Study of Xoridinae (Hymenoptera: Ichneumonidae) in the Ukrainian Carpathians. Genera Odontocolon Cushman and Ischnoceros Gravenhorst

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Abstract. Species of the genera Odontocolon Cushman, 1942 and Ischnoceros Gravenhorst, 1829 in the Ukrainian Carpathians are reviewed. All eight found species are new records for this region. Ischnoceros caligatus (Gravenhorst, 1829), Odontocolon punctulatum (Thomson, 1877), O. rufiventris (Holmgren, 1860) and O. spinipes (Gravenhorst, 1829) are new records for the fauna of Ukraine. Diagnostic features, illustrations and key to species are provided.

Key words. Parasitoids, Ichneumonidae, Xoridinae, Ukraine, Carpathians, new records, key.

Introduction

Xoridinae is one of the smallest subfamilies of Ichneumonidae, being represented by four genera and 220 species worldwide, with only three genera and 49 species in Western Palaearctic (Yu et al., 2012). Three species of the genus Odontocolon, O. geniculatum (Kriechbaumer, 1889), O. dentipes (Gme- lin, 1790) and O. quercinum (Thomson, 1877), were recorded from Ukraine by Meyer (1934). Kasparyan (1981) recorded eleven Xoridinae species from the territory of Ukraine: Ischnoceros rusticus (Geoffroy, 1785), Odontocolon quercinum (Thomson, 1877) and O. thomsoni (Clément, 1938), and eight species of Xorides. The present study provides a list of species belonging to the genera Odontocolon and Ischnoceros, which includes eight species firstly recorded from the territory of the Ukrainian Carpathians, four of them are new records for Ukraine.
Probably all species of these genera, like all xoridines, are idiobiont ectoparasitoids of larvae of wood-boring beetles, mainly Cerambycidae and Buprestidae (Campadelli, Scaramozzino, 1994; Aubert, 1969; Hilszczanski, 2002; Constantineanu, Pisica, 1977; Sheng, Sun, 2010).

**Material and methods**

This study is mainly based on specimens collected by the author in the Ukrainian Carpathians in 2009–2013 by sweep netting and using Tereshkin’s traps (TT) (Tereshkin, 1990) and yellow pan traps (YPT). The material of the collection of the Vasyl Stefanyk Precarpathian National University in Ivano-Frankivsk also was studied. *Ovipositor – hind tibia index* (OTI) is the ratio of the length of ovipositor projecting beyond the apex of metasoma to length of hind tibia. Specimens were identified using Kasparyan’s (1981) key. Species diagnosis are mainly based on material examined by the author. General distributional is given after Yu with co-authors (2012). Key to species of *Odontocolon* is based on the key by Kasparyan (1981).

**Key to genera of Xoridinae of Ukrainian Carpathians**

1. Hind femur with strong median ventral tooth .......................................................... *Odontocolon*
   - Hind femur without a strong median ventral tooth.........................................................2

2. Frons without strong median horn. Mandible with one tooth ..............................................*Xorides*
   - Frons with a strong median horn. Mandible with two teeth..............................................*Ischnoceros*

**Key to European species of Ischnoceros**

1. Frons between horn and inner margin of eye sparsely punctate (Fig. 1). Hind leg with femur fuscous apically; coxa of male black, first tarsal segment pale basally.............................................*I. caligatus* (Gravenhorst)
   - Frons between horn and inner margin of eye rugulose-punctate (Fig. 2). Hind leg with femur entirely red; coxa of male red, first tarsal segment not pale basally.................................*I. rusticus* (Geoffroy)

*Figures 1, 2.* Head of female, dorsal view of *Ischnoceros caligatus* (1) and *I. rusticus* (2).
**Ischnoceros caligatus** (Gravenhorst, 1829)

(Fig. 1)

*Material examined* (6 ♀, 12 ♂). Ukraine, Ivano-Frankivsk Province, Bogorodchany District: Mochary, 5 km NE of Bogorodchany, 48°50′51.17″N, 24°35′26.91″E, 300–350 m, mixed forest, YPT; Zhbyr, 7–8 km SW of Bogorodchany, 48°47′4.92″N, 24°28′46.45″E, 400 m, mixed forest, YPT; Dibrova, 5 km SW of Bogorodchany, 48°46′10.35″N, 24°30′0.28″E, 310 m, oak forest (Varga coll.).

*Diagnosis.* Female. Fore wing length 7.0–10.0 mm. Antenna with 29–33 flagellomeres. Head with temples parallel to widened backwards. Face finely and frons between horn and inner margin of eye sparsely punctate (Fig. 1). Pronotum rugose, additionally sparsely punctate. Mesopleuron with blurred punctuation and mesoscutum rugulose-punctate. Propodeum with well defined carinae and weak lateromedian apophyses; dorsal surface of propodeum rugulose-punctate; areola pentagonal, elongate. Metapleuron rugose, matt. Tergites of metasoma aciculate, without punctuation, sometimes tergite 1 rugulose. Body and antenna black. Legs generally reddish except fuscous last tarsomeres, hind femur apically, tibia and tarsus entirely fuscous, tibia basally cream colour. Pterostigma fuscous. OTI 0.9–1.4.

Male. Fore wing length 6.0–7.0 mm. Antenna with 26–28 flagellomeres. Body sculpture and colouration mostly as in female. Dorsal surface of propodeum finely punctate, polished. All tibiae and tarsomere 1 of hind tarsus basally cream, hind coxa and trochanter black.

*Flight period in Carpathians.* From mid of April to mid of July, with peak in the second third of May.


*Distribution.* Ukraine (*first record*); Europe, Caucasus, Russia (Western Siberia).

**Ischnoceros rusticus** (Geoffroy, 1785)

(Fig. 2)

*Material examined* (7 ♀♀, 12 ♂♂). Ukraine, Ivano-Frankivsk Province, Bogorodchany District: Mochary, 5 km NE of Bogorodchany, 48°50′51.17″N, 24°35′26.91″E, 300–350 m, mixed forest, YPT; Zhbyr, 7–8 km SW of Bogorodchany, 48°47′4.92″N, 24°28′46.45″E, 400 m, mixed forest, YPT; Dibrova, 5 km SW of Bogorodchany, 48°46′10.35″N, 24°30′0.28″E, 310 m, oak forest; Gorgany, 5 km SW of Stara Guta, 48°36′42.77″N, 24°09′10.69″E, 1200 m, coniferous forest (Varga coll.).

*Diagnosis.* Female. Fore wing length 8.0–11.0 mm. Antenna with 30–34 flagellomeres. Head with temples parallel to slightly narrowed backwards. Face and frons between horn and inner eye margin rugulose-punctate (Fig. 2). Pronotum rugose, sparsely punctate. Mesopleuron and mesoscutum finely punctate, polished, shiny. Propodeum with well defined carinae and lateromedian apophyses; dorsal surface of propodeum rugulose-punctate; areola pentagonal. Metapleuron rugose, matt. Tergites of metasoma aciculate, without punctuation. Body black, antenna brownish. Fore and mid legs generally reddish yellow except fuscous last tarsomeres, hind legs red, tibia and tarsus fuscous, tibia basally cream. Pterostigma fuscous. OTI 1.3–1.7.

Male. Fore wing length 7.0–9.0 mm. Antenna with 29 flagellomeres. Body sculpture and colouration mostly as in female. Tergite 1 of metasoma rugulose.

*Flight period in Carpathians.* From end of April to early August, with peak in second third of May.


*General distribution.* Europe, China.

**Key to European species of Odontocolon**

(modified from Kasparian, 1981)

1. Female
   - Female .................................................................................................................................................. 2
   - Male ...................................................................................................................................................... 10
2. Mid tibia with an oblique groove postero-ventrally ........................................................................ 3
   - Mid tibia without an oblique groove postero-ventrally ..................................................................... 8
Figures 3–9. Odontocolon dentipes (3, 6), O. punctulatum (4), O. quercinum (5), O. geniculatum (7, 9) and O. spinipes (8). 3, 4 – head and anterior part of mesosoma, lateral view (female); 5 – mesoscutum, dorsal view (male); 6, 7 – propodeum and hind legs, lateral view (male); 8, 9 – vertex (male).

3. Metasoma (except tergite 1) red. Hind femur black, hind tibia red.............O. rufiventris (Holmgren)
   – Metasoma entirely black or brownish. If hind femur black, then hind tibia also black ..................4
4. Hind femur entirely, fore and mid femora at least partly black ..............................................5
   – All femora entirely red .................................................................................................................6
5. Pronotum laterally rugose. Ovipositor as long as body ...........................................O. hungaricum (Clément)
   – Pronotum laterally smooth, shiny. Ovipositor shorter than body. – OTI 2.5–2.7.....O. spinipes (Grav.)
6. Hind tibia fuscous, apically cream. Hind femur in apical 0.15–0.2 usually fuscous ...............................
   – Hind tibia entirely red....................................................................................................................7
7. Pronotum laterally (Fig. 4) and dorsal surface of propodeum rugose, matt. — Tergite 1 laterally and dorsal surface of propodeum smooth, shiny. — Pronotum laterally smooth, shiny, apically sparsely punctate and sometimes with single wrinkles (Fig. 3) —

— O. punctulatum (Thomson)

— Pronotum laterally smooth, shiny, apically sparsely punctate and sometimes with single wrinkles (Fig. 3) —

— O. dentipes (Gmelin)

8. Hind tibia without long erect setae. Tergite 1 longitudinally wrinkled —

— O. appendiculatum (Grav.)

— Hind tibia with long erect setae. Tergite 1 punctate —

— O. thomsoni (Clément)

9. First flagellomere apically swollen. Tergite 2 transverse, sparsely punctuate —

— First flagellomere not swollen apically. Tergite 2 quadrate, closely punctate —

— O. thomsoni (Clément)

10. Hind femur black (Fig. 7). Notauli without transverse wrinkles —

— Hind femur red to brownish (Fig. 6) —

— O. rufiventris (Holmgren)

11. Metasoma (except tergite 1 or sometimes tergite 2) red —

— Metasoma black —

— O. spinipes (Gravenhorst)

12. Fore and mid femora at least partly fuscous. Vertex anteriorly very sparsely punctate, behind ocelli impunctate, shiny (Fig. 8) —

— Fore and mid femora yellowish red. Vertex more densely punctate, including surface behind ocelli (Fig. 9) —

— O. geniculatum (Kriechbaumer)

13. Notauli without transverse wrinkles —

— Notauli with transverse wrinkles (Fig. 5) —

— O. dentipes (Gmelin)

14. Body generally and hind coxa black. Propodeum with strong lateromedian apophyses (Fig. 6). Antenna with 33–36 flagellomeres —

— Body at least partly and hind coxa reddish brown (the same colouration as hind femora). Small specimens. Propodeum without strong lateromedian apophyses. Antenna with 29–31 flagellomeres —

— O. thomsoni (Clément)

15. Pronotum laterally and dorsal surface of propodeum rugose, matt. — Tergite 2 basally longitudinally wrinkled —

— Pronotum laterally and dorsal surface of propodeum smooth, shiny —

— O. punctulatum (Thomson)

16. Tergite 2 rugulose medially. Pterostigma yellowish brown —

— Tergite 2 at least partly punctate. Pterostigma fuscous —

— O. thomsoni (Thomson)

17. Tergite 2 basally very sparsely punctate. Metasoma brownish —

— Tergite 2 rugulose-punctate. Metasoma black —

— O. thomsoni (Clément)

**Odontocolon dentipes** (Gmelin, 1790)

(Figs 3, 6)

Material examined (11 ♀, 141 ♂). Ukraine, Ivano-Frankivs Province, Bogorodchany District: Mochary, 5 km NE of Bogorodchany, 48°50’51.17”N, 24°35’26.91”E, 300–350 m, mixed forest; Zhibry, 7–8 km SW of Bogorodchany, 48°47’4.92”N, 24°28’46.45”E, 400 m, mixed forest, YPT, TT; Dibrova, 5 km SW of Bogorodchany, 48°46’10.35”N, 24°30’20.28”E, 310 m, oak forest; Zhurak, 8 km S of Bogorodchany, 48°44’26.65”N, 24°30’13.46”E, 450–500 m, mixed forest; Gorgany, 5 km SW of Stara Guta, 48°36’42.77”N, 24°09’10.69”E, 1200 m, coniferous forest. Nadivirna District: Gorgany, Yavirnuk, 7–8 km SW of Yaremche, 48°24’53.86”N, 24°29’01.78”E, 1300–1350 m (Varga coll.).

**Diagnosis. Female.** Fore wing length 6.0–11.0 mm. Antenna with 27–31 flagellomeres. Face densely and froms sparsely punctate, shiny, vertex behind ocelli without punctuation. Pronotum smooth, shiny, apically sparsely punctate and sometimes with single wrinkles (Fig. 3). Mesopleuron and mesoscutum sparsely punctate, polished, shiny. Propodeum with well defined carinae, dorsal surface of propodeum polished, shiny; metapleuron rugose, matt. Tergite 1 of metasoma wrinkled, apically smooth and sometimes reddish, tergites 2 and 3 entirely and tergite 4 basally aciculate. Body black, antenna brownish to black. Fore coxa red, mid coxa red, black basally, hind coxa brownish to black, all trochanters, femora, tibiae and tarsi red. Pterostigma fuscous. OTI 4.0–5.0.
Male. Fore wing length 6.0–8.0 mm. Antenna with 31–34 flagellomeres. Colouration and sculpture of head and mesosoma as in female. Notauli without transverse wrinkles. Propodeum with well defined carinae and strong lateromedian apophyses (Fig. 6), dorsal surface of propodeum polished, shiny, metapleuron sometimes rugulose. Tergites 1–3 of metasoma slightly wrinkled, tergite 1 sometimes reddish apically, tergite 3 apically and tergite 4 basally aciculate. Body and antenna black. Fore and mid coxae brownish, hind coxae black, all trochanters red to fuscous, all femora, fore and mid tibia and tarsus red, hind femur sometimes brown, hind tibia ventrally red, dorsally fuscous, hind tarsus fuscous (Fig. 6). Pterostigma brownish.

**Flight period in Carpathians.** From the end of April to the end of August, with peak in May.


**General distribution.** Palaeartic region.

**Odontocolon geniculatum** (Kriechbaumer, 1889)

(Figs 7, 9)

**Material examined** (4 ♀♀, 270 ♂♂). Ukraine, Ivano-Frankivsk Province, Bogorodchany District: Mochary, 5 km NE of Bogorodchany, 48°30′20.28″N, 24°28′46.45″E, 400 m, mixed forest; Zhbyr, 7–8 km SW of Bogorodchany, 48°47′4.92″N, 24°28′46.45″E, 400 m, mixed forest, YPT, TT; Dibrova, 5 km SW of Bogorodchany, 48°46′10.35″N, 24°30′20.28″E, 310 m, oak forest; Gorgany, 11–12 km SW of Stara Guta, 48°33′32.30″N, 24°07′41.34″E, 1250–1300 m; 5 km SW of Stara Guta, 48°36′42.77″N, 24°09′10.69″E, 1200 m, coniferous forest; Nadvirna District: Gorgany, Yavirnuk, 7–8 km SW of Yaremche, 48°24′53.86″N, 24°29′01.78″E, 1300–1350 m; Gorgany, Elmey, 15 km SW of Yaremche, 48°24′39.50″N, 24°24′50.28″E, 800–900 m, coniferous forest; Chornogora, 48°08′09.63″N, 24°32′32.14″E, 1600 m, coniferous forest; Transcarpathian Province, Rakhiv District: slopes of Sheshul Mt., 6–7 km E of Kvasy, 48°09′23.13″N, 24°21′27.15″E, 1400–1500 m, subalpine zone (Varga coll.).

**Diagnosis.** Female. Fore wing length 7.0–12.0 mm. Antenna with 35–40 flagellomeres. Face densely, frons sparsely punctate, shiny, vertex behind ocelli finely punctate (Fig. 9). Pronotum smooth, shiny, with single wrinkle. Mesopleuron and mesoscutum finely punctate. Propodeum with well defined carinae, dorsal surface of propodeum polished, shiny, metapleuron rugulose–punctate. Tergite 1 of metasoma rugulose, tergite 2 rugulose–punctate, remaining metasoma polished. Body and antenna black. Fore and mid coxa reddish brown, hind coxa black, sometimes red apically, remaining fore and mid legs and hind trochanters, trochantelli and femorar red, hind tibia fuscous, basally cream, hind tarsus and femur apically fuscous. Pterostigma fuscous. OTI 4.4–4.7.

Male. Fore wing length 5.0–11.0 mm. Antenna with 37–41 flagellomeres. Sculpture and colouration of head and mesosoma as in female. Propodeum without well defined lateromedian apophyses. Tergite 1 of metasoma rugulose, with vague punctuation, tergite 2 rugulose centrally and punctate apically, remaining metasoma polished. Fore and mid coxae reddish brown, remaining fore and mid legs red, hind coxa, femur and tibia black, trochanter and trochantellus red with fuscous spots (Fig. 7). Pterostigma brownish.

**Flight period in Carpathians.** From the beginning of May to the mid of July, with peak in the second half of May.

**Hosts.** Reared in China from *Acanthocinus* sp. and *Monochamus saltuarius* (Geohler) (Cerambycidae) (Sheng, Sun, 2010).

**General distribution.** Central and Eastern Europe, Eastern Palearctic.

**Odontocolon punctulatum** (Thomson, 1877)

(Fig. 4)

**Material examined** (4 ♀♀, 7 ♂♂). Ukraine, Ivano-Frankivsk Province, Bogorodchany District: Dibrova, 5 km SW of Bogorodchany, 48°46′10.35″N, 24°30′20.28″E, 310 m, oak forest; Zhbyr, 7–8 km SW of Bogorodchany, 48°47′4.92″N, 24°28′46.45″E, 400 m, mixed forest; Gorgany, 5 km SW of Stara Guta, 48°36′42.77″N, 24°09′10.69″E, 1200 m, coniferous forest; Nadvirna District: Gorgany, Elmey, 15 km SW of Yaremche, 48°24′39.50″N, 24°24′50.28″E, 800–900 m, coniferous forest; Chornogora, 48°08′09.63″N, 24°32′32.14″E, 1600 m, coniferous forest; Transcarpathian Province, Rakhiv District: slopes of Sheshul Mt., 6–7 km E of Kvasy, 48°09′23.13″N, 24°21′27.15″E, 1400–1500 m, subalpine zone (Varga coll.).

**Diagnosis.** Female. Fore wing length 6.0–8.0 mm. Antenna with 31–33 flagellomeres. Face densely, frons and vertex sparsely punctate, shiny. Pronotum rugose (Fig. 4). Mesoscutum sparsely, mesopleuron very sparsely punctate, centrally without punctuation, shiny. Propodeum with well defined carinae, dorsal surface and metapleuron rugulose–punctate. Tergite 1 of metasoma rugulose, tergites 2 and 3 basally finely aciculate. Body, pterostigma and antenna brownish, legs red. OTI 5.1–5.8.


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Flight period in Carpathians. From the end of May to the mid of July.

Hosts. Mesites tardyi (Curtis) (Curculionidae) (Aubert, 1969).

General distribution. Ukraine (first record); Western Palaearctic (rare species).

**Odontocolon quercinum** (Thomson, 1877)

(Fig. 5)

Material examined. Ukraine, Ivano-Frankivsk Province, Bogorodchany District, unknown locality, VII.2011, 1 ♂.

Diagnosis. Male. Fore wing length 5.0 mm. Antenna with 20 flagellomeres. Face densely, frons and vertex sparsely punctate, shiny. Pronotum with single wrinkle, polished. Mesoscutum punctate, notauli with transverse wrinkles (Fig. 5), mesopleuron sparsely punctate, shiny. Propodeum with well defined carinae, dorsal surface and mesopleuron with indistinct transverse stripes, shiny. Tergite 1 longitudinally wrinkled, basally black, remaining metasoma very sparsely punctate, smooth and shiny, reddish brown. Head and mesosoma black, antenna brownish. Fore and mid legs reddish brown, hind legs red, coxae brownish. Pterostigma brownish.

Hosts. Buprestis haemorrhoidalis aravatica Marsuel (Buprestidae), Hylotrupes bajulus L. (Cerambycidae) (Campadelli, Scaramozzino, 1994), Monochamus galloprovincialis (Olivier) (Cerambycidae) (Meyer, 1934; Constantineanu, Pisica, 1977).

General distribution. Western Palaearctic.

**Odontocolon rufiventris** (Holmgren, 1860)

Material examined. Ukraine, Ivano-Frankivsk Province, Bogorodchany District, Zhbyr, 7–8 km SW of Bogorodchany, 48°47.4.92°N, 24°28.46.45°E, 400 m, mixed forest, 18.V.2011 (Varga coll.), 1 female.

Diagnosis. Female. Fore wing length 7.0 mm. Antenna with 28 flagellomeres. Face densely, frons sparsely punctate, shiny, vertex behind ocelli without punctuation. Pronotum and mesopleuron sparsely punctate, shiny, polished, centrally without punctuation. Mesoscutum sparsely punctate. Propodeum with well defined carinae and strong lateromedian apophases, dorsal surface polished, shiny, metapleuron with indistinct transverse stripes. Tergite 1 with indistinct sculpture, slightly wrinkled, black, remaining metasoma smooth and shiny, reddish. Head, mesosoma and antenna black. All coxae, hind trochanters and femora black, fore and mid femora and trochanters brownish, tibia and tarsus yellowish brown, hind trochantellus and tibia red, hind tarsus fuscous. Pterostigma brownish. OTI 3.95.

Hosts. Conopalus testaceus (Olivier), Hypulus bifasciatus F. (Melandryidae) (Hilszczanski, 2002).

General distribution. Ukraine (first record); Western Palaearctic (rare species).

**Odontocolon spinipes** (Gravenhorst, 1829)

(Fig. 8)

Material examined (6 ♂, 3 ♀, 33 ♀♀). Ukraine, Ivano-Frankivsk Province, Bogorodchany District: Mochary, 5 km NE of Bogorodchany, 48°50′51.17″N, 24°35′26.91″E, 300–350 m, mixed forest; Zhbyr, 7–8 km SW of Bogorodchany, 48°47′4.92″N, 24°28′46.45″E, 400 m, mixed forest; Gorgany, 5 km SW of Stara Guta, 48°36′42.77″N, 24°09′10.69″E, 1200 m, coniferous forest; 11–12 km SW of Stara Guta, 48°33′32.30″N, 24°07′41.34″E, 1250–1300 m, coniferous forest; Nadvirna District: Gorgany, Elmy, 15 km SW of Yaremche, 48°24′39.50″N, 24°24′50.28″E, 800–900 m, coniferous forest, TT (Varga coll.).

Diagnosis. Female. Fore wing length 7.0–9.0 mm. Antenna with 35–36 flagellomeres. Face densely, frons sparsely punctate, shiny, vertex behind ocelli very sparsely punctate (Fig. 8). Pronotum smooth, shiny, with single wrinkle. Mesopleuron and mesoscutum sparsely punctate. Propodeum with well defined carinae, dorsal surface polished, shiny, metapleuron with blurred punctuation. Tergites 1 and 2 slightly rugose, apically polished, tergite 3 slightly aciculate, remaining metasoma polished. Body generally, antenna, fore and mid coxae, trochanters and trochantellis black, tibiae and tarsi entirely, femora partly brownish, hind legs black. Pterostigma fuscous. OTI 2.5–2.7.

Male. Fore wing length 5.0–11.0 mm. Antenna with 33–39 flagellomeres. Body as in female. Propodeum with weak lateromedian apophyses. Fore and mid coxae brownish apically, hind trochanter and trochantellus from red to black.

Flight period in Carpathians. From the beginning of May to the mid of July, with peak in the second half of May.


General distribution. Ukraine (first record); Palaearctic region.
**Odontocolon sp.**

Material examined (46♂♂). Ukraine, Ivano-Frankivsk Province, Bogorodchany District: Mochary, 5 km NE of Bogorodchany, 48°50′51.17″N, 24°35′26.91″E, 300–350 m, mixed forest; Zhbyr, 7–8 km SW of Bogorodchany, 48°47′4.92″N, 24°28′46.45″E, 400 m, mixed forest; Dibrova, 5 km SW of Bogorodchany, 48°46′10.35″N, 24°30′20.28″E, 310 m, oak forest; Gorgany, 11–12 km SW of Stara Guta, 48°33′32.30″N, 24°07′41.34″E, 1250–1300 m, coniferous forest. Nadvima District: Gorgany, Emly, 15 km SW of Yaremche, 48°24′39.50″N, 24°24′50.28″E, 800–900 m, coniferous forest. Transcarpathian Region, Rakhiv District: slopes of Sheshul Mt., 6–7 km E of Kvasy, 48°09′23.13″N, 24°21′27.15″E, 1400–1500 m, subalpine zone; Svydovets, 2–3 km NW of Kvasy, 48°09′08.89″N, 24°15′58.55″E, 850–900 m, beech forest, TT (Varga coll.).

Flight period in Carpathians. Beginning of May to mid of July, with peak in May.

Remarks. Several small male specimens with fore wing length 4.0–6.0 mm and antenna with 29–31 flagellomeres were collected. The body colouration varies but always at least hind femur entirely and metasoma partly reddish brown. These specimens is closely related to *O. spinipes* and *O. geniculatum* and it’s probably only the brownish forms of these two species, but with very variable punctation of vertex and colouration of fore and mid femora. These small brownish (at least with reddish brown hind femur) specimens differ from black ones with the same size (at most with metasoma apically brownish) in the number of flagellomeres (at least 35–36 flagellomeres, the same number as in the typical specimens of *O. spinipes* and *O. geniculatum*). So, based on this fact, I can’t include these specimens to any known species of the genus *Odontocolon*.

Acknowledgements

I am deeply grateful to Jacek Hilszczanski (Forest Research Institute, Warsaw, Poland) for his help with identification of some Xoridinae species, Alex Gumovsky (I.I. Schmalhausen Institute of Zoology, Kyiv, Ukraine) for the discussion of an earlier version of the manuscript, helpful suggestions and correction of the English text.

References


