

## Geometrid Moths (Lepidoptera: Geometridae) Collected from the Kamchatka Peninsula and the North Kuril Islands in 1996–1997

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**Abstract** Thirty-five geometrid moths (Lepidoptera: Geometridae) species were collected from the Kamchatka Peninsula and the North Kuril Islands. *Perizoma sagittatum* (Fabricius, 1792) is newly recorded from the Kamchatka Peninsula. The following four species are newly recorded from the North Kuril Islands: *Alcis extinctaria* (Eversmann, 1851); *Euphyia unangulata* (Haworth, 1809); *Eupithecia succenturiata* (Linnaeus, 1758); and *Eupithecia gelidata* Möschler, 1860.

**Key words:** Lepidoptera, Geometridae, Kamchatka Peninsula, Kuril Islands, distribution, new record.

The fauna of the geometrid moths in the Kamchatka Peninsula has been reviewed comprehensively in several publications (Alphélaky, 1897; Djakonov, 1929, 1931; Sedykh, 1979), and recently Viidalepp (1996) reported 68 species from the region. On the other hand, the geometrid moths of the North Kuril Islands have not been studied sufficiently, and only a small number of species has been reported (Bryk, 1942; Konovalova, 1970).

In order to fill the gap in the previous reports, we would like to report here the results of identification of the Geometridae collection from the Kamchatka Peninsula and the North Kuril Islands during the Biological Expedition to the Kamchatka Peninsula and North Kuril Islands in 1996–1997.

### Material and Methods

Most of the specimens were collected by light-trap in the container with the wide funnel, fixed under mercury lamp. Duration of the collecting time was 4–6 hours per night. The material is deposited in the Institute of Biology and Pedology, Far Eastern Branch of the Russian Academy of Sciences, Vladivostok and the Natural History Museum and Institute, Chiba (CBM with code

of ZI).

### List of Collected Species

A total of 35 species are recognized in the collection, containing 878 individuals.

#### 1. *Lomaspilis marginata* (Linnaeus, 1758)

**Material examined.** **Kamchatka Peninsula:** 4 males, 15 km northeast of Esso, Pravaya Kamchatka River, 10. VII. 1996, Paratunka, 7. VII. 1997, R. B. Kuranishi leg.; 19 males, 17 km northeast of Malki, Poperechnaya River, 5, 6. VII. 1996, 15 km northeast of Esso, Pravaya Kamchatka River, 7, 8, 12. VII. 1996, Azhabache Lake, near Bushuika River, 13. VII. 1996, Nachiki, 16. VII. 1996, Y. Tshistjakov leg.

**Distribution.** Far East Russia: Kamchatka Peninsula, Amursk Province, southern Khabarovsk Territory, Primorsk Territory, Sakhalin Island, South Kuril Islands.

Europe, Ural Mountains, western and central Siberia, Transbaikalia, Kazakhstan, Middle Asia (Tian-Shan Mountains) northern Mongolia, China, Korea, Japan (Hokkaido).

#### 2. *Chiasma clathrata* (Linnaeus, 1758)

**Material examined.** **Kamchatka Peninsula:** 1 male, 17 km northeast of Malki, Poperech-

naya River, 27. VII. 1997, R. B. Kuranishi leg.; 6 males, 15 km northeast of Esso, Pravaya Kamchatka River, 7, 12. VII. 1996, Azhabache Lake, near Bushuika River, 13. VII. 1996, 17 km northeast of Malki, Poperechnaya River, 28. VII. 1997, Y. Tshistjakov leg.

*Distribution.* Far East Russia: Magadansk Province, Kamchatka Peninsula, Amursk Province, southern Khabarovsk Territory, Primorsk Territory, Sakhalin Island, South Kuril Islands.

Europe, northern Africa, Minor Asia, Caucasus, Transcaucasia, northern Iran, Kazakhstan, eastern of Middle Asia, Siberia (except extreme northern parts), China, Korea, Japan.

### 3. *Itame brunneata* (Thunberg, 1784)

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

*Distribution.* Far East Russia: Magadansk Province, Kamchatka Peninsula, Amursk Province, Khabarovsk Territory, Primorsk Territory, Sakhalin Island.

Europe (excepting southern parts), Siberia, Mongolia, North Korea, Japan (mountain parts of Honshu), North America (Alaska, Newfoundland, south to New England, Michigan and Wyoming).

### 4. *Itame loricaria* (Eversmann, 1837)

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

*Distribution.* Far East Russia: Magadansk Province, Kamchatka Peninsula, northern Amursk Province, Sakhalin Island.

Northern and northeastern Europe, Ural Mountains, Siberia (Transbaikalia, central Yakutia) northern Mongolia, North America (Alaska, Newfoundland, south to New York and Colorado).

### 5. *Selenia dentaria* (Fabricius, 1775)

*Material examined.* Kamchatka Peninsula: 5 males, 17 km northeast of Malki, Poperechnaya River, 6. VII. 1996, 15 km northeast of Esso, Pravaya Kamchatka River, 12. VII. 1996, Azhabache Lake, near Bushuika River, 13. VII. 1996, Y. Tshistjakov leg.

*Distribution.* Far East Russia: Kamchatka Peninsula, Amursk Province, southern Kha-

barovsk Territory, mountain parts of Primorsk Territory.

Europe, Caucasus, Transcaucasia, northern Siberia, Mongolia.

### 6. *Alcis extinctaria* (Eversmann, 1851)

*Material examined.* Kamchatka Peninsula: 5 males, 2 females, 17 km northeast of Malki, Poperechnaya River, 4, 6. VII. 1996, 28. VII. 1997, Y. Tshistjakov leg.

*North Kuril Islands:* 1 male, Shumshu Island, 21. VII. 1997, R. B. Kuranishi leg.

*Distribution.* Far East Russia: Kamchatka Peninsula, Amursk Province, Khabarovsk Territory, mountain parts of Primorsk Territory, Sakhalin Island, North Kuril Islands (new record).

Eastern Siberia, southern Evenkiya, Altai, Sayan Mountains, Tuva, northern Baikal region, Transbaikalia, Mongolia, Korea, Japan.

### 7. *Ematurga atomaria* (Linnaeus, 1758)

*Material examined.* Kamchatka Peninsula: 8 males: 17 km northeast of Malki, Poperechnaya River, 6. VII. 1996, Azhabache Lake, near Bushuika River, 13. VII. 1996, Y. Tshistjakov leg.; 1 male, Paratunka, 7. VII. 1997, R. B. Kuranishi leg.

*Distribution.* Far East Russia: Kamchatka Peninsula, Amursk Province, Khabarovsk Territory, mountain parts of Primorsk Territory, Sakhalin.

Europe, Minor Asia, Caucasus, Transcaucasia, Kazakhstan, Middle Asia, western, central and eastern Siberia, northern Mongolia, Tibet.

### 8. *Cabera exanthemata* (Scopoli, 1763)

*Material examined.* Kamchatka Peninsula: 35 males, 1 female: 17 km northeast of Malki, Poperechnaya River, 5. VII. 1996, 15 km northeast of Esso, Pravaya Kamchatka River, 9, 10, 12. VII. 1996, Azhabache Lake, near Bushuika River, 14. VII. 1996, 17 km northeast of Malki, Poperechnaya River, 27. VII. 1997, R. B. Kuranishi leg.; 47 males, 1 female: 17 km northeast of Malki, Poperechnaya River, 3, 5, 6. VII. 1996, 15 km northeast of Esso, Pravaya Kamchatka River, 7, 9, 12. VII. 1996, Azhabache Lake, near Bushuika River, 13. VII. 1996, Paratunka, 23. VII. 1996, Y.

Tshistjakov leg.

*Distribution.* Far East Russia: Magadansk Province, Kamchatka Peninsula, Amursk Province, Khabarovsk Territory, Primorsk Territory, Sakhalin Island, South Kuril Islands.

Europe, Caucasus, Transcaucasia, Kazakhstan, mountain parts of Middle Asia, Siberia (except extreme northern parts), Mongolia, Korea, Japan, North America (Alaska to central Manitoba, Alberta and British Columbia).

#### 9. *Geometra papilionaria* (Linnaeus, 1758)

*Material examined.* **Kamchatka Peninsula:** 8 males, 17 km northeast of Malki, Poperechnaya River, 27. VII. 1997, R. B. Kuranishi leg.; 3 males, 17 km northeast of Malki, Poperechnaya River, 28. VII. 1997, Y. Tshistjakov leg.

*Distribution.* Far East Russia: Magadansk Province, Kamchatka Peninsula, Amursk Province, southern Khabarovsk Territory, Primorsk Territory, Sakhalin Island, South Kuril Islands.

Europe, Caucasus, Transcaucasia, western Siberia, eastern Siberia (southern Evenkiya, central Yakutia, Transbaikalia), China, Korea, Japan.

#### 10. *Scopula frigidaria* (Möschler, 1860)

*Material examined.* **Kamchatka Peninsula:** 2 males, 17 km northeast of Malki, Poperechnaya River, 27. VII. 1997, R. B. Kuranishi leg.; 2 males, Azhabache Lake, near Bushuika River, 13. VII. 1996, 17 km northeast of Malki, Poperechnaya River, 28. VII. 1997, Y. Tshistjakov leg.

*Distribution.* Far East Russia: Magadansk Province, Kamchatka Peninsula, northern Amursk Province, central and eastern Khabarovsk Territory.

Arctic Europe (Fennoscandia), northern Siberia, mountain parts of southern Siberia, North America (Alaska, Newfoundland, south to New England, Indiana and British Columbia).

#### 11. *Xanthorhoe rectantemediana* (Wehrli, 1927)

*Material examined.* **Kamchatka Peninsula:** 2 males, 17 km northeast of Malki, Poperechnaya River, 27. VII. 1997, R. B. Kuranishi leg.; 17 males, 2 females: 17 km northeast of

Malki, Poperechnaya River, 5–6. VII. 1996, 28. VII. 1997, 15 km northeast of Esso, Pravaya Kamchatka River, 12. VII. 1996, Azhabache Lake, near Bushuika River, 13. VII. 1996, 10 km north of Gannaly, 1. VIII. 1997, Y. Tshistjakov leg.

**North Kuril Islands:** 5 males, 2 females, Paramushir Island, Severo-Kurilsk, 15. VII. 1997; Shelekhov Bay, 17. VII. 1997, R. B. Kuranishi leg.; 3 males, 7 females, Shelekhov Bay, 17. VII. 1997, E. A. Makarchenko and S. Kholin leg.; 1 female, Shumshu Island, 21. VII. 1997, R. B. Kuranishi leg.

*Distribution.* Far East Russia: Kamchatka Peninsula, southern of Khabarovsk Territory, Primorsk Territory, Sakhalin Island, Kuril Islands.

China, Korea, Japan.

#### 12. *Xanthorhoe ferrugata* (Clerck, 1759)

*Material examined.* **Kamchatka Peninsula:** 3 males, 17 km northeast of Malki, Poperechnaya River, 27. VII. 1997, 10 km north of Gannaly, 31. VII. 1997, R. B. Kuranishi leg.; 3 males, 17 km northeast of Malki, Poperechnaya River, 6. VII. 1996, 28. VII. 1997, 10 km north of Gannaly, 31. VII. 1997, Y. Tshistjakov leg.

**North Kuril Islands:** 2 males, Paramushir Island, Severo-Kurilsk, Ebeko volcano, 13, 14. VII. 1997, E. A. Makarchenko and S. Kholin leg.

*Distribution.* Far East Russia: Kamchatka Peninsula, North Kuril Islands.

Europe, Caucasus, Kazakhstan, western of Middle Asia, Siberia (southern Evenkiya, Yakutia, Transbaikalia), North America (Alaska, Newfoundland, south to North Carolina and California).

#### 13. *Xanthorhoe fluctuata* (Linnaeus, 1758)

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

*Distribution.* Far East Russia: Kamchatka Peninsula, Kuril Islands (Simushir).

Europe, Caucasus, Transcaucasia, Minor Asia, northern Iran, mountain parts of Middle Asia, southern Siberia, Yakutia, North Korea, Japan (mountain parts of central Honshu).

**14. *Xanthorhoe kamtshatica*  
(Djakonov, 1929)**

*Material examined.* **Kamchatka Peninsula:** 8 males: 17 km northeast of Malki, Poperechnaya River, 5. VII. 1996, 27. VII. 1997, 15 km northeast of Esso, Pravaya Kamchatka River, 9. VII. 1996, Azhabache Lake near Bushuika River, 14. VII. 1996, 10 km north of Gannaly, 31. VII. 1997, R. B. Kuranishi leg.; 28 males, 4 females: 17 km northeast of Malki, Poperechnaya River, 4–6. VII. 1996, 28. VII. 1997, 15 km northeast of Esso, Pravaya Kamchatka River, 12. VII. 1996, Azhabache Lake, near Bushuika River, 13. VII. 1996, Vachkazhech Mountain, 17. VII. 1996, 10 km north of Gannaly, 31. VII. 1996, 1. VIII. 1997, Y. Tshistjakov leg.

**North Kuril Islands:** 10 males, 3 females, Shumshu Island, Bolshoe Lake, 22. VII. 1997, R. B. Kuranishi leg.; 10 males, 3 females, Bolshoe Lake, 22. VII. 1997, E. A. Makarchenko and S. Kholin leg.; 16 males, 2 females, Paramushir Island, Severo-Kurilsk, 11–15. VII. 1997, Shelekhov Bay, 17, 19. VII. 1997, R. B. Kuranishi leg.; 14 males, 2 females, Shelekhov Bay, 17. VII. 1997, E. A. Makarchenko and S. Kholin leg.

*Distribution.* Far East Russia: Kamchatka Peninsula, Komandor Islands, North Kuril Islands.

**15. *Epirrhoe supergressa* (Butler, 1879)**

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

*Distribution.* Far East Russia: Kamchatka Peninsula, Amursk Province, southern Khabarovsk Territory, Primorsk Territory, Sakhalin Island, South Kuril Islands.

Transbaikalia, northeastern Siberia, northern China, Korea, Japan.

**16. *Entephria caesiata*  
(Denis and Schiffermüller, 1775)**

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

*Distribution.* Far East Russia: Magadansk Province, Kamchatka Peninsula, mountain parts of Primorsk Territory, northern Sakhalin Island.

Europe, Caucasus, Siberia, northern Mongolia, Japan (Honshu).

**17. *Lampropteryx suffumata*  
(Denis and Schiffermüller, 1775)**

*Material examined.* **Kamchatka Peninsula:** 1 male, 15 km northeast of Esso, Pravaya Kamchatka River, 12. VII. 1996, Y. Tshistjakov leg.

*Distribution.* Far East Russia: Kamchatka Peninsula.

Europe, Caucasus, Transcaucasia, Ural Mountains, Altai, Japan (Hokkaido).

**18. *Lampropteryx otregiata* Metcalfe, 1917**

*Material examined.* **Kamchatka Peninsula:** 4 males, 1 female: 17 km northeast of Malki, Poperechnaya River, 5. VII. 1996, 27. VII. 1997, R. B. Kuranishi leg.; 1 male, Azhabache Lake, near Bushuika River, 13. VII. 1996, Y. Tshistjakov leg.

*Distribution.* Far East Russia: Kamchatka Peninsula, Primorsk Territory, Sakhalin Island, South Kuril Islands.

Northern, central and eastern Europe, mountain parts of southern Siberia, Japan.

**19. *Ecliptopera silaceata*  
(Denis and Schiffermüller, 1775)**

*Material examined.* **Kamchatka Peninsula:** 40 males, 9 females: 17 km northeast of Malki, Poperechnaya River, 5. VII. 1996, 27. VII. 1997, 15 km northeast of Esso, Pravaya Kamchatka River, 9–10. VII. 1996, Azhabache Lake, near Bushuika River, 14. VII. 1996, Paratunka, 7. VII. 1997, 10 km north of Gannaly, 31. VII. 1997, R. B. Kuranishi leg.; 86 males, 23 females: 17 km northeast of Malki, Poperechnaya River, 5–6. VII. 1996, 28. VII. 1997, 15 km northeast of Esso, Pravaya Kamchatka River, 7–9, 12. VII. 1996, Azhabache Lake, near Bushuika River, 13. VII. 1996, 10 km north of Gannaly, 31. VII, 1. VIII. 1997, Y. Tshistjakov leg.

*Distribution.* Far East Russia: Magadansk Province, Kamchatka Peninsula, northern Khabarovsk Territory, Sakhalin Island.

Europe, Caucasus, Transcaucasia, western Siberia, eastern Siberia (eastern Sayan Mountains, Transbaikalia, Yakutia) western China, Tibet, Japan, North America (Alaska to Newfoundland, south to New England, Colorado

and California).

**20. *Dysstroma pseudimmanata*  
Heydemann, 1929**

*Material examined.* **Kamchatka Peninsula:** 1 male, 3 females, 17 km northeast of Malki, Poperechnaya River, 27, 28. VII. 1997, R. B. Kuranishi leg.; 1 male, 5 females, 20 km south of Pushchino, Pravaya Kamchatka River, 7. VII. 1996, 17 km northeast of Malki, Poperechnaya River, 28. VII. 1997, Y. Tshistjakov leg.

*Distribution.* Far East Russia: Magadansk Province, Kamchatka Peninsula, Amursk Province, central part of Khabarovsk Territory.

East Siberia (southern Evenkiya), eastern Sayan Mountains, Transbaikalia, Japan (mountain parts of central Honshu).

**21. *Heterothera taigana* (Djakonov, 1926)**

*Material examined.* **Kamchatka Peninsula:** 1 female, 17 km northeast of Malki, Poperechnaya River, 27. VII. 1997, R. B. Kuranishi leg.

*Distribution.* Far East Russia: Magadansk Province, Kamchatka Peninsula, mountain parts of Primorsk Territory, Sakhalin Island, South Kuril Islands.

Southern Siberia (Altai, Sayan Mountains), northern Baikal region, Buryatia, Transbaikalia, Japan.

**22. *Calostygia aptata* (Hübner, 1813)**

*Material examined.* **Kamchatka Peninsula:** 1 male, 17 km northeast of Malki, Poperechnaya River, 27. VII. 1997, R. B. Kuranishi leg.

*Distribution.* Far East Russia: Kamchatka Peninsula, Amursk Province, Sakhalin Island.

Europe (excepting extreme northern parts), southern Siberia, Yakutia, northern Mongolia.

**23. *Hydriomena impluviata*  
(Denis and Schiffermüller, 1775)**

*Material examined.* **Kamchatka Peninsula:** 3 males, 1 female: 17 km northeast of Malki, Poperechnaya River, 5. VII. 1996, Azhabache Lake, near Bushuika River, 13. VII. 1996, Y. Tshistjakov leg.

**North Kuril Islands:** 2 males, 2 females,

Shumshu Island, Bolshoe Lake, 21–22. VII. 1997, R. B. Kuranishi leg.; 1 female, Bolshoe Lake, 22. VII. 1997, E. A. Makarchenko and S. Kholin leg.; 7 males, 1 female, Paramushir Island, Severo-Kurilsk, 11, 5. VII. 1997, Shelekhov Bay, 17. VII. 1997, R. B. Kuranishi leg.; 1 male, 1 female, Shelekhov Bay, 17. VII. 1997, E. A. Makarchenko and S. Kholin leg.

*Distribution.* Far East Russia: Magadansk Province, Kamchatka Peninsula, Amursk Province, Khabarovsk Territory, Primorsk Territory, Sakhalin Island, Kuril Islands.

Europe, Turkey, Ural Mountains, mountain part of Middle Asia, southern parts of western Siberia, North Mongolia, North China, Korea, Japan.

**24. *Spargania luctuata*  
(Denis and Schiffermüller, 1775)**

*Material examined.* **Kamchatka Peninsula:** 3 males, 15 km northeast of Esso, Pravaya Kamchatka River, 8–9. VII. 1996, R. B. Kuranishi leg.; 7 males, 1 female: 20 km south of Pushchino, Pravaya Kamchatka River, 7. VII. 1996, Azhabache Lake, near Bushuika River, 13. VII. 1996, 17 km northeast of Malki, Poperechnaya River, 28. VII. 1997, 10 km north of Gannaly, 31. VII. 1997, Y. Tshistjakov leg.

*Distribution.* Far East Russia: Magadansk Province, Kamchatka Peninsula, Amursk Province, Khabarovsk Territory, mountain parts of Primorsk Territory, Sakhalin Island.

Northern, central and eastern Europe, western Siberia, mountain parts of southern Siberia, Transbaikalia, eastern Siberia (central Yakutia), North America (Alaska to Newfoundland, south to New England and British Columbia).

**25. *Rheumaptera subhastata*  
(Nolcken, 1870)**

*Material examined.* **Kamchatka Peninsula:** 1 male, 2 females, 17 km northeast of Malki, Poperechnaya River, 6. VII. 1996, Y. Tshistjakov leg.; 1 male, 2 females, Paratunka, 7. VII. 1997, 17 km northeast of Malki, Poperechnaya River, 27. VII. 1997, R. B. Kuranishi leg.

**North Kuril Islands:** 7 males, Paramushir Island, Severo-Kurilsk, 11, 15. VII. 1997, Shelekhov Bay, 17. VII. 1997, R. B. Kuranishi leg.; 1 male, Shelekhov Bay, 17. VII. 1997, E. A.

Makarchenko and S. Kholin leg.

**Distribution.** Far East Russia: Magadansk Province, northern Koryakiya, Kamchatka Peninsula, Amursk Province, Sakhalin Island, North Kuril Islands.

Northern, central and northeastern Europe, northern Siberia, southern Altai, Yakutia, northern Mongolia, North America (Alaska to Newfoundland, south to New England and Colorado).

**26. *Euphyia unangulata* (Haworth, 1809)**

**Material examined.** **Kamchatka Peninsula:** 2 males: 20 km south of Pushchino, Pravaya Kamchatka River, 7. VII. 1996, 17 km northeast of Malki, Poperechnaya River, 27. VII. 1997, R. B. Kuranishi leg.; 11 males, 2 females, 17 km northeast of Malki, Poperechnaya River, 5–6. VII. 1996, 28. VII. 1997, 15 km northeast of Esso, Pravaya Kamchatka River, 12. VII. 1996, Azhabache Lake, near Bushuika River, 13. VII. 1996, 10 km north of Gannaly, 31. VII. 1997, Y. Tshistjakov leg.

**North Kuril Islands:** 1 male, Paramushir Island, Severo-Kurilsk, 15. VII. 1997, R. B. Kuranishi leg.

**Distribution.** Far East Russia: Magadansk Province, Kamchatka Peninsula, Amursk Province, Khabarovsk Territory, Primorsk Territory, Sakhalin Island, North Kuril Islands (new record), South Kuril Islands.

Europe, western Siberia, southern Siberia, North China, North Korea, Japan (Hokkaido), North America.

**27. *Perizoma sagittatum* (Fabricius, 1787)**

**Material examined.** **Kamchatka Peninsula:** 1 male, 17 km northeast of Malki, Poperechnaya River, 27. VII. 1997, R. B. Kuranishi leg.; 3 males, 17 km northeast of Malki, Poperechnaya River, 27–28. VII. 1997, Y. Tshistjakov leg.

**Distribution.** Far East Russia: Kamchatka Peninsula (new record), southern Khabarovsk Territory, Primorsk Territory, Sakhalin Island, South Kuril Islands.

Europe, southeastern Siberia (Transbaikalia), Mongolia, China, Korea, Japan.

**28. *Eupithecia lariciata* (Freyer, 1842)**

**Material examined.** **Kamchatka Peninsula:** 20 males, 29 females, Kamchatka Peninsula,

15 km northeast of Esso, Pravaya Kamchatka River, 9–10. VII. 1996, R. B. Kuranishi leg.; 48 males, 46 females: 17 km northeast of Malki, Poperechnaya River, 6. VII. 1996, 20 km south of Pushchino, Pravaya Kamchatka River, 7. VII. 1996, 15 km northeast of Esso, Pravaya Kamchatka River, 8, 9, 12. VII. 1996, Y. Tshistjakov leg.

**Distribution.** Far East Russia: Kamchatka Peninsula, Amursk Province, southern Khabarovsk Territory, Primorsk Territory, Sakhalin.

Europe, Ural Mountains, western Siberia, western and central Siberia, Altai, Transbaikalia, Yakutia, Mongolia, Korea, Japan, North America (Yukon to Newfoundland, south to New York and Arizona).

**29. *Eupithecia homogrammata* Dietze, 1908**

**Material examined.** **Kamchatka Peninsula:** 7 males, 1 female: 17 km northeast of Malki, Poperechnaya River, 6. VII. 1996, 28. VII. 1997, 15 km northeast of Esso, Pravaya Kamchatka River, 12. VII. 1996, Azhabache Lake, near Bushuika River, 13. VII. 1996, Y. Tshistjakov leg.

**Distribution.** Far East Russia: Kamchatka Peninsula, Amursk Province, southern Khabarovsk Territory, Primorsk Territory, Sakhalin Island, South Kuril Islands.

China, Korea, Japan.

**30. *Eupithecia gelidata* Möschler, 1860**

**Material examined.** **North Kuril Islands:** 1 male, Paramushir Island, Shelekhov Bay, 17. VII. 1997, E. A. Makarchenko and S. Kholin leg.

**Distribution.** Far East Russia: Magadansk Province, Kamchatka Peninsula (new record), North Kuril Islands (new record).

Northern, central and eastern (excepting southern parts) Europe, Greenland, Polar Ural Mountains, southern Siberia (Altai, Tuva, Baikal region), North America (Alaska to Newfoundland, south to New England and New Mexico).

**31. *Eupithecia pseudosatyrata*  
Djakonov, 1929**

**Material examined.** **Kamchatka Peninsula:** 3 males, 17 km northeast of Malki, Poperechnaya River, 6. VII. 1996, 15 km northeast of

Esso, Pravaya Kamchatka River, 12. VII. 1996, Azhabache Lake, near Bushuika River, 13. VII. 1996, Y. Tshistjakov leg.

*Distribution.* Far East Russia: Kamchatka Peninsula.

### 32. *Eupithecia kurilensis* Bryk, 1942

*Material examined.* **Kamchatka Peninsula:** 2 males, 2 females, 17 km northeast of Malki, Poperechnaya River, 5. VII. 1996, 27–28. VII. 1997, R. B. Kuranishi leg.; 3 males, 17 km northeast of Malki, Poperechnaya River, 5. VII. 1996, Azhabache Lake, near Bushuika River, 13. VII. 1996, Y. Tshistjakov leg.

**North Kuril Islands:** 8 males, 1 female, Paramushir Island, Shelekhov Bay, 17. VII. 1997, R. B. Kuranishi leg.

*Distribution.* Far East Russia: Kamchatka Peninsula, Sakhalin Island, Kuril Islands. Japan (Hokkaido).

### 33. *Eupithecia veratraria* Herrich-Schäffer, 1850

*Material examined.* **Kamchatka Peninsula:** 1 male, 1 female, 17 km northeast of Malki, Poperechnaya River, 27. VII. 1997, R. B. Kuranishi leg.; 2 males, Azhabache Lake, near Bushuika River, 13. VII. 1996, 17 km northeast of Malki, Poperechnaya River, 28. VII. 1997, Y. Tshistjakov leg.

*Distribution.* Far East Russia: Magadansk Province, Kamchatka Peninsula, southern Khabarovsk Territory, Primorsk Territory.

Mountain parts of central and southern Europe, Polar Ural Mountains, southern Siberia (Altai, Transbaikalia), Japan (mountain parts of Honshu).

### 34. *Eupithecia succenturiata* (Linnaeus, 1758)

*Material examined.* **Kamchatka Peninsula:** 2 males, 7 females, Nachiki, 16. VII. 1996, 17 km northeast of Malki, 28. VII. 1997, Y. Tshistjakov leg.

**North Kuril Islands:** 4 males, Paramushir Island, Severo-Kurilsk, 15. VII. 1997, Shelekhov Bay, 17, 19. VII. 1997, R. B. Kuranishi leg.; 14 males, Shelekhov Bay, 17, 19. VII. 1997, E. A. Makarchenko and S. Kholin leg.

*Distribution.* Far East Russia: Kamchatka Peninsula, North Kuril Islands (new record).

Europe, Minor Asia, Caucasus, Transcau-

casia, Ural Mountains, eastern Kazakhstan, eastern of Middle Asia, northwestern China, western and central Siberia, Altai, Transbaikalia, Yakutia.

### 35. *Venusia cambrica* Curtis, 1839

*Material examined.* **Kamchatka Peninsula:** 46 males, 9 females: 17 km northeast of Malki, Poperechnaya River, 5. VII. 1996, 27. VII. 1997, 15 km northeast of Esso, Pravaya Kamchatka River, 9–12. VII. 1996, Azhabache Lake, near Bushuika River, 14. VII. 1996, 10 km north of Gannaly, 31. VII. 1997, R. B. Kuranishi leg.; 77 males, 7 females, 17 km northeast of Malki, Poperechnaya River, 5–6. VII. 1996, 28. VII. 1997, 15 km northeast of Esso, Pravaya Kamchatka River, 8–12. VII. 1996, Azhabache Lake, near Bushuika River, 13. VII. 1996, Nachiki, 16. VII. 1996, 20 km south of Pushchino, Pravaya Kamchatka River, 7. VII. 1996, 10 km north of Gannaly, 31. VII–1. VIII. 1997, Y. Tshistjakov leg.

**North Kuril Islands:** 2 males, Shumshu Island, Bolshoe Lake, 21–22. VII. 1997, R. B. Kuranishi leg.; 6 males, Paramushir Island Severo-Kurilsk, 11, 15. VII. 1997, R. B. Kuranishi leg.; 5 males, 8 females, Severo-Kurilsk, 16–17. VII. 1997, E. A. Makarchenko and S. Kholin leg.

*Distribution.* Far East Russia: Kamchatka Peninsula, Amursk Province, southern of Khabarovsk Territory, Primorsk Territory, Sakhalin Island, Kuril Islands.

Northern, central and eastern Europe, Turkey, Ural Mountains, western and central Siberia, Altai, Transbaikalia, Korea, Japan, North America (Alaska to Newfoundland, south to North California and Massachusetts).

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## 1996–1997 年に採集されたカムチャツカ半島と北千島のシャクガ科昆虫

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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、ライトトラップによりシャクガ科昆虫が採集された。今回の調査では 35 種が記録され、カムチャツカ半島からは、*Perizoma sagittatum* (Fabricius, 1792) 1 種が、北千島からは、*Alcis extinctaria* (Eversmann, 1851), *Euphyia unangulata* (Haworth, 1809), *Eupithecia succenturiata* (Linnaeus, 1758), *Eupithecia gelidata* Möschler, 1860 の 4 種が初めて記録された。