

## Short Communication

# Notes on the Malachiini of the East-Mediterranean region, with description of a new species (Coleoptera, Melyridae, Malachiinae)

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**Abstract** - New distributional data are here presented for the genera *Clanoptilus* Motschulsky 1854 and *Malachius* Fabricius 1775 in the East-Mediterranean region. *Malachius saltinii* n.sp. is described from Lebanon.

**Key Words:** distribution, Lebanon, Jordan, soft-winged flower beetles, Turkey.

**Riassunto** - Note sui Malachiini della regione est-mediterranea, con descrizione di una nuova specie (Coleoptera, Melyridae, Malachiinae).

Sono qui presentati nuovi dati sulla distribuzione dei generi *Clanoptilus* Motschulsky 1854 e *Malachius* Fabricius 1775 nella regione est-mediterranea. *Malachius saltinii* n.sp. è qui descritto dal Libano.

**Parole chiave:** distribuzione, Libano, Giordania, coleotteri meliridi, Turchia.

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## INTRODUCTION

In the Western Palaearctic region, the Malachiinae fauna of the Eastern Mediterranean is one of the most interesting both for variety of forms and number of taxa. Although studied since the 19<sup>th</sup> century by eminent entomologists like Peyron (1877), Abeille de Perrin (1890-1891), Wittmer (1986, 1999), Švihla (1998) – the latest addition being that by Yildirim & Bulak (2012) –, its knowledge is still incomplete today. The study of a rather large sample of *Clanoptilus* and *Malachius* from several representative collections disclosed the presence of both a new *Malachius* species from Northern Lebanon, which shows unusual characters, and four already known species whose ranges, as a consequence of our study, now require adjustments.

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## MATERIALS AND METHODS

The specimens studied are kept in the following collections:

CGF	Private collection G. Franzini, Milano (IT)
CGL	Private collection G. Liberti, Uboldo (IT)
CLS	Private collection L. Saltini, Modena (IT)
CMU	Private collection M. Uliana, Codevigo (IT)
MSNG	Museo Civico di Storia Naturale “Giacomo Doria”, Genova (IT)
NHMW	Naturhistorisches Museum, Wien (AT)
NMWC	National Museum of Wales, Cardiff (GB)

Morphometric measurements were taken using an ocular micrometer mounted on a Leica S9E stereoscope. The following abbreviations are used:

AL	Antennal length
EL	Elytron length, measured from humerus to apex
EW	Elytra width, measured at the base
HW	Head width including eyes
IOW	Interocular width, as the minimum distance between the inner margins of eyes
PL	Pronotum length
PW	Pronotum width
TL	Total body length

## RESULTS

***Clanoptilus (Clanoptilus) capricornis*** (Peyron 1877)  
*Malachius capricornis* Peyron 1877: 94 [*loc. typ.*: Mount Lebanon]; Abeille de Perrin (1891: 669).  
*Clanoptilus capricornis*: Evers (1985: 30, 35); Mayor (2007: 448).

Material studied: Turkey: “Hatay / env. Senköy m 58 / 35°59'55”N 38°07'11”E / 2.VI.2014 Lg. P. Rapuzzi” 1 ♂ (CMU). Lebanon: “Kesrouane / Aayoun es Symane m 1800 / G. Sama leg. 5.V. 2000” 2♂♂ 1♀ (MSNG).

New species for the Turkish fauna. This species has been described from “Syrie: Mont Liban”, now in Lebanon. Its presence in nowadays Syria should be confirmed.

***Clanoptilus (Clanoptilus) kaszabi*** (Wittmer 1958)  
*Malachius kaszabi* Wittmer 1958: 127 [*loc. typ.*: Kagysman, Turkey (formerly Armenia)].  
*Clanoptilus kaszabi*: Evers (1985: 30, 35); Mayor (2007: 448).

Material studied: Turkey: “Vil. ERZURUM / Kireçli Geç. 2400 m / 06.06.1995 / E.G.M. DELLACASA” 1 ♂ (MSNG).

The typical locality is now in Kars province, Turkey, and the species, to our present knowledge, should be considered a Turkish endemic.

***Malachius (Malachius) ensiculus*** Abeille de Perrin 1891  
*Malachius ensiculus* Abeille de Perrin 1891: 405 [*loc. typ.*: “Monts Amanus (Syrie)” = Nur Mountains]; Evers (1985: 24, 33); Mayor (2007: 448).

Material studied: Turkey: “prov. Adana / Hasanbeyli / 37°07.3N 36°34.7E / m 900 25.V.2011 leg. G. Liberti” 2 ♂♂ 1 ♀ (CGL); “prov. Adana / Hasanbeyli 4 km SE / 37°06.6N 36°36.5E / m 1115 25.V.2011 leg. G. Liberti” 1 ♂ (CGL); “Karahmanmaraş / Gökşun 17 km SE / 37°54.2N 36°35.5E / m 1156 26.V.2011 leg. G. Liberti” 2 ♀♀ (CGL); “prov. Kayseri / Env. Uzunahmet / 38°35N 36°25E m 1700 / 19.V.2010 leg. M. Uliana” 2 ♂♂ (CMU, CGF); “prov. Kayseri / Bakirdağı km 13 E / 15.V.2011 leg. F. Angelini” 2 ♂♂ (CGL); “Iskenderun / Nur Dag - Topbogazi Gec. / m 750 / 19.V.2010 leg. L. Saltini” 1 ♂ (CLS).

The ancient Amanus (Greek: Ἀμανός) is a mountain range in the Hatay Province of south-central Turkey (rather close to the border with Syria), also known as the Nur Mountains (Turkish: Nur Dağları, “Mountains of Holy Light”), formerly known as Alma-Dağ (information found in “Wikipedia” online encyclopedia). Therefore, *M. ensiculus* must be included in the fauna of Turkey and its presence in present-day Syria requires confirmation.

***Malachius (Malachius) junceus*** Peyron 1877  
*Malachius junceus* Peyron 1877: 62 [*loc. typ.*: Mount Lebanon, Balbek]; Abeille de Perrin (1891: 116); Evers (1985: 24, 33); Mayor (2007: 449).

Material studied: Turkey: “Osmaniye, Asm [“Asie mineure”] / 1100m, V-VI/67 / leg. F. Schubert” 1 ♂ (NHMW)  
Jordan: “Ajlun [Jordan, abt 50 Km north of Amman] dint. m 100 / 18.V.1999 leg. G. Sama” 1 ♀ (MSNG)

A new species for the Turkish and Jordanian faunae. It was previously known from Lebanon only.

***Malachius (Malachius) monticola*** Kiesenwetter 1878  
*Malachius monticola* Kiesenwetter 1878: 210 [*loc. typ.*: Kiptschakh and Alagoes (Armenia)]; Abeille de Perrin (1891: 675, as var. of *M. faldermanni* Faldermann, 1836); Evers (1985: 6, 25, 33); Mayor (2007: 449).

Material studied: Turkey: “KARS / dint. Sarikamis / 28.VI-1.VII.1997 / leg. L. Saltini” 1 ♂ (CLS)

A new species for the Turkish fauna. It was previously known from Armenia only.

***Malachius (Malachius) saltinii* n. sp.**

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**Diagnosis**

A medium-sized *Malachius* (TL: male: 5.2-5.6 mm, female: 5.7-6.5 mm) close to *M. bipustulatus* (Linnaeus

1758) with slender limbs and sharply bi-coloured antennae: first two antennomeres orange-yellow, the others black. Protibiae elongated and bent inward at apex. Male with frons deeply excavated between antennal bases, and another smaller depression just below, on clypeus. *M. saltinii* n.sp. differs from all other *Malachius* species by the peculiar characters of antennae and head of male, and the shape of protibiae.

**Type material**

Holotype ♂: labelled “N. LEBANON Horsh Ehden / Nature Reserve 34.19N / 36.00E 1,300–1,600 m / 29.V–4.VI.2001 B. Levey / NMWZ 2000 081” (NMWC).

Allotype ♀: same data as the holotype (NMWC).

Paratypes: 1 ♂, 2 ♀♀: same data as the holotype (NMWC); 1 ♂, 2 ♀♀, labelled: “n. LIBANO caza Bcharre / Horsh Ehden m 1500 / 19.6.2009 leg. L. Saltini” (CLS).

Typical locality: Horsh Ehden Nature Reserve, abt. 20 Km SE of Tripoli, in northern Lebanon.

**Description of the Holotype (Fig. 1)**

**Measurements:** TL 5.6 mm; HW 1.4 mm; IOW 1.1 mm; AL 4.4 mm; PL 1.2 mm; PW 1.4 mm; EL 3.7 mm; EW 2.0 mm. **Body** metallic bronze-green, shining, with yellow spot at elytral apex. **Integument** covered with two types of setae, long black erect and short whitish adpressed. **Head** sharply bi-coloured, anteriorly yellow to middle of eyes, metallic bronze behind middle; mandibles yellow, with some black setae on sides; genae and palpi black; antennomeres 1-2 yellow, 2 darkened distally; 3-11 black, with short white pubescence. **Elytra** with small and triangular yellow spot at apex, only covering the small apical area. **Legs** entirely bronze. **Underside** bronze, covered with long white setae; mesepimera yellow.

**Head** (Fig. 2) as wide as pronotum; clypeus anteriorly with a median hemispherical depression; excitators shaped as a deep transversal furrow, with a carina and a bipartite tuft of yellow setae in the middle; frons deeply concave between antennae, concavity with sharp margins all around and a tuft of yellow setae in the middle of the front margin. **Antennae** reaching two thirds of elytra; antennomere 1 conical, with some long black setae at apex; 2 large, wedge-shaped; 3 compressed, narrower than 2; 4 wider than 3, compressed, parallel-sided; 5 trapezoidal, 6-11 serrate, gradually decreasing in width.

**Thorax:** pronotum slightly transverse, 1.2 times wider than long, with a distinct raised margin throughout the base; hind angles strongly reflexed.

**Elytra** parallel, about three times longer than wide, separately rounded at apex.

**Legs** very slender; protibiae distally bent inwards, elongated and slightly dilated.

**Abdomen:** Apical tergite slightly emarginate in the middle.

**Description of the Allotype (Fig. 3)**

**Measurements:** TL 6.0 mm; HW 1.5 mm; IOW 1.0 mm; AL 3.0 mm; PL 1.3 mm; PW 1.6 mm; EL 4.1 mm; EW 2.5 mm. **Body** metallic green, shining, with yellow

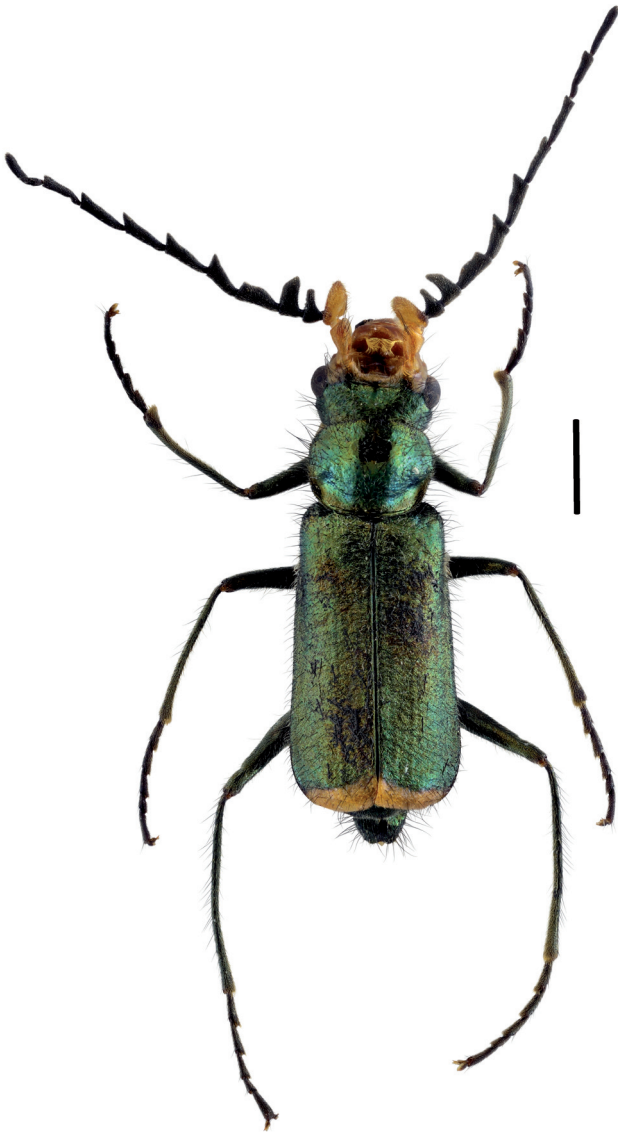


Fig. 1 - *Malachius saltinii* n.sp. Holotype male (bar: 1 mm). / Olotipo maschio (scala metrica: 1 mm).

spot at apex of elytra. **Integument** covered with two types of setae, long black erect and short whitish adpressed. **Head** bi-coloured: anteriorly yellow to middle of eyes, metallic green beyond middle, the green colour extending downwards on the frons; mandibles yellow, with some black setae at sides; genae and palpi black. **Elytra** with a small and triangular yellow apical spot covering only apex. **Underside** bronze, covered with long white setae; mesepimera yellow. **Legs** entirely bronze.

**Head** almost as wide as pronotum; frons slightly concave behind the clypeus and between antennae. **Antennae** reaching to one third of elytra, with short white pubescence; antennomere 1 conical, with a dark transverse band and some long black setae at apex; 2 small, transverse, yellow, darkened at centre; 3 black, triangular, wider than 2; 4 wider than 3, triangular with rounded apex; 5-11 narrower than 4, compressed, serrate, gradually decreasing in width.



Fig. 2 - *Malachius saltinii* n.sp. Holotype male, head (bar: 0.5 mm). / Olotipo maschio, capo (scala metrica: 0,5 mm).

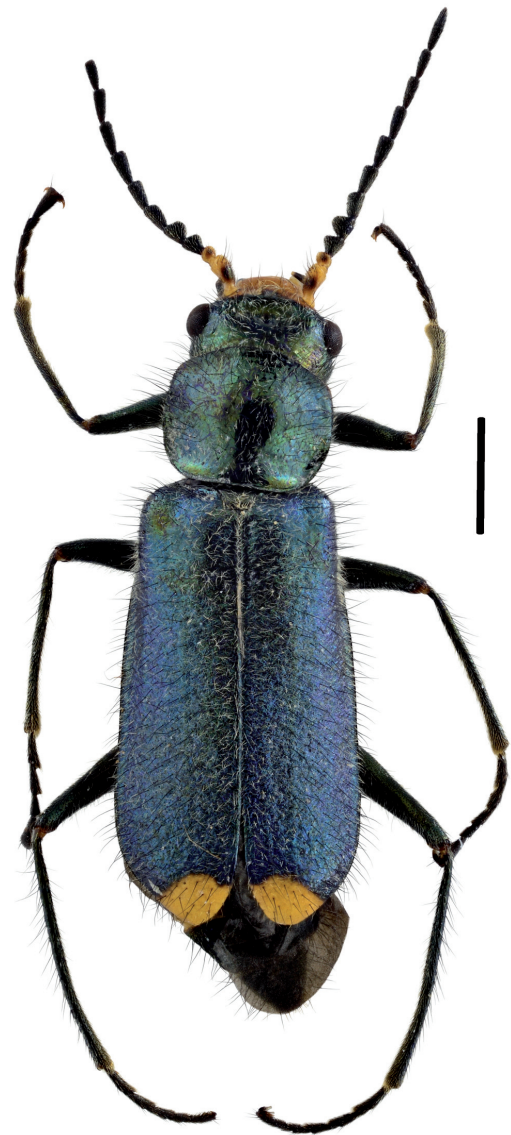


Fig. 3 - *Malachius saltinii* n.sp. Allotype female (bar: 1 mm). / Allotipo femmina (scala metrica: 1 mm).

**Thorax:** pronotum slightly transverse, 1.1 times wider than long.

**Elytra** dilated posteriorly, about three times longer than wide, separately rounded at apex.

**Legs** slender; protibiae at apex slightly bent inwards.

### Variability

The only character showing meaningful variation throughout the studied material is the colour of antennomeres 1-2 in females, as the dark spots can be reduced or even completely absent.

### Distribution

Currently only known from the type locality.

### Ecology and conservation

Specimens in NMWC were collected on open mountain slopes with woody Rosaceae and *Juniperus excelsa* bushes. Specimens in CLS were most likely caught with a sweeping net (L. Saltini, pers. comm). The other Malachiinae observed together with *M. saltinii* n.sp. were *Malachius ephippiger* Redtenbacher 1843 (CLS) and *Haplomalachius syriacus* Wittmer 1999 (NMWC). The biology of the new species is completely unknown.

Horsh Ehden, the only known locality where the new species has been found so far, is a mountainous ecosystem on the Northern Mount Lebanon chain characterized by stands of cedars bordered by a mixed forest including maple, pine, wild plum and pear trees; the Reserve represents the natural southern limit of the fir tree *Abies cilicica* (Ramadan-Jaradi, 2004). It is already known for being home to other significant endemic beetle species (Sama et al., 2010). The area is protected as a Nature Reserve under Lebanon's law, so the survival of *M. saltinii* n.sp. should be assured.

### Etymology

The new taxon is named after one of its collectors, Lucio Saltini, passionate naturalist, tireless promoter of research opportunities and dissemination initiatives and appreciated student of the Middle-Eastern coleopterofauna.

### Discussion

The pitted frontal structure present on the head of male specimens of *M. saltinii* n.sp. somewhat resembles that of *M. sculptifrons* Abeille de Perrin 1883, *M. junceus* Peyron 1877 and *M. cavifrons* Kiesenwetter 1878. However, the basic shape of the first four male antennomeres is notably different when it is compared to all the aforementioned species, and is somewhat reminiscent of that of *M. bipustulatus* (Linnaeus 1758) and related species. Using the Evers (1985: 25) *Malachius* key, the new species might fall within couplet 40 were it not for the male head structure, the antennal colour and the protibial shape, which clearly separate *M. saltinii* n.sp. from all other species in that group. The females show the overall appearance of *M. bipustulatus*, but can be easily identified both by the sharp colour contrast between the first two antennomeres and the rest of the antenna, and the inwardly bent protibiae.

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