

**The genus *Dolichomit* Smith, 1877  
(Hymenoptera: Ichneumonidae: Pimplinae)  
in the Ukrainian Carpathians, with description of a new species**

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Varga, O. The genus *Dolichomit* Smith, 1877 (Hymenoptera: Ichneumonidae: Pimplinae) in the Ukrainian Carpathians, with description of a new species.

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Key words: *Dolichomit*; Cerambycidae; parasitoid wasps; new species; Ukraine.

Fifteen species of *Dolichomit* are recorded from the Ukrainian Carpathians. All the recorded species are new for the studied region and four species, *D. aciculatus* (Hellén), *D. excavatus* Zwakhals, *D. messor* (Gravenhorst) and *D. terebrans* (Ratzeburg), are new for Ukraine. One new species, *Dolichomit sirenkoi* spec. nov., is described and illustrated. A key to the *imperator*-species group of *Dolichomit* is given.

### Introduction

The Ukrainian Carpathians are part of the Eastern Carpathians mountain chain and rise in the west of Ukraine within the Lviv, Ivano-Frankivsk, Transcarpathian and Chernivtsi regions. The Carpathians of Ukraine extend from north-west to south-east as a strip 270 km in length and 100-110 km in width. Because of its length from northwest to southeast, they are divided into two mega slopes – the southern and northern. The southern mega slope is influenced by the Pannonian climatic region which forms in the Hungarian valley and has a much warmer and drier climate compared to other regions of Central Europe. The northern mega slope is climatically affected by the Baltic Sea. Because of these environmental peculiarities the vegetation zones differ substantially between slopes.

The Ukrainian Carpathians have an average height of 1000 m and the highest point is 2061 m a. s. l., with relatively soft rocks. Gentle, broad, and little-dissected ridges and parallel valleys contrast with the deeply incised (up to 1000 m) transverse valleys with steep slopes that are the result of uplift. Only the highest parts of the Carpathians – mainly the Marmarosy and Chornohora – display a high-mountain landscape owing to past glaciation. Rock fields appear only here and, covered with clays and continuous vegetation.

The vegetation of the Ukrainian Carpathians belongs to the Central European flora. It has been formed mainly under high altitude circumstances, like most mountains systems. As a result, the following high-altitude zones can be recognised:

*Foothill oak forest zone* (Fig. 1) – Reaches up to 300-400 m a.s.l. It has been greatly affected by human activities. Large areas are exploited for agriculture such as crops, orchards and vineyards, replacing the natural vegetation. The main tree species in the forests are *Quercus robur*, *Fagus sylvatica*, *Caprinus* and *Fraxinus*. The undergrowth species are *Corylus*, *Acer*, *Crataegus monogyna* and *Evonymus europaeus*. Typical species of the grassland flora are *Carex*, *Galium*, *Filipendula ulmaria*, *Polygonatum multiflorum*, etc.



Fig. 1. Foothill oak forest zone.



Fig. 2. Beech forest zone.



Fig. 3. Coniferous boreal forest zone.

*Beech forest zone* (Fig. 2) — Reaches an altitude of 400-1300 m a.s.l. The main tree of this zone is *Fagus sylvatica*, which often forms monocultural stands on the southern mega slope. Also common are *Quercus robur*, *Q. petraea*, *Acer pseudoplatanus* and *Ulmus glabra*. The following common types of forests are recognized: *Fageta sylvaticae*, *Abieto-Fageta*, *Fageto-Abieto-Piceeta*. Large areas of primeval beech forests are preserved in the Ukrainian Carpathians. The largest is situated in Ugolka-Shyrokiylug, extending over nearly 8500 hectares between 400-1400 m a.s.l.



Fig. 4. Subalpine zone with *Dushekia viridis*.



Fig. 5. Area with *Quercus rubra*, *Picea abies* and *Abies alba* in precarpathian forest where the specimens of *Dolichomitus sirenkoi* spec. nov. were collected.

*Coniferous boreal forest zone* (Fig. 3) — Found at 900-1600 m a.s.l. *Picea abies* and *Abies alba* are typical for this zone. The *Piceeta-abietis* community predominates. *Rubus idaeus*, *Sambucus nigra*, *Rosa alpina* and *Ribes carpatica* comprise the undergrowth bushes. Common lower plant genera and species are *Gallium*, *Oxalis*, *Doronicum*, *Dryopteris filix-mas*, *Vaccinium*, and various mosses and lichens.

*Subalpine and alpine zone* — Reaches a height of 1400-2061 m a.s.l. This zone is known as polonynys, which are high altitude open grasslands. Grasslands cover all the higher ridges except the Gorgany. In the beech forest belt they completely cover the ridges above 1100-1200 m, while in the coniferous forest belt their lower limit is 100-150 m higher and they are partly taken over by brush, mainly by *Pinus mugo*, *Dushekia* (= *Alnus*) *viridis* (Fig. 4) and *Juniperus sibirica*. Vegetation is represented by species that are adapted to extreme weather, poor soils and low temperature. The alpine areas are covered by poor grasslands, mosses and lichens.

*Dolichomitus* Smith (1877) is a relatively species-rich genus of the tribe Ephialtini (Ichneumonidae: Pimplinae), represented by twenty-five species in the Western Palaearctic region (Zwakhals, 2010). *Dolichomitus* species are mainly large ichneumonids which are reported to be ectoparasitoids of larvae of wood-boring beetles, chiefly Cerambycidae.

*Dolichomitus curticornis* (Perkins) and *D. kriechbaumeri* (Schulz) were the first *Dolichomitus* species recorded from the current territory of the Ukraine (Meyer, 1934). Kasparyan (1981) recorded eleven species for the current Ukrainian territory. However, taking into account the number of species in the Western Palaearctic, one can assume the presence of more species in both Ukraine and the Ukrainian Carpathians. This paper presents the first review of *Dolichomitus* in the Ukrainian Carpathians and also a description of a new species, belonging to the *D. imperator*-species group.

### Material and methods

Specimens were collected by standard net sweeping in all high-altitude zones (except alpine) in various locations of the Ukrainian Carpathians and adjacent territories (Precarpathia) between 2009 and 2011. The Precarpathia is located between the valley of the upper Dniester and the mountains. Meadow and forests predominate there. The main tree species in the forests are *Quercus robur*, *Fagus sylvatica*, *Carpinus betulus* and *Abies alba*. The undergrowth species are *Corylus*, *Acer*, etc. Specimens of *Dolichomitus sirenkoi* sp. nov. were collected in typical precarpathian forest but it is a bit swamped locality includes areas with *Quercus rubra*, *Picea abies* and *Abies alba* (Fig. 5).

Specimens were identified using the very useful key by Zwakhals (2010). This well-illustrated work allows for most *Dolichomitus* specimens from the Western Palaearctic region to be confidently identified and mostly does away with the need to examine types. The photos of most specimens were sent to C.J. Zwakhals and he confirmed the identifications.

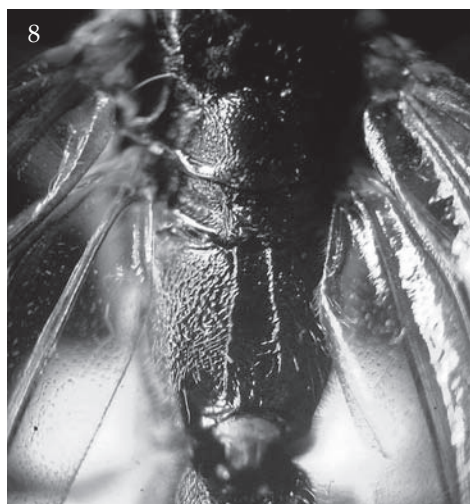
Terminology and abbreviations follow Zwakhals (2010). In general synonyms can be found in Yu & Horstmann (1997) but more recent synonyms are given here. The material is deposited in the collections of the Vasyl Stefanyk Precarpathian National University in Ivano-Frankivsk (VSPNY), the Schmalhausen Institute of Zoology, Kiev and the Naturalis Biodiversity Center in Leiden (RMNH).

#### *Dolichomitus sirenkoi* spec. nov. (figs 6-9)

Material.— Holotype, ♀ (Schmalhausen Institute of Zoology, Kiev Ukraine, Ivano-Frankivsk reg., Bogorodchany distr., Mochary, (390-400m), 48°50'51.17"N, 24°35'26.91"E, 10.v.2011, O. Varga. Paratype, ♀ (RMNH), same locality as holotype, 18.vi.2011, O. Varga.

Diagnosis.— *Dolichomitus sirenkoi* spec. nov. belongs to the *D. imperator*-species group (species with the dorsal lobe of the ovipositor with only one convexly bent groove), together with *D. curticornis* (Perkins), *D. imperator* (Kriechbaumer) and *D. pterelas* (Say). It is closely related to *D. curticornis*. The main differences are in the number of flagellomers, ranging from 21-25 in *D. curticornis*, in the structure of the propodeum, which is without well-defined median longitudinal carinae in *D. curticornis*, and in the colour of the legs, which are usually almost entirely red in *D. curticornis*.

Female.— Fore wing 17 mm long, pterostigma fuscous. Mesosoma 6 mm, metasoma 16.8 mm, and ovipositor 30 mm long. Mandible with lower tooth a little longer than



Figs 6-9, *Dolichomitus sirenkoi* spec. nov., ♀, holotype. 6, dorsal lobe of ovipositor, lateral aspect; 7, second and third metasomal tergites, dorsal aspect; 8, propodeum, dorsal aspect; 9, head, dorsal aspect.

upper tooth. Width of base of mandible about 2.5 times malar space. Flagellum with 30 segments and as long as mesosoma + tergites 1-2. Most segments of flagellum elongate, subapical square to transverse. 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 1.5 times diameter of an ocellus. Distance between hind ocellus and occipital carina about 3.4 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 with median dorsal carinae about 0.7-0.8 times as long as propodeum. First tergite about 1.6 times as long as wide at apex, second tergite about 1.3 times as long as wide. Median raised part of first tergite polished, almost impunctate at base and weakly rugulo-punctate at apex. Lateral part of first tergite rather rugulose. Second tergite with strong antero-lateral furrows, densely punctate, at the centre punctures almost touching one another. Tergites 5 in apical 0.2 and 6 with aciculation. Nervellus broken at upper third. Dorsal lobe with only one convexly bent groove at the apex and a ridge at base. Dorsal lobe with a strong, reclivous front edge and a strong parallel ridge giving the impression of a double front edge.

Colour.— Head, mesosoma and metasoma black. Clypeus fuscous. Palpi yellow-brownish. Mandibles black. Legs: fore and mid coxae black at basal 0.5-0.6 and red-yellowish at the apex, hind coxae black; fore and mid trochanters and trochantelli yellow-reddish, hind trochanters red and trochantelli yellow; all femora red, hind femur fuscous at the apical 0.15, fore and mid tibia and tarsus yellow, hind tibia fuscous and cream at base, tarsus fuscous. Upper hind angle of pronotum yellowish.

Male.— Unknown.

Biology.— Unknown; both specimens were caught on logs of *Picea abies* L. and it can be assumed, by analogy with other *Dolichomitus* species, that it is an ectoparasitoid of Cerambycidae larvae in dead wood of that tree.

Etymology.— This species is named after the author's first supervisor, Artur Si-renko.

#### *Dolichomitus aciculatus* (Hellén, 1915)

Material.— 1 ♀ (VSPNY), Ukraine, Ivano-Frankivsk Reg., Bogorodchany Distr., Mochary, (390-400 m), 48°50'51.17"N, 24°35'26.91"E, on logs of *Picea abies*, 9.v.2011, O. Varga, ♀ (VSPNY), *ibid.*, 10.v.2011, O. Varga.

Distribution.— Holarctic (Yu & Horstmann, 1997), new for the Ukraine.

#### *Dolichomitus agnoscendus* (Roman, 1939)

*Dolichomitus romanicus* Constantineanu & Pisica, 1970: 83 (synonymised by Zwakhals (2010)).

Material.— 1 ♀ (VSPNY), Ukraine, Ivano-Frankivsk Reg., Bogorodchany Distr., Mochary, (390-400 m), 48°50'51.17"N, 24°35'26.91"E, on *Corylus avellana*, 27.v.2010, O. Varga; 1 ♀ (VSPNY), *ibid.*, 15.viii.2011, O. Varga; 1 ♀ (VSPNY), Transcarpathian reg., Rachiv distr., Marmarosy, (1300-1400 m), 47° 54' 56.55"N, 24° 17' 43.41"E, 12 km to Dilove, on *Duschekia viridis*, 8.viii.2011, O. Varga.

Hosts.— *Grammoptera ruficornis* (Fabricius), *Pogonocherus hispidus* (Linnaeus), *Gracilia minuta* (Fabricius) (Cerambycidae), *Ptinomorphus imperialis* (Linnaeus) (Anobiidae) (Shaw, 2006).

Distribution.— Palaearctic (Yu & Horstmann, 1997), Ukraine (Kasparyan, 1981).

*Dolichomitus cephalotes* (Holmgren, 1860)

Material.— 1 ♀ (VSPNY), Ukraine, Ivano-Frankivsk reg., Bogorodchany distr., Dibrova, (400 m), 48°46'10.35"N, 24°30'20.28"E, on logs of *Abies alba*, 19.v.2011, O. Varga; 1 ♀ (VSPNY), Nadvirna distr., Gorgany, Elmy, (800-900 m), 48°24'39.50"N, 24°24'50.28"E, on logs of *Picea abies*, 14.vii.2011, O. Varga.

Hosts.— *Monochamus urussovi* (Fischer von Waldheim) (Cerambycidae) (Meyer, 1934).

Distribution.— Holarctic (Yu & Horstmann, 1997), Ukraine (Tolkanitz, 2009).

*Dolichomitus curticornis* (Perkins, 1943)

Material.— 1 ♂ (VSPNY), Ukraine, Ivano-Frankivsk reg., Bogorodchany distr., Mochary, (390-400 m), 48°50'51.17"N, 24°35'26.91"E, on logs of *Picea abies*, 9.v.2011, O. Varga; 1 ♀ (RMNH), *ibid.*, 10.v.2011, O. Varga; 1 ♀ (VSPNY), *ibid.*, 12.v.2011, O. Varga; 2 ♀ (VSPNY), *ibid.*, 2.vi.2011, O. Varga; 4 ♀ (VSPNY, RMNH), *ibid.*, 4.vi.2011, O. Varga; 1 ♀ (VSPNY), *ibid.*, 4.vii.2011, O. Varga; 1 ♀ (VSPNY), *ibid.*, 30.v.2011, O. Varga.

Distribution.— Holarctic (Yu & Horstmann, 1997), Ukraine (Meyer, 1934).

*Dolichomitus diversicostae* (Perkins, 1943)

Material.— ♀ (VSPNY), Ukraine, Ivano-Frankivsk reg., Bogorodchany distr., Mochary, (390-400 m), 48°50'51.17"N, 24°35'26.91"E, on logs of *Picea abies*, 6.vi.2011, O. Varga; 1 ♀ (VSPNY), Bogorodchany Distr., Zhbyr, (410-420 m), 48°47'4.92"N, 24°28'46.45"E, on logs of *Pinus sylvestris*, 21.vi.2011, O. Varga.

Hosts.— *Acanthocinus aedilis* (Linnaeus) (Cerambycidae) (Fitton et al., 1988).

Distribution.— Palaearctic (Yu & Horstmann, 1997), Ukraine (Kasparyan, 1981).

*Dolichomitus dux* (Tschek, 1869)

Material.— 1 ♀ (VSPNY), Ukraine, Ivano-Frankivsk reg., Bogorodchany distr., Dibrova, (400 m), 48°46'10.35"N, 24°30'20.28"E, on logs of *Abies alba*, 17.vii.2011, O. Varga.

Distribution.— Palaearctic (Yu & Horstmann, 1997), Ukraine (Kasparyan, 1981 (as *crassipes*)).

*Dolichomitus excavatus* Zwakhals, 2010

Material.— ♂ (VSPNY), Ukraine, Ivano-Frankivsk Reg., Bogorodchany Distr., Mochary, (390-400 m), 48°50'51.17"N, 24°35'26.91"E, on *Prunus padus*, 29.iv.2010, O. Varga.

Distribution.— Germany (Zwakhals, 2010), new for Ukraine.

*Dolichomitus imperator* (Kriechbaumer, 1854)

Material.— 1 ♂ (VSPNY), Ukraine, Ivano-Frankivsk reg., Bogorodchany distr., Dibrova, (400 m), 48°46'10.35"N, 24°30'20.28"E, on logs of *Abies alba*, 14.v.2011, O. Varga.

Hosts. — *Arhopalus rusticus* (Linnaeus) (Cerambycidae) (Fitton et al., 1988).

Distribution. — Holarctic (Yu & Horstmann, 1997), Ukraine (Kasparyan, 1981).

*Dolichomit* *mesocentrus* (Gravenhorst, 1829)

Material. — 1 ♂ (VSPNY), Ukraine, Ivano-Frankivsk reg., Bogorodchany distr., Mochary, (390-400 m), 48°50'51.17"N, 24°35'26.91"E, on *Corylus avellana*, 9.v.2011, O. Varga; 1 ♀ (VSPNY), *ibid.*, 31.v.2011, O. Varga; 1 ♀ (VSPNY), Bogorodchany distr., Dibrova, (400 m), 48°46'10.35"N, 24°30'20.28"E, on *Corylus avellana*, 14.v.2011, O. Varga.

Distribution. — Holarctic (Yu & Horstmann, 1997), Ukraine (Kasparyan, 1981).

*Dolichomit* *messor* (Gravenhorst, 1829)

Material. — 1 ♀ (RMNH), Ukraine, Ivano-Frankivsk reg., Bogorodchany distr., Mochary, (390-400 m), 48°50'51.17"N, 24°35'26.91"E, on *Corylus avellana*, 22.vi.2011, O. Varga; 1 ♀ (VSPNY), *ibid.*, 3.ix.2011, O. Varga; 1 ♀ (VSPNY), Bogorodchany distr., Zhbyr, (410-420 m), 48°47'4.92"N, 24°28'46.45"E, on *Corylus avellana*, 13.ix.2011, O. Varga; 1 ♀ (VSPNY), Nadvirna Distr., Gorgany, (1200-1300 m), 48°33'7.45"N, 24°11'55.33"E, 10 km to Guta, on shrubs, 18.viii.2011, O. Varga.

Hosts. — *Saperda populnea* (Linnaeus), *Astynomus carinulatus* Gebler (Cerambycidae), *Synanthedon vespiformis* (Linnaeus) (Sesiidae) (Fitton et al., 1988).

Distribution. — Palaearctic (Yu & Horstmann, 1997), new for Ukraine.

*Dolichomit* *populneus* (Ratzeburg, 1848)

Material. — 1 ♀ (VSPNY), Ukraine, Ivano-Frankivsk reg., Bogorodchany distr., Mochary, (390-400 m), 48°50'51.17"N, 24°35'26.91"E, 21.v.2011, O. Varga.

Hosts. — *Saperda populnea* (Linnaeus), (Cerambycidae), *Synanthedon flaviventris* (Staudinger) (Sesiidae), (Fitton et al., 1988).

Distribution. — Holarctic (Yu & Horstmann, 1997), Ukraine (Kasparyan, 1981).

*Dolichomit* *ptelas* (Say, 1829)

*Paucdolichomit* *baiamarensis* Constantineanu & Pisica, 1970: 100 (synonymised by Zwakhals (2010)).

*Paucdolichomit* *birnovensis* Constantineanu & Pisica, 1970: 97 (synonymised by Zwakhals (2010)).

Material. — 1 ♀ (VSPNY), Ukraine, Ivano-Frankivsk reg., Bogorodchany distr., Mochary, (390-400 m), 48°50'51.17"N, 24°35'26.91"E, on *Corylus avellana*, 22.v.2010, O. Varga.

Hosts. — *Stenostola ferrea* (Schrank) (Cerambycidae) (Fitton et al., 1988).

Distribution. — Holarctic (Yu & Horstmann, 1997), Ukraine (Kasparyan, 1981).

*Dolichomit* *terebrans* (Ratzeburg, 1844)

*Dolichomit* *mucronatus* Constantineanu & Pisica, 1970: 88 (synonymised by Zwakhals (2010)).



Material.— 1 ♀ (VSPNY), Ukraine, Ivano-Frankivsk reg., Bogorodchany distr., Dibrova, (400 m), 48°46'10.35"N, 24°30'20.28"E, on logs of *Abies alba*, 19.v.2011, O. Varga.

Hosts.— *Pissodes castaneus* (DeGeer) *P. pini* (Linnaeus) (Curculionidae), *Dendroctonus micans* (Kugelann) (Scolytidae) (Fitton et al., 1988).

Distribution.— Holarctic (Yu & Horstmann, 1997), new for Ukraine.

*Dolichomitus tuberculatus* (Geoffroy, 1785)

Material.— 1 ♀ (VSPNY), Ukraine, Ivano-Frankivsk reg., Bogorodchany distr., Mochary, (390-400 m), 48°50'51.17"N, 24°35'26.91"E, on *Corylus avellana*, 31.viii.2009, O. Varga; 1 ♂ (VSPNY), Bogorodchany distr., Dibrova, (400 m), 48°46'10.35"N, 24°30'20.28"E, on *Corylus avellana*, 14.v.2011, O. Varga; 1 ♀ (RMNH), *ibid.*, 6.ix.2011, O. Varga; 1 ♀ (VSPNY), Bogorodchany distr., Zhbyr, (410-420 m), 48°47'4.92"N, 24°28'46.45"E, on *Corylus avellana*, x.2009, O. Varga.

Hosts.— *Cryptorhynchus lapathi* (Linnaeus), *Pissodes notatus* (Fabricius), *Hylobius abietis* (Linnaeus) (Curculionidae) (Meyer, 1934); *Acanthocinus aedilis* (Linnaeus) (Fitton et al., 1988); *Monochamus galloprovincialis* (Olivier), *Aromia moschata* Linnaeus, *Saperda populnea* (Linnaeus), *Cerambyx cerdo* (Linnaeus), *Rhagium inquisitor* (Linnaeus), *Rh. mordax* (DeGeer) (Cerambycidae) (Meyer, 1934), *Synanthedon culiciformis* (Linnaeus) (Sesiidae) (Fitton et al., 1988).

Distribution.— Palaearctic (Yu & Horstmann, 1997), Ukraine (Kasparyan, 1981).

**Key to the *Dolichomitus imperator*-species group**

(only females; modified after Zwakhals, 2010)

1. Dorsal lobe of ovipositor with a strong, reclivous front edge and a strong parallel ridge giving the impression of a double front edge (fig. 6). Flagellum with 21-30 flagellomeres. Tergites 2 and 3 closely punctate **and** without aciculation (fig. 7) ..... 2
- Front edge of dorsal lobe of ovipositor simple. Flagellum with at least 30 flagellomeres. Tergites 2 and 3 closely punctate **or** with aciculation ..... 3
2. Flagellum with 21-25 flagellomeres. Propodeum without well-defined median longitudinal carinae. Head parallel to widened posteriorly. Hind coxa red. [Ha black. Lwtrg1 = 1.3-1.6. Lwtrg2 = 1.0-1.3. Trg1/htrs1 = 1. Trg1/fem3 = 0.7-0.9. Lwfem3 = 4.9-5.3. Htrs3/flg1 = 1.0-1.3. Htrs5/3 = 0.7-0.9] ..... *D. curticornis* (Perkins)
- Flagellum with about 30 flagellomeres. Propodeum with strong median longitudinal carinae over about 0.7-0.8 times its length (fig. 8). Head widened posteriorly (fig. 9). Hind coxa black. [Pterostigma fuscous. Ha yellowish. Lwtrg1 = 1.5-1.6. Lwtrg2 = 1.3-1.5. Trg1/Htrs1 = 0.87. Trg1/fem3 = 0.83-0.87. Lwfem3 = 6. Htrs3/flg1 = 1.3-1.4. Htrs5/3 = 0.6] ..... *D. sirenkoi* spec. nov.
3. Tergites 2 and 3 minutely punctate and with fine aciculation. Propodeum with strong median longitudinal carinae over about 0.6 times its length. Segment 3 of hind tarsus 0.9–1.3 times as long as first flagellomere. Ovipositor 1.7-2.2 times as long as fore wing. Pterostigma fuscous. Flagellum with 34-39 flagellomeres and as long as mesosoma + tergites 1-2(3). Trg1 rugulose. Head narrowed. [Fwl = 11.0-21.0. Lwtrg1 = 1.8-2.3. Lwtrg2 = 1.4-1.9. Trg1/htrs1 = 0.9-1.0. Trg1/fem3 = 0.7-1.0. Lwfem3 = 5.2-6.4. Htrs5/3 = 0.5-0.8] ..... *D. imperator* (Kriechbaumer)

- Tergites 2 and 3 closely punctate and without aciculation. Combined area basalis and area superomedia smooth, without well-defined median longitudinal carinae. Segment 3 of hind tarsus 0.7-0.8 times as long as first flagellomere. Ovipositor 1.1-1.4 times as long as fore wing. Pterostigma yellowish-grey. Flagellum with 30-34 flagellomeres and as long as mesosoma + tergites 1-3(4). Trg1 punctate in apical half. Head parallel to buccate. [Fw1 10.5-14.8. Lwtrg1 = 1.6-1.9(2.2). Lwtrg2 = 1.0-1.2. Trg1/htrs1 = 0.9-1.1. Trg1/fem3 = 0.7-0.9. Lwfem3 = 5.1-5.4. Htrs5/3 = 0.9-1.1] ..... *D. pterelas* (Say)

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