

Faunistic review of free-living Gamasina mites (Acari, Mesostigmata) from Sakhalin and Kuril islands

Фаунистический обзор свободноживущих видов гамазовых клещей (Acari, Mesostigmata) Сахалина и Курильских островов

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Key words: Mesostigmata, Gamasina, faunistic, Sakhalin, Kuril islands.

Ключевые слова: Mesostigmata, Gamasina, фаунистический, Сахалин, Курильские острова.

Abstract. A faunistic review of 139 species (from 49 genera and 16 families) of soil and entomophilous Gamasina mites of Sakhalin and Kuril islands is presented. 115 species are recorded from Sakhalin, and 93 species from Kuril. Twenty species are recorded from Russia for the first time, and 89 and 61 species are recorded for Sakhalin and Kuril islands respectively for the first time. Details of localities, habitat and local species distribution as well as reviews of the islands' Gamasina mites based on the Novosibirsk Zoological Museum (ISEA) collections and of the literature are provided.

Резюме. Представлен фаунистический обзор 139 видов почвенных и энтомофильных гамазовых клещей Сахалина и Курильских островов, относящихся к 49 родам из 16 семейств. Для Сахалина приводятся 115 видов, для Курильских островов — 93 вида. Двадцать видов отмечены для России впервые. Впервые на Сахалине отмечены 89 видов, на Курильских островах (или хотя бы на одном из островов) — 61 вид. К каждому виду даны полные списки библиографических ссылок, касающихся изученной территории, а также данные по распространению; данные по биотопической приуроченности приводятся только для имеющих в коллекции видов. Данный обзор видов представлен на основе коллекции гамазид Сибирского зоологического музея ИСЭЖ СО РАН (Новосибирск) и полных литературных данных, касающихся исследованного региона.

Introduction

The Gamasina mite fauna of Sakhalin and Kuril islands has been the subject of interest over the past 50 years, as testified in 31 papers: Violovich [1961], Bregetova [1953, 1956, 1961, 1977a, b, c, d, e, f], Bregetova & Koroleva [1960], Bregetova & Troitskiy [1981],

Scherbak [1972], Goncharova & Koroleva [1974], Koroleva [1977], Petrova [1967a, b, c, 1968, 1974, 1977a, b, c, 1978, 1979], Tikhomirov [1969a, b, 1971, 1977], Kolodochka [1988, 1989], Klimov [1998] and Volonikhina [1993, 1999]. Nevertheless, data are still incomplete, particularly in respect of free-living species. 139 free-living and entomophilous species of Gamasina mites from 16 families and 49 genera are currently found on Sakhalin and Kuril islands: Parasitidae (27 species), Veigaiidae (14), Arctacaridae (1), Ameroseiidae (4), Aceoseiidae (14), Phytoseiidae (2), Antennoseiidae (1), Podocinidae (2), Rhodacaridae (10), Ologamasidae (1), Parholaspidae (16), Macrochelidae (16), Pachylaelaptidae (5), Laelaptidae (13), Eviphididae (5), Zerconidae (8).

Materials and methods

This study is based on an examination of more than 6500 specimens of Gamasina mites collected from numerous localities of Sakhalin and Kuril islands. Most of the material was collected by the author in Kunashir (1989), South Sakhalin (1990); other material deposited in the Siberian Zoological Museum, Novosibirsk (ISEA) and a collection by Mr A. Basarukin (Yuzhno-Sakhalinsk) have also been studied. Names of collectors are abbreviated as follows: A.B. — A.M. Basarukin, S.K. — S.L. Kalabin, I.V. — I.I. Volonikhina. All material has been deposited in Siberian Zoological Museum of Institute for Systematics and Ecology of Animals (Novosibirsk).

Family Parasitidae Oudemans, 1901

Pergamasus (Pergamasus) crassipes (L., 1758)

Pergamasus crassipes: Violovich, 1961: 252.

Pergamasus (Pergamasus) crassipes: Klimov, 1998: 17.

Material. PARAMUSHIR: 3♀♀ — environs of Severo-Kurilsk, in litter, 19.07.89 (coll. A.B.). SHUMSHU: 4♀♀, 1♂ —

environs of Bolshoe lake, in litter, 20.08.89 (coll. A.B.). ITURUP: 1♀ — environs of Kurilsk, sea side, 21.06.89 (coll. A.B.). SHIKOTAN: 5♀♀, 7♂♂ — *Abies-Picea* forest, *Betula* forest, *Juniperus* bush, on the treeless top of hill, in litter, 30.10.86 (coll. S.K.). KUNASHIR: 2♂♂ — environs of Golovnin volcano, mixed forest, in litter, 11.07.89; 3♀♀ — environs of Yuzhno-Kurilsk, bog, in mosses, 11.08.89 (coll. I.V.). SAKHALIN: 12♀♀, 10♂♂ — Aniva distr., Susunaiskaja valley, flood-land broad-leaved forest, in litter, 10.08.90; 36♀♀, 11♂♂ — Korsakov distr., environs of Tunaicha lake, mixed and *Salix, Alnus* flood-land forest, seaside meadow, in litter, 8.07.90; 4♀♀, 5♂♂ — Aniva distr., environs of Kirillovo, *Salix*, in litter, soil, 11.07.90, 25.07.90; 6♀♀, 4♂♂ — Aniva distr., environs of Ogonyki, mixed forest, meadow grazing, in litter, soil, 22.07.90; 1♀♀, 1♂♂ — Korsakov distr., environs of Ozerskii, *Abies-Picea* forest, in litter, 5.08.90; 13♀♀, 3♂♂ — environs of Nevelsk, broad-leaved and mixed forest, in litter, 31.07.90 (coll. I.V.); 2♂♂ — Aniva distr., Uljanovka river valley, in litter, 1.11.89; 3♀♀, 2♂♂ — environs of Novo-Alexandrovsk, mixed forest, in litter, 9.10.88; 3♀♀, 1♂ — environs of Alexandrovsk-Sakhalinskii, Mgachi river valley, in litter, 29.06.88; 1♀, 1♂ — Tymovsk distr., environs of Uskovo, in litter, 5.06.93; 2♀♀, 1♂ — Dolinsk distr., environs of Ostromysovka, in litter, 14.06.93; 2♀♀, 2♂♂ — Makarov distr., environs of Zaozernoje, in litter, 24.08.93 (coll. A.B.).

Distribution. The Holarctic Region [Karg, 1971]. Europe, USA, Canada [Micherdzinski, 1969]. The Caucasus [Gadjiev, 1983]. Moldova [Pinchuk, 1976]. Ukraine [Pirjanik, 1962, Sergienko, 1988]. Latvia [Lapinja, 1988]. Russia: Moscow Oblast' [Petrova, 1982], Western Siberia [Davydova, 1976], Eastern Siberia [Goncharova, 1967], Primorskii Krai [Davydova et al., 1981], Kamchatka [Violovitich, 1961], Sakhalin [Violovitich, 1961], current data, Kuril Islands: Shumshu, Iturup, Shikotan, Kunashir (current data), Paramushir [Klimov, 1998], current data.

Pergamasus (Pergamasus) septentrionalis
(Oudemans, 1902)

Pergamasus (Pergamasus) septentrionalis: Klimov, 1998: 17.

Material. KUNASHIR: 1♀ — Ivanovskii cape, mixed forest, in litter, 9.07.89 (coll. I.V.); SAKHALIN: 10♀♀, 6♂♂ — Susunaiskaja valley, broad-leaved forest, in litter, 10.08.90; 1♀, 1♂ — environs of Tunaicha lake, flood-land *Salix-Alnus* forest, in litter, 6.07.90; 2♀♀, 1♂ — Aniva distr., environs of Kirillovo, *Salix* forest, the meadow of Uryum river valley, in litter, 21.06.90; 1♀ — environs of Nevelsk, broad-leaved forest, in litter, 31.07.90; 7♀♀, 2♂♂ — Aniva distr., environs of Uroshajnoe, mixed forest, meadow grazing, in litter, soil, 22.07.90 (coll. I.V.). 1♀ — environs of Alexandrovsk-Sakhalinskii, Mgachi river valley, in litter, 22.6.88 (coll. A.B.).

Distribution. The Holarctic Region [Karg, 1971]. Europe [Micherdzinski, 1969]. Latvia [Lapinja, 1988]. Russia: Moscow Oblast' [Petrova, 1982], Sakhalin (current data), Kuril Islands: Paramushir, Simushir [Klimov, 1998], Kunashir (current data).

Pergamasus (Paragamasus) lapponicus
Trägårdh, 1910

Pergamasus (Paragamasus) runcatellus (Berlese, 1903): Klimov, 1998: 18.

Notes. The species *P.(P.) lapponicus* and *P.(P.) runcatellus* are very similar and united in one species group «*runcatellus*» by Micherdzinski [1969] and distinguished by males leg II. Davydova [1976] gave the

figure of *P.(P.) lapponicus* male leg II exactly as *P.(P.) runcatellus* [sensu Micherdzinski, 1969, Athias-Henriot, 1967], she supposed that other shape of male leg II is variable character.

Material. PARAMUSHIR: 1♀ — environs of Savushkino, in litter, 1.08.89 (coll. A.B.). SHIKOTAN: 3♀♀, 2♂♂ — coniferous forest, *Betula* forest, in litter, 30.10.86 (coll. S.K.). KUNASHIR: 4♀♀, 1♂ — environs of Yuzhno-Kurilsk, bog, in mosses, 11.08.89; 7♀♀, 13♂♂ — environs of Alekhino, broad-leaved and mixed forest, in litter, 18.7.89; 1♀, 3♂♂ — environs of Golovnin, in litter under *Quercus*, 4.07.89; 1♂ — Ivanovskii cape, *Sasa kurilensis*, in litter, 30.07.89 (coll. I.V.). SAKHALIN: 15♀♀, 14♂♂ — Aniva distr., environs of Kirillovo, mixed forest, *Salix* and *Ledum-Sphagnum* bog, manure, 16.06.90; 17♀♀, 7♂♂ — environs of Ogonyki, mixed forest, meadow grazing, in litter, soil, 22.07.89 (coll. I.V.), 1♀ Aniva distr., environs of Novo-Alexandrovsk, mixed forest, in litter, 12.05.93; 1♀, 1♂ — environs of Poronaisk, *Salix*, in litter, 24.08.93; 1♀ — Korsakov distr., environs of Utesnoe, mixed forest, in litter, 16.09.93; 1♀ — Smirnykh distr., environs of Onor, in litter, 30.06.93; Makarov distr., environs of Zaozernoje, in litter, 24.08.93 (coll. A.B.).

Distribution. Europe [Athias-Henriot, 1967, Micherdzinski, 1969, Karg, 1971]. Latvia [Lapinja, 1988], Ukraine: Carpatians [Sergienko, 1988]. Russia: Moscow Oblast' [Petrova, 1982], Western Siberia [Davydova, 1976], Primorskii Krai [Davydova et al., 1981], Sakhalin (current data), Kuril Islands: Paramushir [Klimov, 1998], current data, Rasshua, Iturup [Klimov, 1998], Shikotan, Kunashir (current data).

Parasitus (Parasitus) talparum (Oudemans, 1904)

Parasitellus talparum: Klimov, 1998: 18.

Notes. *Parasitellus talparum* [Oudemans, 1904] is synonym of *Parasitus (Parasitus) numismaticus* Vitzthum, 1930 [Hyatt, 1980].

Distribution. Europe [Hyatt, 1980]. Russia: Western Siberia [as *Parasitus (Parasitus) numismaticus*, Davydova, 1976], Altai, Eastern Siberia [as *Parasitus (Parasitus) numismaticus*, Tikhomirov, 1977], Kuril Islands: Shumshu, Paramushir, Makanrushi, Iturup [Klimov, 1998].

Parasitus (Parasitus) fucorum (De Geer, 1778)

Parasitellus fucorum: Tikhomirov, 1969a: 1327, Klimov, 1998: 19.

Distribution. Europe [Hyatt, 1980]. Probably all USSR [Tikhomirov, 1977]. Russia: Western Siberia [Davydova, 1976], Kuril Islands: without definite island [Tikhomirov, 1969a], Alaid, Shumshu, Paramushir, Makanrushi, Onokotan, Ekarma, Matua, Urup, Iturup [Klimov, 1998].

Parasitus (Eugamasus) lunulatus (Müller, 1859)

Porrhospaspis lunulata: Klimov, 1998: 20.

Material. SHIKOTAN: 1♀, 1♂ — dark coniferous forest, in litter, 30.10.89 (coll. S.K.). KUNASHIR: 3♀♀ — environs of Yuzhno-Kurilsk, *Sphagnum-Ledum* bog, 11.08.89 (coll. I.V.). SAKHALIN: 1♂ — environs of Nevelsk, broad-leaved forest, in litter, 31.07.90; 8♀♀, 4♂♂ — environs of Tunaicha lake, flood-land *Salix, Alnus* forest, in litter, 7.07.90 (coll. I.V.), 1♀, 1♂ — environs of Alexandrovsk-Sakhalinskii, in litter, 27.07.88; 12.05.93; 1♀ — Aniva distr., environs of Kirillovo, flood-land *Salix-Alnus* forest, in litter, 24.07.93 (coll. A.B.).

Distribution. Western Europe, Afghanistan [Hyatt, 1980]. Russia: European part, the Caucasus [Tikhomirov, 1977], Sakhalin (current data), Kuril Islands: Paramushir [Klimov, 1998], Shikotan, Kunashir (current data).

Parasitus (Eugamasus) loricatus (Wankel, 1861)

Material. SAKHALIN: 2♀♀ — Aniva distr., environs of Kirillovo, manure, 23.06.90 (coll. I.V.).

Distribution. The Palaearctic Region (Europe, Morocco) [Hyatt, 1980]. Russia: European part, Eastern Siberia, Altai [Tikhomirov, 1977], Western Siberia (from Yamal to Novosibirsk Oblast') [Davydova, 1976], Sakhalin (current data).

Parasitus (Eugamasus) kraepelini (Berlese, 1905)

Vulgarogamasus kraepelini: Klimov, 1998: 20.

Material. PARAMUSHIR: 2♀♀ — environs of Savushkino, in litter, 1.08.89 (coll. A.B.). SHIKOTAN: 1♂♂ — *Betula* forest, in litter, 30.10.86 (coll. S.K.). SAKHALIN: 8♀♀, 6♂♂ — environs of Tunaicha lake, flood-land *Salix-Alnus* forest, in litter, 7.07.90 (coll. I.V.).

Distribution. Western Europe [Hyatt, 1980]. Moldova [Pinchuk, 1976]. Ukraine: Carpatians [Sergienko, 1988]. Latvia [Lapinja, 1988]. Russia: European part, Ural [Tikhomirov, 1977], Novosibirsk Oblast' [Davydova, 1976], Southern Sakhalin (current data), Kuril Islands: Paramushir [Klimov, 1998], current data, Shikotan (current data).

Parasitus (Eugamasus) vicarius Tikhomirov, 1977

Parasitus (Eugamasus) vicarius Tikhomirov, 1977: 65, fig. 26 (9) (♀ holotype, 5♀♀ paratypes in MSU collection).

Distribution. Russia: Kunashir [Tikhomirov, 1977].

Parasitus (Eugamasus) oudemansi (Berlese, 1904)

Vulgarogamasus oudemansi: Klimov, 1998: 21.

Distribution. Western Europe [Tikhomirov, 1977]. North Kazakhstan [Davydova, 1976]. Russia: Western Siberia [Davydova, 1976], Altai, Sajany [Tikhomirov, 1977], Kuril Islands: Shumshu [Klimov, 1998].

Parasitus (Vulgargamasus) burchanensis
Oudemans, 1903

Material. SAKHALIN: 2♀♀ — Aniva distr., environs of Kirillovo, cowdung, 23.06.90 (coll. I.V.).

Distribution. The British Isles, Germany, Iceland [Hyatt, 1980]. Turkmenistan, Kazakhstan [Tikhomirov, 1977]. Russia: Southern Sakhalin (current data).

Parasitus (Vulgargamasus) remberti
(Oudemans, 1912)

Vulgarogamasus remberti: Klimov, 1998: 21.

Material. SAKHALIN: 15♀♀, 24♂♂, 2 dN — Aniva distr., environs of Kirillovo, manure, rodent burrow under *Salix*, 25.06.90 (coll. I.V.).

Distribution. Western Europe [Hyatt, 1980]. Ukraine [Pirjanik, 1962]. Moldova [Pinchuk, 1976]. Latvia [Lapinja, 1988]. Northern Kazakhstan [Davy-

dova, 1976]. Russia: Western Siberia, Altai [Davydova, 1976], Eastern Siberia [Goncharova, 1967], Sakhalin (current data), Kuril Islands: Shumshu [Klimov, 1998]; probably all USSR [Tikhomirov, 1977].

Parasitus (Coleogamasus) celer (C.L.Koch, 1835)

Material. KUNASHIR: 38 dN — Ivanovskii cape, from *Geotrupes armatus*, 28.07.89 (coll. I.V.).

Distribution. Western and Northern Europe, Israel, Chile [Hyatt, 1980]. Russia: Western Siberia [Davydova, 1976], Kuril Islands: Kunashir (current data).

Parasitus (Coleogamasus) tichomirovi
Davydova, 1971

Parasitus consanguineus Oudemans et Voigts, 1904: Klimov, 1998: 18.

Notes. The species *Parasitus (Coleogamasus) tichomirovi* was described from Western Siberia [Davydova, 1971]. This species has been recorded in «consanguineus» species group by Tikhomirov [1977]. Hyatt [1980] considered *Parasitus (Coleogamasus) tichomirovi* as additional synonym of *Parasitus consanguineus*.

Material. KUNASHIR: 3 dN — Ivanovskii cape, from dung-beetle, 28.08.89 (coll. I.V.).

Distribution. Russia: European part [Tikhomirov, 1977], Western Siberia: Novosibirsk Oblast' [Davydova, 1976], Tuva [Davydova et al. 1980]. Kuril Islands: Kunashir (current data), Makanrushi [Klimov, 1988] recorded as *Parasitus consanguineus*.

Parasitus (Coleogamasus) kempersi Oudemans, 1902

Material. KUNASHIR: 10♀♀, 10♂♂, 10 dN — Ivanovskii cape, environs of Alekhino, Golovnino, algae in littoral, 8, 13, 17, 26.07.89 (coll. I.V.). SAKHALIN: 3♀♀, 6♂♂ — Korsakov distr., environs of Ozerskii, algae in littoral, 4.08.90 (coll. I.V.).

Distribution. Throughout sea coast. Northern, Western Europe, Italy [Hyatt, 1980]. Russia: probably all USSR [Tikhomirov, 1977], Sakhalin (current data), Kuril Islands: Kunashir (current data).

Parasitus (Coleogamasus) fimetorum Berlese, 1903

Material. ITURUP: 1♀♀, 3♂♂, 1 dN — environs of Kurilsk, in litter, 21.06.89 (coll. A.B.). SAKHALIN: 26♀♀, 11♂♂, 16 dN — Aniva distr., environs of Kirillovo, manure; 3 dN — environs of Urozhainoe, grazing meadow, in soil, 22.07.90 (coll. I.V.).

Distribution. Northern, Western Europe, Italy, Canada [Hyatt, 1980]. Moldova [Pinchuk, 1976]. Latvia [Lapinja, 1988]. The Caucasus [Gadjiev, 1983]. Russia: Moscow Oblast' [Petrova, 1982], Western Siberia [Davydova, 1976], Tuva [Davydova et al., 1980], Primorskii Krai [Davydova et al., 1981], Sakhalin (current data), Kuril Islands: Iturup (current data).

Parasitus (Coleogamasus) convexus Davydova, 1984

Material. SAKHALIN: 1♂ — environs of Korsakov, in seacoast, 27.06.89 (coll. I.V.).

Distribution. Russia: Altai [Davydova, 1984], Southern Sakhalin (current data).

Parasitus (Neogamasus) islandicus Sellnick, 1940

Parasitus (Neogamasus) islandicus: Tikhomirov, 1969b: 1469, 1971: 804, fig. 4 (7), 1977: 75, fig. 31 (6), 77, fig. 31 (9).

Material. KUNASHIR: 3♀♀, 1♂ — Golovnin volcano, in litter, 11.07.89; 7♀♀, 5♂♂ — Ivanovskii cape, mixed forest, *Quercus* forest, bamboo, in litter, 2.08.89; 3♀♀, 3♂♂ — Alekhino, mixed forest, in litter, 17.07.89 (coll. I.V.). SAKHALIN: 3♀♀, 2♂♂ — Aniva distr., Kirillovo, mixed forest, in litter, 16.07.90 (coll. I.V.).

Distribution. West Europe: Iceland, Austria, Germany (compost, dung) [Tikhomirov, 1977]. Russia: Primorskii Krai (Putjatin island — in forest litter) [Tikhomirov, 1977], South Sakhalin (current data), Kuril Islands: Kunashir [Tikhomirov, 1969b, 1971, 1977], current data.

Parasitus (Neogamasus) denticulatus
Tikhomirov, 1971

Parasitus (Neogamasus) denticulatus: Tikhomirov, 1971: 813–815, fig. 4 (1–5), 1977: 75, fig. 31 (4), 77, fig. 32 (1).

Material. KUNASHIR: 5♀♀ — Ivanovskii cape, algae in littoral, 13.07.89 (coll. I.V.). SAKHALIN: 2♀♀, 2♂♂ — environs of Korsakov, algae in littoral, 27.06.89 (coll. I.V.).

Distribution. Russia: Primorskii Krai: Petr Velikii bay (in algae of littoral) [Tikhomirov, 1971, 1977], Southern Sakhalin (current data), Kuril Islands: Kunashir [Tikhomirov, 1971, 1977], current data.

Parasitus (Neogamasus) diviortus
(Athias–Henriot, 1967)

Parasitus (Neogamasus) rasumovskiyi: Tikhomirov, 1969b: 1469.
Parasitus (Neogamasus) diviortus: Tikhomirov, 1971: 804, fig. 1 (1–17), 1977: 75, fig. 31 (7, 8), 77, fig. 31 (10, 10a).

Notes. Athias–Henriot [1967] described this species as *Parasitus diviortus* and then she [Athias–Henriot, 1980] created the new genus *Cycetogamasus* with *Cycetogamasus diviortus*. Athias–Henriot [1980] related new genus *Cycetogamasus* to genus *Neogamasus* sensu Tikhomirov, [1969b].

Material. KUNASHIR: 19♀♀, 13♂♂ — Alekhino, broad-leaved, mixed, dark coniferous forests, in litter, 18.07.89 (coll. I.V.). SAKHALIN: 1♂ — Aniva distr., environs of Kirillovo, bamboo, in litter, 18.06.90; 1♀, 1 dN — environs of Ogonyki, mixed forest, in litter, 24.06.89 (coll. I.V.).

Distribution. Germany (in soil under room flower), France (compost in the garden), China: Yun–nan (under tree bark) [Tikhomirov, 1971, 1977], India: Shillong (botanic garden) [Athias–Henriot, 1980]. Ukraine: Carpatians (in forest soil) [Sergienko, 1980], Crimea botanic garden [Tikhomirov, 1977]. Russia: Moscow, Novosibirsk (greenhouses) [Davydova, 1976, Tikhomirov, 1977], Sakhalin (current data), Kuril Islands: Kunashir [Tikhomirov, 1969b, 1971, 1977], current data.

Parasitus (Neogamasus) insularius
Volonikhina, 1993

Parasitus (Neogamasus) insularius Volonikhina, 1993: 11–13, fig. 1 (1–11).

Material. PARAMUSHIR: paratypes — 3♀♀ — environs of Severo–Kurilsk, in litter, 19.07.89 (coll. A.B.). SUMSHU:

paratypes — 4♀♀, 1♂♂ — Bolshoe lake, in litter, 20.08.89 (coll. A.B.). ITURUP: paratype — 1♀ — environs of Kurilsk, seacoast, 21.06.89 (coll. A.B.). SHIKOTAN: paratypes — 13♀♀, 1♂ — *Juniperus*, *Taxus*, treeless top of hill, in litter, 30.10.86, other examples — 21♀♀, 9♂♂ — *Alnus*, *Juniperus*, dark coniferous forests, treeless top of hill, in litter, 30.10.86 (coll. S.K.). KUNASHIR: paratypes — 2♀♀ — Golovnin volcano, *Empetrum–Cladonia*, 4.08.89; 2♀♀ — environs of Yuzhno–Kurilsk, *Abies–Picea* forest, in mosses, 9.08.89; 2♀♀, 3♂♂ — environs of Yuzhno–Kurilsk, *Ledum–Sphagnum* bog, 11.08.89; 2♂♂ — environs of Golovnin, *Empetrum–Cladonia*, 30.08.89; 1♂, 1♀ — environs of Alekhino, *Abies–Picea* forest, in litter, soil, 20.07.89 (coll. I.V.). SAKHALIN: holotype — 1♀ — Chekhov Mt., *Abies–Picea* forest, in litter, 5.07.90, paratypes — 13♀♀, 12♂♂ — Chekhov Mt., *Abies–Picea* forest and *Betula–Sasa* forest, in litter, soil, 5.07.90; 5♀♀, 4♂♂ — environs of Tunaicha lake, flood–land *Salix–Alnus* forest, *Abies–Picea* forest, in litter, 9.07.90; 1♀, 1♂ — Aniva distr., environs of Urozhaiinoe, mixed forest, in litter, 24.06.89; 3♂♂ — environs of Nevelsk, broad–leaved forest, in litter, 31.07.90; 12♀♀, 14♂♂ — Kholmisk distr., Slepikovskii cape, mixed forest, in litter, 10.08.90; 16♀♀, 13♂♂ — Aniva distr., environs of Kirillovo, *Ledum* bog, in mosses, 26.06.90 (coll. I.V.), other examples — 49♀♀, 17♂♂ — Kholmisk distr., Slepikovskii cape, mixed forest, in litter, 10.08.90; 59♀♀, 39♂♂ — Aniva distr., environs of Kirillovo, *Abies–Picea*, mixed forests, in *Sasa*, *Ledum* bog, in litter and mosses, 16.06.90; 26.06.90; 12♀♀, 6♂♂ — environs of Tunaicha lake, *Abies–Picea* forest, flood–land *Salix–Alnus* forest, mixed forest, flood–land meadow, in litter, soil, 6.07.90; 8.07.90; 12♀♀, 9♂♂ — environs of Nevelsk, broad–leaved and mixed forest, in litter, 31.07.90; 7♀♀, 2♂♂ — Aniva distr., environs of Ogonyki, mixed forest, in litter, 22.06.89; 22.07.90; 7♀♀, 2♂♂ — Korsakov distr., environs of Ozerskii, *Abies–Picea* forest, in litter, 22.06.89, (coll. I.V.), 2♀♀, 1♂ — Dolinsk distr., environs of Ostromysovka, in litter, 14.06.93; 1♀ — Aniva distr., environs of Novo–Alexandrovska, in litter, 10.07.93 (coll. A.B.).

Distribution. Russia: Southern Sakhalin, Kuril Islands: Paramushir, Shumshu, Iturup, Shikotan, Kunashir [Volonikhina, 1993].

Parasitus (Neogamasus) davydovae
Volonikhina, 1993

Parasitus (Neogamasus) davydovae Volonikhina, 1993: 13–15, figs 2 (1, 2), 3 (1–11).

Material. SHIKOTAN: paratypes — 2♀♀ — *Abies–Picea* forest, in litter, 30.10.86 (coll. S.K.). KUNASHIR: paratype — 1♀ — Ivanovskii cape, *Quercus* with *Sasa kurilensis*, in litter, 24.07.89 (coll. I.V.). SAKHALIN: holotype — 1♀ — environs of Tunaicha lake, flood–land *Salix–Alnus* forest, in litter, 6.07.90 and 3♀♀, 1♂ — same place, same time (coll. I.V.).

Distribution. Russia: Southern Sakhalin, Kuril Islands: Kunashir, Shikotan [Volonikhina, 1993].

Parasitus (Neogamasus) sakhalinensis
Volonikhina, 1993

Parasitus (Neogamasus) sakhalinensis Volonikhina, 1993: 18–20, fig. 5 (1–13).

Material. SAKHALIN: holotype — 1♀ — Aniva distr., valley of Uljanovka river, in litter, 1.10.89 (coll. A.B.), paratypes — 1♀ — same place, same time, 3♀♀, 1♂ — same place, 10.04.89; 1♀ — same place, 1.04.89; 1♂ — same place, 21.04.89; 4♂♂ — same place, 15.10.89; 1♂ — Makarovskii distr., valley of Nitui river, in litter, 17.09.89; 1♂ — Poronaisk distr., valley of Rukutama river, in litter, 17.09.89 (coll. A.B.), 1♀, 3♂♂ — Aniva distr., environs of Kirillovo, bamboo in the hill, in litter, 22.06.90; 1♂ — same place, *Abies–Picea* forest, in litter, 26.06.90; 1♂ — environs of Tunaicha lake, *Abies–Picea* forest, in litter, 8.07.90; 1♂ — same place, flood–land *Salix–Alnus*

forest, in litter, 7.07.90; 1♂ — Chekhov Mt., tundra on the top, in mosses, 5.08.90; 2♂♂ — environs of Nevelsk, broad-leaved forest, in litter, 31.07.90 (coll. I.V.), other examples — 1♀ — Tymovsk distr., Lopatin Mt., 1100 m asl., in litter, 19.07.93; 1♀, 1♂ — Korsakov distr., environs of Utesnoe, in litter, 16.09.93; 1♂ — Aniva distr., environs of Khvostovka, in litter, 5.10.93; 1♀, 1♂ — Smirnykh distr., environs of Onor, in litter, 30.06.93; 1♀ — Dolinsk distr., environs of Ostromysovka, in litter, 14.06.93 (coll. A.B.).

Distribution. Russia: Sakhalin [Volonikhina, 1993].

Anadenosternum azaleense (Daele, 1975)

Notes. This species was described by Daele (1975) as *Parasitus azaleensis*, and later was transferred to the new genus *Anadenosternum* by Athias-Henriot [1980]. Athias-Henriot (1980) related *Anadenosternum azaleense* to species group «Neogamasidienne» [Athias-Henriot, 1980] and to genus *Neogamasus* sensu Tikhomirov [1969].

Material. KUNASHIR: 1♀ — environs of Alekhino, under *Polygonum sakhalinensis*, in litter, 18.07.89 (coll. I.V.). SAKHALIN: 1♀ — environs of Nevelsk, broad-leaved forest, in litter, 31.07.90 (coll. I.V.).

Distribution. Western Europe (in substrate of flower pot), North Korea (in forest litter) [Athias-Henriot, 1980]. Russia: South-Western Sakhalin, Kuril Islands: Kunashir (current data).

Poecilochirus carabi G. et R. Canestrini, 1882

Poecilochirus necrophori: Violovich, 1961: 252.

Poecilochirus carabi: Klimov, 1998: 19.

Material. KUNASHIR: 101 dN — Ivanovskii cape, from beetles *Silpha perforata*, *Necrophorus maculifrons*, Carabidae, 19, 24, 28.07.89; 5 dN — environs of Alekhino, *Abies-Picea*, in litter, 20.07.89 (coll. I.V.). SAKHALIN: 35 dN — Aniva distr., environs of Kirillovo, Tunaicha lake, from beetles *Silpha*, *Carabus*, from pitfall traps, 9.07., 11.07.90 (coll. I.V.).

Distribution. Europe, China [Hyatt, 1980]. Ukraine [Pirjanik, 1962]. Moldova [Pinchuk, 1976]. The Caucasus [Gadjiev, 1983]. Russia: everywhere from west to east [Bregotova, 1956], Western Siberia [Davydova, 1976], Tuva [Davydova, 1980], Primorskii Krai [Bregotova, 1953; 1956, Violovich, 1961], Kamchatka [Violovich, 1961], Sakhalin [Violovich, 1961], current data, Kuril Islands: Kunashir [Violovich, 1961, Klimov, 1998], current data, Shikotan, Paramushir, Onkotan, Ekarma [Klimov, 1998].

Poecilochirus subterraneus (Müller, 1860)

Poecilochirus subterraneus: Scherbak, 1972: 455; Klimov, 1998: 20.

Material. KUNASHIR: 6 dN — Ivanovskii cape, from beetles *Necrophorus*, *Silpha*, 28.07.89; 2 dN — environs of Alekhino, from *Necrophorus*, 19.07.89 (coll. I.V.).

Distribution. Western Europe [Hyatt, 1980]. The Caucasus [Gadjiev, 1983]. Russia: probably all USSR [Tikhomirov, 1977], Leningrad Oblast', Tatarstan, Dauria [Bregotova, 1956], Western and Middle Siberia, Altai [Davydova, 1976], Eastern Siberia [Goncharova, 1967], Kuril Islands: Kunashir [Scherbak, 1972], current data, Shumshu, Paramushir [Klimov, 1998].

Saprogamasus gracilis Karg, 1965

Distribution. Western Europe [Hyatt, 1980]. Russia: Altai [Tikhomirov, 1977], Kuril Islands: Kunashir [in compost and dung, Tikhomirov, 1977].

Family Veigaiidae Oudemans, 1939

Veigaia kochi (Trägårdh, 1901)

Veigaia kochi: Bregotova, 1977: 116, figs 56 (1, 2), 119; Klimov, 1998: 16.

Material. SHUMSHU: 10♀♀ — environs of Bolshoe lake, in litter, 20.08.89, 18.08.89 (coll. A.B.). KUNASHIR: 1♀ — environs of Alekhino, broad-leaved forest, in litter, 20.07.89 (coll. I.V.). SAKHALIN: 8♀♀, 3 dN — environs of Tunaicha lake, flood-land *Salix-Abnus* forest, *Ledum* bog, in litter, 8.07.90; 7♀♀ — Susunaiskaja valley, flood-land broad-leaved forest, in litter, 5.08.90; 1♀ — Aniva distr., environs of Kirillovo, *Ledum* bog, 21.06.90 (coll. I.V.), 1♀ — environs of Nogliki, in litter, 25.08.93; 2♀♀ — environs of Poronaisk, *Salix*, in litter, 24.08.93; 6♀♀ — Makarov distr., environs of Zaozernoe, in litter, 24.08.93 (coll. A.B.).

Distribution. The Palaearctic Region [Karg, 1971]. Ukraine: Carpatians [Bregotova, 1977, Sergienko, 1988]. Latvia [Lapinja, 1988]. The Caucasus [Gadjiev, 1983]. Russia: Arctic Region (Novaja Zemlja), tundra, forest, forest-step zones, Siberia [Bregotova, 1961; 1977], Moscow Oblast' [Petrova, 1982], Middle Ural [Khomjakov, 1988], Tuva [Davydova et al., 1980], Krasnojarski Krai, Baikal Area, Transbaikalia, Yakutia [Goncharova, 1967], Sakhalin (current data), Kuril Islands: without definite island [Bregotova, 1977], Alaid, Paramushir, Makanrushi, Broutona, Brat Chirpoev, Iturup, Antsiferova [Klimov, 1998], Shumshu [Klimov, 1998], current data, Kunashir (current data).

Veigaia nemorensis (C.L. Koch, 1892)

Material. SAKHALIN: 4♀♀ — Susunaiskaja valley, broad-leaved forest, in litter, 27.07.90 (coll. I.V.).

Distribution. The Holarctic Region [Bregotova, 1961; 1977]. Europe, Asia [Karg, 1971]. Tjan-Shan (Terskei-Alatau) [Bregotova, 1961, 1977]. Latvia, Lithuania, Georgia, Carpatian Mt.s [Bregotova, 1961]. Russia: European part [Bregotova, 1961, 1977], Tatarstan, Ural, Krasnojarski Krai [Bregotova, 1961], Western Siberia [Davydova, Nikolsky, 1986], Tuva [Davydova et al., 1980], Sakhalin (current data).

Veigaia planicola Berlese, 1892

Material. SAKHALIN: 4♀♀ — Aniva distr., environs of Kirillovo, *Salix*, in litter, 22.06.90 (coll. I.V.).

Distribution. The Holarctic Region [Bregotova, 1961, 1977]. Ukraine [Bregotova, 1961, 1977, Sergienko, 1988], the Caucasus, Middle Asia [Bregotova, 1961, 1977]. Russia: Moscow Oblast' [Petrova, 1982], Sakhalin (current data).

Veigaia cervus (Kramer, 1876)

Material. KUNASHIR: 2♀♀ — environs of Yuzhno-Kurilsk, *Ledum* bog, in mosses, 11.08.89; 1 dN — Ivanovskii cape, mixed forest, in litter, 9.07.89; 1♀, 1 dN — Golovnin volcano, mixed forest, bamboo, in litter, 11.07.89 (coll. I.V.). SAKHALIN: 7♀♀ — Susunaiskaja valley, broad-leaved, in lit-

ter, 5.08.90; 13♀♀ — environs of Nevelsk, broad-leaved and mixed forest, in litter, 31.07.90; 20♀♀ — Aniva distr., environs of Kirillovo, *Salix*, *Abies*–*Picea* forest, in litter, 16, 26.06.90 (coll. I.V.), 1♀, 1 dN — Aniva distr., Urozhainoe, mixed forest, in litter, 8.05.90; 11♀♀ — Aniva distr., environs of Novo-Alexandrovsk, in litter, 12.05.93; 2♀♀ — Makarovsk distr., environs of Zaozernoe, in litter, 24.08.93; 2♀♀ — Dolinsk distr., environs of Ostromysovka, in litter, 14.06.93 (coll. A.B.).

Distribution. The Holarctic Region [Bregetova, 1961, 1977]. Europe, Asia, Northern America [Karg, 1971], Lithuania, the Caucasus, Tjan-Shan (Terskei-Alatau) [Bregetova, 1961, 1977], Latvia [Lapinja, 1988], Moldova [Pinchuk, 1976], Carpatians [Sergienko, 1988]. Russia: European part [Bregetova, 1977], Western Siberia [Davydova, Nikolsky, 1986], Sakhalin (current data), Kuril Islands: Kunashir (current data).

Veigaia slonovi Bregetova, 1961

Veigaia slonovi: Bregetova, 1961: 87–89, figs 78 (1, 2), 79 (1, 2); 1977: 119, fig. 57 (3, 4); Klimov, 1998: 17.

Material. SHUMSHU: 1♀ — environs of Bolshoe lake, in litter, 20.08.89 (coll. A.B.). ITURUP: 2♀♀ — in litter of valley forest, 21.06.89 (coll. A.B.). SHIKOTAN: 2♀♀ — *Taxus*, in litter, 30.10.86 (coll. S.K.). KUNASHIR: 2♀♀ — environs of Yuzhno-Kurilsk, *Abies*–*Picea* forest, in litter, 2.07.89; 1♀ — Ivanovskii cape, broad-leaved forest, in litter, 6.07.89; 1♀ — Golovnin volcano, mixed forest, in litter (coll. I.V.). SAKHALIN: 34♀♀ — Aniva distr., environs of Kirillovo, mixed forest, bamboo, in litter, 16, 26.06.90; 15♀♀ — environs of Nevelsk, mixed and broad-leaved forest, in litter, 31.07.90; 21♀♀ — environs of Tunaicha lake, mixed and flood-land forest, in litter, 9.07.90; 3♀♀ — Chekhov Mt., *Betula* forest and tundra in the top, in litter, 5.08.90 (coll. I.V.), 3♀♀ — environs of Lesnoe, *Abies*–*Picea* forest, in litter, 14.07.88; 4♀♀, 3♂♂ — Smirnykh distr., environs of Yuzhnaja Handasa, in litter, 13.06.93; 4♀♀ — Tymovsk distr., environs of Uskovo, in litter, 1.07.93; 7♀♀ — Aniva distr., environs of Novo-Alexandrovsk, in litter, 12.05.93; 1♀ — Dolinsk distr., environs of Ostromysovka, in litter, 14.06.93; 1♀ — environs of Nogliki, in litter, 25.08.93 (coll. A.B.).

Distribution. Russia: South of Khabarovsk Krai (author's materials), Primorskii Krai [Bregetova, 1961, 1977], Sakhalin (current data), Kuril Islands: without definite island [Bregetova, 1977], Shikotan, Kunashir (current data), Iturup [Klimov, 1998], current data.

Veigaia ochracea Bregetova, 1961

Veigaia ochracea Bregetova, 1961: 86, 87, figs 76 (1, 2), 77 (1–3), 1977: 119, 122, fig. 58 (1, 2); Klimov, 1998: 17.

Material. SHIKOTAN: 13♀♀ — *Alnus*, *Juniperus*, in litter, 30.10.86 (coll. S.K.). KUNASHIR: 7♀♀ — Ivanovskii cape, mixed forest, in litter, 9.07.89; 5♀♀ — Golovnin volcano, *Abies*–*Picea* forest, in litter, 11.07.89; 3♀♀ — Alekhino, mixed forest, in litter, 17.07.89; 12♀♀, 3♂♂, environs of Yuzhno-Kurilsk, *Ledum* bog, in mosses, 11.08.89 (coll. I.V.). SAKHALIN: 120♀♀ — Aniva distr., environs of Kirillovo, *Abies*–*Picea* forest, mixed forest, bamboo, flood-land meadow, *Ledum* bog, in litter, 15, 22, 26.06.90; 1♀ — Aniva distr., environs of Urozhainoe, mixed forest, in litter, 22.06.89; 60♀♀ — environs of Tunaicha lake, *Ledum* bog, mixed and flood-land *Salix*–*Alnus* forest, in litter, 8.07.90; 7♀♀ — environs of Nevelsk, mixed forest, in litter, 31.07.90; 10♀♀ — Kholmsk distr., Slepikovskii cape, mixed forest, in litter, 10.08.90; 14♀♀ — Chekhov Mt., *Betula* forest, *Abies*–*Picea* forest, tundra in the top, in litter, 5.08.90 (coll. I.V.), 6♀♀ — environs of Nogliki, in litter, 25.08.93; 8♀♀ — Tymovsk distr., Lopatin Mt., 1100 m asl., in litter, 19.07.93; 4♀♀ — Tymovsk distr., environs of Uskovo, in litter, 1.07.93; 25♀♀ — Smirnykh distr., environs of Yuzhnaja Handasa, in

litter, 13.06.93; 1♀ — Aniva distr., environs of Novo-Alexandrovskii, in litter, 12.05.93; 4♀♀ — Dolinsk distr., environs of Ostromysovka, in litter, 14.06.93 (coll. A.B.).

Distribution. Russia: South of Khabarovsk Krai [Bregetova, 1977], author's materials, Primorskii Krai [Bregetova, 1961, 1977], Sakhalin (current data), Kuril Islands: Zelenyi [Bregetova, 1961], Shikotan, Kunashir (current data), Alaid, Shumshu, Paramushir, Makanrushi [Klimov, 1998].

Veigaia grandiuscula Bregetova, 1961

Material. SAKHALIN: 5♀♀, 1♂ — Okha distr., valley of Tenga river, in litter, 6.05.87; 1♂ — Poronaisk distr., Rukutama river valley, 7.04.88; 2♀♀ — Tymovsk distr., Lopatin Mt., 1100 m asl. (coll. A.B.).

Distribution. Ukraine: Carpatians [Sergienko, 1988]. Russia: Khabarovsk Krai, Primorskii Krai [Bregetova, 1961, 1977], Northern Sakhalin (current data).

Veigaia mirabilis Bregetova, 1961

Veigaia mirabilis: Klimov, 1998: 17.

Material. SAKHALIN: 2♀♀ — environs of Alexandrovsk-Sakhalinskii, flood-land forest, in litter, 29.06.88 (coll. A.B.), 1♀ — Aniva distr., environs of Kirillovo, *Salix*–*Alnus* valley, in litter, 16.06.90 (coll. I.V.).

Distribution. Russia: Baikal Area [Goncharova, 1967], Primorskii Krai, Kamchatka [Bregetova, 1961, 1977], South of Khabarovsk Krai (author's materials), Sakhalin (current data), Kuril Islands: Paramushir, Iturup [Klimov, 1998].

Veigaia extremiorientis Bregetova, 1961

Material. SHIKOTAN: 4♀♀ — treeless top of hill, *Taxus*, *Abies*, in litter, 30.10.86 (coll. S.K.). KUNASHIR: 1♀ — Ivanovskii cape, mixed forest, in litter, 9.07.89; 2♀♀ — Alekhino, mixed forest, in litter, 18.07.89 (coll. I.V.). SAKHALIN: 19♀♀ — Aniva distr., environs of Kirillovo, *Abies*–*Picea* and mixed forest, flood-land *Salix*–*Alnus* forest, bamboo, in litter, 15.06. 22.06. 26.06.90; 1♀ — environs of Tunaicha lake, flood-land *Salix*–*Alnus* forest (coll. I.V.).

Distribution. Russia: Primorskii Krai [Bregetova, 1961, 1977], Southern Sakhalin, Kuril Islands: Kunashir, Shikotan (current data).

Veigaia tibetsi Farrier, 1957

Material. KUNASHIR: 2♀♀ — environs of Alekhino, *Abies*–*Picea* forest, in litter, 18.07.89 (coll. I.V.). SAKHALIN: 3♀♀ — Aniva distr., environs of Kirillovo, mixed forest, in litter, 15.06.90; 5♀♀ — environs of Nevelsk, broad-leaved forest, in litter, 31.07.90; 2♀♀ — environs of Tunaicha, flood-land *Salix*–*Alnus* forest, in litter, 8.07.90 (coll. I.V.).

Distribution. Korea [Bregetova, 1977]. Russia: Primorskii Krai (author's materials), Southern Sakhalin, Kuril Islands: Kunashir (current data).

Veigaia arvensis Ishikawa, 1969

Veigaia arvensis: Bregetova, 1977: 129, fig. 68.

Material. KUNASHIR: 3♀♀ — Alekhino, *Abies*–*Picea* forest, *Quercus* forest, in litter, 18.07.89; 14♀♀ — environs of Yuzhno-Kurilsk, *Ledum* bog, in *Sphagnum*, 11.08.89; 1♀ — Golovnin volcano, mixed forest, 11.07.89 (coll. I.V.). SAKHALIN: 40♀♀ — environs of Kirillovo, bamboo, in litter, 16.06.

22.06.90, 74♀♀ — environs of Nevelsk, broad-leaved forest, in litter, 31.07.90 (coll. I.V.).

Distribution. Japan: Honshu [Ishikawa, 1969]. Russia: Southern Sakhalin (current data), Kuril Islands: Kunashir [Bregetova, 1977, current data].

Veigaia ashizuriensis Ishikawa, 1978

Material. SHIKOTAN: 13♀♀ — *Alnus*, in litter, 30.10.86 (coll. S.K.). SAKHALIN: 1♀ — Tunaicha lake, flood-land *Salix*-*Alnus* forest, in litter, 17.07.90; 5♀♀ — environs of Kirillovo, bamboo, in litter, 16.06.90; 2♀♀ — environs of Nevelsk, mixed forest, in litter, 31.07.90 (coll. I.V.), 7♀♀ — Dolinsk distr., Anna river valley, in litter, 12.10.93; 3♀♀ — Korsakov distr., environs of Utesnoe, mixed forest, 16.09.93; 8♀♀ — Smirnykh distr., environs of Yuzhnaja Handasa, 13.06.93 (coll. A.B.).

Distribution. Japan: Kyushu, Sikoku, Tsushima [Ishikawa, 1969]. Russia: Southern Sakhalin (current data), Kuril Islands: Shikotan (current data).

Veigaia montchadskyi Davydova, 1971

Material. SAKHALIN: 1♀ — environs of Yuzhno-Sakhalinsk, mixed forest, in litter, 5.06.93 (coll. A.B.).

Distribution. Russia: Altai [Davydova, 1971, Bregetova, 1977], Sakhalin (current data).

Gamasolaelaps pygmaeus Bregetova, 1961

Material. KUNASHIR: 1♀ — Ivanovskii cape, mixed forest, in litter, 9.07.89 (coll. I.V.). SAKHALIN: 2♀♀ — Kirillovo, *Salix*-*Alnus* valley forest, in litter, 16.06.90 (coll. I.V.).

Distribution. The Caucasus [Bregetova, 1977]. Russia: Southern Sakhalin (current data), Kuril Islands: Kunashir (current data).

Family Arctacaridae Evans, 1955

Arctacarus beringianus Bregetova, 1977

Material. SAKHALIN: 5♀♀ — Chekhov Mt., 700-1045 m asl., *Betula* forest, tundra in the top, in litter, 5.08.90, (coll. I.V.).

Distribution. Russia: Magadan Oblast', Kamchatka [Bregetova, 1977], Southern Sakhalin (current data).

Family Ameroseiidae (Berlese, 1919) Evans, 1961

Ameroseius corbicula (Sowerby, 1806)

Material. SAKHALIN: 4♀♀ — Aniva distr., environs of Kirillovo, mixed forest, in litter, 16.06.90 (coll. I.V.).

Distribution. Western Europe [Bregetova, 1977]. USSR: European and Asian parts [Bregetova, 1977]. Russia: Moscow Oblast' [Petrova, 1982], Middle Ural [Khomjakov, 1988], Western Siberia [Davydova, Nikolsky, 1986], Tuva [Davydova et al., 1980], Sakhalin (current data).

Ameroseius pinicola Ishikawa, 1972

Distribution. Japan: Sikoku, Honshu [Ishikawa, 1972]. Russia: Southern Sakhalin [Bregetova, 1977].

Epicriopsis stellata Ishikawa, 1972

Material. SHIKOTAN: 1♀♀ — *Alnus* forest, in litter, 30.10.86 (coll. S.K.). KUNASHIR: 3♀, 2♂♂ — Ivanovskii cape, broad-leaved forest, 6.07., 9.07.89; 3♀♀, 1♂ — environs of Alekhino, mixed forest, in litter, 17.07.89 (coll. I.V.). SAKHA-

LIN: 3♀♀ — environs of Kirillovo, flood-land *Salix*-*Alnus* forest, in litter, 16.07.90; 2♀♀, 4♂♂ — environs of Nevelsk, broad-leaved forest, in litter, 31.07.90; 5♀♀ — Aniva distr., environs of Urozhaioe, mixed forest, in litter, 22.06.90 (coll. I.V.), 2♀♀ — Dolinsk distr., Anna river valley, in litter, 14.06, 12.10.93 (coll. A.B.).

Distribution. Japan: Sikoku, Honshu, Kyushu [Ishikawa, 1972]. Russia: Southern Sakhalin, Kuril Islands: Kunashir, Shikotan (current data).

Epicriopsis suedus Karg, 1971

Material. KUNASHIR: 1♀ — Ivanovskii cape, mixed forest, in litter, 16.07.89 (coll. I.V.).

Distribution. Sweden [Bregetova, 1977]. Russia: Kuril Islands: Kunashir (current data).

Family Aceosejidae Baker et Wharton, 1952

Lasioseius confusus Evans, 1958

Material. KUNASHIR: 4♀♀, 1♂ — Ivanovskii cape, mixed forest, bamboo, in litter, 6.07, 3.08.89; 1♂ — Golovnin volcano, *Polygonum sakhalinensis*, in litter, 11.07.89 (coll. I.V.). SAKHALIN: 4♀♀ — Tunaicha lake, *Ledum* bog, in litter, 16.07.90 (coll. I.V.).

Distribution. Western Europe [Bregetova, 1977]. USA: Colorado [Walter, Lindquist, 1989]. China [Gu et al., 1990]. Ukraine [Sergienko, 1988], Byelorussia, Moldova [Bregetova, 1977]. Russia: Moscow and Nizhnii Novgorod Oblast's [Bregetova, 1977], Western Siberia [Davydova, Nikolsky, 1986], Sakhalin (current data), Kuril Islands: Kunashir (current data).

Lasioseius inconspicuus Westerboer, 1963

Material. SAKHALIN: 1♀ — Tunaicha lake, *Abies*-*Picea* forest, in litter, 8.07.90 (coll. I.V.).

Distribution. Europe: Germany, Latvia [Bregetova, 1977]. Russia: Southern Sakhalin (current data).

Cheiroseius unguiculatus Berlese, 1887

Material. SAKHALIN: 3♀♀, 2♂♂ — Tunaicha lake, *Ledum* bog, *Abies*-*Picea* forest, in litter, 8.07.90 (coll. I.V.).

Distribution. Italy, Ukraine: Carpatians [Bregetova, 1977]. Russia: Western Siberia [Davydova, Nikolsky, 1986], south of Khabarovsk Krai (author's materials), Primorskii Krai [Davydova et al., 1981], Sakhalin (current data).

Cheiroseius borealis (Berlese, 1904)

Material. SAKHALIN: 3♀♀ — Tunaicha lake, flood-land *Salix*-*Alnus* forest, *Ledum* bog, in litter, 8.07.90; 1♀ — Aniva distr., environs of Kirillovo, valley meadow, in litter, 18.06.90 (coll. I.V.).

Distribution. Northern and Central Europe, Moldova, Latvia, Ukraine [Bregetova, 1977]. Russia: European part, Northern Caucasus [Bregetova, 1977], Middle Ural [Khomjakov, 1988], Western Siberia [Davydova, Nikolsky, 1986], Southern Sakhalin (current data).

Cheiroseius necorniger (Oudemans, 1903)

Material. SAKHALIN: 2♀♀ — Tunaicha lake, *Ledum* bog, in litter, 8.07.90 (coll. I.V.).

Distribution. Western Europe, Africa [Bregetova, 1977]. Russia: Leningrad Oblast' [Bregetova, 1977], Moscow Oblast' [Petrova, 1982], Middle Ural [Khomjakov, 1988], Western Siberia [Davydova, Nikolsky, 1986], Sakhalin (current data).

Leioseius salinus (Halbert, 1920)

Material. SAKHALIN: 1♀ — environs of Yuzhno-Sakhalinsk, under *Larix*, in litter, 24.06.89 (coll. I.V.).

Distribution. Western Europe [Bregetova, 1977]. Russia: Primorskii Krai [Davydova et al., 1981], south of Khabarovsk Krai (author's materials), Sakhalin (current data).

Zerconopsis sinuata Ishikawa, 1969

Zerconopsis sinuata Ishikawa, 1969: 45–46, figs 14–21.

Material. SHIKOTAN: 2♀♀ — *Abnus*, in litter, 30.10.86 (coll. S.K.). KUNASHIR: 7♀♀ — Ivanovskii cape, mixed forest, 6.07.89 (coll. I.V.). SAKHALIN: 1♀ — Aniva distr., environs of Urozhainoe, mixed forest, in litter, 24.06.89; 3♀♀ — Chekhov Mt., *Betula* forest, in litter, 9.08.90; 28♀♀, 14♂♂ — environs of Nevelsk, mixed forest, 31.07.90; 93♀♀ — Tunaicha lake, *Salix-Abnus* forest, in litter, 9.07.90; 11♀♀, 1♂ — Aniva distr., environs of Kirillovo, mixed forest, *Abies-Picea* forest, in litter, 16.06.90 (coll. I.V.).

Distribution. Japan: Honshu [Ishikawa, 1969]. Russia: Khabarovsk Krai, Primorskii Krai (author's materials), Southern Sakhalin, Kuril Islands: Kunashir, Shikotan (current data).

Arctoseius cetratus (Sellnick, 1940)

Material. KUNASHIR: 1♀ — environs of Golovnino, *Empetrum-Cladonia*, 4.08.89 (coll. I.V.). SAKHALIN: 7♀♀ — Aniva distr., environs of Kirillovo, manure, 25.06.90 (coll. I.V.).

Distribution. Western Europe [Bregetova, 1977]. Latvia [Lapinja, 1988]. Russia: Moscow Oblast' [Petrova, 1982], Middle Ural [Khomjakov, 1988], Western Siberia [Davydova, Nikolsky, 1986], Sakhalin, Kuril Islands: Kunashir (current data).

Melichares juradeus Schweizer, 1949

Material. SAKHALIN: 1♀ — Kholmsk distr., Ivanovskii cape, mixed forest, in litter, 10.08.90; 1♂ — Tunaicha lake, mixed forest, in litter, 8.07.90 (coll. I.V.).

Distribution. Western Europe, USA [Bregetova, 1977]. Russia: Leningrad Oblast', Ural [Bregetova, 1977], Sakhalin (current data).

Melichares ornatus (Postner, 1951)

Melichares ornatus: Klimov, 1998: 12.

Distribution. Central Europe [Bregetova, 1977]. Russia: Kuril Islands: Shumshu, Paramushir [Klimov, 1998].

Melichares longisetosus (Postner, 1951)

Melichares longisetosus: Klimov, 1998: 12.

Distribution. Europe [Karg, 1971]. Ukraine: Transcarpatians [Bregetova, 1977]. Kazakhstan: Karaganda [Bregetova, 1977]. Russia: Moscow Oblast', Udmurtia [Bregetova, 1977], Western Siberia [Davydova,

Bogatyrev, 1990], Kuril Islands: Shumshu, Paramushir [Klimov, 1998].

Melichares bombophilus (Westerboer, 1963)

Melichares bombophilus: Klimov, 1998: 13.

Distribution. Western Europe [Bregetova, 1977]. Ukraine: Transcarpatians [Bregetova, 1977]. Russia: Moscow Oblast' [Bregetova, 1977], Western Siberia [Davydova, Bogatyrev, 1990], Kuril Islands: Paramushir [Klimov, 1998].

Proctolaelaps pygmaeus (Müller, 1860)

Garmania bulbicola Oudemans, 1929: Violovich, 1961: 252.
Proctolaelaps pygmaeus: Klimov, 1998: 13.

Material. KUNASHIR: 2♀♀ — Ivanovskii cape, mixed forest, in litter, 8.07.90 (coll. I.V.). SAKHALIN: 1♀ — Aniva distr., environs of Urozhainoe, mixed forest, in litter, 24.06.89 (coll. I.V.).

Distribution. This is a cosmopolitan species [Bregetova, 1977]. Russia: everywhere [Bregetova, 1977], Moscow Oblast' [Petrova, 1982], Middle Ural [Khomjakov, 1988], Western Siberia [Davydova, Nikolsky, 1986], Irkutsk Oblast', Primorskii Krai [Klimov, 1998], Sakhalin [Violovich, 1961], current data, Kuril Islands: Shumshu [Klimov, 1998], Kunashir (current data).

Aceoseius muricatus (C.L. Koch, 1839)

Lasioseius muricatus: Violovich, 1961: 252.

Distribution. Western Europe, Latvia, Georgia, Ukraine [Bregetova, 1977]. Russia: Leningrad Oblast' [Bregetova, 1977], Western Siberia [Davydova, Nikolsky, 1986], Sakhalin [Violovich, 1961].

Family Phytoseiidae Berlese, 1916

Amblyseius haimatus Ehara, 1967

Amblyseius haimatus: Kolodochka, 1989: 14.

Distribution. Japan: Hokkaido [Ehara, 1967]. Russia: Sakhalin (Smirnykh, Ulegorsk districts, Chekhov Mt. — at *Abies, Picea, Pinus*) [Kolodochka, 1989].

Vittoseius povtari Kolodochka, 1988

Vittoseius povtari: Kolodochka, 1988: 43.

Distribution. Russia: Sakhalin (Ulegorsk district — at *Acer*) [Kolodochka, 1988].

Family Antennoseiidae Karg, 1965

Antennoseius hispaniensis Bernhard, 1963

Material. KUNASHIR: 2♀♀ — environs of Alekhino, *Abies-Picea* and broad-leaved forest, in litter, 18.07, 20.07.89; 4♀♀, 1♂ — Ivanovskii cape, mixed forest, in litter, 9.07.89, (coll. I.V.). SAKHALIN: 1♂ — Aniva distr., environs of Kirillovo, mixed forest, in litter, 15.06.90; 1♀ — environs of Urozhainoe, mixed forest, in litter, 10.06.89 (coll. I.V.), 1♀ — environs of Khvostovka, in litter, 5.10.93 (coll. A.B.).

Distribution. South Europe, Azerbaijan, Japan (?) [Bregetova, 1977]. Russia: Southern Sakhalin, Kuril Islands: Kunashir (current data).

Family Podocinidae Berlese, 1913*Podocinum aokii* Ishikawa, 1970

Podocinum aokii: Volonikhina, 1999: 61–62, fig. 1.

Material. SAKHALIN: 10♀♀ — environs of Nevelsk, mixed and broad-leaved forest, in litter, 31.07.90; 1♀ — Tunaicha lake, *Alnus*–*Salix* forest, in litter, 6.07.90; 2♀♀ — Aniva distr., environs of Kirillovo, *Ledum* bog, meadow, in litter, 19.06.90; 1♀ — Chekhov Mt., *Betula* forest, in litter, 9.08.90 (coll. I.V.), 1♀ — Dolinsk distr., Anna river valley, 12.10.93; 2♀♀ — Aniva distr., environs of Khvostovka, in litter, 5.10.93; 1♀ — Makarov distr., environs of Zaozernoe, in litter, 24.08.93 (coll. A.B.).

Distribution. Japan: Hokkaido, Shikoku, Tsushima, Honshu [Ishikawa, 1970]. Russia: south of Khabarovsk Krai, Primorskii Krai, Sakhalin [Volonikhina, 1999].

Podocinum catenum Ishikawa, 1970

Podocinum catenum: Volonikhina, 1999: 62–63, fig. 1.

Material. KUNASHIR: 1♀ — Ivanovskii cape, environs of Alekhino, mixed forest, in litter, 6.07.89, 18.07.89 (coll. I.V.). SAKHALIN: 7♀♀ — Tunaicha lake, *Salix*–*Alnus* forest, 6.07.90; 13♀♀ — environs of Nevelsk, broad-leaved forest, in litter, 31.07.90; 8♀♀ — Kholmsk distr., Slepikovskii cape, mixed forest, in litter, 10.08.90; 6♀♀ — Aniva distr., environs of Kirillovo, meadow, in litter, 19.06.90 (coll. I.V.), 1♀ — Tymovsk distr., environs of Uskovo, in litter, 1.07.93 (coll. A.B.).

Distribution. Japan: Hokkaido, Shikoku [Ishikawa, 1970]. Russia: Southern Kamchatka — without precise localities [Bregetova, 1977], Primorskii Krai, south of Khabarovsk Krai, Sakhalin, Kuril Islands: Kunashir [Volonikhina, 1999].

Family Rhodacaridae Oudemans, 1902*Asca aphidioides* (L., 1758)

Material. SHIKOTAN: 3♀♀ — *Betula* forest, dark-coniferous forest, in litter, 30.10.86 (coll. S.K.). KUNASHIR: 6♀♀ — environs of Yuzhno-Kurilsk, *Ledum* bog, in litter, 1.08.89; 1♀ — Golovnin volcano, *Ledum*, in litter, 11.07.89; 4♀♀ — Ivanovskii cape, mixed forest, in litter, 6.07.89; 5♀♀ — Alekhino, mixed forest, in litter, 18.07.89; 4♀♀ — environs of Golovnino, Veslo cape, *Cladonia*, 27.07.89 (coll. I.V.). SAKHALIN: 3♀♀ — Tunaicha lake, *Ledum*, in litter, 8.07.89, 2♀♀ — Aniva distr., environs of Urozhainoe, mixed forest, in litter, 22.07.89; 70♀♀ — Chekhov Mt., *Betula* and *Abies*–*Picea* forest, tundra on the top, in litter, 5.08.90; 15♀♀ — Aniva distr., Kirillovo, mixed forest, in litter, 15.06.90; 40♀♀ — environs of Nevelsk, mixed forest and broad-leaved forest, in litter, 31.07.90; 2♀♀ — Kholmsk distr., Slepikovskii cape, mixed forest, in litter, 10.08.90 (coll. I.V.).

Distribution. Western Europe, Northern America [Bregetova, Scherbak, 1977]. Broadly distributed in the former USSR [Bregetova, Scherbak, 1977]. Russia: Moscow Oblast' [Petrova, 1982], Western Siberia [Davydova, Nikolsky, 1986], Primorskii Krai [Davydova et al., 1981], Sakhalin, Kuril Islands: Shikotan, Kunashir (current data).

Asca nubes Ishikawa, 1969

Material. SHIKOTAN: 8♀♀ — *Betula* and dark-coniferous forests, in litter, 30.10.86 (coll. S.K.). KUNASHIR: 1♀ — Golovnin volcano, *Ledum*, in litter, 11.07.89; 8♀♀ — environs of Yuzhno-Kurilsk, *Ledum* bog, 11.08.89; 4♀♀ — Ivanovskii cape, broad-leaved forest, in litter, 6.07.89 (coll. I.V.). SAKHA-

LIN: 35♀♀ — environs of Nevelsk, broad-leaved forest, in litter, 31.07.90; 12♀♀ — Chekhov Mt., *Betula* forest, in litter, 8.08.90; 23♀♀ — Aniva distr., Kirillovo, *Ledum* bog, bamboo, *Abies*–*Picea* forest, in litter, 10.08.90; 31♀♀ — Aniva distr., Urozhainoe, mixed forest, in litter, 22.07.90; 17♀♀ — Tunaicha lake, mixed forest, in litter, 8.07.90 (coll. I.V.).

Distribution. Japan: Honshu [Ishikawa, 1969]. Russia: Primorskii Krai, south of Khabarovsk Krai (author's materials), Southern Sakhalin, Kuril Islands: Shikotan, Kunashir (current data).

Asca nova Willmann, 1939

Material. KUNASHIR: 1♀ — Alekhino, mixed forest, in litter, 17.07.89 (coll. I.V.). SAKHALIN: 2♀♀ — environs of Kirillovo, bamboo, in litter, 25.06.90 (coll. I.V.).

Distribution. Western Europe, Northern America [Bregetova, Scherbak, 1977]. The Caucasus [Gadjiev, 1983]. Russia: Middle Ural [Khomjakov, 1988], Western Siberia [Davydova, Nikolsky, 1986], Primorskii Krai [Davydova et al., 1981], Sakhalin, Kuril Islands: Kunashir (current data).

Halolaelaps orientalis Ishikawa, 1979

Material. KUNASHIR: 13♀♀, 13♂♂, 17 dN — Alekhino, Ivanovskii cape, algae on sea coast, 26.07.89 (coll. I.V.). SAKHALIN: 54♀♀, 67♂♂, 85 dN — environs of Korsakov, algae on sea coast.

Distribution. By seacoast. Japan: Shikoku, Kyushu [Ishikawa, 1979]. Russia: Southern Sakhalin, Kuril Islands: Kunashir (current data).

Gamasellus kurilensis Bregetova et Troitskiy, 1981

Gamasellus kurilensis: Bregetova, Troitskiy, 1981: 78, figs 7–13; Klimov, 1998: 14–16, figs 23–27.

Material. SHIKOTAN: 117♀♀, 89♂♂ — *Alnus*, dark-coniferous forest, *Betula* forest, *Taxus*, in litter, 30.10.86 (coll. S.K.). KUNASHIR: 10♀♀, 3♂♂ — Ivanovskii cape, mixed forest, in litter, 17.07.89; 2♀♀, 2♂♂ — environs of Golovnino, *Empetrum*–*Cladonia*, 4.08.89 (coll. I.V.). SAKHALIN: 71♀♀, 46♂♂ — environs of Nevelsk, broad-leaved forest, in litter, 31.07.90; 192♀♀, 43♂♂ — Aniva distr., environs of Kirillovo, *Abies*–*Picea* forest, mixed forest, bamboo, in litter, 26.06.90; 85♀♀, 41♂♂ — environs of Tunaicha lake, *Alnus*–*Salix* forest, in litter, 6.07.90; 79♀♀, 66♂♂ — Chekhov Mt., *Abies*–*Picea*, *Betula* forests, tundra on the top, 5.08.90; 2♀♀, 2♂♂ — Kholmsk distr., Slepikovskii cape, mixed forest, in litter, 10.08.90; 32♀♀, 16♂♂ — Aniva distr., environs of Urozhainoe, mixed forest, in litter, 22.07.90 (coll. I.V.), 5♀♀, 1♂ — Dolinsk distr., environs of Ostromysovka, in litter, 14.06.93; 76♀♀, 41♂♂ — Korsakov distr., environs of Utesnoe, in litter, 16.09.93; 1♂ — Nogliki distr., environs of Katangli, mixed forest, in litter, 8.09.93; 1♀, 6♂♂ — Makarov distr., environs of Zaozernoe, in litter, 24.08.93 (coll. A.B.).

Distribution. Russia: Sakhalin (current data), Kuril Islands: Shikotan (current data), Paramushir [Bregetova, Troitskiy, 1981], Alaid, Brat Chirpoev [Klimov, 1998].

Gamasellus volkovi Davydova, 1982

Material. SAKHALIN: 27♀♀, 19♂♂ — Chekhov Mt., *Abies*–*Picea* forest, *Betula* forest, in litter, 5.08.90; 41♀♀, 14♂♂ — environs of Tunaicha lake, *Alnus*–*Salix* forest, in litter, 9.07.90; 6♀♀ — Aniva distr., Kirillovo, mixed forest, in litter, 15.06.90; 1♀ — environs of Nevelsk, mixed forest, in litter, 30.07.90; 3♀♀ — Aniva distr., Urozhainoe, mixed forest, in litter, 24.06.89 (coll. I.V.), 2♀♀ — Poronaisk distr., valley forest, in litter,

15.06.93; 2♀♀ — Smirnykh distr., environs of Yuzhnaja Handasa, *Larix*, in litter, 30.06.93 (coll. A.B.).

Distribution. Russia: Khabarovsk Krai [Davydova, 1982], Sakhalin (current data).

Gamasellus montanus (Willmann, 1936)

= *G. silvestris* Halaškova, 1958

Material. SAKHALIN: 2♀♀ — environs of Nogliki, in litter, 25.08.93; 1♀ — Nogliki distr., environs of Katangli, mixed forest, in litter, 8.09.93; 1♀ — Tymovsk distr., Lopatin Mt., 1100 m asl., in litter, 19.07.93; 1♀, 1♂ — environs of Poronaysk, *Salix*, in litter, 24.08.93; 2♀♀ — Smirnykh distr., environs of Onor, in litter, 30.06.93; 11♀♀, 11♂♂ — Okha distr., environs of Nekrasovka, in litter, 3.08.93 (coll. A.B.).

Distribution. Central Europe [Karg, 1971]. Ukraine: Transcarpatians [Bregetova, 1977]. Japan: Hokkaido [Ishikawa, 1983]. Russia: Leningrad, Uljanovsk Oblast's, Tatarstan, Western Siberia [Bregetova, 1977], Sakhalin (current data).

Gamasellus vibrissatus Emberson, 1967

Material. SAKHALIN: 19♀♀, 21♂♂ — environs of Nogliki, in litter, 25.08.93 (coll. A.B.).

Distribution. Canada [Emberson, 1967]. Russia: Primorskii Krai [Davydova, 1982], Khabarovsk Krai, North Sakhalin (current data).

Euryparasitus emarginatus C.L. Koch, 1839

Euryparasitus emarginatus: Violovitch, 1961:

Distribution. Central Europe [Karg, 1971]. Russia: Moscow Oblast' [Petrova, 1982], Western Siberia [Davydova, Nikolsky, 1986], Tuva [Davydova et al., 1980], Kamchatka, Primorskii Krai, Sakhalin [Violovitch, 1961].

Gamasoides armatus (Trägårdh, 1912)

Material. KUNASHIR: 5 dN — Golovnin volcano, from beetles *Silpha*, 16.07.89; 27 dN, Ivanovskii cape, from beetles *Silpha*, Carabidae, 28.07.89 (coll. I.V.). SAKHALIN: 1 dN — environs of Tunaicha lake, from beetles *Silpha*, 8.07.90; 1 dN — environs of Nevelsk, broad-leaved forest, in litter, 31.07.90 (coll. I.V.).

Distribution. Europe [Bregetova, 1977]. Western Kazakhstan, Ukraine: Kherson [Bregetova, 1977]. Russia: Omsk, Novosibirsk Oblast's, Krasnojarsk krai, Altai [Bregetova, 1977], Sakhalin, Kuril Islands: Kunashir (current data).

Family Ologamasidae Ryke, 1962

Gamasiphis sp. aff. *sextus* Vitzthum, 1921

Material. SHIKOTAN: 5♀♀, 5♂♂ — *Alnus*, *Taxus*, *Betula*, in litter, 30.10.86 (coll. S.K.). KUNASHIR: 18♀♀, 8♂♂ — Alekhino, mixed forest, *Abies-Picea* forest, in litter, 17.07.89, Golovnin volcano, *Ledum*, in litter, 11.07.89; 4♀♀, 11♂♂ — environs of Yuzhno-Kurilsk, *Ledum* bog, 4.08.89; 1♀ — environs of Golovnin, *Empetrum-Cladonia*, 4.08.89 (coll. I.V.). SAKHALIN: 15♀♀, 2♂♂ — Aniva distr., environs of Urozhaingoe, mixed forest, in litter, 24.06.89; 139♀♀, 30♂♂ — Chekhov Mt., *Betula* and *Abies-Picea* forests, in litter, 5.08.90 (coll. I.V.), 3♀♀ — Aniva distr., environs of Novo-Alexandrovsk, in litter, 10.07.93; 3♀♀ — Dolinsk distr., environs of Ostromysovka, in litter, 14.06.93 (coll. A.B.).

Distribution. Sakhalin, Kuril Islands: Shikotan, Kunashir (current data).

Family Parholaspidae Evans, 1956

Parholaspulus spinitectus Petrova, 1967

Parholaspulus spinitectus: Petrova, 1967a: 19, Petrova, 1968: 663-664, fig. 4 (1-4); Petrova, 1977: 328, figs 224 (6), 225 (5-8).

Material. KUNASHIR: 1♀ — Ivanovskii cape, mixed forest, in litter, 6.07.89 (coll. I.V.).

Distribution. Russia: Primorskii Krai, the lower of Amur river [Petrova, 1977], south of Khabarovsk Krai (author's materials), Sakhalin [Petrova, 1977], Kuril Islands: Kunashir (current data), Shikotan [Petrova, 1967a, 1977].

Parholaspulus vulgaris Petrova, 1967

Parholaspulus vulgaris: Petrova, 1967a: 19, Petrova, 1968: 664-666, fig. 5 (1-5), Petrova, 1977: 328, figs 224 (5), 230.

Material. SHIKOTAN: 4♀♀, 2♂♂ — *Taxus*, dark-coniferous forest, in litter, 30.10.86 (coll. S.K.). KUNASHIR: 1♀ — environs of Yuzhno-Kurilsk, *Ledum* bog, 11.08.89; 1♀ — Alekhino, *Abies-Picea* forest, in litter, 20.7.89 (coll. I.V.). SAKHALIN: 1♀ — Chekhov Mt., tundra on the top, in litter, 5.08.90 (coll. I.V.).

Distribution. Russia: Primorskii Krai [Petrova, 1977], Southern Sakhalin (current data), Kuril Islands: Shikotan, Golovin [Petrova, 1967a, 1968, 1977], Kunashir (current data).

Parholaspulus alstoni Evans, 1956

Parholaspulus alstoni: Petrova, 1968: 659-660, Petrova, 1977: 330, figs 232, 233 (3-9).

Material. SHIKOTAN: 77♀♀, 1♂ — *Alnus*, *Taxus*, *Betula*, *Juniperus*, *Abies*, in litter, 30.10.86 (coll. S.K.). KUNASHIR: 15♀♀ — environs of Yuzhno-Kurilsk, *Ledum* bog, 1.07.89; 24♀♀ — Alekhino, *Abies-Picea* and mixed forest, in litter, 20.07.89; 38♀♀ — Golovnin volcano, *Abies-Picea* forest, in litter, 11.07.89; 58♀♀, 1♂ — Ivanovskii cape, mixed forest, in litter, 6.07.89 (coll. I.V.). SAKHALIN: 2♀♀, 1♂ — environs of Korsakov, algae on seacoast, 27.06.89; 13♀♀ — Kholmsk distr., Slepikovskii cape, mixed forest, in litter, 10.08.90; 259♀♀, 3♂♂ — environs of Tunaicha lake, *Alnus-Salix* forest, *Abies-Picea* and mixed forests, in litter, 8.07.90; 140♀♀ — Chekhov Mt., *Abies-Picea* and *Betula* forests, in litter, 5.08.90; 72♀♀ — environs of Nevelsk, broad-leaved forest, in litter, 31.07.90; 211♀♀ — Aniva distr., environs of Kirillovo, *Abies-Picea* forest, *Ledum* bog, in litter, 15.06.90; 84♀♀ — Aniva distr., environs of Urozhaingoe, mixed forest, in litter, 24.06.89 (coll. I.V.), 18♀♀ — Dolinsk distr., Anna river valley, in litter, 14.06.93; 7♀♀ — Tymovsk distr., environs of Uskovo, in litter, 5.06.93; 5♀♀ — Makarov distr., environs of Zaozernoe, in litter, 24.08.93 (coll. A.B.).

Distribution. Western Europe: England — in botanic garden [Evans, 1956]. Northern Vietnam [Petrova, 1968, 1977]. Japan: Honshu, Shikoku, Ryukus [Ishikawa, 1980a]. Ukraine: Carpatians [Sergienko, 1988]. Georgia: Batumi; Azerbaijan [Petrova, 1977]. Russia: Sakhalin (current data), Kuril Islands: Shikotan [Petrova, 1968], Kunashir (current data).

Parholaspulus orientalis Petrova, 1967

Parholaspulus orientalis: Petrova, 1968: 660, Petrova, 1977: 330, figs 224 (10), 233 (1, 2).

Distribution. Russia: Primorskii Krai [Petrova, 1967a, 1968], Kuril Islands: Shikotan [Petrova, 1968, 1977].

Parholaspulus excentricus Petrova, 1967

Parholaspulus excentricus: Petrova, 1967a: 20, Petrova, 1977: 332, figs 224 (11), 234 (1, 2). *Parholaspulus (Parholaspidellus) excentricus*: Petrova, 1968: 667, fig. 8 (4).

Material. KUNASHIR: 2♀♀ — Ivanovskii cape, mixed forest, in litter, 9.07.89; 1♀ — environs of Yuzhno-Kurilsk, *Ledum* bog, 11.08.89; 1♂ — environs of Golovnino, *Empetrum-Cladonia*, 4.08.89 (coll. I.V.). SAKHALIN: 5♀♀, 5♂♂ — Kholmsk distr., mixed forest, in litter, 10.08.90; 6♀♀, 3♂♂ — environs of Tunaicha lake, *Alnus-Salix* forest, *Abies-Picea* forest, in litter, 8.07.90; 28♀♀, 31♂♂ — Chekhov Mt., *Abies-Picea* forest, tundra on the top, in litter, 5.08.90 (coll. I.V.). 1♀, 2♂♂ — Aniva distr., environs of Novo-Alexandrovsk, in litter, 12.05.93; 1♀ — Dolinsk distr., Anna river valley, in litter, 12.10.93 (coll. A.B.).

Distribution. Russia: Primorskii Krai [Petrova, 1968], Southern Sakhalin, Southern Kuril Islands [Petrova, 1967a, 1977], Kunashir (current data).

Parholaspulus bregetovae Alexandrov, 1965

= *Parholaspulus dentatus* Ishikawa, 1980

Parholaspulus bregetovae: Petrova, 1968: 660, figs 1 (3, 4), 2 (1-8); Petrova, 1977: 325, 326, figs 224 (2-4), 228.

Material. SHIKOTAN: 5♀♀ — *Alnus*, *Abies*, in litter, 30.10.86 (coll. S.K.). KUNASHIR: 1♀ — environs of Yuzhno-Kurilsk, *Ledum* bog, 11.08.89; 2♀♀ — Alekhino, *Abies-Picea* forest, in litter, 20.07.89 (coll. I.V.). SAKHALIN: 9♀♀ — Aniva distr., environs of Kirillovo, *Abies-Picea* forest, bamboo, in litter, 25.06.90; 13♀♀ — Chekhov Mt., *Abies-Picea* forest, *Betula*, in litter, 5.08.90; 5♀♀ — environs of Nevelsk, mixed forest, in litter, 31.07.90; 5♀♀ — environs of Tunaicha, *Alnus-Salix* forest, in litter, 10.08.90 (coll. I.V.). 1♀ — Korsakov distr., environs of Utesnoe, in litter, 16.09.93; 1♀ — Dolinsk distr., environs of Ostromysovka, in litter, 14.06.93 (coll. A.B.).

Distribution. Japan: Hokkaido, Honshu, Shikoku, Kyushu [as *Parholaspulus dentatus*, Ishikawa, 1980a]. Russia: Primorskii Krai [Alexandrov et al., 1965, Petrova, 1968, 1977], Amur Oblast' [Petrova, 1977], south of Khabarovsk Krai (author's materials), Southern Sakhalin [Petrova, 1977], current data, Kuril Islands: Kunashir [Petrova, 1977], current data, Shikotan (current data).

Parholaspulus jagodinskyi Alexandrov, 1965

Parholaspulus jagodinskyi: Petrova, 1968: 658, Petrova, 1977: 328, fig. 231.

Material. KUNASHIR: 1♀, 1♂ — Golovnino, algae at seacoast, 7.08.89; 1♀ — Ivanovskii cape, algae at sea side, 11.07.89 (coll. I.V.). SAKHALIN: 4♀♀, 1♂ — environs of Korsakov, algae at seacoast, 27.06.89 (coll. I.V.).

Distribution. Russia: Primorskii Krai [Alexandrov, Kolodochka, 1965, Petrova, 1968, 1977], Southern Sakhalin (current data), Southern Kuril Islands [Petrova, 1977]: Kunashir (current data).

Parholaspulus kamezaticus Petrova, 1977

Parholaspulus kamezaticus: Petrova, 1977: 323, 324, figs 224 (8), 227.

Material. SAKHALIN: 6♀♀ — Smirnykh distr., environs of Yuzhnaja Handasa, in litter, 13.06.93; 10♀♀, 7♂♂ — Okha distr., environs of Nekrasovka, in litter, 3.08.93; 2♂♂ — Tymovsk distr., environs of Uskovo, in litter, 5.06.93 (coll. A.B.).

Distribution. Russia: south-east of Kamchatka [Petrova, 1977], Northern Sakhalin (current data).

Gamasholaspis browningi
(Bregetova et Koroleva, 1960)

Gamasholaspis browningi: Petrova, 1977: 338, 339, fig. 239 (1).

Material. KUNASHIR: 2♀♀ — Alekhino, mixed forest, in litter, 17.07.89 (coll. I.V.). SAKHALIN: 2♀♀ — environs of Nevelsk, mixed forest, in litter, 31.07.90 (coll. I.V.).

Distribution. Japan: Hokkaido, Shikoku, Kyushu [Ishikawa, 1980]. Georgia: Batumi [Bregetova, Koroleva, 1960]. Russia: Primorskii Krai, Southern Sakhalin [Petrova, 1967b, 1977], Kuril Islands: Kunashir (current data), Shikotan [Petrova, 1977].

Gamasholaspis lineae Petrova, 1977

Gamasholaspis lineae Petrova, 1977: 339, fig. 239 (2).

Material. KUNASHIR: 1♀ — Ivanovskii cape, mixed forest, in litter, 11.07.89; 1♀ — Golovnin volcano, *Ledum*, in litter, 13.07.89 (coll. I.V.). SAKHALIN: 16♀♀ — environs of Tunaicha, *Alnus-Salix*, mixed forest, *Abies-Picea* forest, in litter, 9.07.90; 39♀♀ — Chekhov Mt., *Abies-Picea* forest, *Betula*, in litter, 5.08.90; 7♀♀ — Aniva distr., environs of Kirillovo, mixed forest, bamboo, in litter, 22.06.90 (coll. I.V.).

Distribution. Russia: Primorskii Krai [Petrova, 1977], Southern Sakhalin (current data), Kuril Islands: Kunashir [Petrova, 1977], current data.

Gamasholaspis akimotoi Ishikawa, 1966

Gamasholaspis incisus Petrova, 1968: Petrova, 1977: 339, figs 240 (3-5), 241 (2).

Notes. *Gamasholaspis akimotoi* Ishikawa, 1966 described from Japan is very similar (description and figs) to *Gamasholaspis incisus* Petrova, 1968 recorded from Southern China [Petrova, Taskaeva, 1968] and Kunashir [Petrova, 1977]. Probably, *G. akimotoi* and *G. incisus* are synonyms. This species should be revised.

Material. SHIKOTAN: 1♀ — *Juniperus*, in litter, 30.10.86 (coll. S.K.). KUNASHIR: 3♀♀ — Alekhino, *Abies-Picea* forest, in litter, (coll. I.V.). SAKHALIN: 5♀♀ — environs of Tunaicha lake, *Alnus-Salix* forest, mixed forest, in litter, 8.07.90; 4♀♀ — environs of Nevelsk, mixed forest, in litter, 31.07.90; 8♀♀ — Aniva distr., environs of Kirillovo, mixed and *Abies-Picea* forest, in litter, 26.06.90; 2♀♀ — Chekhov Mt., *Abies-Picea* forest, in litter, 5.08.90; 3♀♀ — Aniva distr., environs of Urozhainoe, mixed forest, in litter, 24.06.89 (coll. I.V.). 2♀♀ — Dolinsk distr., Anna river valley, in litter, 14.06.93; 2♀♀ — Makarov distr., environs of Zaozernoe, in litter, 24.08.93 (coll. A.B.).

Distribution. Southern China [Petrova, Taskaeva, 1968, Petrova, 1977 as *Gamasholaspis incisus*]. Japan: Hokkaido, Honshu, Shikoku [Ishikawa, 1980b]. Russia: Southern Sakhalin (current data), Kuril Islands: Kunashir [Petrova, 1977 as *G. incisus*], current data, Shikotan (current data).

Gamasholaspis variabilis Petrova, 1967

Gamasholaspis variabilis: Petrova, 1967b: 49-50, fig. 5 (3-5); Petrova, 1977: 340-343, figs 242 (1), 243; Klimov, 1998: 3.

Material. KUNASHIR: 4♀♀ — environs of Golovnino, *Empetrum-Cladonia*, 4.08.89 (coll. I.V.). SAKHALIN: 6♀♀ — environs of Tunaicha, mixed forest, in litter, 9.07.90; 2♀♀ — Aniva distr., environs of Kirillovo, meadow, in litter, 18.06.90; 1♀ — Poronaisk distr., Rukutama river valley, in litter, 7.04.89 (coll. I.V.). 5♀♀ — Aniva distr., environs of Novo-Alexandrovsk, in litter, 12.05.93; 2♀♀, 6♂♂ — Dolinsk distr., Anna

river valley, in litter, 12.10.93; 1♂ — Tymovsk distr., Lopatin Mt., 1100 m asl, in litter, 19.07.93, environs of Uskovo, in litter, 1.07.93 (coll. A.B.).

Distribution. Russia: Chita Oblast', Southern Yakutia, the lower of Angara river, Transbaikalia, Western Sajany Mt., Amur Oblast', Primorskii Krai [Petrova, 1977], Tuva [Davydova et al., 1980], Khabarovsk Krai (author's materials), Sakhalin [Petrova, 1977], current data, Kuril Islands: Kunashir (current data), Brat Chirpoev [Klimov, 1998].

Euparcholaspulus primoris Petrova, 1967

Euparcholaspulus primoris: Petrova, 1967a: 20–22, figs 1–2, Petrova, 1977: 335, fig. 235.

Material. SHIKOTAN: 3♀♀, 4♂♂ — *Taxus*, *Juniperus*, in litter, 30.10.86 (coll. S.K.). KUNASHIR: 1♀ — Alekhino, mixed forest, in litter, 17.07.90 (coll. I.V.). SAKHALIN: 11♀♀, 13♂♂ — Aniva distr., environs of Kirillovo, mixed forest, *Abies-Picea* forest, *Ledum* bog, in litter, 15.06.90; 3♀ — environs of Nevelsk, mixed forest, in litter, 31.07.90; 1♀ — Aniva distr., environs of Novo-Alexandrovsk, mixed forest, in litter, 16.09.89 (coll. A.B.); 2♀♀, 6♂♂ — Chekhov Mt., *Abies-Picea* forest, tundra on the top, in litter, 5.08.90; 1♂ Aniva distr., environs of Urozhainoe, mixed forest, in litter, 24.06.89 (coll. I.V.); 2♀♀, 1♂ — Dolinsk distr., environs of Ostromysovka, in litter, 14.06.93 (coll. A.B.).

Distribution. Japan: Honshu, Shikoku, Kyushu [Ishikawa, 1980c]. Russia: Southern Sakhalin, Kuril Islands: Kunashir, Shikotan [Petrova, 1967a, 1977], current data.

Parcholaspis mordax Petrova, 1974

Parcholaspis mordax Petrova, 1974: 15–17, figs 1–5; Petrova, 1977: 337, fig. 238.

Material. KUNASHIR: 1♂ — Alekhino, *Abies-Picea* forest, in litter, 20.07.89; 1 dN — Ivanovskii cape, bamboo, in litter, 13.08.89 (coll. I.V.). SAKHALIN: 4♀♀, 7♂♂ — Chekhov Mt., *Betula* and *Abies-Picea* forest, in litter, 9.08.90; 6♀♀, 4♂♂ — Aniva distr., environs of Kirillovo, mixed forest, in litter, 16.06.90, Aniva distr., environs of Urozhainoe, mixed forest, in litter, 22.06.89; 1♂ — environs of Tunaicha lake, mixed forest, in litter, 8.07.90; 1♀ — environs of Nevelsk, mixed forest, in litter, 31.07.90 (coll. I.V.); 2♀♀, 2♂♂ — environs of Yuzhno-Sakhalinsk, mixed forest, in litter, 5.06.93; 1♀ — Dolinsk distr., Anna river valley, in litter, 12.10.93; 1♀, 2♂♂ — Aniva distr., environs of Novo-Alexandrovsk, in litter, 10.07.93 (coll. A.B.).

Distribution. Japan: Hokkaido, Honshu, Shikoku, Kyushu [Ishikawa, 1980c]. Russia: Southern Sakhalin [Petrova, 1974, 1977], current data, Kuril Islands: Kunashir [Petrova, 1974], current data, Shikotan [Petrova, 1974].

Neparholaspis arcuatus Petrova, 1977

Neparholaspis arcuatus: Petrova, 1977: 343, fig. 244 (1–3).

Material. SHIKOTAN: 1♀ — *Alnus*, in litter, 30.10.86 (coll. A.B.). KUNASHIR: 1♀ — Alekhino, *Abies-Picea* forest, in litter, 20.07.89 (coll. I.V.). SAKHALIN: 1♀ — Aniva distr., environs of Kirillovo, mixed forest, in litter, 16.06.90 (coll. I.V.).

Distribution. Russia: Southern Sakhalin (current data), Kuril Islands: Kunashir [Petrova, 1977], current data, Shikotan (current data).

Neparholaspis unicus Petrova, 1967

Material. SAKHALIN: 2♀♀ — Tymovsk distr., Lopatin Mt., 1100 m asl, in litter, 19.07.93 (coll. A.B.).

Distribution. Russia: Tuva [Davydova et al., 1980], Amur Oblast' (author's materials), Khabarovsk Krai (author's materials), Primorskii Krai [Petrova, 1967b, 1977], Northern Sakhalin (current data).

Family Macrochelidae

Dissoloncha superbus (Hull, 1918)

Macrocheles superbus: Bregetova, Koroleva, 1960: 89, figs 45–46; Alexandrov et al., 1965: 608, figs 1–3; Bregetova, 1977: 366, figs 247 (8), 250 (3, 4), 254 (3–5).

Dissoloncha superbus: Klimov, 1998: 2, 3.

Material. KUNASHIR: 3♀♀, 4♂♂, 2 dN — environs of Alekhino and Golovnino, Ivanovskii cape, algae at sea coast, 17.07.89 (coll. I.V.). SAKHALIN: 41♀♀, 14♂♂, 13 dN — environs of Korsakov, algae at sea coast, 27.06.89; 1♂ — environs of Tunaicha lake, algae at sea coast, 18.07.90 (coll. I.V.); 36♀♀, 16♂♂ — Dolinsk distr., Anna river valley, in litter, 10.10.93 (coll. A.B.).

Distribution. Common in seaweed on beaches. The British Isles, Northern Europe, Germany, Northern America [Hyatt, Emberson, 1988]. Japan: Hokkaido [Takaku, 1997]. Russia: Primorskii Krai (Bregetova, Koroleva, 1960, Alexandrov et al., 1965), Southern Sakhalin (current data), Kuril Islands: Kunashir (current data), Urup [Bregetova, Koroleva, 1960], Broutona, Chirinkotan, Simushir, Onekotan, Lovushki [Klimov, 1998].

Macrocheles matrius matrius (Hull, 1925)

Macrocheles matrius: Violovich, 1961: 253; Bregetova, Koroleva, 1960: 109–112, figs 88 (1, 2), 69 (1), 70 (1–3), 71 (1, 2), 72 (1, 2).

Macrocheles matrius matrius: Bregetova, 1977: 374, figs 270 (2), 246 (10).

Material. SAKHALIN: 7♀♀, 1♂ — Aniva distr., environs of Kirillovo, manure, 22.06.90 (coll. I.V.).

Distribution. The British Isles, widespread in Europe: Germany, Austria, Bulgaria; Israel, USA, New Zealand [Hyatt, Emberson, 1980]. Russia: everywhere in European part: from Karelia to Batumi and in Asian part: from Western Kazakhstan to Sakhalin and Kuril Islands [Bregetova, Koroleva, 1960], Sakhalin, Kuril Islands: Zelenyi [Violovich, 1961].

Macrocheles matrius violovitshi

Bregetova et Koroleva, 1960

Macrocheles matrius violovitshi Bregetova et Koroleva, 1960: 114, 115, figs 69 (3), 73 (2), 76, 77 (1, 2); Bregetova, 1977: 374, figs 246 (8), 269 (3).

Material. KUNASHIR: 4♀♀ — Alekhino, from bark beetle, 17.07.89; 5♀♀ — Ivanovskii cape, mixed forest, in litter, 6.07.89; 1♀ — Golovnin volcano, *Abies*, in litter, 16.07.89 (coll. I.V.).

Distribution. Russia: Primorskii Krai [Bregetova, 1977], Sakhalin [Bregetova, 1977], Kunashir (current data).

Macrocheles glaber (Müller, 1860)

Macrocheles glaber: Bregetova, Koroleva, 1960: 134–138, figs 99 (2), 100 (1, 2), 101, 102 (2, 3), 103 (1–3), 104 (1, 2); Violovich, 1961: 254.

Material. KUNASHIR: 19♀♀ — Ivanovskii cape, from beetles *Geotrupes armatus*, *Silpha perforata*, Ipididae, 17.07.89

(coll. I.V.). SAKHALIN: 5♀♀, 14♂♂ — Aniva distr., environs of Kirillovo, manure, 25.06.90; 19♀ — environs of Urozhainoe, meadow grazing, 22.07.90 (coll. I.V.).

Distribution. Great Britain, widespread in Europe and Mediterranean area, USA, New Zealand [Hyatt, Emberson, 1988], Australia [Halliday, 1986]. Widespread in USSR: from Kolski peninsula and Yakutia at North to the Caucasus and Middle Asia at South, from Baltic republics and Transcarpatians at West to Sakhalin at East [Bregetova, Koroleva, 1960]. Sakhalin [Violovich, 1961], current data, Kuril Islands: Kunashir (current data).

Macrocheles perglaber Fillipponi et Pegazzano, 1962

Material. SAKHALIN: 3♀♀ — environs of Tunaicha lake, *Alnus-Salix* forest, in litter, 9.07.90 (coll. I.V.).

Distribution. Western Europe [Bregetova, 1977], Ukraine [Sergienko, 1988], Australia [Halliday, 1986], New Zealand [Emberson, 1973], USA [Krantz, Redmond, 1987]. Russia: Moscow Oblast' [Petrova, 1982], Western Siberia [Davydova, Nikolsky, 1986], Sakhalin (current data).

Macrocheles moneronicus

Bregetova et Koroleva, 1960

Macrocheles moneronicus: Bregetova, Koroleva, 1960: 143, 144, figs 106 (2), 107 (2), 108 (2), 110 (2); Bregetova, 1977: 377, figs 246 (4), 272 (3, 4).

Material. KUNASHIR: 1♀ — Ivanovskii cape, from *Silpha perforata*, 3.08.89 (coll. I.V.).

Distribution. Russia: Primorskii Krai: Moneron island [Bregetova, Koroleva, 1960, Bregetova, 1977], Kuril Islands: Kunashir (current data).

Macrocheles reductus Petrova, 1966

Macrocheles reductus: Petrova, 1966: 18–23, figs 1 (a, b), 2 (a–c); Bregetova, 1977: 359, fig. 257 (5, 6).

Material. SAKHALIN: 2♀♀ — environs of Tunaicha lake, *Alnus-Salix* forest, *Ledum* bog, in litter, 6.07, 9.07.90 (coll. I.V.).

Distribution. Russia: Chita Oblast', Primorskii Krai [Petrova, 1966, Bregetova, 1977], Southern Sakhalin (current data).

Macrocheles subbadius (Berlese, 1904)

Material. SAKHALIN: 1♀ — Korsakov distr., environs of Ozerskii, manure, 1.08.90; 2♀♀ — Aniva distr., environs of Kirillovo, manure, 22.06.90 (coll. I.V.).

Distribution. Europe [Bregetova, 1977], New Zealand [Hyatt, Emberson, 1988], the Caucasus [Gadjiev, 1986], Uzbekistan, Tadjikistan [Bregetova, Koroleva, 1960]. Russia: Murmansk, Leningrad Oblast's [Bregetova, Koroleva, 1960], Moscow Oblast' [Bregetova, 1977], Western Siberia [Davydova, Nikolsky, 1986], Sakhalin (current data).

Macrocheles monchadskii

Bregetova et Koroleva, 1960

Material. SAKHALIN: 6♀♀ — environs of Tunaicha lake, *Salix-Alnus* forest, in litter, 9.07.90 (coll. I.V.).

Distribution. Georgia: Batumi [Bregetova, Koroleva, 1960]. Russia: Western Siberia [Davydova, Nikolsky, 1986], Sakhalin (current data).

Macrocheles decoloratus (C.L. Koch, 1839)

Macrocheles decoloratus: Violovich, 1961: 254.

Distribution. Europe, China [Bregetova, Koroleva, 1960]. Baltic republics, Ukraine, Moldova, Armenia, Kazakhstan, Tadjikistan [Bregetova, Koroleva, 1960]. Russia: Leningrad, Astrakhan Oblast's, Transbaikalia, Amur Oblast', Primorskii Krai [Bregetova, Koroleva, 1960], Sakhalin, Kuril Islands: Kunashir [Violovich, 1961].

Macrocheles penicilliger (Berlese, 1904)

Macrocheles penicilliger: Bregetova, Koroleva, 1960: 86–89, figs 40–41 (1, 2), 42 (1, 2), 44 (1, 2); Bregetova, 1977: 368, fig. 264 (1, 2).

Material. KUNASHIR: 1♀ — Ivanovskii cape, mixed forest, in litter, 9.07.89 (coll. I.V.).

Distribution. Great Britain, Germany, Italy, probably widespread in Europe, New Zealand [Hyatt, Emberson, 1988], China [Bregetova, Koroleva, 1960]. The Caucasus: Batumi [Bregetova, Koroleva, 1960]. Russia: Sochi Oblast' [Bregetova, Koroleva, 1960], Moscow Oblast' [Petrova, 1982], Kuril Islands: Yurii [Bregetova, Koroleva, 1960, Bregetova, 1977], Kunashir (current data).

Macrocheles nataliae Bregetova et Koroleva, 1960

Material. SAKHALIN: 3♀♀, 3♂♂ — Aniva distr., environs of Kirillovo, manure, 15.08.90 (coll. I.V.).

Distribution. Great Britain, Germany [Hyatt, Emberson, 1988]. Lithuania, Western Kazakhstan, Georgia [Bregetova, Koroleva, 1960]. Russia: Leningrad, Moscow Oblast's, Tatarstan, Amur Oblast's, Primorskii Krai [Bregetova, Koroleva, 1960], Sakhalin (current data).

Macrocheles muscadomesticae
(Scopoli, 1772) Sellnick, 1940

Macrocheles muscadomesticae: Violovich, 1961: 254; Bregetova, Koroleva, 1960: 131, 132, figs 93 (2), 94 (2), 96 (1, 2), 97 (2).

Distribution. Apparently cosmopolitan wherever suitable phoretic hosts exist. Russia: Leningrad, Moscow Oblast's, Primorskii Krai [Bregetova, Koroleva, 1960], Sakhalin [Violovich, 1960, Bregetova, Koroleva, 1960].

Glyphtholaspis americana (Berlese, 1888)

Material. KUNASHIR: 1♀ — Ivanovskii cape, mixed forest, in litter, 22.06.89; 1 f Alekhino, broad-leaved forest, in litter, 17.07.89 (coll. I.V.). SAKHALIN: 1♀ — Susunaisk valley, broad-leaved forest, in litter, 10.08.90 (coll. I.V.), 1♀ — Aniva distr., environs of Novo-Alexandrovsk, in litter, 28.05.90; 1♀ — environs of Yuzhno-Sakhalinsk, mixed forest, in litter, 5.06.93 (coll. A.B.).

Distribution. Cosmopolitan species [Bregetova, 1977]. Russia: Moscow Oblast's [Petrova, 1982], Tuva [Davydova et al., 1980], Sakhalin, Kuril Islands: Kunashir (current data).

Glypholaspis depuncta Petrova, 1967

Macrocheles (Glypholaspis) depuncta: Petrova, 1967c: 22–25, figs 1 (1–4), 2 (1, 2), 3 (1–3); Bregetova, 1977: 387, fig. 283.

Material. SAKHALIN: 2♀♀ — Aniva distr., environs of Kirillovo, mixed forest, in litt., 16.06.90 (coll. I.V.).

Distribution. Russia: Sakhalin [Petrova, 1967, Bregetova, 1977], current data.

Holostaspella subornata
Bregetova et Koroleva, 1960

Holostaspella subornata: Klimov, 1998: 3.

Distribution. Europe [Karg, 1971]; Great Britain [Hyatt, Emberson, 1988]. Russia: Leningrad, Omsk Oblast's [Bregetova, Koroleva, 1960, Bregetova, 1977], Kuril Islands: Iturup [Klimov, 1998].

Family Pachylaelaptidae Vitzthum, 1931

Pachylaelaps buyakovae Goncharova et Koroleva, 1977.

Pachylaelaps buyakovae: Goncharova, Koroleva, 1974: 1257, fig. 1 (1, 2), 2 (1–5); Koroleva, 1977: 422–425, fig. 329, 330; Klimov, 1998: 9–12.

Distribution. Kirgizstan, Uzbekistan [Koroleva, 1977]. Russia: Irkutsk Oblast', Khabarovsk Krai, Kamchatka [Koroleva, 1977], Kuril Islands: Paramushir [Goncharova, Koroleva, 1974, Koroleva, 1977], Shumshu, Makanrushi, Brat Chirpoev, Iturup [Klimov, 1998].

Pachylaelaps pectinifer (G. et R. Canestrini, 1882)

Material. SAKHALIN: 1♀ — environs of Korsakov, algae in littoral, 27.06.89 (coll. I.V.).

Distribution. Western Europe, Northern Africa, Israel, Ukraine, Moldova, Georgia, Russia: Leningrad, Vologda Oblast's [Koroleva, 1977], Sakhalin (current data).

Pachylaelaps kiewati Davydova, 1971

Material. SAKHALIN: 1♀ — environs of Yuzhno-Sakhalinsk, ant-hill, 4.06.89 (coll. I.V.), 1♀ — Aniva distr., environs of Kirillovo, mixed forest, in litter, 23.07.93 (coll. A.B.).

Distribution. Russia: Tyumen, Novosibirsk Oblast's, Altai [Davydova, 1971, Koroleva, 1977], Sakhalin (current data).

Pachylaelaps dubius Hirschmann et Krauss, 1965

Material. SAKHALIN: 10♀♀, 1♂ — Tymovsk distr., Lopatin Mt., 1100 m asl., in litter, 19.07.93 (coll. A.B.).

Distribution. Western Europe, Ukraine: Transcarpathian [Koroleva, 1977]. Russia: Sakhalin (current data).

Pachyseius orientalis Nikolsky, 1982

Material. SAKHALIN: 11♀♀ — environs of Tunaicha lake, *Salix*–*Abnus* forest, in litter, 6.07, 8.07.90; 3♀♀ — Aniva distr., environs of Kirillovo, meadow, bamboo, in litter, 19.06.90; 1♀ — Kholmsk distr., Slepikovskii cape, mixed forest, in litter, 10.08.90 (coll. I.V.), 1♀ — Makarov distr., environs of Zaozernoe, in litter, 24.08.93; 1♀ — Dolinsk distr., Anna river valley, in litter, 12.10.93 (coll. A.B.).

Distribution. Russia: Primorskii Krai [Nikolsky, 1982], Khabarovsk Krai (author's materials), Sakhalin (current data).

Family Laelaptidae Berlese

Hypoaspis (Geolaelaps) praesternalis
Willmann, 1949

Material. KUNASHIR: 1♀ — Golovnin volcano, *Empetrum*, 11.07.89; 1♀ — Ivanovskii cape, mixed forest, in litter, 9.07.89; 4♀♀ — Alekhino, *Abies*–*Picea* forest, in litter, 9.07.89; 4♂♂ — environs of Yuzhno-Kurilsk, *Abies*–*Picea* forest, in litter, 9.08.89 (coll. I.V.). SAKHALIN: 56♀♀, 16♂♂ — environs of Tunaicha lake, *Abies*–*Picea* and *Abnus*–*Salix* forests, *Ledum* bog, in litter, 8.07.90; 8♀♀ — Aniva distr., environs of Kirillovo, mixed and *Abies*–*Picea* forests, 15.06, 20.06.90; 17♀♀, 2♂♂ — Chekhov Mt., *Betula* forest, tundra on the top, in litter, 5.08.90 (coll. I.V.), 1♀ — Tymovsk distr., environs of Uskovo, in litter, 5.06.93 (coll. A.B.).

Distribution. Central Europe [Karg, 1971]. Widespread in USSR [Bregetova, 1977]. Russia: Moscow [Petrova, 1982], Middle Ural [Khomjakov, 1988], Western Siberia [Davydova, Nikolsky, 1986], Tuva [Davydova et al., 1980], Primorskii Krai [Davydova et al., 1981], Sakhalin, Kuril Islands: Kunashir (current data).

Hypoaspis (Geolaelaps) lubrica
Oudemans et Voigts, 1904

Material. KUNASHIR: 1♀ — Ivanovskii cape, mixed forest, in litter, 6.07.89 (coll. I.V.).

Distribution. Europe, Northern America [Karg, 1971]. Widespread in USSR. [Bregetova, 1977f]. Russia: Moscow Oblast' [Petrova, 1982], Middle Ural [Khomjakov, 1988], Western Siberia [Davydova, Nikolsky, 1986], Tuva [Davydova et al., 1980], Primorskii Krai [Davydova et al., 1981], Kuril Islands: Kunashir (current data).

Hypoaspis (Cosmolaelaps) vacua (Michael, 1891)

Material. SHIKOTAN: 3♀♀ — *Abnus*, in litter, 30.10.86 (coll. S.K.). KUNASHIR: 4♀♀ — environs of Yuzhno-Kurilsk, *Ledum* bog, in mosses, 11.08.89 (coll. I.V.).

Distribution. Europe [Karg, 1971]. Widespread in USSR [Bregetova, 1977f]. Russia: Leningrad [Bregetova, 1977f], Moscow [Petrova, 1982], Middle Ural [Khomjakov, 1988], Western Siberia [Davydova, Nikolsky, 1986], Tuva [Davydova et al., 1980], Kuril Islands: Shikotan, Kunashir (current data).

Hypoaspis (Cosmolaelaps) neocuneifer
Evans et Till, 1966

Material. SAKHALIN: 1♀ — environs of Tunaicha lake, *Abnus*–*Salix* forest, in litter, 9.07.90; 1♀ — Kholmsk distr., Slepikovskii cape, mixed forest, in litter, 10.08.90 (coll. I.V.); 1♀ — Korsakov distr., environs of Lesnoe, mixed forest, in litter, 14.07.88 (coll. A.B.).

Distribution. Western Europe, widespread in USSR [Bregetova, 1977f]. Russia: Murmansk, Leningrad, Primorskii Krai [Bregetova, 1977f], Moscow [Petrova, 1982], Sakhalin (current data).

Hypoaspis (Cosmolaelaps) mixta Scherbak, 1971

Material. SHIKOTAN: 12♀♀ — treeless hill, in litter, 30.10.86 (coll. S.K.). KUNASHIR: 2♀♀, 1♂ — environs of Yuzhno-Kurilsk, *Ledum* bog, in mosses, 11.08.89; 13♀♀, 15♂♂ — Alekhino, *Abies*–*Picea* forest, in litter, 20.07.89; 5♀♀, 9♂♂ — environs of Golovnin, *Empetrum*–*Cladonia*, 4.08.89

(coll. I.V.). SAKHALIN: 1♀ — Aniva distr., environs of Kirillovo, *Abies*–*Picea* forest, in litter, 26.06.90; 1♀ — Kholmsk distr., Slepikovskii cape, mixed forest, in litter, 10.08.90; 2♀♀, 7♂♂ — Chekhov Mt., *Abies*–*Picea* forest, in litter, 5.08.90 (coll. I.V.).

Distribution. Ukraine [Scherbak, 1971]. Russia: Tuva [Davydova et al., 1980], Primorskii Krai [Davydova et al., 1981], Khabarovsk Krai (author material), Sakhalin, Kuril Islands: Kunashir, Shikotan (current data).

Hypoaspis (Pneumolaelaps) marginopilosa
(Sellnick, 1940)

Hypoaspis (Pneumolaelaps) marginopilosa: Bregetova, 1977f: 521, fig. 413.

Distribution. Europe [Karg, 1971]. Russia: Kolskii peninsula, Siberia, Sakhalin [Bregetova, 1977f].

Hypoaspis (Pneumolaelaps) bombicolens
(Canestrini, 1884)

Pneumolaelaps bombicolens: Klimov, 1998: 13.

Distribution. Western Europe [Karg, 1971]. Russia: Leningrad, Perm Oblast's, Western Siberia [Davydova, Bogatyrev, 1990], Kuril Islands: Paramushir, Makanrushi [Klimov, 1998].

Hypoaspis (Euandrolaelaps) pavlovskii
Bregetova, 1955

Androlaelaps pavlovskii: Violovich, 1961: 253.
Hypoaspis (Euandrolaelaps) pavlovskii: Bregetova, 1977f: 528–530, figs 420, 421.

Material. SAKHALIN: 1♀ — Tymovsk distr., environs of Uskovo, in litter, 5.06.93 (coll. A.B.).

Distribution. Japan. Russia: Baikal Area, Transbaikalia, Amur Oblast', Primorskii Krai [Bregetova, 1977], Sakhalin, Kamchatka, Primorskii Krai: Moneron, Tyulenii islands, Kuril Islands: Kunashir, Shikotan, Iturup, Zelenyi, Yurii [Violovich, 1960, 1961].

Androlaelaps casalis (Berlese, 1887)

Haemolaelaps casalis: Violovich, 1961: 253.

Material. SAKHALIN: 4♀♀ — environs of Tunaicha, *Ledum* bog, in litter, 8.07.90; 1♀ — Aniva distr., environs of Kirillovo, *Alnus*–*Salix* forest, in litter, 21.06.90 (coll. I.V.).

Distribution. The cosmopolitan species. Russia: Leningrad, Stavropol [Bregetova, 1956], Moscow [Petrova, 1982], Tuva [Davydova et al., 1980], Primorskii Krai [Bregetova, 1956], Kamchatka, Sakhalin, Kuril Islands: Zelenyi [Violovich, 1961].

Androlaelaps glasgowi (Ewing, 1925)

Haemolaelaps glasgowi: Violovich, 1961: 254, Scherbak, 1972: 455.

Distribution. The Palaearctic Region, Northern America [Karg, 1971]. Widespread in USSR [Bregetova, 1956]. Russia: Moscow Oblast' [Petrova, 1982], Tuva [Davydova et al., 1980], Sakhalin, Kamchatka, Kuril Islands: Iturup, Kunashir [Violovich, 1961, Scherbak, 1972].

Eulaelaps stabularis (C.L. Koch, 1839)

Eulaelaps stabularis: Violovich, 1961: 253; Scherbak, 1972: 455; Klimov, 1998: 13.

Material. SAKHALIN: 2♀♀ — environs of Tunaicha lake, *Alnus*–*Salix* forest, in litter, 9.07.90 (coll. I.V.).

Distribution. The Holarctic Region, South–East of Asia, Indonesia, Oceania, New Zealand [Bregetova, 1977f]. Russia: Sakhalin, Kamchatka, Moneron [Violovich, 1960, 1961], Kuril Islands: Iturup, Yurii, Zelenyi [Violovich, 1960, 1961], Kunashir [Violovich, 1960, 1961, Scherbak, 1972], Shumshu, Simushir [Klimov, 1998].

Ololaelaps ussuriensis Bregetova et Koroleva, 1964

Material. KUNASHIR: 2♂♂ — Ivanovskii cape, meadow, in litter, 2.08.89; 1♀ — Alekhino, meadow, in litter, 18.07.89 (coll. I.V.). SAKHALIN: 16♀♀, 4♂♂ — Kholmsk distr., Slepikovskii cape, mixed forest, in litter, 10.08.90; 1♀, 1♂ — environs of Tunaicha lake, meadow, in litter, 8.07.90; 1♀ — Aniva distr., environs of Kirillovo, mixed forest, in litter, 22.06.90 (coll. I.V.).

Distribution. Russia: Eastern Taimyr [the only example at Microtinae, Bogdanov, 1979], Primorskii Krai [Bregetova, 1977f], Khabarovsk Krai (author's materials), Sakhalin, Kuril Islands: Kunashir (current data).

Ololaelaps sellnicki Bregetova et Koroleva, 1964

Material. SAKHALIN: 20♀♀, 4♂♂ — environs of Tunaicha lake, *Ledum* bog, *Abies*–*Picea*, *Alnus*–*Salix* forest, in litter, 9.07.90 (coll. I.V.), 3♀♀ — Tymovsk distr., Lopatin Mt., 1100 m asl, in litter, 19.07.93 (coll. A.B.).

Distribution. Western Europe [Bregetova, 1977f]. USSR: from coast of Beloe sea to the Caucasus and from Baltic republics to Western Siberia [Bregetova, 1977f]. Russia: European and Asian parts, Sakhalin (current data).

Family Eviphididae Berlese, 1903

Eviphis ostrinus (C.L. Koch, 1836)

Material. SAKHALIN: 4♀♀, 1 dN — Aniva distr., environs of Kirillovo, manure, mixed forest, 16.06.90; 1♀ — environs of Tunaicha lake, meadow, in litter, 8.07.90 (coll. I.V.); 1♀ — Aniva distr., environs of Novo–Alexandrovsk, in litter, 12.05.93 (coll. A.B.).

Distribution. Western Europe [Bregetova, 1977g]. USSR: widespread from North to South [Bregetova, 1977g]. Russia: Sakhalin (current data).

Alliphis siculus (Oudemans, 1905)

Material. SAKHALIN: 96♀♀, 25♂♂ — manure, 25.06.90 (coll. I.V.).

Distribution. Europe, Asia [Karg, 1971]. Russia: Moscow Oblast's [Petrova, 1982], Middle Ural [Kholmjakov, 1988], Western Siberia [Davydova, Nikolsky, 1986], Sakhalin (current data).

Iphidosoma fimetarium (Müller, 1859)

Material. KUNASHIR: 32 dN — Ivanovskii cape, from Silphidae, *Carabus*, in litter of mixed forest, 24.07.89 (coll. I.V.). SAKHALIN: 3 dN — environs of Tunaicha lake, *Salix*–*Alnus* forest, in litter, 8.07.90; 8 dN — Aniva distr., environs of

Kirillovo, from Silphidae, 17.07.90; 5 dN — Kholmsk distr., Slepikovskii cape, mixed forest, in litter, 10.08.90 (coll. I.V.).

Distribution. Western Europe, Minor Asia [Bregetova, 1977g]. Widespread in USSR: from Baltic republics to the Caucasus; Ukraine — Transcarpatians, Kazakhstan [Bregetova, 1977g]. Russia: Leningrad Oblast', Southern Ural, Western Siberia, Primorskii Krai [Bregetova, 1977g], Sakhalin, Kuril Islands: Kunashir (current data).

Thinoseius spinosus (Willmann, 1939)

Thinoseius spinosus: Klimov, 1998: 3,4.

Material. KUNASHIR: 25♀♀, 15♂♂, 40 dN — Ivanovskii cape, algae in sea coast, 9.07.89 (coll. I.V.). SAKHALIN: 9♀♀, 4♂♂, 12 dN — environs of Korsakov, algae in sea coast, 8.06.90 (coll. I.V.).

Distribution. Known as sea coast inhabitant. Europe: Iceland, Great Britain, Germany [Bregetova, 1977]. Ukraine: Odessa [Bregetova, 1977g]. Russia: Murmansk Oblast' [Bregetova, 1977g], South Sakhalin (current data), Kuril Islands: Kunashir (current data), Paramushir, Onkotan, Lovushki, Raikoke, Urup [Klimov, 1998].

Thinoseius occidentalpacificus Klimov, 1998

Thinoseius occidentalpacificus: Klimov, 1998: 4–9, figs 4–16.

Material. KUNASHIR: 50 dN, 3♂ — environs of Golovnino, algae in littoral, 7.08.89 (coll. I.V.); 160 dN, 48♀, 53♂ — Ivanovskii cape, algae in littoral, 6.07–11.07.89 (coll. I.V.). SAKHALIN: 14♀, 1♂ — environs of Korsakov, algae in littoral, 26.06.89 (coll. I.V.).

Distribution. Russia: Sakhalin (current data), Kuril Islands: Kunashir (current data), Lovushki [Klimov, 1998].

Family Zerconidae Canestrini, 1891

Mixozercon stellifer (Aoki, 1964)

Prozercon stellifer: Petrova, 1977b: 583, fig. 465 (1).

Material. SAKHALIN: 2♀♀, 1♂ — Chekhov Mt., *Abies-Picea* forest, tundra on the top, in litter, 5.08.90; 33♀♀ — Kholmsk distr., Slepikovskii cape, mixed forest, 10.08.90; 3♀♀ — environs of Tunaicha lake, mixed forest, in litter, 8.07.90 (coll. I.V.); 3♀♀ — Korsakov distr., environs of Lesnoe, mixed forest, in litter, 18.10.93; 4♀ — environs of Nogliki, in litter, 25.08.93; 1♀ — Dolinsk distr., Anna river valley, in litter, 14.06.93 (coll. A.B.).

Distribution. Japan [Aoki, 1964]. Canada [Błaszak, 1979]. Russia: Sakhalin (current data), southern Kuril Islands [Petrova, 1977].

Neozercon insularis Petrova, 1977

Neozercon insularis: Petrova, 1977b: 591, figs 466 (2), 469 (1); Petrova, 1977c: 56–58, fig. 1 (a–c).

Material. SHIKOTAN: 1♀ — *Betula* forest, in litter, 30.10.86 (coll. S.K.). KUNASHIR: 7♀♀ — environs of Yuzhno-Kurilsk, *Ledum* bog, in mosses, 11.08.89 (coll. I.V.). SAKHALIN: 1♀ — environs of Nevelsk, mixed forest, in litter, 31.07.90 (coll. I.V.).

Distribution. Russia: Southern Sakhalin (current data), Kuril Islands: Kunashir [Petrova, 1977b, c], current data, Shikotan (current data).

Neozercon evgenii Petrova, 1978

Neozercon evgenii: Petrova, 1978: 69–71, fig. 2.

Material. KUNASHIR: 3♀♀ — Golovnino, *Empetrum-Cladonia*, 4.07.89 (coll. I.V.).

Distribution. Russia: Khabarovsk Krai (author's materials), Sakhalin, Kamchatka [Petrova, 1978], Kuril Islands: Kunashir (current data).

Caurozercon triplex Petrova, 1979

Material. SAKHALIN: 20♀♀ — Aniva distr., environs of Kirillovo, mixed forest, in litter, 15.08.90 (coll. I.V.), 1♀ — Tymovsk distr., environs of Uskovo, in litter, 1.07.93 (coll. A.B.).

Distribution. Russia: Primorskii Krai [Petrova, 1979], Khabarovsk Krai (author's materials), Sakhalin (current data).

Caurozercon duplex Halaškova, 1977

Caurozercon duplex: Petrova, 1979: 913, fig. 4 (1–4).

Distribution. USA: New York [Błaszak, 1978]. Canada [Petrova, 1979]. Russia: Altai, Eastern Siberia, Baical Area, Amur Oblast', Primorskii Krai, Kamchatka, Sakhalin, southern Kuril Islands [Petrova, 1979].

Parazercon radiatus Berlese, 1910

= *P. sarecensis* Willmann, 1939

Notes. Synonymy is given by Błaszak, 1979.

Material. SAKHALIN: Tymovsk distr., Lopatin Mt., 1100 m asl., in litter, 19.07.93 (coll. A.B.).

Distribution. USA [Błaszak, 1978]. Europe [Karg, 1971]. Russia: Moscow Oblast', Kamchatka [Petrova, 1977], Sakhalin (current data).

Zercon gerhardi Halaškova, 1979

Material. SAKHALIN: 1♀ — environs of Nevelsk, mixed forest, in litter, 31.07.90 (coll. I.V.).

Distribution. Northern Korea [Halaškova, 1979]. Russia: Southern Sakhalin (current data).

Zercon szeptyckii Błaszak, 1976

Material. SAKHALIN: 2♀♀ — Kholmsk distr., Slepikovskii cape, mixed forest, in litter, 10.08.90 (coll. I.V.).

Distribution. North Korea [Halaškova, 1979], Russia: southern Sakhalin (current data).

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