

# Dolichopodidae of Russian Karelia (Diptera)

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An annotated checklist of Karelian Dolichopodidae is presented including a total of 122 species, 41 of which are new Karelian records.

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## Introduction

The fauna of dolichopodid flies of the Karelian Republic is insufficiently studied. Until recently, nobody of Russian researchers has paid special attention to this territory. The only work with original data, where we could find records from Karelia, is the review of the dipterofauna of Finland (Frey, 1915). Grichanov (2003a) has tried to separate R. Frey's Karelian records from other ones, using the Microsoft Encarta World Atlas (2003). As a result, he has compiled a preliminary checklist of Karelian Dolichopodidae including 50 species recorded by R. Frey. Some Frey's records were later repeated in the Russian literature. But it is worth to note that the Catalogue of the Fauna of Dolichopodidae of the USSR (Grichanov & Negrobov, 1979) and the Catalogue of Palaearctic Diptera (Negrobov, 1991) contain only small part of the Karelian records, while they include also erroneous Karelian records for species known from the Karelian Isthmus (now the territory of the Leningrad Province). Krogerus (1939), in a review of ecology of animals inhabiting northern marshes, has listed a number of dolichopodid species from environs of Paanayarvi Lake located now entirely within the territory of Russian Karelia. The list contains 10 species new for the Republic. Frey (1939) added one more species to this fauna. Thuneberg (1955) has described *Medetera fennica* from Finland and Karelia; the species has been synonymized later with *M. vagans* Becker by Negrobov & Thuneberg (1970). Krogerus (1960) has treated data on ecology of arthropod fauna of the whole Regio Kuusamo divided now between Finland, Karelia and Murmansk Prov-

ince of Russia. Five dolichopodid species from his list are yet not recorded from the territory of Russian Karelia (*Dolichopus acuticornis* Fallén, 1823; *D. linearis* Meigen, 1824; *D. lineatocornis* Zetterstedt, 1843; *D. maculipennis* Zetterstedt, 1843; and *Hydrophorus albiceps* Frey, 1915). Their presence in the fauna of Russian Karelia needs confirmation.

A short history of the last decade study of Dolichopodidae has revealed some more species in the Karelian fauna of the family. One species has been added by Yakovlev (1994), 4 species by Polevoi (1997), 5 species by Humala & Polevoi (1999) and Yakovlev et al. (1999), 2 species by Yakovlev et al. (2000), 1 species by Przhiboro & Grichanov (2003), and 3 species by Grichanov (2003a). The record of *Dolichopus annulitarsis* Ringdahl by Negrobov (1991) needs confirmation. This paper contains original material for 41 species new to the fauna of Karelia. So, the total number of Karelian species has reached 122, but the real number may reach more than 200 species following a special expedition covering a wider geographical area of the Republic. For comparison, 334 species are known from Sweden, about 240 from Finland and about 230 from the Leningrad Province of Russia.

The Dolichopodidae fauna of the world is very large, with approximately 6750 described species and 220 genera (Grichanov, 2003b). These mostly predatory flies are distributed throughout the world including the tropics and high-latitude islands and territories. In Karelia, adults and larvae of almost all species of long-legged flies are predators inhabiting moist substrata. One species (*Dolichopus costalis* Frey, 1915) is known from Russian Karelia only.

## Material and methods

A major part of the work has been carried out in the Zoological Museum of Helsinki (ZMH). The “Diptera Fennica” part of the collection was created nearly 100 years ago as a depository of the material collected from the whole territory of Eastern Fennoscandia including even the eastern parts of Karelia and Murmansk Province, as well as Karelian Isthmus.

The identification of each species previously reported from Karelia has been checked by I. Grichanov in September–November 2003. At the same time, about 5000 unsorted specimens from all parts of Finland, Karelia and Murmansk Province of Russia in the large Eastern Fennoscandia collection stored in the ZMH have been identified by I. Grichanov. New samples of nearly 2000 dolichopodid flies have been collected in Karelia and identified in 1997–2003 by A. Polevoi. The latter material is deposited at the Forest Research Institute of Karelian Centre of Russian Academy of Sciences (FRIK).

During this work, many species of long-legged flies new to Karelia have been found. This paper presents the new records in detail and provides additional information in the form of notes on the global distribution for each species within an annotated checklist of Dolichopodidae of the Republic given below. Some names used by Frey and Negrobov are homonyms or synonyms, and they have been replaced by other names according to Grichanov (2003b). Arrangement of the list (including synonymy) corresponds to the World checklist of the family (Grichanov, 2003b).

An asterisk (\*) indicates species new to the fauna of Karelia. For each species, the information is given in the following sequence: species name, important synonyms, reference to first record from Karelia or (and) material examined, general distribution. For ZMH specimens, current spelling of geographical names is given in square brackets.

### Annotated checklist of Karelian Dolichopodidae

\**Achalcus cinereus* (Haliday, 1851). 1 ♀, Kton, 6929: 712, Sukhaya Vodla river spring, bog with buttercup, Polevoi, 7.VI.2002 [FRIK]. – All Europe.

*Argyra auricollis* (Meigen, 1824). Frey, 1915. – Europe.

*A. diaphana* (Fabricius, 1775). Frey, 1915. – Europe, Iran.

\**Argyra ilonae* Gosseries, 1989 [= *confinis* (Zetterstedt, 1849), nom. praeocc.]. 1 ♂, Car. or., ÅK, Kenjärvi [Konchozero], 10.VII.1942, L. Tiensuu [ZMH]. – Widely distributed in Europe from Sweden to Italy and N. Caucasus.

*Campsicnemus alpinus* (Haliday, 1833). Krogerus, 1939. – Central and Northern Europe.

*C. armatus* (Zetterstedt, 1849). Frey, 1915. – Europe, Yakutia, Kamchatka, Mongolia.

*C. articulatellus* (Zetterstedt, 1843) [= *pilosellus* (Zetterstedt, 1843); = *dasygnemus* Loew, 1857]. Krognerus, 1939. – 2 ♂, Paanajärvi [Paanayarvi] / R. Frey / 640, 870 [ZMH]. – Europe, N. Kazakhstan.

*C. compeditus* Loew, 1857. Frey, 1915. – Europe, Kirghizia, Buryatia, Yakutia, S. Kamchatka.

*C. curvipes* (Fallén, 1823). Frey, 1915. – All Europe, Transcaucasia, N. Africa, Canary Is.

\**C. loripes* (Haliday, 1832). 14 ♂♀, Car. or., ÅK, Vaaseni [Verkhnie Vazhiny], 18. IV–9.IX.1942, L. Tiensuu; 1 ♂, Car. or., ÅK, Santama [Syandeba], 24.VIII.1941, L. Tiensuu; 1 ♂, Car. or., ÅK, Soutjärvi [Sheltozero], 30.VIII.1942, L. Tiensuu [ZMH]. – Europe.

\**C. picticornis* (Zetterstedt, 1843). 1 ♂, Car. or., ÅK, Kenjärvi [Konchozero], 8.VII.1942, L. Tiensuu; 1 ♂, Car. or., ÅK, Soutjärvi [Sheltozero], 3.IX.1942, L. Tiensuu [ZMH]. – Europe, N. Kazakhstan, Kirghizia, Sayan Mts, Buryatia, Yakutia, Primorsk Terr., Kamchatka.

\**C. pumilio* (Zetterstedt, 1843). 1 ♂, Car. or., ÅK, Vaaseni [Verkhnie Vazhiny], 21.V.1942, L. Tiensuu / *Campsicnemus pumilio*, 03.2003, J. Kahanpää det. [ZMH]. – Europe, N. Kazakhstan, Kirghizia, E. Siberia.

\**C. pusillus* (Meigen, 1824). 1 ♂, Car. or., ÅK, Vaaseni [Verkhnie Vazhiny], 9.IX.1942, L. Tiensuu; 1 ♂, 1 ♀, Car. or., ÅK, Kenjärvi [Konchozero], 7.VII.1942, L. Tiensuu [ZMH]; 1 ♂, Kton: 6913:692, Okhtoma, 5 km NW, pud-dles along road, Polevoi, 13.VII.2001 [FRIK]. – Europe, Irkutsk Prov., Primorsk Terr.

*C. scambus* (Fallén, 1823). Frey, 1915. – Europe, Yamal, Altai, Irkutsk Prov., Khabarovsk and Primorsk Terr., S. Kamchatka.

\**Chrysotimus molliculus* (Fallén, 1823). 23 ♂♀, Car. or., Kolatselkä [Kolatsel'ga], 28.VI–3.VII.1943 [&] 26.VII.1944, L. Tiensuu [ZMH]. – Widely distributed in Europe from Italy to S. Sweden and NW Russia (Leningrad Prov.).

\**Chrysotus femoratus* Zetterstedt, 1843. 1 ♂, Sordavala [Sortavala] / Woldstedt [ZMH]. – All Europe, Madeira, Irkutsk and Amur Provinces, Khabarovsk and Primorsk Territories, Kamchatka, Sakhalin, China, Mongolia.

\**Ch. laesus* (Wiedemann, 1817). 1 ♂, Sortavala / P. Suomalainen / 1869 [ZMH]. – All Europe, N. Kazakhstan, Irkutsk and Magadan Provinces, Krasnoyarsk and Primorsk Territories, China.

\**Ch. neglectus* (Wiedemann, 1817). 1 ♂, Valamo [Vaalam] / P. Suomalainen / 5472 [ZMH]. – All Europe, N. Kazakhstan, Kirghizia, Buryatia, Yakutia, Amur Prov.

*Ch. obscuripes* Zetterstedt, 1838 (= *kowarzi* Lundbeck, 1912). Krogerus, 1939 (as *C. kowarzi* Lundbeck). – 1 ♂, Sordavala [Sortavala] / Woldstedt [ZMH]. – Europe, Kirghizia, Yakutia, Amur Prov., China.

\**Ch. pulchellus* Kowarz, 1874. 56 ♂, Paanajärvi [Paanayarvi] / R. Frey [&] P. Suomalainen [ZMH]. – All Europe, Kirghizia, Mongolia, China.

*Diphorus nigricans* Meigen, 1824. Negrobov, 1991. – 1 ♂, Suistamo / Tuomikoski / 1040; 1 ♀, Fennia, Sordavala, 9.VII.1939, L. Tiensuu [ZMH]. – All Europe, Neartic and Neotropical Regions.

\**D. oculatus* (Fallén, 1823). 1 ♀, Impilaks [Impilahti] / Woldstedt / 17 [ZMH]. – All Europe.

\**Dolichophorus kerteszi* Lichtwardt, 1902. 1 ♂, Fennosc. or., reg. Syvđri, Kuujđrvi [Mikhailovskoe], Platonoff, 1 ♀, Car. or., ÅK, Vaaseni [Verkhnie Vazhiny], 21.VI.1942, L. Tiensuu [ZMH]; 2 ♂, Kon: o. Lyudskoy, meadow, sweepnetting, Polevoi, 24.VI.2003; 1 ♂, Kon: o. M. Lelikovskiy, meadow, sweepnetting, Polevoi, 24.VI.2003 [FRIK]. – Transpalaearctic species (Negrobov, 1991).

- Dolichopus angustipennis** Kertesz, 1901. Frey, 1915.  
— Finland, Tataria, Georgia, N. Kazakhstan, Irkutsk Prov., Yakutia, Primorsk Terr., Kamchatka, China.
- D. annulipes** Zetterstedt, 1838 (= *stenhammari* Zetterstedt, 1843). Frey, 1915. — Norway, Denmark, Sweden, Finland, Estonia, Murmansk and Arkhangelsk Provinces, Buryatia, Yakutia, Magadan Prov., Primorsk Terr., Nearctic Region.
- D. annulitarsis** Ringdahl, 1920. Negrobov, 1991 (record needs confirmation). — Swedish Lappland, N. Urals, Magadan and Kamchatka Provinces.
- D. armillatus** Wahlberg, 1850. Krogerus, 1939; Yakovlev et al., 2000. — Finland, Sweden, Murmansk and Magadan Provinces, N. Urals.
- D. borsdorffii** Frey, 1915. Krogerus, 1939. — 1 ♂, Kk 7272:579, Syrovatka, Morzhovoe Lake, along brook, Polevoi, 16.VII.2003 [FRIK]. — Finland, Sweden, Estonia, Leningrad Prov., Khabarovsk and Primorsk Territories.
- D. brevipennis** Meigen, 1824. Frey, 1915. — Europe, N. Kazakhstan, E. Siberia, Alaska.
- D. caligatus** Wahlberg, 1850 (= *flavipes* auct., non Stannius, 1831). Przhiboro & Grichanov, 2003 (as *D. flavipes* Stannius). — 1 ♀, Salmis [Salmi] / Woldstedt / ♀ [ZMH]. — Transpalaearctic species.
- D. campestris** Meigen, 1824. Yakovlev et al., 2000. — All Europe, Algeria, Georgia, N. Kazakhstan, Altai, Khabarovsk and Primorsk Territories, Kamchatka.
- D. claviger** Stannius, 1831. Polevoi, 1997. — All Europe, Tomsk Prov., Altai, Krasnoyarsk Terr.
- \***Dolichopus consimilis** Wahlberg, 1850. — 1 ♂, Salla, 27.6.1936, Frey / 637 [ZMH]. — Sweden and France. — Note. Salla municipality was split between the Soviet Union and Finland in 1945. The label gives no exact locality, but Frey's field notes demonstrate that collecting localities of 1936 are situated now in Russian Karelia (J. Kahanpää, pers. comm.).
- D. costalis** Frey, 1915. Frey, 1915 (type-locality: Petrozavodsk). — 1 ♀, Fennia, Salla, 28.6.1936, Krogerus / 492 / *Dolichopus costalis* Frey, Frey det. [ZMH]. — Karelia. — Note. Salla municipality was split between the Soviet Union and Finland in 1945. The label and Krogerus's field notes give no exact locality, but according to Viramo (1998), all collecting sites in Salla visited by entomologists during the 1936 collecting excursions are now situated in Russia (J. Kahanpää, pers. comm.). The species was known by male only. The female keys out to *D. clavipes* Haliday, differing in the stronger, almost angular curvation of  $M_{1+2}$  wing vein, brownish black posterior trochanter (rather than distinctly yellow in *D. clavipes*), elongate antennal scape being as long as face width, and antennal stylus positioned at distal third of dorsal side of postpedicel (rather than middorsal one in *D. clavipes*).
- D. cruralis** Wahlberg, 1850. Yakovlev, 1994. — Sweden, Finland, Leningrad Prov.
- D. discifer** Stannius, 1831 (= *nigricornis* auct., non Meigen, 1824). Frey, 1915. — Transpalaearctic species; North America (Negrobov, 1991, as *D. nigricornis* Meigen).
- D. fraterculus** Zetterstedt, 1843. Krogerus, 1939; Humala & Polevoi, 1999. — Sweden, Finland, Murmansk and Magadan Provinces, the Urals, Kuril Is.
- D. gubernator** Mik, 1878. Polevoi, 1997. — Austria, Finland, NW Russia, Khabarovsk Terr., Kamchatka, Sakhalin, Kuril Is.
- D. latipennis** Fallén, 1823. Humala & Polevoi, 1999. — 1 ♂, Kpoc 7206:601, Kuzova, Rus. Kuzov Is., vegetation along seacoast, Humala, 19.VII.2001; 1 ♂, Kk 7271:580, Syrovatka Is., 2 km NW, seacoast meadow, Polevoi, 19.VII.2003 [FRIK]. — Central and Northern Europe, Murmansk Prov., Buryatia, Yakutia, Mongolia, China.
- D. lepidus** Staeger, 1842. Frey, 1915. — Transpalaearctic species.
- D. longicornis** Stannius, 1831. Frey, 1915. — Transpalaearctic species.
- D. longitarsis** Stannius, 1831. Frey, 1915. — Europe, Georgia, Kazakhstan.
- D. mannerheimi** Zetterstedt, 1838. Frey, 1939. — 1 ♂, Paanajärvi [Paanayarvi] / R. Frey / 663 [ZMH]. — Sweden, Finland, Murmansk and Irkutsk Provinces, Altai, Buryatia, Khabarovsk Terr., Magadan and Kamchatka Provinces, Mongolia, Alaska.
- \***D. micropygus** Wahlberg, 1850 (= *fraterculus* auct., non Zetterstedt, 1843). 3 ♂, Suomi, Paanajärvi [Paanayarvi], P. Suomalainen [ZMH]. — Sweden.
- D. migrans** Zetterstedt, 1843. Frey, 1915. — Transpalaearctic species.
- \***D. nigripes** Fallén, 1823 (= *falleni* Loew, 1857). 1 ♂, Kon: o. Ernitskiy, flooded lake shore, sweepnetting, Polevoi, 26.VI.2003 [FRIK]. — Rare European species distributed from Great Britain and Sweden to former Yugoslavia and Voronezh Prov. of Russia.
- D. nitidus** Fallén, 1823. Frey, 1915. — Transpalaearctic species.
- D. notatus** Staeger, 1842. Krogerus, 1939 (as *D. notabilis* Zetterstedt, 1843). — 1 ♂, Kon, Yalguba, Pin'guba, 27.VII.1997, Polevoi [FRIK]. — Transpalaearctic species.
- D. nubilus** Meigen, 1824. Humala & Polevoi, 1999. — All Europe, Armenia, Uzbekistan, Tadzhikistan.
- D. pennatus** Meigen, 1824. Humala & Polevoi, 1999; Yakovlev et al., 1999. — All Europe, Georgia, Altai, Yakutia, Amur Prov., Khabarovsk and Primorsk Territories, Kuril Is., Sakhalin, Mongolia.
- D. picipes** Meigen, 1824. Frey, 1915. — All Europe, Altai.
- D. planitarsis** Fallén, 1823. Frey, 1915. — Central and Northern Europe, Georgia, Yakutia, Mongolia.
- D. plumipes** (Scopoli, 1763). Frey, 1915. — Palaearctic, Nearctic, and Neotropical Regions.
- D. popularis** Wiedemann, 1817. Frey, 1915. — All Europe, Georgia, Altai, Irkutsk Prov.
- D. remipes** Wahlberg, 1839. Frey, 1915. — Sweden, Finland, Denmark, Poland, Estonia, Byelorussia, Buryatia, Yakutia, S. Kamchatka.
- D. rupestris** Haliday, 1833. Polevoi, 1997. — Central and Northern Europe, Altai, Buryatia, Khabarovsk Terr., Kamchatka, Kuril Is., Bering Is.
- D. simplex** Meigen, 1824. Frey, 1915. — All Europe, Georgia, Kazakhstan, Orenburg Prov., Yakutia.
- D. trivialis** Haliday, 1832 (= *ciliifemoratus* auct., non Macquart, 1827). Frey, 1915. — Central and Northern Europe.
- D. ungulatus** (Linnaeus, 1758). Frey, 1915. — Palaearctic and Nearctic Regions.
- D. urbanus** Meigen, 1824. Krogerus, 1939. — 1 ♀, Salmi / Hiijsjärvi [Khizhozero] / 1933 / Tuomikoski [ZMH]; 1 ♂, Kk 7272:579, Syrovatka, Morzhovoe Lake, along brook, Polevoi, 16.VII.2003 [FRIK]. — Europe, S. Urals, Buryatia.
- \***D. vitripennis** Meigen, 1824. 1 ♀, Impilaks [Impilahti] / Woldstedt [ZMH]. — Europe, N. Kazakhstan.
- D. zetterstedti** Stenhammar, 1852. Frey, 1915. — 1 ♂, Svätnavlok [Svyatnavolok] / J. Sahlb. / 305 [&] 319; 1 ♂, 4 ♀, Paanajärvi [Paanayarvi] / R. Frey / 602, 604, 609, 617, 627; 1 ♂, Car. ross. [Karelia] / J. Sahlb. / 249 [ZMH]. — Sweden, Finland, NW Russia, W. Siberia, Yakutia, N. Kazakhstan.
- Hercostomus aerosus** (Fallén, 1823). Frey, 1915. — All Europe, Buryatia, Mongolia, Primorsk Terr., Taiwan.
- H. angustifrons** (Staeger, 1842). Frey, 1915. — All Europe.

- H. brevicornis** (Staeger, 1842). Frey, 1915. – Europe.
- H. celer** (Meigen, 1824). Grichanov, 2003a. – All Europe, Buryatia.
- \***H. chalybeus** (Wiedemann, 1817). 1 ♂, Kon: 6888:622, Kurgenitsy, sweeping, reed along lake shore, Polevoi, 18.VII.2000 [FRIK]. – All Europe.
- H. cupreus** (Fallén, 1823). Yakovlev et al., 2000. – Europe.
- H. metallicus** (Stannius, 1831). Grichanov, 2003a. – All Europe, Iran.
- H. sahlbergi** (Zetterstedt, 1838). Frey, 1915. – All Europe.
- Hydroporus altivagus** Aldrich, 1911 (= *wahlgreni* Frey, 1915; = *wahlgreni* var. *callosoma* Frey, 1915). Frey, 1915 (as *H. wahlgreni* var. *callosoma*). – Finland, Sweden, Murmansk and Leningrad Provinces, Mordovia, Kamchatka, Nearctic Region.
- H. bipunctatus** (Lehmann, 1822). Frey, 1915. – All Europe, Kirghizia, Buryatia.
- H. borealis** Loew, 1857 (= *binotatus* Zetterstedt, 1849, nom. praeocc.). Frey, 1915. – Central and Northern Europe, Sverdlovsk Prov., Buryatia.
- \***H. brunnicosus** Loew, 1857. 1 ♂, 7 ♀, Paanajärvi [Paanayarvi] / R. Frey / 172, 173, 175, 178, 568, 786 [&] Hellén / 613, 3809 [ZMH]. – Northern Europe, Orenburg Prov., Krasnoyarsk Terr., Yakutia.
- \***H. geminus** Frey, 1915. 1 ♂, Fennia, Paanajärvi Ks. [Paanayarvi], 27.06.1935, Krogerus; 1 ♂, Paanajärvi / Hellén / 359; 10 ♂, Paanajärvi / R. Frey / 158-162, 167, 168, 170, 171, 853 [ZMH]. – Finland, Sweden, Murmansk Prov., W. Siberia, Kamchatka.
- H. littoreus** Fallén, 1823. Frey, 1915. – Finland, Sweden, Murmansk Prov., W. Siberia, Kamchatka.
- \***H. nebulosus** Fallén, 1823. 1 ♀, Fennia, Ks, Paanajärvi [Paanayarvi], Platonoff / 1334; 4 ♂♀, Paanajärvi / R. Frey / 571, 583, 618, 865 [ZMH]; 1 ♂, Kton, 6914:692, Sukhaya Vodla river spring, pr. No. 8, Polevoi, 12.VI.2002 [FRIK]. – Europe, Tyumen Prov., Yakutia, Buryatia.
- \***H. pectinatus** Gerstäcker, 1864. 2 ♂, 2 ♀, Fennia, Ks, Paanajärvi [Paanayarvi], Platonoff / 1458, 7139, 7153, 7155; 1 ♂, Paanajärvi / E. Suomalainen / 147; 2 ♀, Suomi, Paanajärvi, E. Suomalainen / 114, 119; 12 ♂♀, Paanajärvi / R. Frey / 205, 603, 604, 608, 609, 748, 755, 771, 605-607, 854, 860 [ZMH]. – Sweden, Finland, Leningrad Prov., N. Urals.
- H. praecox** (Lehmann, 1822). Frey, 1915. – Palaeartic, Afrotropical, Oriental Regions, Australia, Oceania, New Zealand.
- \***H. rufibarbis** Gerstäcker, 1864. 3 ♂, 1 ♀, Salmi / Tiensuu [1 ♂ with additional label: *Hydroporus rufibarbis*, J. Kahanpää det.]; 3 ♂, 7 ♀, Paanajärvi [Paanayarvi] / R. Frey / 601, 602, 843, 855-859, 861, 862 [ZMH]. – Germany, Sweden, Finland, Murmansk, Leningrad and Arkhangelsk Provinces.
- \***H. signifer** Coquillett, 1899. 1 ♀, Paanajärvi [Paanayarvi] / R. Frey / 166; 1 ♀, Sortavala / Tiensuu / Pyorotammen [...] oja, 27.7.34 [ZMH]. – Central and Northern Europe, N. Urals, Bering Is., Alaska.
- Medetera apicalis** (Zetterstedt, 1843). Frey, 1915. – Europe, Novosibirsk Prov., Primorsk Terr., Nearctic Region.
- \***M. betulae** Ringdahl, 1949. 17 ♂♀, Suomi, Paanajärvi [Paanayarvi], 22, 23, 28, 29.7.35, P. Suomalainen [many specimens with additional label: *Medetera betulae* Ringd., E. Thuneberg det.; one specimen has been also correctly identified by O.P. Negrobov] [ZMH]. – Sweden, Finland, the Netherlands, Estonia, Leningrad Prov.
- M. excellens** Frey, 1909. Frey, 1915. – Central and Northern Europe, W. Siberia, Primorsk Terr.
- M. infumata** Loew, 1857. Frey, 1915. – Europe, W. Siberia, Amur Prov., Primorsk Terr.
- M. jacula** (Fallén, 1823). Frey, 1915. – All Europe, Tunisia, N. Kazakhstan, Altai, Buryatia.
- M. obscura** (Zetterstedt, 1838). Frey, 1915. – Central and Northern Europe, W. Siberia, Buryatia.
- \***M. pallipes** (Zetterstedt, 1843). 1 ♀, Car. or., ÄK, Kenjärv [Konchozero], 8.VII.1942, L. Tiensuu / *Medeterus pallipes* Zett. [ZMH]. – Europe.
- \***M. senicula** Kowarz, 1877. 1 ♀, Valamo [Valaam] / J. Sahlb. / 123 [ZMH]. – Poland, Great Britain, Denmark, Sweden, Finland, Estonia, NW Russia.
- M. tristis** (Zetterstedt, 1838). Frey, 1915. – Central and Northern Europe, the Urals, Primorsk Terr.
- M. vagans** Becker, 1917 (= *fennica* Thuneberg, 1955). Thuneberg, 1955 (as *M. fennica* sp. n.). – Sweden, Finland, NW Russia, Buryatia, Yakutia, Primorsk Territory.
- \***M. veler** Loew, 1861 (= *infumata* var. *bilineata* Frey, 1915; = *sphaeropyga* Negrobov, 1972). 1 ♂, Sordavalala [Sortavala] / Woldstedt / 2 [ZMH]. – Sweden, Finland, NW and Central Russia, Kazakhstan, Yakutia, Primorsk Terr., Nearctic Region.
- Neurigona abdominalis** (Fallén, 1823). Yakovlev et al., 1999. – Great Britain, Sweden, Finland, Denmark.
- N. pallida** (Fallén, 1823). Polevoi, 1997. – Europe to the S. Urals, Tomsk Prov.
- N. quadrifasciata** (Fabricius, 1781). Frey, 1915. – Europe, the Urals, Baikal.
- \***Rhaphium albifrons** Zetterstedt, 1843. 1 ♂, Kpud: 6855:749, Shchanikovo, 5 km S, floodable meadow, sweeping, Polevoi, 23.VI.1996 [FRIK]. – Europe, Baikal, Afghanistan.
- Rh. antennatum** (Carlier, 1835). Frey, 1915. – Europe.
- Rh. commune** (Meigen, 1824). Polevoi, 1997. – Europe, Yakutia, Khabarovsk Terr., Kamchatka, North America.
- Rh. crassipes** (Meigen, 1824). Frey, 1915. – Europe, Baikal, Kamchatka, Primorsk Terr., North America.
- \***Rh. discolor** Zetterstedt, 1838 (= *consobrinum* Zetterstedt, 1843; = *riparium* auct., non Meigen, 1824). 2 ♂, Kk: 7271:580, Syrovatka, 2 km NW, seacoast meadow, Malaise trap, Polevoi, 20-22.VII.2003; 1 ♂, Kk 7271:578, Syrovatka, 2 km NW, waterlogged meadow, Polevoi, 19.VII.2003 [FRIK]. – Europe, Kirghizia, Yakutia, Mongolia, North America.
- Rh. elegantulum** (Meigen, 1824). Frey, 1915. – Europe, Igarka, Baikal, Kamchatka, Alaska.
- Rh. fascipes** (Meigen, 1824). Frey, 1915. – Europe, Baikal, Krasnoyarsk Terr., Turkey, North Africa, North America.
- Rh. lanceolatum** Loew, 1850 (= *caliginosum* auct., non Meigen, 1824). Frey, 1915. – Europe, Baikal, Primorsk Terr., Syria, North Africa.
- Rh. longicornis** (Fallén, 1823). Frey, 1915. – Europe.
- Rh. micans** (Meigen, 1824). Grichanov, 2003a. – Europe, Tadzhikistan, China, Primorsk Terr.
- Rh. monotrichum** Loew, 1850 (= *macrocerum* Zetterstedt, 1843, nom. praeocc.). Frey, 1915. – Europe, Igarka, Baikal.
- \***Rh. nasutum** (Fallén, 1823). 1 ♂, Paanajärvi [Paanayarvi], E. Suomalainen / 127 [ZMH]. – Europe, Kazakhstan, Tyumen and Irkutsk Provinces, Yakutia, Alaska.
- \***Rh. nigribarbatum** (Becker, 1900). 2 ♂, Paanajärvi [Paanayarvi], E. Suomalainen / 90 [&] 178 [ZMH]. – Sweden, Finland, NW and Central Russia, Igarka, Altai, North America.
- \***Rh. obscuripes** Zetterstedt, 1849. 1 ♂, Car. or., Kolatskä [Kolatsel'ga], 16.V.1943, L. Tiensuu / *Porphyrops subnudipes* ♂ Zett. [Anon. det., ZMH]. – Denmark, Germany, Estonia, Central Russia.

\***Rh. patulum** (Raddatz, 1873). 2 ♂, Car. or., ÄK, Vaaseni [Verkhnie Vazhiny], 8.VI.1942, L. Tiensuu [ZMH]. – Central and Northern Europe, Baikal.

\***Rh. rivale** (Loew, 1869). 1 ♂, Kpud 6855:749, Shchaniyovo, 5 km S, floodable meadow, sweeping, Polevoi, 23.VI.1996 [FRIK]. – Central and Northern Europe, Yaku-tia.

**Rh. umbripenne** (Frey, 1915). Krogerus, 1939. – 1 ♂, Paanajarvi [Paanayarvi], Hellén / 776 [ZMH]. – Sweden, Finland, Murmansk and Leningrad Provinces, Kamchatka.

**Sympycenus pulicarius** (Fallén, 1823) [= *annulipes* (Meigen, 1824)]. Frey, 1915. – All Europe.

\***Syntormon pallipes** (Fabricius, 1794). 1 ♂ Kk 7271:580, Syrovatka, 2 km NW, seacoast meadow, Polevoi, 19.VII.2003 [FRIK]. – All Europe, SW, Middle and Central Asia, North and Tropical Africa.

**S. pumilus** (Meigen, 1824) [= *rufipes* (Meigen, 1824)]. Frey, 1915. – Europe to the Urals, Middle Asia.

**S. tarsatus** (Fallén, 1823). Frey, 1915. – Europe, Bur-yatia, Kamchatka.

**Tachytrechus ammobates** (Haliday, 1851). Frey, 1915. – Europe.

\***Thinophilus ruficornis** (Haliday, 1838). 1 ♂, 3 ♀, Kk: 7271:580, Syrovatka, 2 km NW, seacoast meadow, Malaise trap, Polevoi, 16 [&] 20-22.VII.2003 [FRIK]. – All Europe, N. Kazakhstan, Kirghizia, W. Siberia, Mon-golia, China.

\***Thrypticus bellus** Loew, 1869. 1 ♂, Suomi, Paana-jarvi [Paanayarvi], Suomalainen / 201 [ZMH]. – All Eu-rope, SW and Middle Asia, W. Siberia, China, Primorsk Terr., North and Tropical Africa.

\***Th. divisus** (Strobl, 1880). 1 ♂, Suomi, Paanajarvi [Paanayarvi], Suomalainen / 187 [ZMH]. – Europe, N. Kazakhstan.

\***Th. pollinosus** Verrall, 1912 (= *laetus* auct., non Ver-rall, 1912). 1 ♂, Suomi, Paanajarvi [Paanayarvi], Suoma-lainen / 170, 172, 174, 175, 180, 181, 184, 186, 193, 196, 197, 226 [ZMH]. – Central and Northern Europe, China.

\***Xanthochlorus tenellus** (Wiedemann, 1817). 1 ♀, Suistamo, LK, Tuomikoski / 1385; 1 ♀, Impialkti [Impi-lakhti] / Krogerus / 1838 [ZMH]. – All Europe.

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## References

- Frey, R. 1915. Zur Kenntnis der Dipterenfauna Finlands III Dolichopodidae. *Acta Soc. Fauna Flora Fenn.*, 40(5): 1-80.
- Frey, R. 1939. De inhemska entomologiska samlingarnas tillväxt under verksamhetsåret 1937-1938. *Mem. Soc. Fauna Flora Fenn.*, 14(1937-1938): 167-170.
- Grichanov, I.Ya. 2003a. Notes on Dolichopodidae (Diptera) of the Karelian Republic of the Russian Federation. *Int. J. Dipterol. Res.*, 14(1): 39-42.
- Grichanov, I.Ya. 2003b. A check list of species of the family Dolichopodidae (Diptera) of the World arranged by alphabetic list of generic names. <http://www.fortunecity.com/greenfield/porton/875/Genera3.htm>.
- Grichanov, I.Ya. & Negrobov O.P. 1979. *Katalog semeystva Dolichopodidae (Diptera) fauny SSSR* [Catalogue of the family Dolichopodidae (Diptera) in the USSR]. 128 p. Voronezh: Voronezh Univ. [Deposited in VINITI, Moscow, 04.02.80, no. 417-80 dep.]. (In Russian).
- Humala, A.E. & Polevoi, A.V. 1999. On the insect fauna of Karelian shore and islands of the White Sea. In: Gromtsev, A.N. & Krutov, V.I. (Eds.). *Inventari-zatsiya i izuchenie biologicheskogo raznoobraziya na Karel'skom poberezhe Belogo morya* [Biodiversity inventories and studies in the areas of Karelian White Sea shore]: 106-113. Petrozavodsk: Karelian Research Centre RAS. (In Russian).
- Krogerus, R. 1939. Zur Ökologie nordischer Moortiere. In: *VII. intern. Kongr. Entomol. Verhandl.*, 2: 1213-1231. Weimar.
- Krogerus, R. 1960. Ökologische Studien über nordische Moorarthropoden. *Soc. Sci. Fenn. Comment. Biol.*, 21(3): 1-238.
- Negrobov, O.P. 1991. Dolichopodidae. In: Soós, Á., Papp, L. & Oosterbroeck, P. (Eds.). *Catalogue of Palaearctic Diptera*, 7: 1-291. Budapest: Akadémiai Kiadó.
- Negrobov, O.P. & Thuneberg, E. 1970. Some questions on the systematics of the genus *Medetera* (Dip., Dolichopodidae) of the Palaearctic region. *Ann. Entomol. Fenn.*, 36(3): 143-145.
- Polevoi, A.V. 1997. A list of brachycerous Diptera, recorded from Kivach Nature Reserve. In: Kravchenko, A.V. (Ed.). *Flora i fauna okhranyayemikh prirodnnykh territorii Karelii* [Flora and fauna of Karelian nature reserves]. Petrozavodsk: 30-43. (In Russian).
- Przhiboro, A.A. & Grichanov, I.Ya. 2003. Three new records of Dolichopodidae from NW Russia (Diptera). *Zoosyst. Ross.*, 11(2), 2002: 346.
- Thuneberg, E. 1955. A revision of the Palaearctic species of the genus *Medetera* Fischer (Diptera, Dolichopodidae). *Ann. Entomol. Fenn.*, 21: 130-157.
- Viramo, J. 1998. Trips by Finnish entomologists to the Paanajarvi-Kutsa region prior to 1940. *Oulanka Re-ports*, 19: 11-18.
- Yakovlev, E.B. 1994. *Dvukrylye Palearktiki, svyazannye s gribami i mikromitsetami* [Palaearctic Diptera associated with fungi and myxomycetes]. 127 p. Petrozavodsk: Karelian Research Centre RAS. (In Russian, with English summary).
- Yakovlev, E.B., Polevoi, A.V. & Humala, A.E. 1999. Insect fauna of the zoological reserve "Kizhskie shkhery". *Trudy Karel. nauch. Tsentrala Ross. Akad. Nauk* (Ser. B), 1999: 87-90. (In Russian).
- Yakovlev, E.B., Scherbakov, A.N., Polevoi, A.V. & Humala, A.E. 2000. Insect fauna of Paanajarvi Na-tional Park and proposed Kalevala National Park with particular emphasis on saproxyllic Coleoptera, Diptera and Hymenoptera. In: Heikkilä, R., Heikkilä, M., Polevoi, A.V. & Yakovlev, E.B. (Eds.). *Biodiversity of old-growth forests and its conservation in the northwestern Russia*: 103-157. Oulu: North Ostrobothnia Regional Environmental Centre.