



ARTÍCULO:

**On some species of  
*Metaphalangium* Roewer from  
the Mediterranean Region  
(Opiliones, Phalangidae)**

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**ON SOME SPECIES OF *METAPHALANGIUM*  
ROEWER FROM THE MEDITERRANEAN REGION  
(OPILIONES, PHALANGIIDAE)**

Wojciech Star" ga

**Abstract:**

The following three species are described: *Metaphalangium corsicum* (Roewer, 1956) (transferred from *Eudasylobus*), *M. lusitanicum* (Roewer, 1956) (transferred from *Dasylobus*) and *M. sudanum* Roewer, 1961. *Dentizacheus zuluetai* Rambla, 1959 and *Eudasylobus rondaensis* Kraus, 1959 were synonymized with *M. lusitanicum*, and *Metaphalangium orientale* Star" ga, 1973 with *M. sudanum*. The last mentioned species is the first harvestman known from Saudi Arabia. The genus *Metaphalangium* Roewer now comprises 7 species and probably one more, *M. abruptum* (Roewer, 1911) (transferred from *Paropilio*, with *Zacheus mirabilis* Caporiacco, 1949 as a synonym) – this should be, however, checked. *Metaphalangium propinquum denticulatum* Hadří, 1973 and *M. propinquum montenegrinum* Hadří, 1973 are synonymized with *M. cirtanum* (C.L. Koch, 1839), and *Dasylobus nigricoxis* Simon, 1878 removed from synonymy with *M. cirtanum*.

**Key words:** Opiliones, Phalangidae, *Metaphalangium*, harvestmen, Mediterranean Region, Saudi Arabia.

**Taxonomy:**

*Metaphalangium corsicum* (Roewer, 1956) comb. n.  
*Metaphalangium lusitanicum* (Roewer, 1956) comb. n.  
*Metaphalangium abruptum* (Roewer, 1911) comb. n.

**Sobre algunas especies de *Metaphalangium* Roewer de la región Mediterránea  
(Opiliones, Phalangidae)**

**Resumen:**

(Roewer, 1956) (transferida desde *Dasylobus*) y *M. sudanum* Roewer, 1961. *Dentizacheus zuluetai* Rambla, 1959 y *Eudasylobus rondaensis* Kraus, 1959 se sinonimizan con *M. lusitanicum*, y *Metaphalangium orientale* Star" ga, 1973 con *M. sudanum*. La última especie mencionada es el primer opilión conocido de Arabia Saudí. El género *Metaphalangium* Roewer contiene actualmente siete especies, más otra probable, *M. abruptum* (Roewer, 1911) (transferida desde *Paropilio*, con *Zacheus mirabilis* Caporiacco, 1949 como un sinónimo) – deben ser todavía verificadas las sinonimias de *Metaphalangium propinquum denticulatum* Hadří, 1973 y *M. propinquum montenegrinum* Hadří, 1973 con *M. cirtanum* (C.L. Koch, 1839); se revoca la sinonimia de *Dasylobus nigricoxis* Simon, 1878 con *M. cirtanum*.

**Palabras clave:** Opiliones, Phalangidae, *Metaphalangium*, Región Mediterránea, Arabia Saudí.

**Taxonomía:**

*Metaphalangium corsicum* (Roewer, 1956) comb. n.  
*Metaphalangium lusitanicum* (Roewer, 1956) comb. n.  
*Metaphalangium abruptum* (Roewer, 1911) comb. n.

**Introduction – the genus *Metaphalangium* Roewer**

The genus *Metaphalangium* has been erected already by Roewer (1911) but its precise characteristics was fixed only just by myself (Star" ga, 1984; some elements in Martens, 1978). Martens (1978) considered the genus should contain only two species and the numerous described names be synonymized either with *Metaphalangium propinquum* (Lucas, 1846) or with *M. orientale* Star" ga, 1973. My earlier revision (Star" ga, 1984) has shown that to this group belong actually: *M. albounilineatum* (Lucas, 1846), *M. bispinifrons* (Roewer, 1911), *M. cirtanum* (C.L. Koch, 1839), *M. orientale*, *M. tuberculatum* (Lucas, 1846) and a slightly „mysterious” *M. sudanum* Roewer, 1961. All mentioned species occur in North Africa, only *albounilineatum* and *cirtanum* have a wider range: the former living also in southern Italy, the latter nearly in all north Mediterranean countries. My unpublished data allowed to assign here two further Mediterranean species: *M. corsicum* (Roewer, 1956) [described as *Eudasylobus*], *M. lusitanicum* (Roewer, 1956) [described as *Dasylobus*] and to synonymize *M. orientale* with *M. sudanum*. The last mentioned species has now a range, and is not known from some isolated localities only. To the genus belongs probably also an additional species, *M. abruptum* (Roewer, 1911) [described as *Paropilio*] from Sicily.

**DIAGNOSIS**

The genus *Metaphalangium* can be characterized as follows (Star“ga, 1984): **1.** Carapace in front of eye mound strongly denticulated, all tergites with transversal rows of sharp denticles; eye mound up to two times of its length from the frontal margin, with strong denticles on the eye rings; supracheliceral lamellae with large granules or denticles, sometimes forming transversal rows. **2.** Male chelicerae normally stronger (though similar) as in females, with numerous denticles or granules on both segments; palps short and without any longer apophyses, femur most with strong, short denticles ventrally, tarsus in males with longitudinal strip of large granules ventrally; legs long and strongly built, at least the femora with sharp denticles or even thorns ordered into regular rows; leg I (femur to tibia) in males mostly thickened. **3.** Penis shaft with characteristic subapical „spoon“ dorsally (sometimes reaching to the half length of the shaft); glans comparatively large, in profile triangular, in cross-section flat cuneiform. **4.** The most characteristic feature is the body coloration: a darker saddle broadened angularly in the middle portion of the abdomen (sometimes only this part of the saddle is visible) and a distinctly bright (white or yellowish) stripe reaching from the eye mound to the anal plate.

**SPECIES TYPICA** (by original designation) *Phalangium propinquum* Lucas, 1846 [= *Metaphalangium cirtanum* (C.L. Koch, 1839)] (Roewer, 1911; Star“ga, 1984).

**RELATIONSHIPS.** The genus is related first of all with *Bunochelis* Roewer, 1923 (two species in Canary Islands), *Graecophalangium* Roewer, 1923 (four species in Makedonia, Greece, Lebanon), *Bactrophalangium* Šilhavý, 1966 (two species in Afghanistan, Tadjikistan, Uzbekistan) and *Phalangium* Linnaeus, 1758 (unknown number of species in the Mediterranean and Caucasian countries, only *Ph. opilio* L. with a huge natural – Holarctic – range). The differences between those five genera are limited mainly to the shape of male chelicerae: nearly “normal” in *Metaphalangium* and differently modified in the other. Some relations exist also with the Mediterranean *Dasylobus* Simon, 1879, European-Middle Eastern *Rilaena* Šilhavý, 1965 and *Zachaeus* C.L. Koch, 1839 as well as with the African *Cristina* Loman, 1902 and *Dacnopilio* Roewer, 1911.

Included were up-to-date (Star“ga, 1984) six species, the present paper changes this number to 7 or even 8 (by subtracting one and adding two or three).

**Descriptions of the species in question**

***Metaphalangium corsicum* (Roewer, 1956) comb. n.** *Eudasylobus corsicus* Roewer, 1956: 255, pl. 36, figs 24–26.

Figs. 1–7.

**MATERIAL.** 2% 7&& – “*Eudasylobus corsicus* Rwr. – 4% 5&& – **TYPUS.** Corsika. [IX.28 Gipfel v. Monte d’Oro]” (Senckenberg-Museum Frankfurt a. M. R II/2157/100).

**DESCRIPTION**

Body in male 6.3–7.0, in female 5.1–8.6 mm long. Carapace in both sexes densely denticulated (stronger in females!). Eye mound distant from the frontal margin of about its length, a little broader as long, flattened and with a distinct furrow, with numerous sharp denticles on the eye rings. All tergites with a single transversal row of denticles (in females denticles partly very small or even substituted by bristles). Ventral body surface and all coxae smooth.

Chelicerae of male as in fig. 1, in female also with some denticles dorsally on the basal segment.

Palpal femur in both sexes with a medio-distal prominence, thickly covered with bristles. Patella with a short, lobi- or fingerform apophysis. Tibia slightly thickened medio-apically, brush-like hirsute. Palpal femur and patella in males with small denticles dorsally, tibia with very small granules medio-subapically and tarsus with longitudinal row of granules ventrally in its middle part. Tarsus characteristically bent. Palps in female stronger armed: femur and tibia with ventral spines, patella and tibia dorsally as well as tarsus ventrally with long, protruding bristles.

Femora to tibiae of legs slightly five-edged and with longitudinal rows of denticles. In males I Pair thickened. Legs of moderate length in males (BLI<sup>1</sup> 1.375–1.486), short in females (BLI 0.825–1.051; middle value for 7 specimens 0.944).

Penis (with body length 6.3) 2.85 long, basis 0.49 broad, glans 0.48 and stylus 0.14 mm long.

Coloration of body and appendages yellowish-brown. Saddle distinct – brown, medially lighter – with constrictions on 1. and 3–4. abdominal tergite and bluntly ending on 5. tergite.

**DISTRIBUTION.** Known from a single locality in Corsica (Monte d’Oro; Roewer, 1956).

***Metaphalangium lusitanicum* (Roewer, 1956) comb. n.** *Dasylobus lusitanicus* Roewer, 1956: 251, pl. 36, figs 8–9,

*Dentizacheus zuluetai* Rambla, 1959: 100–108, figs 33, 35, 37, 39–42, **syn. n.**,

*Eudasylobus rondaensis* Kraus, 1959: 302–304, **syn. n.**, *Zacheus zuluetai*: Kraus, 1961: 359,

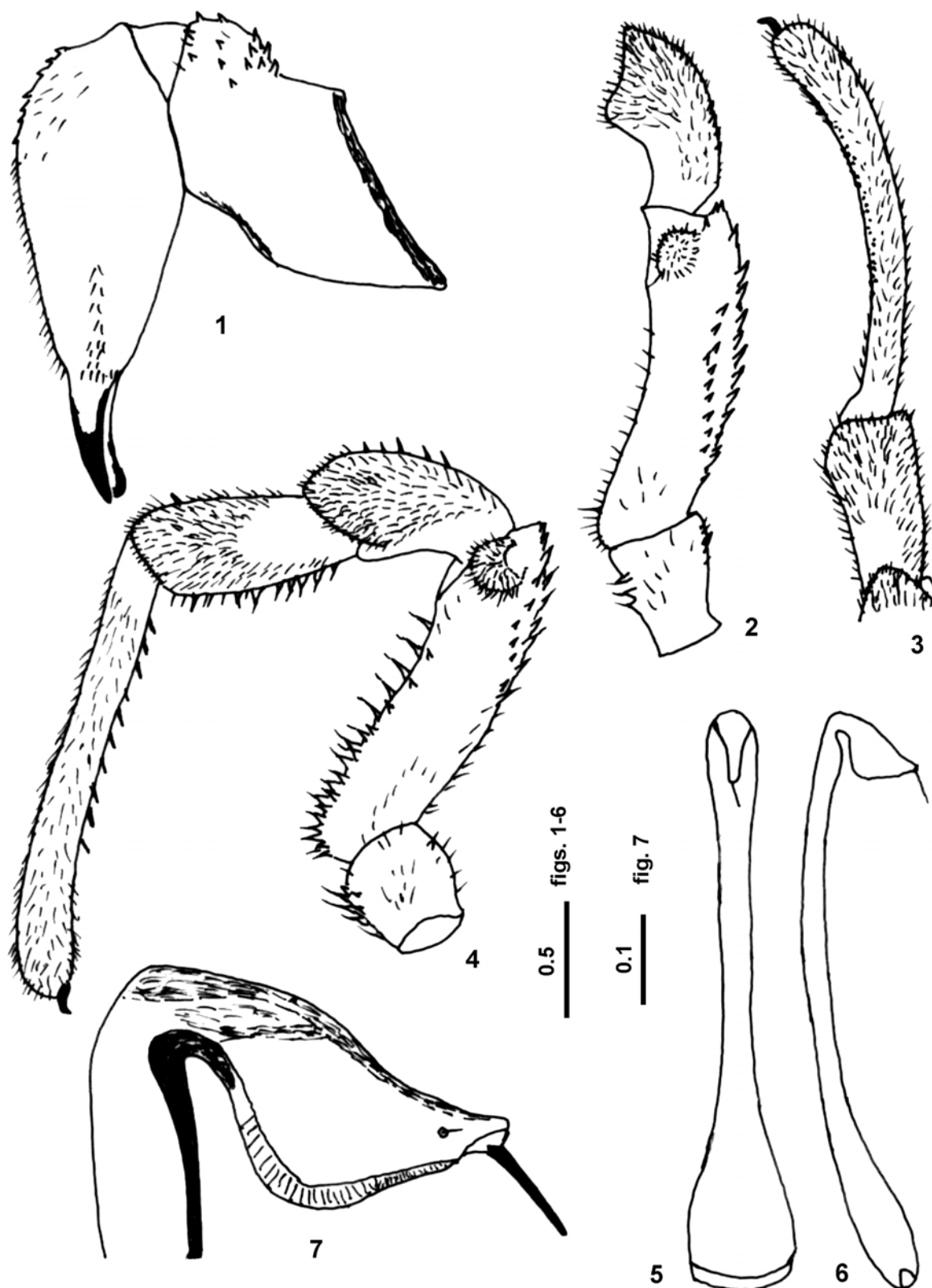
*Dentizacheus zuluetai*: Rambla, 1967: 28,

*Dasylobus (lusitanicus* Roewer 1956?): Rambla, 1967: 29.

Fig. 8–12.

**MATERIAL.** 1 % – “*Dasylobus lusitanicus* Rwr. – 1 % – Typus. Portugal: Coimbra.” (SMF R II/11151/334). 1 % – “*Zacheus zuluetai* Rambla – 1 % det. O. Kraus. Port. (Estremadura): Fatima, H. Franz leg. 31.III.1961.” (SMF 11889/1).

<sup>1</sup> Beinlängenindex [Index of leg length] (Star“ga, 1972): relation of the femur I length to the carapace width (between the incisions of coxae II and III).



**Fig. 1-7.** *Metaphalangium corsicum*. 1. Right chelicera of male, mesal view. 2-3: right palpus of male, mesal view: 2. trochanter-patella. 3. tibia and tarsus. 4. right palpus of female, mesal view. 5-6: penis: 5. dorsal view. 6. lateral view. 7. glans, lateral view. Scale bars in mm.

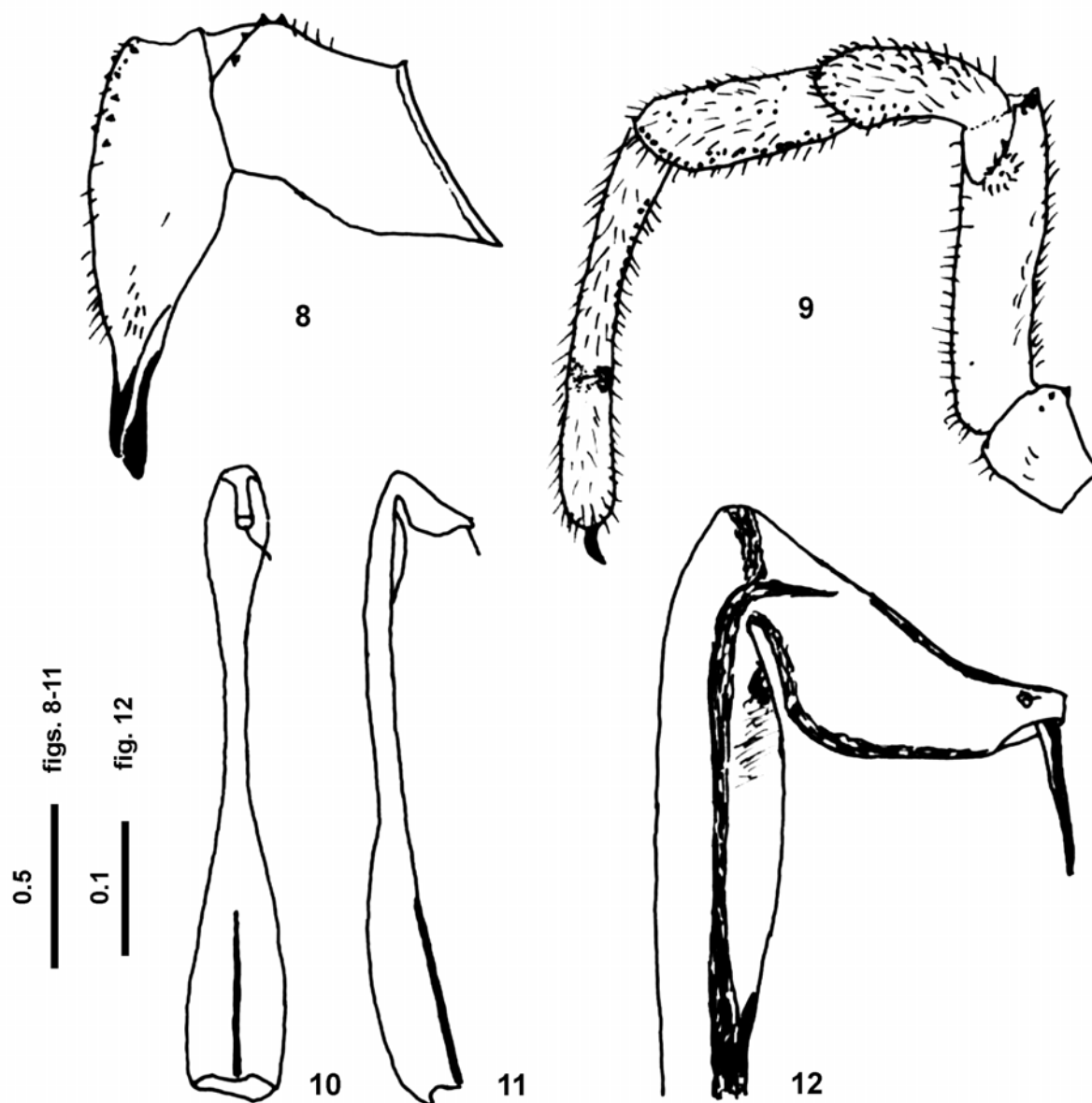


Fig. 8-12. *Metaphalangium lusitanicum*. 8. Right chelicera of male, mesal view. 9. right palpus of male, mesal view. 10-11: penis: 10. dorsal view. 11. lateral view. 12. top of penis with glans, lateral view. Scale bars in mm.

#### DESCRIPTION

**MALE.** Body length 3.4 mm. Carapace in front of eye mound with about 15 sharp, conical denticles, its frontal corners with numerous short denticles. All tergites with single transversal rows of denticles (on abdomen denticles only along the median line, not in straight but sinuous rows). Eye mound as long as broad, a little lower, distant from frontal margin of less as its length (7: 9), furrow very narrow and shallow, eye rings with 4 + 4 denticles.

Chelicerae not enlarged, only 2. segment a little thickened, frontally with numerous granules; suprachelical lamellae with larger denticles.

Pedipalps: patella with short, brush-like apophysis, femur and tibia densely hirsute, without apophyses; femur subapically-medially thickly covered with bristles.

Legs moderately long (BLI 1.238), all segments cylindrical. Femora with longitudinal rows of short denticles, several denticles also on patellae; other segments not armed. I pair slightly thickened.

Penis length 2.0 mm. Shaft dorsally with characteristic rounded subapical „spoon”, dorso-basally with short, sharp keel. Glans in profile nearly triangular, in cross-section flat cuneiform, 0.30 mm long; stylus 0.12 mm.

**Coloration.** Body sides yellowish, with brown shading; saddle distinct, dark brown, on 1. and 3-4. abdominal tergite constricted, on 2. and 5. broadened and on 5. semicircularly ending. A brighter, yellowish-brown middle line from eye mound till the end of the saddle. Venter yellowish-white. Appendages yellow with brown spots and shadows, legs with very strong brown coating, femora clearly ringed.

The above described specimen is one of the smaller and with weakest armature. Another specimen, from Fatima, is larger (4.2 mm long) and stronger armed: 1. cheliceral segment dorsally with a denticulated bump, 2. swollen and with “*Phalangium*”-like but blunt horn. Palpal femur dorsally with denticles. Tibia and metatarsus I ventrally thickly dotted with granules. No brighter medial line on the saddle. Eye mound with 5 + 5 denticles. BLI: 1.321. Penis with characteristic basal keel but the „spoon” somewhat narrower.

The specimens described by Rambla (1959) as *Dentizacheus zuluetai* are even larger (body length 5 mm) and stronger armed but the penis structure leaves no doubt. The original description of *Eudasylobus rondaensis* (Kraus, 1959) – though without penis figures – is also synonymous. The both names should be regarded as synonyms of *Dasylobus lusitanicus*. The species should, however, belong to the genus *Metaphalangium* Roewer (as defined by Star“ga, 1984). The evidences to that are: the shape and armature of chelicerae, the body coloration and the penis structure.

**DISTRIBUTION.** Portugal: Coimbra (Roewer, 1956; Rambla, 1967), Fátima (Kraus, 1961). Spain: south of Escorial (Sierra de Guadarrama, Prov. Madrid; Rambla, 1959), Sierra de Oreganal near Ronda (Prov. Málaga), Sierra de Espuña near Murcia (Prov. Murcia), Sierra de Montsant near La Morera (Prov. Tarragona) (Kraus, 1959).

**NOTES.** This is probably only a fragment of the synonymy of the species. In one of my previous papers (Star“ga, 1973b) I recognized the identity of *Dentizacheus zuluetai* with *Dasylobus echinifrons* Simon, 1879. One synonymy does not exclude the other (*zuluetai* = *echinifrons* was some kind of hypothesis, now I have seen some material).

#### ***Metaphalangium sudanum* Roewer, 1961**

?*Metaphalangium propinquum*: Roewer, 1953: 204 non Lucas, 1846,

*Metaphalangium propinquum*: Star“ga, 1967: 58, figs. 4–5 non Lucas, 1846,

*Metaphalangium sudanum* Roewer, 1961: 482–483, pl. 27, figs. 3–4,

*Metaphalangium orientale* Star“ga, 1973a: 138–140, figs. 21–23, **syn. n.**

**MATERIAL.** 1 % – *Metaphalangium sudanicum* – 1 % – Typus. Sudan COOKE leg. [Original label: “No. 2020 J.A.L.C. 29/12/59, Alt. 2,800, Loc. SINKAT Sudan. Habitat: under stones. Rocky Hillside”] (SMF R II/13994/367). 1 & – *Metaphalangium sudanum* Roewer. – 1 & – Allotyp. Sudan. Cooke leg. [Original label: “No. 2025. J.A.L.C. 30/12/59. Alt. 2,800’ Loc. SINKAT Sudan. Habitat: under stones, rocky hillside.”] (SMF R II/13995/368). 1 %, 2 juv. – “Saudi-Arabien: Shafa, 21s12’N, 40s23’E, 230 m, 21.XII.1982, leg. W. Büttiker.” 1984 det. W. Star“ga (Coll. J. Martens – Mainz).

**DESCRIPTION:** Both sexes strongly armed. In female carapace and abdomen with numerous denticles, similarly as the first cheliceral segment dorsally. Palpal femur dorsally-apically and patella dorsally with some sharp granules, besides only hirsute. Legs in female similar as in male, strongly armed. Dimensions: (%) body 8.0 (Sinkat), 6.6 (Shafa), penis 3.65 (Sinkat), 3.50 (Shafa), glans 0.45, stylus 0.20 (Sinkat); BLI 2.325 (Sinkat), 2.270 (Shafa); (&) body 11.0, BLI 1.902.

The specimens from Sudan and Saudi Arabia are stronger armed as those from Israel and Egypt – the Egyptian males (the holo- and paratypus of *M. orientale*) were smaller: respectively 7.5 and 6.5 mm long and had a shorter penis: 2.69 long, glans 0.34, stylus 0.22 mm.

**DISTRIBUTION.** Israel: ?Wadi Abyad (probably Roewer, 1953 sub *M. propinquum*), En Radian (Star“ga, 1967 sub *M. propinquum*). Egypt: Masâra north-west of Asyüt (Star“ga, 1973a sub *M. orientale*). Sudan: Sinkat south of Port Sudan (Roewer, 1961). Saudi Arabia: Ash Shafa south of Mekka (Coll. J. Martens) – the first species of harvestman known from the country!

#### ***Metaphalangium abruptum* (Roewer, 1911) comb. n.**

*Paropilio abruptus* Roewer, 1911: 49,

*Paropilio abstrusus*: Roewer, 1912: 147–148, pl. 2, figs. 1 and 5, part. non L. Koch, 1882,

*Paropilio abruptus*: Roewer, 1923: 783, fig. 957,

*Zacheus mirabilis* Caporiacco, 1949: 17–22, **syn. n.**,

*Odontosoma mirabilis*: Marcellino, 1970: 304–307, fig. 7A–G.

**MATERIAL.** 2 juv. – “*Paropilio abruptus* (Kollar MS) Roewer 1923. Inv. No. 4128. Sizilien. – Grohmann leg. Kauf 1833/4. I.58. – Det. (?Kollar) sub: *Phalangium abruptum* Kllr.; revid. Roewer (1911 sub: *Paropilio abstrusus* (L.K.); d.s. 1923 sub: *P. abruptus* Kllr. 2 (%&), “Typen Kollar’s”!) also TYPEN ROEWER’s! (Gruber rev.): 2 juv. Ex.” (Naturhistorisches Museum Wien, No. 4128).

I had to my disposal only two juvenile specimens in very bad condition. Some characters, which could be checked, e.g. the armature of legs (femora and patellae) with very long thorns and the body pattern with characteristic whitish median line, are, however, unmistakable. It must be the same species described later by Caporiacco (1949) as *Zacheus mirabilis*, redescribed by Marcellino (1970) and transferred to *Odontosoma* Šilhavý (= *Metaphalangium* Roewer; Star“ga, 1984).

There is some confusion with the proper name of the species: Roewer (1911) described it as “*abruptus*”, then (1912) synonymized with “*abstrusus*” from the Baleares [?synonym of *M. cirtanum* (C.L.K.) and probably identical with *Phalangium clavipus* Roewer, 1911 – anyway different], and revalidated again (1923). The name “*mirabilis*” is an additional element of this mess.

**DISTRIBUTION.** Known only from several localities in Sicily (Roewer, 1911, Caporiacco, 1949, Marcellino, 1970).

### Some remarks on other species

1. *Metaphalangium propinquum denticulatum* Hadŕn, 1973 and *M. propinquum montenegrinum* Hadŕn, 1973 are, without doubt, synonymous with *M. cirtanum* (C.L. Koch, 1839).
2. *Dasylobus nigrigoxis* Simon, 1878, wrongly synonymized by myself with *M. cirtanum* (Star" ga, 1984), must be revalidated (new material in Vienna and Warsaw).
3. *M. cirtanum* has been found on Cyprus again (Agia Napa, 10. Dec. 2001 leg. J. Sawoniewicz – 1 ♀, 1 ♂, 2 juv.; Reference Coll. W. Star" ga No. II/0020). It has been known from that island (Roewer, 1956: Famagusta).

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