

UDC 595.792(477)

NEW DATA ON THE GENUS *DOLICHOMITUS* (HYMENOPTERA, ICHNEUMONIDAE, PIMPLINAE) IN THE UKRAINIAN CARPATHIANS

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New Data on the Genus *Dolichomitus* (Hymenoptera, Ichneumonidae, Pimplinae) in the Ukrainian Carpathians. Varga, A. — The male of *Dolichomitus sirenkoi* Varga, 2012 is described and figured. *D. sericeus* (Hartig, 1847) and *D. quercicolus* Zwakhals, 2010 are new records for Ukraine. Cerambycidae beetles, *Stenostola* sp. and *Plagionotus arcuatus* (Linnaeus, 1758), are recorded as hosts of *D. quercicolus* for the first time. Additional material of *Dolichomitus* Smith, 1877 species, recorded from the Ukrainian Carpathians is listed. Seasonal dynamics and high-altitude zone distribution of *Dolichomitus* species are discussed.

Key words: parasitoids, Hymenoptera, Ichneumonidae, Pimplinae, *Dolichomitus*, new records, Ukraine.

Новые данные о роде *Dolichomitus* (Hymenoptera, Ichneumonidae, Pimplinae) в Украинских Карпатах. Варга А. — Описан и проиллюстрирован самец *Dolichomitus sirenkoi* Varga, 2012, а *D. sericeus* (Hartig, 1847) и *D. quercicolus* Zwakhals, 2010 впервые указаны для Украины. Жуки-усачи, *Stenostola* sp. и *Plagionotus arcuatus* (Linnaeus, 1758), впервые указаны как хозяева *D. quercicolus*. Также приведены дополнительные данные о распространении видов рода *Dolichomitus* Smith, 1877 в Украинских Карпатах, обсуждается их сезонная динамика и высотно-поясное распределение.

Ключевые слова: паразитоиды, Hymenoptera, Ichneumonidae, Pimplinae, *Dolichomitus*, новые находки, Украина.

Introduction

Dolichomitus Smith (1877) is a relatively species-rich genus of the tribe Ephialtini (Ichneumonidae, Pimplinae), represented by twenty-six species in the Western Palaearctic region and by fifteen species in the Ukrainian Carpathians (Varga, 2012; Zwakhals, 2010; Yu et al., 2012). *Dolichomitus* species are medium-sized to large ichneumonids which are reported to be ectoparasitoids of larvae of wood-boring beetles, chiefly Cerambycidae.

Recent investigations show, the European fauna is still rather poorly known and many new finds can be made like the recent description of a new species, *D. sirenkoi* and discovery of *D. excavatus* Zwakhals, 2010 in the Ukrainian Carpathians, known only from Germany.

The aim of the present paper is to provide a description of male of *D. sirenkoi* and discuss seasonal dynamics and high-altitude zone distribution of *Dolichomitus* species on the territory of the Ukrainian Carpathians.

Material and methods

This study is mainly based on specimens, collected by standard net sweeping and using yellow pan traps (PT in text) by the author in all high-altitude zones (except alpine) in various locations of the Ukrainian Carpathians in 2009–2013. The material deposited in the collection of the Schmalhausen Institute of Zoology (Kyiv) was also studied. Specimens were identified using Zwakhals' (2010) key. Terminology and abbreviations follow Zwakhals (2010). Species, recorded for Ukraine for the first time marked with asterisk.

Dolichomitus sirenkoi Varga, 2012 (fig. 1)

Material. Ukraine: Ivano-Frankivsk Region: Bogorodchany District, Mochary, 48°50'51.17" N, 24°35'26.91" E, 300–350 m, mixed forest, 5 km NE of Bogorodchany, 1.05.2012, 1 ♂ (Varga).

Description. Male. Fore wing 10 mm long. Mesosoma 4 mm and metasoma 13 mm long. Mandible with lower tooth a little longer than upper tooth. Width of base of mandible about 3.5 times malar space. Flagellum with 32 segments and as long as mesosoma + tergites 1+2. All segments of flagellum elongate. In lateral view gena about 1.1 times transverse diameter of compound eye. In dorsal view temples widening behind the eyes. Vertex with some scattered punctures behind the ocelli. Distance between compound eye and ocellus about 1.6 times diameter of an ocellus. Distance between hind ocellus and occipital carina about 2.9 times diameter of hind ocellus. Head rather polished. Face punctate, distance between punctures 1–2 times their diameter. Gena and vertex with some widely scattered punctures. Mesoscutum shiny with strong notauli in anterior third. Mesoscutum and scutellum with fine scattered punctures. Epicnemial carina rather weak, reaching upper quarter of mesopleuron and not reaching front of mesopleuron. Mesopleuron with scattered punctures, edges of punctures blurred. Propodeum rugulopunctate with median dorsal carinae about 0.6–0.7 times as long as propodeum (fig. 1, 1). Fore trochanter and trochantellus punctate, polished (fig. 1, 2). First tergite about 2.1 times as long as wide at apex, second tergite about 1.6 times as long as wide. Median raised part of first tergite almost impunctate at base, rugulose centrally and closely punctate at apical 0.2. Lateral part of first tergite rather rugulose. Second tergite with strong antero-lateral furrows, densely punctate and slightly transversely wrinkled, at the centre punctures almost touching one another (fig. 1, 5). Tergites from 3 to 6 entirely transversely aciculate. Hypopygium slightly incised. Valve (fig. 1, 3). Nervellus broken at upper third.

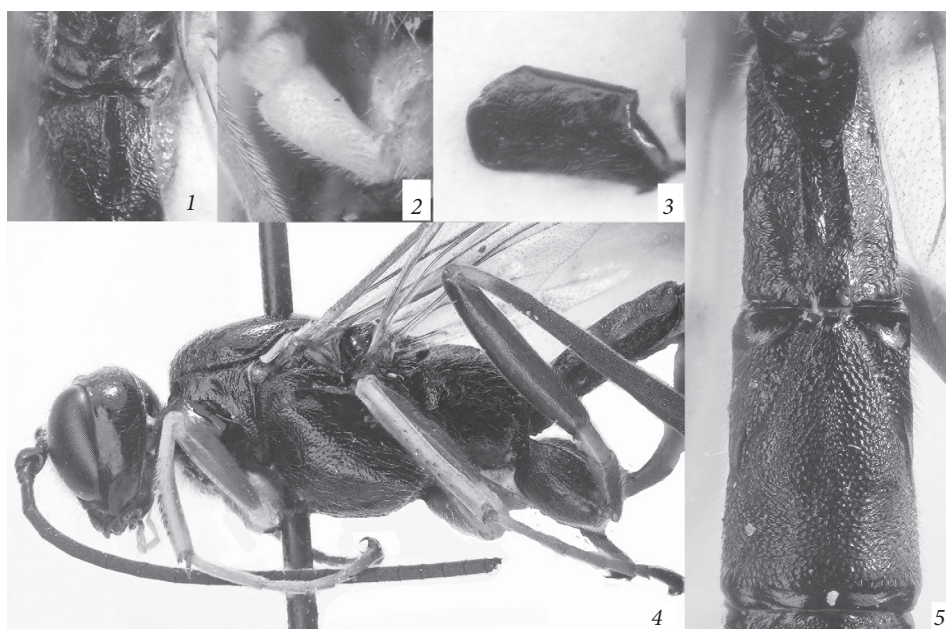


Fig. 1. *Dolichomitus sirenkoi*, ♂: 1 — propodeum (dorsal view); 2 — fore trochanter and trochantellus (ventral view); 3 — valve (lateral view); 4 — head and mesosoma (lateral view); 5 — first and second tergite of metasoma (dorsal view).

Рис. 1. *Dolichomitus sirenkoi*, ♂: 1 — проподоум (вид сверху); 2 — передний трохантер и трохантеллюс (вид снизу); 3 — вальвы (вид сбоку); 4 — голова и грудь (вид сбоку); 5 — первый и второй тергиты брюшка (вид сверху).

Coloration. Head, mesosoma and metasoma black. Palpi yellowish. Mandibles black. Tegula yellow. Pterostigma fuscous. Legs: fore and mid coxae red-yellowish with basal 0.2 black, hind coxae black; fore trochanters and trochantelli yellowish, mid trochanters and trochantelli red-yellowish, hind trochanter red and trochantelli yellow; all femora red, hind femur fuscous at the apical 0.2, fore and mid tibia and tarsus yellow, hind tibia fuscous and cream at base, tarsus fuscous. Upper hind angle of pronotum yellowish.

Diagnosis. Male of *D. sirenkoi* differs from *D. curticornis* (Perkins, 1943) in the shape of the valve, number of flagellomeres and coloration of legs. The main differences with *D. quercicolus* are in the length of flagellum, coloration of hind legs and in the shape of the valve (see table 1).

High-altitude zone distribution and seasonal dynamics of *Dolichomitus* species

During the investigations carried out in various locations of the Ukrainian Carpathians between 2009 and 2013 seventeen species of the genus *Dolichomitus* were recorded. The most abundant *Dolichomitus* species between 2009 and 2013 was *D. cephalotes* (21.04 % of the total number of specimens).

Dolichomitus species have been recorded in various high-altitude zones of the Ukrainian Carpathians (table 2). All seventeen species are collected in the foothill oak forest zone, reaching up to 150–400 m a. s. l. in Precarpathia and Transcarpathian lowland with mixed forests, where the main tree species are *Quercus robur*, *Q. rubra*, *Caprinus*, *Fraxinus*, *Picea abies*, *Abies alba*, and *Pinus sylvestris*. Only two species, *D. agnoscendus* and

Table 1. Key morphological differences between *D. agnoscendus*, *D. sirenkoi*, and *D. quercicolus*

Таблица 1. Ключевые морфологические различия между *D. agnoscendus*, *D. sirenkoi* и *D. quercicolus*

Character	<i>D. agnoscendus</i>	<i>D. sirenkoi</i>	<i>D. quercicolus</i>
Tergite 1	in apical half, both on raised median and lateral parts, punctate	smooth to slightly rugulose on lateral parts and at most punctate in apical half on raised median part	smooth to slightly rugulose on lateral parts and at most punctate in apical half on raised median part
Propodeum	with combined area basalis-superomedia present as a slight depression with delimiting ridges rather than carinae	with combined area basalis-superomedia delimited by carinae about as long as 0.6–0.7 of propodeum	with combined area basalis-superomedia delimited by carinae about as long as 0.6–0.7 of propodeum
Valve	with inclivous distal margin (see Zwakhals, 2010: fig. 42)	with the distal margin rather straight, slightly reclivous and not perpendicular to the longitudinal axis (fig. 1, 3)	with the distal margin rather straight and perpendicular to the longitudinal axis (see Zwakhals, 2010: fig. 41)
Flagellum	long, at least as long as mesosoma + tergites 1–3	short, at most as long as mesosoma + tergites 1–2	long, at least as long as mesosoma + tergites 1–3
Fore and middle coxa	ivory	red-yellowish with basal 0.2 black.	red
Hind coxa	red to black	black (fig. 1, 1)	red
Dimensions and proportions used by Zwakhals (2010)	Fwl = 4.5–8.5 Trg1/htrs1 = 1.2–1.3 Trg1/fem3 = 0.7–0.8 Lwfem3 = 4.8–5.5 Htrs3/ flg1 = 0.8–1.0 Htrs5/3 = 1.1–1.4 Flag 25–32	Fwl = 10 Trg1/htrs1 = 1.2 Trg1/fem3 = 0.9 Lwfem3 = 5.6 Htrs3/flg1 = 1.6 Htrs5/3 = 0.9 Flag 32	Fwl = 5.1–11.9 Trg1/htrs1 = 1.1–1.3 Trg1/fem3 = 0.7–0.9 Lwfem3 = 4.2–4.8 Htrs3/flg1 = 0.8–0.9 Htrs5/3 = 1.2–1.5 Flag 31–36

D. diversicostae were found in monocultural stands of *Fagus sylvatica* in the beech forest zone (400–1300 m a. s. l.) in Transcarpathia.

Eleven species were collected in the coniferous boreal forest zone, situated at 900–1600 m a. s. l. in the mountainous part of the Carpathians, where the *Piceeta abietis* community predominates. Seven species were found in the subalpine zone, at 1400–2061 m a. s. l., known as polonynys, which are high altitude open grasslands, partly taken over by bush, mainly by *Pinus mugo*, *Dushekia viridis*, *Juniperus sibirica* and only single *Picea abies* trees, in which this species attacks its hosts. Six species, *D. agnoscendus*, *D. diversicostae*, *D. mesocentrus*, *D. messor*, *D. terebrans*, *D. tuberculatus* were founded in three high-altitude zones. And three species, *D. excavatus*, *D. pterelas* and *D. sirenkoi*, were found only in foothill oak forest zone.

The flight season of *Dolichomitus* species adults is prolonged, lasting six months, from the second third of April to the first third of October (table 3). *Dolichomitus* species were most abundant from the last third of April to the middle of June. Thus *Dolichomitus* species are most common at the end of spring (in the foothill areas) and in the beginning of summer (in the mountainous part of the Carpathians).

Flight periods of *D. agnoscendus*, *D. messor*, and *D. tuberculatus* are the most prolonged, lasting from the middle of May to the beginning of October in *D. agnoscendus* and *D. tuberculatus*, and from the end of May to the middle of September in *D. messor*, moreover, these periods are disjunct. Flight period of *D. mesocentrus* is similar, but this species usually was collected from the beginning of May to the middle of June and only one specimen was collected in the first third of October. Flight periods of another six species more shorter, lasting in *D. cephalotes* and *D. terebrans* from the last third of April to the second third of July, in *D. curticornis* from the last third of April to the first third of July, in *D. diversicostae* from the second third of April to the last third of July, in *D. quercicolus* from the first third of May to the second third of July, and in *D. imperator* from the middle of May to the middle of July. *D. aciculatus* was collected from the end of April to the beginning of June. Flight period of *D. sirenkoi* is similar, but more prolonged, lasting to the middle of June. *D. dux* was collected during the first and second thirds of June and in the middle of July. *D. excavatus* was collected only from the end of April to the middle of May, *D. populneus* in the last third of May and in the last third of June. *D. pterelas* was found in the end of May and in the middle of August. Specimens of *D. sericeus* were found in the second third of May and in the second third of July (table 3).

Additional data on the distribution of *Dolichomitus* species in Ukrainian Carpathians

Specimens, collected by author in 2012–2013 and material, deposited in the collection of the Schmalhausen Institute of Zoology, NAS of Ukraine.

Dolichomitus aciculatus (Hellen, 1915)

Material. Ukraine: Ivano-Frankivsk Region: Bogorodchany District, Mochary, 48°50'51.17" N, 24°35'26.91" E, 300–350 m, mixed forest, 5 km NE of Bogorodchany, 1.05.2013, 1 ♀; *ibid.*, 5.06.2013, 1 ♀; Zhbyr, 48°47'4.92" N, 24°28'46.45" E, 400 m, mixed forest, 7–8 km SW of Bogorodchany, PT, 27.04–2.05.2013, 1 ♂; *ibid.*, 30.04.2012, 1 ♀; *ibid.*, 23.05.2012, 1 ♀; Dibrova, 48°46'10.35" N, 24°30'20.28" E, 310 m, oak forest, 5 km SW of Bogorodchany, 26–27.04.2012, 3 ♂; Gorgany, 48°36'42.77" N, 24°09'10.69" E, 1200 m, coniferous forest, 5 km SW of Stara Guta, 8–9.06.2012, 2 ♂; Gorgany, 48°33'32.30" N, 24°07'41.34" E, 1250–1300 m, coniferous forest, 11–12 km SW of Stara Guta, 20–22.05.2012, 1 ♂; Nadvirna District, Gorgany, Elmy, 48°24'39.50" N, 24°24'50.28" E, 800–900 m, coniferous forest, 15 km SW of Yaremche, 8.07.2013, 1 ♂ (Varga).

Dolichomitus agnoscendus (Roman, 1939)

Material. Ukraine: Ivano-Frankivsk Region: Bogorodchany District, Mochary, 48°50'51.17" N, 24°35'26.91" E, 300–350 m, mixed forest, 5 km NE of Bogorodchany, 19.05.2012, 1 ♀; Dibrova, 48°46'10.35" N, 24°30'20.28" E, 310 m, oak forest, 5 km SW of Bogorodchany, 2.06.2012, 1 ♀; *ibid.*, 18.06.2013,

1 ♀; *ibid.*, 8.10.2013, 1 ♀; Transcarpathian Region: Rakhiv District, slopes of m. Sheshul, 48°09'23.13" N, 24°21'27.15" E, 1400–1500 m, subalpine zone, 6–7 km E of Kvasy, 16–18.06.2012, 5 ♂; *ibid.*, 15.06.2013, 2 ♂ (Varga); Rakhiv District, Kostylyvka, 450–500 m, beech forest, 22.07.1995, 1 ♀; Rakhiv, 350–600 m, beech forest, 23.07.1995, 1 ♀ (Kotenko).

Dolichomitus cephalotes (Holmgren, 1860)

Material. Ukraine: Ivano-Frankivsk Region: Bogorodchany District, Mochary, 48°50'51.17" N, 24°35'26.91" E, 300–350 m, mixed forest, 5 km NE of Bogorodchany, 12.05.2012, 1 ♀; *ibid.*, 31.05.2012, 1 ♀; *ibid.*, 6.05.2013, 1 ♀; Zhbyr, 48°47'4.92" N, 24°28'46.45" E, 400 m, mixed forest, 7–8 km SW of Bogorodchany, 26.05.2012, 1 ♀; *ibid.*, 12.05.2013, 6 ♂; *ibid.*, PT, 13–16.05.2013, 7 ♂; *ibid.*, 19.05.2013, 1 ♂; Dibrova, 48°46'10.35" N, 24°30'20.28" E, 310 m, oak forest, 5 km SW of Bogorodchany, 30.04.2012, 18 ♂; *ibid.*, 10–11.05.2012, 1 ♀; *ibid.*, 18.06.2013, 1 ♀; Gorgany, 48°33'32.30" N, 24°07'41.34" E, 1250–1300 m, coniferous forest, 11–12 km SW of Stara Guta, 20–22.05.2012, 2 ♀; Nadvirna District, Gorgany, Elmy, 48°24'39.50" N, 24°24'50.28" E, 800–900 m, coniferous forest, 15 km SW of Yaremche, 20–23.06.2012, 5 ♀; *ibid.*, 8.06.2013, 2 ♀ (Varga).

Dolichomitus curticornis (Perkins, 1943)

Material. Ukraine: Ivano-Frankivsk Region: Bogorodchany District, Mochary, 48°50'51.17" N, 24°35'26.91" E, 300–350 m, mixed forest, 5 km NE of Bogorodchany, 28.04.2012, 1 ♂; *ibid.*, 29.06.2012, 5 ♂; *ibid.*, 1.05.2012, 1 ♀; *ibid.*, 5.05.2012, 1 ♂, 1 ♀; *ibid.*, 12.05.2012, 3 ♀; *ibid.*, 19.05.2012, 1 ♀; *ibid.*, 31.05.2012, 3 ♀; *ibid.*, 10.06.2012, 3 ♀; Zhbyr, 48°47'4.92" N, 24°28'46.45" E, 400 m, mixed forest, 7–8 km SW of Bogorodchany, 23.05.2012, 1 ♀; *ibid.*, 26.05.2012, 1 ♀; *ibid.*, 12.05.2013, 1 ♂; Dibrova, 48°46'10.35" N, 24°30'20.28" E, 310 m, oak forest, 5 km SW of Bogorodchany, 18.06.2013, 1 ♀; Gorgany, 48°33'32.30" N, 24°07'41.34" E, 1250–1300 m, coniferous forest, 11–12 km SW of Stara Guta, 20–22.05.2012, 1 ♂, 1 ♀; Nadvirna District, Gorgany, Elmy, 48°24'39.50" N, 24°24'50.28" E, 800–900 m, coniferous forest, 15 km SW of Yaremche, 20–23.06.2012, 4 ♀; *ibid.*, 8.06.2013, 1 ♀ (Varga).

Dolichomitus diversicostae (Perkins, 1943)

Material. Ukraine: Ivano-Frankivsk Region: Bogorodchany District, Mochary, 48°50'51.17" N, 24°35'26.91" E, 300–350 m, mixed forest, 5 km NE of Bogorodchany, 1.05.2012, 1 ♀; *ibid.*, 6.05.2012, 1 ♀; *ibid.*, 29.05.2012, 1 ♀; *ibid.*, 1.05.2013, 1 ♂; *ibid.*, 27.05.2013, 1 ♀; Zhbyr, 48°47'4.92" N, 24°28'46.45" E, 400 m, mixed forest, 7–8 km SW of Bogorodchany, collected under bark of *Pinus silvestris* 16.04, reared 4.05.2013, 2 ♀; Gorgany, 48°36'42.77" N, 24°09'10.69" E, 1200 m, coniferous forest, 5 km SW of Stara Guta, 30.05.2013, 1 ♀; *ibid.*, 20.06.2013, 1 ♀ (Varga); Transcarpathian Region: Rakhiv District, Kostylyvka, 450–500 m, beech forest, 22.07.1995, 1 ♀ (Kotenko).

Dolichomitus dux (Tschek, 1869)

Material. Ukraine: Ivano-Frankivsk Region: Bogorodchany District, Mochary, 48°50'51.17" N, 24°35'26.91" E, 300–350 m, mixed forest, 5 km NE of Bogorodchany, 10.07.2012, 1 ♀ (Varga); Chornogora, 1500–1600 m, subalpine zone, 13.07.1979, 1 ♀ (Ermolenko).

Dolichomitus excavatus Zwakhals, 2010

Material. Ukraine: Ivano-Frankivsk Region: Bogorodchany District, Mochary, 48°50'51.17" N, 24°35'26.91" E, 300–350 m, mixed forest, 5 km NE of Bogorodchany, 21.05.2013, 1 ♂; Dibrova, 48°46'10.35" N, 24°30'20.28" E, 310 m, oak forest, 5 km SW of Bogorodchany, 26.04.2012, 1 ♂ (Varga).

Dolichomitus imperator (Kriechbaumer, 1854)

Material. Ukraine: Ivano-Frankivsk Region: Bogorodchany District, Mochary, 48°50'51.17" N, 24°35'26.91" E, 300–350 m, mixed forest, 5 km NE of Bogorodchany, 23.05.2012, 1 ♀; *ibid.*, 31.05.2012, 1 ♀; *ibid.*, 10.07.2012, 1 ♀; *ibid.*, 19.07.2012, 1 ♀; Dibrova, 48°46'10.35" N, 24°30'20.28" E, 310 m, oak forest, 5 km SW of Bogorodchany, 5.06.2013, 1 ♀; Gorgany, 48°33'32.30" N, 24°07'41.34" E, 1250–1300 m, coniferous forest, 11–12 km SW of Stara Guta, 20–22.05.2012, 1 ♂; Nadvirna District, Gorgany, Elmy, 48°24'39.50" N, 24°24'50.28" E, 800–900 m, coniferous forest, 15 km SW of Yaremche, 8.06.2013, 2 ♀ (Varga).

Dolichomitus mesocentrus (Gravenhorst, 1829)

Material. Ukraine: Ivano-Frankivsk Region: Bogorodchany District, Mochary, 48°50'51.17" N, 24°35'26.91" E, 300–350 m, mixed forest, 5 km NE of Bogorodchany, 12.05.2012, 1 ♂; *ibid.*, 19.05.2012, 4 ♂, 1 ♀; *ibid.*, 28.05.2012, 1 ♀; *ibid.*, 10.06.2012, 1 ♀; *ibid.*, 21.05.2013, 1 ♀; Zhbyr, 48°47'4.92" N, 24°28'46.45" E, 400 m, mixed forest, 7–8 km SW of Bogorodchany, 23.05.2012, 1 ♀; Dibrova, 48°46'10.35" N, 24°30'20.28" E, 310 m, oak forest, 5 km SW of Bogorodchany, 10–11.05.2012, 1 ♀; *ibid.*, 5.06.2013, 1 ♀; *ibid.*, 8.10.2013, 1 ♀; Gorgany, 48°36'42.77" N, 24°09'10.69" E, 1200 m, coniferous forest, 5 km SW of Stara Guta, 20.06.2013, 2 ♀; Transcarpathian Region: Rakhiv District, slopes of m. Sheshul, 48°09'23.13" N, 24°21'27.15" E, 1400–1500 m, subalpine zone, 6–7 km E of Kvasy, 15.06.2013, 1 ♀ (Varga).

Dolichomitus messor (Gravenhorst, 1829)

Material. Ukraine: Transcarpathian Region: Rakhiv District, slopes of m. Sheshul, 48°09'23.13" N, 24°21'27.15" E, 1400–1500 m, subalpine zone, 6–7 km E of Kvasy, 16–18.06.2012, 2 ♂, 3 ♀; *ibid.*, 15.06.2013, 1 ♂ (Varga); Tyachiv, 24.07.1995, 1 ♀ (Kotenko).

Dolichomitus populneus (Ratzeburg 1848)

Material. Ukraine: Ivano-Frankivsk Region: Chornogora, 26.6.75, 1 ♀ (Ermolenko).

Dolichomitus pterelas (Say, 1829)

Material. Ukraine: Ivano-Frankivsk Region: Bogorodchany District, Mochary, 48°50'51.17" N, 24°35'26.91" E, 300–350 m, mixed forest, 5 km NE of Bogorodchany, 19.08.2013, 1 ♀ (Varga).

Dolichomitus quercicolus Zwakhals, 2010 *

Material. Ukraine: Ivano-Frankivsk Region: Bogorodchany District, Mochary, 48°50'51.17" N, 24°35'26.91" E, 300–350 m, mixed forest, 5 km NE of Bogorodchany, 29.05.2012, 2 ♀; *ibid.*, 31.05.2012, 1 ♀; *ibid.*, 10.06.2012, 5 ♀; *ibid.*, 19.07.2012, 1 ♂; Dibrova, 48°46'10.35" N, 24°30'20.28" E, 310 m, oak forest, 5 km SW of Bogorodchany, 10–11.05.2012, 1 ♀; *ibid.*, 26.05.2012, 1 ♀; Gorgany, 48°36'42.77" N, 24°09'10.69" E, 1200 m, coniferous forest, 5 km SW of Stara Guta, 20.06.2013, 1 ♀ (Varga).

Additional material. Ukraine: Kharkiv Region: Zmyiv District, Haidary, ex. *Stenostola* sp., 18.05.2006, 2 ♂ (Terekhova); Russia: Maikop, ex. larva of *Plagionotus arcuatus* (Linnaeus, 1758) in *Quercus* sp., 15.12.1981, 1 ♀ (Miroshnikov), identified by D. R. Kasparyan as *D. dux*.

Remark. Cerambycidae beetles, *Stenostola* sp. and *P. arcuatus*, are recorded as hosts of this *Dolichomitus* species for the first time.

Dolichomitus sericeus (Hartig, 1847) *

Material. Ukraine: Ivano-Frankivsk Region: Bogorodchany District, Mochary, 48°50'51.17" N, 24°35'26.91" E, 300–350 m, mixed forest, 5 km NE of Bogorodchany, 19.05.2012, 1 ♂; Gorgany, slopes of m. Cyvulya 48°33'15.00" N, 24°06'53.16" E, 1500–1600 m, subalpine zone, 13–14 km SW of Stara Guta, 14.07.2012, 1 ♂ (Varga).

Dolichomitus sirenkoï Varga, 2012

Material. Ukraine: Ivano-Frankivsk Region: Bogorodchany District, Mochary, 48°50'51.17" N, 24°35'26.91" E, 300–350 m, mixed forest, 5 km NE of Bogorodchany, 18.05.2012, 1 ♀; *ibid.*, 19.05.2012, 1 ♀; Zhbyr, 48°47'4.92" N, 24°28'46.45" E, 400 m, mixed forest, 7–8 km SW of Bogorodchany, 23.05.2012, 1 ♀; Dibrova, 48°46'10.35" N, 24°30'20.28" E, 310 m, oak forest, 5 km SW of Bogorodchany, 30.04.2012, 1 ♀; *ibid.*, 10–11.05.2012, 1 ♀; *ibid.*, 26.05.2012, 1 ♀ (Varga).

Remark. The number of flagellomeres in females varies from 28 to 30.

* Species, recorded for Ukraine for the first time.

Dolichomitus terebrans (Ratzeburg, 1844)

Material. Ukraine: Ivano-Frankivsk Region: Bogorodchany District, Dibrova, 48°46'10.35" N, 24°30'20.28" E, 310 m, oak forest, 5 km SW of Bogorodchany, 26–27.04.2012, 1 ♂; *ibid.*, 27.04.2012, 1 ♀; *ibid.*, 10–11.05.2012, 4 ♀; *ibid.*, 2.06.2012, 2 ♀; *ibid.*, 14.06.2012, 1 ♀; *ibid.*, 6.06.2013, 1 ♀; Gorgany, 48°33'32.30" N, 24°07'41.34" E, 1250–1300 m, coniferous forest, 11–12 km SW of Stara Guta, 20–22.05.2012, 1 ♂, 1 ♀; Gorgany, slopes of m. Cyvulya 48°33'15.00" N, 24°06'53.16" E, 1500–1600 m, subalpine zone, 13–14 km SW of Stara Guta, 14.07.2012, 1 ♀; Transcarpathian Region: Rakhiv District, slopes of m. Sheshul, 48°09'23.13" N, 24°21'27.15" E, 1400–1500 m, subalpine zone, 6–7 km E of Kvasy, 16–18.06.2012, 2 ♂ (Varga).

Dolichomitus tuberculatus (Geoffroy, 1785)

Material. Ukraine: Ivano-Frankivsk Region: Bogorodchany District, Zhbyr, 48°47'4.92" N, 24°28'46.45" E, 400 m, mixed forest, 7–8 km SW of Bogorodchany, 23.05.2012, 1 ♀; *ibid.*, 16.05.2013, 1 ♀; Gorgany, 48°36'42.77" N, 24°09'10.69" E, 1200 m, coniferous forest, 5 km SW of Stara Guta, 8–9.06.2012, 1 ♀; Transcarpathian Region: Rakhiv District, slopes of m. Sheshul, 48°09'23.13" N, 24°21'27.15" E, 1400–1500 m, subalpine zone, 6–7 km E of Kvasy, 16–18.06.2012, 2 ♂ (Varga).

The author is deeply grateful to K. Zwakhals and A. Gumovsky, and one anonymous reviewer for the discussion of an earlier version of the manuscript, helpful suggestions and correction of the English text.

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Received 1 January 2014

Accepted 8 April 2014