

Microlepidoptera (Insecta: Lepidoptera) Collected from the Kamchatka Peninsula and the North Kuril Islands in 1996–1997

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Abstract Forty-three species belonging to 13 families of the Microlepidoptera are collected from the Kamchatka Peninsula and North Kuril Islands. Twenty six species and four species are newly recorded from the Kamchatka Peninsula and from the North Kuril Islands, respectively. The percentage of the species having extensive range (cosmopolitan, Holarctic or Trans-Palaearctic) to all collected species is 74.4% (32 of 43 spp.).

Key words: Microlepidoptera, Lepidoptera, fauna, Kamchatka, Kuril Islands, distribution.

The Natural History Museum and Institute, Chiba, carried out the Biological Expedition to the Kamchatka Peninsula and North Kuril Islands in 1996 and 1997. The expedition is a part of a project entitled "The Origin and Biogeography of the Northeast Asian Biota", in co-operation with the Institute of Biology and Pedology and the Institute of Marine Biology belonging to the Far Eastern Branch of the Russian Academy of Sciences, Vladivostok.

During this expedition, 122 specimens of Microlepidoptera, belonging to 43 species of 13 families were collected. The fauna of Microlepidoptera of the Kamchatka Peninsula and North Kuril Islands has not been studied sufficiently, since no intensive investigation of the Microlepidoptera has been conducted. Therefore, as a result of determination of the collected moths, more than half of the species are newly recorded for the surveyed region. In this paper, a list of the Microlepidoptera is presented based on the material collected during the expedition.

Material and Methods

The moths were collected using a light trap with a mercury lamp (160 W) and sweeping with an entomological net in grasslands. The abdomens of the collected specimens were macerated in 10% KOH for examination.

Part of the material is deposited in the collection of the Natural History Museum and Institute, Chiba (CBM, with code of ZI). The genitalia dissected from specimens are kept in Glycerin.

List of collected species

In the following list, 43 species are recorded from the Kamchatka Peninsula and North Kuril Islands, and these are classified into 13 families as follows: one species of the Adelidae, one sp. of the Tineidae, one sp. of the Gracillariidae, one sp. of the Plutellidae, two spp. of the Argyresthiidae, one sp. of the Epermeniidae, two spp. of the Elachistidae, two spp. of the Momphidae, two spp. of the Gelechiidae, one sp. of the Choreutidae, 16 spp. of the Tortricidae, one sp. of the Pterophoridae, 12 spp. of the Pyralidae.

Family Adelidae

1. *Nemophora bellela* (Walker, 1863)

Material examined. Kamchatka Peninsula: 1 male, 17 km north of Malki, Poperechnaya river, 27. VII. 1997, R. B. Kuranishi leg., CBM-ZI 82353.

Distribution. Northern Europe; Russia: Kol'skii Peninsula, Karelia, Northern Ural, Siberia, Chukchi autarky Republik, Kamchatka Peninsula (new record), Sakhalin;

Alaska.

Host plants. Unknown.

Family Tineidae

2. *Monopis laevigella*

([Denis and Schiffermüller], 1775)

Material examined. **North Kuril Islands:** 1 male, Shumshu Island, Bol'shoe lake, 22. VII. 1997, E. A. Makarchenko and S. K. Kholin leg.

Distribution. Holarctic.

Trophic specialization. Larvae feed on wool products.

Family Gracillariidae

3. *Caloptilia stigmatella* (Fabricius, 1781)

Material examined. **Kamchatka Peninsula:** 1 male, 15 km north-east of Esso, Pravaya Kamchatka river, 9. VII. 1996, R. B. Kuranishi leg., CBM-ZI 82354.

Distribution. Europe; Russia: European part, Caucasus, Ural, Siberia, Khabarovsk Territory, Primorsk Territory, Kamchatka Peninsula (new record), South Kuril Islands (Kunashir); Kazakhstan; Middle Asia; Mongolia; China; Korea; Japan (Hokkaido, Honshu); India; North America.

Host plants. Larvae feed on *Populus* spp., *Salix* spp. and *Chosenia* spp.

Family Plutellidae

4. *Plutella xylostella* (Linnaeus, 1758)

Material examined. **Kamchatka Peninsula:** 1 female, 15 km north-east of Esso, Pravaya Kamchatka river, 8. VII. 1996; 1 male, 10 km north Gannaly, 31. VII. 1997, Y. A. Tshistjakov leg.

North Kuril Islands: 1 male, Paramushir Island, Shelikhov Bay, 17. VII. 1997, E. A. Makarchenko and S. K. Kholin leg.

Distribution. Cosmopolitan.

Host plants. Larvae feed on *Brassica* spp. and *Raphanus* spp.

Family Argyresthiidae

5. *Argyresthia conjugella* (Zeller, 1839)

Material examined. **Kamchatka Peninsula:** 2 males, 15 km north-east of Esso, Pravaya

Kamchatka river, 9. VII. 1996, R. B. Kuranishi leg., CBM-ZI 82355, 82356.

Distribution. Europe; Russia: European part, Siberia, Amursk Province, Kamchatka Peninsula (new record); Central Asia; Korea; Japan (Hokkaido, Honshu); North America.

Host plants. Larvae feed on the *Sorbus commixta* Hed. and *Malus pumila* Mill.

6. *Argyresthia ivella* (Haworth, 1828)

Material examined. **Kamchatka Peninsula:** 1 male, 17 km North of Malki, Poperechnaya river, 27. VII. 1997, R. B. Kuranishi leg., CBM-ZI 82357.

Distribution. Europe; Russia: European part, Siberia, Primorsk Territory, Kamchatka Peninsula (new record); Japan (Hokkaido, Honshu).

Host plants. Larvae feed on *Malus sieboldii* (Reg.) in Japan, and *M. pumilla* Mill. and *Corylus avellana* L. in Europe.

Family Epermeniidae

7. *Phaulernis fulviguttella* (Zeller, 1839)

Material examined. **North Kuril Islands:** 2 males, Paramushir Island, Shelikhov Bay, 19. VII. 1997, R. B. Kuranishi leg., CBM-ZI 82358.

Distribution. Europe; Russia: European part, Caucasus, Kamchatka Peninsula, Komandorsk Islands (Mednyi Island), Kuril Islands (Paramushir: new record); Japan (Honshu).

Host plants. Larvae feed on seeds of *Angelica* spp., *Heracleum* spp., *Peucedanum* spp. and *Pimpinella* spp.

Family Elachistidae

8. *Elachista revinctella* (Zeller, 1850)

Material examined. **Kamchatka Peninsula:** 1 male, 15 km north-east of Esso, Pravaya Kamchatka river, 9. VII. 1996, R. B. Kuranishi leg., CBM-ZI 82359.

Distribution. Europe; Russia: European part, Primorsk Territory, Kamchatka Peninsula (new record).

Host plants. Larvae feed on *Poa* spp., *Festuca* spp., *Deschampsia* spp., *Milium* spp. and *Brachypodium* spp.

9. *Elachista latebrella*
(Sinev and Sruoga, 1995)

Material examined. North Kuril Islands: 1 male, Shumshu Island, Bol'shoe lake, 22. VII. 1997, E. A. Makarchenko and S. K. Kholin leg.

Distribution. Kuril Islands (Shumshu (new record); Shikotan).

Host plants. Unknown.

Family Momphidae

10. *Cyphophora idaei* (Zeller, 1839)

Material examined. Kamchatka Peninsula: 1 male, 17 km north of Malki, Poperechnaya river, 5. VII. 1996, Y. A. Tshistjakov leg.

Distribution. Europe; Russia: European part, Caucasus; western Siberia; Irkutskaya oblast', Altai, Buryatia, Yakutiya, Magadansk Province, Chukchi autarky Republik, Kamchatka Peninsula, Primorsk Territory, Sakhalin; Middle Asia (mountains); north-western China.

Host plants. Larvae feed on *Epilobium angustifolium* L.

11. *Psacaphora complexa* (Svensson, 1982)

Material examined. Kamchatka Peninsula: 1 male, 15 km north-east of Esso, Pravaya Kamchatka river, 9. VII. 1996, R. B. Kuranishi leg., CBM-ZI 82360.

Distribution. North Europe; Russia: Kol'skii Peninsula, Siberia, Irkutskaya oblast', Buryatia, Magadansk Province, Kamchatka Peninsula (new record), northern Primorsk Territory, Sakhalin; North America.

Host plants. Larvae feed on *Epilobium angustifolium* L.

Family Gelechiidae

12. *Chionodes violacea* (Tengström, 1848)

Material examined. Kamchatka Peninsula: 1 male, 15 km north-east of Esso, Pravaya Kamchatka river, 8. VII. 1996, Y. A. Tshistjakov leg.

Distribution. North Europe; Russia: European part, Magadansk Province, Kamchatka Peninsula (new record); Mongolia.

Host plants. Unknown.

13. *Chionodes lugubrella* (Fabricius, 1794)

Material examined. Kamchatka Peninsula: 2 males, 15 km northeast of Esso, Pravaya Kamchatka river, 8. VII. 1996, Y. A. Tshistjakov leg.

Distribution. Holarctic.

Host plants. Larvae feed on *Trifolium repens* L., *Lotus corniculatus* L., *Vicia crassa* L. and *Dorycnium pentaphyllum* Scop.

Family Choreutidae

14. *Tebenna submicalis* (Danilevsky, 1969)

Material examined. North Kuril Islands: 1 male, Paramushir Island, Shelikhov Bay, 19. VII. 1997; 2 males, Shumshu Island, Bol'shoe lake, 22. VII. 1997, E. A. Makarchenko and S. K. Kholin leg.

Distribution. Russia: Sakhalin, Kuril Islands (Shumshu (new record); Paramushir (new record); Kunashir); Japan (Hokkaido); Nepal.

Host plant. Larvae feed on *Anaphalis margaritacea* (L.).

Family Tortricidae

15. *Aethes rubigana* (Treitschke, 1830)

Material examined. Kamchatka Peninsula: 1 male, 15 km north-east of Esso, Pravaya Kamchatka river, 8. VII. 1996; 1 male, Nachiki, 16. VII. 1996; 5 males, 17 km north of Malki, Poperechnaya river, 28. VII. 1997; 1 male, 10 km north of Gannaly, 1. VIII. 1997, Y. A. Tshistjakov leg.

Distribution. North Europe; Russia: European part, Siberia, Kamchatka Peninsula (new record); Transcaucasia; Kazakhstan; Mongolia; China; Japan (Hokkaido).

Host plants. Larvae feed in the roots, stems and inflorescence of *Arctium* spp. and *Cirsium* spp.

16. *Hysterosia inopiana* (Haworth, 1811)

Material examined. Kamchatka Peninsula: 1 male, 10 km north of Gannaly, 31. VII. 1997, R. B. Kuranishi leg., CBM-ZI 82361.

Distribution. Europe; Russia: European part (excepting northern parts), Siberia, Amursk Province, Khabarovsk Territory, Primorsk Territory, Kamchatka Peninsula

(new record), Kuril Islands (Kunashir); Transcaucasia; Kazakhstan; Middle Asia; Asia Minor; Iran; Mongolia; China; Japan (Hokkaido, Honshu); North America.

Host plants. Larvae feed on the roots of *Artemisia* spp. in Europe.

17. *Eana argentana* (Clerck, 1759)

Material examined. **Kamchatka Peninsula:** 1 male, Nachiki, 16. VII. 1996, Y. A. Tshistjakov leg.

Distribution. Europe; Russia: European part, Caucasus, southern Siberia, Amursk Province, Magadansk Province, Kamchatka Peninsula (new record), Sakhalin, Kuril Islands (Urup, Kunashir, Shikotan); Transcaucasia; Kazakhstan; Middle Asia; northwestern Africa; Asia Minor; Mongolia; China; Korea; Japan (Hokkaido, Honshu); India; North America.

Host plants. Larvae feed on *Poa pratensis* L. and *Larix leptolepis* G.

18. *Eana osseana* (Scopoli, 1763)

Material examined. **Kamchatka Peninsula:** 1 male, 10 km north of Gannaly, 31. VII. 1997, R. B. Kuranishi leg., CBM-ZI 82362.

Distribution. Europe; Russia: European part, Caucasus, South Siberia, Magadansk Province, Chukchi autarky Republik, Kamchatka Peninsula (new record); Mongolia; China; North America.

Trophic specialization. The larvae live in silk tubes among mosses (Musci) and under stones.

19. *Pandemis heparana*

([Denis and Schiffermüller], 1775)

Material examined. **Kamchatka Peninsula:** 1 male, 17 km north of Malki, Poperechnaya river, 27. VII. 1997, R. B. Kuranishi leg., CBM-ZI 82363; 3 males, same locality, 28. VII. 1997, Y. A. Tshistjakov leg.

Distribution. Europe; Russia: European part, Caucasus, Ural, Siberia, Transbaikalia, Amursk Province, Khabarovsk Territory, Primorsk Territory, Kamchatka Peninsula (new record), Sakhalin, Kuril Islands (Kunashir); Kazakhstan; Asia Minor; Mongolia; China; Korea; Japan; the Himalayas.

Host plants. Larvae are polyphagous and feed on *Prunus* spp., *Malus* spp., *Pyrus* spp.,

Rosa spp., *Linum* spp., *Syringa* spp., *Ligustrum* spp., *Acer* spp., *Fragaria* spp., *Crataegus* spp., *Ulmus* spp., *Betula* spp., *Cornus* spp., *Quercus* spp., *Ribes* spp., *Corylus* spp., *Phellodendron* spp., *Arctium* spp., *Alnus* spp., *Juglans* spp., *Trifolium* spp., *Maackia* spp., *Acanthopanax* spp., *Aralia* spp., *Viburnum* spp., *Salix* spp., *Populus* spp., *Phylladelphus* spp., *Rhododendron* spp., *Artemisia* spp., *Vaccinium* spp., *Arctium* spp., *Castanea* spp. and *Erigeron* spp.

20. *Pandemis cerasana* (Hübner, 1786)

Material examined. **Kamchatka Peninsula:** 2 males, 17 km north of Malki, Poperechnaya river, 27. VII. 1997, R. B. Kuranishi leg., CBM-ZI 82364–82365.

Distribution. Europe; Russia: European part, southern Siberia, Amursk Province, Primorsk Territory, Kamchatka Peninsula (new record), Sakhalin, Kuril Islands (Kunashir); Transcaucasia; Kazakhstan; Asia Minor; Iran; Mongolia; China; Japan; Himalayas; North America.

Trophic specialization. Polyphagous.

21. *Lozotaenia forsterana* (Fabricius, 1781)

Material examined. **Kamchatka Peninsula:** 1 male, 15 km north-east of Ezzo, Pravaya Kamchatka river, 8. VII. 1996, Y. A. Tshistjakov leg.

Distribution. Europe; Russia: European part, Ural, Siberia, Amursk Province, Primorsk Territory, Kamchatka Peninsula (new record); China.

Trophic specialization. Polyphagous.

22. *Aphelia septentrionalis*

(Obraztsov, 1959)

Material examined. **Kamchatka Peninsula:** 1 male, 15 km north-east of Ezzo, Pravaya Kamchatka river, 8. VII. 1996; 3 males, 17 km north of Malki, Poperechnaya river, 28. VII. 1997; 3 males, 10 km north of Gannaly, 29. VII. 1997, Y. A. Tshistjakov leg.

Distribution. Russia: Magadansk Province, Chukchi autarky Republik, Kamchatka Peninsula (new record); Japan; Alaska.

Host plants. Unknown.

23. *Tortrix sinapina* (Butler, 1897)

Material examined. **North Kuril Islands:** 1 male, Paramushir Island, Severo-Kurilsk, 11.

VII. 1997, E. A. Makarchenko and S. K. Kholin leg.

Distribution. Russia: Primorsk Territory, Askold Island, Kuril Islands (Paramushir (new record); Kunashir); China (Shansi); North Korea; Japan.

Host plant. Larvae feed on *Quercus* spp., *Corylus* spp., *Betula* spp., *Tilia* spp., *Sorbus* spp., *Lespedeza* spp., *Malus* spp., *Fraxinus* spp. and other deciduous trees.

24. *Bactra lacteana* (Caradja, 1916)

Material examined. **Kamchatka Peninsula:** 1 male, Nachiki, 16. VII. 1996, Y. A. Tshistjakov leg.

Distribution. Europe; Russia: European part, southern Siberia, Transbaikalia, Amursk Province, Khabarovsk Territory, Primorsk Territory, Kamchatka Peninsula (new record), Kuril Islands (Kunashir); Transcaucasia; Kazakhstan; Mongolia; China; Korea; Japan.

Host plant. Larvae feed in the stalk of *Juncus* spp. and *Scirpus* spp.

25. *Bactra lancealana* (Hübner, 1799)

Material examined. **Kamchatka Peninsula:** 1 male, 17 km north of Malki, Poperechnaya river, 27. VII. 1997, R. B. Kuranishi leg., CBM-ZI 82366.

Distribution. Europe; Russia: European part, southern Siberia, Transbaikalia, Amursk Province, Khabarovsk Territory, Primorsk Territory, Magadansk Province, Kamchatka Peninsula (new record), Chukchi autarky Republik, Kuril Islands (Kunashir); Transcaucasia; Kazakhstan; Middle Asia; North Africa; Asia Minor; Iran; Afghanistan; Mongolia; China; Sri Lanka; North America.

Host plants. Larvae feed on the stalk near roots of the families Juncaginaceae and Cyperaceae.

26. *Apotomis sororculana* (Zetterstedt, 1839)

Material examined. **Kamchatka Peninsula:** 1 male, 17 km north of Malki, Poperechnaya river, 28. VII. 1997, Y. A. Tshistjakov leg.

Distribution. Europe; Russia: European part (excluding SE), Ural, Siberia, Transbaikalia, Amursk Province, Primorsk Territory, Kamchatka Peninsula (new record); Kazakh-

stan.

Host plants. Larvae feed on the rolled leaves of *Betula* spp.

27. *Phiaris bipunctana* (Fabricius, 1794)

Material examined. **Kamchatka Peninsula:** 1 male, 10 km north of Gannaly, 29. VII. 1997, Y. A. Tshistjakov leg.

Distribution. Europe; Russia: European part (excluding southern and southeastern parts), southern Siberia (mountains), Transbaikalia, Amursk Province, Khabarovsk Territory, Primorsk Territory (Sikhote-Alin'), Kamchatka Peninsula (new record); Mongolia.

Host plants. Larvae feed on the rolled leaves of *Vaccinium* spp. and *Rhododendron* spp.

28. *Loxoterma pryerana* (Walsingham, 1900)

Material examined. **Kamchatka Peninsula:** 1 male, 17 km north of Malki, Poperechnaya river, 27. VII. 1997, Y. A. Tshistjakov leg.

Distribution. Russia: Amursk Province, Khabarovsk Territory, Primorsk Territory, Kamchatka Peninsula (new record), Sakhalin, Kuril Islands (Iturup, Kunashir); northeastern China; Japan (Hokkaido, Honshu).

Host plants. Larvae feed on *Thermopsis* spp., *Polygonum* spp., *Fragaria* spp. and *Actinidia* spp.

29. *Eucosma messingiana* (Fischer Röslerstamm, 1837)

Material examined. **Kamchatka Peninsula:** 1 male, 17 km north of Malki, Poperechnaya river, 28. VII. 1997, Y. A. Tshistjakov leg.

Distribution. Europe; Russia: European part, Siberia, Chukchi autarky Republik, Kamchatka Peninsula (new record); Kazakhstan; Mongolia.

Host plants. Larvae feed in the roots of *Artemisia* spp.

30. *Ancyliis badiana* ([Denis and Schiffermüller], 1775)

Material examined. **Kamchatka Peninsula:** 7 males, 1 female, 15 km northeast of Esso, Pravaya Kamchatka river, 8. VII. 1996, Y. A. Tshistjakov leg.; 4 males, same locality, 9. VII. 1996, CBM-ZI 82367–82370; 2 males, 17

km north of Malki, Poperechnaya river, 27. VII. 1997, CBM-ZI 82371, 82372. R. B. Kuranishi leg.; 3 males, Azhabach'e Lake, Bushu-ika river, 13. VII. 1996; 1 male, Nachiki, 16. VII. 1996; 14 males, 17 km north of Malki, Poperechnaya river, 27–28. VII. 1997, Y. A. Tshistjakov leg.

Distribution. Europe; Russia: European part, Ural, Siberia, Amursk Province, Khabarovsk Territory, Primorsk Territory, Kamchatka Peninsula (new record), Sakhalin, Kuril Islands (Iturup, Kunashir); Transcaucasia; Asia Minor; Mongolia; China; Korea; Japan.

Host plants. Larvae feed on herbaceous plants of the family Fabaceae.

Family Pterophoridae

31. *Platyptilia calodactyla* ([Denis and Schiffmüller], 1775)

Material examined. **Kamchatka Peninsula:** 1 male, 17 km north of Malki, Poperechnaya river, 27. VII. 1997, R. B. Kuranishi leg., CBM-ZI 82373.

Distribution. Europe; Russia: European part, western Siberia, Yakutia, Magadansk

Province, Kamchatka Peninsula; Caucasus; Kazakhstan; northern Africa; Asia Minor; China.

Host plants. Larvae feed on the plants from family Asteraceae.

Family Pyralidae

32. *Scoparia isochroalis* Hampson, 1907

(Figs. 1–3)

Material examined. **Kamchatka Peninsula:** 1 male, 15 km northeast of Esso, Pravaya Kamchatka river, 9. VII. 1996, R. B. Kuranishi leg., CBM-ZI 82374.; 1 male, 10 km north of Gannaly, 31. VII. 1997, Y. A. Tshistjakov leg.

North Kuril Islands: 2 males, Paramushir Island, Shelikhov Bay, 15, 17. VII. 1997, R. B. Kuranishi leg., CBM-ZI 82375–82376; 1 male, same data, E. A. Makarchenko and S. K. Kholin leg.

Additional material. Middle Kuril Islands, Urup Island: 3 males, Blagodatnaya Bay, Temnyi Cape; 2 males, Barkhatnyi Bay, Lopuhovaya river, 28, 29. VIII. 1995, Y. Marusik leg.

Distribution. Russia: Kamchatka Peninsula (new record), Sakhalin, Kuril Islands (Para-

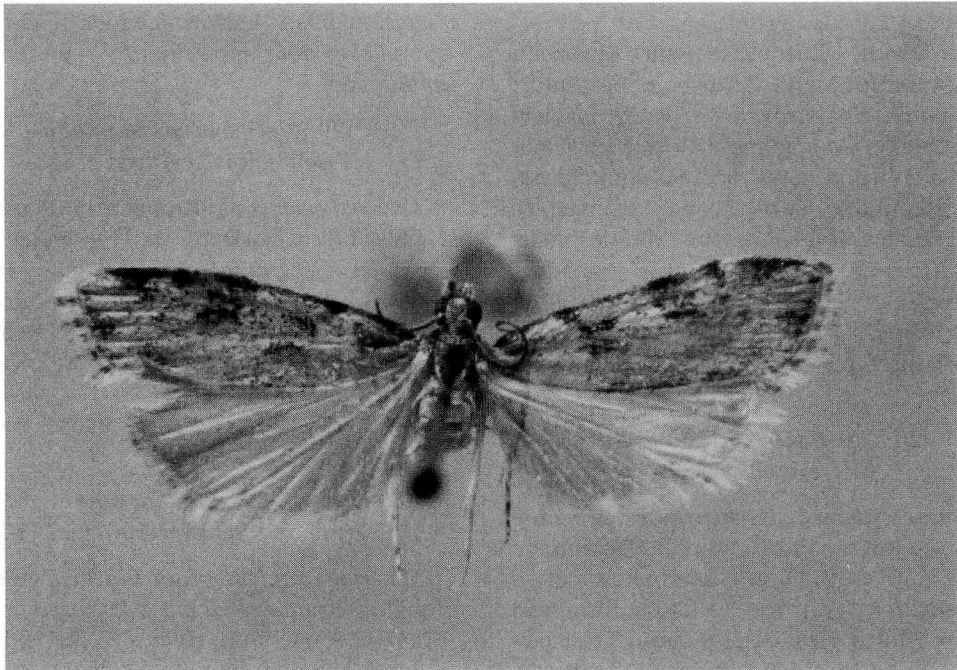


Fig. 1. *Scoparia isochroalis* Hampson.



Figs. 2, 3. *Scoparia isochroalis* Hampson. 2, male genitalia, ventral view; 3, aedeagus.

mushir, Urup); Korea; Japan (Hokkaido, Honshu); Taiwan.

Host plants. Unknown.

Remarks. Inoue (1982) described a new species *Scoparia melanomaculosa*, but he (Inoue, 1994) later synonymized the specific name with *S. isochroalis* Hampson, 1907. An examination of the specimens collected during the Biological Expedition to the Kamchatka Peninsula and North Kuril Islands and additional material from the Urup Island allows us to ascertain the constancy in the pattern of the forewing and the morphology of the male genitalia in the examined specimens. The pattern of the forewing and the male genitalia in our specimens are corresponding to those in the specimen illustrated as *S. melanomaculosa* by Inoue (1982, Vol. 2: pl. 36, fig. 39; pl. 300, fig. 5). All examined specimens have a valva with not stretched apex, and relatively thin aedeagus. The specimens illustrated by Inoue as *S. isochroalis* (1982, Vol. 2: pl. 36, figs 37, 38; pl. 300, fig. 3; 1994, p. 353, fig. 3) seem to differ from the present specimens and Inoue's specimen of *S. melanomaculosa* in having the valva with a rounded, distally stretched apex, and relatively thick aedeagus. In spite of these differ-

ences, however, it is impossible to restore validity of the specific name *Scoparia melanomaculosa* without examination of the type material.

33. *Gesneria centuriella sachalinensis* (Matsumura, 1925)

Material examined. **Kamchatka Peninsula:** 3 males, 17 km north of Malki, Poperechnaya river, 27, 28. VII. 1997, Y. A. Tshistjakov leg.

Distribution. Russia: Kamchatka Peninsula (new record), Sakhalin; Japan (Hokkaido).

Host plants. Larvae feed on mosses (Musci) and lichens (Lichen).

34. *Crambus sibiricus* Alphéraky, 1897

Material examined. **Kamchatka Peninsula:** 1 male, Nachiki, 16. VII. 1996; 1 male, 10 km north of Gannaly, 29. VII. 1997, Y. A. Tshistjakov leg.

Distribution. Russia: eastern Siberia, Amursk Province, Khabarovsk Territory, Primorsk Territory, Kamchatka Peninsula, Sakhalin; China; Japan (Honshu).

Host plants. Unknown.

35. *Crambus perlellus* (Scopoli, 1763)

Material examined. **Kamchatka Peninsula:**

2 males, 17 km north of Malki, Poperechnaya river, 28. VII. 1997; 6 males, 10 km north of Gannaly, 29, 31. VII. 1997, Y. A. Tshistjakov leg.

North Kuril Islands: 1 male, Paramushir Island, Severo-Kurilsk, 14. VII. 1997, R. B. Kuranishi leg., CBM-ZI 82377.

Distribution. Holarctic.

Host plants. Larvae feed on *Festuca* spp. and *Deschampsia* spp.

36. *Crambus lathoniellus* (Zincken, 1817)

Material examined. Kamchatka Peninsula: 2 males, 10 km north of Gannaly, 29. VII. 1997, Y. A. Tshistjakov leg.

Distribution. Europe; Russia: European part, Siberia, Amursk Province, Primorsk Territory, Kamchatka Peninsula, Sakhalin; Transcaucasia; Asia Minor; Mongolia; Korea; Japan.

Host plants. Larvae feed on *Deschampsia* sp.

37. *Agriphila straminella* ([Denis and Schiffermüller], 1775)

Material examined. Kamchatka Peninsula: 1 male, Nachiki, 16. VII. 1996, Y. A. Tshistjakov leg.

Distribution. Europe; Russia: European part, southern Siberia, Amursk Province, Primorsk Territory, Kamchatka Peninsula, Sakhalin; Transcaucasia; Minor and central Asia; Canada.

Host plants. Larvae feed on *Festuca* sp.

38. *Pediasia aridella caradjaella* (Rebel, 1916)

Material examined. Kamchatka Peninsula: 1 female, Nachiki, 16. VII. 1996, Y. A. Tshistjakov leg.

Distribution. Russia: southeastern Europe, southern Siberia, Amursk Province, Khabarovsk Territory, Kamchatka Peninsula, Sakhalin; central and southern Europe; Asia Minor; Mongolia.

Host plants. Unknown.

39. *Nacoleia sibirialis* (Millière, 1879)

Material examined. Kamchatka Peninsula: 1 male, 10 km north of Gannaly, 31. VII. 1997, Y. A. Tshistjakov leg.

Distribution. Russia: Kamchatka Peninsula

(new record), Primorsk Territory; China; Korea; Japan (Hokkaido, Honshu, Shikoku, Kyushu).

Host plants. Unknown.

40. *Udea washingtonalis* (Grote, 1882)

Material examined. Kamchatka Peninsula: 1 male, Azhabach'e Lake, Bushuika river, 14. VII. 1996, CBM-ZI 82378; 1 male, 17 km northeast of Malki, Poperechnaya river, 27. VII. 1997, CBM-ZI 82379, R. B. Kuranishi leg.; 1 male, same data; 2 males, 10 km north of Gannaly, 31. VII. 1997, Y. A. Tshistjakov leg.

Distribution. Russia: Magadansk Province, Kamchatka Peninsula, Komandorsk Islands, Kuril Islands (Paramushir); North America.

Host plants. Unknown.

41. *Pyrausta porphyralis* ([Denis and Schiffermüller], 1775)

Material examined. Kamchatka Peninsula: 1 female, 10 km north of Gannaly, 30. VII. 1997, Y. A. Tshistjakov leg.

Distribution. Europe; Russia: European part (excepting northern parts), Caucasus, southern Siberia, Transbaikalia, Kamchatka Peninsula; Mongolia.

Host plants. Larvae feed on *Origanum* spp., *Mentha* spp. and *Helichrysum* spp.

42. *Pyla fusca* (Haworth, 1811)

Material examined. Kamchatka Peninsula: 3 males, 10 km north of Gannaly, 31. VII. 1997, R. B. Kuranishi leg., CBM-ZI 82380–92382; 3 males, same data, Y. A. Tshistjakov leg.

Distribution. Holarctic.

Host plants. Larvae feed on *Vaccinium* spp., *Colluna* spp., probably also on *Betula* spp. and *Salix* spp.

43. *Phycitodes albatellus ussuriellus* (Roesler, 1965)

Material examined. Kamchatka Peninsula: 1 male, 10 km north of Gannaly, 29. VII. 1997, Y. A. Tshistjakov leg.

Distribution. Russia: Kamchatka Peninsula (new record), Primorsk Territory; China; Japan (Honshu).

Host plants. Larvae feed in stems near the inflorescence of *Solidago* spp., *Crepis* spp. and *Senecio* spp.

Discussion

The present data and the literary information on the distribution of the species (Kuznetsov, 1967, 1973; Inoue, 1982, 1988; Hodges, 1983; Park, 1983; Yamanaka, 1986; Dubatolov and Ustjuzhanin, 1991; Kuznetsov and Mikkola, 1991; Sasaki, 1991, 1998, 1999; Dubatolov, 1994; Park and Byun, 1995; Sinev and Kozlov, 1997; Kuznetsov, *et al.*, 1998) reveals that most of the collected species has an extensive distribution. One species is cosmopolitan; 14 species have Holarctic geographical range; 17 species show Trans-Palaeartic distribution; and two species have Siberian-American range. In eastern Palaeartica nine species occur, but only six of them are distributed widely and the remaining three have Kamchatian-Sakhalin-Japanese, Sakhalin-Kuril-Japanese and Kuril distributions.

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References

- Dubatolov, V. V. and P. Y. Ustjuzhanin. 1991. Moths from southern Sakhalin and Kunashir, collected in 1989. Part 2. Microheterocera: Hepialidae, Zygaenidae, Limacodidae, Thyrididae, Pyraloidea, Pterophoridae, Alucitidae. *Jap. Heterocerist's J.* 164: 249–252.
- Dubatolov, V. V. 1994. Moths from southern Sakhalin and Kunashir, collected in 1989. Part 5. Microheterocera: Tortricidae. *Jap. Heterocerist's J.* 176: 10–15.
- Hodges, R. 1983. Checklist of the Lepidoptera of America north of Mexico. 85 pp. Classey, London.
- Inoue, H. 1982. Scopariinae. *In* Inoue, H. *et al.* (eds.), Moths of Japan Vol. I, pp. 310–314; Vol. II, pp. 224–225. Kodansya, Tokyo.
- Inoue, H. 1988. A new species of the Epipaschiinae from Japan, with some synonymic notes on the Pyralidae from East Asia (Lepidoptera). *Tinea* 12(10): 85–95.
- Inoue, H. 1994. On the Japanese species of *Scoparia* Haworth, with descriptions of three new species (Lepidoptera: Pyralidae, Scopariinae). *Special Bull. Essa Entomol. Soc.* 2: 345–356.
- Kozlov, M. V. 1997. Adelidae. *In* Ler, P. A. (ed.), Key to the insects of the Russian Far East. Trichoptera and Lepidoptera 5(1), pp. 274–289. Dal'nauka, Vladivostok. (In Russian)
- Kuznetsov, V. I. 1967. Leaf-rollers (Lepidoptera, Tortricidae) of the Amur and Zeya rivers inter-area and their ecology. *Proc. Zool. Inst.* 41: 5–74. (In Russian)
- Kuznetsov, V. I. 1973. Leaf-rollers (Lepidoptera, Tortricidae) of the southern part of the Soviet Far East and their seasonal cycles. *Proc. All-Union Ent. Soc.* 56: 44–161. (In Russian)
- Kuznetsov, V. I., J. Jalava and J. Kullberg. 1998. The leaf-rollers (Lepidoptera, Tortricidae) of western Tuva, with description of *Cochylimorpha arenosana* sp. n. *Ent. Fennica.* 9: 197–209.
- Kuznetsov, V. I. and K. Mikkola. 1991. The leaf-rollers fauna of north-eastern Siberia, USSR, with descriptions of three new species (Lepidoptera, Tortricidae). *Nota Lepidopterol.* 14(3): 194–219.
- Park, K. T. 1983. Microlepidoptera of Korea. *Insecta Korea Ser.* 3. 195 pp.
- Park, K. T. and B. K. Byun. 1995. Microlepidoptera from Jeju Island. *Insecta Korea* 5 (Suppl.): 137–147.
- Sasaki, A. 1991. Notes on the Scopariinae (Lepidoptera, Pyralidae) from Japan, with descriptions of five new species. *Tinea* 13(11): 95–106.
- Sasaki, A. 1998. Notes on the Scopariinae from Taiwan, with descriptions of nine new species (Lepidoptera, Crambidae). *Tinea* 15(3): 191–201.
- Sasaki, A. 1999. Some additional notes on the scopariine moths from Taiwan, with description of a new species (Lepidoptera, Crambidae). *Tinea* 16(1): 12–15.
- Yamanaka, H. 1986. One new genus, three new species and two unrecorded species of the Phycitinae from Japan (Lepidoptera, Pyralidae). *Tyo to Ga* 36(4): 167–176.

1996-1997年に採集されたカムチャツカ
半島と北千島の小蛾類

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1996年と1997年に、カムチャツカ半島と北千島で千葉県立中央博物館とロシア科学アカデミーの生物学共同調査が行われ、ライトトラップやスーピング採集により小蛾類が採集された。今回の調査では13科43種が記録され、カムチャツカ半島からは、26種が、北千島からは、4種が初めて記録された。今回記録された種に、広範囲な分布（汎世界、全北区や旧北亜区全域）の種の占める割合は、43種中32種(74.4%)であった。