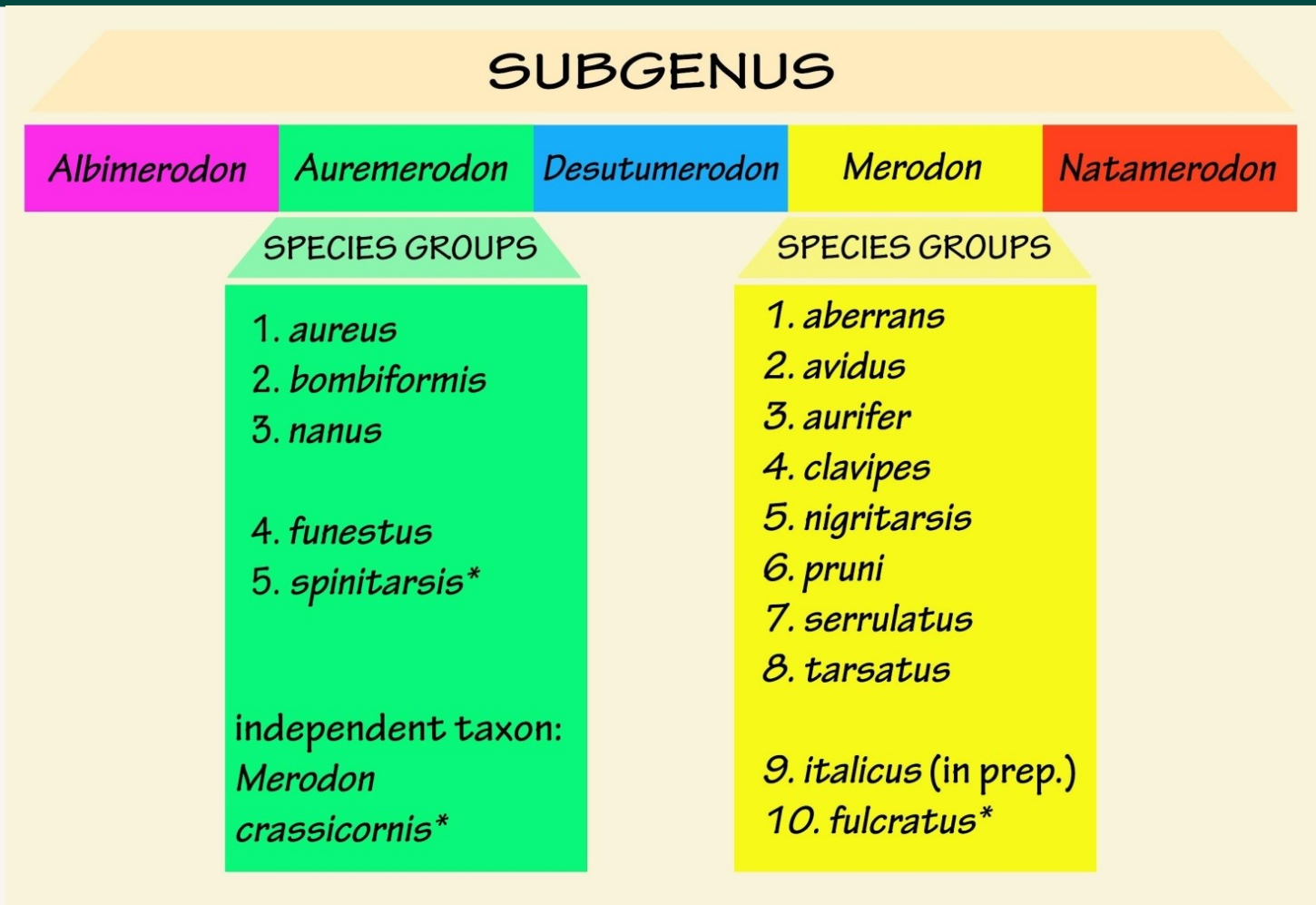
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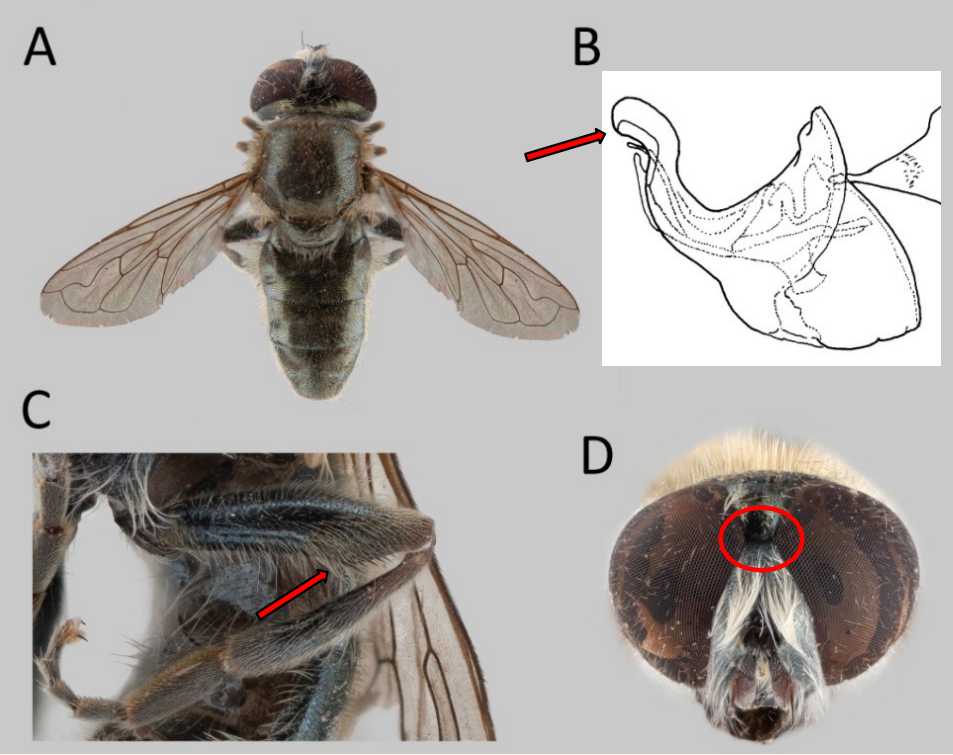
dr Laura Likov

Taxonomic updates on the *Merodon fulcratus* and *M. spinitarsis* species groups, with notes on *M. crassicornis* (Diptera: Syrphidae)

Likov L., Andrić A., Gorše I., Veselić S., Radenković S., Vujić A.

13th international Symposium on Syrphidae, Italy, 2026


SUBGENUS
Albimerodon
Auremerodon
Desutumerodon
Merodon
Natamerodon
SPECIES GROUPS
1. aureus
2. bombiformis
3. nanus
4. funestus
5. spinitarsis*
independent taxon:
Merodon
crassicornis*
SPECIES GROUPS
1. aberrans
2. avidus
3. aurifer
4. clavipes
5. nigritarsis
6. pruni
7. serrulatus
8. tarsatus
9. italicus (in prep.)
10. fulcratus*

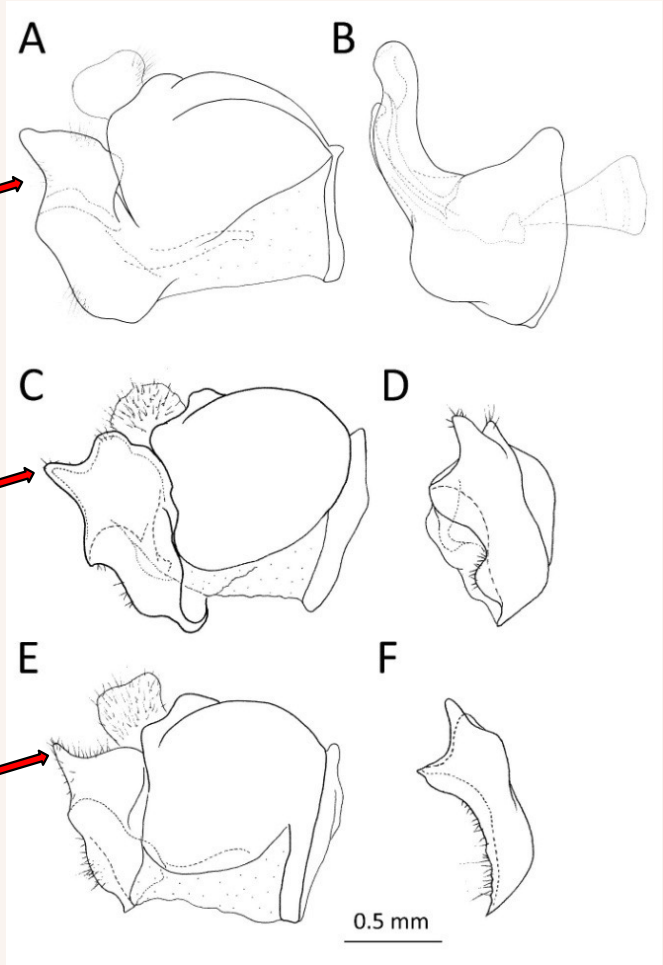


Male of *Merodon fulcratus*. **A** body, dorsal, **B** hypandrium, lateral, **C** metaleg, lateral, **D** head, frontal.

- small (5–9 mm), metallic shiny bodies;
- scutum and terga strongly punctate;
- metafemur with a very small lamina.

Males: distinctly dichoptic, and lack of ctenidium at hypandrium.
Females: ? distribution

Two valid species:
M. fulcratus (Becker, 1913)
M. dichopticus Stackelberg, 1968



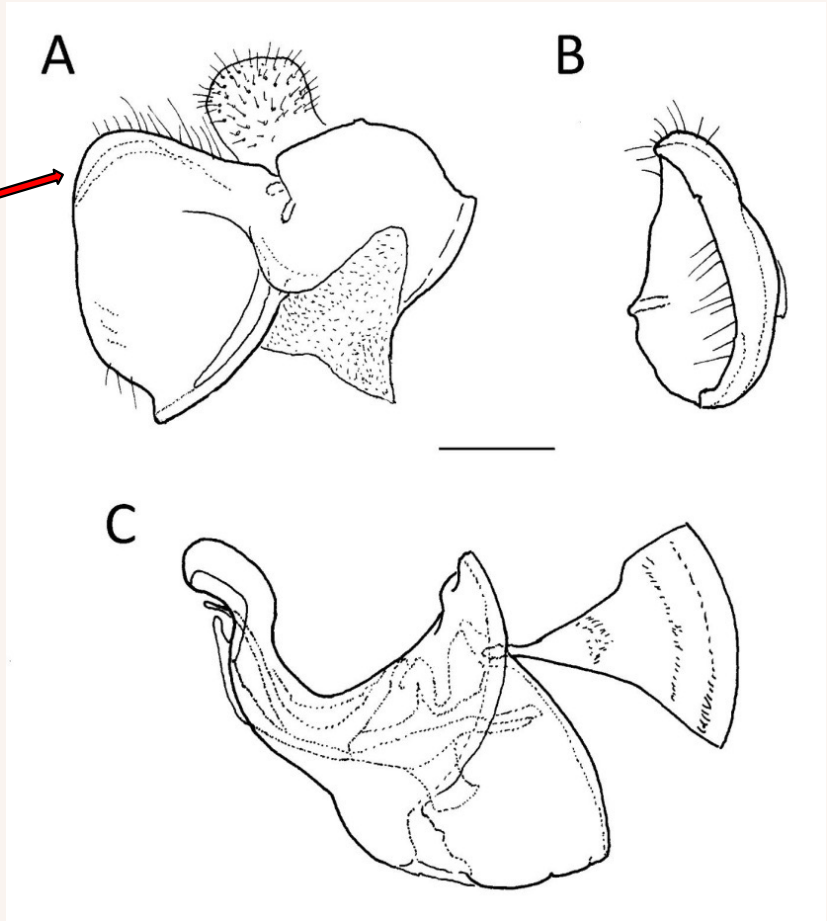
Merodon fulcratus

(Becker, 1913)

significant variability in the shape of posterior surstylar lobe (all specimen in the figure are from Iran);

genetic analysis showed no evidence of diversification.

Male genitalia of *Merodon fulcratus*. **A, C, E** epandrium, lateral, **B** hypandrium, lateral, **D, F** epandrium, ventral.



Merodon dichopticus

Stackelberg, 1968

Males can be distinguished based on the structure of the posterior surstylar lobe:

- straight and rounded in *M. dichopticus*
- with a tapering apex in *M. fulcratus*

Male genitalia of *Merodon dichopticus*. **A** epandrium, lateral, **B** epandrium, ventral, **C** hypandrium, lateral. Scale bar 0.5 mm.

Merodon dichopticus: Azerbaijan, Türkiye, Israel, Georgia, Iraq.

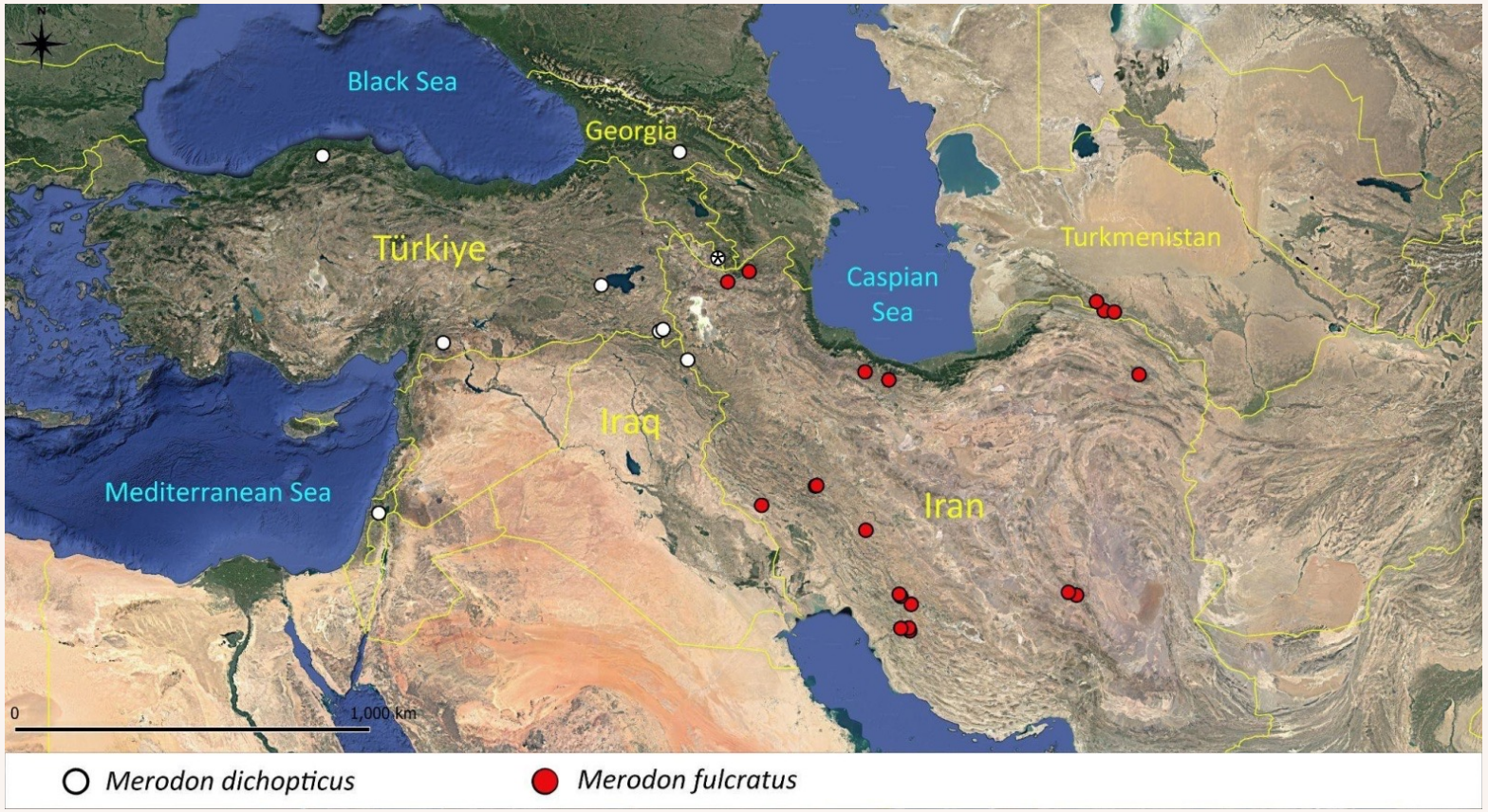
*type locality: Russia (South Caucasia, Nakhitschev)

⇕

Azerbaijan

Merodon fulcratus:

Iran, Turkmenistan.



distribution of *fulcratus* sp. group



Merodon spinitarsis

- densely punctuated dorsal surface of terga, without pruinosity;
- rounded and smooth metatrochanter;
- black tibiae and tarsi.

Males:

- strongly modified hypandrium;
- pointed posterior surstylar lobe.

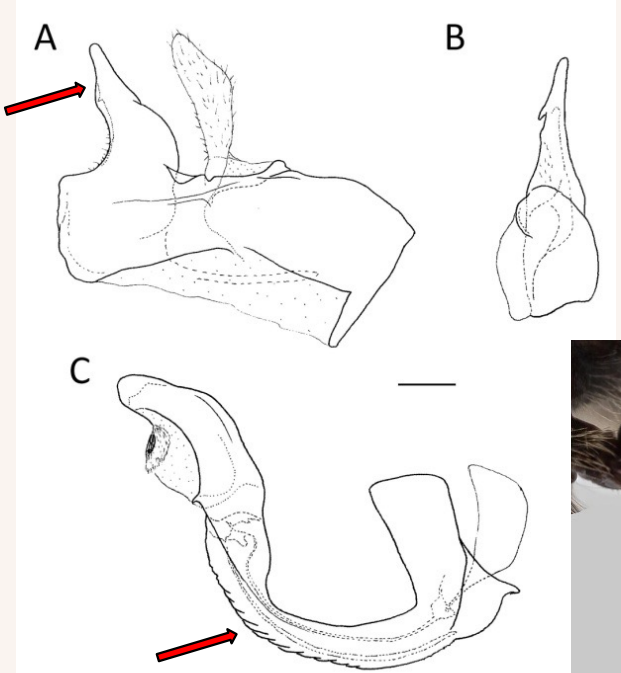
Females:

- short, adpressed pili on tergum IV.

Two species:

M. spinitarsis Paramonov, 1929

one undescribed species (misidentified as *M. syriacus*)



Male genitalia of *M. spinitarsis*. **A** epandrium, lateral, **B** epandrium, ventral, **C** hypandrium, lateral. Scale bar 0.5 mm.



Metaleg of *M. spinitarsis* ♂

Merodon spinitarsis

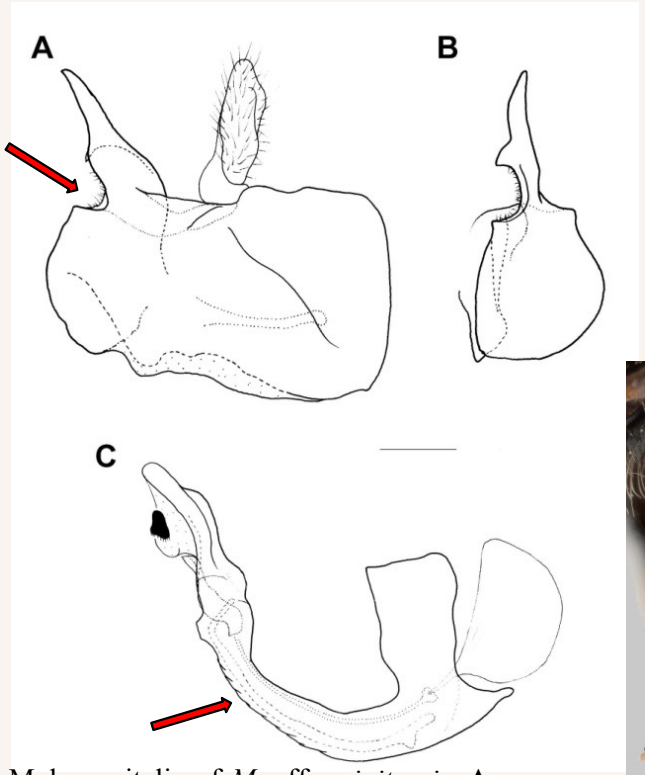
Paramonov, 1929

Males:

- small (5-10 mm), dark brown-olive species;
- tibiae and tarsi predominantly black;
- metatarsus with basoventral lamina*;
- posterior s. lobe elongated and pointed;
- hypandrium strongly modified.

Females: distribution.

Merodon aff. *spinitarsis*



Male genitalia of *M.* aff. *spinitarsis*. **A** epandrium, lateral, **B** epandrium, ventral, **C** hypandrium, lateral. Scale bar 0.5 mm.



Metaleg of *M.* aff. *spinitarsis* ♂

Males:

- metatarsus without lamina*;
- posterior s. lobe elongated and pointed (variability in the depth of the concavity of the margin between anterior and posterior surstylar lobes, present in both species);
- hypandrium modified.

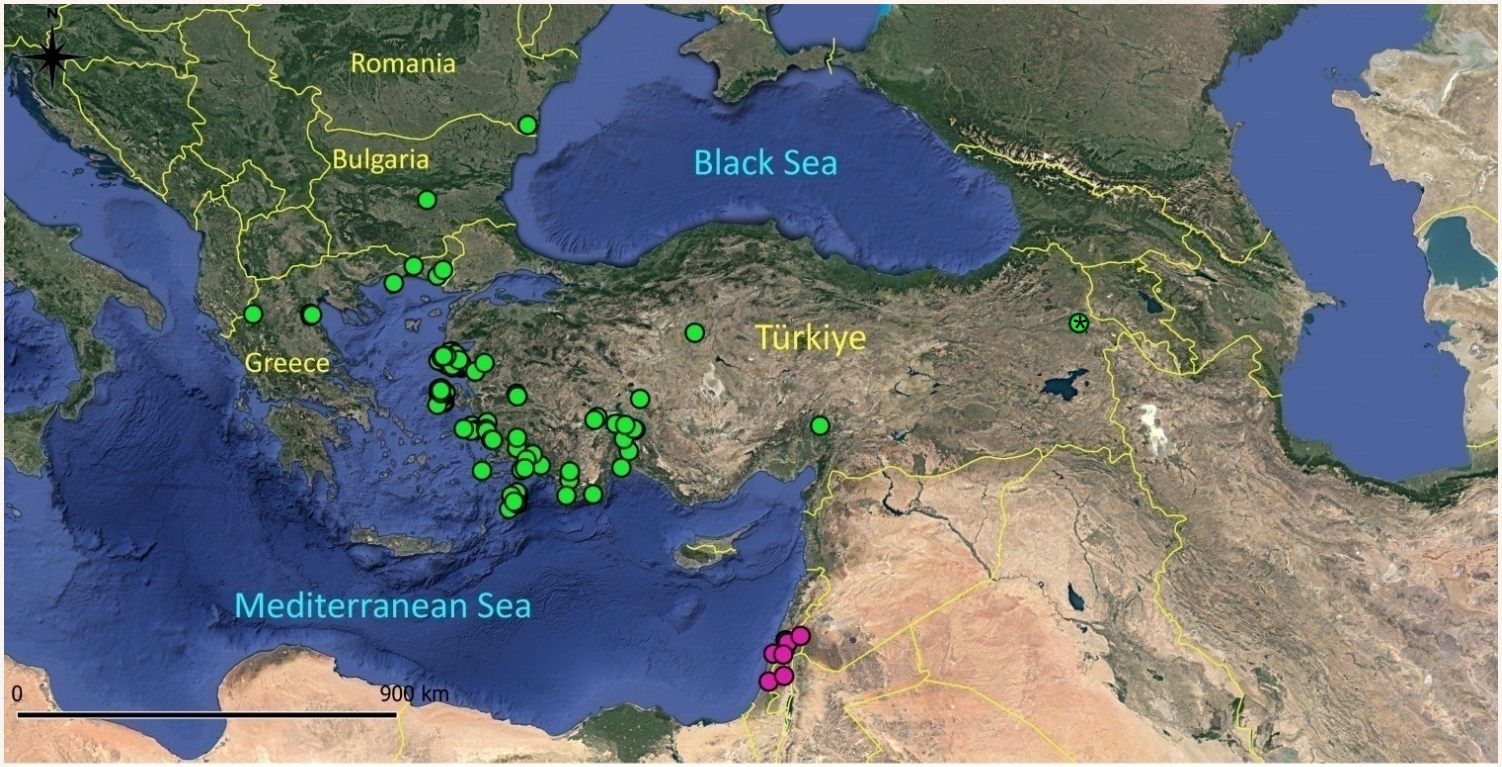
Females: distribution.

Merodon spinitarsis: Romania, Bulgaria, Greece, Türkiye.

*Russia ⇔ Türkiye (in IUCN Red List, Taxofly)

**Israel⇔ aff. *spinitarsis* (IUCN, Taxofly, …)

Merodon aff. *spinitarsis*: Israel.



distribution of *spinitarsis* sp. group

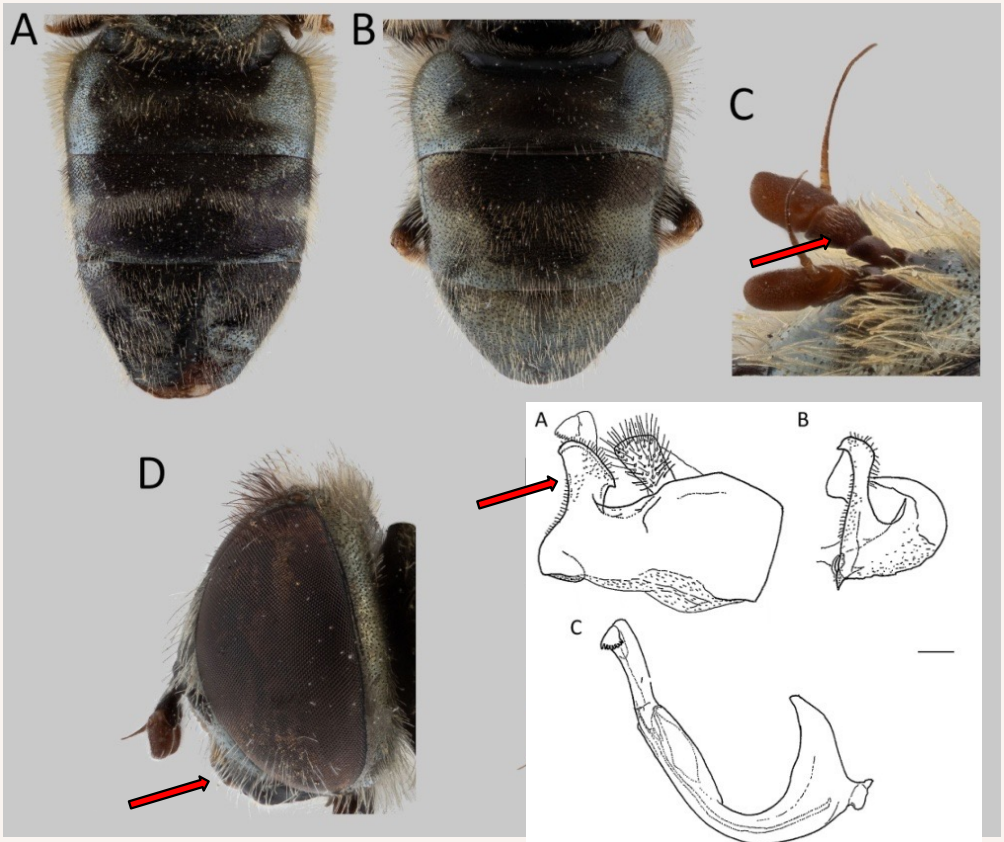
Merodon crassicornis

Sack, 1913

(syn. *Merodon syriacus* Paramonov, 1929)

Based on type material and description, *M. syriacus* and *M. crassicornis* are conspecific.

- small (6–8 mm), black species
- pedicel elongated;
- oral margin slightly protruded;
- posterior s. lobe bent, with dorsal thorn-like process; hypandrium narrow;
- scutum covered with yellow pili and few black pili near the wing base;
- metafemur with small, less dentate apicoventral triangular lamina.



Male of *M. crassicornis*. **A-B** abdomen, dorsal, **C** antennae, lateral, **D** head, lateral.

Male genitalia *M. crassicornis*. **A** epandrium, lateral, **B** epandrium, ventral, **C** hypandrium, lateral. Scale bar 0.5 mm.

Merodon crassicornis

Sack, 1913

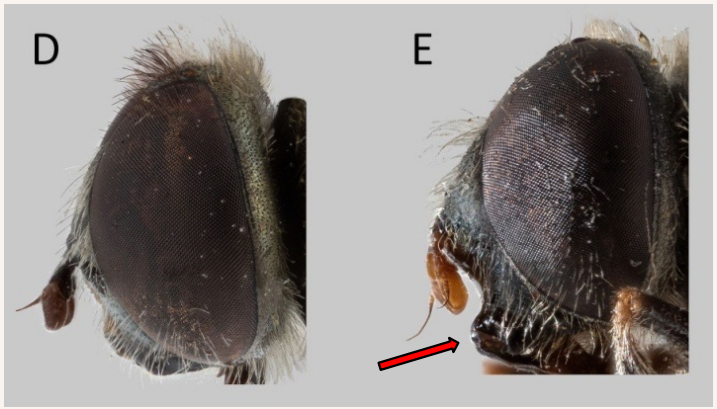
(syn. *Merodon syriacus* Paramonov, 1929)



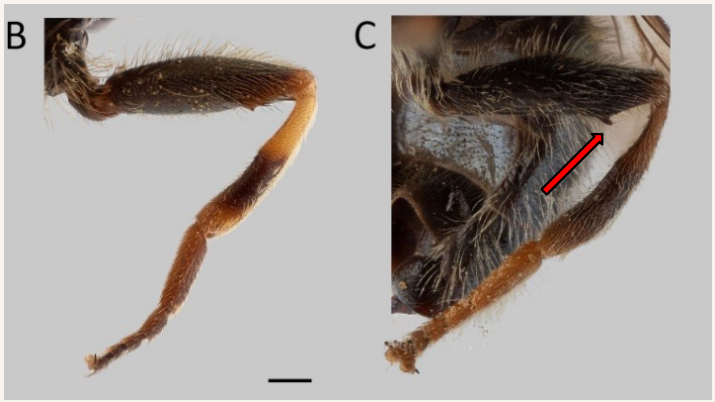
Male of *M. crassicornis*. **A** scutum, lateral, **B** metaleg, lateral.

Based on type material and description, *M. syriacus* and *M. crassicornis* are conspecific.

- small (6–8 mm), black species
- pedicel elongated;
- oral margin slightly protruded;
- posterior s. lobe bent, with dorsal thorn-like process; hypandrium narrow;
- scutum covered with yellow pili and few black pili near the wing base;
- metafemur with small, less dentate apicoventral triangular lamina.



Male of **D** *M. crassicornis*, **E** *M. nasicus*. Head, lateral.



Male of **B** *M. crassicornis*, **C** *M. nasicus*. Metaleg, lateral.

Merodon crassicornis

Sack, 1913

(syn. *Merodon syriacus* Paramonov, 1929)

based on morphological characteristics, most similar to Afrotropical *M. nasicus* (*bombiformis* s.g.):

M. crassicornis: slightly protruded oral margin; black pili on scutum; and small, less dentate apicoventral triangular lamina on metafemur.
M. nasicus: distinctly protruded oral margin; black pili absent on scutum; and distinctly dentate triangular lamina on metafemur.

without genetic support, for now it has an independent position within the *Auremerodon* subgenus.

Syria (holotype),

Israel and

Türkiye.



distribution of *M. crassicornis*

Thank You!

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dr Laura Likov