

## The first record of the genus *Myolepta* Newman, 1838 (Diptera: Syrphidae) from Iran

Babak GHARALI<sup>1</sup> and Menno REEMER<sup>2</sup>

1. Dep. of Plant Protection, Ghazvin Research Station for Agriculture and Natural Resource,  
P. O. Box: 34185-618, Shahid Beheshti Blvd. No. 18, Ghazvin, Iran, e-mail: bgharaei@mail.com

2. National Museum of Natural History, European Invertebrate Survey- the Netherlands,  
Postbus 9517, 2300 RA Leiden, The Netherlands

**Abstract.** The genus *Myolepta* is recorded for the first time from Iran. Four specimens collected in the west of Iran (Ilam city) were identified as: *M. trojana* Reemer & Hauser, 2004. Flight diagram and distribution map of this new record are presented.

**Key words:** *Myolepta*, Syrphidae, Iran

The genus *Myolepta* was described by Newman (1838) with *Musca luteola* Gmelin, 1790 designated as the type species. This moderately small genus is known from many different regions of the world with the exception of Australia. It is well represented in the Palaearctic region by 15 species, followed by the Ethiopian region with 12 species (Thompson, 1974; Wiegmann, 1986; Peck, 1988; Reemer et al., 2004). Nowadays this genus is predominantly placed in the tribe Chrysogasterini (Peck, 1988; Reemer et al., 2004) rather than the previous suggestions which considered it to belong to the separate tribe Myoleptini (Fluke & Weems, 1956). The genus is separated from other genera of the family Syrphidae by the following characters: shape of face sexually dimorphic (with facial tubercle in males, concave in females), with strong spines on ventral part of femora, with acute posterior cell, drawn out to the wing margin, and with anterior cross vein in basal half of discal

cell. Adults of *Myolepta* usually occur in mature deciduous or evergreen forests where suitable habits for the larvae (i.e. rotten and dead wood) are easily accessible (Van Veen, 2004).

The only comprehensive review of the genus in the palaearctic region (Sack, 1932) was out of date and included only four species from which *M. ruficornis* Zetterstedt, 1843 belongs to the genus *Lejota* Rondani, 1857. Reemer et al. (2004) revised the genus in the western part of the palaearctic region and described three new species namely *M. carthaginiensis*, *M. mada* and *M. trojana*. They also synonymised two species and designated a neotype for *M. potens* (Harris, 1798).

Recently Dousti & Hayat (2006) reviewed the hoverfly fauna of Iran. According to these two most recent studies (Dousti & Hayat, 2006; Reemer et al., 2004) there is no record of *Myolepta* from Iran.

The first record of *Myolepta* from Iran is based on specimens which were

collected at two different localities in Ilam Province (3♂ North of Ilam city, Tag Dalab Forest Park, 46° 22' 31" E 33° 44' 08" N, 1320 m asl; 1♀ Meimeh, Sarab Meimeh, 46° 55' 49" E 33° 13' 52" N, 1400 m

asl) (Fig. 1). Specimens from Tang Dalab Park were swept from flowers of an unknown species of Umbelliferae (=Apiaceae) along the edge of an open oak forest (*Quercus brantii* Lindley).



Figure 1. Distribution of *Myolepta trojana* (based on new material and Reemer et al., 2004)

At Meimeh a single specimen was collected from the branch of an oak tree on which it was resting.

With the help of Reemer's key, specimens were identified as *M. trojana* Reemer & Hauser, 2004. This species is distinguished from similar coloured species of *Myolepta* by a combination of the following characters:

Male (Fig. 2): shining lateral margin of sternites 3 & 4; black marking on tergite 4 clearly wider than the black marking on tergite 3; the narrow shining median strip on the face, the "axe-shaped" third antennal segment; hypandrium in dorsal

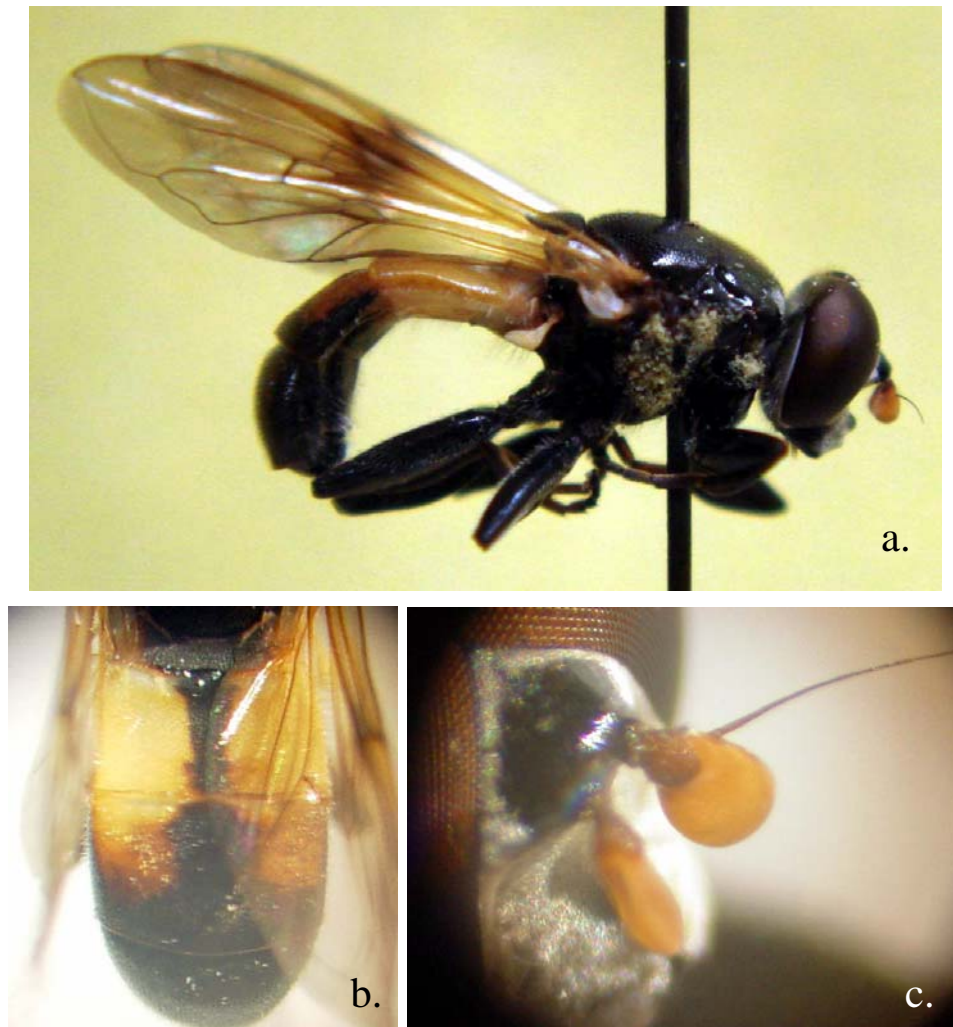
view clearly broadening toward apex, in lateral view with blunt, rounded inner process.

Female: sternites 3 & 4 completely dusted; first two tarsomers of the middle leg yellow, yellow marking on tergite 3 don't reach to the posterior margin of the tergite; posterior margin of tergite 4 black; mesoscutum with half-erect hairs.

*M. trojana* was described based on specimens from Turkey and Azerbaijan, although female specimens were not available for Azerbaijan and the three male specimens had minor differences from Turkish specimens, so they weren't

included in the type series (Reemer & Hauser, 2004). Reemer et al. (2004) showed that the flight period of this species is from 21<sup>st</sup> of May until 17<sup>th</sup> June. However, the published diagram does not show this time correctly so an

improved figure with the new records is presented as Fig. 3. Also new localities propose a wider distribution for this species suggesting it may be found in other areas, such as northern parts of Iraq and Syria, in the future (Fig. 1).



**Figure 2.** *Myolepta trojana*, **a:** lateral view (male); **b:** Abdomen (male), dorsal view; **c:** Antenna (male), inner view

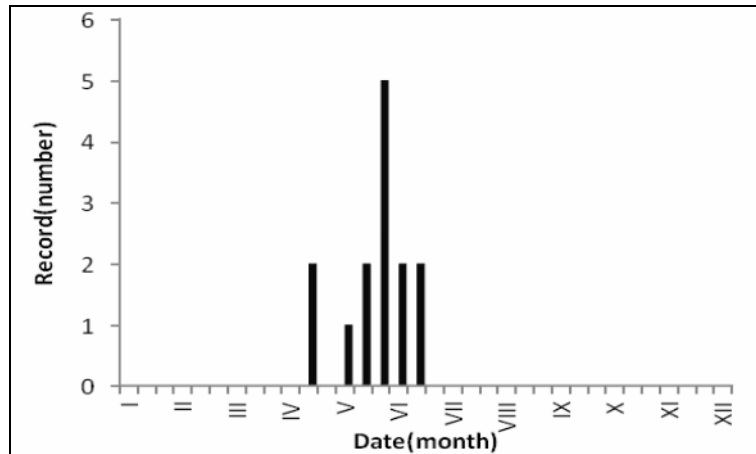


Figure 3. Flight diagram of *M. trojana* (based on new material and Reemer et al., 2004)

#### References

- Dousti, A. F. & R. Hayat (2006): A catalogue of the Syrphidae (Insecta: Diptera) of Iran. *Journal of the Entomological Research Society* 8 (3): 5-38.
- Fluke, C. L. & Weems, H. V. (1956): The Myoleptini of the Americas (Diptera, Syrphidae). *American Museum Novitates* 1758:1-23.
- Peck, L. V. (1988): Syrphidae. pp. 11-230. In: Soos A., Papp L. (eds.) *Catalogue of Palearctic Diptera*. Vol. 8, Akademia kiado, Budapest.
- Reemer, M., Hauser, M., Speight M. C. D. (2004): The genus *Myolepta* Newman in the West-Palaeartic region (Diptera, Syrphidae). *Studia Dipterologica* 11 (2): 553-580.
- Sack, P. (1932): Die Fliegen der Palaerktischen Region, 31. Syrphidae. Stuttgart (Schweizerbart), 1-451.
- Stubbs, A. E. & Falk, S. J. (2002): *British hoverflies: an illustrated identification guide*, 2nd edition. Br. Ent. Nat. Hist. Soc., London, 469 pp.
- Thompson, F. C. (1974): Description of the first known Ethiopian *Myolepta* species, with a review of the subgeneric classification of *Myolepta* (Diptera: Syrphidae). *Annals of the Natal Museum* 22(1): 325-334.
- Van Veen, M. (2004): *Hoverflies of Northwest Europe: identification keys to the Syrphidae*. 256pp. KNNV Publishing, Utrecht.
- Wiegmann, B. M. (1986): A new species of *Myolepta* (Diptera: Syrphidae) from Nepal, with its phylogenetic placement and a key to oriental species. *Journal of the New York Entomological Society* 94 (3):377-382.

Submitted: 03 March 2008  
/ Accepted: 29 July 2008