New records of Dolichopodidae (Diptera) from Russian Primorye and notes on some Chinese species

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ABSTRACT. A new material of Dolichopodidae has been recently found and identified, and includes 53 species; five species are found for the first time in Russia (Amblypsilopus janatus, Argyra arrogans, Dolichopus aubertini, Medetera flavigena, Micromorphus jinshanensis), and three species in the Primorsky Territory (Diaphorus nigricans, Dolichopus punctum, Neurigona micropyga). In total, nearly 170 species are recorded from Russian Primorye that apparently makes up 80–90% of actual Dolichopodidae fauna of this Territory. All Russian and Chinese species of the Hercostomus cyaneusculus group are transferred to the genus Poecilobothrus Mik, 1878 (comb. n.): P. arcticus (Yang, 1996), P. brevipilosus (Yang et Saigusa, 2002), P. brunus (Wei, 1997), P. cucullus (Wei, 1997), P. cyaneculus (Wei, 1997), P. flavinervis (Negrobov et Chalaya, 1987), P. lii (Yang, 1996), P. longipilosus (Yang et Saigusa, 2001), P. luchunensis (Yang et Saigusa, 2001), P. mentougouensis (Zhang, Yang et Grootaert, 2003), P. palustris (Wei, 2006), P. potanini (Stackelberg, 1934), P. pterostichoides (Stackelberg, 1934), P. saetosus (Yang et Saigusa, 2002), P. singularis (Yang et Saigusa, 2001), P. zhejiangensis (Yang, 1996). Poecilobothrus brevipilosus is synonymized with P. pterostichoides (syn.n.). Poecilobothrus flavifemoratus Grichanov et Tonguc, 2010, subspecies of P. varicoloris (Becker, 1917) is designated as a species level (stat.n.). This paper provides also a distribution pattern for each collected species.

KEY WORDS: Dolichopodidae, Russia, Primorsky Territory, new records.

КЛЮЧЕВЫЕ СЛОВА: Dolichopodidae, Россия, Приморский край, новые указания.

Introduction

Primorsky Territory, or Primorye, is located in the southeasternmost region of the Russian Far East, bordering by China (Jilin and Heilongjiang), North Korea, Khabarovsk Territory and waters of the Sea of Japan. Most of the territory is mountainous with almost 80% of it forested. There are mountainous tundra areas, coniferous-deciduous forests, and forest-steppe [Kiselev, Kudryavtseva, 1998].

The first information about Primoryan long-legged flies was published since 1928 in a series of works of the famous Soviet dipterologist A.A. Stackelberg (Leningrad, the Zoological Institute — ZIN) who treated Diptera material collected during the 1927 Far-Eastern Hydro-
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New Records

Genus Amblypsilopus Bigot, 1888

NOTES. Two species of this mainly tropical genus are known from Russian Primorye. One species was originally described from this territory. The Chinese fauna numbers 45 species with possible inclusion of the Russian Amblypsilopus species.

Amblypsilopus janatus (Negrobov, 1984)
MATERIAL EXAMINED. 2♂, 2♀, Khasan distr., Andreya, MES [Marine Experimental Station], 7.08.1978, Kapasaryan [ZIN]; 1♂, Posiet, seashore, 42.67°N, 130.82°E, 31.07.2018, N. Vikhrev [ZMUM]; 2♂, Vladivostok env., 43.229°N, 131.975°E, 25.07.2019, E. Erofeeva [ZMUM].
DISTRIBUTION. Type locality: Japan: Ofune. Palaearctic: Russia (Primorye). Note. 43 species were originally described from this territory. The Chinese fauna numbers 20 species with possible inclusion of the Russian Amblypsilopus species.

Genus Argyra Macquart, 1834

NOTES. Six species of Argyra are known from Primorye. Four species were originally described from this territory. The Chinese fauna numbers 9 species.

Argyra arrogans Takagi, 1960
MATERIAL EXAMINED. 1♂, Khanka Lake, 45.06°N, 131.99°E, 15–19.06.2014, N. Vikhrev [ZMUM].
DISTRIBUTION. Type locality: Japan: Hokkaido, Aizan-Kei. Palaearctic: Japan; Oriental: China (Zhejiang, Guizhou).

Argyra flavida Negrobov, 1973
MATERIAL EXAMINED. 1♂, 10 km NE Vladivostok, 132.21°N, 132.07°E, 21–29.07.2019, E. Erofeeva [ZMUM].
DISTRIBUTION. Type locality: Russia: Primorye, Spasski, Yakovlevka. Palaearctic: Russia (Primorye).

Genus Asyndetus Loew, 1869
NOTES. Two endemic species of closely related genera Asyndetus and Cryptophleps Lichtwardt, 1898 are known from Primorye. Fourteen species are known from China.

Asyndetus diaphoriformis Negrobov et Shamshiev, 1986
MATERIAL EXAMINED. 1♂, Kamenshushka, 43.62°N, 132.23°E, 22–24.06.2014, N. Vikhrev [ZMUM].
DISTRIBUTION. Type locality: Russia: Primorye, Kedrovaya Pad Reserve. Palaearctic: Russia (Primorye).

Genus Campsicnemus Haliday, 1851
NOTES. Seven species of Campsicnemus are known from Primorye. Five species were originally described from this territory. The Chinese fauna numbers five species.

Campsicnemus unipunctatus Negrobov et Zlobin, 1978
MATERIAL EXAMINED. 3♂, Ussuri distr., Gornostaezhnoe, 15.07.1980, V. Zlobin [ZIN].
DISTRIBUTION. Type locality: Russia: Maritime Territory, 57 km W Ternei river, Sichote-Alinsky Reserve. Palaearctic: Russia (Primorye).

Genus Chrysotimus Loew, 1857
NOTES. Two species of the genus are known from Primorye. Thirty seven species are known from China. None species was reported from the neighboring Chinese provinces.

Chrysotimus flavisetus Negrobov, 1978
MATERIAL EXAMINED. 2♂, 1♀, Khanka Lake, 43.13°N, 132.50°E, 21–24.07.2018, N. Vikhrev [ZMUM].
DISTRIBUTION. Type locality: Russia: Maritime Territory, Sichote-Alinsky Reserve, 37 km from Ternei, river Serebryanka. Palaearctic: Russia (Primorye).

Chrysotimus spinuliferus Negrobov, 1978
MATERIAL EXAMINED. 1♂, 1♀, Ussuri distr., Gornostaezhnoe, 15.07.1980, V. Zlobin [ZIN]; 3♂, 1♂, Bikin River, 22 km upstream Svetlovdovnaya River mouth, 15.07.1980, V. Zlobin [ZIN]; 1♂, Anisimovka, 18.08.2004, V. Zlobin [ZIN]; 3♂, Ryazanovka River, 46.827°N, 131.23°E, 1.08.2018, N. Vikhrev [ZMUM]; 2♂, Khanka Lake, 45.825°N, 131.02°E, 15–19.07.2018, N. Vikhrev [ZMUM].
DISTRIBUTION. Type locality: Russia: Maritime Territory, Yakovlevka. Palaearctic: Russia (Primorye, Sakhalin, Yakutia).

Genus Chrysotus Meigen, 1824
NOTES. Several more species collected from the South of the Primorsky Territory are found in ZMUM collection. They need further study, because the Chinese fauna numbers more than 200 described species.

Chrysotus degener Frey, 1917
MATERIAL EXAMINED. 1♂, Khankaisky distr., 6 km N Novokachalinsk, 45.09’31.8’N, 131.59’58.2’E, 31.08–4.09.2019, Lake shore, Kosheleva [ZIN].
DISTRIBUTION. Type locality: Sri Lanka: Anurad-
hapura. Palaearctic: China (Anhui, Beijing, Heilongjiang, Jiangsu, Liaoning, Shaanxi), Russia (Amur Region, Primorye, Yakutia); Oriental: China (Chongqing, Guangxi, Henan, Taiwan, Yunnan, Zhejiang), India, Myanmar, Pakistan, Sri Lanka.

**Genus Diaphorus Meigen, 1824:32**

**Diaphorus nigricans Meigen, 1824**

MATERIAL EXAMINED. 1°®, Kamenshchika, 43.62°N, 132.23°E, 22–24.06.2014, N. Vikhrev [ZMUM]. 1°®, Luchegorsk, 46.47°N, 134.32°E, 22–24.06.2014, N. Vikhrev [ZMUM]. 1°®, Ryazanovka River, 46.827°N, 131.23°E, 1.08.2018, N. Vikhrev [ZMUM].

**DISTRIBUTION.** Type locality: Germany. Palaearctic: Abkhazia, Austria, Belarus, Belgium, China (Xinjiang), Czech, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, India (Kashmir), Ireland, Italy, Israel, Netherlands, Norway, Poland, Romania, Russia (Amur Region, Karelia, Krasnodar, Leningrad, Moscow, Murmansk, Yakutia), Spain, Sweden, Switzerland, UK; Afrotropical, Oriental, Nearctic and Neotropic Regions. New for Primorye.

**Diaphorus ozerovi Selivanova, 2011**

MATERIAL EXAMINED. 1°®, Andreevka, 42.7°N, 131.1°E, 26–31.07.2018, N. Vikhrev [ZMUM]; 1°®, 10 km NE Vladivostok, 43.21°N, 132.07°E, 21–29.07.2019, E. Erofeeva [ZMUM].

**DISTRIBUTION.** Type locality: Russia: Primorye, Suchan. Palearctic: Russia (Primorye).

**Diaphorus parenti Stackelberg, 1928**

MATERIAL EXAMINED. 1°®, Andreevka, 42.64°N, 131.13°E, 25–30.06.2014, N. Vikhrev [ZMUM]; 1°®, Anuchino env., 43.95°N, 133.05°E, 20–21.06.2014, N. Vikhrev [ZMUM].

**DISTRIBUTION.** Type locality: Russia: Tigrovaya, Suchansky District, Primorsky Territory (originally published as “Siberia orientalis: prov. Transbaikalica, flumen Tshita; prov. Litoralis distr. Suchanovus; Sedanka distr. Vladivostok”). Palaearctic: China (Ningxia, Hebei, Henan), Russia (Chita, Karachai-Cherkessia, Primorye).

**Genus Dolichopus Latreille, 1796**

**Dolichopus agilis Meigen, 1824**

MATERIAL EXAMINED. 2°®, Kamenshchika, 29.08.1978, V. Zlobin [ZIN].

**DISTRIBUTION.** Type locality: not given. Palaearctic: Andorra, Austria, Belgium, Bosnia and Herzegovina, Czech, China (Hebei, Inner Mongolia, Ningxia, Gansu), Denmark, Estonia, France, Germany, Hungary, Italy, Kazakhstan, Poland, Netherlands, Slovakia, Sweden, Switzerland, Russia (Altai Rep., Amur Region, Buryatia, Irkutsk, Kuril Is., Novosibirsk, Sayan Mts., Primorye, Yakutia), UK, Ukraine.

**Dolichopus albipalpus Negrovob, 1973**

MATERIAL EXAMINED. 1°®, Anisimovka, 11.07.2004, V. Zlobin [ZIN].

**DISTRIBUTION.** Type locality: Mongolia: “Central aimak, Zaisan, sudlich von BergBogo ul.”. Palaearctic: Russia (Primorye), Mongolia.

**Dolichopus aubertini Parent, 1934**

MATERIAL EXAMINED. 2°®, Khanka Lake, 45.06°N, 131.99°E, 15–19.06.2014, N. Vikhrev [ZMUM]; 1°®, Andreevka, 42.64°N, 131.13°E, 25–30.06.2014, N. Vikhrev [ZMUM].

**DISTRIBUTION.** Type locality: China: “Tien-isin” [=Tianjin]. Palaearctic: China (Hebei, Beijing, Tianjin). New for Russia and Primorye.

**Dolichopus bianchii Stackelberg, 1929**

MATERIAL EXAMINED. 1°®, Udege Legend National park, 45°45′05.2″N, 135°20′45.1″E, 19.07.2009, A. Ovchinnikov [ZIN].

**DISTRIBUTION.** Type locality: “Nord Ural: Voikar-Flusysteme; Jakutien: Keedej-See, Berdzhastjach”. Palaearctic: Mongolia, Russia (Khabarovsk, Primorye, Yamal, Yakutia).

**Dolichopus bigeniculatus Parent, 1926**

MATERIAL EXAMINED. 2°®, Spassk-Dalnii, 44.68°N, 132.85°E, 15.06.2014, N. Vikhрев [ZMUM].

**DISTRIBUTION.** Type locality: China: Shanghai, “Zi-Ka-Wei” [=Xujiahui]. Palaearctic: China (Beijing, Henan, Shannxi, Shandong), Japan, Russia (Primorye, Khabarovsk); Oriental: China (Sichuan, Anhui, Jiangsu, Zhejiang).

**Dolichopus cuneipennis Parent, 1926**

MATERIAL EXAMINED. 1°®, Khanka Lake, 45.825°N, 131.02°E, 15–19.07.2018, N. Vikhrev [ZMUM].

**DISTRIBUTION.** Type locality: China: Telen-Kiang, Zi-Ka-Wei [=Xujiahui, near Shanghai]. Palaearctic: China (Heilongjiang, Jilin, Shaanxi), Russia (Kurile, Primorye); Oriental: China (Shanghai).

**Dolichopus hilaris Loew, 1862**

MATERIAL EXAMINED. 1°®, Khanka Lake, 45.825°N, 131.02°E, 15–19.07.2018, N. Vikhrev [ZMUM]; 1°®, Andreevka, 42.7°N, 131.1°E, 26–31.07.2018, N. Vikhrev [ZMUM]; 1°®, 1°®, Khankaisky distr., 6 km N Novokachalinsk, 45°09′31.8″N, 131°59′58.2″E, 31.08–04.09.2019, Lake shore, Kosheleva [ZIN].

**DISTRIBUTION.** Type locality: Poland: Miedzyrzecc. Palaearctic: Austria, Belarus, China (Heilongjiang, Xinjiang), Czech, Finland, France, Germany, Italy, Kazakhstan, Poland, Russia (Khabarovsk, Primorye, Saratov), Sweden, Tajikistan, Ukraine.

**Dolichopus leucopus Smirnov, 1948**

MATERIAL EXAMINED. 9°®, 1°®, Oktabyarsky distr., 6.5 km S Chernyatino, 43°54′32.2″N, 131°28′18.8″E, 26–29.08.2019, Kosheleva [ZIN]; 1°®, Pogranichnyi distr., Barabash-Levada, 44°45′54.7″N, 131°24′59.6″E, 5–9.09.2019, Kosheleva [ZIN]; 1°®, Khankaisky distr., 6 km N Novokachalinsk, 45°09′31.8″N, 131°59′58.2″E, 31.08–04.09.2019, Lake shore, Kosheleva [ZIN].

**DISTRIBUTION.** Type locality: Russia: Okeanskaya, near Vladivostok; Suchan; Kamien-Rybolov, Krivoy Klyuch, Gorno-tayozhnaya station. Palaearctic: Russia (Khabarovsk, Primorye).

**Dolichopus linearis Meigen, 1824**

MATERIAL EXAMINED. 1°®, Udege Legend National park, 45°45′05.2″N, 135°20′45.1″E, 16.07.2009, A. Ovchinnikov [ZIN]; 1°®, 10 km NE Vladivostok, 43.21°N, 132.07°E, 21–29.07.2019, E. Erofeeva [ZIN].

**DISTRIBUTION.** Type locality: not given. Palaearctic: Austria, Belgium, China (Heilongjiang, Jilin, Beijing, Inner Mongolia, Gansu, Xingjiang, Qinghai), Czech Republic, Denmark, Estonia, Finland, France, Germany, Hungary, Ireland, Italy, Kazakhstan, Latvia, Lithuania, Portugal, Poland, Romania; Russia (Adygea, Altai Rep., Amur Region, Buryatia, Irkutsk, Kamchatka, Khabarovsk, Khanty-Mansi, Krasnodar, Krasnoyarsk, Leningrad, Magadan, Novgorod, Novosibirsk, Primorye, Pskov, Ryazan, Sakhalin, Tatarstan, Vologda, Voronezh, Yakutia), Sweden, Slovakia, Switzerland, UK.

**Dolichopus microstigma Stackelberg, 1930**

MATERIAL EXAMINED. 1°®, Tchen-Kiang, 44°45′54.7″N, 131°24′59.6″E, 5–9.09.2019, Kosheleva [ZIN]; 1°®, Khankaisky distr., 6 km N Novokachalinsk, 45°09′31.8″N, 131°59′58.2″E, 31.08–04.09.2019, Lake shore, Kosheleva [ZIN].

**DISTRIBUTION.** Type locality: Russia: Okeanskaya, near Vladivostok; Suchan; Kamien-Rybolov, Krivoy Klyuch, Gornotayozhnaya station. Palaearctic: Russia (Khabarovsk, Primorye).
Dolichopus nataliae Stackelberg, 1930
MATERIAL EXAMINED. 1°, Andreevka, 42.64°N, 131.13°E, 25–30.06.2014, N. Vikhrev [ZMUM].

DISTRIBUTION. Type locality: “Sibirie orientalis, prov. Austro-Ussurienis, dist. Suchtianiensis; via Spassk-Jakovlevka, fl. Ugodniza, distr. Spasskensis, Tigravya” Palaeartic: Russia (Khabarovsk, Magadan, Primorye, Yakutia).

Dolichopus negrobovi Gossiess, 1989
MATERIAL EXAMINED. 1°, Khasan distr., Troitsa Bay, 28.08.1984, V. Zlobin [ZIN].

DISTRIBUTION. Type locality: Russia: “Burljetskaja ASSR, Ústj-Bargusinskaja Tal, Jarreeha”. Palaeartic: Mongolia, Russia (Krasnoyarsk, Khabarovsk, Primorye).

Dolichopus nitidus Fallen, 1823
MATERIAL EXAMINED. 1°, Udege Legend National park, 45°46’05.2’’N, 135°20’45.1’’E, 20.07.2009, A. Ovchinnikov [ZIN]; 1°, Lotos Lake, 42.46°N, 130.64°E, 1–3.07.2014, N. Vikhrev [ZMUM]; 2°, Oktaysky distr., 6.5 km S Chernyaino, 43°54’32.2’’N, 131°28’18.8’’E, 26–29.08.2019, Kosheleva [ZIN].

DISTRIBUTION. Type locality: not given. Palaeartic: Austria, Belarus, Belgium, Bulgaria, China (Henan), Czech, Denmark, Estonia, Finland, France, Germany, Hungary, Ireland, Israel, Italy, Japan, Kazakhstan, Netherlands, Norway, Poland, Romania, Russia (Altai Rep., Karelia, Khabarovsk, Khanty-Mansi, Krasnodar, Moscow, Novgorod, Primorye, Ryazan, Tatarstan, Voronezh), Slovakia, Spain, Sweden, Switzerland, UK, Ukraine (Odessa); Oriental: China (Shanghai).

Dolichopus plumipes (Scopoli, 1763)
MATERIAL EXAMINED. 1°, Khanka Lake, 45.06°N, 131.99°E, 15–19.06.2014, N. Vikhrev [ZMUM].

DISTRIBUTION. Type locality: Slovenia: “Carniolae indigena”. Mainly Holarctic species. Palaeartic China (Heilongjiang, Hebei, Henan, Shanxi, Inner Mongolia, Xinjiang, Qinghai, Xinjiang, East Russia (Ukraine, Irkutz, Kamchatka, Khabarovsk, Koryakia, Novosibirsk, Primorye, Tomsk, Tyumen); Neotropical: Mexico; Oriental: India (Kashmir).

Dolichopus plumitarsis Fallén, 1823
MATERIAL EXAMINED. 1°, Shkotovsky distr., Anisimovka, 43°10’07.0’’N, 132°46’11.3’’E, 11–13.08.2019, Kosheleva [ZIN]; 1°, Lotos Lake, 42.46°N, 130.64°E, 1–3.07.2014, N. Vikhrev [ZMUM]; 2°, Shkotovsky distr., Anisimovka, 43°10’07.0’’N, 132°46’11.3’’E, 11–13.08.2019, Kosheleva [ZIN]; 1°, 10 km NE Vladivostok, 43.21°N, 132.07°E, 21–29.07.2019, E. Erofeev [ZMUM].

DISTRIBUTION. Type locality: Russia: Tigravya, Sedanka, Spassk-Yakovlevka, river Ugodniza. Palaeartic: Mongolia, Russia (Krasnoyarsk, Khabarovsk, Primorye).

Dolichopus ringdahlii Stackelberg, 1930
MATERIAL EXAMINED. 1°, Ussuri distr., Gornotaezhnnoe, 5.09.1980, V. Zlobin [ZIN].

DISTRIBUTION. Type locality: “Kreis Jakutsk: Keedej-See; Sud-Ussuri-Gebiet: Tigravya, Kreis Sutschan”. Palaeartic: Russia (Buryatia, Primorye, Yakutia), China (Jilin).

Dolichopus robustus Stackelberg, 1928
MATERIAL EXAMINED. 1°, Kamenshushka, 43.62°N, 132.23°E, 22–24.06.2014, N. Vikhrev [ZIN].

DISTRIBUTION. Type locality: “Sibirie orientalis, prov. Austro-Ussurienis propopagum Tigravya distr. Sutschanicus; Sedanka prope Vladivostok, in ripis Fluminis Ugodniza, via Spassk-Jakovlevka, distr. Spasskensis”. Palaeartic: Russia (Altai Rep., Amur Region, Irkutz, Khabarovsk, Krasnoyarsk, Moscow, Primorye, Sayan Mnts., Yakutia, China (Shandong).

Dolichopus setimanus Smirnov, 1948
MATERIAL EXAMINED. 1°, Ussuri distr., Gornotaezhnnoe, 31.07.1980, Ovchinnikova [ZIN]; 4°, Ussuri distr., Gornotaezhnnoe, 8, 9, 26.08.1980, Afanasyeva [ZIN].

DISTRIBUTION. Type locality: Okeanskaya, near Vladivostok. Palaeartic: Russia (Amur Region, Chita, Khabarovsk, Primorye, Sakhalin, Kuriles).

Dolichopus uniseta Stackelberg, 1929
MATERIAL EXAMINED. 1°, Khanka Lake, 45.06°N, 131.99°E, 15–19.06.2014, N. Vikhrev [ZMUM]; 1°, Lotos Lake, 42.46°N, 130.64°E, 1–3.07.2014, N. Vikhrev [ZMUM]; 2°, Lazovsky distr., Preobrazenenie, 42°53’44.4’’N, 133°57’13.4’’E, 20–21.08.2019, Kosheleva [ZIN]; 1°, 3°, 5°, Shkotovsky distr., Anisimovka, 43°10’07.0’’N, 132°46’11.3’’E, 11–13.08.2019, Kosheleva [ZIN].

DISTRIBUTION. Type locality: Russia: “Kreis Jakutsk: Olom, Abyj, ungefahr 60°50’ nordlicher Breite und 130° Osthlicher Lange zwischen der Lena und Amga, Amginisskaja Sloboda, am Ufer des Flukes Amga; Sud-Ussuri-Gebiet: Jakovlevka, Kreis Spassk”. Palaeartic: Russia (Khabarovsk, Primorye, Yakutia), China (Heilongjiang, Hebei, Beijing, Shaamxi).

Dolichopus ussuriensis Stackelberg, 1930
MATERIAL EXAMINED. 2°, 1°, Ussuri distr., Gornotaezhnoe, 3.06.1982, Ovchinnikova [ZIN].

DISTRIBUTION. Type locality: Majkhe [=Shytkov], near Shkotov, Tigravya, Spassk-Yakovlevka, river Ugodniza. Palaeartic: Russia (Amur Region, Khabarovsk, Primory).

Dolichopus varians Smirnov, 1948
MATERIAL EXAMINED. 1°, Oktaysky distr., 6.5 km S Chernyaino, 43°54’32.2’’N, 131°28’18.8’’E, 26–29.08.2019, Kosheleva [ZIN]; 2°, Lazovsky distr., Preobrazenenie, 42°53’44.4’’N, 133°57’13.4’’E, 20–21.08.2019, Kosheleva [ZIN]; 1°, 1°, Shkotovsky distr., Anisimovka, 43°10’07.0’’N, 132°46’11.3’’E, 11–13.08.2019, Kosheleva [ZIN].

DISTRIBUTION. Type locality: Russia: near Vladivostok, Okeanskaya, Sedanka, Suchan - Sergeevka. Palaeartic: Russia (Kamchatka, Khabarovsk, Primorye).
**Dolichopus xanthopyga** Stackelberg, 1930

MATERIAL EXAMINED. 1♂, Khanka Lake, 45.825°N, 131.02°E, 15–19.07.2018, N. Vikhrev [ZMUM]; 3♂, Khanka Lake, 45.825°N, 131.02°E, 15–19.07.2018, N. Vikhrev [ZMUM]; 3♂, Lake shore, Kosheleva [ZIN].

**DISTRIBUTION.** Type locality: Russia: “Siberie orientalis prov. Spasskensis litis meridionalis locus, Chanka prox. pagum Staraja Devitza, ad ostium Iliunus Lefius, prominorum Rjabokoni”). Palaearctic: Russia (Khabarovsky, Primorye), China (Heilongjiang).

**Genus Gymnopternus** Loew, 1857

NOTES. Until 2005 the genus had long been supposed to be a synonym of *Hercostomus* in Russian literature with none reported species from the Russian Far East. Negrov et al. [2016] transferred *Hercostomus ussuriensis* Stackelberg, 1933 to *Gymnopternus*. Two species of the same genus are transferred to *Gymnopternus* below. At least two more different species are found in ZMUM collection from the South of the Primorsky Territory; these species need further study. More than forty species are known from China.

**Gymnopternus daubichensis** (Stackelberg, 1933), comb.n.

= *Hercostomus daubichensis* Stackelberg, 1933: 121 (in key) (descr.: ibid. 1934: 140).

MATERIAL EXAMINED. 1♂, Ussuri distr., Gornotaezhnoe, 20–30.06.2007, A. Ovchinnikov [ZIN]; 1♂, Gorny Klyuchi, 45.25°N, 132.50°E, 6–7.07.2014, N. Vikhrev [ZMUM]; 1♂, Khanka Lake, 45.825°N, 131.02°E, 15–19.07.2018, N. Vikhrev [ZMUM].

**DISTRIBUTION.** Type locality: “Ussuri-Gebiet, Dorf Jakovlevka, Distrikt Spassk”. Palaearctic: Russia (Primorye).

**Gymnopternus nemorum** (Smirnov et Negrobov, 1977, comb.n.

= *Hercostomus nemorum* Smirnov et Negrobov, 1977: 89.

MATERIAL EXAMINED. 1♂, Andreevka, 42.7°N, 131.01°E, 26–31.07.2018, N. Vikhrev [ZMUM].

**DISTRIBUTION.** Type locality: Paritsansk. Palaearctic: Russia (Primorye).

**Gymnopternus ussuriensis** (Stackelberg, 1933)

MATERIAL EXAMINED. 1♂, Kamenshuka, 26.06.1980, V. Zlobin [ZIN]; 1♂, Ussuri distr., Gornotaezhnoe, 30.08.1980, V. Zlobin [ZIN]; 2♂, Shkotovsky distr., Anisimovka, 26.07.2004, V. Zlobin [ZIN]; 1♂, Kamenushka, 43.62°N, 132.23°E, 22–24.vi.2014, N. Vikhrev [ZMUM]; 2♂, Khanka Lake, 45.06°N, 131.99°E, 15–19.06.2014, N. Vikhrev [ZMUM]; 1♂, Gorny Klyuchi, 45.25°N, 133.50°E, 6–7.07.2014, N. Vikhrev [ZMUM]; 3♂, Andreevka, 42.7°N, 131.01°E, 26–31.07.2018, N. Vikhrev [ZMUM]; 3♂, Ryazanovka River, 46.827°N, 131.23°E, 1.08.2018, N. Vikhrev [ZMUM].

**NOTES.** The species was described by two males [Wang et al., 2009]. The holotype was found in environs of Beijing, while the paratype was collected from the Oriental Sichuan province (Qingchengshan mountain). The description contains a mixture of *Neapolamia* and *Micromorphus* generic concepts. Nevertheless, the figures of antenna and hypopygium provided by the authors clearly testify that the *Neapolamia jinshanensis* must be recombined with the genus *Micromorphus*. The Russian material examined is identical morphologically with those figures. However, despite the description, our specimens has no acrostichal setae, hind basitarsus has indistinct basal spur in males, hypandrium is simple, without deep V-shaped apical incision, but forming acute angle with simple phallus. It is highly likely that the description of *N. jinshanensis* belongs to the paratype representing a different species of mainly Oriental *Neapolamia*, while the figures belong to the holotype representing a species of *Micromorphus*. On the other hand, *Micromorphus ellampus* Wei, 2006 and *M. heterophalla* Wei et Yang, 2007, both described from the Oriental Guizhou province and bearing acrostichals on the mesonotum [Wei, 2006; Wei, Yang, 2007], belong probably to another genus.

**DISTRIBUTION.** Type locality: Beijing: Jinshan mountain. Palaearctic: China (Beijing); ?Oriental: China (Sichuan). New for Russia. The genus is new for Primorye.

**Genus Neurigona** Rondani, 1856

NOTES. The *Neurigona* fauna of Primorye contains five species. The Chinese fauna includes 31 species.

**Neurigona microp gyrina** Negrovob, 1987

MATERIAL EXAMINED. 1♂, Khasan District, 3 km W Ryazanovka, Malaise trap, 16.07.1992, P. Lindskog & A. Nilsson leg. (Swedish Museum of Natural History, Stockholm).

**DISTRIBUTION.** Type locality: Kuril Is. Palaearctic: China (Hunan), Japan, Russia (Kurile). New for Primorye.
**Neurigona pullata** Negrovbov et Fursov, 1988

MATERIAL EXAMINED. 1♂, South Kamushushka. 4.06.1984, A. Shatalkin [ZMUM].

DISTRIBUTION. Type locality: Primorye, Kedrovaya Pad Reserve. Palaeartic: Russia (Amur Region, Primorye, Sakhalin).

Genus *Poecilobothrus* Mik, 1878

NOTES. Until now the genus *Poecilobothrus*, belonging to the subfamily Dolichopodinae, had long been supposed to be Mediterranean in distribution, with 16 known species [Grichanov, 2017] occurring in the West Palaeartic countries with relatively mild climate, from southern Scandinavia in the North, to North Africa and Central and Middle Asia (Iran, Tajikistan and Uzbekistan) in the South. I raise here *Poecilobothrus flavifenoratus* Grichanov et Tonguç, 2010, subspecies of *P. varicoloris* (Becker, 1917), to a species level (stat.m.). With new re-combinations in this paper (see below) the genus is distributed in the Russian Primorye and all over China in addition to West Palaeartic countries, numbering totally 31 valid species. See also comments under *Poecilobothrus pterostichoidea*. 

*Poecilobothrus flavoelus* (Negrovbov et Chalaya, 1987), comb.n.

=Hercostomus flavoelus Negrovbov et Chalaya, 1987: 45.

=Poecilobothrus arcticus (Yang, 1996), comb.n.

=Hercostomus arcticus Yang, 1996: 235 (in subgenus Hercostomus). Type locality: China: Heilongjiang, Ningan.

MATERIAL EXAMINED. 1♂, Bikan River, 22 km upstream Svetlovodnaya River mouth, 19.07.1980, V. Zlobin [ZIN]; 1♂, Lazovsky distr., Preobrazenhie,Tasovaya, 42°53′44.4″N, 133°57′13.4″E, 20–21.08.2019, Kosheleva [ZIN]; 2♂♂, 1♀, Oktyabrsk distr., 6.5 km S Chernyaito, 43°54′32.2″N, 131°28′18.8″E, 26–29.08.2019, Kosheleva [ZIN]; 5♂, 1♀, Shkotovsky distr., Anisimovka, 43°10′07.0″N, 132°46′11.3″E, 11–13.08.2019, Kosheleva [ZIN].

NOTES. Hercostomus arcticus was synonymized with *H. flavoelus* by Negrovbov et al. [2016]. See also comments under *Poecilobothrus pterostichoidea*. 

*Poecilobothrus pterostichoidea* (Stackelberg, 1934), comb.n.

=Hercostomus pterostichoidea Stackelberg, 1934:118 (in key) (descr. ibid.: 166)

=Poecilobothrus brevipilosus (Yang et Saigusa, 2001), comb.n.

=Hercostomus brevipilosus Yang et Saigusa, 2001: 65 (in subgenus Hercostomus), syn.n. Type locality: China: Shaanxi, Fuping.

MATERIAL EXAMINED. 1♂, 1♀, Shkotovsky distr., Anisimovka, 43°10′07.0″N, 132°46′11.3″E, 11–13.08.2019, Kosheleva [ZIN]; 8♂♂, 10 km NE Vladivostok, 43°21′E, 132.07′E, 21–29.07.2019, E. Erofeeva [ZMUM].

DISTRIBUTION. Type locality: “Ussuri-Gebiet, bei der Station Tigrovoja, Sutschan” [=Ussuriskaya oblast, near Tigrovaya station, Suchan; now Primorsky krai, Tigrovoy village, Partizansk]. Palaeartic: China (Beijing, Shaanxi), Russia (Primorye).

NOTES. The species was described by males and females collected on 3–4 August 1927 from the Tigrovoi locality [Stackelberg, 1934]. It was never found later again [Negrovbov et al., 2013]. New material collected from the Anisimovka village, which is very close (about 5 km) to the type locality of *Hercostomus pterostichoidea*, stimulated the re-examination of descriptions of similar Chinese species of the genus [Yang et al., 2011]. As it turned out, *H. pterostichoidea* belongs to the *Hercostomus cyaneculus* group containing 14 Chinese species, of which none corresponds to the nominotypical *Hercostomus longiventris* lineage [as defined by Brooks, 2005]. According to the generic key of latter author, the *Hercostomus cyaneculus* group as a whole must be associated with the genus *Poecilobothrus* Mik, 1878. This genus can be distinguished [Brooks, 2005] by the possession of a distinct dark metallic spot above the notopleuron, and one strong posterior to posteroventral preapical seta on the mid femur. Males are further distinguished by their distinctive postgnostic and short, conical, slightly dorsoventrally flattened hypandrium, fused to epandrium laterally near basoventral epandrial lobe. Females are further distinguished by the possession of an inner, medial pair of spines on tergite 10. Some species [e.g., *P. regalis* (Meigen, 1824), *P. aberrans* (Loew, 1871)] have one dorsal seta on hind basitarsus. Arista-like stylus is more or less strongly pubescent or even plumose (*P. aberrans*) that was noted by Stackelberg [1934] in his description of *H. pterostichoidea* (the specific name itself is related with an unjustified emendation of the generic name *Pterostylus*, now synonym of *Poecilobothrus*).

An examination of available Chinese material in ZIN collection for three species from the *Hercostomus cyaneculus* group (identified by Ding Yang, Chinese Agricultural University, Beijing) in addition to *H. flavoelus* and *H. pterostichoidea* has confirmed the presence of those characters listed by Brooks [2005]. Moreover, distributed in Palaeartic China *Hercostomus brevipilosus* is identical with *H. pterostichoidea*. So, the following new combinations are here proposed: 

Poecilobothrus braunus (Wei, 1997), comb.n. (Hercostomus); Poecilobothrus cucullus (Wei, 1997), comb.n. (Hercostomus); Poecilobothrus cyaneculus (Wei, 1997), comb.n. (Hercostomus); Poecilobothrus lili (Yang, 1996), comb.n. (Hercostomus); Poecilobothrus longipilosus (Yang et Saigusa, 2001), comb.n. (Hercostomus); Poecilobothrus luchunensis (Yang et Saigusa, 2001), comb.n. (Hercostomus); Poecilobothrus mentougouensis (Zhang, Yang et Grootaert, 2003), comb.n. (Hercostomus); Poecilobothrus palustrus (Wei, 2006), comb.n. (Hercostomus); Poecilobothrus potanini (Stackelberg, 1934), comb.n. (Hercostomus); Poecilobothrus saetosus (Yang et Saigusa, 2002), comb.n. (Hercostomus); Poecilobothrus singularis (Yang et Saigusa, 2001), comb.n. (Hercostomus); Poecilobothrus zhejiangensis (Yang, 1996), comb.n. (Hercostomus).

Genus *Rhaphium* Meigen, 1803

NOTES. One more male collected from Anreechevka belongs most probably to an undescribed species. 

*Rhaphium dispar* Coquillett, 1898

MATERIAL EXAMINED. 1♂, Khanka Lake, 45°06′N, 131.90′E, 15–19.06.2014, N. Vikhrey [ZMUM].

DISTRIBUTION. Type locality: Japan. Palaeartic: Russia (Kamchatka, Magadan, Primorye); Japan; Oriental: China (Guizhou, Sichuan, Taiwan, Zhejiang).
Rhaphium flavilabre Negrobov, 1979

MATERIAL EXAMINED. 1♀, Andreevka, 42.64°N, 131.13°E, 25–30.06.2014, N. Vikhrev [ZMUM]; 1♂, Khassan distr., Troitsa Bay, 28.08.1984, V. Zlobin [ZIN].

DISTRIBUTION. Type locality: Primorye, Komarovo-Zapovednoe, Nature Reserve. Palaeartic: Russia (Khabarovsk, Primorye).

Rhaphium micans (Meigen, 1824)

MATERIAL EXAMINED. 1♂, Khanka Lake, 45.06°N, 131.99°E, 15–19.06.2014, N. Vikhrev [ZMUM].

DISTRIBUTION. Type locality: “Hamburg”. Palaeartic: Abkhazia, Austria, Azerbaijan, Belarus, Belgium, Bulgaria, China, Czech, Finland, France, Germany, Hungary, Italy, Latvia, Netherlands, Norway, Poland, Romania, Russia (Adygea, Astraakh, Kabardino-Balkaria, Karachai-Cherkessia, Karelia, Khabarovsk, Krasnodar, Krasnoyarsk, Leningrad, Primorye, Pskov, Rostov, Ryazan, Voronezh), Serbia, Slovakia, Spain, Sweden, Switzerland, Tajikistan, Turkey, UK.

Rhaphium nasutum (Fallén, 1823)

MATERIAL EXAMINED. 1♂, Khanka Lake, 45.06°N, 131.99°E, 15–19.06.2014, N. Vikhrev [ZMUM].

DISTRIBUTION. Type locality: Germany: “Hamburg”. Palaeartic: Abkhazia, Austria, Azerbaijan, Belarus, Belgium, Bulgaria, China, Czech, Finland, France, Germany, Hungary, Italy, Latvia, Netherlands, Norway, Poland, Romania, Russia (Adygea, Astraakh, Kabardino-Balkaria, Karachai-Cherkessia, Karelia, Khabarovsk, Krasnodar, Krasnoyarsk, Leningrad, Primorye, Pskov, Rostov, Ryazan, Voronezh), Serbia, Slovakia, Spain, Sweden, Switzerland, Tajikistan, Turkey, UK.

Suscanha stackelbergi Negrobov, 2003

MATERIAL EXAMINED. 1♀, Ussuri distr., Gornotezhnoe, 15.07.1980, V. Zlobin [ZIN].

DISTRIBUTION. Genus Suscanha. Russia (Buryatia, Khabarovsk, Primorye).

Genus Syntormon Negrobov, 1922

Syntormon flexibilis Becker, 1922

MATERIAL EXAMINED. 1♂, Andreevka, 42.64°N, 131.13°E, 25–30.06.2014, N. Vikhrev [ZMUM].

DISTRIBUTION. Type locality: China: Taiwan: Taiboraka; Anping; Tainan. Afrotropical: St Helena; Australasian: Australia, French Polynesia, Japan (Bonin Is.), New Caledonia, Tonga, USA (Hawaii); Nearctic: western Canada, northwestern USA; Oriental: China (Guangdong, Guizhou, Shanghai, Taiwan, Zhejiang); Palaeartic: China (Hebei, Jiangsu), Japan, Russia (Primorye).

Syntormon monochaeus Negrobov, 1975

MATERIAL EXAMINED. 1♂, Lotos Lake, 42.46°N, 130.64°E, 1–3.07.2014, N. Vikhrev [ZMUM].

DISTRIBUTION. Type locality: Maritime Territory, Primorye, Yakovlevka. Palaeartic: Russia (Buryatia, Khabarovsk, Primorye).

Genus Thinophilus Wahlberg, 1844

Thinophilus longipilus Negrobov, 1971

MATERIAL EXAMINED. 1♂, Khanka Lake, 45.06°N, 131.99°E, 15–19.06.2014, N. Vikhrev [ZMUM]; 1♂, Luchegorsk, 46.47°N, 134.32°E, 22–24.06.2014, N. Vikhrev [ZMUM].

DISTRIBUTION. Type locality: Maritime Territory, Khanka Lake, Kamen-Rybolov. Palaeartic: Japan, Russia (Primorye).

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