tundra.

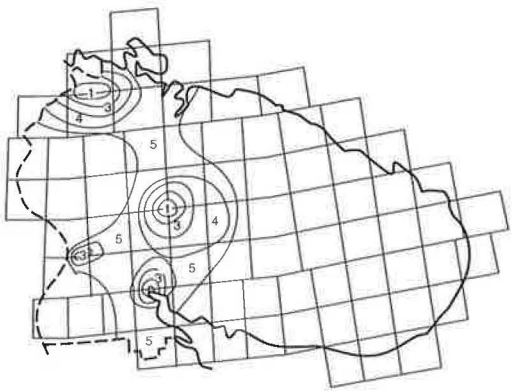

Fig. 2. Pollution zones on Kola Peninsula (after Kryuchkov 1991): 1 – industrial barren, 2 – secondary birch forests, 3 – destroyed coniferous forests, 4 – damaged forests, 5 – initial step of deterioration.

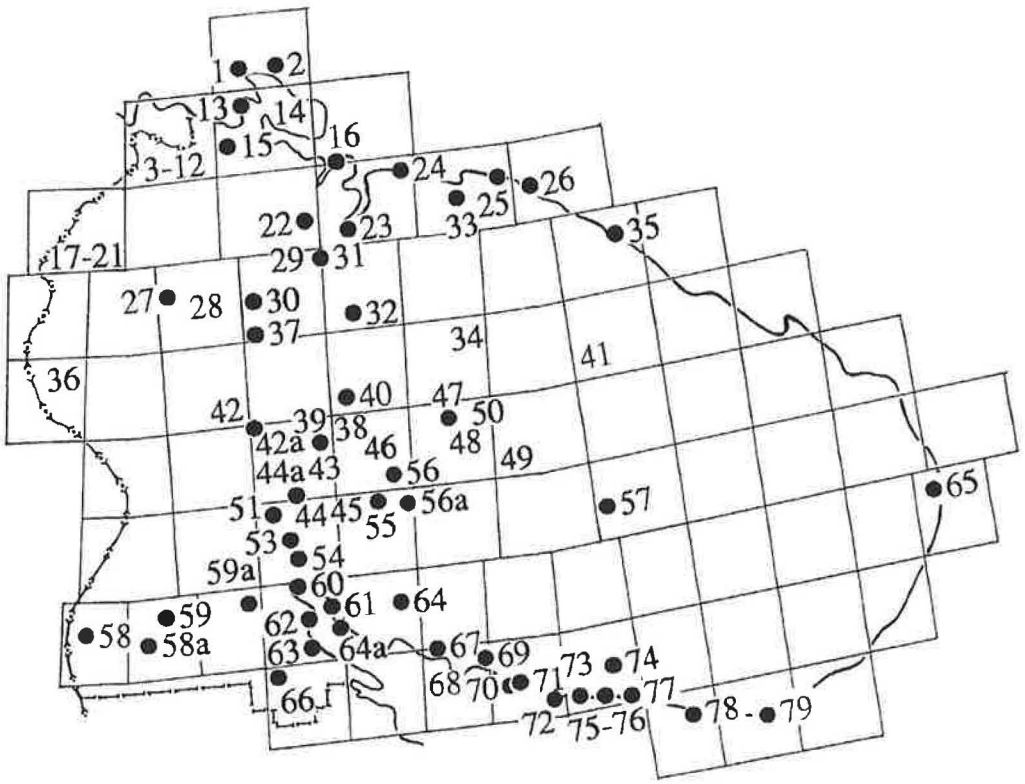

Fig. 3. Position of the localities on the Kola Peninsula (see Table 1 for explanation of numbers): black circles – localized sites; other figures – large sample areas.

Table 1. The collecting localities (numbered for reference to map in Fig. 3), their position within UTM squares and biogeographical provinces, and number of species found.

No	Locality	UTM	Province	Species	No	Locality	UTM	Province	Species
1	Kervanto	VC3	Lps	39	43	St.Petersburg road S of 39[1]	VA4	Lim	205
2	Vaitolahti	VC3	Lps	52	44	Lapland reserve[2]	VA4	Lim	174
3	Trifona	VC2	Lps	45	44a	Tshuna-tundra mt.	VA4	Lim	73
4	Liinahamari	VC2	Lps	56	45	Jokostrov (Ekostroff)	WV1	Lim	35
5	Kuvernöörinkoski	VC2	Lps	65	46	Chibiny mt.	WA2	Lim	163
6	Parkkino	VC2	Lps	71	47	Revda	WA4	Lmur	5
7	Näsykkä	VC2	Lps	1	48	Lovozero mt.(Lujaururt)	WA4	Lmur	135
8	Haukilampi	VC2	Lps	123	49	Marjok	XA2	Lmur	9
9	Salmijärvi	VC2	Lps	148	50	Niemlomjok	WA4	Lmur	7
10	Yläluostari	VC2	Lps	184	51	Upoloksha	VV3	Lim	11
11	Zapolyarny	VC2	Lps	3	52	surr. of Imandra lake	VV3-WA2	Lim	34
12	Petchenga (Petsamo)	VC2	Lps	205	53	Zasheek (Saseika)	VV3	Lim	35
13	Heinäsaaret	VC3	Lps	23	54	Poljarnye Zori	VV3	Lim	3
14	Rybatshij	VC4	Lps	44	55	Apatity	WV1	Lim	165
15	Pummanki	VC4	Lps	103	56	Kirovsk	WA2	Lim	128
16	Eretik	WB1	Lt	2	56a	15 km E Kirovsk	WV1	Lim	45
17	Pasvik (=Patsjoki)	NS3	Lps	31	57	Krasnoschelje	DQ1	Lv	2
18	Nautsi	NS3	Lps	100	58	Kuolajärvi	PQ2	Ks	6
19	Kolttaköngäs	NS3	Lps	27	58a	Vuorijärvi	UV	Ks	81
20	Höyhenjärvi	NS3	Lps	1	59	Alakurtti	UV	Ks	8
21	Pitkäjärvi	NS3	Lps	68	59a	35 km W Kandalaksha	VV2	Lim	27
22	Kilp-javr	VB3	Lt	12	60	Kandalaksha	VV4	Lim	134
23	Murmansk	WB1	Lt	83	61	Luvenga	VV4	Lim	108
24	Kildin	WB1	Lt	1	62	Knjazhaja Guba	VV4	Kk	19
25	Gavrilovo	WB3	Lmur	3	63	Zelenoborskij	VV4	Kk	45
26	Dalnije Zelentsy	DS1	Lmur	3	64	Konosero	WV2	Lim	17
27	Köngäs	NR3	Lps	61	64a	Kolvitsa	VV4	Lim	75
28	Lutto	NR3	Lps	155	65	Ponoj	FQ2	Lp	69
29	Tuloma	VB4	Lt	18	66	Kouta	VU3	Kk	19
30	Verhnetulomskij	VB2	Lt	30	67	Umba	WU3	Lim	89
31	Kola	VB2	Lt	67	68	Turij, 20 km E Umba	WU3	Lim	30
32	Loparskaja	WB2	Lim	7	69	Kusräka	WU3	Lv	22
33	Tumannyi	WB3	Lmur	2	70	45 km E Umba[3]	XU1	Lv	44
34	Voronja r.	WA3	Lmur	42	71	Olenitsa	XU1	Lv	26
35	Kharlovka	DS2	Lmur	3	72	74 km E Umba[3]	XU1	Lv	11
36	Saariselkä	NR3	Lps	42	73	Kashkarantsy	CP1	Lv	105
37	Nuortjärvi	VB2	Lt	36	74	Varzuga	CP1	Lv	2
38	St.Petersburg road N of 39[1]	WA2	Lim	96	75	128 km E Umba[3]	CP1	Lv	33
39	Monchegorsk	VA4	Lim	69	76	132 km E Umba[3]	CP1	Lv	24
40	Olenegorsk	WA1	Lim	17	77	Kuzomen	CP1	Lv	71
41	Tshilozero	DR1	Lmur	1	78	Tshavanga	DP2	Lv	4
42	Njavka	VA4	Lim	1	79	Tetrino	DP4	Lv	3
42a	Monche-tundra mt.	VA4	Lim	50					

[1]Localities 38 and 43 represent lines of sampling sites along two pollution gradients directed N and S of Monchegorsk, along the road St.Petersburg-Murmansk. In the list of species, distance (in kms) from the smelter is added to the locality number after a hyphen. — [2]Central country (Tshuna = Zuna), 40 km SSW Monchegorsk. — [3]Material collected on the White Sea coast, outside of any settlements.

Our goal was to collect all the information available from different sources and to prepare the first list of Lepidoptera of the Kola Peninsula necessary for comparative analysis of Fennoscandian fauna of moths and butterflies as a whole. The second aim of the paper is to create a base for the environmental monitoring programs in polluted areas around different smelters on the Peninsula.

2. Materials and methods

2.1. The study area

The Kola Peninsula is situated in the northwesternmost corner of Russia (from 66 to 70°N and from 28 to 41°E). Following administrative borders, we use the name "Kola Peninsula" as an equivalent of Murmansk region ("Murmanskaya oblast") in Russia, although in a strict geographical sense neither the western nor the southern areas belong to the Peninsula. Thus, the study area was 144900 km². In the west it is bordered by Finland and Norway, in the north by the Arctic Ocean and in the east and south by the White Sea.

An east-west directed watershed through the middle parts of the Peninsula divides the area into two different regions. Southwards of the watershed, coniferous forests (*Picea* and *Pinus*) cover most of the territory. Northern and eastern parts are mostly covered by mountain birch (*Betula tortuosa*) or northern tundra, the eastern parts being mostly tundra (Fig. 1). High fells are situated in the central and western parts. The highest peaks are in the middle of the Peninsula: Chibiny mountains (1190 m), Lovozerskie tundra (1120 m) and Tshuna-tundra (1114 m a.s.l.). These mountain massives are formed of alkaline phosphate minerals and have a very rich alpine flora (Ramenskaja 1983). The altitudinal timber line (formed by *B. tortuosa*) is at about 350–400 m a.s.l. The southern coastal areas have a marine vegetation (e.g. *Aster tripolium* is very abundant) and a marine climate as the White Sea is mostly open during the winter time.

The main sources of aerial pollution are copper-nickel smelters situated in Nikel, Zapolyarny and Monchegorsk; less powerful sources of emission are situated in Murmansk, Olenegorsk, Apatity, Kirovsk, Kovdor and Kandalaksha. As a result, practically all territories situated along the road St. Petersburg–Murmansk (where most of the materials has been collected) belong to polluted zones (Fig. 2). For more details, see Kryuchkov (1993).

2.2. Collections

The main material was collected by M. Kozlov in 1980–1993 and by J. Jalava, A. Lvovsky and L. Svetsova in 1991 and 1992. All the habitats — different types of forests (pine, spruce, mixed and birch), marshes, meadows along the White Sea shore and along the big rivers, subalpine birch forests, mountain tundra, ruderal areas around towns etc. — were investigated. The moths were collected mostly by netting in the day time and evenings; some species were captured during special excursions at evenings and nights (Noctuidae in spruce forests) or early in the morning at dawn (Microlepidoptera). Some records of Nepticulidae are based on mines only. Rearing from larvae was not widely used. About 10 species of leafrollers were collected by pheromone traps "Atracon A" with different types of lure; sugar bait-traps were used for noctuid moths. Collections are mostly deposited in MZH; a part of material collected by M. Kozlov (mostly Tortricidae, Oecophoridae and Geometridae) is kept in the Zoological Institute, St. Petersburg, Russia (ZIN).

All the materials collected by Finnish entomologists (deposited in MZH) were investigated, and the records are included in our list. We have also controlled some determinations in the collections of K. J. Valle (kept in Turku University, Finland) and V. Ju. Fridolin (kept in ZIN). Totally about 15000 specimens were taken into consideration.

Numerous records of "Macrolepidoptera" not supported by original material were extracted from the unpublished data of the late Prof. O. Sotavalta who has collected distribution records from Eastern Fennoscandia for decades. These data are now kept in the Finnish Lepidopterological Society (Helsinki) and will be partly published in the nearest years.

The species are listed below in taxonomic order according to the Finnish check-list (Varis et al. 1987). For each species, localities are given in a numerical sequence. For the species known from one to two localities only, or having a special importance for the discussion, number of specimens and date of collectiing are given. If the date of collecting is established by the time-schedules of the trips of Finnish entomologists (Silfverberg 1988), it is shown within square brackets. Collector name is given only for the specimens having incomplete information on the label (mostly from old Finnish collections).

Within the list of localities, references are used if we have not seen any specimens from the locality, except the most common species where no references are given.

2.3. Place names

We have used locality names from recent Russian maps of Murmansk district. Certain old names have been replaced by new ones, using both the publication (Silfverberg 1988) and direct consultations with Dr. H. Silfverberg. Position in the UTM system was marked following Jalas & Suominen (1972). All the localities are listed in Table 1; their position within Kola Peninsula is shown on Fig. 3. Localities are numbered from NW to SE on the map, following the rows of UTM squares.

Since the material collected in 1993 was added in proof, six localities received additional numbers with a letter.

3. List of species

Micropterigidae

Micropterix aureatella (Scop.). 3, 9, 10, 12, 23, 31, 34, 43–29, 43–15, 44, 46, 48, 53, 55, 56, 58a, 59a, 60, 61, 64a, 67, 73.

Micropterix mansuetella Zell. 43–29: 1 ex 8.7.1991.

Micropterix calthella (L.). 55: 4 exx 30.6.1991. The northernmost record.

Eriocraniidae

Eriocrania sparrmannella (Bosc). 18, 21, 31, 38–14, 43–29, 43–19, 43–14, 44, 46, 55, 56, 60, 61, 73. Mostly reported on the base of mines which are easy to separate from those of other *Eriocrania* species.

Eriocrania salopiella (Stt.). 10: 2 exx 27.5.1979, 1 ex 2.6.1980.

Eriocrania sangii (Wood). 4, 38–14, 43–29, 43–17, 43–3, 44, 46, 55, 56, 60, 61, 73. Mostly reported on the base of mines with grey caterpillars.

Eriocrania semipurpurella (Stph.). 10, 12, 23, 29, 38–8, 39, 40, 43–29, 43–17, 44, 46, 48, 55, 56, 60, 61, 63, 67, 73, 77. Mostly reported on the base of mines.

Hepialidae

Hepialus hecta (L.). 10, 45, 60.

Hepialus fusconebulosus (DeGeer). 5, 9, 12, 15, 17, 46, 56, 61, 71, 73.

Hepialus ganna (Hb.). 9 (Valle 1933), 46 (Fridolin 1936), 50 (Valle 1933), 65: 1 ex [1899] (Montell leg.), 74 (Nordström et al. 1961).

Nepticulidae

Stigmella lapponica (Wck.). 10, 44 (mines on *Betula tortuosa*), 44a, 55.

Stigmella betulicola (Stt.). 44 (mines on *Betula nana*).

Stigmella nylandriella (Tengstr.). 44, 56, 60, 61 (mines on *Sorbus aucuparia*).

Stigmella salicis (Stt.). 39: 13 exx 9.7.1993, 61: 1 ex 25.7.1991.

Stigmella zelleriella (Snell.). 55: 1 ex 17.7.1991 (peat bog).

Stigmella sorbi (Stt.). 12, 23, 38–10, 39, 43–29, 43–17, 43–7, 44, 46, 48, 55, 56, 60, 61, 67, 73, 77.

Stigmella aeneofasciella (H.-S.). 46 (Raswumchorr, 600 m): 2 exx 1.8.1991.

Stigmella dryadella (Hofm.). 46 (Kukis-wum-chorr, 900 m, mines), 48 (Kuftuaj, 700 m): 2 exx 15.7.1991 (flying in the afternoon sunshine).

Ectoedemia weaveri (Stt.). 28: 2 exx [1939] (Platonoff leg.), 44a: 1 ex 15.7.1993.

Ectoedemia occultella (L.). 43–7: 1 ex 8.7.1992, 61: 1 ex 25.7.1991.

Adelidae

Nematopogon pilellus (Den. et Schiff.). 9: 1 ex 3.7.1930, 18: 2 exx 4–12.7.1929, 21: 1 ex 30.6.1928 (*metaxellus* Hb.: Valle 1933), 60: 1 ex [1870] (Sahlberg leg.).

Nematopogon schwarziellus (Z.). 61: 1 ex 28.7.1991, 73: 9 exx 25.6.1985.

Nematopogon magnus (Z.). 27 (Krogerus 1943).

Nematopogon swammerdamellus (L.). 44: 1 ex 19.7.1981.

Nematopogon robertellus (Cl.). 12 (Valle 1933), 44: 6 exx 9–17.7.1981.

Nemophora amurensis (Alph.). 61, 64, 67, 71, 73 (Kyrki 1981a).

Nemophora esmarkella (Wck.). 5, 9, 10, 12, 34, 41 (Kyrki 1981a), 59a.

Adela cuprella (Den. et Schiff.). 31: 1 ex [8–29.6.1887] (Palmén leg.), 38–15: 1 ex 22.6.1993, 58: 1 ex (C. Nyberg leg.).

Cauchas rufimitrella (Scop.). 1: 1 ex [1928] (Hellen leg.). The northernmost record. This southern species is distributed in Finland only up to the province Kb (Kyrki 1978). There exists a small possibility that the specimen is mislabelled.

Cauchas breviantennella Nielsen et Johansson. 65: 1 ex [1899] (Montell leg., paratype, in MZH).

Phylloporia bistrigella (Hw.). 43–7: 1 ex 11.7.1992.

Incurvaria praelatella (Den. et Schiff.). 10, 12, 19, 43–29, 45, 46, 55.

Incurvaria oehlmanniella (Hb.). 8, 9, 10, 12, 28, 44, 44a, 58a, 61.

Incurvaria vetulella (Zett.). 8, 9, 10, 12, 14, 18, 44, 44a, 48, 61, 67, 73. For the differences between this species and *I. circulella* (Zett.) see Laasonen et al. (1981).

Incurvaria circulella (Zett.). 10 (Valle 1933), 28, 44a, 48, 61.

Incurvaria pectinea Hw. 37: 1 ex [1899] (Poppius leg.), 55: 1 ex 12.6.1993.

Alloclemensia mesospilella (H.-S.). 27 (Krogerus 1943), 44: 1 ex 1.7.1981.

Lampronia luzella (Hb.). 28 (Krogerus 1943), 43–29, 44, 55, 58a, 62, 67.
Lampronia rupella (Den. et Schiff.). 8, 10, 12, 17, 43–5, 44, 46, 48, 55, 56, 58a, 65, 67.

Psychidae

Lypusa maurella (Den. et Schiff.). 9, 10 (Valle 1933), 18, 60.
Dahlica lazuri (Cl.). 10, 12, 28, 31, 37, 68, 73.
Taleporia borealis (Wck.). 12 (Valle 1933), 34 (Valle 1933).
Taleporia tubulosa (Retz.). 64a: 2 exx 21.7.1993, 58a: 1 ex 4.7.1993, 70: 1 ex 15.7.1992.
Psyche sp. 43–29. Larval case which can belong to *P. casta* (Pall.) or *P. norvegica* (Schöyen).
Phalacropterix graslinella (Boisd.). 43–16 (larval case).
Sterrhopterix standfussi (Wck.). 5 (*hirsutella*: Valle 1933), 9 (larval case), 10, 31, 39, 43–29 (larval cases), 60 (*hirsutella*: Nordström et al. 1961).

Tineidae

Montescardia tessulatella (Lienig et Z.). 27 (Krogerus 1943), 28, 43–29, 43–23, 58a, 60, 64a, 70.
Myrmecozela ochraceella (Tengstr.). 27 (Krogerus 1943), 38–13: 1 ex 3.7.1991.
Haplotinea insectella (F.). 44: 1 ex 1.8.1980 (synantropic), 46: 1 ex 15.7.1936 (in ZIN).
Nemapogon cloacellus (Hw.). 6, 8, 10, 12, 23, 28, 43–23, 43–20, 44, 46, 48, 55, 61.
Nemapogon clematellus (F.). 44: 1 ex 19.7.1981.
Nemapogon picarellus (Cl.). 8, 27 (Krogerus 1943), 28.
Archinemapogon yildizae Koçak. 12 (Valle 1933), 27 (Krogerus 1943), 28, 43–14, 43–3, 64a.
Triaxomera fulvimitrella (Sodoffsky). 8, 18 (Valle 1933), 43–41, 43–29, 43–14, 45, 56.
Monopis laevigella (Den. et Schiff.). 8, 9, 10, 12, 28, 43–29, 44, 46, 48, 69.
Monopis weaverella (Scott). 4, 21, 28, 43–23, 44, 44a, 61, 64a, 76.
Monopis spilotella (Tengstr.). 8, 9, 10, 15, 18, 27, 28, 43–3, 44a, 65.
Monopis monachella (Hb.). 65: 4 exx [1899] (Montell leg.).
Trichophaga scandinaviella Zag. 1: 1 ex 22.7.1929, 15: 1 ex 7.8.1929. The records of *Trichophaga* from Petsamo area were formerly (Valle 1933) considered to represent the species *T. tapetzella* (L.). Their identity was cleared out by Jalava & Kyrki (1980).
Tineola bisselliella (Hummel). 10: 1 ex 17.5.1980, 39: 2 exx 24.7.1981, 55: 3 exx 31.7.1993 (synantropic).

Gracillariidae

Caloptilia betulicola (M.Hering). 58a: 2 exx 3–6.7.1993, 67: 2 exx 20.6.1985, 73: 1 ex 20.6.1985.
Caloptilia stigmatella (F.). 28 (Krogerus 1943).
Parornix loganella (Stt.). 6, 9, 12, 18, 21, 44, 55.
Parornix anglicella (Stt.). 55: 1 ex 5.7.1991.
Parornix betulae (Stt.). 10, 12, 21, 31, 32, 43–29, 43–15, 43–3, 44.
Parornix scoticella (Stt.). 55, 56, 58a.
Parornix polygrammella (Wck.). 2, 9, 10, 15, 28, 43–29, 44, 46, 48, 55, 60, 73.
Callisto coffeella (Zett.). 12, 15, 31, 36, 42a, 44, 46 (up to 500 m), 55, 60, 73.
Phyllonorycter sorbi (Frey). 48, 56, 61.
Phyllonorycter junoniellus (Z.). 55: 1 ex 18.7.1991, 61: 1 ex 30.6.1989.
Phyllonorycter salicicolellus (Sircom). 55: 2 exx 17.7.1991, 56: 3 exx 12–13.6.1992, 56a: 1 ex 24.6.1993.
Phyllonorycter rolandi (Svensson). 10: 1 ex 15.6.1980, 56: 1 ex 12.6.1992.
Phyllonorycter hilarellus (Zett.). 9, 28, 36, 38–3, 39, 43–29, 43–20, 43–9, 44, 48, 55, 56, 58a, 61.
Phyllonorycter cavellus (Zell.). 55 (new airport): 1 ex 13.6.1993.
Phyllonorycter strigulatellus (Lienig et Z.). 9 (Valle 1933), 10: 1 ex 30.6.1979 & 10 exx 5–15.6.1980, 12 (Valle 1933), 55: 5 exx 13.6.1992.
Phyllonorycter anderidae (Fletcher). 10, 38–15, 43–20, 55, 58a.
Phyllonorycter ulmifoliellus (Hb.). 4, 10, 12, 31, 39, 43–29, 44, 46, 55, 56, 73.
Phyllocnistis labyrinthella (Bjerk.). 55 (airport): mines on natively growing trees of *Populus tremula*, 8.8.1993.

Roesslerstammiidae

Roeslerstammia erxlebella (F.). 55: 1 ex 2.7.1991.

Bucculatricidae

Bucculatrix cristatella Z. 56: 13 exx 13–16.7.1993, 60: 1 ex [1870] (Sahlberg leg.).
Bucculatrix maritima Stt. 61: 18 exx 23–27.7.1991 (very abundant). A sea shore species monophagous on *Aster tripolium*. Distributed on the coasts of Finland northwards to the province PPe (Kyrki 1978). New for Russia; for futher information, see Seksayeva (in press).

Douglasiidae

Tinagma dryadis Stgr. 44a: 1 ex 12.8.1993, 48 (S slope, 700 m): 6 exx 15.7.1991 (common).

Yponomeutidae

Yponomeuta evonymellus (L.). 39, 43–29, 43–20, 43–15, 43–1, 46, (Fridolin 1936), 64a.
Swammerdamia caesiella (Hb.). 8, 9, 12, 18, 29, 38–1, 38–11, 38–15, 43–14, 43–8, 44, 48, 53, 56, 63.
Swammerdamia passerella (Zett.). 13, 18 (Valle 1933), 28, 38–13, 43–14, 56.
Paraswammerdamia lapponica (W.Petersen). 8: 1 ex 8.7.1931, 55 (peat bog, common at dawn in 1991).

Paraswammerdamia conspersella (Tengstr.). 2, 5, 6, 8, 9, 10, 12, 15, 18, 28, 31, 34, 38–11, 42a, 43–29, 43–23, 43–14, 43–8, 43–3, 44, 44a, 46, 55, 62, 65, 73.
Cedestis gysseleniella Z. 62: 1 ex 11.8.1987.
Cedestis subfasciella (Stph.). 55: 1 ex 18.7.1991, 62: 1 ex 11.8.1987.
Ocnerostoma friesei Svensson. 38–15: 1 ex 22.6.1993, 44: 1 ex 22.6.1981.
Atemelia torquatella (Lienig et Z.). 56: 1 ex 12.6.1992.

Argyresthiidae

Argyresthia glabratella Z. 3, 43–29, 43–23, 43–13, 43–3, 44a, 45, 48, 55, 58a, 70, 76.
Argyresthia bergiella Ratz. 43–26: 1 ex 4.7.1987, 44: 2 exx 19–27.7.1981.
Argyresthia abdominalis Z. 44: 1 ex 19.7.1981.
Argyresthia pygmaeella (Den. et Schiff.). 3, 5, 10, 12, 23, 38–15, 38–11, 39, 43–41, 43–9, 43–5, 43–1, 44, 56, 61, 64a.
Argyresthia sorbiella (Tr.). 44, 48, 55, 56, 60, 73.
Argyresthia conjugella Z. 43–29: 1 ex 27.7.1993, 56: 1 ex 3.7.1989 & 3 exx 20.7.1991, 61: 1 ex 25.7.1991.

Plutellidae

Plutella xylostella (L.). 10, 12, 23, 28, 32, 38–14, 39, 40, 42a, 43–29, 43–20, 43–12, 43–7, 43–1, 44, 44a, 46, 48, 53, 55, 56, 58, 58a, 60, 61, 63, 64a, 67, 68, 73, 75, 77.
Rhigognostis senilella (Zett.). 10: 6 exx 12.4–27.5.1980, 46 (500 m): 2 exx 18.7.1985, 48 (700 m): 1 ex 4.7.1986 & 2 exx 15.7.1991.
Rhigognostis kuusamoensis Kyrki. 48 (Seitjaur): 1 ex 6.7.1986, 55: 2 exx 24.5–2.6.1993. So far recorded in Northern Fennoscandia only. For identity and distribution, see Kyrki (1988).

Glyphipterigidae

Glyphipterix haworthana (Stph.). 9, 10, 12, 18, 23, 31, 32, 38–10, 43–29, 43–25, 43–15, 43–5, 44, 55, 59a, 63, 68, 70, 73, 77.

Lyonetiidae

Lyonetia frigidariella H.-S. 37: 1 ex [1899] (Poppius leg.).
Lyonetia ledi Wck. 28 (Krogerus 1943).

Oecophoridae

Semioscopis avellanella (Hb.). 9 (Valle 1933), 10, 29, 48.
Agonopterix heracliana (L.). 46 (Znamenskaja 1962).
Agonopterix broennoeensis (Benander). 46: 1 ex 5.7.1933 (in ZIN).
Pseudatemelia josephinae (Toll). 5, 9, 10, 27 (Krogerus 1943), 36, 38–15, 61, 64a, 67.
Schiffermuelleria similella (Hb.). 3, 5, 10, 12, 27 (Krogerus 1943), 43–41.
Schiffermuelleria stipella (L.). 2, 3, 5, 6, 8, 9, 10, 12, 15, 17, 18, 28, 42a, 43–29, 43–23, 43–3, 44, 44a, 48, 55, 61, 64a, 65, 67, 70, 71, 73, 76, 77.
Endrosis sarcitrella (L.). 1, 2, 11, 31, 55.
Pleurota bicostella (Cl.). 2, 4, 5, 6, 8, 9, 12, 15, 18, 23, 28, 34, 38–15, 38–11, 39, 40, 43–29, 43–17, 43–16, 43–14, 43–8, 43–3, 44, 44a, 46 (up to 600 m), 48, 55, 56, 58a, 60, 61, 64a, 65, 67, 68, 70, 71, 73, 76, 77,

Elachistidae

Elachista kilmunella Stt. 38–14, 38–16, 39, 43–20, 43–5, 44, 55.
Elachista leifi Kaila et Kerppola. 43–5: 5 exx 15.7.1991 (marsh), 55: 10 exx 12–18.7.1991 (marsh, flying at dawn). This recently described species (Kaila & Kerppola 1992) is so far recorded only from Northern Finland (Kuusamo) and Kola Peninsula.
Elachista parasella Traugott-Olsen. 44a: 1 ex 19.7.1993, 48 (S slope, 700 m): 1 ex 15.7.1991.
Elachista alpinella Stt. 55: 1 ex 27.7.1991 (marsh).
Elachista diederichsiella E.Hering. 77: 3 exx 17.7.1992.
Elachista nobilella Z. 43–14: 1 ex 28.6.1991.
Elachista apicipunctella Stt. 55, 56, 58a, 73, 77.
Elachista nielswolffi Svensson. 10: 1 ex 20.7.1979, 43–20: 1 ex 22.7.1992.
Elachista humilis Z. 55: 1 ex 18.7.1991, 58: 1 ex 3–4.7.1993.
Elachista canapennella (Hb.). 21 (*incanella*: Valle 1933), 48 (Seitjaur): 1 ex [25.7.1887] (Palmén leg.).
Elachista monosemiella Rössler [=*cerusella* (Hb.)]. 61 (White Sea coast): 5 exx 5–7.7.1988, 6 exx 25–28.7.1991, 70: 2 exx 15.7.1992. A maritime species; the nearest records are from the southern coast of Finland. Elsewhere distributed widely in Central and NW Europe, Russia and Asia Minor (Traugott-Olsen & Schmidt Nielsen 1977). Species name replaced by Kaila (1992).
Elachista subalbidella Schl. 60: 1 ex [1870] (Sahlberg leg.).
Biselachista eleochariella (Stt.). 55: 1 ex 18.7.1991.
Biselachista albidella (Nylander). 43–9: 1 ex 20.7.1993, 55: 1 ex 18.7.1991.
Cosmiotes exactella (H.-S.). 10, 37, 38–15, 43–1, 48 (Kuftuai, 700 m), 58.
Cosmiotes freyerella (Hb.). 39, 43–29, 43–20, 55, 58a, 70.

Coleophoridae

Coleophora uliginosella Glitz. 55: 1 ex 17.7.1991 (marsh).
Coleophora serratella (L.). 46, 48 (larval cases on *Betula tortuosa*), 55, 64a.
Coleophora betulaenanae Klim. 44, 46, 48 (larval cases on *Betula nana* and *B. tortuosa*). The status of the

species is uncertain; it might be conspecific with *C. vacciniella* H.-S.

Coleophora viminetella Z. 43–3, 61, 64a, 67.

Coleophora unigenella Svensson. 48: 1 ex 15.7.1991. This recently described species (Svensson 1966) has so far only been recorded from northern Sweden, the Kilpisjärvi area in Finland (Jalava 1977) and Central Norway (Opheim & Fjeldså 1980). Larva mines the leaves of *Dryas octopetala* (Kyrki & Karvonen 1984). New for Russia.

Coleophora idaeella Hofm. 9 (Valle 1933), 10, 27 (Krogerus 1943), 43–29, 43–15.

Coleophora vacciniella H.-S. 10 (Sinev 1988), 27 (Krogerus 1943), 28, 38–11, 43–29, 43–15, 44a, 48, 65.

Coleophora ledi Stt. 38–15, 43–15, 43–9, 43–5, 44 (larval case on *Ledum palustre*), 55.

Coleophora vitisella Gregson. 17 (Valle 1933), 27 (Krogerus 1943).

Coleophora glitzella Hofm. 15 (Valle 1933), 28, 42a, 43–15, 44a, 48, 64a, 65.

Coleophora murinella Tengstr. 27 (Krogerus 1943), 28, 43–29, 43–23, 43–20, 43–15, 44a, 48, 55.

Coleophora thulea Johansson. 34: 1 ex [12–16.7.1887] (Palmén leg.), 61: 1 ex 28.7.1991. The species is described from Swedish Lapland (Johansson 1967) and has so far been recorded only from northern parts of Finland, Norway and Sweden (Gustafsson et al. 1987) and from the Kola Peninsula (Kyrki 1981b). Larva feeds on *Rubus chamaemorus* (Kyrki op. cit.).

Coleophora obscuripalpella Kanerva. 28 (Krogerus 1943), 60: 1 ex [1870] (Sahlberg leg., paratype).

Coleophora frischella (L.). 48, 55, 56, 61, 64a, 77.

Coleophora antennariella H.-S. 59a: 1 ex 3.7.1993. In Finland northwards to province PPe (Kyrki 1978).

Coleophora adjunctella Hodgkinson. 61, 67 (common on sea shore meadows).

Coleophora glaucicolella Wood. 38–16: 1 ex 27.7.1991, 55: 3 exx 30.6–17.7.1991.

Coleophora murinipennella (Dup.). 58a: 1 ex 4.7.1993, 60: 1 ex [1870] (Sahlberg leg.).

Coleophora alticolella Z. 44a, 55, 61, 67, 70, 73.

Coleophora virgaureae Stt. 6, 9 (Valle 1933), 10, 15, 28, 43–15, 44, 46 (600 m), 48 (850 m), 55, 56, 61, 70.

Coleophora boreella (Ben.). 64a: 1 ex 4.7.1993. So far known only from Finland, Sweden and Norway, where it has been recorded from scattered localities throughout the whole area; seems to prefer coastal areas. In MZH, most of the material is from the southern province Al from sea shore meadows. New for Russia.

Coleophora saxicolella (Duponchel). 9 (Valle 1933), 75: 2 ex 15.7.1992.

Coleophora atriplicis Meyr. 60: 1 ex [1870] (Sahlberg leg.).

Coleophora pappiferella Hofm. 28: 1 ex [1899] (Poppius leg.), 55: 1 ex 5.7.1991.

Coleophora trochilella (Dup.). 55: 1 ex 17.7.1991.

Coleophora striatipennella Nylander. 55: 2 exx 30.6–13.7.1991, 56: 1 ex 19.7.1991, 58a: 1 ex 4.7.1993.

Coleophora paripennella Z. 10: 1 ex 10.7.1938.

Momphidae

Mompha locupletella (Den. et Schiff.). 9, 10, 12, 55.

Mompha raschkiella (Z.). 39, 53, 56, 58a, 73.

Mompha complexa Svensson. 10: 11 exx 8–25.6.1980.

Mompha idaei (Z.). 10, 12, 14, 27 (Krogerus 1943), 39, 43–7, 43–3, 43–1, 44, 45, 56, 60, 64a, 67, 70, 71.

Mompha conturbatella (Hb.). 10, 12, 43–15, 43–1, 44, 55, 56.

Mompha lacteella (Stph.). 44, 55, 56, 61.

Scythrididae

Scythris obscurella (Scop.). 60: 1 ex [17.7.1870] (Sahlberg leg.), 72: 1 ex 15.7.1992.

Scythris fuscopterella Bengtsson. 39: 1 ex 22.7.1992, 72: 7 exx 15.7.1992. Recently described from northern Sweden (Bengtsson 1977). Additionally it has been recorded only from northern Finland (e.g. Laasonen 1980). Bengtsson (pers. comm.) has found it also in a material collected by K.Mikkola in the Chukchi Peninsula. Biology unknown; in the locality 72 moths were collected on the flowers of *Leucanthemum vulgare*. New for Russia.

Gelechiidae

Teleiodes paripunctella (Thnbg.). 55, 56, 67, 73.

Teleiodes proximella (Hb.). Lapponia Rossica 1 ex [1829] (Fellman leg.), 55.

Teleiodes epomidella (Tengstr.). 21 (Valle 1933), 27 (Krogerus 1943), 38.

Teleiopsis diffinis (Hw.). 10, 12, 44, 60.

Athrips pruinosellus (Lienig et Z.). 9, 18, 21, 55, 56, 67.

Bryotropha similis (Stt.). 61: 1 ex 25.7.1991, 70: 7 exx 15.7.1992.

Bryotropha boreella (Dougl.). 55 (peat bog, common at dawn in 1991), 56: 1 ex 10.7.1991.

Bryotropha galbanella (Z.). 12, 15, 27 (Krogerus 1943), 44, 60, 65.

Bryotropha terrella (Den. et Schiff.). 60: 1 ex [1870] (Sahlberg leg.).

Bryotropha plantariella (Tengstr.). 62: 1 ex 11.8.1987.

Chionodes viduella (F.). 1, 4, 5, 6, 9, 10, 12, 15, 17, 18, 21, 23, 27, 28, 31, 38–15, 43–17, 43–8, 44, 44a, 52, 53, 60, 67, 73.

Chionodes lugubrella (F.). 12, 21, 27 (Krogerus 1943), 28, 36, 38–15, 39, 43–29, 43–20, 45, 53, 59a, 67.

Chionodes nubilella (Zett.). 10, 12, 14, 21, 27 (Krogerus 1943), 48 (S slope, 700 m), 65. The specimens from the locality 65 have light grey forewings due to a mixture of white and dark scales.

Chionodes continuella (Z.). 3, 4, 6, 8, 9, 10, 12, 15, 18, 21, 28, 42a, 44a, 46, 48 (850 m), 56, 60, 65.

Chionodes luctuella (Hb.). 43–29: 1 ex 2.8.1993, 43–20: 3 exx 8–22.7.1992 & 1 ex 25.7.1993, 56a: 1 ex 24.7.1993.

Lita sexpunctella (F.). 9, 12, 17, 18, 23, 28, 29, 31, 37, 38–14, 39, 43–29, 44, 46, 48, 58a, 63, 65, 67, 68, 73.

Aroga velocella (Z.). 60: 1 ex [1870] (Sahlberg leg.), 67: 1 ex 7.7.1987.

Neofaculta infernella (H.-S.). 5, 6, 8, 9, 10, 12, 15, 18, 21, 23, 28, 31, 38–15, 38–11, 39, 43–29, 43–20, 43–16, 43–7, 43–1, 44 (up to 700 m), 46, 48, 53, 55, 56, 56a, 60, 65, 67, 73.

Neofaculta ericetella (Geyer). 28 (Krogerus 1943) (common).

Altenia perspersella (Wck.). 15 (Valle 1933), 18, 28 (Krogerus 1943), 38–11, 39, 42a, 43–29, 43–15, 44 (500 m), 44a, 55, 67.

Gnorimoschema valesiellum (Stgr.). 8 (Valle 1933), 28: 2 exx [1899] (Poppius leg.).

Gnorimoschema nordlandicolellum Strand. 64a: 2 exx 21.7.1993. Distributed in Finland northwards to the province Kb (Kyrki 1978), in Russia recorded from Novgorod (Piskunov 1981). Lives on sandy meadows, even without *Thymus* (Jalava, unpubl.).

Scrobipalpula psilella (H.-S.). 68: 1 ex 21.6.1985.

Scrobipalpa acuminatella (Sircom). 55: 4 exx 30.6–13.7.1991, 60: 1 ex 2.7.[1870] (Sahlberg leg.).

Scrobipalpa murinella (Dup.). 44a, 48, 55, 56, 68, 73.

Scrobipalpa obsoletella (F.R.). 73 (White Sea shore): 8 exx 25.6.1985.

Scrobipalpa atriplicella (F.R.). 75: 3 exx 15.7.1992.

Sophronia gelidella Nordman. 46 (Kukis-wum-chorr, 900 m): 1 ex 18.7.1986, 56: 1 ex 18.7.1986. This alpine species is so far recorded in northern Sweden, Norway and province Le (Kilpisjärvi, the type locality) in Finland (Gustafsson 1987, Kyrki 1978) and from SW Altai (Exp. Mikkola, Hippa & Jalava, in ZMH). New for Russia.

Aproaerema anthyllidella (Hb.). 44a (600 m, tundra): 1 ex 14.7.1993.

Aproaerema karvoneni Hackman. 61: 1 ex 30.6.1989, 68: 1 ex 21.6.1985. In Finland distributed northwards to the province Li (Kyrki 1978). In Sweden it is known from 13 provinces from Närke to Lule Lappmark. In Norway it is only recorded from the central part of the country. Larva on Fabaceae (Itämies & Kyrki 1983). New for Russia.

Acompsia subpunctella Svensson. 70: 1 ex 15.7.1992, 75: 1 ex 15.7.1992. Recently (Svensson 1966) described from Northern Sweden; it has been recorded from Finland (northern parts and south coast), Latvia (Piskunov 1981), Southern Siberia: SW-Altai (Exp. Mikkola, Hippa & Jalava, in ZMH). Larva feeds on *Veronica longifolia* (H. Bruun, pers. comm.). New for Russia.

Cossidae

Cossus cossus L. 27 (Krogerus 1943).

Tortricidae

Pandemis cerasana (Hb.). 61: 3 exx 7.7.1988.

Argyrotaenia ljungiana (Thnbg.). 28 (Krogerus 1943), 36 (Krogerus 1943), 46 (pheromone traps, 1984).

Choristoneura albaniana (Walker) [= *lapponana* (Tengstr.)]. 1, 5, 8, 9, 10, 12, 14, 18, 21, 36, 38–8, 38–16, 39, 42a, 43–29, 43–23, 43–20, 43–14, 43–12, 43–3, 44, 44a, 53, 60, 63, 64, 65, 67, 73. Seems to fly only in odd years. Synonymy established by Dang (1992).

Syndemis musculana (Hb.). 38–15, 38–11, 43–15, 43–41, 46, 55, 58a, 60, 61, 63, 67.

Aphelia viburnana (Den. et Schiff.). 1, 2, 4, 6, 8, 10, 12, 14, 15, 26, 27, 38–16, 42a, 43–29, 44a, 46, 48, 52, 55, 60, 65, 67, 76.

Clepsis senecionana (Hb.). 38–15, 38–11, 39, 40, 42a, 43–29, 43–23, 43–20, 43–15, 44, 46, 48, 53, 55, 56, 56a, 58a, 59a, 60, 63, 64a, 67, 73, 77.

Clepsis rogana (Gn.). Lapland 1 ex [no date, coll. Tengström], 34: 2 exx [29.7–9.8.1887] (Palmén leg.), 65: 6 exx [1899] (Montell leg.), 72: 3 exx 15.7.1992, 73: 4 exx 18.7.1992, 75: 9 exx 15.7.1992, 76: 1 ex 15.7.1992, 77: 2 exx 17.7.1992. This species has not been recorded from Fennoscandia before, but it is widespread from Komi region (northern Ural) through Siberia to the Pacific coast, and in most of the mountain systems of Central Europe (Kuznetsov 1978). The polyphagous larva is reported from *Vaccinium myrtillus* and many marsh plants (e.g. *Veratrum*, *Luzula*) (op. cit.).

Lozotaenia forsterana (F.). 3, 4, 6, 8, 9, 10, 12, 18, 21, 23, 28, 31, 38–13, 43–29, 43–23, 43–14, 43–8, 44, 44a, 48, 52, 55, 56, 56a, 59a, 61, 64, 64a, 69, 73.

Philedone gerningana (Den. et Schiff.). 43–29: 1 ex 28.7.1992, 73: 2 exx 18.7.1992.

Eulia ministrana (L.). 3, 5, 6, 9, 10, 12, 15, 21, 23, 28, 31, 34, 38–5, 38–8, 38–11, 38–15, 39, 42a, 43–29, 43–23, 43–20, 43–17, 43–14, 43–7, 43–3, 44, 44a, 45, 46, 48, 55, 56, 58a, 59a, 60, 61, 63, 64a, 65, 67, 71, 77.

Eana osseana (Scop.). 1, 2, 3, 5, 6, 8, 10, 12, 13, 14, 15, 19, 34, 39, 43–29, 43–25, 43–20, 44, 46, 49, 55, 56, 60, 61, 65.

Eana argentana (Cl.). Lapponia Rossica [1870] (Tengström, unpubl.; no later confirmation).

Eana penziana (Thnbg.). 73: 1 ex 18.7.1992.

Acleris comariana (Lienig et Z.). 56: 1 ex 19.8.1984. A single specimen collected in Finnish Lapland from the province Li (Koponen et al. 1982).

Acleris implexana ferrumixtana (Benander). 17: 1 ex [1899] (Poppius leg.), 18: 3 exx 18.6.1929, 31: 1 ex [8–29.6. 1887] (Palmén leg.), 62 (sec. Peltonen 1947).

Acleris aspersana (Hb.). 10: 1 ex 27.8.1979.

Acleris fimbriana (Thnbg.). 46 (Fridolin 1936), 52: 1 ex [9–12.8.1861] (Inberg leg.).

Acleris maccana (Tr.). 10, 28, 37.

Trachysmia vulneratana (Zett.). 15: 1 ex 15.7.1931, 55: 1 ex 18.7.1991.

Eupoecilia sanguisorbana (H.-S.). 55: 20 exx 17–18.7.1991 (on a *Sanguisorba* growing marsh), 60: 2 exx 17–30.7.[1870], 75: 1 ex 15.7.1992. The species was not recorded from northern Fennoscandia before, it has been reported from southern Sweden (the island of Gotland) and from southern Norway. Widely distributed in Central Europe (Razowski 1970). The larva feeds in the seed heads of *Sanguisorba officinalis*,

which has a disjunct distribution in northwestern Europe: Kola Peninsula, Gotland and southern Norway (Hultén 1971).

Aethes cnicana (Westw.). 70, 75, 76.

Aethes deutschiana (Zett.). 1, 2, 3, 5, 8, 9, 10, 12, 14, 15, 36, 42a, 43–29, 44, 44a, 46 (up to Kukis-wum-chorr, 900 m), 48 (up to mountain tundra), 55, 65, 67.

Aethes triangulana (Tr.). 58a: 3 exx 4–6.7.1993, 73: 8 exx 25.6.1985, 77: 1 ex 17.7.1992.

Aethes smeathmanniana (F.). 23, 29, 39, 55, 56, 58a, 64a, 70, 73, 75, 77.

Aethes rutilana (Hb.). 70: 1 ex 15.7.1992.

Cochylidia subroseana (Hw.). 55, 56, 58a, 67, 70.

Cochylis dubitana (Hb.). 8, 9, 10, 12, 21, 23, 31, 42a, 43–23, 44 (up to 700 m), 46, 48, 55, 56, 60, 67.

Sparganothis rubicundana (H.-S.). 2, 3, 4, 5, 6, 8, 9, 10, 12, 15, 21, 28, 34, 38–15, 38–11, 39, 42a, 43–41, 43–20, 43–16, 43–7, 44, 44a, 46, 48, 55, 56, 56a, 60, 61.

Sparganothis abiskoana (Car.). 28 (Krogerus 1943), 46: 2 exx 22–26.7.1926 (in ZIN) & 1 ex 31.7.1993, 48: 2 exx 11.7.1986 & 1 ex 15.7.1991.

Celypha cespitana (Hb.). 12 (Menikkajoki) (Valle 1933), 44: 1 ex 30.7.1981.

Olethreutes ledianus (L.). 6, 8, 9, 10, 12, 18, 21, 28, 34, 38–13, 42a, 43–41, 43–29, 43–18, 43–14, 43–8, 44, 44a, 48, 53, 55, 60, 64a.

Olethreutes obsoletanus (Zett.). 1, 2, 5, 8, 9, 10, 12, 13, 15, 17, 21, 25, 27, 28, 34, 38–15, 43–29, 44 (up to 800 m), 44a, 45, 46 (up to 600 m), 48, 51, 55, 56a, 60, 61, 65, 67, 69, 71.

Olethreutes dissolutanus (Stange). 27 (Krogerus 1943), 46, 61.

Olethreutes mygindianus (Den. et Schiff.). 28 (Krogerus 1943), 38–15, 38–11, 43–29, 43–20, 43–14, 43–12, 43–8, 43–3, 67.

Olethreutes arbutellus (L.). 43–15, 43–9, 44, 44a, 52, 73, 77.

Olethreutes aquilonanus (Karvonen). 42a: 3 exx 12–18.7.1993, 48 (Ninchurt, 900 m): 1 ex 9.7.1986.

Olethreutes noricanus (H.-S.). 12 (Nurmensätti): 1 ex 15.6.1937, 42a: 1 ex 12.7.1993, 46 (Kukis-wum-chorr, 900 m): 2 exx 14–18.7.1986 & (Loparskij, 600 m): 1 ex 27.7.1991, 48: 1 ex 15.7.1991. The easternmost records of this species, which is distributed in the Scandinavian mountains and the Alps.

Olethreutes lacunanus (Den. et Schiff.). 1, 2, 3, 6, 8, 9, 10, 12, 13, 14, 15, 18, 28, 36, 38–15, 46, 48, 55, 56, 58a, 60, 61, 62, 64a, 65, 67, 69, 70, 75, 77.

Olethreutes bipunctanus (F.). 1, 2, 3, 5, 6, 8, 9, 10, 12, 15, 18, 21, 28, 34, 38–15, 43–29, 43–14, 44 (up to 800 m), 44a, 46 (up to Kukis-wum-chorr, 900 m), 60, 61, 64a, 67, 70, 73.

Olethreutes hyperboreanus (Karvonen). 8, 12, 15, 23, 27, 28, 43–41, 44a, 46, 48.

Olethreutes olivanus (Tr.). 44, 48, 55.

Olethreutes palustranus (Lienig et Z.). 3, 4, 8, 10, 12, 15, 51, 56a, 60, 69, 76.

Olethreutes metallicanus (Hb.). 5, 9, 12, 17, 21, 28, 64, 65, 67, 69, 76.

Olethreutes schulzianus (F.). 1, 2, 3, 5, 6, 8, 9, 10, 12, 15, 18, 21, 23, 28, 31, 34, 38–15, 38–11, 39, 42a, 43–29, 43–23, 43–20, 43–16, 43–14, 43–7, 44, 44a, 46 (up to Kukis-wum-chorr, 900 m), 48, 51, 53, 55, 56, 56a, 58a, 60, 61, 64a, 65, 67, 69, 71, 76, 77.

Olethreutes schaefferanus (H.-S.). 2, 3, 6, 8, 10, 12, 13, 15, 18, 21, 23, 34, 43–9, 44, 44a, 46 (up to Kukis-wum-chorr, 900 m), 48, 60, 65.

Olethreutes turfosanus (H.-S.). 4, 5, 6, 8, 9, 12, 28, 38–15, 38–11, 42a, 43–29, 43–20, 43–15, 44, 44a, 46 (Kukis-wum-chorr, 900 m), 48 (subalpine birch forest), 52, 58a, 60, 63, 73.

Olethreutes concretanus (Wck.). 9, 15, 18, 42a, 43–20, 44, 44a, 46, 48.

Olethreutes rivulanus (Scop.). 9, 18, 21 (Valle 1933), 43–15, 43–9, 43–3.

Pseudohermenias abietana (F.). 48 (forest zone): 1 ex 6.7.1986, 58a: 1 ex 4.7.1993.

Hedya atropunctana (Zett.). 12, 18, 28, 38–8, 38–13, 39, 43–20, 43–16, 43–7, 44, 53, 61, 64a, 68, 73, 77.

Hedya roseomaculana (H.-S.). 1, 9, 43–29, 43–23, 43–20.

Orthotaenia undulana (Den. et Schiff.). 17, 28, 38–16, 43–29, 43–20, 44, 45, 46, 55, 56, 56a, 61, 64a.

Apotomis infida (Hein.). 5, 9, 43–3, 61, 64a.

Apotomis moestana (Wck.). 3, 6, 9, 10, 12, 18, 21, 28, 37, 39, 55.

Apotomis boreana Krogerus. 8, 12, 15, 18, 28, 38–2, 38–13, 39, 42a, 43–23, 43–14, 43–12, 43–7, 43–3, 44 (up to 650 m), 44a, 52, 56, 64a, 73.

Apotomis sororculana (Zett.). 8, 9, 10, 12, 15, 23, 28, 34, 36, 39, 43–41, 43–17, 43–12, 46, 60, 73.

Apotomis lemniscatana (Kenn.). 10, 12, 14, 34, 38–15, 42a, 44a, 77.

Apotomis algidana Krogerus. 9, 18, 38–16, 38–3, 39, 43–41, 43–9, 43–5, 44a, 46, 53.

Apotomis sauciana (Frön.). 1, 2, 3, 4, 8, 9, 12, 15, 18, 38–3, 38–10, 39, 40, 42a, 43–29, 43–25, 43–20, 43–15, 43–5, 44, 44a, 45, 46, 48, 53, 56a, 64a.

Apotomis demissana (Kenn.). 1, 2, 4, 8, 10, 12, 15.

Endothenia marginana (Haw.). 55: 5 exx 17–18.7.1991, 61: 1 ex 30.6.1989 & 1 ex 25.7.1991.

Bactra lancealana (Hb.). 27 (Krogerus 1943), 46, 55, 60, 61, 64a, 65, 70.

Ancylis laetana (F.). 67: 1 ex [1885] (Edgren leg.).

Ancylis comptana (Frön.). 9, 18, 21, 27, 28, 37, 38–16, 43–15, 59a, 60, 65, 66, 73.

Ancylis uncella (Den. et Schiff.). 9, 10, 12, 18, 23, 28, 31, 38–13, 38–14, 39, 43–29, 43–25, 43–19, 43–12, 43–3, 44, 46, 48, 53, 56, 56a, 58a, 59a, 61, 63, 67, 73, 77.

Ancylis unguicella (L.). 6, 8, 9, 10, 12, 15, 18, 21, 23, 28, 29, 31, 32, 37, 38–20, 38–11, 39, 40, 42a, 43–29, 43–20, 43–15, 43–8, 44, 44a, 51, 53, 55, 56, 56a, 58a, 60, 63, 64, 64a, 65, 66, 67, 68, 69, 73, 77.

Ancylis geminana (Don.). 12, 55, 65, 67, 73, 77.

Ancylis subarcuana (Douglas). 12 (Valle 1933), 18, 37, 43–14, 53, 55, 58a, 64a, 65, 67, 68, 73.

Ancylis badiana (Den. et Schiff.). 55, 56, 58a, 61, 64a, 67, 70, 73, 77.

Ancylis tineana (Hb.). 56: 1 ex 13.7.1991, 73: 2 exx 25.7.1985.

Ancylis myrtillana (Tr.). 2, 4, 5, 6, 8, 9, 10, 12, 17, 18, 21, 23, 28, 29, 31, 38–15, 38–3, 39, 40, 42a, 43–29, 43–25, 43–23, 43–20, 43–12, 43–3, 44, 44a, 46 (up to Kukis-wum-chorr, 800 m), 48 (up to 900 m), 51, 52, 53, 55, 56, 56a, 58a, 59, 60, 61, 63, 64a, 65, 67, 68, 70, 71, 73, 75, 77.

Epinotia trigonella (L.). 11: 1 ex 15.8.1979.

Epinotia indecorana (Zett.). 18 (Valle 1933).

Epinotia subocellana (Don.). 27 (Krogerus 1943), 43–20, 55, 64a, 73, 75, 77.

Epinotia tetraquetrana (Hw.). 3, 5, 6, 8, 9, 10, 12, 15, 18, 21, 23, 29, 32, 38–14, 38–3, 39, 40, 42a, 43–29, 43–25, 43–16, 43–14, 43–8, 44, 44a, 46, 48, 53, 55, 56, 58a, 60, 64a, 67, 68, 70, 73, 75, 77.

Epinotia nemorivaga (Tengstr.). 42a: 2 exx 18–23.7.1993, 43–9: 1 ex 11.7.1993, 44a: 7 exx 15–19.7.1993, 48: 2 exx 14.7.1991.

Epinotia tedella (Cl.). 38–15, 44, 46, 55, 61, 64, 67, 73, 75.

Epinotia cruciana (L.). 2, 5, 6, 8, 9, 10, 12, 13, 15, 18, 19, 23, 28, 31, 32, 38–11, 39, 43–12, 43–2, 44, 46, 55, 56, 60, 64a, 77.

Epinotia mercuriana (Fröl.). 15, 19, 24, 44.

Epinotia gimmerthaliana (Lienig et Z.). 23 (Djakonov 1911), 60: 1 ex 19.7.1986.

Epinotia nanana (Tr.). 38–14, 39, 42a, 43–29, 43–20, 43–17, 44 (up to 600 m), 46, 48 (up to subalpine birch forest), 55, 56, 56a, 60, 61.

Epinotia crenana (Hb.). 10: 1 ex 25.5.1980.

Rhopobota ustomaculana (Curt.). 61: 2 exx 25.7.1991.

Rhopobota naevana (Hb.). 23, 43–16, 44, 62.

Zeiraphera griseana (Hb.). 43–29, 44 (common in 1980) (Kozlov 1981b), 46 (Fridolin 1936).

Gypsonoma nitidulana (Lienig et Z.). 5, 8, 9, 10, 12, 15, 18, 21, 28, 38–16, 39, 43–29, 43–25, 43–3, 44, 44a, 46 (up to 600 m), 48 (up to 900 m), 56, 63, 65, 67, 77.

Epiblema cynosbatella (L.). 73: 1 ex 18.7.1992.

Epiblema sticticana (F.). 56: 1 ex 13.7.1991.

Epiblema cirsiana (Z.). 55: 5 exx 30.6.1991 & 4 exx 18.7.1991.

Epiblema simploniana (Dup.). 46, 48 (600–800 m) (common in *Salix* bushes).

Eriopsela quadrana (Hb.). 2, 3, 6, 8, 9, 10, 12, 15, 18, 21, 23, 28, 31, 34, 38–11, 39, 44, 44a, 46, 48 (up to 900 m), 56, 58a, 59a, 63, 65, 67, 68, 73, 77.

Eucosma obumbratana (Lienig et Z.). 61: 1 ex 29.7.1991, 64a: 2 exx 21.7.1993, 70: 2 exx 15.7.1992, 75: 1 ex 15.7.1992.

Eucosma suomiana (Hoffm.). 75: 2 exx 15.7.1992. In Fennoscandia this rare species has been recorded from central and northern Sweden (provinces Sö, Upl, Nb) (Gustafsson 1987). In Finland it has a few populations on the southern coast (provinces Ab, N, St), in the northern part it has been recorded from the provinces Ob, Ks and LKem (Kyrki 1978). Kuznetsov (1978) reported it also from northern, northwestern and central parts of Russia. The larva feeds on *Solidago*.

Eucosma aspidiscana (Hb.). 10, 12, 18, 44, 46, 48, 55, 56, 58a, 59a, 60, 67, 68, 73, 77.

Blastesthia posticana (Zett.). 12 (Leukakoski) (Krogerus 1943), 67: 1 ex 7.7.1987.

Retinia resinella (L.). 12, 18, 23, 28, 40, 43–7, 44, 46, 48, 51, 55, 60, 61, 67, 68.

Pammene clanculana (Tengstr.). 1, 2, 9, 10, 12, 15, 18, 21, 23, 28, 37, 43–8, 44a, 46, 60.

Pammene aurana (F.). 61, 64a. Surprisingly, quite common (tens of specimens) in 1988–1991 on a single small (≈200 m²) forest meadow of *Pastinaca* near 61. In Fennoscandia this southern species is previously recorded from Russian Karelia near the lake Onega, from southernmost Sweden (Sk) (Gustafsson 1987) and from southwestern Finland (Al, Ab) (Kyrki 1978).

Cydia pactolana (Z.). 43–29: 2 exx 25.7–2.8.1993, 43–5: 2 exx 11–27.7.1993, 45: 1 ex 12.7.1991, 61: 1 ex 25.7.1991.

Cydia cosmophorana (Tr.). 9 (Valle 1933), 21, 28 (Valle 1933), 55.

Cydia coniferana (Sax.). 27 (Krogerus 1943).

Cydia strobilella (L.). 43–29, 44, 48, 58a.

Cydia orobana (Tr.). 44, 60, 61, 64a, 70, 73, 75.

Cydia illutana (H.-S.). 73: 3 exx 25.6.1985.

Cydia aureolana (Tengstr.). 1, 9, 15, 28, 42a, 44, 46, 48, 73, 77.

Cydia compositella (F.). 55, 56 (common in June, 1991, in both sites), 58a.

Dichrorampha flavidorsana Knaggs. 61: 3 exx 28.7.1991.

Dichrorampha obscuratana (Wolff). 61, 70, 73. Very abundant on meadows on *Tanacetum*.

Dichrorampha cinerascens (Danil.). 70, 72, 73, 75, 76. Common on sea shore meadows. In Fennoscandia recorded only from the southern coast of Finland. Elsewhere distributed from central Europe to western and southern Siberia (Altai) (Kuznetsov & Jalava 1988). Larva on *Achillea*.

Dichrorampha plumbana (Scop.). 58a: 10 exx 3–6.7.1993. Previous record from 73 (Kozlov 1977) was based on erroneously determined specimens of *D. obscuratana* (Wolff).

Dichrorampha sedatana (Busck). 72: 1 ex 15.7.1992, 77: 1 ex 17.7.1992. Larva on *Tanacetum* which is abundant along the White Sea coast.

Choreutidae

Anthophila fabriciana (L.). 23, 39, 56, 61, 67.

Sesiidae

Sesia bembeciformis (Hb.). 43–9: 2 exx 27.7.1993. Quite surprizingly found in the industrial wastelands close to "Severonikel" smelter. Larva boring in stems of *Salix caprea*. Only a few records are known from Fennoscandia: Sweden – one record from province Sk in 1926; Norway – one record from province ST in

1971; Finland – four old (1883, 1913, 1935, 1944) records from the provinces Sb and LkW (Vuola & Korpela 1977). In Northern Russia, a single specimen (kept in ZIN) has been collected near Petrozavodsk by Günter. So it is probably distributed all over the area, but mostly overlooked as is the general case in the family Sesiidae.

Synanthedon scoliaeformis (Borkh.). 43–41: 1 ex 7.8.1993 (bait-trap).

Synanthedon formicaeformis (Esp.). 43–8: 1 ex 28.6.1989.

Synanthedon culiciformis (L.). 9: 1 ex 12.7.1928.

Synanthedon spheciformis (Den. et Schiff.). 27 (Krogerus 1943).

Schreckensteiniidae

Schreckensteinia festaliella (Hb.). 9, 12, 23, 27, 28, 31, 43–41, 43–15, 44, 46, 48, 56, 56a, 60, 61, 63, 68, 73.

Epermeniidae

Phaulernis fulviguttella (Z.). 2, 5, 10, 12, 13, 15, 43–7, 46, 48, 55, 56.

Epermenia chaerophyllella (Goeze). 55: 1 ex 2.6.1993, 61: 4 exx 7–12.8.1991 (mines on leaves of *Anthriscus silvestris*).

Pterophoridae

Amblyptilia punctidactyla (Hw.). 12, 28, 37, 43–23, 46, 48, 55, 58a, 67, 68, 70, 73, 77.

Platyptilia tesseradactyla (L.). 44, 46, 48, 49, 56, 58a.

Platyptilia calodactyla (Den. et Schiff.). 3, 5, 6, 8, 9, 10, 12, 13, 15, 18, 21, 28, 34, 43–29, 43–5, 44, 46, 48, 55, 56, 60, 61, 65, 66, 70, 75.

Platyptilia pallidactyla (Hw.). 39, 44, 55, 56, 61, 70, 73.

Stenoptilia islandica (Stgr.). 15: 4 exx 14.7–5.8.1929.

Pterophorus leucodactylus (Den. et Schiff.). 60: 2 exx [1870] (Sahlberg leg.), 73: 1 ex 19.7.1992.

Leioptilus osteodactylus (Z.). 8, 19, 28, 43–29, 43–23, 43–15, 43–7, 46, 48, 55, 56, 61, 67, 70, 75.

Leioptilus tephradactylus (Hb.). 3, 4, 5, 6, 8, 9, 10, 12, 14, 21, 34, 43–29, 43–23, 44, 46, 56, 60, 64a, 65.

Pyralidae

Anerastia lotella (Hb.). 75: 1 ex 15.7.1992, 77: 1 ex 17.7.1992.

Cryptoblabes bistriga (Hw.). 27 (Krogerus 1943).

Polopeustis altensis (Wck.). 2, 8, 15 (Valle 1933), 42a, 46, 48, 65, 75, 77.

Dioryctria abietella (Den. et Schiff.). 43–29: 1 ex 4–8.8.1992 (bait-trap).

Pyla fusca (Hw.). 9, 10, 12, 18, 21, 28, 38–15, 43–29, 43–20, 43–16, 43–14, 43–7, 43–3, 44, 44a, 46, 72, 75, 77.

Catastia kistrandella Opheim. 46 (Kukis-wum-chorr, 900 m): 1 ex 4.7.1989, 48 (N slope, 700 m): 1 ex 15.7.1991. This species was described in 1963 from Northern Norway and has additionally been reported only from the Kilpisjärvi area in the northwestern corner of Finland (Kyrki 1978) and in the province To in North Sweden (Gustafsson 1987). K.Mikkola collected tens of specimens in northeastern Siberia, Upper Kolyma area (in MZH). The larva probably feeds on *Arnica angustifolia*, because the moth has always been caught flying on dry fell meadows with growths of *Arnica*. New for Russia.

Myelopsis tetricella (Den. et Schiff.). 8, 9, 10, 12 (Valle 1933), 27 (Krogerus 1943), 44a.

Apomyelois bistriatellus (Hulst). 43–5: 1 ex 23.7.1993, 76: 1 ex 15.7.1992.

Assara terebrella (Zinck.). 43–29: 2 exx 23.7.1992 (bait-trap).

Plodia interpunctella (Hb.). 10, 14 (synantropic).

Hypsopygia costalis (F.). 39: 1 ex 23.7.1993 (bait-trap). A southern species, nearest records from the southern coast of Finland (Kyrki 1978). Most probably a migrated specimen.

Pyralis lieniginalis (Z.). 67: 1 ex 7.7.1987.

Chrysoteuchia culmella (L.). 28 (Krogerus 1943).

Crambus ericellus (Hb.). 8, 10, 12, 65, 70, 75, 76.

Crambus alienellus (Germar et Kaulfuss). 9, 12, 18, 27, 28, 36, 44, 58a, 60.

Crambus pratellus (L.). 10, 15, 44, 55, 56, 60, 64a, 67, 70.

Crambus lathoniellus (Zinck.). 5, 9, 10, 12, 18, 28, 58a, 60, 61, 64, 64a, 67, 69, 70, 73, 75, 76, 77.

Crambus hamellus (Thnbg.). 27 (Krogerus 1943), 44: 1 ex 30.7.1980, 64a: 1 ex 20.7.1993.

Crambus perlellus (Scop.). 73, 75, 77.

Agriphila straminella (Den. et Schiff.). 60, 61, 65, 77.

Agriphila biarmica (Tengstr.). 28 (Krogerus 1943), 44: 2 exx 29–30.7.1980, 44a: 1 ex 15.7.1993.

Catoptria furcatella (Zett.). 1, 12, 13, 15, 44a, 46, 48.

Catoptria permutatella (H.-S.). 46: 1 ex 17.7.1982, 56: 2 exx 20.7.1986, 64a: 1 ex 20.7.1993.

Catoptria margaritella (Den. et Schiff.). 55: 6 exx 17–26.7.1991, 61: 1 ex 28.7.1991.

Catoptria maculalis (Zett.). 3, 8, 9, 10, 12, 17, 18, 27, 43–29, 48, 56, 56a, 58a.

Pediasia truncatella (Zett.). 27 (Krogerus 1943), 44: 1 ex 19.7.1981, 58a: 2 exx 4–6.7.1993.

Gesneria centuriella (Den. et Schiff.). 5, 8, 10, 12, 27, 28, 38–3, 38–15, 39, 43–15, 43–7, 44, 46, 56.

Eudonia alpina (Curt.). 2, 5, 8, 9, 10, 15, 18, 21, 28, 31, 34, 36, 58a.

Eudonia murana (Curt.). 8, 10, 12, 15, 17, 18, 28, 44, 44a, 46, 48, 56, 60, 64a, 65, 66.

Eudonia sudetica (Z.). 3, 5, 15, 23, 27, 44, 46, 55, 56, 56a, 61, 64a.

Titanio schrankiana (Hochenw.). 44: 1 ex 17.7.1981, 48: 3 exx 15.7.1991.

Pyrausta porphyralis (Den. et Schiff.). 12, 28, 48, 52, 55, 56, 72, 73, 77.

Loxostege sticticalis (L.). 15 (Valle 1933), 46 (Kukis-wum-chorr, 900 m): 1 ex 18.7.1986. A migrant.

Loxostege commixtalis (Walker). 36 (Krogerus 1943), 45: 1 ex [8.7.1870] (Sahlberg leg.).

Mutuuraia terrealis (Tr.). 56a, 72, 73, 77.

Anania funebris (Ström). 28 (Krogerus 1943), 44a, 48, 53, 56, 58a, 59, 63, 64a, 67, 70, 72, 77.
Opsibotys fuscalis (Den. et Schiff.). 55, 56, 60, 61, 64a, 70, 75.
Udea lutealis (Hb.). 44, 48, 56, 60, 67, 77.
Udea hamalis (Thnbg.). 61: 2 exx 25–28.7.1991.
Udea inquinatalis (Lienig et Z.). 1, 2, 4, 5, 8, 9, 10, 12, 15, 18, 21, 28, 31, 34, 36, 38–16, 39, 42a, 43–29, 43–23, 43–17, 43–14, 43–3, 44 (up to 600 m), 44a, 46, 48, 51, 53, 55, 56, 56a, 59a, 60, 64a, 67.
Udea decrepitalis (H.-S.). 1, 2, 4, 5, 8, 9, 10, 12, 13, 15, 18, 21, 23, 34, 43–29, 43–14, 46, 48, 55, 56, 58a, 65, 73, 77.

Zygaenidae

Zygaena exulans (Hochenw.). 1, 2, 4, 6, 8, 9, 10, 12, 14, 15, 16, 18, 19, 23, 28, 34, 36, 44, 44a, 46, 48, 65.

Hesperiidae

Pyrgus andromedae (Wallengr.). 46, 48 (alpine zone).
Pyrgus centaureae (Rambur). 5, 6, 8, 9, 10, 12, 18, 21, 22, 23, 28, 30, 31, 36, 59, 60, 67, 73.
Carterocephalus palaemon (Pallas). 23, 43–29, 45, 52, 63.
Carterocephalys silvicola (Meig). 59 (Nordström et al. 1955), 60.
Hesperia comma catena (Stgr.). 73, 76, 77, 78, 79.

Papilionidae

Papilio machaon L. 4, 8, 12, 15, 23, 28, 30, 44, 46, 60, 61.

Pieridae

Leptidea sinapis (L.). 12 (Linnaluoto & Koponen 1980).
Pieris brassicae (L.). 9, 12, 14, 15, 44.
Pieris rapae (L.). 10, 12, 21, 23, 44, 45, 60, 63, 75, 77.
Pieris napi (L.). 4, 9, 10, 12, 13, 14, 15, 19, 23, 28, 30, 31, 34, 38–3, 39, 44, 46, 47, 48, 51, 52, 53, 54, 55, 56, 58a, 60, 61, 63, 64, 67, 68, 69, 71, 73, 77.
Anthocharis cardamines (L.). 10: 1 ex 25.6.1980, 44: 2 exx 10–17.07.1981, 58a (abundant in 1993).
Colias palaeno (L.). 4, 5, 6, 8, 9, 10, 12, 18, 19, 22, 23, 27, 28, 30, 31, 37, 38–13, 38–16, 43–29, 43–23, 43–21, 44, 46, 47, 48, 49, 51, 52, 55, 56, 60, 61, 64a, 67, 68, 69, 71, 73.

Lycaenidae

Callophrys rubi (L.). 4, 12, 23, 28, 30, 40, 43–29, 44, 45, 46, 58a, 59, 59a, 64a.
Lycaena phlaeas (L.). 2, 4, 8, 10, 12, 13, 15, 44, 46, 55, 56, 60, 61, 63, 67, 68, 73, 77.
Lycaena helle (Den. et Schiff.). 8, 9, 10, 12, 45, 59, 60, 61, 62, 63, 66, 67.
Heodes virgaureae (L.). Lapponia rossica 2 exx [1861] (Inberg leg., in MZH). The only records from the Kola Peninsula. Since there are no later records of the species, we suppose that the specimens originated from the southernmost part of the area under study, i.e. between Knjazhaja Guba and Kandalaksha (see Silfverberg 1988).
Palaeochrysophanus hippothoe (L.). 30, 53, 59, 60, 63, 64a, 66, 71, 72, 73, 77.
Celastrina argiolus (L.). 4, 15, 59 (Nordström et al. 1955).
Glaucopsyche alexis (Poda). 4 (Nordström et al. 1955).
Lycaeides idas (L.). 9, 12, 14, 18, 28, 38–3, 38–6, 38–10, 38–13, 38–16, 39, 40, 43–41, 43–29, 43–15, 46, 55, 56a, 61, 77.
Eumedonia eumedon (Esp.). 59 (Nordström et al. 1955). The closest confirmed record in Russia is from Northern Karelia (Srednij island, close to Chupa) (Kozlov, pers.obs.).
Vacciniina optilete (Knoch). 4, 5, 6, 8, 9, 10, 12, 13, 14, 15, 18, 22, 23, 28, 30, 31, 34, 38–6, 38–10, 38–13, 38–16, 39, 40, 42a, 43–29, 43–23, 43–20, 43–16, 43–15, 43–9, 43–5, 44, 44a, 45, 46, 48, 51, 52, 53, 55, 56, 56a, 60, 61, 63, 65, 67, 69, 71, 73, 77.
Agriades glandon aquilo (Boisd.). 3 (Valle 1933), 12 (Sotavalta, unpubl.), 15 (common in June), 46 (Fridolin 1936).
Cyaniris semiargus (Rott.). 30, 44, 46, 52, 55, 56, 60, 61.
Polyommatus icarus (Rott.). 12, 30, 39, 43–15, 55, 56, 60, 61.

Nymphalidae

Nymphalis antiopa (L.). 9, 12, 19 (Valle 1933), 44, 46, 59a.
Vanessa atalanta (L.). 23: 1 ex August 1973 (V.Isakov, pers. comm.). A migrant.
Vanessa cardui (L.). 7 (Nordström et al. 1955), 10 (Sotavalta, unpubl.), 12 (Valle 1933), 19, 46 (Kukis-wumchorr, 900 m). A migrant.
Aglais urticae (L.). 2, 4, 9, 10, 12, 14, 15, 19, 23, 30, 44, 46, 55, 56, 58a, 60, 61, 63, 67.
Speyeria aglaja (L.). 8, 9, 10, 12, 28, 45, 46, 52, 54.
Boloria napaea (Hoffm.). 1, 2, 12, 14, 15, 31, 46.
Boloria aquilonaris (Stich.). 4, 5, 6, 8, 9, 10, 12, 14, 15, 17, 18, 19, 22, 23, 30, 31, 33, 34, 37, 38–16, 43–29, 43–20, 44, 46, 47, 49, 50, 52, 55, 56, 57, 60, 65.
Proclossiana eunomia (Esp.). 4, 5, 6, 8, 9, 10, 12, 15, 17, 18, 22, 23, 28, 30, 31, 34, 35, 36, 37, 38–15, 43–29, 45, 46, 52, 53, 56, 60, 63, 67, 68, 69, 71.
Clossiana selene (Den. et Schiff.). 4, 5, 8, 9, 10, 12, 14, 15, 18, 23, 27, 28, 30, 31, 37, 40, 43–29, 43–21, 44, 46, 48, 53, 55, 61, 66.
Clossiana freija (Thnbg.). 3, 4, 5, 6, 8, 9, 10, 12, 18, 21, 22, 23, 27, 28, 29, 30, 31, 34, 36, 37, 42a, 43–29, 43–21, 44, 44a, 46, 52, 53, 56, 60, 65, 69, 77.
Clossiana polaris (Boisd.). 4, 8, 12, 15, 22, 28, 36, 44, 46, 48, 52, 53, 65.
Clossiana thore (Hb.). 8, 9, 10, 12, 23, 29, 31, 60.
Clossiana frigga (Thnbg.). 4, 5, 9, 10, 12, 14, 15, 18, 22, 23, 27, 30, 31, 36, 37, 43–29, 44, 45, 46, 52, 53, 54, 55, 60.

Clossiana euphrosyne (L.). 5, 6, 8, 9, 10, 12, 17, 18, 21, 22, 23, 26 (Petersen 1947), 27, 28, 31, 34, 36, 37, 38–10, 38–13, 38–16, 39, 40, 43–29, 43–21, 43–16, 43–9, 44, 45, 46, 47, 48, 52, 53, 54, 60, 61, 62, 63, 66, 67, 68, 71, 73, 77.

Clossiana chariclea (Schn.). 12, 14, 15, 23, 29, 31.

Mellicta athalia (Rott.). 8, 9, 10, 12, 19, 21, 73.

Hypodryas iduna (Dalm.). 4, 5, 8, 10, 12, 15, 23, 34, 35, 36, 44 (600 m), 45, 46 (600–900 m), 48 (700–900 m), 52.

Satyridae

Erebia ligea (L.). 5, 6, 8, 10, 12, 23, 31, 40, 43–41, 44, 44a, 46, 55, 56, 60, 61, 63, 68, 73.

Erebia disa (Thnbg.). 3, 4, 5, 6, 8, 9, 10, 12, 18, 21, 22, 23, 28, 30, 31, 36, 39, 42a, 44, 45, 46, 48, 52, 58a, 59a, 60, 63, 77.

Erebia embla (Thnbg.). 6, 8, 9, 12, 18, 21, 23, 28, 30, 36, 44, 59a, 60, 63, 66, 67.

Erebia pandrose (Bkh.). 1, 2, 3, 4, 5, 8, 9, 10, 12, 15, 19, 22, 23, 25, 28, 29, 31, 34, 35, 36, 42a, 43–22, 44, 44a, 45, 46, 48, 65, 73.

Oeneis norna (Thnbg.). 4, 5, 8, 9, 10, 12, 14, 18, 21, 22, 23, 30, 36, 38–13, 43–29, 43–23, 44, 46.

Oeneis bore (Schn.). 4, 8, 10, 12, 14, 15, 29, 31, 36, 42a, 44, 44a, 45, 46.

Oeneis jutta (Hb.). 30 (V.Isakov, pers. comm.), 66 (Nordström et al. 1955).

Coenonympha tullia (Müll.). 23, 39, 43–21, 44a, 46, 55, 56, 61, 64a.

Lasiommata petropolitana (F.). 59 (Nordström et al. 1955), 63, 69.

Drepanidae

Falcaria lacertinaria (L.). 8, 9, 10, 12, 14, 15, 18, 21, 28, 37, 46, 55, 58a, 60, 63, 64, 67, 73.

Drepana falcataria (L.). 43–20: 2 exx 10–25.7.1993, 55: 1 ex 5.7.1991.

Thyatiridae

Ochropacha duplaris (L.). 43–35: 1 ex 15.6.1993, 55: 4 exx 29.6–2.7.1991, 60: 1 ex 5.7.1987.

Achlya flavicornis (L.). 9 (Valle 1933), 10, 12, 17, 46 (Fridolin 1936).

Geometridae

Archiearis parthenias (L.). 8, 9, 10, 12, 44.

Geometra papilionaria (L.). 18 (Valle 1933), 28 (Valle 1933), 46: 1 ex 2.8.1990, 64a: 5 exx 21.7.1993.

Jodis putata (L.). 28 (Krogerus 1943), 45, 48, 58a, 61, 64a, 67, 68, 70, 77.

Cyclophora albipunctata (Hufn.). 9, 10, 12, 18, 28, 38–15, 43–15, 48 (700 m), 65.

Scopula ternata (Schrank). 5, 6, 8, 9, 10, 12, 13, 17, 18, 21, 23, 28, 31, 34, 37, 38–10, 38–16, 43–29, 43–23, 43–16, 43–7, 43–3, 44, 44a, 46, 48, 55, 56, 56a, 60, 61, 64, 64a, 65, 69, 70, 71, 76.

Scopula frigidaria schoyeni (Schn.). 8, 12 (Valle 1933), 17, 27 (Krogerus 1943), 28, 43–29, 43–20, 43–15, 52, 56a.

Xanthorhoe designata (Hufn.). 55, 56, 65, 71.

Xanthorhoe abrasaria (H.-S.). 3, 5, 6, 8, 9, 10, 12, 19, 27, 31, 34, 36, 38–15, 43–20, 43–15, 44, 53, 55, 56, 69, 77.

Xanthorhoe munitata (Hb.). 1, 2, 3, 4, 5, 6, 8, 9, 10, 12, 13, 15, 18, 23, 29, 30, 31, 34, 39, 43–29, 43–23, 44, 48, 49, 55, 56, 60, 61, 62, 65, 70, 73, 75, 77.

Xanthorhoe spadicearia (Den. et Schiff.). 1, 2, 3, 6, 9, 12, 42a, 43–20, 44, 55, 56, 58a, 59a, 63, 64a, 65, 73.

Xanthorhoe ferrugata (Cl.). 2, 3, 6, 8, 9, 10, 12, 15, 18, 21, 23, 28, 36, 39, 43–15, 48, 55, 56, 63, 65, 66, 73.

Xanthorhoe montanata (Den. et Schiff.). 5, 6, 9, 10, 12, 19.

Xanthorhoe fluctuata (L.). 1, 2, 4, 10, 12, 13, 14, 15, 23, 31.

Xanthorhoe annotinata (Zett.). 1, 2, 4, 5, 6, 8, 9, 10, 12, 15, 18, 21, 23, 28, 29, 31, 34, 40, 42a, 43–29, 43–23, 44, 48, 52, 59a, 60, 64, 67, 69, 71, 73, 77.

Epirrhoe tristata (L.). 17: 1 ex (in MZH) labelled "Pasvik coll. Tengström" without any date and number. The general distribution in Finland extends to the southern part of the province Lkem; the only northern record is from Ivalo (Mikkola et al. 1985). We include this species although it might be collected with equal probability from the Norwegian side of the Patsjoki river.

Epirrhoe hastulata (Hb.). 28: 1 ex [1939] (Platonoff leg.), 64: 1 ex [12–27.7.1885] (Edgren leg.).

Epirrhoe alternata (Müll.). 9, 10, 12, 18, 21, 37, 43–41, 55, 56, 58a, 61, 65, 66, 75.

Entephria polata (Dup.). 1, 2, 4, 6, 8, 10, 12, 13, 15, 31 (Miller 1915), 42a, 44a, 46, 65.

Entephria byssata (Auriv.). 46 (Kukis-wum-chorr): 3 exx 10.7.1987, 48 (700 m): 3 exx 15.7.1991.

Entephria nobiliaria (H.-S.). 12: 1 ex 1930 (Kontuniemi leg.).

Entephria caesiata (Den. et Schiff.). 2, 3, 4, 5, 6, 8, 9, 10, 12, 13, 15, 17, 18, 19, 23, 27, 28, 30, 31, 38–10, 38–16, 42a, 43–29, 43–23, 43–17, 43–16, 43–14, 43–3, 44, 45, 46, 48, 49, 50, 55, 56, 56a, 60, 61, 62, 71, 73, 78.

Lampropteryx suffumata (Den. et Schiff.). 8, 9, 10, 12, 18, 21, 28, 37, 48, 58a, 65, 73.

Cosmorhoe ocellata (L.). 58a: 2 exx 3–4.7.1993. Northernmost record in Fennoscandia. The specimens are melanic; the white colour of forewings is dull whitish grey. One similar specimen from Karelia (Tjudi, east of Lake Onega) is kept in MZH.

Eulithis prunata (L.). 55: 1 ex 25.7.1991.

Eulithis testata (L.). 43–41: 2 exx 5.8.1993, 44: 1 ex 30.7.1980, 62: 4 exx 11.7.1987.

Eulithis populata (L.). 5, 6, 8, 9, 10, 12, 18, 19, 23, 28, 31, 33, 34, 37, 38–16, 43–29, 43–17, 43–7, 44 (up to subalpine birch forest), 46, 48, 49, 50, 56, 56a, 60, 62, 77, 78.

Ecliptopera silaceata (Den. et Schiff.). 10 (Sotavalta, unpubl.), 30, 58a.

Chloroclysta infuscata (Tengstr.). 12, 18, 28, 38–16, 43–29, 43–23, 43–16, 45, 53, 55, 60, 64a, 76.
Chloroclysta truncata (Hufn.). 10, 12, 43–29, 43–18, 44, 45, 55, 56, 60, 61.
Chloroclista citrata (L.). 43–29: 2 exx 4–8.8.1992 (bait-trap), 48: 1 ex 14.8.1984, 60: 1 ex 19.7.1986.
Thera serraria (Lienig et Z.). 27 (Krogerus 1943), 28, 30, 37, 43–29, 45, 48, 56a, 60, 71.
Thera variata (Den. et Schiff.). 43–20, 44, 48, 61.
Colostygia turbata (Hb.). 8, 9, 10, 12, 17, 19.
Hydriomena furcata (Thnbg.). 77 (ex l. on *Salix*): 4 exx 25.7.1985.
Hydriomena impluviata (Den. et Schiff.). 58a: 1 ex 4.7.1993, 39: 2 exx 22.6.1993, 68: 1 ex 21.6.1985.
Hydriomena ruberata (Freyer). 8, 9, 10, 12, 15, 18, 23, 27, 28, 29, 30, 36, 37, 39, 43–29, 43–3, 44, 48, 55, 56a, 63, 65, 67, 73, 76.
Spargania luctuata (Den. et Schiff.). 10, 28, 39, 43–29, 43–20, 44, 46, 48, 52, 53, 55, 56, 56a, 58a, 64, 64a, 70.
Rheumaptera hastata (L.). 9, 10, 12, 15, 17, 28, 38–15, 43–29, 43–20, 43–7, 44, 45, 51, 55, 56a, 60, 63, 69, 72, 73.
Rheumaptera subhastata (Nolcken). 1, 2, 3, 5, 6, 8, 9, 10, 12, 13, 14, 15, 18, 21, 23, 28, 30, 31, 37, 38–7, 38–10, 38–13, 42a, 43–29, 43–23, 43–20, 43–14, 43–7, 43–5, 44, 44a, 46, 48, 53, 55, 56, 56a, 58a, 59, 60, 63, 64a, 65, 66, 69, 73.
Rheumaptera undulata (L.). 48 (900 m), 75, 77.
Euphyia unangulata (Hw.). 55: 1 ex 13.6.1992.
Epirrita autumnata (Bkh.). 10, 12, 31, 37, 38–15, 38–10, 38–5, 39, 43–41, 43–29, 43–15, 43–5, 44, 48, 53, 56a, 58a, 59a, 64a, 65.
Psychophora sabini frigidaria (Guenée). 42a: 3 exx 12.7.1993, 46: 3 exx [10–13.7.1870] (Sahlberg leg.) & (Kukis-wum-chorr, 900 m) 1 ex 14.7.1986 & (Tachtar-wum-chorr) 1 ex 15.8.1982, 48 (900 m): 1 ex 14.7.1991, 60: 1 ex [1870] (Sahlberg leg.).
Perizoma affinitatum (Stph.). 1, 4, 5, 6, 12, 13, 15, 17, 19.
Perizoma alchemillatum (L.). 9 (Valle 1933), 46, 56, 58a.
Perizoma blandiatum (Den. et Schiff.). 1, 2, 3, 4, 6, 8, 9, 10, 12, 13, 15, 19, 23, 30, 31, 55, 58a, 60, 67, 70, 75, 77.
Perizoma albulatum (Den. et Schiff.). 10, 12, 23, 55, 58a, 60, 61, 67, 69, 70, 75, 76, 77.
Eupithecia plumbeolata (Hw.). 55: 1 ex 12.7.1991, 65: 1 ex [24.7.1899] (Montell leg.).
Eupithecia analoga Diak. 9, 18, 28 (Krogerus 1943), 58a, 64, 66.
Eupithecia abietaria (Goeze). 27 (Krogerus 1943).
Eupithecia pygmaeata (Hb.). 9, 12, 46, 55, 56, 60, 61, 64, 64a, 66.
Eupithecia intricata (Zett.). 3, 4, 8, 9, 10, 15, 18, 21, 36, 43–29, 44, 46, 48, 52, 55, 59a, 65, 68, 77.
Eupithecia veratraria (H.-S.). 65: 1 ex [1899] (Montell leg., in MZH). This is the only record of the species from Northern Fennoscandia. The nearest finds are from the Baltic (Latvia 19th century); generally distributed in mountain systems from West-Europe to the Pacific (Mikkola et al. 1989).
Eupithecia satyrata (Hb.). 1, 2, 3, 6, 8, 9, 10, 12, 15, 18, 21, 23, 28, 30, 31, 36, 38–15, 38–11, 39, 40, 43–29, 43–20, 43–15, 43–7, 44, 44a, 46, 48, 55, 56, 56a, 58a, 61, 63, 64a, 65, 67, 73, 77.
Eupithecia tripunctaria (H.-S.). 56: 1 ex 12.6.1992. The northernmost record in Eastern Fennoscandia. This species is generally distributed in Southern Finland and Karelia up to the province Kon (Mikkola et al. 1989).
Eupithecia vulgata (Hw.). 8, 58a, 59a, 64a, 70, 75.
Eupithecia gelidata Möschl. 2, 4, 8, 9, 10, 12, 15, 17, 18, 21, 27, 28, 30, 31, 38–15, 38–11, 39, 42a, 43–29, 43–20, 43–15, 44, 44a, 46, 48, 52, 53, 60, 64a, 65.
Eupithecia indigata (Hb.). 18 (Valle 1933).
Eupithecia virgaureata Doubl. 3, 5, 6, 8, 9, 10, 12, 13, 15, 18, 21, 28, 30, 32, 37, 38–15, 38–11, 43–29, 44, 55, 56, 58a.
Eupithecia pusillata (Den. et Schiff.). 8: 1 ex 5.7.1931.
Eupithecia lariciata (Freyer). 30: 1 ex 7.7.1964 (K. Mikkola leg.). Monophagous on *Larix*, which does not grow natively in this area (Hultén 1971). The only record from Northern Fennoscandia.
Eupithecia conterminata (Lienig et Z.). 12, 28 (Krogerus 1943), 43–20, 43–7, 67, 73.
Carsia sororiata (Hb.). 5, 8, 9, 10, 12, 17, 18, 19, 27, 28, 31, 34, 38–16, 43–20, 43–15, 44 (up to 600 m), 46, 49, 50, 60.
Acasis appensata (Ev.). 8, 10, 21, 58a, 73.
Lomaspilis marginata (L.). 28 (Krogerus 1943), 43–20, 55, 56, 58a, 61, 63, 64a, 67.
Semiothisa notata (L.). 10 (Sotavalta, unpubl.), 27 (Krogerus 1943), 28: 1 ex [1939] (Platonoff leg.).
Semiothisa liturata (Cl.). 10 (Sotavalta, unpubl.), 28 (Krogerus 1943).
Semiothisa clathrata (L.). 58a, 67 (Valle 1933).
Semiothisa carbonaria (Cl.). 9, 10, 12, 19, 23, 28, 29, 31, 37, 38–14, 39, 43–41, 43–25, 43–9, 43–5, 44 (up to 500 m), 60, 63, 68, 73, 77.
Itame loricaria (Ev.). 55 (ex l. from *Betula*): 1 ex 20.7.1991.
Itame wauaria (L.). 55: 1 ex 25.7.1991.
Itame brunneata (Thnbg.). 12, 18, 28, 37, 38–16, 43–29, 43–20, 43–15, 44 (up to 500 m), 46, 55, 56, 60, 61, 62, 64a.
Pygmaena fusca (Thnbg.). 1, 2, 4, 6, 8, 10, 12, 14, 15, 19, 23, 28, 31, 36, 43–23, 44, 46 (up to Kukis-wum-chorr, 900 m), 60, 65, 77.
Plagodis pulveraria (L.). 64a: 1 ex 4.7.1993. Northernmost record from Fennoscandia.
Hypoxystis pluviaria (F.). 67 (Valle 1933).
Selenia dentaria (F.). 4, 6, 8, 9, 10, 12, 18, 21, 23, 27, 28, 31, 36, 37, 43–29, 44, 46, 48, 52, 56, 56a, 60, 67, 68, 73.
Selenia tetralunaria (Hufn.). 58a: 1 ex 4.7.1993, 68: 1 ex 21.6.1985.
Epirrantis diversata (Den. et Schiff.). 9: 3 exx 21.5.1934, 17: 8 exx (Carpelan leg.), 37: 1 ex [1899] (Poppius leg.).
Lycia pomonaria (Hb.). 9, 10, 12, 17, 29 (Valle 1933), 37.
Lycia lapponaria (Boisd.). 10: 1 ex 11.5.1979, 44a (450 m): 1 ex 22.5.1975, 46 (Valle 1933).

Ematurga atomaria (L.). 4, 6, 8, 10, 12, 15, 23, 28, 38–7, 38–10, 38–13, 39, 42a, 43–29, 43–23, 43–20, 43–17, 43–14, 43–11, 43–9, 43–1, 44, 44a, 45, 48, 55, 56, 58a, 59a, 60, 63, 64a, 67, 68, 73, 77.
Cabera pusaria (L.). 64a: 5 exx 4–21.7.1993.
Cabera exanthemata (Scop.). 59a, 61, 63, 64a, 67, 70.
Hylaea fasciaria (L.). 61: 1 ex 28.7.1991.
Parietaria vittaria (Thnbg.). 1, 2, 3, 4, 5, 6, 8, 9, 10, 12, 14, 15, 18, 21, 23, 28, 31, 34, 38–8, 38–16, 39, 43–29, 44, 44a, 48, 52, 55, 56a, 58a, 60, 64, 65, 67, 73.
Glacies coracina (Esp.). 1, 2, 6, 8, 10, 12, 14, 15, 23, 36, 42a, 44 (400–700 m), 44a, 46 (up to Kukis-wum-chorr, 900 m), 48, 60, 65.

Lasiocampidae

Poecilocampa populi (L.). 56: 1 ex 20–27.7.1992 (light trap).
Trichiura crataegi (L.). 10: 1 ex 23.7.1980, 12 (Valle 1933), 46 (Fridolin 1935).
Eriogaster lanestris (L.). 18 (Valle 1933), 20 (Nordström et al. 1961).
Cosmotriche lunigera (Esp.). 28 (Krogerus 1943).
Phyllodesma ilicifolium (L.). 60 (Nordström et al. 1961).

Saturniidae

Saturnia pavonia (L.). 8, 10, 12, 28 (Krogerus 1943), 43–19, 43–9, 44, 46, 77.

Sphingidae

Acherontia atropos (L.). 3 (Nordström et al. 1961), 56 (Novikov 1958).
Hyles gallii (Rott.). 10 (Nordström et al. 1961), 27 (Krogerus 1943), 39: 1 ex 22.7.1992.

Notodontidae

Furcula furcula (Cl.). 12, 21, 28.
Notodonta dromedarius (L.). 6 (Sotavalta, unpubl.), 9 (Valle 1933), 46 (Fridolin 1935).
Eligmodonta ziczac (L.). 27 (Krogerus 1943), 28, 46 (Fridolin 1936), 60, 68.
Pheosia gnoma (F.). 3, 8, 10 (Valle 1933), 12, 43–9, 56.
Ptilodon capucina (L.). Lapponia Rossica (Tengström, unpubl.; no later confirmation).
Clostera pigra (Hufn.). 2, 28 (Krogerus 1943), 46 (Fridolin 1936), 55.

Lymantriidae

Calliteara fascelina (L.). 46 (Kozhanchikov 1950).
Leucoma salicis (L.). 23, 46, 48, 56.

Arctiidae

Setina irrorella (L.). 2, 12 (Valle 1933), 45 (Nordström et al. 1961).
Holoarctia fridolini (Torst.) 46: 2 exx 22–23.7.1926, 1 ex August 1931. Mentioned by N.Kusnezov (1935) under the name *Chibinarctia fridolini*, which is nomen nudum according to the International Code of Zoological Nomenclature. The problems connected with this species were described by Torstenius (1971) who gave a formal description of *fridolini*, but considered it as a subspecies of *O. cervini* Fallou. Ferguson (1984) considers *H. fridolini* as an independent species.
Parasemia plantaginis (L.). 8, 10, 27, 28, 43–20, 43–16, 56, 60, 67, 71, 73, 77.
Pararctia lapponica (Thnbg.). 3, 6, 8, 9, 10, 12, 21, 28.
Diacrisia sannio (L.). 70: 1 ex 15.7.1992, 76: 1 ex 15.7.1992.
Phragmatobia fuliginosa (L.). 4, 8, 9, 10, 12, 15, 18, 28, 36, 44.

Noctuidae

Polypogon tentacularius (L.). 48 (Raijavr), 65, 67, 69, 70, 71, 75.
Hypenodes humidalis Doubl. 62: 1 ex 11.8.1987.
Scoliopteryx libatrix (L.). 46 (Fridolin 1936), 78, 79 (Nordtsröm et al. 1969).
Euclidia glyphica (L.). 12 (Nordström et al. 1969), 44, 60, 64a, 67.
Nola karelica Tengstr. 9 (Valle 1933), 27 (Krogerus 1943), 28 (Nordström et al. 1961).
Plusia festucae (L.). 39: 1 ex 27.7.1991 (bait-trap).
Autographa macrogamma (Ev.). 12 (Sotavalta, unpubl.), 55: 1 ex 25.7.1991, 56: 1 ex 18.7–5.8.1992 (light-trap), 61: 1 ex 28.7.1991.
Autographa gamma (L.). 9 (Valle 1933).
Syngrapha diasema (Boisd.). 9, 10 (Valle 1933), 14, 17, 28 (Krogerus 1943), 43–7, 50, 56, 60.
Syngrapha microgamma (Hb.). 27 (Krogerus 1943), 43–20: 1 ex 15.7.1991.
Syngrapha interrogationis (L.). 12, 14, 28, 43–7, 46, 47, 48, 49, 50, 56 (light-trap), 57, 65, 66, 74, 77, 78, 79.
Syngrapha parilis (Hb.). 6, 9, 10, 12, 14, 17, 28, 31, 36, 58.
Caloplusia hochenwarthi (Hochenw.). 1, 2, 6, 9, 10, 12, 15, 19, 23, 28, 31, 73.
Acronicta psi (L.). 76: 1 ex 15.7.1992 (bait-trap).
Acronicta menyanthidis (Esp.). 63: 1 ex 27.6.1981, 76: 2 exx 15.7.1992 (bait-trap).
Acronicta auricoma (Den. et Schiff.). 4, 9, 10, 12, 28, 36, 38–16, 43–29, 43–23, 43–21, 43–20, 43–16, 43–7, 43–3, 44, 56a, 60, 61.
Enargia paleacea (Esp.). 43–35: 1 ex 7.8.1993, 43–29: 1 ex 7.8.1993, 43–16: 2 exx 4–8.8.1992, 43–5: 1 ex 12.8.1993 (all from bait-traps).
Parastichtis suspecta (Hb.). 10: 2 exx 9–19.7.1979, 56a: 1 ex 7.8.1993 (bait-trap).
Hyppa rectilinea (Esp.). 12, 21, 28, 39, 43–29, 43–23, 43–21, 43–16, 43–14, 43–1, 44, 76.
Apamea crenata (Hufn.). 43–7: 1 ex 18.7.1992 (bait-trap).
Apamea lateritia (Hufn.). 43–18: 1 ex 29.7.1992 (bait-trap), 55: 1 ex 25.7.1991.

Apamea maillardi (Geyer). 39: 1 ex 28.7.1993, 43–29: 1 ex 31.7.1992 & 1 ex 12.8.1993, 43–23: 1 ex 31.7.1992, 43–18: 5 exx 27–31.7.1992, 43–16: 1 ex 1–4.8.1992 & 3 exx 28.7–7.8.1993, 43–7: 1 ex 4–8.8.1992 (all from bait traps).

Apamea remissa (Hb.). 12, 34, 39, 43–5.

Caradrina clavipalpis (Scop.). 12, 60, 63 (Nordström et al. 1969), 66.

Hillia iris (Zett.). 6 (Valle 1933), 15 (Nordström et al. 1969), 43–29: 1 ex 2–7.8.1992 (bait-trap), 77 (ex l. from *Salix*): 1 ex 25.7.1985.

Sympistis funebris (Hb.). 10, 12, 14, 18, 23 (Miller 1915), 28 (Krogerus 1943), 36, 38–16, 44, 48 (600 m), 52, 58, 60, 64a.

Sympistis heliophila (Payk.). 1, 2, 3, 4, 5, 6, 8, 9, 10, 12, 15, 18, 19, 23, 28, 29, 31, 36, 38–7, 38–10, 38–13, 38–16, 42a, 43–29, 43–23, 43–21, 43–16, 43–14, 43–9, 43–5, 44, 44a, 46 (up to Kukis-wum-tschorr, 900 m), 48, 52, 56, 56a, 58a, 60, 61, 67.

Sympistis lapponica (Thnbg.). 6, 8, 10, 12, 14, 15, 34, 44a, 46 (up to Kukis-wum-chorr, 900 m), 48.

Sympistis zetterstedtii (Stgr.). 8, 12, 42a, 46 (up to Kukis-wum-chorr, 900 m), 48.

Dasypolia templi (Thnbg.). 6: 1 ex June 1929 (Pohjakallio leg.).

Lithomoia solidaginis (Hb.). 56: 1 ex 11.8.1985, 62 (sec. Peltonen 1947), 66 (Sotavalta, unpubl.).

Litophane lambda (F.). 28: 1 ex [1939] (Platonoff leg.).

Xylena vetusta (Hb.). 12: 1 ex 17.6.1933, 46 (Novikov 1958).

Mniotype adusta (Esp.). 43–23: 1 ex 18.7.1991, 43–17: 2 exx 28.7–2.8.1993, 43–14: 1 ex 8.7.1991, 64a: 1 ex 21.7.1993 (bait-traps).

Anarta myrtilli (L.). 12, 28, 38–16, 38–11, 43–5, 44, 46 (Kukis-wum-chorr, 900 m) (Fridolin 1935), 48, 52, 56, 58a.

Anarta cordigera (Thnbg.). 3, 5, 6, 8, 9, 10, 12, 18, 21, 23, 28, 34, 36, 38–15, 43–20, 44 (up to 600 m),46 (up to Kukis-wum-chorr, 900 m), 52, 60.

Anarta melanopa (Thnbg.). 1, 4, 5, 6, 8, 9, 10, 12, 14, 15, 23, 31, 36, 39, 42a, 44, 44a, 46 (up to Kukis-wum-chorr, 900 m), 48, 52, 60.

Lasionycta staudingeri (Auriv.). 12 (Valle 1933), 14, 42a, 60, 65.

Lasionycta skraelingia (H.-S.). 27 (Krogerus 1943).

Hada nana (Hufn.). 10 (Sotavalta, unpubl.), 15 (Nordtsröm et al. 1969), 28 (Sotavalta, unpubl.).

Anartomima secedens bohemani (Stgr.). 8, 10 (Valle 1933), 14, 45.

Polia richardsoni (Curt.). 12 (Valle 1933), 14, 60, 65.

Polia lamuta (Hertz). 60: 1 ex 7.7.1913.

Polia conspicua sabmeana Mikkola. 38–1: 9 exx 13.7–2.8.1993, 42a: 1 ex 18.7.1993, 43–1: 13 exx 12–27.7.1991, 43–5: 1 ex 23.7.1991 & 18 exx 18–28.7.1993 (bait-traps), 46 ("Chibiny [railway] station"): 1 ex 23.7.1926 (deposited in Zoological Museum of Moscow University, Russia; K.Mikkola det.). This newly described (Mikkola 1980) subspecies of a Siberian noctuid is fairly common on the low fells of Inari Lapland on the Finnish side of the border.

Melanchra pisi (L.). 43–16: 1 ex 18.7.1992 (bait-trap), 55 (Znamenskaja 1962).

Papestra biren (Goeze). 8, 10, 12, 14, 15, 21, 27, 31, 36, 38–11, 43–3, 43–29, 44 (600 m), 46 (Kukis-wum-chorr) (Fridolin 1935), 60.

Cerapteryx graminis (L.). 14, 15 (Valle 1933), 43–35, 55, 63, 66.

Diarsia mendica (F.). 1, 2, 3, 6, 8, 9, 10, 12, 14, 15, 18, 28, 39, 43–29, 43–23, 43–21, 43–16, 43–14, 43–9, 43–5, 43–1, 44, 46 (up to Kukis-wum-chorr, 900 m), 56, 56a, 61, 62, 71, 73.

Xestia quieta (Hb.). 1, 2, 6, 8, 11 (Nordström et al. 1969), 12, 15, 23 (Miller 1915).

Xestia rhaetica (Stgr.). 43–29: 8 exx 19–27.7.1991, 29 exx 23.7–8.8.1992, 3 exx 28.7.1993, 43–23: 1 ex 31.7.1992, 43–20: 1 ex 31.7.1992, 56a: 14 exx 23.7–7.8.1993 (bait-traps), 64a.

Xestia speciosa (Hb.). 1, 10, 12, 14, 15, 28, 37, 43–16, 43–3, 46 (Kukis-wum-chorr) (Fridolin 1935), 56a, 71, 73.

Xestia borealis (Nordström). 45: 1 ex [8–9.7.1870] (Sahlberg leg., in MZH). This specimen was described as *Agrotis imandrensis* (Lingonblad 1933).

Xestia distensa (Ev.). 28 (abundant in 1939; Krogerus & Platonoff leg.), 56a: 1 ex 28.7.1993 (bait-trap), 73: 1 ex [1887] (Edgren leg.). This and the following species have been considered to be conspecific, so the old literature records, which usually concern *X. laetabilis* Zett., are not reliable. The specific difference was shown by Suomalainen (1983).

Xestia laetabilis (Zett.). 48: 1 ex [1887] (Palmén leg.), 56a: 1 ex 18.7.1993 (bait-trap), 71: 1 ex [1887] (Edgren & Levander leg.), 73: 1 ex [1887] (Edgren leg.). K.Mikkola (pers.comm.) investigated also 5 males in coll. Tsvetajev (kept in Zoological museum, Moscow): "Lapp. ross. spt. v. Terr. Murmanensis, stat. Shongui, S. Tshetverikov leg. 21–23.7.1928".

Xestia alpicola (Zett.). 2, 4, 8, 9, 10, 15 (Valle 1933), 17, 18, 19, 28, 38–16, 38–11, 43–41, 43–29, 43–20, 43–16, 43–9, 44 (up to 600 m), 56a, 64a, 76.

Xestia lorezi kongsvoldensis (Grönl.). 2, 8, 12, 13, 15.

Xestia tecta (Hb.). 1, 5, 8, 10, 12, 14, 15, 27 (Krogerus 1943), 37, 43–29, 46.

Eurois occultus (L.). 25, 26 (Nordström et al. 1969), 38–16, 43–29, 43–18, 43–5, 46, 48, 56, 56a, 71, 73.

4. Discussion

4.1. Level of our knowledge

Compared to other areas in northern Fennoscandia, the lepidopteran fauna of the Kola Peninsula is still rather poorly known, especially the so called "Microlepidoptera".

The number of species in localities (Table 1) and UTM squares (Fig. 4) clearly show that only

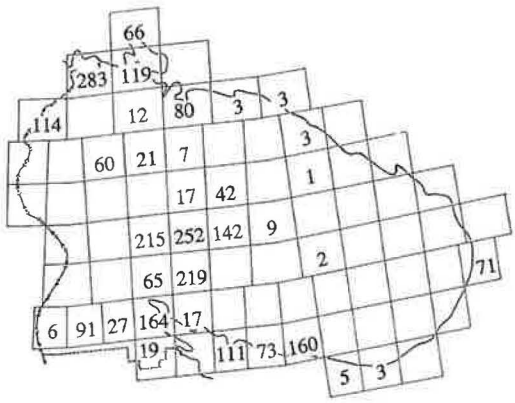

Fig. 4. Number of species summarized for UTM squares.

Petsamo area and Chibiny mountains (with about 250–300 species in each) are more or less satisfactory investigated. Comparing with the communes of Utsjoki (5200 km^2, 439 species recorded) and of Inari (17500 km^2, 444 species recorded) (Koponen et al. 1982), we suppose that local faunas in this region should be at the level of 250–400 species.

Linnaluoto & Koponen (1980) listed 602 species from northern Fennoscandia (including northern Norway, province Li of Finland, northern Petchenga and the Kilpisjärvi area in northwestern corner of Finland). This list includes about 150 species not recorded from the Kola Peninsula, major part of which are still with certainty to be found. For example, the species flying in early spring and late autumn are poorly known. We would also like to emphasize that the fauna of the northeastern tundra, all the way from Murmansk to Ponoj, is entirely unknown and that research in this area would certainly offer zoogeographically important finds.

Among the 585 species included in the list, records of 32 species are based on data from previous publications only. For all other species we have seen some materials.

4.2. New records and deletions

Seven species are not found elsewhere in Northern Fennoscandia. Among them, 5 species are widely distributed southwards from this region [*Bucculatrix maritima* Stt., *Elachista monosemiella* Rössl., *Scythris obscurella* (Scop.), *Eupoecilia sanguisorbana* (H.-S.), *Pammene aurana* (F.)] and 2 other [*Dichrorampha cinerascens* (Danil.), *Clepsis rogana* (Gn.)] are eastern species. Six of them are occuring on the White Sea coast, and we expect more interesting records from this poorly investigated area.

The record of *Hypsopygia costalis* (F.) is most probably based on a migrated specimen.

Since no complete lists were published before, it is quite difficult to calculate the exact number of species which have never been reported from this region. Moreover, we believe that it is not necessary. Anyway, 585 species are recorded from the whole area; 285 of them were reported from Petsamo (Sinev 1988). Taking into account other publications, we suppose that about 100 species in our list are new for the Kola Peninsula.

Although there are no check-lists of the Russian fauna, comparison with recently published keys of European moths (e.g. Kuznetzov 1978, Piskunov 1981) enabled us to state that at least eight species have never been reported from the Russian territory. One of them, *Bucculatrix maritima* Stt. is widely distributed in the temperate regions of Europe. The other seven species are Northern Fennoscandian ones, described in the last decades (*Coleophora unigenella* Svensson, *C. boreella* Bengtsson, *Scythris fuscopterella* Benander, *Aproaerema karvoneni* Hackman, *Acompsia subpunctella* Svensson, *Sophronia gelidella* Nordman, *Catastia kistrandella* Opheim).

The following species are excluded from the list:

Nematopogon metaxellus (Hb.). Specimen mentioned by Valle (1933) belongs to *N. pilellus* (Den. et Schiff.).

Elachista poae Stt. 12 (Valle 1933). We did not find specimens mentioned by K.J.Valle. Old meaning of the name "*poae*" refer to the complex of northern large black-white *Elachista* species.

Cnephasia virgaureana Tr. 44 (Kozlov 1987). Mislabelled specimens.

Acleris notana (Don.). 18 (Valle 1933). The specimens are kept in collection of E.Suoma-

lainen; they proved to be *A. implexana ferrumixtana* (Benander).

Agonopterix arctica (Strand). 12 (Linnaluoto & Koponen 1980). Record is based on the doubtful determination of Valle (1933); no specimens has been found.

Thera obeliscata (Hb.). Kola region (Mikkola et al. 1989). Erroneous record based on a specimen collected in Finland, NE part of the province Lkem.

Thera juniperata (L.). Same as *T. obeliscata.*

Plebejus argus (L.) We have not seen any specimens from the Peninsula. In the old lists only Fridolin (1936) mentioned this species. On the other hand, he did not include *Lycaeides idas* (L.) which is not rare in this area. Thus, the occurence of *P. argus* (which is generally distributed southwards of this area) on the Kola Peninsula is uncertain.

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