

New species of the genus *Oxycara* Solier, 1835 from Oman (Coleoptera: Tenebrionidae)

Новые виды рода *Oxycara* Solier, 1835 из Омана (Coleoptera: Tenebrionidae)

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Ключевые слова: Tenebrionidae, Pimeliinae, *Oxycara* Solier, 1835, новые виды, определительная таблица.

Abstract. Three species of *Oxycara* subgen. *Oxycara* from Oman are described as new to science: *Oxycara* (*Oxycara*) *dhofarensis* sp. n., *O. (O.) liebegotti* sp. n., and *O. (O.) rihanei* sp. n. A key to the species occurring from Egypt to Tibet and India is provided.

Резюме. Описаны 3 новых вида рода *Oxycara* из Омана: *Oxycara* (*Oxycara*) *dhofarensis* sp. n., *O. (O.) liebegotti* sp. n. и *O. (O.) rihanei* sp. n. Дана определительная таблица видов, распространенных от Египта до Тибета и Индии.

Introduction

The genus *Oxycara* Solier, 1835 is widespread in the Palaearctic Region, with one species distributed in the Oriental and several in the Afrotropical Region. In the Palaearctic Region, from Morocco to Tibet, 36 species and 1 subspecies are known [Löbl et al., 2008]. Some *Oxycara* spp. live in the southern part of the Sahara and in the Sahel. Koch [1959, 1961] reported on the *Oxycara*-species of Somalia and described the subgenus *Pleuroxycara* Koch, 1959. A rich *Oxycara*-fauna has a disjunct distribution in the Cape Verde Islands, with 16 species and several subspecies [Geisthardt, 1988].

Keys to some groups of the genus *Oxycara* are available: Reitter [1900] documented species from the East Mediterranean and Arabia in his key. Kulzer [1956] provided a key to the species of the *laevigatum*-group, Kaszab [1979] to the species of the *deronecticum*-group, Geisthardt [1986] to the species of the Cape Verde Islands. The subgenus *Symphoxycara* Koch, 1943 was revised by Lillig [2001] which included a key.

Acronyms used in the text:

AR – private collection of Abdeslam Rihane, Mohammedia, Morocco;
BM – The Natural History Museum, London, UK;
DL – private collection of D. Liebegott, now in Naturmuseum Senckenberg, Frankfurt M., Germany;
GW – private collection of G. Wagner, Hamburg, Germany;
HJB-ZSM – private collection of H. J. Bremer, now in ZSM;
ML – private collection of M. Lillig, Saarbrücken, Germany;

ONHM – Oman National History Museum, Muscat, Oman;
RG – private collection of R. Grimm, Tübingen, Germany;
SMNS – Staatliches Museum für Naturkunde, Stuttgart, Germany;
TMB – Természettudományi Múzeum, Budapest, Hungary;
ZSM – Zoologische Staatssammlung, München, Germany.

New species

Oxycara (*Oxycara*) *dhofarensis* sp. n.
(Fig. 1 A–E)

Material. Holotype. ♂. Oman – Dhofar, Ardite, 15–19.04.1995, A. Rihane [ZSM].

Paratype. Data the same as Holotype, 1 ♀ [AR].

Description. Size. Holotype length 8.5 mm, width 4.5 mm, Paratype length 12 mm, width 6 mm.

Colour. Dorsal side black, slightly shining, tarsi, antennae, palpi, mentum and last sternite lighter brownish to reddish.

Shape (fig. 1 A). Broad-oval, elytra subparallel.

Head (fig. 1 B). Slightly arched. With fine punctures, distance between the punctures about 3 to 4 times larger than diameter of the punctures, in the paratype somewhat smoother and more scattered than in the holotype. Between the punctures indistinctly shagreened. Eye projecting from head convexity, between gena and eye obtusely angled. The eye is strongly narrowed by the gena up to 3 ommatids. Clypeal tooth horizontally projected. Antennae not reaching hind margin of the pronotum. Gular sulcus deep.

Pronotum. Widest at posterior margin where it is almost 2 times wider than length of the pronotum in the middle. Completely bordered. Sides regularly curved. Anterior angles strongly expanded forwards, pointed, bent down slightly. Posterior corners rectangular. Hind margin weakly bi-emarginate. Punctures superficial, less distinct as on head, discally weaker as laterally, near the lateral margin shortly longitudinal, in the Holotype disappearing at disc.

Elytron. Almost parallel from fore margin to the end of the second third of the length, then sharply narrowed. Largest breadth in the middle. On the shoulders a little bit wider than pronotum. Punctures very fine (Paratype) or non-conspicuous (Holotype) and scattered. Disc almost flat, suture in the Paratype depressed. Outer margin of the epipleura (epipleural edge) almost straight.

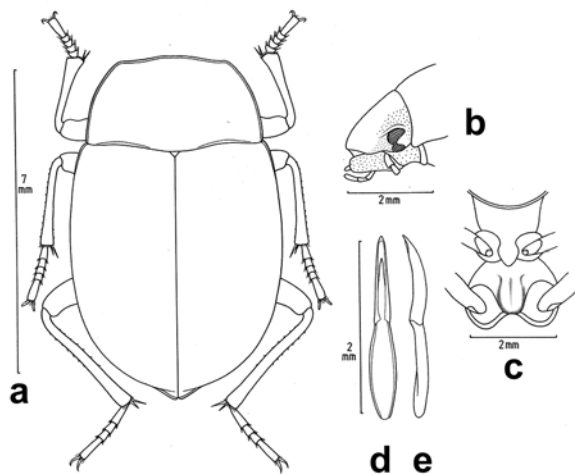


Fig. 1. *Oxycara dhofarensis* sp. n. A – shape; B – head; C – prosternum and mesosternum; D – aedeagus, ventral view; E – aedeagus, lateral view.

Рис. 1. *Oxycara dhofarensis* sp. n.

A – габитус; B – голова; C – передне- и среднегрудь; D – эдеагус, вид снизу; E – эдеагус, вид сбоку.

Ventral side. Matt shining. Behind middle and hind coxa some larger punctures, otherwise punctures smooth, scattered and inconspicuous. Prosternum in male with a dimple. Prosternalapophysis almost smooth between the coxae and not much narrowed, a little bit projecting the hind margin of the coxa, furrow very shallow. Propleura laterally smooth, in the middle shallowly leathery-rugose, near the coxa smooth. Mesosternal plate about 1.5 times as long as wide, furrow shallow, becoming weaker backwards (fig. 1 C).

Legs. Posterior tibia straight.

Aedeagus (fig. 1 D–E). Parameres long and very narrow, apex pointed.

Differential diagnosis. Very similar to *O. laevigatum* (Reiche et Saulcy, 1857). The main difference is in the shape of the mesosternal plate. In *O. laevigatum* it is about as long as wide, in the new species 1.5 times longer than wide. The aedeagus of *O. dhofarensis* sp. n. is longer and more slender as in *O. laevigatum*. *O. dhofarensis* sp. n. differs from *O. rihanei* sp. n. by the more narrowed eyes: about 2–3 ommatids in *O. dhofarensis* sp. n. and 5 in *O. rihanei* sp. n. The new species differs from *O. sanaaense* Gridelli, 1953 by the larger size, the subparallel shape of the elytra and the finer punctures, the sulcate mesosternal plate and the wider aedeagus. *O. liebegotti* sp. n. is narrower, the sides of the elytra are more regularly curved and the mesosternal apophysis much deeper sulcate.

Derivatio nominis. The name of the new species is derived from the place in which it occurs, Dhofar in Oman.

Distribution. Oman: Dhofar.

Oxycara (Oxycara) liebegotti sp. n.

(Fig. 2 A–E, 4)

Material. Holotype. ♂. Oman (Al Hajar ash Sharoi), Djabal Bani Djabir, 11.11.1998, Liebegott leg., 1178. 22°5'N / 59°3'E, 1700 m [DL].

Paratypes. Data the same as Holotype, 1 ♀ [ML]; Oman, 11.1998, Liebegott leg., 1 ♀ [no exact data, DL]; Oman: Jabal Bani Jabir, 22°50'N / 59°01'E, 1610 m, 1995, Gallagher, 1 ♂ [SMNS]; Jabal Bani Jabir, 22°50'02"N / 59°02'E, 1610 m, 15.11.<19>95, 8694, G. Lowe & M. D. Gallagher, 1 ♂ [SMNS]; Oman: Ras al Hamra, 2338N. 5630E, 13.XIII <19>95, J. Allison, 1 ♀ [OMNH]; OM-Qualhat, (25 km NW Sur), 9.03.04, 22°42'N / 59°22'E <leg. G.

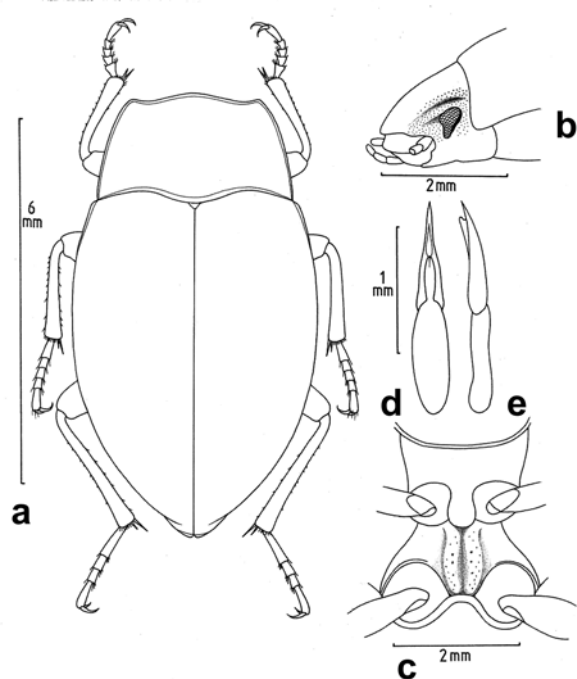


Fig. 2. *Oxycara liebegotti* sp. n. A – shape; B – head; C – prosternum and mesosternum; D – aedeagus, ventral view; E – aedeagus, lateral view.

Рис. 2. *Oxycara liebegotti* sp. n.

A – габитус; B – голова; C – передне- и среднегрудь; D – эдеагус, вид снизу; E – эдеагус, вид сбоку.

+ C. Wagner>, 1 ♂ [GW].

Description. Size. Holotype length 8 mm, width 3.5 mm, Paratypes length 9–9.5 mm, width 4.1–4.5 mm.

Colour. Holotype dorsally black, slightly shining, tarsi, antennae, palpi, mentum and last sternite brownish to reddish. Paratypes: black or chestnutbrown (immature specimens?).

Shape (fig. 2 A). Narrow oval, sides of elytra curved.

Head (fig. 2 B). Slightly arched. Punctures large, distances between punctures mostly smaller as diameter of punctures. Between the punctures indistinctly shagreened. Eye projecting from head convexity, almost completely curved with gena, an obtuse angle that is hard to recognize. The eye is strongly narrowed by the gena up to 4 ommatids. Clypeal tooth projecting horizontally. Antennae reaching hind margin of pronotum. Gular furrow deep.

Pronotum. Widest at hind margin, where it is 1.7–1.8 times as wide as pronotal length in the middle. Usually completely bordered, but sometimes fore margin very shortly unbordered in the middle. Sides regular curved. Anterior angles strongly expanded forwards, pointed, bent down slightly. Hind angles rectangular. Posterior margin weakly bi-emarginate. Punctures finer and more scattered as on the head, punctures discally small and round, laterally closer, a little bit deeper and more oblong.

Elytron. Sides scarcely but regular curved. Widest in the middle. Shoulders somewhat wider than pronotum. Puncturation scattered and very fine. Disc almost flat, suture sometimes depressed. Outer margin of the epipleura (epipleural edge) almost straight.

Ventral side. Matt shining. Behind middle and hind coxa some larger punctures, otherwise punctures smooth, scattered and inconspicuous. Prosternum in male without a dimple. Prosternalapophysis with punctures, slightly narrowed between the coxae, hardly narrowed projecting the coxae, with very distinct furrow. Propleura superficially longitudinally rugose. Mesosternal plate about 1.5 times as long as wide, furrow deep everywhere (fig. 2 C).

Legs. Posterior legs straight.

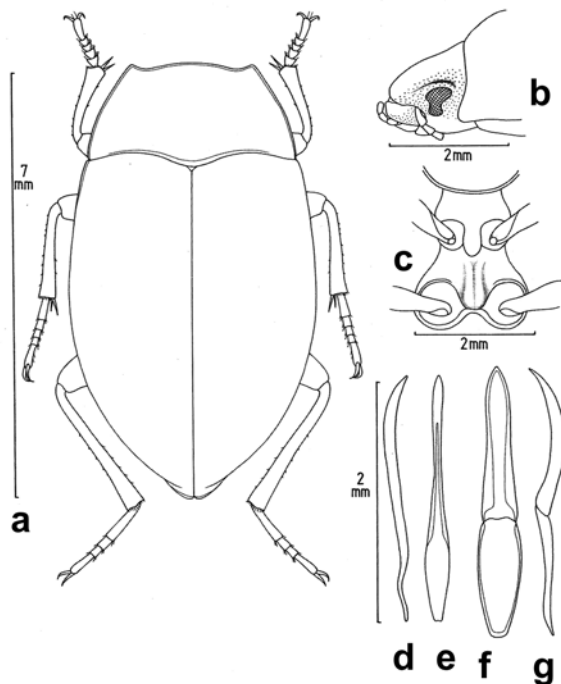


Fig. 3. *Oxycara rihanei* sp. n.

A – shape; B – head; C – prosternum and mesosternum; D – penis, lateral view; E – penis, ventral view; F – aedeagus, ventral view; G – aedeagus, lateral view.

Рис. 3. *Oxycara rihanei* sp. n.

A – габитус; B – голова; C – передне- и среднегрудь; D – penis, вид сбоку; E – penis, вид снизу; F – эдеагус, вид снизу; G – эдеагус, вид сбоку.

Aedeagus (fig. 2 C–E). Parameres broad in basal third, then narrowed like a bottle neck, pointed in apical half.

Differential diagnosis. *O. liebegotti* sp. n. differs from all Arabian *Oxycara* spp. with curved pronotum by the deeply sulcate mesosternal plate and the bottle neck like aedeagus. In *O. laevigatum* the mesosternal plate is as long as wide, in *O. liebegotti* sp. n. like in *O. dhofarensis* sp. n. about 1.5 times as long as wide. *O. liebegotti* sp. n. differs from *O. rihanei* sp. n. by the shape of the eyes: *O. liebegotti* sp. n. has up to 4 ommatides, *O. rihanei* sp. n. has 5 ommatides at the narrowest spot. The mesosternal plate of *O. sanaaense* is unsulcate.

Derivatio nominis. The new species is named in honour of late Dieter Liebegott, one of the collectors of the new species.

Distribution (fig. 4). Northern Oman.

Oxycara (Oxycara) rihanei sp. n.
(Fig. 3 A–E, 4)

Material. Holotype. ♂. Oman – Dhofar, Salalah Ebene, 23–27.03.1993, H.J. Bremer leg. / am Strand [HJB-ZSM].

Paratypes. Data same as Holotype, 5 ex. [3 HJB-ZSM, 2 ML]; Oman, Salalah, 02.<20>01, leg. Dr. K. Handke, 8 ex. [2 ML, 6 RG]; Oman, Jebel Quamar, 02.<20>01, Dr. K. Handke, 4 ex. [1 ML, 3 RG]; Oman: Jabal Qara, 170402 N 54202 E, 8814, 10.12.1996, M.D. Gallagher, 1 ex. [SMNS]; Oman – Dhofar, Jebel Qara, 300 m, 10 km N Teetam, 28.03.1993, leg. H.J. Bremer, 2 ex. [1 HJB-ZSM, 1 ML]; Qara Mts: Fuzul, 120 ft., 18.11.1930 / SE Arabia, B.S. Thomas, B.M. 1931–220., 1♂ [BM]; Oman: Zeek, 840m, 1718'N 5409'E, 4.09.1989, M.D. Gallagher, 8143, 2 ex. [1 OMNH, 1 ML]; Oman: Dhofar, Maghsyl, 20.10.<19>94, leg. Rihane, 6 ex. [4 AR, 2 ML], 24.11.1994, leg. Rihane, 8 ex. [6 AR, 2 ML]; Oman: Dhofar, Al, 22.08.<19>94, A. Rihane, 1♀

[AR]; Oman: Dhofar, 18.05.<19>95, Fadhite, A. Rihane, 3 ex. [2 AR, 1 ML]; Oman: Dhofar, Tobruk, 18.01.1995, A. Rihane, 2 ex. [AR]; OM-Salalah1, Umgebung Salalah, 16.03.<20>04, leg. G. Wagner, 16°56'N / 53°51'E, 6 ex. [3 ML, 3 GW]; OM-Mirbat, m (55 km Ö Salalah), 25.10.<20>06 01 548.26, *laevigatum* Reiche, det. G. Wagner, 17°02'N / 54°16'E, 1 ex. [GW]; OM-Jebel Qamar (45 km W Salalah), 16.03.<20>04, *rihanei* Lillig, det. G. Wagner, 16°51'N / 53°43'E, 3 ex. [GW]; OM-Jebel Qamar (45 km W Salalah), 16.03.2004, *rihanei* Lillig, d./l. G. Wagner/Wagner, 16.03.2004, 16°51'N / 53°43'E, 1 ex. [GW]; OM-Ain Garziz, m (10 km N Salalah), 16.03.<20>04, *rihanei* Lillig, det. G. Wagner, 17°06'N / 54°05'E, 2 ex. [GW]; OM-Ain Tabrock, m (32 km NÖ Salalah), 16.03.<20>04, *rihanei* Lillig, det. G. Wagner, 17°06'N / 54°20'E, 1 ex. [GW]; OM-Medinat al-Haq, m (36 km NW Salalah), 17.03.<20>04, *rihanei* Lillig, det. G. Wagner, 17°14'N / 54°23'E, 1 ex. [GW]; Arabia, Dhufar. Lowland Plain. 23–30.09.1943 / D. V Fitzgerald, B.M. 1946-363 / *laevigata* Rche & Sc., 2 ex. [TMB].

Description. Size. Length 6–10 mm lang, width 3.9–5 mm.

Colour. Dorsally black, slightly shining, ventrally, legs and mouth parts and sometimes clypeus reddish-brown.

Shape (fig. 3 A). Narrow oval.

Head (fig. 3 B). Slightly arched. Punctured deep and standing close together, distances between the punctures generally smaller than diameter of the punctures and indistinctly shagreened. Eye almost flat, hardly projecting from head convexity, completely curved with gena. Eye not much narrowed by gena, 5 ommatides on the narrowest spot. Clypeal tooth projecting horizontally. Antenna reaching hind margin of pronotum. Gular furrow deep.

Pronotum. Widest at hind margin, about double as wide as length in the middle. Completely bordered. Sides generally weakly curved, in some cases almost straightly converging from the hind to the fore margin. Fore angles pointed, not much bent down, hind angles rectangular. Hint margin weakly bi-emarginate. Punctures distinct but much smoother as on the head, laterally less deep as at the disc.

Elytron. Oval, widest at middle. Shoulders a little bit wider as pronotum. Punctures somewhat smoother and more scattered as at pronotum. Disc weakly convex, suture often depressed. Outer margin of the epipleura (epipleural edge) almost straight.

Ventral side. Matt shining. Behind middle and hind coxae some larger punctures, otherwise punctures flat, scattered and inconspicuous. Prosternum of the male with a dimple. Prosteral apophyses with punctures and a little bit widened between coxae, hardly projecting the coxae, with furrow. Propleura laterally smooth, near the coxa with punctures. Mesosternal plate narrow and furrowed (fig. 3 C).

Legs. Posterior tibia straight.

Aedeagus (fig. 3 D–E). Parameres laterally bi-sinuate, apex pointed.

Derivatio nominis. The new species is named in honour to Dr. Abdeslam Rihane, Mohammedia, Morocco, who collected many Tenebrionidae in Dhofar region, Oman.

Differential diagnosis. *O. rihanei* sp. n. differs from *O. laevigatum* by the shape of the eye. In *O. laevigatum* 2 to 3 ommatids are at the narrowest plot, in *O. rihanei* sp. n. 5 ommatids. The mesosternal plate of *O. laevigatum* wider and the parameres less curved on the sides. More similar to *O. rihanei* sp. n. is *O. sanaaense*, but its punctures of the elytra are much weaker as of the pronotum. And the parameres are very narrow in *O. sanaaense*. *O. dhofarensis* sp. n. differs from *O. rihanei* sp. n. in the subparallel shape of the elytra, the stronger incision of the eyes, the weaker punctures of the dorsal side, above all of the elytra, the completely bent prosternalapophyses, the wider mesosternal plate and the narrower aedeagus. The elytra of *O. liebegotti* sp. n. are narrower and their sides regularly curved, the eyes more narrowed and the mesosternal plate deeply sulcate.

Distribution (fig. 4). Oman: Dhofar.

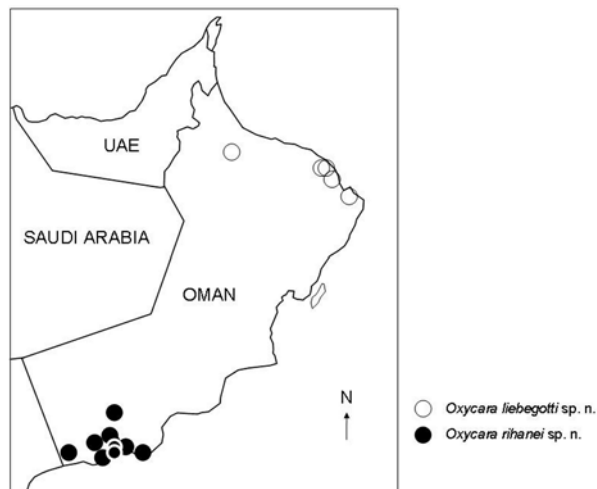


Fig. 4. Distribution of *Oxycara liebegotti* sp. n. and *O. rihanei* sp. n.
 Рис. 4. Распространение *Oxycara liebegotti* sp. n. и *O. rihanei* sp. n.

Key to the Eastern species of the genus *Oxycara* from Egypt to Tibet

- A(B). Epipleural edge file-like channeled as a stridulatory organ *Oxycara* subgen. *Symphoxycara* Koch, 1943 (key see Lillig [2001])
 B(A). Epipleural edge smooth.....*Oxycara* subgen. *Oxycara*
 1(8). Sides of pronotum parallel, not rounded and not converging forward.
 2(3). Elytra not rugosely puncturate or granulate (Saudi Arabia: Prov. Riyadh, Eastern Prov.).....*O. saudarabicum* Kaszab, 1979
 3(2). Elytra rugosely puncturate or granulate.
 4(5). Eyes projecting distinctly from head convexity, narrowest spot on the eyes about 1.5 ommatides (Saudi Arabia: Prov. Gasim, Riyadh, Medina, Eastern Prov., United Arab Emirates, Bahrain, Oman).....*O. buettigeri* Kaszab, 1979
 5(4). Eyes projecting only slightly from head convexity, narrowest spot on the eyes about 2 ommatides.
 6(7). Antennae slender, third joint longer than second (Israel: Negev, Jordan, Egypt: Sinai)..... *O. ardoini* Kaszab, 1979
 7(6). Antennae more robust, third joint about as long as second (Upper Egypt)..... *O. deronecticum* Reitter, 1900
 8(1). Sides of pronotum not parallel, converging distally or regularly curved.
 9(24). Pronotum distinctly widest at hind margin, lateral margins generally straight, pronotum always less than 2 times as wide as long.
 10(11). Eyes on the narrowest spot more than 4 ommatids (Oman: Dhofar).....*O. rihanei* sp. n.
 11(10). Eyes on the narrowest spot less than 5 ommatids.
 12(15). Mesosternal plate not distinctly sulcate.
 13(14). Propleura smooth or very finely wringled (Yemen, Saudi Arabia: Prov. Asir)..... *O. sanaaense sanaaense* Gridelli, 1953
 14(13). Propleura longitudinally rugose (Saudi Arabia: Prov. Mecca)*O. sanaaense forte* Kaszab, 1981
 15(12). Mesosternal plate distinctly sulcate.
 16(21). Mesosternal plate deeply sulcate along the whole length.
 17(18). Pronotum of male provided with a hair bearing dimple (Iran) *O. mandli* Kaszab, 1963
 18(17). Pronotum of male without a hair bearing dimple.
 19(20). Epipleural edge dorsally, visible from above just near the

- shoulders (northern Oman)..... *O. liebegotti* sp. n.
 20(19). Epipleural edge more laterally, visible from above in the first third of the elytral length (Afghanistan, China, India, Pakistan)..... *O. mellyi* (Fairmaire, 1898)
 21(16). Mesosternal plate distally more deeply sulcate as apically, elytra subparallel, shape broader.
 22(23). Mesosternal plate 1.5 times as long as wide (Oman: Dhofar)..... *O. dhofarensis* sp. n.
 23(22). Mesosternal plate is as long as wide (Syria, Lebanon, Israel, Jordan).....*O. laevigatum* (Reiche et Saulcy, 1857)
 24(9). Lateral margins of pronotum regularly curved, widest at middle or pronotum 2 times as wide near the posterior margin as long in the middle.
 25(26). Punctures of pronotum round (Egypt: Sinai).....
*O. productum* Peyerimhoff, 1907
 26(25). Punctures of pronotum oblong at least laterally.
 27(28). Pronotum 2 times as long as wide, second antennal joint shorter and wider than third antennomer (Libya, Lower Egypt and Sinai)..... *O. pygmaeum* (Reiche et Saulcy, 1857)
 28(27). Pronotum less than 2 times as wide as long, second joint of antennae as third antennomer (Iraq, Syria).....
 *O. pierrei* Girard, 1966

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