

Psyllids of the Kuril Islands (Homoptera, Psylloidea)

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A faunal list of Psylloidea of the Kuril Islands is given. Of the 34 species reported, 17 are new to the fauna of the archipelago and some are recorded for the first time from particular islands, especially from Northern and Middle Kurils and Shikotan.

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The fauna of the Kuril Islands had been studied by Loginova (1962, 1976), Kuwayama (1967), Konovalova (1978, 1981, 1988) and Klimaszewski (1983). Loginova described four new species from the archipelago, one species in 1962 (*Craspedolepta topicalis*) and three in 1976 (*Calophya phellodendri*, *Epheloscyta kalopanacis*, *E. sancta*). She also noted in 1976 two more species for this region (*Calophya nigra*, *C. nigradorsalis*). Kuwayama (1967) added two species to the faunal list (*Aphalara itadori* and *Psylla betulae*). Konovalova (1981) described an endemic Kuril species (*Psylla kunashiri*), recorded from the archipelago some other species (Konovalova, 1978, 1981, 1983) and listed in the keys (Konovalova, 1988) 15 species from the Kuril Islands. However, *E. kalopanacis* and *E. sancta* are not noted from the Kuril Islands in these keys, so the total number of species recorded from the Kurils up to now is 17. Also 17 species were noted by Konovalova (1988) as distributed "everywhere", but only 5 of these species were collected in the archipelago; I do not consider these statements by Konovalova to be records from the Kuril Islands. Klimaszewski (1983) described *Aphalara kunashirensis*, but this name proved to be a junior synonym of *A. itadori* (see Burckhardt & Lauterer, 1997).

This paper is based on material of Zoological Institute RAS, St.Petersburg, collected mainly by I.M. Kerzhner in 1973 and partly by other entomologists (N.A. Azarova, E.R. Budris, L.P. Danilovitch, E.M. Danzig, V.M. Ermolenko, K.B. Gorodkov, Z.A. Konovalova, G.O. Krivolutsкая, E.P. Nartshuk, O.A. Skarlato, V.N. Tanasijtsuk, N.A. Violovitch) and material collected during the expeditions of The International Kuril Island Project (IKIP) by American participants (B.K. Urbain, D.J. Bennett, P. Oberg, V. Roth, T.R. Anderson, N. Minakawa) in 1995-2001 and by Russian participant Yu.M. Marusik in 1996-1997. Part of the IKIP material (341 specimens) was sent for identification to S. Muddiman (U.K.) in 1997; my efforts to locate these specimens were unsuccessful. Specimens collected by Marusik are kept at the Zoological Institute, St.Petersburg, and those collected by the American participants of the IKIP expeditions, at the California Academy of Sciences, San Francisco. I examined also briefly Konovalova's psyllid collection in the Institute of Biology and Soil Sciences in Vladivostok.

The islands (see map) are listed approximately from the northern to the southern ones in the following se-

quence: Shumshu, Paramushir, Onekotan, Raikoke, Simushir, Chirpoi, Urup, Iturup, Kunashir, Shikotan, Zeliyni and Tanfilyeva.

For the IKIP material, the field numbers are given in brackets. Each field number consists of four parts united with hyphens: abbreviated name of the island, two last characters of the year of collecting, abbreviated name of collector, individual number of the sample. More details can be found at <http://artedi.fish.washington.edu/Okhotskia/database/LocalitySearch.htm>.

In references to previous records by Konovalova (1988), exact localities within the islands are listed for some species based on the examined collection in Vladivostok.

An asterisk before the species name means new to the fauna of the archipelago. An asterisk before the island name means new record for the island.

The distribution of species in the archipelago is summarized in the Table. For distributions outside of the Kuril Islands see Gegechkori & Loginova (1990).

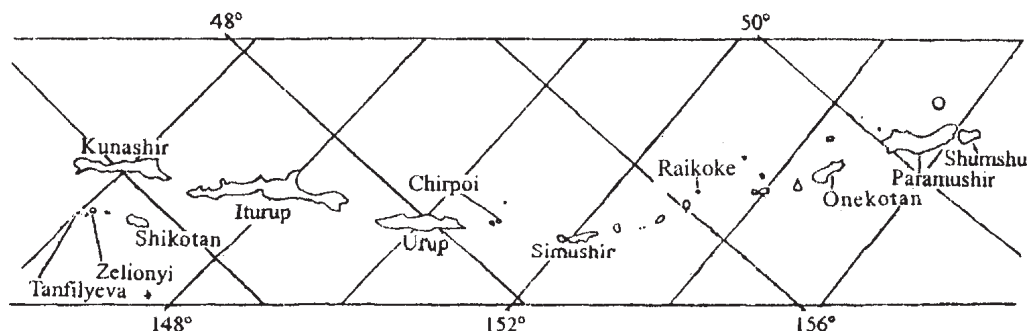
Family CALOPHYIDAE

Subfamily CALOPHYINAE

Calophya nigra Kuwayama, 1908. *Shikotan*: 1 ♂, 1 ♀, Otradnaya, *Phellodendron* sp., 14.VII.1975, Z.A. Konovalova; 2 ♀, Krabozavodsk, 14.VII.1973, I.M. Kerzhner. – Previously recorded from Kunashir (Konovalova, 1983, 1988: Tyatya vlc.; Tretyakovo) and Shikotan (Loginova, 1976: Otradnaya; Konovalova, 1978, 1983, 1988: Malokuril'sk).

Calophya nigradorsalis Kuwayama, 1908. *Kunashir*: 15 ♂, 24 ♀, Mendeleeva vlc., 11.VIII.1973, I.M. Kerzhner. – Previously recorded from Kunashir (Loginova, 1976 and Konovalova, 1983, 1988: Mendeleeva vlc.).

Calophya phellodendri Loginova, 1976. *Kunashir*: 1 ♂, 2 ♀, Yuzhno-Kuril'sk, 24.VIII.1973, I.M. Kerzhner; 2 ♂, 2 ♀, Mendeleevo, 26.VI, 3.VII.1973, I.M. Kerzhner; *Shikotan*: 9 ♂, 22 ♀, Malokuril'sk, 20-21.VI, 20.VIII.1973, I.M. Kerzhner; 11 ♂, 13 ♀, Krabozavodsk, 14-15, 17.VIII.1973, I.M. Kerzhner. – Previously recorded from Kunashir (Loginova, 1976: Yuzhno-Kuril'sk; Mendeleevo; Konovalova, 1983, 1988: Yuzhno-Kuril'sk; Mendeleeva vlc.) and Shikotan (Loginova, 1976: Malokuril'sk; surroundings of Krabozavodsk; Konovalova, 1983, 1988: Malokuril'sk).



Map of the Kuril Islands

Calophya viridiscutellata Kuwayama, 1908. – Recorded by Konovalova (1988) from Kunashir (Alekhino).

Family PSYLLIDAE

Subfamily APHALARINAE

Aphalara itadori (Shinji, 1938) (= *kunashirensis* Klimaszewski, 1983, see Burckhardt & Lauterer, 1997: 290). *Kunashir*: 1 ♀, Tretyakovo, 6.VII.1968, E.P. Nartshuk; 3 ♂, 9 ♀, Tretyakovo, 1, 5.VII.1973, I.M. Kerzhner; 5 ♂, 8 ♀, 7 km N of Mendeleevo, 7.VII.1968, E.P. Nartshuk; 1 ♂, Sernovodsk, 6.VI.1968, E.P. Nartshuk; 18 ♂, 15 ♀, Sernovodsk, 6, 28.VI, 15.VII.1973, I.M. Kerzhner; 1 ♀, Golovnina vlc., 24.VII.1973, I.M. Kerzhner; 4 ♂, Yuzhno-Kuril'sk, 11, 12.VII.1973, I.M. Kerzhner; 7 ♂, 8 ♀, slopes of Okhotsk coast near Zyrenko cape, on leaves of *Polygonum* sp., 4.VII.1962, G.O. Krivolutsкая. – Previously recorded from Kunashir (Kuwayama, 1967: Tyatino; Gemmerlinga cape; Klimaszewski, 1983, as *kunashirensis*: Tyatya vlc.; Konovalova, 1988).

****Aphalara polygona*** Förster, 1848. *Simushir*: 1 ♂, 5 ♀, north end, inland north-eastern from Broutona bay, 47°07.86'N, 152°16.20'E, sweep net, along road, from grasses and herbs, 2.VIII.2000, D.J. Bennett (SI-00-DJB-063a); *Kunashir*: 1 ♂, Tretyakovo, 4.VIII.1976, L.P. Danilovitch.

Craspedolepta topicalis Loginova, 1962. *Iturup*: 1 ♂, 1 ♀, Okhotsk sea side, Slavnaya Bay, 45°29.68'N, 148°37.46'E, 6.VIII.1998, B.K. Urbain (IT-98-BKU-066); 5 ♂, 6 ♀, Pacific side, inland from Medvezh'ya bay, 45°25.75'N, 148°49.75'E, 5.VIII.1998, B.K. Urbain (IT-98-BKU-062); 4 ♂, 4 ♀, inland of Konservnaya Bay 45°20.04'N, 147°59.34'E, 12.VIII.1999, D.J. Bennett (IT-99-DJB-077a); 25 ♂, 31 ♀, east side of Chirip Peninsula, Konservnaya Bay coastal margin, 45°20.04'N, 147°59.84'E, sweep net/aspirator, herbs in coastal lowland wetland, 30.VII.1997, B.K. Urbain (IT-97-BKU-021); 2 ♂, 2 ♀, near Kitoviyi village, 45°16.58'N, 147°52.45'E, 3.VIII.1995, V. Roth (IT-95-VR-006); 1 ♀, near Kitoviyi first stream N of Nezhnyi river, 45°17.63'N, 147°52.55'E, 3.VIII.1995, P. Oberg, sweep net, riparian vegetation of bamboo and grass, volcanic substrate (IT-95-PO-006); 7 ♂, 9 ♀, north of Kitoviyi village, environs of Nezhnyi river, 45°16.71'N, 147°52.29'E, 3.VIII.1995, N. Minakawa, P. Oberg (IT-95-PO-007); 1 ♀, north of Kitoviyi village near Nezhnyi river, 45°16.71'N, 147°52.29'E, sweep net and beating sheet in open grassland on volcanic soil, 3.VIII.1995, P. Oberg (IT-95-PO-007); 25 ♂, 31 ♀, coast of Konservnaya bay, 45°20.04'N, 147°59.84'E, 30.VII.1997, B.K. Urbain (IT-97-BKU-

021); 1 ♂, 2 ♀, south of Kitoviyi village, 45°16.34'N, 147°52.34'E, 3.VIII.1995, B.K. Urbain (IT-95-BKU-007); 1 ♂, 1 ♀, central, Pacific side, North-East part of Kasatka bay, 45°00.35'N, 147°43.65'E, 1.VIII.1998, B.K. Urbain (IT-98-BKU-043); 1 ♂, inland from Semozavoskaya Bay, 44°58.06'N, 147°43.65'E, 2.VIII.1998, B.K. Urbain (IT-98-BKU-050); *Kunashir*: 2 ♂, 4 ♀, environs of lake Aliger on road to lake Lagunnoe, 44°03.25'N, 145°03.25'E, 11.VIII.1998, B.K. Urbain (KU-98-BKU-072); 7 ♂, 6 ♀, near lake Serebryanoye, 44°03.07'N, 145°49.25'E, 22.VIII.1998, B.K. Urbain (KU-98-BKU-131); 17 ♂, 8 ♀, Sernovodsk, 3.VIII.1971, E.P. Nartshuk; 2 ♂, 3 ♀, Sernovodsk, 28.VI, 15.VII.1973, I.M. Kerzhner; 11 ♂, 4 ♀, Alekhino, 29.VII.1973, I.M. Kerzhner; 13 ♂, 18 ♀, Tretyakovo, 1.VII, 4, 8.VIII.1973, I.M. Kerzhner; 32 ♂, 40 ♀, Dubovoe near Golovino, 18-22.VII.1973, I.M. Kerzhner; 1 ♂, 1 ♀, 7 km from Mendeleevo, 31.VII.1971, E.P. Nartshuk; 1 ♀, Mendeleevo, 3.VII.1973, I.M. Kerzhner; 1 ♂, 1 ♀, lake Lagunnoe east of Yuzhno-Kuril'sk, 12.VII.1973, I.M. Kerzhner; *Shikotan*: 24 ♂, 18 ♀, inland from Otradnaya Bay, 43°52.14'N, 146°47.67'E, 12.VIII.1998, B.K. Urbain (SH-98-BKU-080); 1 ♂, 2 ♀, surroundings of Gorobets bay, 43°49.33'N, 146°42.67'E, 18.VIII.1998, B.K. Urbain, E.M. Sayenko (SH-98-BKU-101); 1 ♀, northeast, surroundings of Otradnaya bay, 43°52.30'N, 146°46.76'E, 16.VIII.1998, D.J. Bennett (SH-98-DJB-087); 1 ♀, foot of Shikotan mountain, 12.VIII.1971, V.N. Tanasijtsuk; 2 ♂, 2 ♀, Krabozavodsk, 14.VIII.1973, I.M. Kerzhner; 2 ♂, 1 ♀, Krabozavodsk – Tserkovnaya bay, 15.VIII.1973, I.M. Kerzhner; 2 ♂, 6 ♀, Tserkovnaya bay, 16.VIII.1973, I.M. Kerzhner; 1 ♀, Tserkovnaya bay, 22.VII.1976, L.P. Danilovitch; 1 ♀, surroundings of Malokuril'sk, mixed forest, 21.VIII.1953, N.A. Azarova; 5 ♂, 5 ♀, Malokuril'sk, 14-15.VIII.1971, E.P. Nartshuk; 6 ♂, 8 ♀, Malokuril'sk, 20-21.VIII.1973, I.M. Kerzhner; 3 ♀, Tsyboy, 24.VIII.1947, O.A. Skarlato; 1 ♂, Tsyboy, 24.VIII.1964, G.O. Krivolutsкая; **Zelionyi*: 1 ♂, 2.VIII.1953, N.A. Violovitch; **Tanfil'yeva*: 3 ♂, 3 ♀, Tanfil'yevskaya Bay, 43°26.79'N, 145°55.32'E, 19.VIII.1998, B.K. Urbain (TA-98-BKU-117). – Previously recorded from Kunashir (Konovalova, 1988) and Shikotan (Loginova, 1962: Tsyboy; Konovalova, 1988).

Epheloscyta kalopanacis Loginova, 1976. *Kunashir*: 1 ♀, Alekhino, 14.VI.1973, I.M. Kerzhner. – Previously recorded by Loginova (1976) from Kunashir (Alekhino).

Epheloscyta sancta Loginova, 1976. *Kunashir*: 1 ♂, 2 ♀, Yuzhno-Kuril'sk, 24.VII.1973, I.M. Kerzhner; 1 ♀, Alekhino, 14.VI.1973, I.M. Kerzhner; 1 ♀, Sernovodsk, 10.VII.1967, E.M. Danzig; 1 ♂, Sernovodsk, 5.VI.1973, I.M. Kerzhner; 3 ♂, 4 ♀, Dubovoe, 10.VI.1973, I.M. Kerzhner. – Previously recorded by Loginova (1976) from Kunashir (Yuzhno-Kuril'sk; Alekhino; Sernovodsk; Dubovoe).

**Livia jesoensis* Kuwayama, 1908 (= *livioides* Loginova, 1967). *Kunashir*: 1 ♀, near Yuzhno-Kuril'sk, 25.VIII.1971, V.N. Tanasijtsjuk; 1 ♀, Sernovodsk, 8.VI.1968, E.P. Nartshuk; 1 ♂, Sernovodsk, 6.VI.1973, I.M. Kerzhner; 1 ♂, Tretyakovo, 9.VIII.1973, I.M. Kerzhner; 12 ♂, 14 ♀, Dubovoe near Golovnino, 10.VI, 20.VII, 1.IX.1973, I.M. Kerzhner; *Shikotan*: 2 ♂, 3 ♀, Malokuril'sk, Kray Sveta, 20.VIII.1971, E.P. Nartshuk; 2 ♂, 1 ♀, Malokuril'sk, 20-21.VIII.1973, I.M. Kerzhner. – *Note*: *L. jesoensis* was described from Hokkaido and *L. livioides* from the mainland of the Russian Far East. Loginova (1967) examined specimens identified as *L. jesoensis* from Honshu and listed several differences from *L. livioides*. Of these, only the shape of the parameres in caudal view (precisely figured by Loginova) is a reliable distinction. Hodkinson & Bird (2000: 14) synonymized the two species. In my opinion, this synonymy requires further substantiation. The Kuril specimens do not differ from the types of *L. livioides*.

Subfamily PSYLLINAE

**Anomoneura mori* Schwarz, 1896. *Kunashir*: 8 ♂, 9 ♀, Tretyakovo, 8.VIII.1971, V.M. Ermolenko; 1 ♀, Tretyakovo, 5.VII.1973, I.M. Kerzhner; 2 ♀, Sernovodsk, 5.VI.1973, I.M. Kerzhner. – This species was recorded by Gegechkori & Loginova (1990) from the Far East of Russia (without specification) based on the above specimens.

Cacopsylla amabilis Ossiannilsson, 1975. **Shumshu*: 1 ♂, 6 ♀, inland from Babushkina Bay along SE shore of lake, 50°39.92'N, 156°24.21'E, sweep net, short herbaceous and grassy meadow, 10.VIII.1997, B.K. Urbain (SU-97-BKU-061); **Chirpoi*: 14 ♂, 35 ♀, small valley on SW side of Peschanaya bay, 46°32.05'N, 150°53.50'E, sweep net, mixed grasses and herbs in small valley, 6.VIII.2000, T.R. Anderson (CH-00-ATR-083); **Urup*: 1 ♀, central shore Barkhatnyi bay, Lopuchovaya river, 45°48.07'N, 149°54.12'E, 28-29.VIII.1995, Yu.M. Marusik (UR-95-YMM-097-104); *Kunashir*: 3 ♀, Tretyakovo, 5.VII.1973, I.M. Kerzhner. – Previously recorded by Kononova (1981, 1988) from Kunashir.

**Cacopsylla ambigua* (Förster, 1848). *Kunashir*: 4 ♂, 5 ♀, Tretyakovo, 1, 5.VII.1973, I.M. Kerzhner; 2 ♂, 1 ♀, Dubovoe near Golovnino, 8.VI, 22.VII.1973, I.M. Kerzhner; 1 ♂, *Shikotan*: Malokuril'sk, 21.VI.1973, I.M. Kerzhner.

Cacopsylla fulguralis (Kuwayama, 1908). – Recorded by Kononova (1988) from Kunashir.

**Cacopsylla hartigi* (Flor, 1861). *Kunashir*: 18 ♂, 15 ♀, Dubovoe near Golovnino, 19, 22.VII.1973, I.M. Kerzhner; *Shikotan*: 2 ♀, Malokuril'sk, 21.VIII.1973, I.M. Kerzhner.

**Cacopsylla mali* (Schmidberger, 1836). *Kunashir*: 49 ♂, 53 ♀, Tretyakovo, 1, 5.VII, 4-10.VIII.1973, I.M. Kerzhner; 1 ♀, Lagunnoe lake, east of Yuzhno-Kuril'sk, 12.VII.1973, I.M. Kerzhner; 5 ♂, 2 ♀, Alekhino, 29-30.VII.1973, I.M. Kerzhner; 5 ♂, 7 ♀, Sernovodsk, 15-16.VII.1973, I.M. Kerzhner; 1 ♂, 2-7 km east of Sernovodsk, 17.VII.1973, I.M. Kerzhner; 4 ♂, 6 ♀, Dubovoe near Golovnino, 18.VII, 31.VIII.1973, I.M. Kerzhner.

**Cacopsylla melanoneura* (Förster, 1848). *Kunashir*: 1 ♀, Tretyakovo, 5.VII.1973, I.M. Kerzhner.

**Cacopsylla moscovita* (Andrianova, 1948). *Shumshu*: 8 ♀, 2 km of Pochtareva cape, 50°49.32'N, 156°29.76'E, 8.VIII.1997, B.K. Urbain (SU-97-BKU-048); 1 ♂, inland from Babushkina Bay along SE shore of lake, 50°39.92'N, 156°24.21'E, sweep net, short herbaceous and grassy meadow, 10.VIII.1997, B.K. Urbain (SU-97-BKU-061); *Urup*: 2 ♂, 6 ♀, coastal margin of Novo-Kuril'skaya Bay, 46°12.86'N, 150°18.51'E, 8.VIII.1995, B.K. Urbain (UR-95-BKU-029b); 6 ♀, Novo-Kuril'skaya Bay, environs of Bystraya river, 46°12.77'N, 150°18.92'E, 8.VIII.1995,

B.K. Urbain (UR-95-BKU-035); 1 ♂, inland of Natalii bay along Obzhitaya river, 46°05.49'N, 150°10.11'E, 7.VIII.1995, B.K. Urbain (UR-95-BKU-025b); 6 ♂, 3 ♀, mouth of Obzhitaya river, 46°05.42'N, 150°10.17'E, 7.VIII.1995, B.K. Urbain (UR-95-BKU-026a); 2 ♂, inland coastal margin of Smuglyi bay near Rybnaya river, 46°01.46'N, 149°59.02'E, aerial net and beating, marshland vegetation, grasses and willows, 24.VIII.1995, P. Oberg (UR-95-PO-087); 2 ♂, inland from Aleutka bay, lowland near river, 45°56.18'N, 150°09.39'E, 7.VIII.2000, T.R. Anderson (UR-00-ATR-086); 40 ♂, 33 ♀, inland from Chernoburka bay along river, 45°36.26'N, 149°34.55'E, sweep net, mixed herbs and aklers along river banks, 9.VIII.2000, D.J. Bennett (UR-00-DJB-084); *Kunashir*: 4 ♂, 3 ♀, Mendeleevo, 3.VII.1973, I.M. Kerzhner; 1 ♂, 3 ♀, Tretyakovo, 1, 5.VII.1973, I.M. Kerzhner; *Shikotan*: 1 ♀, surroundings of Gorobets bay, 43°49.33'N, 146°42.67'E, 18.VIII.1998, B.K. Urbain, E.M. Sayenko (SH-98-BKU-101).

**Cacopsylla zajcevi* Š ulc, 1915. *Paramushir*: 1 ♂, north-east shore, Severo-Kuril'sk environs, 50°40'N, 156°06'E, 10.08-15.IX.1996, Yu.M. Marusik.

**Psylla alni* (Linnaeus, 1758). *Kunashir*: 6 ♂, 4 ♀, Golovnino, 22.VII.1989, E.R. Budris; 11 ♂, 15 ♀, Dubovoe near Golovnino, 18-19.VII, 31.VIII-1.IX.1973, I.M. Kerzhner; 1 ♂, 1 ♀, Golovnina vlc., 24.VII.1973, I.M. Kerzhner; 1 ♂, 4 ♀, Mendeleeva vlc., 21.VIII.1973, I.M. Kerzhner; 4 ♂, 3 ♀, Alekhino, 29-30.VII.1973, I.M. Kerzhner; 3 ♂, Sernovodsk, 26.VIII.1973, I.M. Kerzhner; **Shikotan*: 1 ♀, mid-northern side inland from Gorobets bay, 43°49.26'N, 148°42.48'E, 18.VIII.1998, B.K. Urbain (SH-98-BKU-108); 3 ♂, 2 ♀, Malokuril'sk, 20-21.VIII.1973, I.M. Kerzhner; 4 ♂, 3 ♀, Tserkovnaya bay, 16.VIII.1973, I.M. Kerzhner; 6 ♂, 4 ♀, Krabozavodskoe vil., 43°50.10'N, 146°45.24'E, sweeping deciduous trees, 14.IX.1997, Yu.M. Marusik.

Psylla araliae Kononova, 1981. – Recorded by Kononova (1988) from Kunashir.

Psylla betulae (Linnaeus, 1758). *Urup*: 2 ♂, 5 ♀, 0.5 km inland from Aleutka bay, lowland near river, 45°56.18'N, 150°09.39'E, sweep net, mixed grasses and herbs (mostly *Filipendula*), 7.VIII.2000, D.J. Bennett (UR-00-DJB-081); 3 ♂, 2 ♀, inland from Chernoburka bay along river, 45°36.26'N, 149°34.55'E, sweep net, mixed herbs and aklers along river banks, 9.VIII.2000, D.J. Bennett (UR-00-DJB-084); *Iturup*: 3 ♀, Okhotsk sea side, Slavnaya Bay, 45°29.68'N, 148°37.46'E, 6.VIII.1998, B.K. Urbain (IT-98-BKU-066); 1 ♀, Okhotsk sea side, Slavnaya bay, 45°29.47'N, 148°37.29'E, 6.VIII.1998, B.K. Urbain (IT-98-BKU-065); 1 ♂, 2 ♀, northern, Pacific side, inland from Medvezh'ya bay, 45°25.75'N, 148°49.75'E, 5.VIII.1998, B.K. Urbain (IT-98-BKU-062); *Kunashir*: 13 ♂, 19 ♀, Dubovoe near Golovnino, 19-22.VII, 31.VIII-1.IX.1973, I.M. Kerzhner; 1 ♀, Dubovoe, 13.VIII.1976, L.P. Danilovitch; 1 ♂, 2 ♀, Golovnina vlc., 24.VII.1973, I.M. Kerzhner; 2 ♀, Tretyakovo, 10.VIII.1973, I.M. Kerzhner; **Shikotan*: 1 ♀, inland from Gorobets bay, 43°49.26'N, 148°42.48'E, 18.VIII.1998, B.K. Urbain (SH-98-BKU-106); 1 ♂, Krabozavodskoe vil., 43°50.10'N, 146°45.24'E, sweeping deciduous trees, 14.IX.1997, Yu.M. Marusik. – Previously recorded from Kunashir (Kuwayama, 1967: Grigor'ev; Goryachiy Plyazh), Iturup (Kuwayama, 1967: Kosatka) and Urup (Kuwayama, 1967).

Psylla cunashiri Kononova, 1981. – Recorded by Kononova (1988) from Kunashir (surroundings of Yuzhno-Kuril'sk, upper part of Kislaya river; Kipyashchee lake; Tretyakovo).

**Psylla fumosa* Kononova, 1979. *Iturup*: 1 ♂, 2 ♀, Okhotsk sea side, Slavnaya Bay, 45°29.68'N,

Table. Distribution of Psylloidea in the Kuril Islands

| Species | SU | PA | ON | RK | SI | CH | UR | IT | KU | SH | ZL | TA |
|----------------------------------|----|----|----|----|----|----|----|----|----|----|----|----|
| <i>Calophya nigra</i> | | | | | | | | | • | • | | |
| <i>C. nigridorsalis</i> | | | | | | | | | • | | | |
| <i>C. phellodendri</i> | | | | | | | | | • | • | | |
| <i>C. viridiscutellata</i> | | | | | | | | | • | | | |
| <i>Aphalara itadori</i> | | | | | | | | | • | | | |
| <i>A. polygona</i> | | | | | • | | | | • | | | |
| <i>Craspedolepta topicalis</i> | | | | | | | | • | • | • | • | • |
| <i>Epheloscyta kalopanacis</i> | | | | | | | | | • | | | |
| <i>E. sancta</i> | | | | | | | | | • | | | |
| <i>Livia jesoensis</i> | | | | | | | | | • | • | | |
| <i>Anomoneura mori</i> | | | | | | | | | • | | | |
| <i>Cacopsylla amabilis</i> | • | | | | | • | • | | • | | | |
| <i>C. ambigua</i> | | | | | | | | | • | • | | |
| <i>C. fulguralis</i> | | | | | | | | | • | | | |
| <i>C. hartigi</i> | | | | | | | | | • | • | | |
| <i>C. mali</i> | | | | | | | | | • | | | |
| <i>C. melanoneura</i> | | | | | | | | | • | | | |
| <i>C. moscovita</i> | • | | | | | | • | | • | • | | |
| <i>C. zajcevi</i> | | • | | | | | | | | | | |
| <i>Psylla alni</i> | | | | | | | | | • | • | | |
| <i>P. araliae</i> | | | | | | | | | • | | | |
| <i>P. betulae</i> | | | | | | | • | • | • | • | | |
| <i>P. cunashiri</i> | | | | | | | | | • | | | |
| <i>P. fumosa</i> | | | | | | | | • | • | • | | |
| <i>P. haimatsucola</i> | | | | | | | | | • | | | |
| <i>P. malivorella</i> | | | | | | | | | • | | | |
| <i>P. matsumurai</i> | | • | | | | | | | | | | |
| <i>P. minima</i> | • | • | | • | | • | • | | | | | |
| <i>P. octomaculata</i> | | | | | | | | | • | • | | |
| <i>P. sorbicola</i> | • | • | • | | | | | | | | | |
| <i>Bactericera arctica</i> | | | | | | | | | • | • | | |
| <i>B. calcarata</i> | | | | | | | | | • | • | | |
| <i>B. femoralis</i> | | | | | | | | | • | | | |
| <i>Neorhinopsylla takahashii</i> | | | | | | | | | • | • | | |
| Total | 4 | 4 | 1 | 1 | 1 | 2 | 4 | 3 | 30 | 14 | 1 | 1 |

Abbreviations: SU, Shumshu; PA, Paramushir; ON, Onekotan; RK, Raikoke; SI, Simushir; CH, Chirpoi; UR, Urup; IT, Iturup; KU, Kunashir; SH, Shikotan; ZL, Zeliony; TA, Tanfilyeva.

148°37.46'E, 6.VIII.1998, B.K. Urbain IT-98-BKU-066; *Kunashir*: 1 ♀, Tret'yakovo, 9.VIII.1973, I.M. Kerzhner; *Shikotan*: 1 ♀, Krabozavodskoe vil., 43°50.10'N, 146°45.24'E, sweeping branches of *Abies* and *Taxus*, 14.IX.1997, Yu.M. Marusik.

Psylla haimatsucola Miyatake, 1964. – Recorded by Konovalova (1988) from *Kunashir*.

****Psylla malivorella*** (Sasaki, 1915). *Kunashir*: 1 ♀, Tret'yakovo, 6.VII.1973, I.M. Kerzhner.

Psylla matsumurai Miyatake, 1964. – Recorded by Konovalova (1988) from *Paramushir*.

****Psylla minima*** Konovalova, 1979. *Shumshu*: 1 ♂, 2 ♀, 2 km of Pochtareva cape, 50°49.32'N, 156°29.76'E, 8.VIII.1997, B.K. Urbain (SU-97-BKU-048); 14 ♂, 18 ♀, inland from Babushkina Bay along SE shore of lake, 50°39.92'N, 156°24.21'E, sweep net, short herbaceous and grassy meadow, 10.VIII.1997, B.K. Urbain (SU-97-BKU-061); *Paramushir*: 12 ♂, 19 ♀, near town of Putyatino on North-Eastern corner of island near lake, 50°44.19'N, 156°08.82'E, sweep net/aspirator, lowland meadow, herbs and grasses, 4.VIII.1997, B.K. Urbain (PA-97-BKU-031); *Raikoke*: 3 ♀, inland from northeast coast, 48°17.97'N, 153°15.82'E, 13.VIII.1996, B.K. Urbain (RK-96-BKU-057); 6 ♂, 10 ♀, inland from northeast coast, 48°17.91'N, 153°15.46'E, 13.VIII.1996, B.K. Urbain (RK-96-BKU-061); *Chirpoi*: 5 ♂, 9 ♀, small valley on SW side of Peschanaya bay, 46°32.05'N, 150°53.50'E, sweep net, mixed grasses and herbs in small valley, 6.VIII.2000, T.R. Anderson (CH-00-ATR-083); *Urup*: 2 ♂, 4 ♀, coastal margin of Novo-Kuril'skaya Bay, 46°12.86'N, 150°18.51'E, 8.VIII.1995, B.K. Urbain (UR-95-BKU-029b).

****Psylla octomaculata*** Konovalova, 1987. *Kunashir*: 6 ♂, 11 ♀, Mendeleevo, 3.VII.1973, I.M. Kerzhner; 1 ♀, Sernovodsk, 15.VII.1973, I.M. Kerzhner; *Shikotan*: 3 ♂, Malokuril'sk, 20, 21.VIII.1973, I.M. Kerzhner; 1 ♂, Krabozavodskoe vil., 43°50.10'N, 146°45.24'E, sweeping deciduous trees, 14.IX.1997, Yu.M. Marusik.

Psylla sorbicola Miyatake, 1963. *Shumshu*: 2 ♂, 2 km of Pochtareva cape, 50°49.32'N, 156°29.76'E, 8.VIII.1997, B.K. Urbain (SU-97-BKU-048); **Onkotan*: 1 ♂, inland of Mussel Bay, 49°23.25'N, 154°49.25'E, 7.VIII.1996, B.K. Urbain (ON-96-BKU-023). – Previously recorded by Konovalova (1988) from *Shumshu* and *Paramushir* (Severo-Kuril'sk).

Subfamily TRIOZINAE

****Bactericera arctica*** (Hodkinson, 1978). *Kunashir*: 1 ♂, Sernovodsk, 6.VI.1973, I.M. Kerzhner; *Shikotan*: 1 ♂, 4 ♀, Malokuril'sk, 21.VI.1973, I.M. Kerzhner; 1 ♂, Krabozavodsk – Tserkovnaya bay, 15.VIII.1973, I.M. Kerzhner.

****Bactericera calcarata*** (Schaefer, 1949). *Kunashir*: 2 ♂, 6 ♀, Sernovodsk, 6.VI, 15-16.VII.1973, I.M. Kerzhner; 2 ♂, 1 ♀, Mendeleevo, 3.VI.1973, I.M. Kerzhner; 1 ♀, Dubovoe near Golovino, 10.VI.1973, I.M. Kerzhner; *Shikotan*: 4 ♂, 16 ♀, Malokuril'sk, 20-21.VIII.1973, I.M. Kerzhner.

****Bactericera femoralis*** (Förster, 1848). *Kunashir*: 1 ♀, around Mendeleevo airport, 43°57.77'N, 145°40.98'E, sweeping, 25.IX.1997, Yu.M. Marusik.

Neorhinopsylla takahashii (Boselli, 1930). *Kunashir*: 3 ♂, Sernovodsk, 16.VII.1973, I.M. Kerzhner; **Shikotan*: 1 ♂, inland from Gorobets bay, 43°49.26'N, 148°42.48'E, 18.VIII.1998, B.K. Urbain (SH-98-BKU-106). – Previously recorded by Konovalova (1988) from *Kunashir* (Sernovodsk; 10 km north of Yuzhno-Kuril'sk).

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