

**ON THE IDENTITY AND SYNONYMY OF TWO SPECIES FROM
MERODON RUFICORNIS MEIGEN GROUP
(DIPTERA: SYRPHIDAE)**

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Accessible types of some *Merodon* Meigen, 1803 species from Strobl's, Rondani's and Meigen's Diptera collections were studied, and the current status of the names studied is given. Three new synonyms are proposed: *Merodon recurvus* Strobl, 1898 = *M. ruficornis* Meigen, 1822; *M. strobli* Bradescu, 1986 = *M. ruficornis* Meigen, 1822; *M. crymensis* Paramonov, 1925 = *M. trebevicensis* Strobl, 1900 stat. nov. Lectotype of *Merodon ruficornis* Meigen, 1822 is designated here.

KEY WORDS: *Syrphidae*, *Merodon ruficornis* group, synonymy

INTRODUCTION

Merodon Meigen, 1803 is one of the largest hoverflies genera in the Palaearctic region, with approximately 150 species (HURKMANS, 1993). It is widely distributed over the Palaearctic and Ethiopian regions. Based on the facts about reared larvae, it can be assumed that larvae of all *Merodon* species develop in bulbs or rhizomes of monocotyledones.

The last comprehensive revision of 11 monophyletic species group of this genus, by HURKMANS (1993), deals with 61 species. The revision of some *Merodon* names in the present paper is a preliminary work to the forthcoming second part of *Merodon* revision (HURKMANS *et al.*, manuscript).

According to HURKMANS (unpublished manuscript), *ruficornis* group consists of seven species: *Merodon armipes* Rondani, 1843, *M. crymensis* Paramonov, 1925, *M. hoplitis* Hurkmans, manuscript name, *M. loewi* Van der Goot, 1981, *M. planiceps* Loew, 1862, *M. portschinsky* Stackelberg, 1924 and *M. ruficornis* Meigen, 1822. All these species are grouped together mainly by structure of male hind legs (Figs. 5 - 8): trochanter 3 with long spine, femur 3 often with a protuberance ventrally, tibia 3 with apical spur(s); and male genitalia (Figs. 1 - 4) with dorsal surstyle lobe (Fig. 1: a) curved and dorsally aligned.

HURKMANS (unpublished manuscript) placed *M. strobli* Bradescu, 1986 and *M. mucronatus* var. *recurvus* Strobl, 1898 as synonyms under *M. ruficornis*. DIRICKX (1994) erected *Merodon recurvus* Strobl, 1898 from variety of *M. mucronatus*, and gave it species status. He also implies that *M. strobli* is conspecific with *M. recurvus*. MILANKOV *et al.* (2002) made key for identification of 5 species from *ruficornis* group registered on the Balkan Peninsula based both on morphological structures and molecular markers. In their paper, it was confirmed that *M. ruficornis* and *M. recurvus* are separated species, despite lack of differences in male terminalia. Specific structure of male hind legs that has great diagnostic value is figured there (MILANKOV *et al.*, 2002).

A study of the type material from Strobl's collection deposited at the Benedictine Monastery Admont (Austria), Rondani's collection in Museo Zoologico de "La Specola", Firenze (Italy) and Meigen's collection Musée National d' Histoire Naturelle, Sorbonne, Paris (France) has made the taxonomic status of few taxa related to *Merodon ruficornis* Meigen, 1838, more clear.

MATERIAL AND METHODS

The Strobl's Diptera collection deposited at the Benedictine Monastery Admont, Austria (BMA), as well as addition material from Museo Zoologico de "La Specola", Firenze, Italy (MZSF) and Musée National d' Histoire Naturelle, Sorbonne, Paris, France (MNHN) have been examined to ascertain the status of the *Merodon* names treated below.

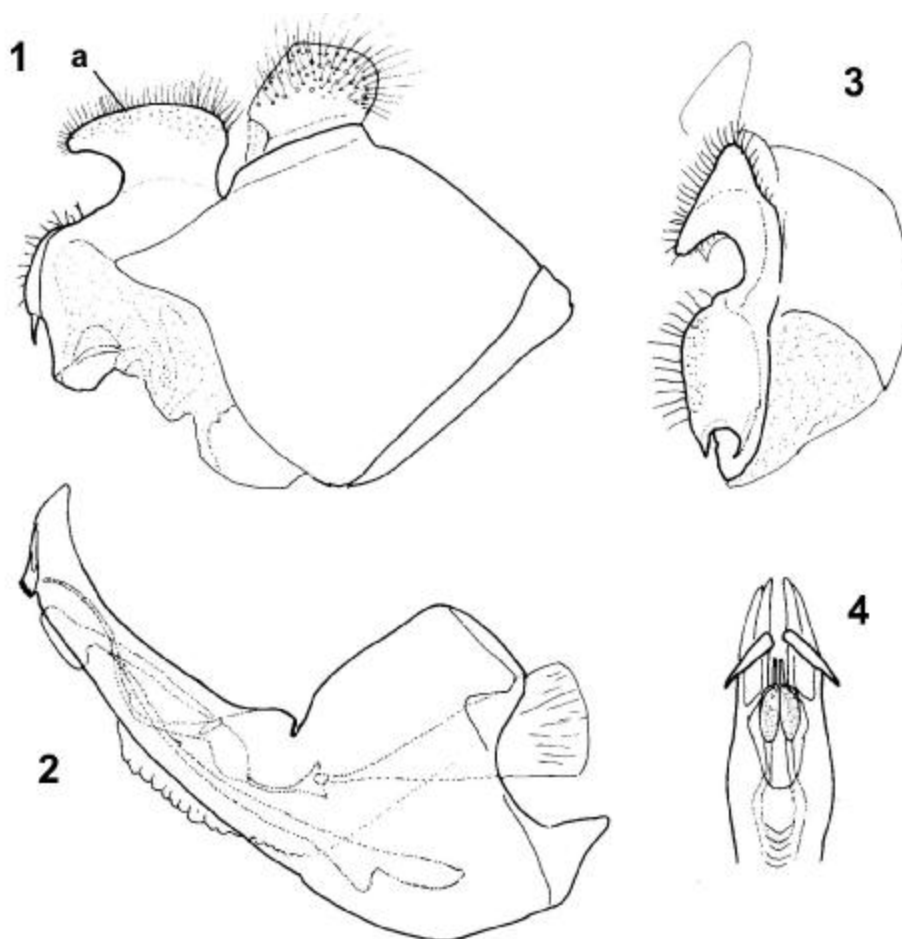
RESULTS, DISCUSSION AND CONCLUSIONS

Review of the *Merodon* names treated

Merodon mucronatus Rondani, 1857: 60. Holotype: 1G, '55', (MZSF, Rondani Coll.). Identity: *Merodon mucronatus* is a junior synonym of *M. ruficornis* Meigen, 1882 nec Milankov *et al.*, 2002.

Merodon mucronatus* var. *trebevicensis Strobl, 1900: 594. Holotype: 1G, Trebević, leg. Apfelb., (BMA, Strobl Coll.). Identity: *Merodon trebevicensis* is senior synonym of *M. crymensis* Paramonov, 1925. **New Synonym.** The name *M. trebevicensis* will have to replace *M. crymensis*. **New Status.**

Merodon mucronatus* var. *recurvus Strobl, 1898: 439. Holotype: 1G, Ivan, leg. Apfelb., (BMA, Strobl Coll.). *Merodon mucronatus* var. *recurvus* Strobl, 1898 was described from a single male. Identity: *Merodon ruficornis* Meigen, 1822. **New Synonym.** DIRICKX (1994) erected *Merodon recurvus* Strobl, 1898 from vari-



Figs. 1-4. Male genitalia of *Merodon ruficornis* Meigen, 1822. 1. Epandrium, lateral view: a) dorsal lobe of syrstilus; 2. Hypandrium, lateral view; 3. Syrstilus, anterior view; 4. Apical part of hypandrium, anterior view.

ety of *M. mucronatus*, and gave it species status. He considered *M. strobli* Bradescu, 1986 conspecific with *M. recurvus*. We agree that these two taxa belong to the same species, but their names have to be considered as junior synonyms of *M. ruficornis*, as stated in HURKMANS (unpublished manuscript).

MILANKOV *et al.* (2002) considered that two taxa named as *M. ruficornis* and *M. recurvus* are separated species. But study of the *M. ruficornis* lectotype has shown that name of *M. recurvus* has to be assigned to *M. ruficornis*. *Merodon ruficornis* sensu Milankov *et al.* 2002, nec Meigen, 1822 is now considered as an unnamed taxon and its nomenclatural status will be resolved in the future (Figs. 8, 11, 13).

Merodon ruficornis Meigen, 1822: 358/359. Lectotype selected by W. Hurkmans (HURKMANS, unpublished manuscript) and here designated: 1G (MNHN, Meigen Coll.). Label: “*Merodon ruficornis/meigen*”. *Merodon ruficornis* was described from an unspecified number of males and females. Identity: *Merodon ruficornis* is senior valid synonym of *M. recurvus* Strobl, 1898 (see under “*recurvus*” above) and *M. strobli* Bradescu, 1986.

Merodon strobli Bradescu, 1986: 128. Holotype: 1G, Roumanie, Carpates Méridionales, Monts Mehedinti, Băile Herculane, vallé du ruisseau Ferigari 350m, 20.V.1984., deposited at Muséum du Delta du Danube de Tulcea, Roumanie (not examined). Identity: *Merodon ruficornis* Meigen, 1822. New Synonym. Comparison of the types of *Merodon ruficornis* Meigen, 1822 and *Merodon mucronatus* var. *recurvus* Strobl, 1898 with the original description of *Merodon strobli* given by BRADESCU (1986: p. 125, fig. 2) has shown that all taxa are conspecific.

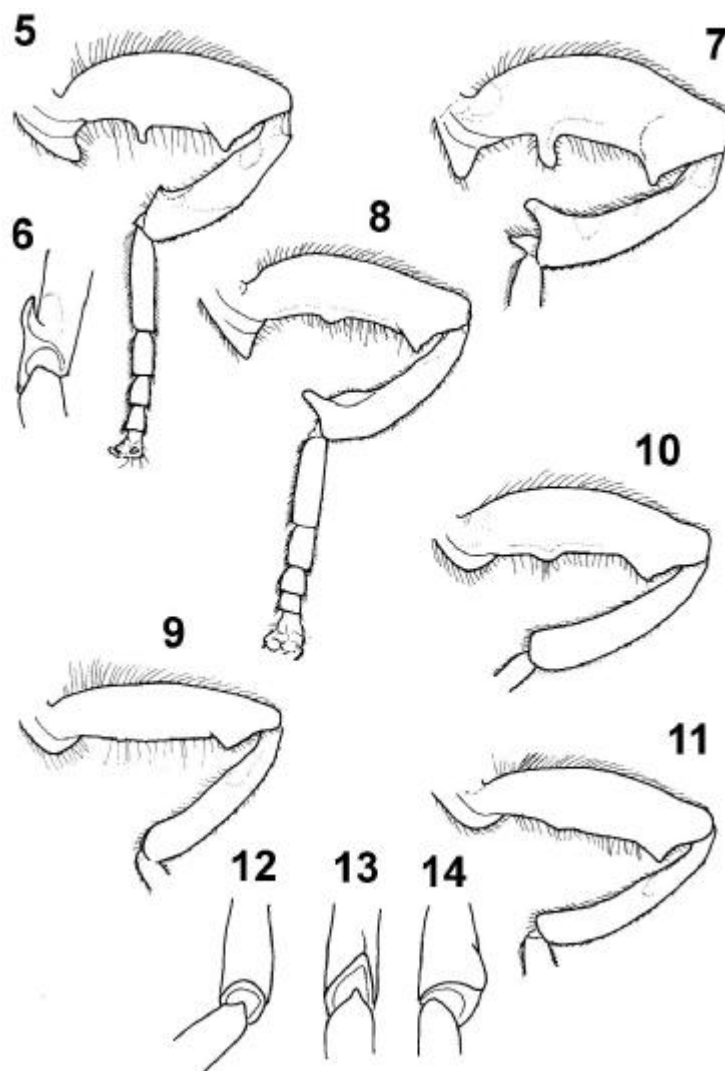
Synopsis of the names treated in this paper

Merodon trebevicensis Strobl, 1900 **stat.nov.**

crymensis Paramonov, 1925 **syn.nov.**

Diagnostic features: Males. Hind femora (Fig. 7) ventrally with large wart-like protuberance on basal third, as long as thorn on trochanter. Hind tibia (Fig. 7) with two apical spurs turn into direction of tarsi.

Females. Fore legs with tarsomeres 1st-3rd brown dorsally, remaining black; hind femora (Fig. 10) ventrally with small bump on basal third, hind tibiae (Fig. 14) with small apical thorn.



Figs. 5-8. Male, hind legs. 5. *Merodon ruficornis* Meigen, 1822, lateral view; 6. *M. ruficornis* Meigen, 1822, apical part of tibia, ventral view; 7. *M. trebevicensis* Strobl, 1900, lateral view; 8. *M. ruficornis* sensu Milankov et al. 2002, nec Meigen, 1822, lateral view.

Figs. 9-14. Female, hind legs. 9. *Merodon ruficornis* Meigen, 1822, lateral view; 10. *M. trebevicensis* Strobl, 1900, lateral view; 11. *M. ruficornis* sensu Milankov et al. 2002, nec Meigen, 1822; 12-14 apical part of hind tibia, ventral view: 12. *M. ruficornis* Meigen, 1822; 13. *M. ruficornis* sensu Milankov et al. 2002, nec Meigen, 1822; 14. *M. trebevicensis* Strobl, 1900.

Merodon ruficornis Meigen, 1822

recurvus Strobl, 1898 **syn.nov.**

strobli Bradescu, 1986 **syn.nov.**

mucronatus Rondani, 1857

Diagnostic features: Males. Hind femora (Fig. 5) ventrally with small wart-like protuberance on basal third, shorter than thorn on trochanter. Hind tibia with one distinct spur (Figs. 5, 6) directed to the base of tibia.

Female. Fore legs with tarsomeres 1st-3rd yellow dorsally, remaining black; hind tibiae without apical thorn (Figs. 9, 12).

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ИДЕНТИТЕТ И СИНОНИМИЈА ДВЕ ВРСТЕ ИЗ *MERODON RUFICORNIS* MEIGEN ГРУПЕ (DIPTERA: SYRPHIDAE)

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И з в о д

На основу анализе доступног, типског материјала врста рода *Merodon* Meigen, 1803 из диптеролошких збирки Strobl-a, Rondani-ја и Meigen-a дат је нови таксономски статус студираних имена. Предложена су три нова синонима: *Merodon recurvus* Strobl, 1898 = *M. ruficornis* Meigen, 1822; *M. strobli* Bradescu, 1986 = *M. ruficornis* Meigen, 1822; *M. crymenisis* Paramonov, 1925 = *M. trebevicensis* Strobl, 1900 stat. nov.. Означен је лектотип врсте *M. ruficornis*.

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