**Abstract:**

A new genus of Phalangiidae is established for a species *Rilaena crimeana* Chemeris & Kovblyuk, 2005 from Crimea (Ukraine). The diagnoses of several near related genera are given: *Phalangium* Linnaeus, *Metaphalangium* Roewer, *Graecophalangium* Roewer, *Rilaena* Šilhavý and *Zachaeus* C.L.Koch – all of them, as *Taurolaena* gen. nov. – from the Mediterranean Region and the Middle East. *Bactrophalangium* Šilhavý, 1966 is „officially” synonymized with *Phalangium* Linnaeus, 1758, thus giving the combinations *Phalangium* jakesi (Šilhavý, 1966), comb. nov. and *Ph. ghissaricum* Gricenko, 1976, comb. rest.

**Key words:** Opiliones, Phalangiinae, *Taurolaena*, *Bactrophalangium*, taxonomy, Mediterranean Region, Ukraine.


**Introduction**

Quite recently, when working out the harvestman material collected in Crimea (Ukraine), Chemeris & Kovblyuk (2005) described a very handsome species which they called *Rilaena crimeana* Chemeris et Kovblyuk, 2005. The species belongs undoubtedly to Phalangiinae (sensu Starega 1976a and Crawford 1992), but has some different characters which enable establishment of a new genus. The new genus shares many characters with other genera – surely related – from the Mediterranean Region (in broadest sense). We give therefore – as far as possible – the comparison of all these genera to show the differences between them.


**Material**


**Results**

**Characteristics of the Related Genera of Phalanginae**

The subfamily Phalangiinae is the largest within the whole family Phalangiidae. It contains, however, so many species (and some genera), whose relationships are not quite clear. So, it is too early to distinguish any tribes, as it has been recently done within Opilioninae (Snegovaya & Staręga 2005). All this genera share parts of their characteristics and could be distinguished by the revised (Staręga 1973; Gricenko 1976; Martens 1978) paper, moreover the genus has been relatively recently transferred to *Bactrophalangium*, *Phalangium* ligusticum (L. Koch, 1878), *Phalangium clavipes* Roewer, 1911 (probably should be transferred to *Metaphalangium*), *Phalangium ligusticum* (Roewer, 1923), *Phalangium licentii* Schenkel, 1953 ? (species inquirenda), *Phalangium wahrmanni* Roewer, 1953, *Phalangium jakesi* (Šilhavý, 1966), comb. nov., *Ph. riedeli* Starega, 1973, *Phalangium ghissaricum* Gricenko, 1976, comb. rest., *Phalangium armatum* Snegovaya, 2005, *Phalangium staregaei* Snegovaya, 2005, *Phalangium zuvardicum* Snegovaya, 2005, *Phalangium bakuense* Snegovaya, 2006 and *Phalangium venustum* Snegovaya, 2008.


**DIAGNOSIS.** Eye mound relatively high (height = length = width), front and back surface nearly of equal width, deeply furrowed, with distinct denticles on eye rings. **Body** (Fig. 1) coloration yellowish with distinct brown/blackish saddle. **Chelicerae** (Fig. 7): 1st segment without modifications, 2nd with dorsal horn, sometimes thin, sometimes strong and very long, sometimes lacking. **Pedipalps** (Fig. 13): no apophyses (if any on patella then very short), femur with weak armature mainly on dorsal side, sometimes whole pedipalp leg-like elongate and very thin. **Legs** mostly long, femora with rows of denticles, 1st pair thicker than the others. **Penis** (Figs 19–21): shaft thick, narrowing gradually from the broadened base and subapically with distinct “spoon”, glans in profile triangular.

**Distribution.** Mediterranean Region, Caucasus, Central Asia. Only *Phalangium opilio* Linnaeus, 1758 is widely distributed in nearly whole Holarctic and introduced to New Zealand.

**Remarks.** The genus *Bactrophalangium* Šilhavý, 1966 differs from *Phalangium* in one character only: the “horn” on 2nd segment of male chelicerae is much thinner as the article itself (strongly constricted). But the variability of shape of this “horn” in this genus very broad: from massive “horns” longer than the body (*Ph. savignyi*, some populations of *Ph. opilio*) till nearly none (*Ph. punctipes, Ph. riedeli*). So the diagnostic character fits well within this range and therefore we put *Bactrophalangium* into synonymy of *Phalangium* (syn. n.).


**Taxonomy**

*Phalangium* Linnaeus, 1758

Figs 1, 7, 13, 19–21
**Taurolaena**, a new genus of Phalangiidae (Opiliones)


Metaphalangium Roewer, 1911

Figs 2, 8, 14, 22–24

**DESCRIPTION.** Eye mound as in Phalangium; denticles very large and sharp.

Body (Fig. 2) coloration sandy-yellowish with distinct dark brown saddle and white or yellowish longitudinal stripe.

Chelicerae (Fig. 8): 1st and 2nd segment strong, denticulated, but without any special features.

Pedipalps (Fig. 14): short, with sharp granules or small denticles dorsally on femur.

Legs heavy armed, 1st pair distinctly thickened.

Penis (Figs 22–24): shaft narrowest in about half its length, subapical „spoon” broad and deep, glans in profile of triangular-rounded irregular shape.

**DISTRIBUTION.** Mediterranean Region, Sudan, Saudi Arabia.

**REMARKS.** Included species (8): Metaphalangium cirtanum (C.L. Koch, 1839) [sp. typ. is Phalangium propinquum Lucas, 1846, junior synonym of M. cirtanum], Metaphalangium albiunilineatum (Lucas, 1846), Metaphalangium tuberculatum (Lucas, 1846), Metaphalangium bispinifrons (Roewer, 1911), Metaphalangium abruptum (Roewer, 1911), Metaphalangium corsicum (Roewer, 1956), Metaphalangium lusitanicum (Roewer, 1956) and Metaphalangium sudanum Roewer, 1961.


Graecophalangium Roewer, 1923
Figs 3, 9, 15, 25–27

DESCRIPTION. Eye mound as in Metaphalangium. Body (Fig. 3) coloration from yellowish till dark brown, saddle distinct but often visible only its dark margins. Chelicerae (Fig. 9): 1st segment normal, 2nd often with even several hook-like apophyses. Pedipalps (Fig. 15): short, normal, femur with dorsal and ventral denticles. Legs mostly heavily armed, 1st pair thickened. Penis (Figs 25–27): shaft with distinct broad basis, then rounded like a stick, subapical „spoon” very long (nearly ¼ of shaft length) and narrow, glans in profile banana-shaped.

DISTRIBUTION. Eastern Mediterranean Region: Montenegro, Makedonia, Greece and Crete, Lebanon.


Rilaena Šilhavý, 1965
Figs 4, 19, 16, 28–30

DESCRIPTION. Eye mound trapezoidal, narrower in front, with deep furrow and distinct denticles, sometimes broadened. Body (Fig. 4) coloration from yellowish or even silvery till deep brown; saddle always darker: from light grey to black. Chelicerae (Fig. 10): 1st segment normal, 2nd either normal or thickened, sometimes with hook-like or conical apophysis. Pedipalps (Fig. 16): femur mostly with ventral denticles or even thorns, patella with distinct, long apophysis, tibia and femur thickened apically. Legs mostly long, with small denticles, 1st pair not at all or only slightly thickened. Penis (Figs 28–30): shaft with slightly broadened basis, then with nearly equal width up to the subapical „spoon”, glans banana-shaped.

DISTRIBUTION. Italy, Serbia, Bulgaria, Turkey, Caucasus, Iraq (?), Iran (?), Afghanistan (?). Only Rilaena triangularis (Herbst, 1799) is distributed from Western Europe till Urals, introduced to USA.

REMARKS. Included species (13): Rilaena balcanica Šilhavý, 1965, sp. typ., Rilaena triangularis (Herbst, 1799), Rilaena hyrcana (Thorell, 1876) ? (incertae sedis), Rilaena atritulata (Roewer, 1915), Rilaena picta (Mcheidze, 1952) ? (incertae sedis), Rilaena pusilla (Roewer, 1952) ? (incertae sedis), Rilaena anatolica (Herbst, 1799) is distributed from Western Europe till Urals, introduced to USA.

ETYMOLOGY. The genus name comes from parts of the words Tauris – the ancient name of the recent Crimea and Rilaena – the genus in which it has been originally described. Its gender is feminine.

DESCRIPTION. Eye mound not very large, hemispherical, with small denticles on eye rings. Body (Fig. 6) coloration: anterior part brown, posterior yellowish with well visible dark brown saddle.

Revised by Nataly Yu. Snegovaya & Wojciech Starega

Nataly Yu. Snegovaya & Wojciech Starega

Zachaeus C.L. Koch, 1839
Figs 5, 11, 17, 31–33

DESCRIPTION. Eye mound nearly hemispherical, with strong denticles on eye rings. Body (Fig. 5) coloration from light brown to nearly black, saddle always darker, with whitish bordering and whitish longitudinal stripe. Chelicerae (Fig. 11): segments heavy built, 2nd often strongly swollen [extremely variable!]. Pedipalps (Fig. 17): short, normal, nearly not armed. Legs short, 1st pair very often strongly thickened, armature very variable. Penis (Figs 31–33): basal part of the shaft long-triangular, then constricted and in distal about ⅓ of equal width, „spoon” relatively shallow, glans nearly banana-shaped.

DISTRIBUTION. S Czechia, Hungary, Slovakia, Romania, Bosna and Herzegovina, Bulgaria, Greece, Ukraine, S Russia, Caucasus, Turkey, Syria and Israel.

REMARKS. Included species (9): Zachaeus crist (Brullé, 1832) [sp. typ. is Zachaeus mordax C.L. Koch, 1839, junior synonym of Z. crist], Zachaeus lupatus (Eichwald, 1830), Zachaeus hebraicus (Simon, 1884), Zachaeus anatolicus (Kulczyński, 1903), Zachaeus kervellei (Sörensen, 1912) ? (species inquirenda), Zachaeus birulai Redikorzev, 1936, Zachaeus redikorzevi Starega & Chevrizov, 1978, Zachaeus simferopolensis Chemis & Kovblyuk, 2005, Zachaeus shachdag Snegovaya & Starega, 2008.


Taurolaena gen. nov.
Figs 6, 12, 18, 34–36

ETYMOLOGY. The genus name comes from parts of the words Taurus – the ancient name of the recent Crimea and Rilaena – the genus in which it has been originally described. Its gender is feminine.

DESCRIPTION. Eye mound not very large, hemispherical, with small denticles on eye rings. Body (Fig. 6) coloration: anterior part brown, posterior yellowish with well visible dark brown saddle.
Chelicerae (Fig. 12): 1st segment distinctly elongate, 2nd normal, with small ectal apophysis at base. Pedipalps (Fig. 18): short, patella with small aphy-
sis, femur dorsally with denticles. Legs short, 1st pair thickened, sparsely armed with den-
ticles and granules. Penis (Fig. 34–36): basal part of the shaft slightly broadened, in a cross section looks like a triangle, glans banana-shaped.

**DISTRIBUTION.** Ukraine (Crimea).

**REMARKS.** Included species (1): Taurolaena crimeana (Chemeris & Kovblyuk, 2005), comb. nov., sp. typ.

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