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## NEW RECORDS OF VELVET ANTS (HYMENOPTERA: MUTILIDAE) FROM THE WEST OF IRAN

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Eight species are recorded from the west of Iran. *Smicromyrme* (*Erimyrme*) *zagrosensis* Lelej **sp. n.** (Ilam Province) is described and figured. Four species are newly recorded from Iran.

KEY WORDS: Velvet ants, Mutilidae, fauna, taxonomy, new species, Iran.

А. С. Лелей<sup>1)</sup>, Б. Гарали<sup>2)</sup>, Х. Лотфализаде<sup>3)</sup>. Новые данные об ос-немках из Западного Ирана // Дальневосточный энтомолог. 2008. N 191. С. 1-7.

Из Западного Ирана приведены 8 видов ос-немок. Описывается *Smicromyrme* (*Erimyrme*) *zagrosensis* Lelej **sp. n.** из провинции Илам. 4 вида впервые указываются для фауны Ирана.

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## INTRODUCTION

Mutillidae is a large family of solitary wasps which parasitoids on the enclosed immature of other insects (Brothers, 1989). Adults are covered with dense velvety hairs and females sting severely and painfully when they are disturbed. Velvet ants are often conspicuous and brightly colored black and scarlet, or black with orange or whitish hairs. In most species, the segments of mesosoma are fused together so that they are immobile and boxlike (Brothers & Finnamore, 1993). In the field, they are easily recognized by bright patterns on the abdomen and dense hairs and filiform antennae. Mutillidae currently includes 208 genera and about 4200 described species (Lelej & Brothers, 2008; Lelej, 2007). The estimated number of species is much higher, numbering approximately 6000. They are distributed in all biogeographical regions, their greatest diversity occurs in the tropical and subtropical regions of the world. Some species of velvet ants are nocturnal, but many are active during the day.

Fauna of these wasps has been reviewed in the Palaearctic rather well. The catalogue of Palaearctic Mutillidae (523 species in 54 genera) with the key to the genera has been published recently (Lelej, 2002). Sixty-seven species in 21 genera are recorded for Iran in this catalogue. After the catalogue one genus and six species have been added to the list and three new species have been described (Lelej & Osten, 2004). During a field survey in the western provinces of Iran including Ilam and Azarbaijan-e-Sharghi (=East Azarbaijan), eight species were collected by a light trap or directly by hand from the ground. One species is a new for the science and four species are newly recorded from Iran. All material has been identified by A. Lelej. Some additional material from the collection of the Zoological Institute (St. Petersburg) has been studied also. The distribution of species follows to Lelej (2002). New records from Iran are asterisked (\*). The genera and species are given in alphabetical order.

## LIST OF THE SPECIES

### Genus *Dentilla* Lelej in Lelej et Kabakov, 1980

TYPE SPECIES: *Mutilla erronea* André, 1902 (male), by original designation (junior subjective synonym of *Mutilla curtiventris* André, 1901 (female) according to Pagliano & Strumia, 2007).

### *Dentilla dichroa* (Sichel et Radoszkowski, 1869)

SPECIMENS EXAMINED. Ilam Prov., Shirvan-Chardavol Research Station, light trap, VI.2004, 4♂ (B. Gharali).

DISTRIBUTION. Turkmenistan, Afghanistan, Iran, Iraq, Palestine, Egypt (Sinai).

REMARK. This species was recorded from southern provinces including Hormozgan, Bushehr and Fars (Lelej & Osten, 2004) and new material shows wider distribution which extend throughout Zagros mountain range in the west of Iran.

### Genus *Myrmilla* Wesmael, 1851

TYPE SPECIES: *Mutilla distincta* Lepeletier, 1845 (female), by subsequent designation (Ashmead, 1903) (junior subjective synonym of *Mutilla calva* Villers, 1789 (female), according to Morawitz, 1865).

#### *Myrmilla (Eurygnathilla) emiliae* (Dalla Torre, 1897)

SPECIMENS EXAMINED. Azarbaijan-e-Sharghi Prov., Marand, Peyam, 22.VIII 2003, 2 ♀ (H. Lotfalizadeh).

DISTRIBUTION. Armenia, Azerbaijan, Iraq, Iran, Turkey, Turkmenistan.

REMARK. This species was recorded from Golestan Prov., North Iran (Lelej & Osten, 2004) and new finding extends its distribution toward the north-west.

#### \**Myrmilla (Myrmilla) etzchmiadzini* (Radoszkowski, 1885)

SPECIMENS EXAMINED. Azarbaijan-e-Sharghi Prov., Marand, Peyam, 22.VIII 2003, 1 ♀ (H. Lotfalizadeh).

DISTRIBUTION. Armenia, Azerbaijan, \*Iran (Azarbaijan-e-Sharghi).

#### \**Myrmilla (Pseudomutilla) skorikovi* Lelej, 1985

SPECIMENS EXAMINED. Azarbaijan-e-Sharghi Prov., Marand, Peyam, 22.VIII 2003, 1 ♀ (H. Lotfalizadeh).

DISTRIBUTION. Russia (Astrakhan, Dagestan), Azerbaijan, Georgia, \*Iran (Azarbaijan-e-Sharghi).

### Genus *Physetopoda* Schuster, 1949

TYPE SPECIES: *Physetopoda insularis* Schuster, 1949 (male), by original designation (junior subjective synonym of *Mutilla rubrocincta* Lucas, 1849 (male), according to Brothers, 1983. The latter designation of *Mutilla montana* Panzer, 1805 by Pagliano & Strumia (2007) is invalid.

#### *Physetopoda portschinskii* (Radoszkowski, 1888)

SPECIMENS EXAMINED. Ilam Prov., Shirvan-Chardavol Research Station, light trap, VI 2004, 3 ♂ (B. Gharali).

DISTRIBUTION. Russia (south-east of European part), Armenia, Azerbaijan, Iran (Hormozgan, Kerman), Kazakhstan, Turkmenistan (south-west).

REMARK. This species was recorded from Hormozgan and Kerman provinces (Lelej & Osten, 2004) and new material extend its distribution to the west of Iran.

## Genus *Smicromyrme* Thomson, 1870

GENDER: Masculine (Article 30.2.4 of the Code)

TYPE SPECIES: *Mutilla rufipes* Fabricius, 1787 (female), by monotypy (attributed to Latreille, 1792).

### \**Smicromyrme (Eremotilla) mesasiaticus* Lelej, 1985

SPECIMENS EXAMINED. Ilam Prov., Shirvan-Chardavol Research Station, light trap, VI 2004, 1 ♂ (B. Gharali).

DISTRIBUTION: Turkmenistan, Uzbekistan, \*Iran (Ilam).

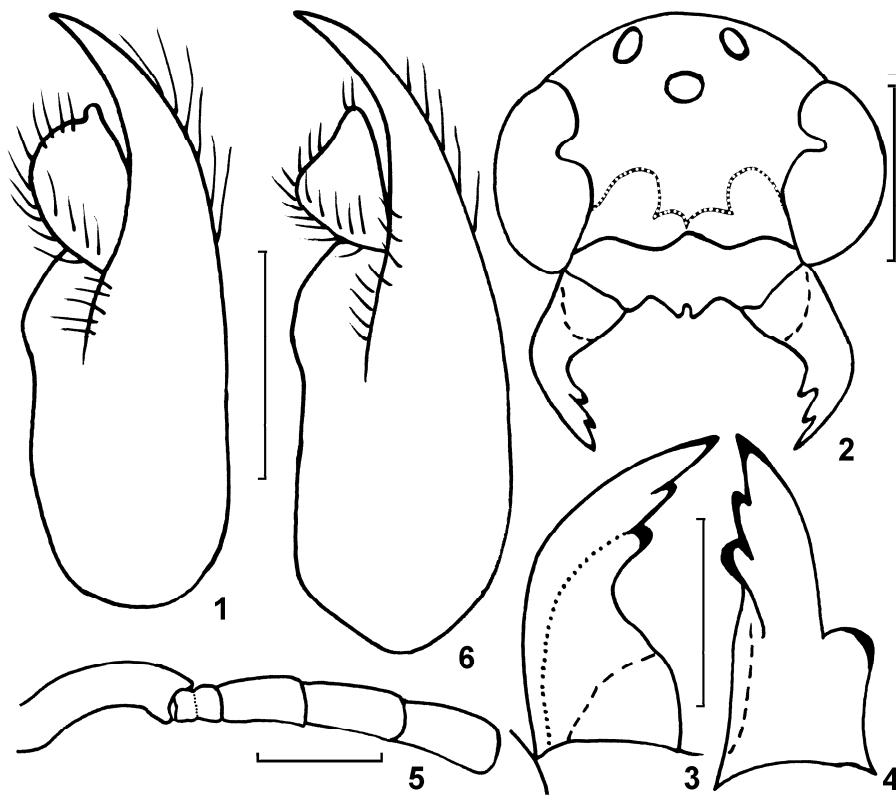
### *Smicromyrme (Erimyrme) zagrosensis* Lelej, sp. n.

SPECIMENS EXAMINED. Holotype – ♂, Iran: Ilam Prov., Shirvan-Chardavol Research Station, light trap, VI 2004 (B. Gharali), deposited in the collection of the Institute of Biology and Soil Science, Vladivostok.

DESCRIPTION. MALE. Body length 8.8 mm. Head, mesosoma, except metasternum and medial ventral part of mesopleuron, tegulae, legs and palps ferruginous-red; antennae ferruginous-red with darkish three apical flagellomeres; mandibles ferruginous-red with black apical denticles; palps brownish-red; legs ferruginous-red with brownish femorae; metasoma black with brownish-red sternum 1, tergum 7 and chestnut sterna 2 and 8; mid- and hind spurs whitish. Wings hyaline with brown veins, forewing (distally of cells) slightly infuscated, more darkened to the anterior margin. Body and legs clothed with subappressed short and scattered long erect pale pubescence; metasomal segments 2-6 with apical rare whitish fringe denser on tergum 2; felt lines on tergum 2 and sternum 2 golden. Terga 3-5 with pale pubescence which not forms a band.

Head width 0.8X thorax width including tegulae, rounded behind the eyes (in dorsal view), occipital carina visible above. Clypeus weakly concave, smooth and shiny medially, anterior border with two denticles and narrow emargination between them (Fig. 2). Scape distinctly bicarinate beneath. Ocelli medial size (Fig. 2), ratio postocellar distance : oculo-ocellar distance 1.6X; distance between posterior ocellus and posterior head margin almost equal to oculo-ocellar distance. Antennal segment 3 length 1.5X its width, 2.8X antennal segment 2 (pedicellus), and 0.85X antennal segment 4, the latter equal to antennal segment 5 (Fig. 5). Maxillar palps short, approximately 2X mandibular length. Antenno-ocular carina well developed, arcuated. Mandible tridentate with curved upper carina, third denticle distinctly tuberculate beneath (Fig. 3); large ventral tooth beneath near the base not widened apically (Fig. 4). Frons and vertex with coarse dense deep punctures.

Mesosoma length 1.6X maximal pronotal width, humeral angles rounded. Para-scutal carinae of scutum developed. Posterior coxae carinate inside. Tegulae not protruded beyond scuto-scutellar suture, shining, glabrous, with a few punctures inside. Propodeum reticulate with larger cells dorsally. Relation of *R*-abscissae is 1.9 : 1.2 : 1.7 : 2.7.



Figs 1-6. Males of *Smicromyrme*. 1-5) *S. zagrosensis* sp. n., holotype: 1) genitalia, lateral view, 2) head, anterior view, 3) mandible, dorsal view, 4) mandible, lateral view, 5) antennal segments 1-5; 6) *S. stepposus*, genitalia, lateral view. Scale bar 1 mm for fig. 2, 0.5 mm for figs 1, 3-6.

Metasomal segment 1 carinate beneath, its length 0.9X its maximal width; segment 2 with long lateral felt lines on tergum and very short ones on sternum; tergum 2 with dense large punctures. Tergum 7 weakly rounded apically, with large dense punctures, medially smooth and shiny. Genitalia laterally as Fig. 1.

FEMALE unknown.

DISTRIBUTION. Iran (Ilam).

DISCUSSION. A new species belongs to subgenus *Erimyrme* Lelej, 1985 with tridentate mandibles and concave clypeus in the males. In this subgenus a new species more related with *Smicromyrme kermanensis* (Lelej, 1984) and *S. stepposus* Lelej, 1984 by having the gonostyli with internal tuft of setae. A new species differs from *S. kermanensis* which has ferruginous-red mesosoma, legs and brownish-red head by having smaller ocelli (ratio *POD* : *OOD* 1.7X in *S. kermanensis*), by having medial smooth shiny area on metasomal tergum 7 (punctate throughout in *S.*

*kermanensis*), by having short felt line on metasomal sternum 2 (only a few small punctures in *S. kermanensis*), by having widened apically volsella (more or less parallelsided in *S. kermanensis*). *S. zagrosensis* sp. n. differs from *S. stepposus* by having ferruginous-red mesosoma (at least propodeum, mesopleuron ventrally, metapleuron, and legs black in *S. stepposus*), by having ferruginous-red head (black in *S. stepposus*), by having medial smooth shiny area on metasomal tergum 7 (punctate throughout in *S. stepposus*), by having another shape of volsella (Fig. 1 vs. Fig. 6).

ETYMOLOGY. The specific name is a Latin adjective derived from the Zagros Mountains, referring to the region where the species has been found.

### Genus *Tropidotilla* Bischoff, 1920

TYPE SPECIES: *Mutilla littoralis* Petagna, 1787 (female), by original designation (misspelled as *littoralis*).

#### \**Tropidotilla cypriadis* Invrea, 1940

SPECIMENS EXAMINED. Ilam Prov., Shirvan-Chardavol Research Station, light trap, VI 2004, 1♂ (B. Gharali).

DISTRIBUTION. Cyprus, Iraq, \*Iran (Ilam).

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