



New records of Dolichopodidae from Bulgarian mountains

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The list below provides information on 37 species of the family Dolichopodidae new to seven Bulgarian mountains and mountain massifs. These data were used in Table 1 for the vertical distribution of the species. The photos of some habitats are given as Electronic supplementary material 1.

Subfamily Diaphorinae

Argyra diaphana (Fabricius, 1775)

Material examined. Lozenska Mt., 1000 m, 24.VII.2020, 1 male, M. Kechev leg.

Distribution in Bulgaria. The species is known from one male specimen collected at Hrabrino Village, the West Rhodopes Mountains, at an altitude of 300 m (Kechev, 2010).

Remark. The first record for the Lozenska Mountain.

Chrysotus pulchellus Kowarz, 1874

Material examined. Lozenska Mt., 1000 m, sweep net, 24.VII.2020, 1 male, M. Kechev leg.

Distribution in Bulgaria. Ivailovgrad (Beschovski, 1967), West Rhodopes Mountains (Kechev, 2005), Rila Mountains (Hubenov, 2016, 2017).

Remark. The first record for the Lozenska Mountain.

Subfamily Dolichopodinae

Dolichopus discifer Stannius, 1831

Material examined. Vitosha Mt., 1860 m, alpine meadow, 25.VII.2020, 1 male, M. Kechev leg. *West Rhodope Mts.*, Yundola, pasture, 1300 m, 30.VI.2016, 1 male, Barták & Kubík leg.

Distribution in Bulgaria. Topolite Village (Beschovski, 1967), Sarnena Sredna Gora Mountains (Kechev et al., 2014).

Remark. The first records for the West Rhodopes and the Vitosha Mountain.

Dolichopus lepidus Staeger, 1842

Material examined. Pirin Mts., Vihren hut, alpine meadow, 2000 m, 27.VI.2016, 1 male, Barták & Kubík leg. *West Rhodope Mts.*, 25 km SSW of Plovdiv, near Boykovo Vill., meadow, 1590 m, 20.VI.2016, 2 males, Barták & Kubík leg.

Distribution in Bulgaria. Central Stara Planina Mountains, Vitosha Mountain (Beschovski, 2013), Rila Mountains (Hubenov, 2016, 2017).

Remark. The first records for the West Rhodopes and the Pirin Mountains.

Dolichopus longitarsis Stannius, 1831

Material examined. *West Rhodope Mts.*: Yundola, pasture, 1300 m, 30.VI.2016, 1 male, Barták & Kubík leg.; 25 km SSW of Plovdiv, near Boykovo Vill., meadow, 1590 m, 20.VI.2016, 1 male, Barták & Kubík leg.

Distribution in Bulgaria. Plana Mountain (Beschovski, 2013).

Remark. The first record for the West Rhodope Mountains.

Dolichopus phaeopus Haliday, 1851

Material examined. Pirin Mts., Vihren hut, alpine meadow, 2000 m, 27.VI.2016, 1 male, Barták & Kubík leg.

Distribution in Bulgaria. Vassilashki Ezera Lakes, Pirin Mountains, Belmeken in Rila Mountains (Beschovski, 2013), Rila Mountains (Hubenov, 2016, 2017).

***Dolichopus unguatus* (Linnaeus, 1758)**

Material examined. Lozenska Mt., 1000 m, 24.VII.2020, 3 males, 1 female, M. Kechev leg. Pirin Mts., Vihren hut, alpine meadow, 2000 m, 27.VI.2016, 2 males, Barták & Kubík leg. West Rhodope Mts.: 9 km NNE of Dospat, meadow near forest, 1170 m, 1 male, 23.VI.2016, Barták & Kubík leg.; Yundola, pasture, 1300 m, 30.VI.2016, 6 males, Barták & Kubík leg.

Distribution in Bulgaria. West Rhodope Mountains (Kechev, 2005, 2006), Rila Mountains (Hubenov, 2016, 2017).

Remark. The first records for the Pirin Mountains and the Lozenska Mountain.

***Gymnopternus angustifrons* (Staeger, 1842)**

Material examined. Pirin Mts., Popina Luka, small alpine brook, 1300 m, 9.VIII.2020, 2 males, 3 females, M. Kechev leg.

Distribution in Bulgaria. Rila Mountains (Hubenov, 2016, 2017).

Remark. The first record for the Pirin Mountains.

***Hercostomus fugax* (Loew, 1857)**

Material examined. Pirin Mts.: Vihren hut, 2000 m, alpine meadow, 3.IX.2005, 4 males, 1 female, M. Kechev leg.; 1 male, same locality and habitat, 27.VI.2016, Barták & Kubík leg. West Rhodope Mts.: Perelik, 2000 m, 23.VII.2002, 5 males, 1 female, A. Stojanova leg.; 10 km NW of Osina Vill., 1200 m, 8.IX.2005, 1 male, M. Kechev leg.

Distribution in Bulgaria. West Rhodope Mountains (Kechev, 2005), Pirin Mountains (Hubenov, 2015).

Remark. New localities for the West Rhodopes and the Pirin Mountains.

***Hercostomus germanus* (Wiedemann, 1817)**

Material examined. West Rhodope Mts.: Boykovo Vill., meadow, 1410 m, 20.VI.2016, 4 males, Barták & Kubík leg.; Pamporovo, meadow, 2000 m, 22–24.VI.2016, 1 male, Barták & Kubík leg.

Distribution in Bulgaria. West Rhodope Mountains (Kechev, 2010).

Remark. New localities for the West Rhodope Mountains.

***Hercostomus longiventris* (Loew, 1857)**

Material examined. Vitosha Mt., brook in coniferous forest, 1646 m, 25.VII.2020, 3 males, M. Kechev leg.

Pirin Mts., Popina Luka, small alpine brook, 1300 m, 9.VIII.2020, 1 male, M. Kechev leg.

Distribution in Bulgaria. West Rhodope Mountains (Kechev, 2005).

Remark. The first records for the Pirin Mountains and the Vitosha Mountain.

***Hercostomus rusticus* (Meigen, 1824)**

Material examined. West Rhodope Mts., 25 km SSW of Plovdiv, near Boykovo Vill., meadow, 1590 m, 20.VI.2016, 1 male, Barták & Kubík leg.

Distribution in Bulgaria. Plana Mountain (Beschovski & Dzhambazov, 2002), West Rhodope Mountains (Kechev, 2005, 2006).

Remark. A new locality for the West Rhodope Mountains.

***Hercostomus vivax* (Loew, 1857)**

Material examined. Pirin Mts., Popina Luka, small alpine brook, 1300 m, 9.VIII.2020, 1 male, M. Kechev leg.

Distribution in Bulgaria. West Rhodope Mountains (Kechev, 2007a).

Remark. The first record for the Pirin Mountains.

***Poecilobothrus chrysozygos* (Wiedemann, 1817)**

Material examined. West Rhodope Mts., 25 km SSW of Plovdiv, near Boykovo Vill., meadow, 1590 m, 20.VI.2016, 1 male, Barták & Kubík leg.

Distribution in Bulgaria. West Rhodope Mountains (Kechev, 2005), Gradina floodplain forest (Kechev, 2012a), Sarnena Sredna Gora Mountains (Kechev et al., 2014).

Remark. New localities for the West Rhodope Mountains.

***Poecilobothrus ducalis* (Loew, 1857)**

Material examined. Konyavska Planina Mt., 54 km SW of Sofia, near Kondofrei Vill., pasture near river, 620 m, 23.VI.2016, 1 male, Barták & Kubík leg.

Distribution in Bulgaria. Strandzha Mountain (Kechev, 2011a).

Remark. The first record for the Konyavska Planina Mountain.

***Poecilobothrus nobilitatus* (Linnaeus, 1767)**

Material examined. Konyavska Planina Mt., 54 km SW of Sofia, near Kondofrei Vill., pasture near river, 620 m, 23.VI.2016, 3 male, Barták & Kubík leg.

Distribution in Bulgaria. Pazardzhik, Sofia, Pancharevo, Knyajevo (Nedelkov, 1909), West Rhodope Mountains (Kechev, 2005), Vitosha Mountain (Hubenov, 2018).

Remark. The first record for the Konyavska Planina Mountain.

***Sybistroma discipes* (Gremar, 1817)**

Material examined. Pirin Mts., 6 km SE of Bansko, forest, 1300–1600 m, 1.VII.2016, 1 male, Barták & Kubík leg.

Distribution in Bulgaria. West Rhodope Mountains (Kechev, 2010).

Remark. The first record for the Pirin Mountains.

***Sybistroma obscurellus* (Fallén, 1823)**

Material examined. Lozenska Mt., brook, 1000 m, 24.VII.2020, 1 male, M. Kechev leg.

Distribution in Bulgaria. West Rhodope Mountains (Kechev, 2007a).

Remark. The first record for the Lozenska Mountain.

Subfamily Hydrophorinae

***Hydrophorus balticus* (Meigen, 1824)**

Material examined. Vitosha Mt., small alpine brook, 2017 m, sweep net, 25.VII.2020, 1 female, M. Kechev leg. Pirin Mts.: Vihren hut, alpine meadow, *Pinus mugo*, 2000 m, 3.IX.2005, 10 males, 8 females, M. Kechev leg.; Vihren hut, alpine meadow, 2000 m, 27.VI.2016, 2 males, Barták & Kubík leg.; Bezbog hut, alpine meadow, 2200 m, 28.VI.2016, 3 males, 1 female, Barták & Kubík leg. West Rhodope Mts.: Snezhanka Peak, humid meadow around coniferous forests, 1800–2000 m, 24.VII.2005, 74 males, 61 females, Barták & Kubík leg.; Snezhanka Peak, meadow, 2000 m, 25.VI.2016, 1 male, 1 female, Barták & Kubík leg.; 25 km SSW of Plovdiv, near Boykovo Vill., meadow, 1590 m, 20.VI.2016, 19 males, 6 females, Barták & Kubík leg.; Yundola, 1300 m, 30.VI.2016, 4 males, Barták & Kubík leg.

Distribution in Bulgaria. West Rhodope Mountains (Beschovski, 1967), Pirin Mountains (Hubenov, 2015), Chirpan (Kechev, 2012b), Stara Planina Mountains (Kechev, 2017).

Remarks. The first record for the Vitosha Mountain and new localities for the West Rhodopes and the Pirin Mountains. *Hydrophorus*

balticus is a very common species in Bulgaria, with wide habitat range at riverbeds and ponds from low altitudes to the subalpine vegetation belt. Its abundance is the highest in open meadows among coniferous and subalpine vegetation.

***Hydrophorus bipunctatus* (Lehmann, 1822)**

Material examined. Vitosha Mt., small alpine brook, 2017 m, 25.VII.2020, 1 male, M. Kechev leg.

Distribution in Bulgaria. Pirin Mountains (Kechev et al., 2020).

Remark. The first record for the Vitosha Mountain.

***Scellus notatus* (Fabricius, 1781)**

Material examined. Pirin Mts.: 6 km SE of Bansko, forest, 1300–1600 m, 1.VII.2016, 2 males, 2 females, Barták & Kubík leg.; Vihren hut, alpine meadow, 2000 m, 27.VI.2016, 1 male, Barták & Kubík leg. West Rhodope Mts.: Yundola, pasture, 1300 m, 30.VI.2016, 1 male, Barták & Kubík leg.; 25 km SSW of Plovdiv, near Boykovo Vill., meadow, 1590 m, 20.VI.2016, 1 female, Barták & Kubík leg.; Pamporovo, meadow, 1600 m, 22–24.VI.2016, 4 females, leg. Barták & Kubík.

Distribution in Bulgaria. West Rhodope Mountains (Kechev, 2005), Chirpan (Kechev & Ivanova, 2015).

Remark. The first record for the Pirin Mountains.

Subfamily Neurigoninae

***Neurigona erichsoni* (Zetterstedt, 1843)**

Material examined. Pirin Mts., 6 km SE of Bansko, coniferous forest, 1300–1600 m, 1.VII.2016, 1 male, Barták & Kubík leg.

Distribution in Bulgaria. Sarnena Sredna Gora Mountains (Kechev, 2016).

Remark. The first record for the Pirin Mountains.

***Neurigona suturalis* (Fallén, 1823)**

Material examined. Pirin Mts., Vihren hut, alpine meadow, 2000 m, 27.VI.2016, 1 female, Barták & Kubík leg.

Distribution in Bulgaria. West Rhodope Mountains (Kechev, 2010).

Remark. The first record for the Pirin Mountains.

***Oncopygius distans* (Loew, 1857)**

Material examined. Pirin Mts., 6 km SE of Bansko, forest, 1300–1600 m, 1.VII.2016, 1 male, Barták & Kubík leg.

Distribution in Bulgaria. Vitosha Mountain (Beschovski, 2012).

Remark. The first record for the Pirin Mountains.

Subfamily **Rhaphiinae**

***Rhaphium auctum* (Loew, 1857)**

Material examined. West Rhodope Mts., near Boykovo Vill., meadow, 1590 m, 20.VI.2016, 2 males, Barták & Kubík leg.

Distribution in Bulgaria. West Rhodope Mountains (Kechev, 2007a), Chirpan (Kechev & Ivanova, 2015), Sarnena Sredna Gora Mountains (Kechev et al., 2014).

Remark. A new locality for the West Rhodope Mountains.

***Rhaphium brevicorne* Curtis, 1835**

Material examined. Belasitsa Mt., Petrichka River, 410 m, sweep net, 14.X.2020, 1 male, M. Kechev leg. *West Rhodope Mts.:* near Hvoyna Vill., near river, 770 m, on flowers, 19.VI.2016, 1 male, Barták & Kubík leg.; Yagodina Vill., Buynovska Reka River, 1100 m, 10.IX.2020, 1 male, M. Kechev leg.; Cheirski Lakes, shore of mountain lake, 1400 m, 11.IX.2020, 1 male, M. Kechev leg.

Distribution in Bulgaria. West Rhodope Mountains (Kechev, 2007a).

Remarks. The first record for the Belasitsa Mountain and new localities for the West Rhodope Mountains.

***Rhaphium caliginosum* (Meigen, 1824)**

Material examined. Pirin Mts., road to Popina Luka, 800 m, 8.VIII.2020, 1 male, 1 female, M. Kechev leg.

Distribution in Bulgaria. Very common everywhere from the sea level to 1000 m (Kechev et al., 2020).

Remark. The first record for the Pirin Mountains.

Subfamily **Peloropecodinae**

***Chrysotimus molliculus* (Fallén, 1823)**

Material examined. West Rhodope Mts.: near Hvoyna Vill., near river, 770 m, on flowers, 19.VI.2016, 1 fe-

male, Barták & Kubík leg.; Buynovska Reka River, Yagodina Vill., 1100 m, 10.IX.2020, 1 male, M. Kechev leg.

Distribution in Bulgaria. West Rhodope Mountains (Kechev, 2005), Chirpan (Kechev & Ivanova, 2015), Sarnena Sredna Gora Mountains (Kechev et al., 2014; Kechev, 2016).

Remark. New localities for the West Rhodope Mountains.

Subfamily **Sympycninae**

***Sympycnus cirripes* (Haliday, 1851)**

Material examined. Pirin Mts.: Vihren hut, alpine meadow, 2000 m, 27.VI.2016, 1 male, Barták & Kubík leg.; 6 km SE of Bansko, forest, 1300–1600 m, 1.VII.2016, 3 males, Barták & Kubík leg.; Begovica hut, 17.1 km NW from Sandanski, 1760 m, 10.VIII.2005, 1 male, Barták & Kubík leg. *West Rhodope Mts.,* Cheirski Lakes, shore of mountain lake, 1400 m, 11.IX.2020, 1 male, M. Kechev leg.

Distribution in Bulgaria. West Rhodopes Mountains (Kechev, 2005).

Remarks. The first records for the Pirin Mountains and a new locality for the West Rhodope Mountains.

***Sympycnus pulicarius* Fallén, 1823**

Material examined. Milevska Mt., small brook in beech forest, 1030 m, 28.VI.2018, 2 males, M. Kechev leg. *West Rhodope Mts.,* Cheirski Lakes, shore of mountain lake, 1400 m, 11.IX.2020, 2 males, M. Kechev leg.

Distribution in Bulgaria. Very common species with many localities in Bulgaria, from the sea level to 1800–2000 m (Kechev et al., 2020).

Remarks. The first record for the Milevska Mountain and a new locality for the West Rhodope Mountains.

***Campsicnemus curvipes* (Fallén, 1823)**

Material examined. Milevska Mt., small brook in beech forest, 1030 m, 2 males, 3 females, 28.VI.2018, M. Kechev leg. *Pirin Mts.,* 6 km SE of Bansko, forest, 1300–1600 m, 1.VII.2016, 1 male, Barták & Kubík leg. *West Rhodope Mts.:* Boykovo Vill., 1590 m, meadow, 20.VI.2016, 1 male, Barták & Kubík leg.; Cheirski Lakes, shore of mountain lake, 1400 m, 11.IX.2020, 3 males, 1 female, M. Kechev leg.

Distribution in Bulgaria. Very common species with many localities in Bulgaria, from the sea level to 1800–2000 m (Kechev et al., 2020).

Remarks. The first record for the Pirin Mountains and the Milevska Mountain, and new localities for the West Rhodope Mountains.

***Campsicnemus umbripennis* Loew, 1856**

Material examined. *Milevska Mt.*, small brook in beech forest, 1030 m, 28.VI.2018, 1 male, 1 female, M. Kechev leg. *Vitosha Mt.*, small alpine brook, 1860 m, 25.VII.2020, 1 male, M. Kechev leg. *Lozenska Mt.*, small brook, 1000 m, 24.VII.2020, 1 male, M. Kechev leg. *Pirin Mts.*: Bezbog hut, alpine meadow, 2200 m, 28.VI.2016, 9 males, 3 females, Barták & Kubík leg.; Vihren hut, alpine meadow, 2000 m, 4 males, 3 females, 27.VI.2016, Barták & Kubík leg.; 6 km SE of Bansko, forest, 1300–1600 m, 1.VII.2016, 2 males, 2 females, Barták & Kubík leg. *West Rhodope Mts.*, Cheirski Lakes, shore of mountain lake, 1400 m, 1 male, 11.IX.2020, M. Kechev leg.

Distribution in Bulgaria. West Rhodope Mountains (Kechev, 2005, 2006), Sarnena Sredna Gora Mountains (Kechev, 2016).

Remarks. The first records for the Pirin Mountains, the Milevska Mountain, the Lozenska Mountain and the Vitosha Mountain; a new locality for the West Rhodope Mountains.

***Syntormon denticulatum* Zetterstedt, 1843**

Material examined. *West Rhodope Mts.*, 25 km SSW of Plovdiv, meadow, 1590 m, 20.VI.2016, 3 males, Barták & Kubík leg.

Distribution in Bulgaria. The Upper Thracian Plain (Kechev, 2014; Kechev et al., 2014; Kechev & Ivanova, 2015), Rila Mountains (Hubenov, 2016, 2017).

Remark. The first record for the West Rhodope Mountains.

***Syntormon monile* (Haliday, 1851)**

Material examined. *West Rhodope Mts.*, Boykovo Vill., meadow, 1590 m, 20.VI.2016, 1 male, Barták & Kubík leg.

Distribution in Bulgaria. West Rhodope Mountains (Kechev, 2005).

Remark. A new locality for the West Rhodope Mountains.

***Syntormon pallipes* (Fabricius, 1794)**

Material examined. *Milevska Mt.*, small brook in beech forest, 1030 m, 28.VI.2018, 1 male, 1 female, M. Kechev leg. *Pirin Mts.*, 6 km SE of Bansko, forest, 1300–1600 m, 25.VI.2016, 1 male, Barták & Kubík leg.; Popina Luka, small alpine brook in coniferous forest, 1300 m, 9.VIII.2020, 1 male, M. Kechev leg. *West Rhodope Mts.*: Boykovo Vill., meadow, 1590 m, 25.VI.2016, 3 males, Barták & Kubík leg.; Cheirski Lakes, shore of mountain lake, 1400 m, 11.IX.2020, 1 male, M. Kechev leg.

Distribution in Bulgaria. Very common species with many localities in Bulgaria, from the sea level to 1400–1600 m (Kechev et al., 2020).

Remarks. The first record for the Milevska Mountain and the Pirin Mountains, and new localities for the West Rhodope Mountains.

***Teuchophorus simplex* Mik, 1880**

Material examined. *Pirin Mts.*, road to Popina Luka, small brook in deciduous forest, 800 m, 9.VIII.2020, 2 males, 3 females, M. Kechev leg.

Distribution in Bulgaria. West Rhodope Mountains (Pollet & Kechev, 2007).

Remark. The first record for the Pirin Mountains.

Subfamily Xanthochlorinae

***Xanthochlorus tenellus* (Wiedemann, 1817)**

Material examined. *Pirin Mts.*: Vihren hut, alpine meadow, 2000 m, 27.VI.2016, 1 male, Barták & Kubík leg.; Popina Luka, small alpine brook in coniferous forest, 1300 m, 8.VIII.2020, 2 males, 1 female, M. Kechev leg. *West Rhodope Mts.*: Pamporovo, meadow, 1600 m, 22–24.VI.2016, 1 male, Barták & Kubík leg.; near Boykovo Vill., meadow, 1590 m, 20.VI.2016, 2 females, Barták & Kubík leg.; Cheirski Lakes, shore of mountain lake, 1400 m, 11.IX.2020, 1 male, M. Kechev leg.

Distribution in Bulgaria. West Rhodope Mountains (Kechev, 2005, 2006), Sarnena Sredna Gora Mountains (Kechev et al., 2014).

Remarks. The first record for the Pirin Mountains and new localities for the West Rhodope Mountains.