

Records of casebearers from Siberia, Russia (Coleophoridae) (1)

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Summary

As a result of six joint Finnish-Russian expeditions to Siberia, in the years 1982–1991, a list of Coleophoridae, comprising 93 species, is published. The descriptions of nine new species and two new subspecies collected during the expeditions have been published elsewhere. More than 70 species are reported for the first time from Siberia, and for many others the most eastern or northern records are published.

Zusammenfassung

Als Ergebnis von sechs gemeinsamen finnisch-russischen Expeditionen nach Sibirien in den Jahren 1982–1991 wird ein Verzeichnis der Coleophoridae mit 93 Arten vorgelegt. Die Beschreibungen von neun neuen Arten und zwei neuen Unterarten, die während der Expeditionen entdeckt wurden, sind bereits an anderer Stelle veröffentlicht worden. Mehr als 70 Arten werden erstmals für Sibirien nachgewiesen und für zahlreiche andere Arten werden die nördlichsten bzw. östlichsten bekannten Fundorte veröffentlicht.

Résumé

À la suite de six expéditions communes finno-russes en Sibérie pendant les années 1982–1991, une liste des Coleophoridae, comprenant 93 espèces, est publiée. Les descriptions de neuf nouvelles espèces et de deux nouvelles sous-espèces récoltées pendant ces expéditions ont été publiées ailleurs. Plus de 70 espèces sont rapportées pour la première fois de Sibérie et pour bon nombre d'autres espèces les localités les plus orientales ou septentrionales connues sont publiées.

(1) Report No. 19 from the joint Finnish-Russian entomological expeditions to Siberia (Project No. 20).

The fauna of the casebearer moths (Coleophoridae) of the vast territory from the Ural Mountains to the Pacific Ocean has been largely unknown. Thus, in the recent world list of this family (Vives Moreno, 1988 : 29), Siberia was largely excluded from its area. The first species of Coleophoridae from Siberia was described nearly 120 years ago, *Coleophora lativittella* Erschoff, 1877. For a long time only a few descriptions of new species appeared (Snellen, 1884 ; Filipjev, 1925 ; Falkovitsh, 1964, 1974 ; Reznik, 1976 ; Pleshakov, 1982). Information on species described from elsewhere is presented in very few works (e.g. Tibatina, 1973 ; Ammosov, 1975 ; Reznik, 1977, 1988). In the years 1982–1991, the participants of six joint Finnish-Russian entomological expeditions collected a considerable material of casebearers in Siberia, from the Altai Mountains in the southwest to the Chukchi Peninsula in the northeast. During the study of these collections descriptions of nine new species and two subspecies were published (Falkovitsh, 1991, 1993a, 1993b). Here, a complete list of the species found during the expeditions, accomplished with some earlier and recent records from Siberia (coll. MZH) is published.

Materials and methods

Under all species, the material is divided into records from five areas which were visited during the expeditions as follows :

(A) The Altai Mts. were visited in 1982 and 1983. Altai 1 : material was collected in the year 1983 by K. Mikkola, H. Hippa and J. Jalava at about 50°N 86°E in SW Altai, Katun valley, 10 km W Katanda, 1000 to 1200 m 22.vi–27.vii ; light traps and netting were used. The habitats were floristically rich xerotherm steppe slopes, with small forests of *Betula* and *Larix*, and the fauna of Coleophoridae was very diverse and abundant. Altai 2 : two short trips were made “upstairs” to mountain tundra, 2000–2300 m Bert-kum 10–14.vii, and 7 km N Katanda 2200–2500 m 20–21.vii. Two visits were made to taiga — Altai 3 : Kuragan valley, 1000 m 6.vii. and 23–25.vii. Altai 4 : one short visit was made to N.-Altai, Lake Teletskoye, taiga, 18–22.viii. 1982, from where only few specimens of Coleophoridae were caught by light-trap ; in 1990 the place was visited by Gunilla Ståhl.

(B) Novosibirsk region. The small town Akademgorodok, 30 km S from Novosibirsk, was visited in August 1982 and in June 1983 and 1984. The collecting took place in a *Pinus-Betula* forest ; for this place, only the year is given (collectors : 1982 K. Mikkola, 1983 see above, 1984 K. Mikkola & M. Viitasaari). In 1982, K. Mikkola collected for a few days at Karasuk steppe, 350 km SW of Novosibirsk.

(C) Irkutsk region. Irkutsk 1 : the vicinity of Lake Baikal (about 51 N 104 E) was visited in 1984 by K. Mikkola and M. Viitasaari. Light traps were used south of Lake Baikal near the town Sludyanka on 6 & 7.vii on a habitat with meadows and *Betula* and a bog with *Ledum*; and 8–31.vii 50 km east of the town of Sludyanka, at an elevation of 500–600 m, on a burned taiga with *Picea-Betula*. Irkutsk 2 denotes the Khamar-Daban Mts., at elevations of 1450 to 2000 m 14–28.vii, habitats from taiga to mountain tundra. Irkutsk 3 : collecting took place 1–3.viii.1984 with light traps on a steppe slope 40 km NE of Irkutsk.

(D) Magadan region. The materials were collected by K. Mikkola with light traps in July 1987 at and near Aborigen Biological Station, Upper Kolyma River in the Magadan oblast, at elevations from 400 to 1250 m in *Larix* forests, on scree slopes and mountain tundra. In 1990 the students J. Kullberg, M. Kuussaari and M. Nieminen visited the Magadan region.

(E) Chukchi aut. okrug. (autonomous area) was visited by K. Mikkola in July 1989 (Anadyr River) and in July 1991 (the extreme south-east of Chuckhi Peninsula near Provideniya at the Bering strait).

Additional records (materials in coll. MZH). J. G. Granö collected 1901–1905 in Roskovka, 13 km E of Omsk, River Om. Yu. Ammosov collected in Yakutia, near the town Yakutsk in the 1970's.

The records are presented in this order under each species. The material is deposited mainly in the Finnish Museum of Natural History, Helsinki (MZB) ; the holotypes of the new species and parts of the other material are deposited in the Zoological Institute, St. Petersburg (ZIN).

Systematic list

An asterisk * in front of the species name means that the species is described after this material.

- Coleophora albella* (Thunberg, 1788) (= *leucapennella* (Hübner, 1796)).
Novosibirsk : 1983, 2 ♂♂, 2 ♀♀ ; 1984, 1 ♂. Range : Europe, N-Africa, Asia Minor, SW-Siberia.
C. milvipennis Zeller, 1839. Novosibirsk : 1984, 7 ♂♂ ; Irkutsk 1 : 3 ♂♂.
Range : Transpalaearctic.
C. siccifolia (Stainton, 1856). Altai 1 : 1 ♂, 1 ♀, 22.vi.–8.vii ; Novosibirsk : 1984, 1 ♂. Range : Europe, W Siberia.
C. gryphipennella (Hübner, 1796). Altai 1 : 2 ♂♂, 22.vi.–8.vii ; Irkutsk 1 : 3 ♂♂, 1 ♀ ; 2 : 1 ♂ ; Magadan : 1 ♂, 22.vii. Range : Transpalaearctic.

- **C. katunella* (Falkovitsh, 1991). Altai 1 : 21 ♂♂, 28.vi–27.vii. Range : known only from the type locality, Katun valley.
- C. serratella* (Linnaeus, 1761) (= *fuscedinella* Zeller, 1849). Novosibirsk : 1984, 8 ♂♂ ; Irkutsk 1 : 2 ♂♂. Range : Holarctic.
- C. orbitella* Zeller, 1849. Altai 1 : 6 ♂♂, 1 ♀, 22.vi–8.vii. Range : Europe, W Siberia.
- C. unigenella* Svensson, 1966. Altai 2 : 1 ♂, 21.vii on an alpine *Dryas* meadow. Range : described from northern Fennoscandia, reported also from Austria (Huemer & Tarmann, 1993) ; an arcto-alpine species.
- C. obscuripalpella* Kanerva, 1941. Irkutsk 2 : 1 ♂. Range : formerly known only from Fennoscandia ; probably Transpalaearctic in the taiga zone.
- C. idaeella* Hofmann, 1869. Altai 3 : 1 ♂, 23.–25.vii ; Irkutsk 1 : 3 ♂♂ ; 2 : 2 ♂♂. Range : a boreomontane species, northern and central Europe ; S-Siberia eastward to the Baikal Area.
- C. ledi* Stainton, 1860. Irkutsk 1 : 4 ♂♂, 2 ♀♀ ; 2 : 1 ♂. Range : Holarctic.
- C. vitisella* Gregson, 1856. Magadan 20 km N, 800–1200m 1 ♀, 2.vii.1990, Kullberg, Kuussaari & Nieminen leg. Range : Transpalaearctic.
- C. glitzella* Hofmann, 1869. Irkutsk 1 : 8 exx. ; 2 : 4 ♂♂ ; Magadan : 10 ♂♂, 15.–23.vii. Range : Transpalaearctic.
- C. murinella* Tengström, 1848. Irkutsk 1 : 1 ♂. Range : N Europe, Siberia eastward to the Baikal Area.
- C. sibiricella* Falkovitsh, 1965. Altai 1 : ca 70 exx., 28.vi.–19.vii. Range : Finland, NW Russia, Siberia eastward to the Baikal Area.
- C. sp.* (without abdomen) Altai 1 : 1 ♂, 15–19.vii.
- C. albicostella* Duponchel, 1843. Altai 1 : 4 ♂♂, 22.vi.–8.vii. Range : Europe, Asia Minor, SW Siberia, Mongolia.
- C. vulpecula* Zeller, 1849. Altai 1 : 1 ♂, 15–19.vii. Range : Europe, Asia Minor, SW Siberia.
- C. sergiella* Falkovitsh, 1979. Altai 1 : 34 ♂♂, 22.vi–19.vii. Range : Altai, Tuva, Mongolia ; recorded also from Austria (Baldizzone, 1981) and Mt. Ventoux in southern France (Baldizzone *et al.*, 1981).
- C. gallipennella* (Hübner, 1796). Altai 1 : 2 ♀♀, 15–19.vii ; Novosibirsk : 1984 15 exx. Range : Europe, Asia Minor, SW Siberia, Mongolia.
- **C. lacera* (Falkovitsh, 1993). Altai 1 : 3 ♂♂, 5 ♀♀, 22.vi–5.vii ; Novosibirsk : 1983 3 ♂♂. Range : the steppe zone of the European part of Russia and W Siberia.
- C. dignella* Toll, 1961. Altai 1 : 4 ♂♂, 1 ♀, 22.vi–8.vii. Range : S Europe, Asia Minor, N Kazakhstan, SW Siberia.

- C. spargospinella* Reznik, 1974. Altai 1 : 1 ♂, 28.vi–5.vii. Range : Altai and Mongolia. This and the following nine species were published by Reznik (1988).
- C. tshiligella* Reznik, 1976. Altai 1 : 48 exx., 28.vi–19.vii. Range : steppe zone from S Ural to Altai.
- C. fuscociliella* Zeller, 1849 (= *medicaginis* Herrich-Schäffer, 1861). Altai 1 : 4 ♂♂, 28.vi–8.vii. Range : Europe, Caucasus, Asia Minor, SW Siberia.
- C. caelebipennella* Zeller, 1839. Altai 1 : 4 ♂♂, 28.vi–19.vii ; 3 : 1 ♂, 23–25.vii. Range : Transpalaearctic.
- C. solenella tariata* Reznik, 1975. Altai 1 : 52 exx., 6.–27.vii. ; Irkutsk 3 : 1 ♂. Range : steppes of S Siberia and Mongolia. The nominate subspecies in S Europe.
- C. conspicuella* Zeller, 1849. Altai 1 : 1 ♂, 26–27.vii. Range : Transpalaearctic.
- C. inconstans* Reznik, 1975. Altai 1 : 1 ♂, 22–27.vi ; 2 : 1 ♂, 10–14.vii. Range : Altai and Mongolia.
- C. ditella* Zeller, 1849. Altai 1 : 3 ♂♂, 22.vi–5.vii. Range : Europe, Asia Minor, SW Siberia, Mongolia.
- C. vibicigerella* Zeller, 1839. Altai 1 : 30 exx., 22.vi–8.vii. Range : Transpalaearctic.
- C. partitella* Zeller, 1849. Altai 1 : 1 ♂, 28.vi–5.vii. Range : Europe, Asia Minor, Caucasus, SW Siberia.
- C. sp. (pr. oriolella* Zeller, 1848). Altai 1 : 1 ♀, 26.vii.
- C. hospitiella* Chrétien, 1915. Altai 1 : 1 ♂, 1 ♀, 6–8.vii. Range : S Europe, N Africa, Uzbekistan, Iran, Afganistan, steppe zone of W Siberia.
- C. deauratella* Lienig & Zeller, 1846. Altai 1 : 16 exx., 21.vi–8.vii ; Novosibirsk : 1983 1 ♂, 1984 3 ♂♂ ; Irkutsk 1 : 1 ♂ ; 3 : 2 ♂♂. Range : Holarctic ; introduced in N America (Landry, 1991).
- C. trifolii* (Curtis, 1832). Altai 1 : 2 ♂♂, 28.vi–19.vii ; Novosibirsk : 1984 1 ♂ ; Irkutsk 3 : 1 ♂. Range : Holarctic ; introduced in N America (Landry & Wright, 1993).
- C. pustulosa* Falkovitsh, 1979. Irkutsk 3 : 2 ♂♂. Range : the Baikal Area area and Mongolia.
- C. alcyonipennella* (Kollar, 1832). Altai 1 : 1 ♂♂, 1 ♀, 6–8.vii ; Novosibirsk : 1984 10 exx. ; Irkutsk 3 : 1 ♂ ; Yakutia : Pokrovsk near Yakutsk, 1 ♂, 1.viii.1980, Yu. Ammosov leg. Range : Transpalaearctic ; introduced in Australia and New Zealand.
- C. albidiella* (Denis & Schiffermüller, 1775). Altai 1 : 28 exx., 28.vi–19.vii ; 3 : 1 ♂, 23–25.vii ; Novosibirsk : 1984 1 ♂. Range : Transpalaearctic.

- C. bernoulliella* (Goeze, 1783) [= *anatipennella* (Hübner, 1796)]. Altai 1 : 9 exx., 28.vi–19.vii. Range : Europe, S Siberia, Mongolia.
- C. currucipennella* Zeller, 1839. Novosibirsk : 1984 1 ♂. Range : Trans-palaearctic.
- C. serpylletorum* E. Hering, 1889. Altai 1 : 16 ♂♂, 2 ♀♀, 28.vi–19.vii. Range : Europe, S Siberia.
- **C. halepa* (Falkovitsh, 1993). Altai 1 : 1 ♂, 22–27.vii. Range : known only from the type locality, Katun valley.
- C. sp. (pr. *ptarmicia* Walsingham, 1910)* Altai 1 : 1 ♂, 15–19.vii.
- C. sp. ornatipennella*-group. Altai 1 : ca 60 exx., 28.vi–27.vii. The specimens from Altai agree rather well with the description of *C. nevadella* from Spain by Baldizzone, 1985, but as we are dealing with a very difficult species-group, we leave the question open for the time being.
- C. ornatipennella* (Hübner, 1796). Omsk 1 ♀ in the 1900's, J. G. Granö leg. Range : Europe, Asia Minor, Turkmenistan, SW Siberia.
- C. ballotella* Fischer v. Rösslerstamm, 1839. Novosibirsk : 1984 1 ♂. Range : Central and S Europe, Asia Minor, S Siberia eastward to Altai.
- C. pulmonariella* Ragonot, 1874. Altai 1 : 1 ♂, 22–27.vi. Range : Europe, S Siberia eastward to Altai.
- C. lineolea* (Haworth, 1828). Altai 1 : 2 ♂♂, 22.vi–5.vii. Range : Europe, S Siberia eastward to Altai.
- C. chalcogrammella* Zeller, 1839. Altai 1 : 3 ♂♂, 22–27.vii. Range : Europe, S Siberia eastward to Altai.
- C. lativittella* Erschoff, 1877. Altai 3 : 1 ♂, 23–25.vii ; Irkutsk 3 : 4 ♂♂. Range : steppes of S Siberia and Mongolia.
- C. salicorniae* (Heinemann & Wocke, 1877) Novosibirskaya oblast : 350 km SW Novosibirsk, Karasuk steppe, 1 ♂, 25–28.viii. 1982, K. Mikkola leg. Range : Europe, Novosibirskaya oblast, Central Asia.
- C. artemisicolella* Bruand, 1855. Altai 1 : 1 ♂, 28.vi–5.vii ; 3 : 1 ♂, 15.vii ; Irkutsk 3 : 1 ♂ ; Magadan : 1 ♂, 15.vii, scree slope, 1 ♂, 3.viii, steppe slope. Range : Transpalaearctic.
- **C. exul* (Falkovitsh, 1992). Magadan : 1 ♀, 8.vii. 1250 m mountain tundra. Range : known only from the type locality.
- C. adelogrammella* Zeller, 1849 (= *separatella* Benander, 1939). Magadan : Aborigen st., N-steppe slope 1 ♂, 5.vii. 1990, Kullberg, Kuussaari & Nieminen leg. Range : Europe, Asia Minor, E Siberia.
- C. moronella* Falkovitsh, 1975. Altai 2 : 1 ♂, 10–14.vii. 2500 m. Range : Altai, Mongolia.

- C. derasofasciella* Klimesch, 1952. Chukchi Pns. : 45 km N Provideniya, Pestsovaya river valley, 1 ♂, 10.vii.1991, K. Mikkola leg. Range : formerly known only from Austria, apparently an arcto-alpine species.
- C. directella* Zeller, 1849. (ssp.?) Altai 4 : 2 ♂♂, 18–22.viii ; Irkutsk 3 : 1 ♂. Range : Europe, S Siberia eastward to the Baikal Area and Mongolia.
- C. argentula* (Stephens, 1834). Altai 1 : 10 ♂♂, 1 ♀, 28.vi–19.vii ; Novosibirsk : 1984 1 ♂. Range : Europe, Asia Minor, S Siberia eastward to Altai.
- **C. microdon* (Falkovitsh, 1993). Altai 1 : 1 ♂, 15–19.vii. Range : known only from the Altai Mountains.
- C. ramosella* Zeller, 1849. Altai 2 : 1 ♂, 10–14.vii. Range : Europe, S Siberia eastward to Altai.
- **C. diplodon* (Falkovitsh, 1993). Altai 3 : 1 ♂, 23–25.vii ; Irkutsk 3 : 1 ♂. Range : S Siberia from Altai to the Baikal Area.
- **C. zygodon* (Falkovitsh, 1993). Altai 1 : 1 ♂, 26–27.vi. Range : known only from Altai.
- **C. loxodon* (Falkovitsh, 1993). Altai 1 : 1 ♂, 1 ♀, 22.vi–5.vii. Range : known only from Altai.
- C. discifera* Falkovitsh, 1976. Irkutsk 3 : 2 ♂♂. Range : steppes of the Baikal area and Mongolia.
- C. paripennella* Zeller, 1839 (= *aereipennis* auct.). Altai 2 : 2 ♂♂, 10–14.vii ; 4 : 3 ♂♂, 11–17.vi.1990, Malaise-trap, G. Ståhls leg. ; Irkutsk 3 : 1 ♂. Range : Europe, S Siberia eastward to the Baikal Area.
- C. silenella* Herrich-Schäffer, 1855. Altai 1 : 22 exx., 28.vi–27.vii. Range : Transpalaearctic.
- C. ciconiella* Herrich-Schäffer, 1855. Altai 1 : 2 ♂♂, 6–8.vii. Range : Europe, S Siberia eastward to Altai.
- C. nutantella* Mühlig & Frey, 1857. Altai : Gorno-Altaisk 1 ♂, 21.vi.1983 ; Novosibirsk : 1984 2 ♂♂, 1 ♀. Range : Europe, Asia Minor, S Siberia to Altai.
- C. dianthi* Herrich-Schäffer, 1855. Altai 1 : 15 exx., 22.vi–19.vii. Range : Europe, Asia Minor, Iraq, S Siberia to Altai.
- C. palifera* Falkovitsh, 1977. Altai 1 : 3 ♂♂, 28.vi–19.vii. Range : Altai and Mongolia.
- C. darigangae* Falkovitsh, 1976. Altai 1 : 1 ♂, 15–19.vii ; Magadan : 1 ♂, 3.viii. Range : eastern Palaearctic, westward to Altai.
- C. striatipennella* Nylander, 1848. Altai 3 : 1 ♂, 6.vii ; 1 ♂, 23–25.vii ; Gorno-Altaisk 1 ♂, 21.vi ; Novosibirsk : 1984 6 ♂♂ ; Magadan : Mys Ostrovnyj (20 km W Magadan), 1 ♂, 3.vii.1990, J. Kullberg, M. Kuussaari & M. Nieminen leg. Range : Transpalaearctic.

- C. clarissa* Falkovitsh, 1977. Altai 1 : 4 ♂♂, 27.vi–27.vii. Range : Altai and Mongolia, recorded also from Portugal (Vives Moreno, 1987).
- **C. spiralis provecta* (Falkovitsh, 1993). Altai 1 : 3 ♂♂, 15–19.vii. The nominate subspecies is distributed in Mongolia.
- **C. asteris abbreviata* (Falkovitsh, 1993). Irkutsk 3 : 5 ♂♂. The nominate subspecies occurs in Europe.
- C. therinella* Tengström, 1848. Altai 1 : 17 exx., 28.vi–27.vii ; 3 : 1♂, 23–25.vii. ; 4 : 1♂ ; Irkutsk 3 : 3 ♂♂ ; Yakutia : Elanka 136 km S Yakutsk, 1♂, 8–11.viii.1979, Yu. Ammosov leg. Range : Transpalaearctic.
- C. monoceros* Falkovitsh, 1975. Altai 2 : 2 ♂♂, 20.vii ; 3 : 2 ♂♂, 23–25.vii ; Irkutsk 1 : 1♂. Range : Altai, the Baikal area, Mongolia.
- C. pandionella* Baldizzone, 1988. Altai 1 : 1♂, 5 ♀♀, 28.vi–19.vii. Range : Altai and Amur area.
- **C. subula* (Falkovitsh, 1993). Altai 1 : 6 ♂♂, 6–21.vii. Range : known only from Altai.
- **C. kolymella* (Falkovitsh, 1992). Magadan : 1♂, 14.vii, 600 m, scree slope. Range : known only from the type locality.
- C. pseudolinorysis* Kasy, 1979. Novosibirskaya oblast : 350 km SW Novosibirsk, Karasuk steppe, 1♂, 1♀, 25–28.viii.1982, K. Mikkola leg. ; Irkutsk 1 : 1♂. Range : C Europe, Kazakhstan, S Siberia eastward to the Baikal Area.
- **C. bajkalella* (Falkovitsh, 1993). Altai 4 : 1♂, 18–25.vi.1990, Malaise-trap, G. Ståhls leg. ; Irkutsk 1 : 1♂. Range : S Siberia from Altai to the Baikal Area.
- C. hsiaolingensis* Toll, 1942. Irkutsk 3 : 4 ♂♂. Range : the Baikal Area, Mongolia, N China.
- C. sternipennella* (Zetterstedt, 1839). Altai 1 : 2 ♂♂, 1♀, 5–19.vii ; 3 : 1♂, 23–25.vii. Range : Europe, Caucasus, W Siberia.
- C. sittella* Baldizzone, 1989 (ssp.?). Altai 1 : 18 exx., 28.vi–27.vii ; 2 : 1♂, 23–25.vii. The species is described from SE China.
- C. versurella* Zeller, 1849. Altai 1 : 1♂, 3 ♀♀, 28.vi–19.vii. Range : Holarctic ; recorded also from Argentina.
- C. motacillella* Zeller, 1849. Altai 1 : 2 ♂♂, 28.vi–19.vii. Range : Europe, SW Siberia eastward to Altai.
- C. vestianella* (Linnaeus, 1758) [= *laripennella* (Zetterstedt, 1839)] Altai 1 : 1♀, 28.vi–5.vii ; 3 : 1♂, 23–25.vii ; 4 (abundant) ; Irkutsk 1, 2, 3 ; Yakutia : Elanka, Yu. Ammosov leg. (seems to be widely common). Range : Transpalaearctic.
- C. virgaureae* Stainton, 1857 Altai 2 : 1♂, 10–14.vii. ; Irkutsk 1 : 2 ♂♂ ; 2 : 4 ♂♂. Range : Europe, Caucasus, Kazakhstan, Siberia eastward to the Baikal area.

- C. squamosella* Stainton, 1856 (= *erigerella* Ford, 1935) Altai 4 : 1 ♂, 18–25.vi.1990, Malaise-trap, G. Ståhls leg.; Irkutsk 3 : 1 ♂; Chukchi aut. okrug.: Anadyr r., Markovo, 1 ♂ 7–12.7.1989. Range : Transpalaearctic.
- C. alticolella* Zeller, 1849 (= *caespititiella* auct.) Altai 4 : 1 ♂, 18–25.vi.1990, Malaise-trap, G. Ståhls leg.; Chukchi aut. okrug.: Anadyr airp., 1 ♂, 6.vii.1991. Range : Holarctic.
- C. glaucicolella* Wood, 1892 Novosibirsk : 1984 1 ♂. Range : Holarctic.
- C. otidipennella* (Hübner, 1817) [= *murinipennella* (Duponchel, 1844)]. Altai 2 : 1 ♂, 20–21.vii ; 4 : 3 mm 11–28.vi.1990, Malaise-trap, G. Ståhls leg. Range : Europe, W Siberia.

Discussion

Before this study, only about 20 species of casebearers were known from Siberia. Hence, an overwhelming majority of the 93 species reported here is recorded from Siberia for the first time. About 20 species are mentioned for the first time from Russia. The results of this study clearly indicate that the proportion of Westpalaearctic (from Europe to Southern Siberia) or even transpalaearctic species within the family Coleophoridae is higher than supposed before. These may be, by and large, divided into the following groups :

1. Arcto-alpine species : *C. unigenella* (Northern Fennoscandia and Altai) and *C. derasofasciella* (Austria and Chuckhi Pns.), both feeding on *Dryas*.
2. Boreomontane forest (mainly taiga) species : *C. ledi*, *C. obscuripalpella*, *C. glitzella*, *C. murinella*, *C. vitisella*, *C. idaeella*, all living on Ericaceae ; as well as many species living on deciduous trees e.g. *Betula* and *Salix* : *C. milvipennis*, *C. serratella*, *C. albidella* and others. To this group belong also some species living on herbaceous plants of the forest meadows, e.g. *C. virgaureae* on *Solidago* and *C. silenella* on *Silene* and *Viscaria*.
3. Species living on weeds : e.g. *C. vestianella* and *C. versurella* on *Chenopodium* and *C. artemisicolella* on *Artemisia vulgaris*.
4. Some species are associated with the flora of moist soils, e.g. *C. alticolella* and *C. glaucicolella*, both feeding on *Juncus*.

The main part of the material for this study originates from the Altai mountains. From the zoogeographical point of view, this region is very interesting, as it is situated near the River Yenisei — the real borderline between the Eastern and Western Palaearctic zones. The close neighbourhood of the steppes of Mongolia and the taiga and alpine elements give richness and diversity to the insect fauna of the Altai. 80 species

of Coleophoridae (76 of these identified to nominal species) are so far recorded from Altai. According to their distribution types, these can be grouped as follows :

1. Transpalaearctic or Holarctic — 19 spp.
2. Eurosiberian with distribution eastward to Altai (this group includes some "true" steppe species) — 26 spp.
3. Eurosiberian with distribution eastward to the Lake Baikal Area — 13 spp.
4. East-Siberian (from Far-East westward to S Siberia) — 3 spp.
5. S Siberian-Mongolian (mainly eastern steppe species) — 15 spp. (six of them known only from the Altai).

Thus, very widely distributed — Transpalaearctic or wider — casebearers form about a quarter (25 %) of the Altai fauna. Another quarter (24 %) consists of species of eastern distribution ; the remaining half (51 %) consists of Western Palaearctic species. So far we have only moderate knowledge of the casebearer fauna of the Altai, but we can already say that a very great part of the species has a western distribution.

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