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Phalacridae (Coleoptera) of the Arabian Peninsula with the description of three new species

Brouci čeledi Phalacridae (Coleoptera) Arabského poloostrova s popisy tří nových druhů

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Abstract. *Acylomus stanovskyi*, *Olibrosoma orszuliki* and *Olibrus omanicus* spp. nov. from Oman are described and distinguished from similar species. *Pseudolibrus gestroi* Flach, 1889 and *Stilbus sharpi* (Guillebeau, 1892) are reported from Oman and *S. sharpi* also from the Arabian Peninsula for the first time. A key to determine the species known from the Arabian Peninsula is provided.

INTRODUCTION

The Arabian Peninsula is not only the largest peninsula in the world, but it is also among the most interesting places from a zoogeographical point of view, having very different climatic and geographical features and being located between three major biogeographic realms: Palaearctic, Afrotropical and Oriental. Consequently, the Arabian Peninsula has been a focus of interest of zoologists and entomologists in the last century as well as recently.

On the other hand, the family Phalacridae, the object of the present paper, is still among the most neglected groups of Coleoptera. With two exceptions (Švec 2010, Gimmel 2012) it has also been neglected within research done in the Arabian Peninsula. As a result, the phalacrid fauna of the Arabian Peninsula is poorly known. According to older records summarized by Švec (2007) only seven species of Phalacridae have been reported from the countries of the Arabian Peninsula up to now.

For the purpose of this paper the phalacrid fauna of six countries (United Arab Emirates, Kuwait, Oman, Saudi Arabia, Qatar and Yemen including Socotra Island) is considered, not taking into account the small parts of some other countries encroaching on the peninsula.

Prior works concerning Phalacridae published in the last century and also at the beginning of the 21st century were focused predominantly on certain geographical areas or genera (e.g. Švec 1992, 2002, 2003, Lyubarsky 1993a, b, 2005). The most comprehensive taxonomic work on Phalacridae was published recently by Gimmel (2013).

Three phalacrid species new to science, collected recently by Czech entomologists in Oman, are described in the present paper. Additionally, two more species new to Oman, one of them also new to the Arabian Peninsula, are recorded. As no species were reported from Oman up to now, the five mentioned species represent the first species of the family Phalacridae known from the country.

Taking into account the new species and new records in this paper, a total of 11 taxa of the family Phalacridae are known from the Arabian Peninsula.

MATERIAL AND METHODS

Abbreviations of depositaries:
JSPC – Jiří Stanovský, private collection, Frýdek-Místek, Czech Republic
KOPC – Kamil Orszulik, private collection, Frýdek-Místek, Czech Republic
ZSPC – Zdeněk Švec, private collection, Praha, Czech Republic

Geographical abbreviation. Simplified, commonly known names instead of the full official names of the states are used in the present paper – e.g. Oman for The Sultanate of Oman or South Africa for the Republic of South Africa.

Terminology
aedeagus (Lawrence & Ślipiński 2013):
tegmen: fused parameres connate to phallobase forming compact sclerite with or without suture between parameral part and phallobase (Figs 1, 3, 5);
penis: median lobe of aedeagus (Figs 2, 4, 6) – a piece of male genitalia partly enveloped by tegmen (in Phalacridae);
crescentiform punctures: rounded elytral punctures with risen anterior and more or less also lateral margins, usually with short adjacent central seta (Gimmel 2013);
E-shaped punctures: angulate elytral punctures with risen anterior and more or less also lateral margins, usually with short adjacent central seta, resembling laying letter E opened posteriorly (Švec 2003);
mesoventrite (Švec 2003):
swollen part of m.: short posterior part of mesoventrite adjacent to metaventral process laying on the same level of metaventrite (= mesoventral disc in Gimmel 2013)
deepened part of m.: long and wide anterior part of mesoventrite deepened in comparison to metaventrite and abdomen (= mesoventral plate in Gimmel 2013);
metaventral post-coxal lines: lines located behind the posterior half of mesocoxal cavities visible on metaventrite (if present) looking like arcuate or angulate line diverging from the coxal cavity caudally, or consisting of two convergent lines on metaventrite, or represented by single line running postero-medially (Gimmel 2013);
scutellar lobe: broadly rounded lobe at central part of base of pronotum partly or completely covering scutellum (Gimmel 2013);
sutural stria: first stria near suture
sutural border: very fine and thin line closely adjacent to suture medial to sutural stria;
complete sutural border: sutural border merging with basal elytral line.

Collecting data of the type series cited in quotation marks are taken from the locality labels accompanying the examined examples. The individual lines from the original locality labels are separated by a slash "/". The author's comments are put in square brackets.

Holotype and paratypes are indicated by a red label stating the status of the specimen, the name of the species, the name of the author of the species and the relevant year, and are attached to the same pin as the corresponding specimen.

The examined specimens were softened in 8% acetic acid and subsequently dissected or directly mounted on paper cards. The dissected male genitalia were transferred to clove oil, 40% ethyl alcohol and water to polyvinylpyrrolidin (Lompe 1986) on a transparent slide added to the same pin as the dissected specimen or directly on the card near to the relevant specimen. All the dissected specimens also have a text label to state that the genitalia are mounted in a water-soluble medium.

The description of the new species is based on the holotype. Variability is mentioned in the paragraph "Variation" and includes features shown by the paratypes.

Measurements of the total body length mentioned in the original description were taken from all specimens examined. Specific measurements of the individual body parts were taken from the holotype only. The measurements of morphological body parts were measured to the nearest tenth of a millimetre, while the measurements of the genitalia were measured to the nearest hundredth of a millimetre.

Olibrus omanicus sp. nov.
(Figs 1–2, 7)

Type locality. Oman mer., Dhalaud Wadi Sayg., 16°44′55″N, 53°13′27″E.
Type material. Holotype, ♂: "OMAN mer. 9.3.2019/ Dhalaut Wadi Sayg./ 16[°]44′55″[N], 53[°]13′27″[E]/ lgt. Orszulik" (ZSPC). Paratypes: 1 ♂, 2 spec., the same data as holotype (ZSPC, KOPC).

Description of the holotype. Short oval. Body length 1.8 mm Length of body parts: head 0.2 mm, pronotum 0.5 mm, elytra 1.1 mm, antenna 0.5 mm, tegmen 0.55 mm, penis 0.57 mm. Maximum width of head 0.6 mm, pronotum 1.0 mm at posterior angles, elytra 1.1 mm just behind humeri.

Dorsum chestnut, antenna yellow-red, legs yellow-brown. Underside yellow-red.

Head. Dorsal surface smooth without micro-sculpture, with distinct punctation; punctures separated by about 1–2 times their own diameter. Antenna short, antennomeres IX–XI form in club. Ratios of length of antennomeres II–XI (antennomere II standard – equal to 1.0): 1.0 – 0.9 – 0.5 – 0.6 – 0.5 – 0.6 – 0.8 – 0.9 – 0.9 – 1.5. Ratios of width of antennomeres II–XI (antennomere II standard – equal to 1.0): 1.0 – 0.7 – 0.5 – 0.7 – 0.5 – 0.7 – 0.7 – 1.7 – 1.8 – 1.8.

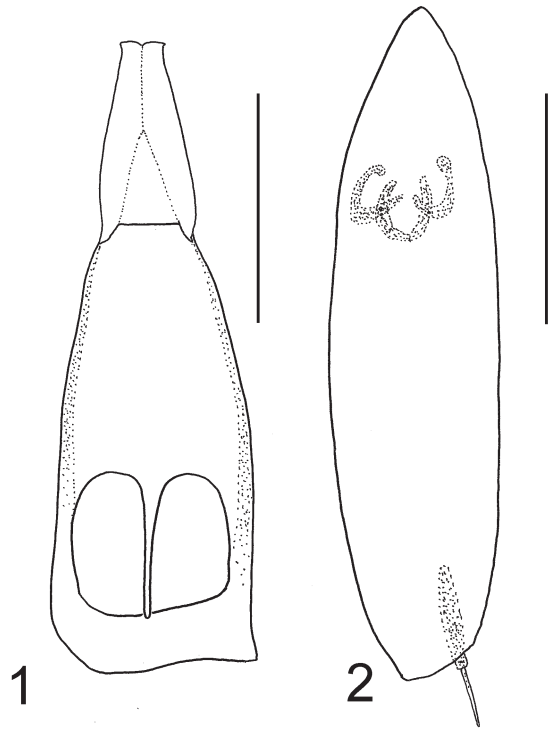
Pronotum. Lacking micro-sculpture, irregularly punctured with punctures of two different sizes. Larger punctures separated by about 2–4 times their diameter, much smaller punctures sparsely interposed. Punctation becomes denser toward pronotal base. Base with scutellar lobe, laterally slightly obliquely angled toward blunt posterior angles. Posterior angles slightly blunt also in lateral view, narrowly rounded. Lateral margins slightly roundly curved toward anterior angles. Medial third of pronotal base and lateral margins bordered; pronotum lacking border along anterior margin.

Elytra. Smooth, without micro-sculpture, punctured. With two distinct medial striae. Deep stria near suture reaches anterior third of sutural length continuing as row of punctures toward scutellum, neighbouring lateral stria distinctly slighter and shorter. Both striae well separated, not merging apically. Second (lateral) stria separated by twice the distance from sutural stria as sutural stria from suture apically. Sutural border complete. Elytral surface with eight complete rows of punctures. Row VIII well distant from elytral lateral margin at base of elytra, obliquely running postero-laterally toward apex. Rows I–III and VII–VIII with more distinct and denser punctures separated by about 3–5 times their diameter, punctures in other rows sparser, separated by about 5–8 times their diameter. Elytral rows located in very slightly deepened striae. Elytral intervals sparsely punctured by punctures of two different sizes. Larger punctures, densest in first two intervals, similar in size and strength as those in rows. Smaller punctures sparsely disseminated, separated by about 8–10 times their diameter.

Membranous wings developed.

Prosternum. Prosternal process with rounded edge bearing several soft recumbent setae.

Mesoventrite. Posterior portion (swollen part) steeply sloping and not detectable between mid-coxae. Deepened anterior part of mesoventrite with narrow procoxal rest narrowly interrupted medially.



Figs 1–2. *Olibrus omanicus* sp. nov.: 1 – tegmen; 2 – penis. Scale bars 0.2 mm.
Obr. 1–2. *Olibrus omanicus* sp. nov.: 1 – tegmen; 2 – penis. Měřítka 0,2 mm.

Metaventrite. Metaventral process reaching anterior level of mesocoxae. Post-coxal lines not detectable, adjacent to coxal cavities. Surface smooth; central bare longitudinal strip laterally bordered by obliquely oriented, sparsely arranged recumbent hairs. Several recumbent hairs also on lateral sides of metaventrite.

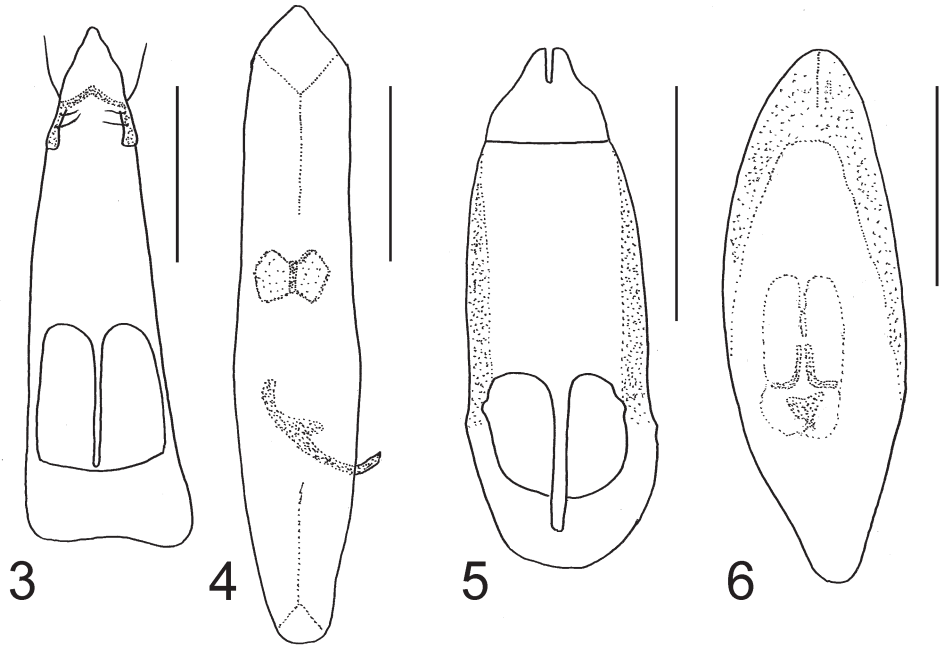
Legs. Tibia slightly simply bent.

Genitalia. Parameral sclerite trapezoidal, much longer than wide at its base. Penis with complex distal sclerites and a stick-like basal sclerite (Figs 1–2). Spermatheca lacking specific taxonomic characters, being of the J shape typical for the majority of phalacrid genera, therefore not figured.

Variation. Length of body varies between 1.7–1.9 mm.

Etymology. The species name is derived from the name of the country of origin.

Differential diagnosis. *Olibrus omanicus* sp. nov. is similar to the two Mediterranean species *O. particeps* Mulsant et Rey, 1861 and *O. reitteri* Flach, 1888, and also to *O. socotranus* Gimmel, 2012 from Socotra, not only in their small size, the shape of the body and by the presence of two medial striae separated apically, but mainly in the shape of the male genitalia. The basic characters differing new species can be found in the shape of the parameral sclerite. The parameral sclerite in all the compared species is trapezoidal with a



Figs 3–6. 3, 4 – *Olibrosoma orszuliki* sp. nov.; 5, 6 – *Acylomus stanovskyi* sp. nov. 3, 5 – tegmen; 4, 6 – penis. Scale bars 0.2 mm.
Obr. 3–6. 3, 4 – *Olibrosoma orszuliki* sp. nov.; 5, 6 – *Acylomus stanovskyi* sp. nov. 3, 5 – tegmen; 4, 6 – penis. Měřítka 0,2 mm.

central emargination at the apex. The sclerite in *O. omanicus* sp. nov. is very long, much longer than wide at the base and gently narrowed from base toward apex, while the same is as long as wide and distinctly narrowed from base toward apex in *O. particeps*, *O. reitteri* and *O. socotranus*. The new species can also be distinguished using external characters. *Olibrus omanicus* sp. nov. is chestnut without any metallic lustre while *O. socotranus* is black or almost black with a faint green metallic lustre; *O. particeps* and *O. reitteri* are brown-black. The pronotum is bordered in the medial half of its base in *O. omanicus* sp. nov., while the pronotal base lacks the border or the border is faint and hardly distinguished in *O. particeps*. The elytra are smooth except punctation in *O. omanicus* sp. nov., while the elytra in *O. reitteri* and apical part of the elytra in *O. particeps* are covered by micro-sculpture. The sutural border is complete in *O. omanicus* sp. nov. and *O. particeps* (with the exception of the population from the Balearic Islands) while the sutural border is not complete in *O. socotranus*.

The metaventrite in *O. omanicus* sp. nov., *O. reitteri* and *O. socotranus* is predominantly smooth, including a central longitudinal strip that is laterally bordered by sparsely arranged recumbent hairs with some recumbent setae located also laterally. Contrastingly, the metaventrite is almost completely smooth with at most a few solitary hairs in *O. particeps*.
Distribution. South of Oman (Fig. 7).

Olibrosoma orszuliki **sp. nov.**
(Figs 3–4, 7)

Type locality. OMAN bor., Al Minthar, 23°10′10″N, 57°09′24″E.
Type material. Holotype, ♂: "OMAN bor. 13.3.2019/ Al Minthar/ 23[°]10′10″[N] 57[°]09′24″[E]/ lgt. Orszulik" (ZSPC). Paratypes: 1 ♀, 1 specimen, the same data as holotype; 1 ♂, 2 ♀♀, "OMAN mer. 9.3.2019/ Rakhyut/ 16[°]44′54″[N] 53[°]13′26″[E]/ lgt. Orszulik"; 1 ♂, "OMAN 5.3.2018/ Taqah/ 17[°]02′30″[N] 54[°]20′00″[E]/ lgt. Orszulik"; 1 ♀, "OMAN bor. 15.3.2019/ Wadi Bani Awf/ 23[°]13′52″[N] 57[°]25′36″[E]/ lgt. Orszulik"; 1 spec., "OMAN 2.9.2018/ Al-Mughsayl/ 16[°]53′00″[N] 53[°]47′42″[E]/ lgt. Orszulik"; (ZSPC, KOPC).

Description of the holotype. Oval. Body length 2.8 mm in holotype. Length of body parts: head 0.3 mm, pronotum 0.7 mm, elytra 1.8 mm, antenna 0.8 mm, tegmen 0.59 mm, penis 0.73 mm. Maximum width of head 0.9 mm, pronotum 1.4 mm at posterior angles, elytra 1.5 mm just behind shoulders.
Dorsum and legs yellow-red, antenna lighter coloured. Underside yellow-red, coxal margins darker.

Head. Dorsal surface of head with distinct punctation, punctures of two sizes, larger ones separated by about 1–4 times their own diameter, smaller punctures interposed. Surface without micro-sculpture. Antenna short, antennomeres VIII–XI gradually expanded into four-segmented club. Ratios of length of antennomeres II–XI (antennomere II standard – equal to 1.0): 1.0 – 1.5 – 1.0 – 0.8 – 0.5 – 0.8 – 1.0 – 1.3 – 1.1 – 3.1. Ratios of width of antennomeres II–XI (antennomere II standard – equal to 1.0): 1.0 – 0.7 – 0.6 – 0.6 – 0.6 – 0.6 – 1.0 – 1.4 – 1.9 – 1.9.

Pronotum. Lacking micro-sculpture, punctured similarly as head, besides punctures of two sizes additional rare larger punctures present. Base almost straight with very slightly developed scutellar lobe, base slightly skewed toward posterior angles, therefore hind angles blunt in dorsal view. Posterior angles rectangular in lateral view, narrowly rounded. Lateral margins slightly roundly curved toward anterior angles. Pronotum bordered laterally; lacking border along base and anterior margin.

Elytra. Very slightly opalescent. With a single stria near suture reaching to anterior fifth of sutural length continuing as row of punctures toward base. Sutural border almost complete, terminating near scutellum. Elytral surface very densely and transversely micro-strigose. Beside micro-strigosity further transverse furrows (approximately 0.04 mm long) densely distributed on elytral disc, separated by about one time of their length from neighbouring furrows. Furrows dense near suture, here and there merging with others, becoming longer toward lateral sides and apex of elytra where frequently merging with neighbours and forming transversal wrinkles, whereas they become shorter toward basal part of elytra. In addition to micro-strigosity and long transverse furrows, very short transverse furrows and very small and fine sparse punctures present on elytra.

Membranous wings developed.

Prosternum. Prosternal process with sharp edge lacking any setae.

Mesoventrite. Posterior portion (swollen part) steeply sloping, not detectable between mid-coxae at the level of metaventral process. Deepened anterior part of mesoventrite with narrow procoxal rest narrowly interrupted medially.

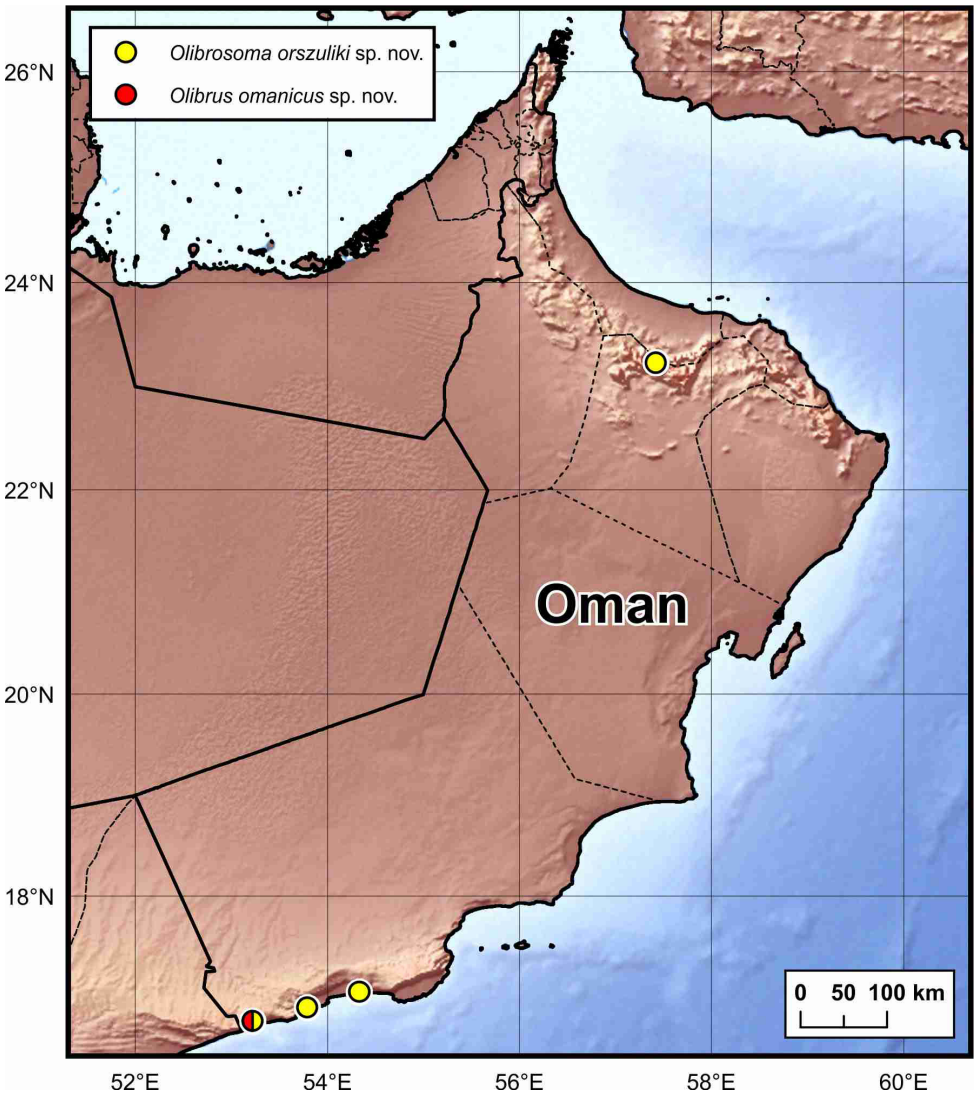


Fig. 7. Places of discovery of *Olibrosoma orszuliki* sp. nov. and *Olibrus omanicus* sp. nov. in Oman. Legends included in map.
Obr. 7. Místa nálezů *Olibrosoma orszuliki* sp. nov. a *Olibrus omanicus* sp. nov. v Ománu. Legenda uvedena v mapě.

Metaventrite. Metaventral process reaching anterior level of mesocoxae. Post-coxal lines arcuate, separated from coxal cavities by about one-sixth of coxal diameter. Surface with slight micro-reticulation. Central part of metaventrite with fine recumbent sparse hairs. Several recumbent hairs detectable also antero-laterally.

Legs. Protibia straight with ctenidium covering apical two-thirds of tibial length laterally. Mesotibia straight, metatibia slightly simply bent.

Genitalia. Triangular parameral sclerite with lateral outline first slightly concave for approximately half of its length, then slightly convex and then concave again before narrowly rounded apex (Fig. 3). Parameral sclerite separated from the basal part of tegmen by transverse suture; lateral outline of parameral sclerite and basal part of tegmen continuous. Penis with narrowly rounded apex, endophallus composed of paired cell-shaped sclerites and an unpaired long crescent-like sclerite (Fig. 4). Spermatheca very feebly sclerotized, lacking specific taxonomic characters, being of J-shape that is typical for the majority of phalacrid genera.
Variation. Length of body varies between 2.8–3.2 mm. The colour of the dorsum varies from completely reddish to specimens having a chestnut head and pronotum, while the elytra are reddish.
Etymology. The species is named to honour of one of the collectors, my entomological colleague Kamil Orszulik (Frýdek-Místek, Czech Republic).
Differential diagnosis. *Olibrosoma orszuliki* sp. nov. is similar to *O. testacea* Tournier, 1889 and *O. eudaimonarabiana* Gimmel, 2012 by shape of body, its colour and the shape of the male genitalia. Nevertheless, the main differences can be found in the shape of the parameral sclerite. The parameral sclerite is triangular in *O. orszuliki* sp. nov. and *O. testacea*, while the same is linden-leaf-shaped in *O. eudaimonarabiana*. The lateral margin of the parameral sclerite is slightly corrugated in *O. orszuliki* sp. nov., while the lateral outline is straight in *O. testacea*. *Olibrosoma orszuliki* sp. nov. also differs from both compared species by the presence of transverse furrows on the basal part of elytra, while the same part of elytra is sparsely covered by small, fine punctures in *O. testacea* and *O. eudaimonarabiana.*
Distribution. South of Oman (Fig. 7).

Acylomus stanovskyi sp. nov.
(Figs 5–6, 8)

Type locality. OMAN mer., Taqah env., 17°04′34″N, 54°26′09″E.
Type material. Holotype, ♂: "OMAN mer. 11.3.2019/ Taqah env., 17[°]04′34″[N] 54[°]26′09″[E]/ lgt. J. Stanovský" (ZSPC). Paratypes: 1 ♂, 1 ♀, 17 specimens, the same data as holotype; 1 ♀, "OMAN bor 6.3.2019/ Wadi Bani Khalid/ 22[°]00′31″[N] 59[°]18′21″[E]/ lgt. J. Stanovský"; 1 ♂, "OMAN mer. 10.3.2019/ Al-Mughsayl/ 16[°]52′47″[N] 53[°]43′29″[E]/ lgt. Orszulik"; 1 ♂, "OMAN 2.9.2018/ Al-Mughsayl/ 16[°]53′00″[N] 53[°]47′42″[E]/ lgt. Orszulik"; (1 ♂, 3 ♀♀, 20 sp.), "OMAN mer. 9.3.2019/ Rakhyut/ 16[°]44′54″[N] 53[°]13′26″[E]/ lgt. Orszulik"; (ZSPC, JSPC, KOPC).

Description of the holotype. Short oval. Body length 2.2 mm in holotype. Length of body parts: head 0.2 mm, pronotum 0.6 mm, elytra 1.4 mm, antenna 0.6 mm, tegmen 0.48 mm, penis 0.54 mm. Maximum width of head 0.6 mm, pronotum 1.2 mm at posterior angles, elytra 1.3 mm at basal fifth.

Head, disc of pronotum, broad strip along elytral suture and lateral margins of elytra dark brown, lateral parts of pronotum and obscurely bordered wide strip along middle of elytron chestnut. Antennae and legs reddish. Underside chestnut with lighter abdomen.

Head. Dorsal surface of head with distinct punctation, punctures small, fine, separated by about 4–6 times their own diameter. Micro-sculpture not evident. Antenna short, antennomeres IX–XI distinctly expanded into club. Ratios of length of antennomeres II–XI (antennomere

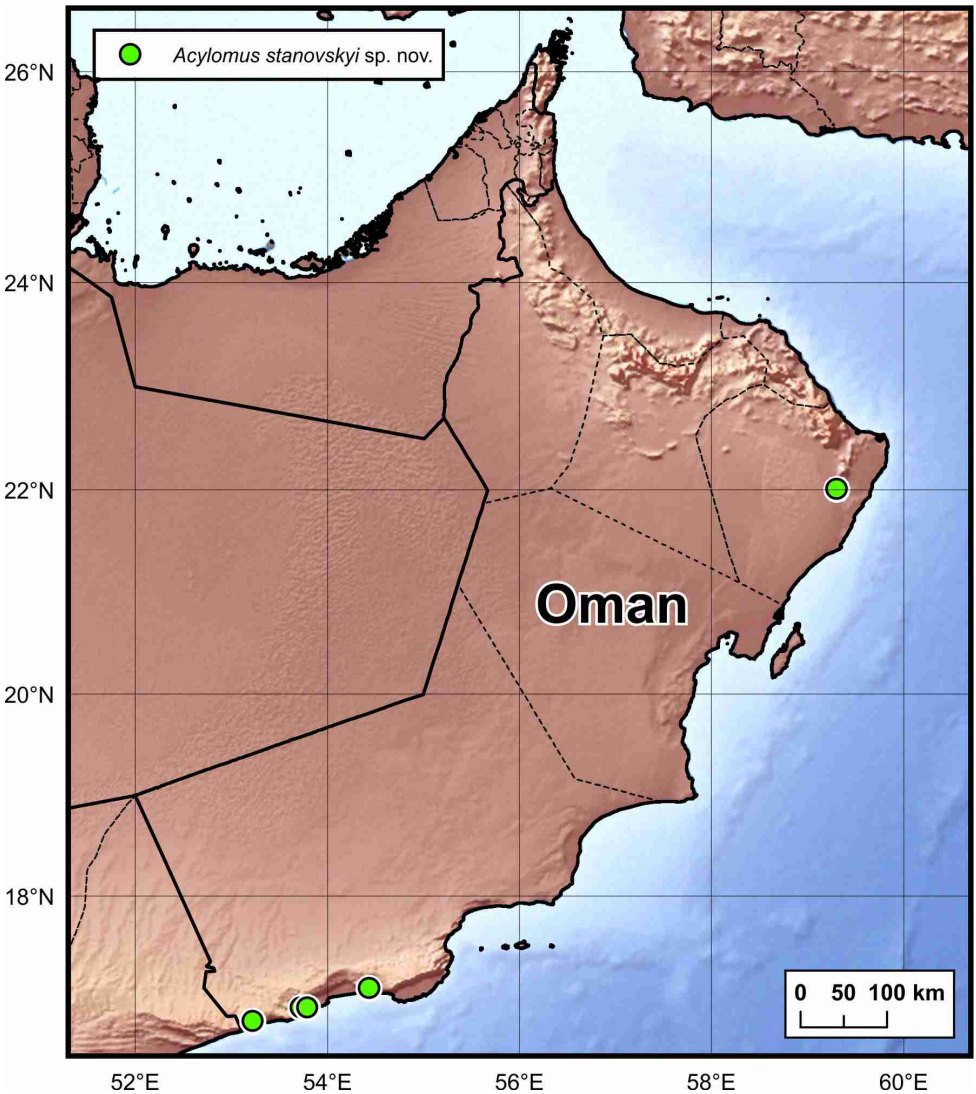


Fig. 8. Places of discovery of *Acylomus stanovskyi* sp. nov. in Oman. Legends included in map.
Fig. 8. Místa nálezů *Acylomus stanovskyi* sp. nov. v Ománu. Legenda uvedena v mapě.

II standard – equal to 1.0): 1.0 – 1.1 – 0.6 – 0.6 – 0.4 – 0.6 – 0.6 – 1.0 – 0.9 – 2.0. Ratios of width of antennomeres II–XI (antennomere II standard – equal to 1.0): 1.0 – 0.6 – 0.5 – 0.5 – 0.5 – 0.6 – 0.6 – 1.4 – 1.8 – 1.8.

Pronotum. Lacking micro-sculpture, punctured similarly as on head, punctures sparser, separated by 6–8 times their diameter, a little smaller and sparser toward base. Base almost straight with very slightly developed scutellar lobe, shortly slightly skewed toward posterior

angles, therefore hind angles blunt in dorsal view. Posterior angles obtuse in lateral view, shortly rounded. Lateral margins slightly roundly curved toward anterior angles. Pronotum bordered laterally; lacking border along base and anterior margin.

Elytra with a single stria near suture, reaching anterior third of sutural length, continuing as row of punctures toward scutellum. Elytral surface smooth, punctured, with three distinct shallow rows of oval punctures on disc. Fourth row of punctures feebly expressed, lateral parts without distinct rows of punctures. Punctures separated by about their own diameter longitudinally in first medial row, by two times their diameter in second medial row and by three times their diameter in third row, fourth row possesses small punctures separated by about 4–6 times their diameter. Lateral rows indistinct. Punctures oblong-oval in three medial rows, becoming smaller and sparser not only laterally but also toward base and apex. Oval shape of punctures becomes crescentiform with short adjacent seta laterally. None of punctured rows reach elytral base or apex. Elytral intervals with sparse, very small, irregularly arranged pointed punctures separated by about 8–10 or more times their diameter. Some larger punctures sparsely and irregularly interposed.

Membranous wings developed.

Prosternum. Prosternal process with rounded edge lacking any setae.

Mesoventrite. Posterior portion (swollen part) visible between mid-coxae as narrow strip steeply sloping anteriorly. Deepened anterior part of mesoventrite with narrow margin resembling procoxal rest narrowly interrupted medially.

Metaventrite. Metaventral process reaching anterior level of mesocoxae. Post-coxal lines rounded, separated from coxal cavities by about one-sixth of coxal diameter. Surface with distinct micro-reticulation its central part with fine recumbent sparse hairs. Several recumbent hairs detectable also antero-laterally.

Legs. Protibia straight, meso- and metatibia slightly simply bent.

Genitalia. Parameral sclerite of tegmen with short process divided by narrow notch, endophallus with predominantly paired sclerites. Aedeagus as in Figs 5–6. Spermatheca lacking specific taxonomic characters, being of the J shape typical for the majority of phalacrid genera.

Variation. Length of body varies between 2.0–2.5 mm. The colour of the dorsum varies from completely reddish to chestnut with darker, obscurely bordered wide strip along middle of elytron. Some of the paratypes possess a hardly visible very fine stria laterally adjacent to punctured rows on the disc of the elytra.

Etymology. The species is named to honour of one of the collectors, my entomological colleague Jiří Stanovský (Ostrava–Výškovice, Czech Republic).

Differential diagnosis. *Acylomus stanovskyi* sp. nov. is similar to *A. polygramma* Flach, 1888, *A. chinensis* Švec, 1992 and *A. orientalis* Gimmel, 2013 in the shape of the male genitalia. The tegmen of all the mentioned species is oval, with the parameres fused to one another, terminating in a small process divided medially by narrow notch. However, the median lobe is rounded with a short apical suture in *A. stanovskyi* sp. nov., while the median lobe is flat, roundly truncate, lacking any suture apically in *A. polygramma* and *A. orientalis*. The species mentioned above can be differentiated also by the shape of the elytral punctation and micro-sculpture. While the elytral punctures are simple and oval without any seta in *A. stanovskyi* sp. nov., the same are crescentiform with short central seta in *A. polygramma*, *A. chinensis* and *A. orientalis*. Additionally, in contrast to other compared species, the elytra lack micro-sculpture in *A. stanovskyi* sp. nov.

Distribution. South and north-east of Oman (Fig. 8).

Pseudolibrus gestroi Flach, 1889

Type locality. Eritrea.
Examined material. 1 ♂, 4 spec., OMAN, Al-Mughsayl, 16º53′00″N 53º47′52″E, 2.ix.2018, Orszulik lgt. (ZSPC, KOPC).
Distribution. Eritrea, Yemen – Socotra Island (Gimmel 2012). New record for Oman.

Stilbus sharpi (Guillebeau, 1892)

Type locality. Syria.
Examined material. 1 ♂, OMAN bor., Wadi Bani Khalid, 22º00′31″N 59º18′21″E, 6.iii.2019, J. Stanovský lgt. (ZSPC); 1 ♂, 5 ♀♀, the same data but: Orszulik lgt. (ZSPC, JSPC, ROPC).
Distribution. Syria, Egypt, Mozambique, Tanzania, Namibia, Botswana, Rep. South Africa, Madagascar (Švec 2003). New record for Oman and the Arabian Peninsula.

Key to the Phalacridae known from the Arabian Peninsula

1	Clypeus round, faintly protuberant. Dorsum yellow-red to black without, or rarely with slight, hardly detectable, metallic lustre. Elytra with or without fine rows of small, fine punctures. Body oval. Dorsum smooth or at most with fine transversally arranged micro-sculpture. 2
-	Clypeus emarginate. Dorsum metallic coloured, green to blue. Elytra with strikingly developed rows consisting of rough deep punctures. Body almost parallel-sided. Dorsum distinctly micro-reticulate. Length 2.8–3.2 mm. Distribution: SW Europe, N Africa, Asia (Saudi Arabia). ..... ***Tolyphus punctulatus*** Rosenhauer, 1856
2(1)	Elytron with nine distinct striae, lacking rows of punctures. 3
-	Elytron with at most three striae (including sutural stria) and usually with faint, hardly detectable striae adjacent to longitudinal rows of punctures. 4
3(2)	Maxillary palpus of usual length, short, not exceeding apex of antennomere III. Length 2.3–2.7 mm. Distribution: Africa (Eritrea), Asia (Oman, Yemen – Socotra Isl.). ..... ***Pseudolibrus gestroi*** Flach, 1889
-	Maxillary palpus extremely long – approximately as long as antenna. Length 3.2 mm. Distribution: Asia (Yemen). ..... ***Megistopalpus simoni*** Guillebeau, 1893
4(2)	Last antennomere constricted before apex. Elytron with two striae developed at least on apical half. 5
-	Last antennomere regularly oval. Elytron with one stria near suture. 6
5(4)	Sutural border complete. Dorsum chestnut without metallic lustre. Parameral sclerite much longer than wide at its base. Aedeagus as in Figs 1–2. Length 1.7–1.9 mm. Distribution: Asia (Oman). ..... ***Olibrus omanicus*** sp. nov.
-	Sutural border incomplete. Dorsum black with slight metallic lustre. Parameral sclerite approximately as long as wide basally. Length 1.8–2.2 mm. Distribution: Asia (Yemen – Socotra Isl.). ..... ***Olibrus socotranus*** Gimmel, 2012
6(4)	Antenna with four-segmented club. Metatarsomere I exceedingly long, longer than rest of tarsus. 7
-	Antennal club 3-segmented. Metatarsomere I much shorter than rest of tarsus. 9
7(6)	Basal third of elytra with small punctures, without transverse micro-sculpture. 8
-	Entire elytra, including basal part, in addition to small punctures with short, transverse furrows. Aedeagus as in Figs 3–4. Length 2.8–3.2 mm. Distribution: Asia (Oman). ..... ***Olibrosoma orzuliki*** sp. nov.
8(7)	Parameral sclerite linden leaf-shaped. Length 2.3–3.2 mm. Distribution: Asia (Yemen – Socotra Isl.). ..... ***Olibrosoma eudaimonarabiana*** Gimmel, 2012
-	Parameral sclerite triangular. Length 2.4–3.8 mm. Distribution: W Europe (Spain), N Africa, Asia (United Arab Emirates, Jordan, Saudi Arabia). ..... ***Olibrosoma testacea*** Tournier, 1889
9(6)	Scutellum of usual size, small. Metaventral post-coxal lines visible – distant from posterior margins of meso-coxae. 10

- Scutellum obtrusively large. Metaventral post-coxal lines not detectable – adjacent to margin of mesocoxal cavities. Dorsum black, antenna reddish with infuscate club. Pronotal base not bordered, disc of pronotum smooth, punctation hardly visible laterally and postero-laterally. Short oval. Elytra with rows of punctures, with fine stria on each side of row. Elytra laterally with oblique strigosity. Length 2.3 mm. Distribution: Asia (Yemen). ..... ***Phalacrus lateralis*** Guillebeau, 1893

10(9) Metaventral process reaching anterior level of mesocoxae. Parameral sclerite separated from tegmen by juncture detectable as transversal suture in dorsal view. Aedeagus as in Figs 5–6. Length 2.0–2.5 mm. Distribution: Asia (Oman). ..... ***Acylomus stanovskyi*** sp. nov.

- Metaventral process reaching middle of mesocoxal length. Parameral sclerite fused, without any suture separating it from the basal part of tegmen. Length 1.5–2.1 mm. Distribution: Africa (from Madagascar to Morocco), Asia (Syria, Oman). ..... ***Stilbus sharpi*** (Guillebeau, 1892)

DISSCUSSION

The three species new to science described in the present paper, and also the two species newly recorded for the Oman and/or for the Arabian Peninsula seem to be characteristic of the fauna of the Arabian Peninsula.

Gimmel (2012) examined the Socotran phalacrid fauna, and expressed the opinion that it shows more affinity to mainland Afrotropical faunas.

The new finds of phalacrids in Oman presented here enable a more accurate opinion to be formed regarding the zoogeographical character, also taking into account the known phalacrid fauna of the Arabian Peninsula. According to morphological similarity and the distribution of the species or their relatives, the 11 species known from the Arabian Peninsula can be sorted into three groups. They are as follows: Afrotropical species: *Acylomus stanovskyi* sp. nov.; Afrotropical-Palaearctic species: *Stilbus sharpi* (Guillebeau, 1892), *Pseudolibrus gestroi* Flach, 1889; and Palaearctic species: *Tolyphus punctulatus* Rosenhauer, 1856, *Megistopalpus simoni* (Guillebeau, 1893), *Olibrosoma testacea* Tournier, 1889, *Olibrus omanicus* sp. nov., *Olibrus socotranus* Gimmel, 2012, *Olibrosoma orszuliki* sp. nov. and *Olibrosoma eudaimonarabiana* Gimmel, 2012.

The classification of *Phalacrus lateralis* Guillebeau, 1893 requires examination of the holotype of the species, and a detailed comparison of its morphological features with the species occurring in adjacent realms.

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REFERENCES

GIMMEL M. L. 2012: Phalacridae of Socotra Island (Coleoptera: Cucujoidea). *Acta Entomologica Musei Nationalis Pragae* **52 (Supplementum 2)**: 233–240.

GIMMEL M. L. 2013: Genus-level revision of the family Phalacridae (Coleoptera: Cucujoidea). *Zootaxa* **3605**: 1–147.

LAWRENCE J. F. & ŚLIPIŃSKI A. 2013: *Australian Beetles. Morphology, Classification and Keys*. *Vol. 1*. Csiro Publishing Collingwood, Australia, 561 pp.

LOMPE A. 1986: Ein neues Einbettungsmittel für Insectenpräparate. In: PUHTZ V. (ed.): Kleine Mitteilungen. *Entomologische Blätter* **82**: 119.

LYUBARSKY G. Y. 1993a: Review of the genus Olibrus Erichson (Coleoptera: Phalacridae) of Oriental region from V. Motschulsky's collection. *Russian Entomological Journal* **2**: 19–24.

LYUBARSKY G. Y. 1993b: Review of the genus Augasmus Motschulsky (Coleoptera Phalacridae) of Oriental region from V. Motschulsky's collection. *Russian Entomological Journal* **2**: 35–40.
LYUBARSKY G. Y. 1996: Species of the genus Augasmus (Coleoptera, Phalacridae) from New Guinea in the collection of Zoological Museum (Berlin). *Russian Entomological Journal* **5**: 39–48.
LYUBARSKY G. Y. 2005: New species and new data on Phalacridae (Coleoptera) of the Republic of South Africa. *Russian Entomological Journal* **13**: 123–125.
ŠVEC Z. 1992: A review of the Palaearctic species of the genus Stilbus (Coleoptera, Phalacridae). *Acta Entomologica Bohemoslovaca* **89**: 429–450.
ŠVEC Z. 2002: Revision of the African species of the genus Tinodemus Guillebeau (Coleoptera, Phalacridae). Results of the entomological expeditions of the Museum of Natural History, Berlin to Africa. 76th contribution. *Mitteilungen aus dem Museum für Naturkunde in Berlin, Zoologische Reihe* **78**: 217–256.
ŠVEC Z. 2003: A review of the genera Stilbus Seidlitz, 1872, Podocesus Guillebeau, 1894 and Entomocnemus Guillebeau, 1894 from Africa, Madagascar and the Seychelles (Coleoptera, Phalacridae). *Entomologica Basiliensia* **25**: 99–133.
ŠVEC Z. 2007: Phalacridae. Pp. 506–513. In: LÖBL I. & SMETANA A. (eds): *Catalogue of Palaearctic Coleoptera. Vol. 4: Elateroidea – Derodontoidea – Bostrichoidea – Lymexyloidea – Cleroidea – Cucujoidea*. Apollo Books, Stenstrup, 935 pp.
ŠVEC Z. 2010: Order Coleoptera, family Phalacridae. Pp. 249–252. In: HARTEN A. van (ed.): *Arthropod Fauna of the UAE*, *Volume 3*. Dar Al Ummah, Abu Dhabi, 700 pp.

SOUHRN

Fauna Arabského poloostrova patří k entomologicky zajímavým oblastem – nejen proto, že jde o největší existující poloostrov s různými typy biotopů, ale také proto, že leží v průsečíku zoogeografických oblastí – palearktické, afrotropické a také orientální. Čeleď Phalacridae však byla při průzkumných projektech minulého a počátku tohoto století entomology převážně opomíjena – s jedinou výjimkou (Gimmel 2012). Výsledkem je nedostatečná znalost této čeledi na Arabském poloostrově, kde až dosud bylo zaznamenáno jen 7 druhů čeledi.

V této práci, díky sběrům uskutečněnými v Ománu českými entomology Jiřím Stanovským a Kamilem Orszulikem (oba Frýdek-Místek) jsou popsány tři nové druhy – *Acylomus stanovskyi* sp. nov., *Olibrosoma orszuliki* sp. nov. a *Olibrus omanicus* sp. nov. Další dva druhy – *Pseudolibrus gestroi* Flach, 1889 a *Stilbus sharpi* (Guillebeau, 1892) byly zjištěny jako nové pro Omán a *S. sharpi* i pro Arabský poloostrov.

Klíč k determinaci druhů čeledi Phalacridae známých z Arabského poloostrova

1 Klypeus zaoblený, slabě vyčnívající kupředu. Brouci červenožlutí až černí nanejvýš se stěží postřehnutelným kovovým leskem. Krovky bez řad teček, nebo jsou řady velmi slabé, naznačené malými jemnými tečkami. Tělo oválné. Povrch hladký nebo s hustými příčnými mikroskopickými rýžkami. 2

\- Klypeus vykrojený. Tělo téměř rovnoběžného tvaru, kovově zbarvené, zelené až modré, se zřetelnou mikroretikulací. Krovky s nápadnými řadami hlubokých teček. Velikost 2,8–3,2 mm. Rozšíření: JZ Evropa, S Afrika, Asie (Saúdská Arábie). ..... ***Tolyphus punctulatus*** Rosenhauer, 1856

2(1) Každá krovka s osmi zřetelnými rýhami, bez řad teček. 3

\- Každá krovka nanejvýše se třemi rýhami (včetně suturální) a/nebo s velmi slabými, stěží viditelnými rýhami vedoucími podle řad teček. 4

3(2) Maxilární makadla obvyklé délky – krátké, nepřesahující konec třetího tykadlového článku. Velikost 2,3–2,7 mm. Rozšíření: Afrika (Eritrea), Asie (Omán, Jemen – Sokotra). ..... ***Pseudolibrus gestroi*** Flach, 1889

\- Maxilární makadla extrémně dlouhá, zhruba tak jako celá tykadla. Velikost 3,2 mm. Rozšíření: Asie (Jemen). ..... ***Megistopalpus simoni*** Guillebeau, 1893

4(2) Poslední tykadlový článek před koncem zaškrcený. Každá krovka přinejmenším na zadní polovině se dvěma rýhami. 5

\- Poslední článek tykadel pravidelně oválný. Krovka s jednou rýhou. 6

5(4) Šev úplně obroubený. Povrch kaštanový bez kovového lesku. Koncový (paramerální) sklerit edeagu mnohem delší než na bázi široký. Edeagus na obr. 1–2. Velikost 1,7–1,9 mm. Rozšíření: Asie (Omán). ..... ***Olibrus omanicus*** sp. nov.

\- Šev není úplně obroubený. Tělo černé se slabým kovovým leskem. Paramerální sklerit zhruba tak dlouhý jako na bázi široký. Velikost 1,8–2,2 mm. Rozšíření: Asie (Jemen – Sokotra). ..... ***Olibrus socotranus*** Gimmel, 2012

6(4) Tykadlová palička čtyřčlánková. První článek zadních chodidel dlouhý, delší než zbytek chodidla. 7

\- Tykadlová palička tříčlánková. První článek zadních chodidel zřetelně kratší než zbytek chodidla. 9

7(6) Bazální třetina krovek s malými tečkami, bez příčné mikroskulptury. 8

\- Celé krovky včetně bazální části krom malých teček s krátkými příčnými rýžkami. Edeagus na obr. 3–4. Velikost 2,8–3,2 mm. Rozšíření: Asie (Omán). ..... ***Olibrosoma orzuliki*** sp. nov.

8(7) Paramerální sklerit tvaru lipového listu. Velikost 2,3–3,2 mm. Rozšíření: Asie (Jemen – Sokotra). ..... ***Olibrosoma eudaimonarabiana*** Gimmel, 2012

\- Paramerální sklerit trojúhelníkový. Velikost 2,4–3,8 mm. Rozšíření: Evropa (Španělsko), severní Afrika, Asie (Spojené Arabské Emiráty, Jordánsko, Saúdská Arábie). ..... ***Olibrosoma testacea*** Tournier, 1889

9(6) Štítek obvyklé velikosti – malý. Kyčelní linie na zadohrudi jsou oddělená od zadního okraje středních kyčlí a proto viditelné. 10

\- Štítek nápadně veliký. Linie na zadohrudi nejsou patrné, protože nejsou oddělené od kyčelních jamek. Černý, tykadla červenavá se ztmavlou paličkou. Báze štítu není obroubená, povrch hladký s tečkováním na stranách a u zadních rohů stěží postřehnutelným. Krátce oválný. Krovky s řadami teček s velmi slabými přiléhajícím rýžkami na každé straně řady. Krovky na stranách s příčnými mikroskopickými rýžkami. Velikost 2,3 mm. Rozšíření: Asie (Jemen). ..... ***Phalacrus lateralis*** Guillebeau, 1893

10(9) Výběžek zadohrudi dosahuje úrovně horního okraje středních kyčlí. Paramerální sklerit oddělen švem od bazální části tegmenu. Edeagus na obr. 5–6. Velikost 2,0–2,5 mm. Rozšíření: Asie (Omán). ..... ***Acylomus stanovskyi*** sp. nov.

\- Výběžek zadohrudi dosahuje doprostřed délky středních kyčlí. Paramerální sklerit srostlý bez švu se zbytkem tegmenu. Velikost 1,5–2,1 mm. Rozšíření: Afrika od Madagaskaru až po Maroko, Asie (Syrie, Omán). ..... ***Stilbus sharpi*** (Guillebeau, 1892)