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Guichardus, a New Palaearctic Genus of Digger Wasps of the Tribe Oxybelini (Hymenoptera, Crabonidae)

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Abstract—A new digger-wasp genus, *Guichardus* (Hymenoptera, Crabonidae, Oxybelini), is described. It includes three species: *G. assyriacus* sp. n. from Iraq, *G. dromedarius* (Guichard, 1991) from Saudi Arabia and the United Arab Emirates, and *G. jordanicus* sp. n. from Jordan. The new genus differs in the absence of psammophores and tarsal rakes, the posteriorly concave scutellum, with developed posterolateral lobes in both sexes, separated plate of the clypeal medial lobe in females, concave ventrally scapes, and fore coxa in males. A previously unknown female of *G. dromedarius* is also described. The generic diagnosis, descriptions of the new species, and a key for their identification are given.

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In a review of species of the genus *Belomicrus* A. Costa, 1871 of the Old World (Guichard, 19911), actually covering only the territory of the western Palaearctic Region, eight new species were described, with two of these (*B. dimorpha* Guichard, 1991 and *B. dromedarius* Guichard, 1991) differing in the medially depressed scutellum not characteristic of most of representatives of the genus. At the same time, *B. dromedarius*, described from a single male, exhibits several essential characters differing it from all the other species of the genus *Belomicrus.* Some of these characters (e.g., depressed fore coxa and scutellum) were indicated by the author in the description, but others (ventrally depressed scape of male and pronounced posterolateral lobes of scutellum) were not marked. In addition, in the course of recent investigations a new material was found, including a female of *B. dromedarius* and females of two not described species possessing the structure of the clypeus unique for representatives of the tribe Oxybelini: the separated apical plate of the median lobe, separated at sides by deep rounded emarginations and by a pair of acute teeth.

It should be noted that most of the mentioned features, except for the structure of the clypeus of the female, are not autapomorphous characters of this group of species, since they occur separately in different oxybeline genera. In particular, the ventrally depressed scape is characteristic of the males of the genera *Brimocelus* Arnold, 1927 and, to a lesser extent, of *Wojus* Antropov, 1999, the ventrally depressed fore coxa of the males, is characteristic of species of the genus *Belomicroides* Kohl, 1899 and some species of the genus *Oxybelomorpha* Brauns, 1897, the depressed scutellum occurs in some species of *Oxybelomorpha* and *Belomicrus,* and the developed posterolateral lobes of the scutellum, in species of *Brimocelus* and the South-African species of *Oxybelomorpha.* However, none of the known genera of the tribe Oxybelini possesses all these characters together. Taking into consideration that the listed genera demonstrate a rather removed affinity to one another and belong to phylogenetically different branches of the tribe Oxybelini (*Wojus, Belomicrus, Oxybelomorpha—Brimocelus—Belomicroides*), it becomes evident that the mentioned structures have been formed independently in different taxa of oxybelines.

In my opinion, the discussed complex of morphological characters and, first of all, the unique structure of the clypeus of the female put *B. dromedarius* and the two species described below in an isolated position in the tribe Oxybelini, and this is a good reason for separating this group in a distinct taxon of the generic rank.

The study is based on the material obtained due to a kind assistance of curators of collections of the Natural History Museum, London, UK [BMNH] and Landesmuseum, Biologiezentrum, Linz, Österreich [LM].

In the descriptions of the sculpture of the body, the following designations are used: *d*, relative distance

between punctures of punctation; ∅, diameter of punctures. All dimensions were made at 50 × magnification.

GUICHARDUS Antropov, gen. n.

Type species *Belomicrus dromedarius* Guichard, 1991; designated here.

Diagnosis. Rather small wasps, body length not exceeding 2.5–3.5 mm. Frons weakly convex, without deep depression behind scapes; inner orbits of eyes distinctly converging in lower part in both sexes; ommatidia in anteroventral part of eye 2–3 times as large as those in posterodorsal part; vertex without lateral tubercles; ocelli simple, forming obtuse-angled triangle; parietal areas of female in form of deep sulci; temple regularly or slightly angularly widened at posterior portion; genae without carinae; clypeus of female with isolated apical plate of median lobe separated from lateral lobes by more or less deep rounded emarginations and bounded in posterior part by transverse carina; clypeus of male weakly concave at apex; occipital carina not closed, far not reaching hypostomal carina; mandibular emarginations open, paramandibular prominences of hypostoma absent; mandible simple at apex, without emargination or separated lobe on outer-lower side, with small acute-angled emargination in middle of inner margin; palpal formula 6–4; palpal segments of equal length; antenna of female 12-segmented, that of male 13-segmented; scape of female simple, that of male with deep depression on lower surface before apex; flagellar segments (except for ultimate one) much wider than long; psammophore on temples absent in both sexes, that at lower margin of mandible weakly developed or absent.

Pronotal carina convex, slightly lower than level of mesoscutum, without transverse carinae; humeral callus rounded, without carina; mesoscutum regularly convex; admedian lines weak, hardly reaching 1/4 of length of mesoscutum; parapsidal grooves absent; adlateral lines in form of fine sulci; scutellum without median carina, clearly depressed in posterior part, with lateral carinae and distinct posterolateral lobes; metanotum without median carina, falcate scales at its sides widely spaced, curved inwards, not forked at apices, and distinctly pubescent along inner margins; mesopleura strongly depressed on lower side in anterior part, convex at sides, regularly and densely striate above hypersternaulus; episternal suture fine; hypersternaulus mainly in form of pit near episternal suture; omaulus in form of short fine carina not reaching flexure of episternal suture; postspiracular and acetabular carinae, sternaulus, and verticaulus absent; precoxal tubercle flat, triangular; metapleuron not modified, without widened dorsal carina. Fore coxa of female not modified, that of male strongly depressed on lower-outer side; middle coxae widely spaced; hind coxae approximate; trochanters not modified; psammophore on fore trochanter and femur and digging carina on fore tarsus absent in both sexes; apical tarsal segments not enlarged, claws simple, arolia developed. Marginal cell of fore wing tapered or roundly tapered at apex; auxillary cell absent; free outer angle of united discoidal-submarginal cell rounded; *cu-a* antefurcal; hind wing with closed cells and small jugal lobe. Propodeum with entirely developed lateral carinae beginning from its apex; dorsal area of propodeum not bounded; base of posterior side of propodeum with carina and flat median pit bounded mainly from below and at sides by fine carinae; spine of propodeum more or less developed.

Metasoma convex on upper side, flattened or weakly convex on lower side; all metasomal tergites with lateral carinae, without deep transverse depressions at bases, those of male without pubescent pits; metasomal tergite I regularly convex in anterior part, with weak median sulcus at base, without dorsal pit; metasomal tergite VI of female with short wide pygidial area rounded at apex and bounded by lateral carinae; metasomal sternite VI of female not modified.

Comparison. Among the all representatives of the tribe Oxybelini, characterized by the presence of the lateral carinae on the metasomal tergites, *Guichardus* gen. n. is similar to *Wojus* Antropov, 1999 in the male scape depressed on the lower side, to some representatives of the genus *Belomicrus* (*B. dimorpha* of the "*odontophorus*" group, *B. meyeri* Kohl, 1924 of the "*italicus*" group, and also *B. affinis* Gussakovskij, 1952, *B. meridionalis* Kazenas et Antropov, 1994, and *B. shatalkini* Antropov, 1995 of the "*affinis*" group) in the depressed scutellum; to *Wojus,* species of the "*rhodesiana*," "*rubicunda*," and "*patei*" groups of the genus *Oxybelomorpha*, and, to the greatest extent, to species of the large "*schulthessii*" group of the genus *Belomicrus* in the falcate scales of the postscutelum; and to species of the "*braunsii*" and "*rhodesiana*" groups of the genus *Oxybelomorpha* in the depressed fore coxa of the male. At the same time, *Guichardus* gen. n. clearly differs from *Wojus* in the absence of the second submarginal cell of the fore wing; from *Oxybelomorpha*, in the absence of a complex of carinae on the mesopleuron; from *Wojus* and *Belomicrus*, in the

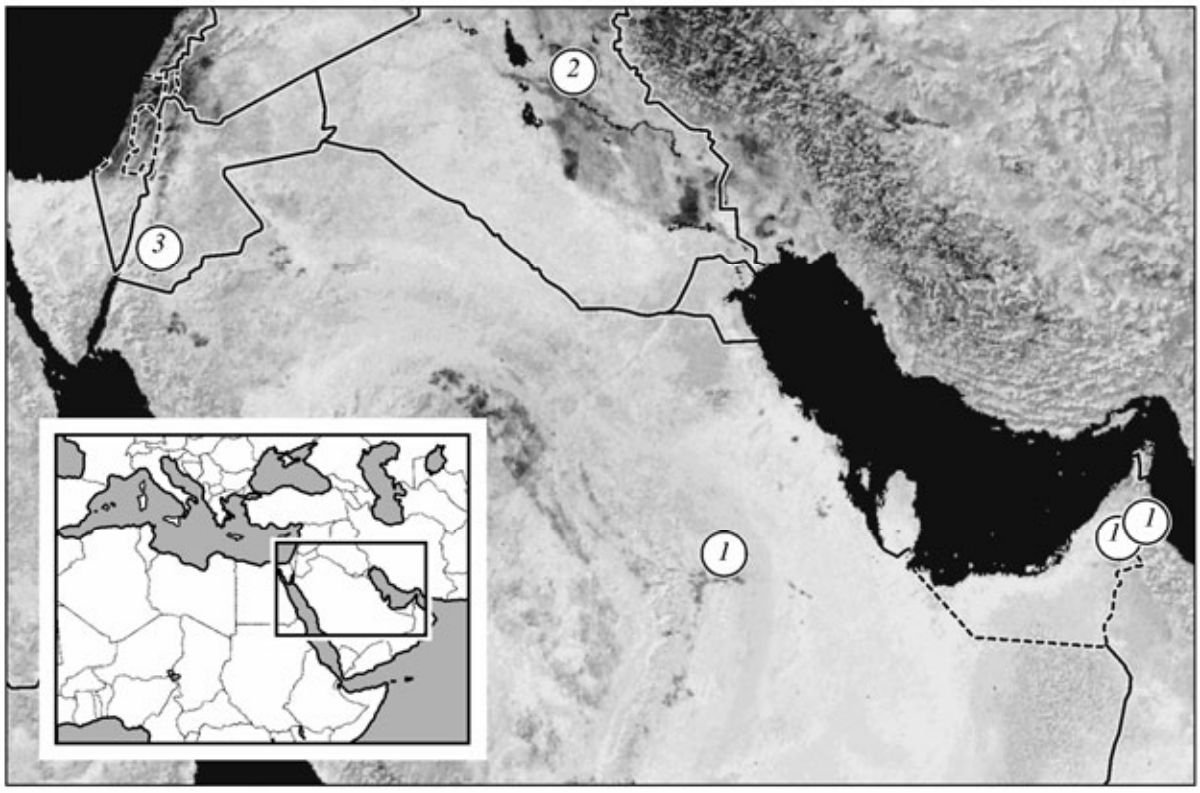

Fig. 1. Distribution of species of genus *Guichardus* gen. n.: (*1*) *Guichardus dromedarius* (Guichard, 1991), (*2*) *G. assyricus* sp. n., (*3*) *G. jordanicus* sp. n.

fore coxa of the male depressed on the lower side; and from *Oxybelomorpha* and *Belomicrus*, in the male scape depressed in the anterior part before the apex and in the mesopleuron covered with striae. From all the known genera of the tribe Oxybelini, the new genus differs in the shape of the clypeus of the female: isolated apical plate of the median lobe, bounded at sides by deep rounded emarginations and acute teeth, and in posterior part, by an acute transverse carina.

Systematic position. The relations between *Guichardus* gen. n. and the other genera of the tribe Oxybelini are rather distinct. *Guichardus* should be referred to a group of oxybeline genera, characterized by the modified metasomal segments, developed scales of the metanotum, and the spine of the propodeum. This group includes the genera *Wojus, Belomicrus*, and *Oxybelomorpha.* Phylogenetically, the new genus is most closely related to the genus *Belomicrus,* being its sister group.

The characters outlining *Guichardus* gen. n. most likely arose independently. It seems to be a result of the progressive decrease of the body size, which have entailed the reduction of the psammophores and digging carinae, since too small elements of the pubescence of the head and fore legs became ineffective for the building of nests and, thus, the functions of the basic working instrument of the female passed to the apical margin of the clypeus and the mandibles. I regard the deformation of the scape and fore coxa of the male as a result of the convergent evolution of the structures playing a certain role in similar precopulatory and copulatory relations of the sexes.

Distribution. Species of this rare genus are known only from the territory of the Near East (Fig. 1).

Biology. No data on the biology of representatives of the genus *Guichardus* gen. n. are available. However, such characters of the female as the presence of an isolated apical plate of the median lobe of the clypeus, the considerably enlarged temporal parts of the head (pointing the developed mandibular musculature), the flat pubescent pygidial area, and also the absence of digging carinae and psammophores on the fore legs and temples can testify that the insects make nests in a rather dense soil.

Etymology. The genus name of the masculine gender was given in memory of the late Mr. Kenneth

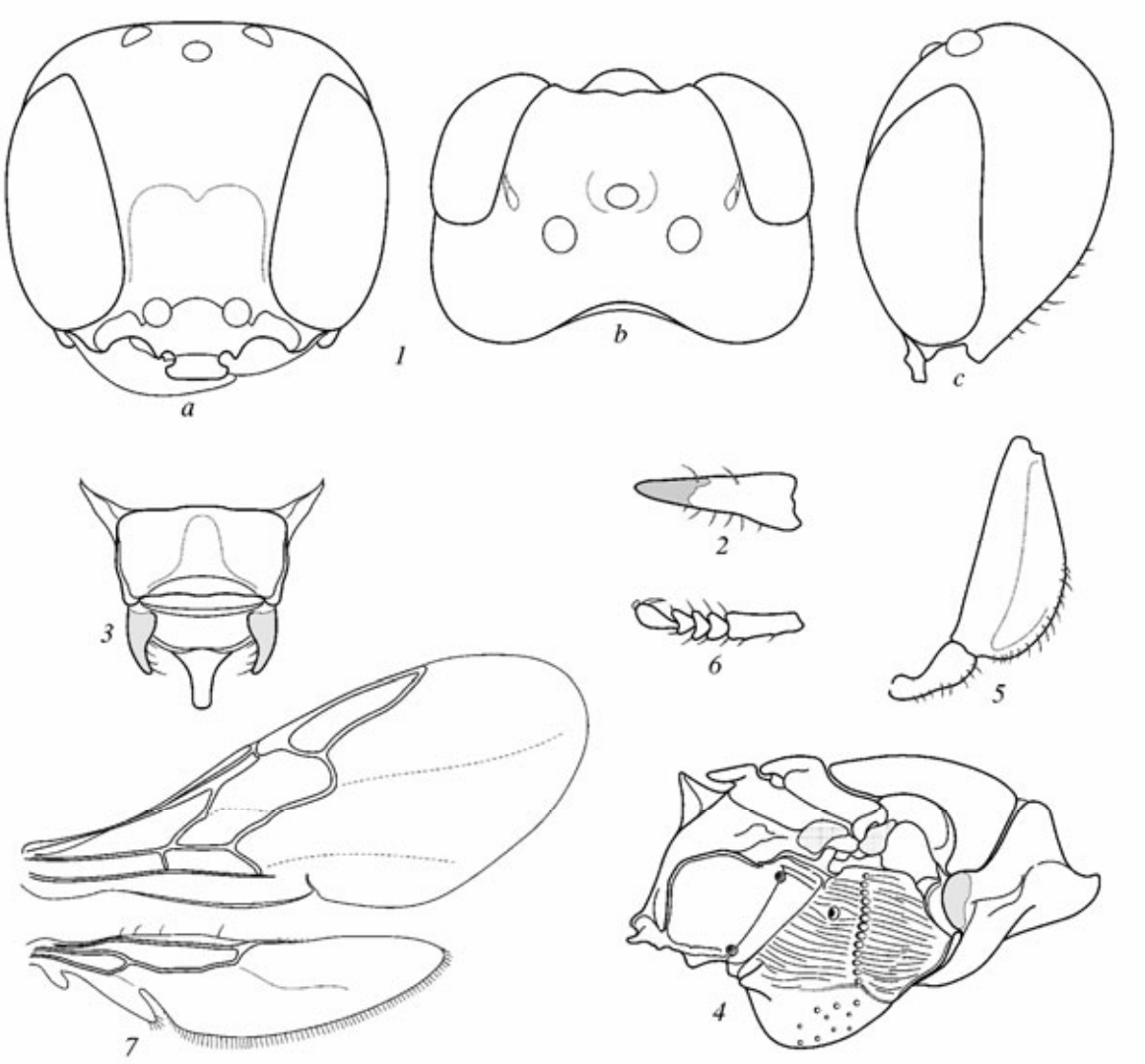

Fig. 2. *Guichardus dromedarius* (Guichard, 1991), female: (*1*) head [(*a*) front, (*b*) dorsal, and (*c*) lateral view]; (*2*) mandible, on outer side; (*3*) scutellum and metanotum, dorsal view; (*4*) mesosoma, lateral view; (*5*) fore trochanter and femur, inner side; (*6*) fore tarsus, outer side; (*7*) wings.

Guichard (London, UK), a well-known British hymenopterist, who contributed significantly to the study of oxybelines of the southern Palaearctic Region.

Guichardus dromedarius (Guichard, 1991)
carina. n.

Belomicrus dromedarius Guichard, 1991 : 362. Holotype examined.

Material. Holotype: ♂: "S.[audi] ARABIA: Riyadh [Ar Riyad] 600 m, 29.IV.1980 (K. Guichard)" [BMNH—21.1957]. Other material: 1 ♀, 1 ♂: U.A.E.: Al Ain [Al 'Ayn] (I'con) 8.IV.1993 (I.L. Hamer); 1 ♂: Oman: Rayy, 9.IV.1993 (I.L. Hamer) [BMNH].

Description. Female (described for the first time). Head rounded in front view (Fig. *2, 1a*), with distinctly widened, but not angular temples in lateral view (Fig. 2, *1c*); lower part of frons weakly depressed, with short flat areas behind appressed scapes; upper part of frons weakly regularly convex, with not deep median sulcus reaching median ocellus; vertex convex; parietal areas in form of distinct narrow sulci with distinct borders (Fig. 2, *1b*); median lobe of clypeus truncate at apex, with deep rounded lateral emarginations and short transverse carina between them, this carina not reaching lateral teeth; mandible thickened at base, with small emargination at inner margin (when mandibles closed, emargination situated at level of rounded emargination of median lobe of clypeus, and apices of mandibles slightly projecting beyond opposite angle of its apical plate); flagellar segments, except for ultimate one, wider than long; length of ultimate segment

1.5 times its maximum thickness and twice length of preapical segment.

Pronotal carina with fine median depression on upper side, rounded at sides, without lateral angles and transverse carinae, with clearly separated bordering at posterior margin; humeral calli small, rounded, without carinae; mesoscutum weakly and regularly convex, slightly higher than level of pronotal carina; admedian lines strongly approximate, fine and smoothened, hardly reaching 1/4 of length of mesoscutum; parapsidal grooves absent; adlateral lines in form of indistinct sulci; scutellum slightly convex, wider than long, medially depressed (widest in posterior part), with acute lateral carinae and with posterolateral lobes rounded at apices; metanotum in middle part not longer than diameter of lateral ocellus, flat, without striae; scales of metanotum falcate, widely spaced, about twice as long as middle part of metanotum, curved inwards at apices, with raised hairs along inner margins (Fig. 2, *3*); mesopleuron regularly convex at sides, widely concave on lower side, weakly concave in anterior part; episternal suture distinct and deep, slightly widened in middle part; omaulus in form of fine and short carina not reaching lower flexure of episternal suture (Fig. 2, *4*); postspiracular and acetabular carinae and sternaulus absent; hypersternaulus in form of short flat depression; precoxal tubercle in form of flattened tooth acute at apex and slightly curved downwards; metapleura narrow, without widened dorsal carina; tarsi and tibiae not modified; fore femur longitudinally depressed along outer margin, angular, without separated carina; hind femur not depressed and not widened on upper side before apex, with fine longitudinal apical carina nearly reaching middle of femur. Marginal cell of fore wing tapered at apex; second subdiscoidal cell narrow, with acute outer angle (Fig. 2, *7*). Propodeum with long slender dorsal spine concave in anterior part, length of spine (in dorsal view) no less than twice its width at apex, apex not wider than scale of metanotum (Fig. 2, *3*).

Sculpture of body mainly formed by fine punctures separated by shining intervals. Lower part of frons with vague microscopic punctation ($d < \varnothing$), upper part of frons with larger punctures (d = 1–2$\varnothing$); vertex with finer punctures regular in middle part (d = 2–3$\varnothing$), sparser at sides of lateral ocelli (d = 2–5$\varnothing$), merging into transverse wrinkles in posterior part; temples with vague punctures forming vertical wrinkles. Pronotal carina with dense vague punctures (d = 1–2$\varnothing$); mesoscutum with regular punctures (d = 1–2$\varnothing$) in anterior part and at sides, with sparse punctures (d = 2–5$\varnothing$) in middle, with short dense striae along posterior margin; scutellum with vague punctures (d = 2–3$\varnothing$) against background of dense fine striae; middle part of metanotum without sculpture, smooth; mesopleuron above hypersternaulus densely covered with striae, with dense large punctures (d = 1–2$\varnothing$) in lower part; metapleuron with microscopic longitudinally wrinkles. Upper side of propodeum not bounded, without carinae at base, entirely regularly covered with microscopic alveoles, similarly to posterior side; sparse radial costae present along inner side of lateral carinae; median pit of posterior part separated mainly from below and at sides, with narrower high bound, bottom of pit matte; sides of propodeum entirely covered with microscopic alveoles.

Pubescence silvery, short (hairs not longer than 1/3 of diameter of anterior ocellus), subrecumbent, rather sparse and uniform over entire body, densest on lateral lobes of clypeus, where it hardly concealing sculpture; psammophores on temples, mandibles, and fore trochanters and femora absent (Fig. 2, *1c, 2, 5*); digging carina on fore tarsus absent (Fig. 2, *6*).

Body mainly black; median lobe of clypeus rufous; mandible mainly yellow, with reddish-brownish apex; scape entirely dark brownish; flagellar segments brownish on upper side, yellowish rufous on lower side; humeral calli yellowish rufous; scales of metanotum whitish yellow.

Body length 3.0 mm.

Male mainly similar to female, except for characters related to sex: head rounded in front view (Fig. 3, *1a*); frons convex, with weak median sulcus; temples regularly convex (Fig. 3, *1c*); median lobe of clypeus truncate, slightly emarginate, with distinct lateral angles; scape with deep preapical depression on lower-inner side (Fig. 3, *2*); fore coxa strongly depressed on lower side (Fig. 3, *3*).

Surface of head and mesosoma shining, clearly punctate (d = 1.5–2$\varnothing$ on frons and vertex, punctures on mesoscutum smaller and d = 3–5$\varnothing$); mesopleuron striate, punctate between striae; propodeum between lateral carinae regularly covered with fine microscopic alveolation.

Pubescence silvery, short (hairs not longer than 1/3 of diameter of anterior ocellus), subrecumbent, rather sparse and uniform over entire body, slightly conceal-

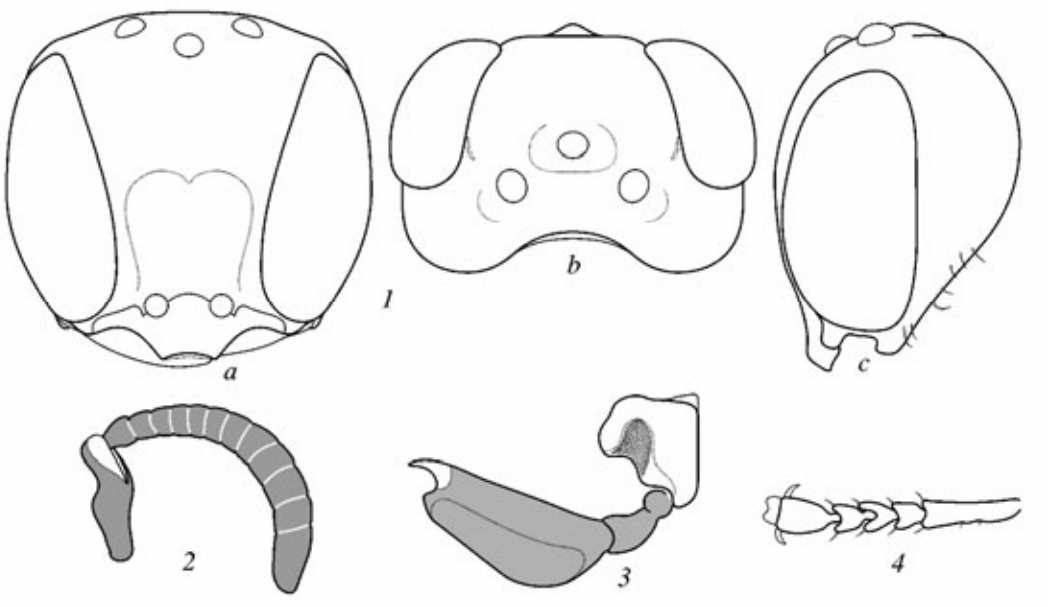

Fig. 3. *Guichardus dromedarius* (Guichard, 1991), male: (*1*) head [(*a*) front, (*b*) dorsal, and (*c*) lateral view]; (*2*) antenna, front view; (*3*) fore coxa, trochanter, and femur, view from inner side; (*4*) fore tarsus, outer side.

ing sculpture only on lateral lobes of clypeus; temples, mandibles, and fore trochanter and femur without psammophores (Fig. 3, *1c, 3*); fore tarsus without digging carina (Fig. 3, *4*).

Body mainly black; basal 2/3 of mandible, apical half of scape on lower side, middle part (mainly 7–9th segments) of flagellum on lower side, humeral calli, scales of metanotum, all tarsi (except for darker apical segments of middle and hind tarsi), fore and middle tibiae (except for inner side), and hind tibia at base whitish yellow; tegulae rufescent; fore-wing veins fuscescent.

Body length 2.5 mm.

Differential diagnosis. *Guichardus dromedarius* is the only species of the genus, for which both sexes are known.

The female of *G. dromedarius* differs from that of *G. assyriacus* sp. n. in the narrower apical plate of the median lobe of the clypeus (truncate at apex and separated from lateral lobes by deeper emarginations, and from posterior part of median lobe, by short transverse carina not reaching lateral teeth), in the longer and more slender spine of the propodeum, and also in the darker clypeus, humeral calli, and metasoma. The female of *G. dromedarius* differs from that of *G. jordanicus* sp. n. in the larger body and in the yellow mandibles, rufous clypeus, and yellowish rufous humeral calli.

Guichardus assyriacus Antropov sp. n.

Material. Holotype: ♀: "IRAQ: Baghdad, v.1988 (L. Olejnice)" [LM].

Description. Female. Head rounded in front view (Fig. 4, *1a*), with distinctly widened temples in lateral view (Fig. 4, *1c*); frons slightly depressed in lower part, with small rounded median pit, slightly convex in upper part; vertex regularly convex; parietal areas in form of distinct narrow matte sulci with distinct borders (Fig. 4, *1b*); median lobe of clypeus emarginate at apex, with rounded lateral emarginations not exceeding half diameter of antennal socket, and with long transverse carina reaching lateral teeth (Fig. 4, *2*); mandible thickened at base, with small emargination of inner margin (when mandibles closed, emargination situated at level of lateral tooth of median lobe of clypeus, and apices of mandibles only slightly projecting beyond opposite angle of its apical plate); flagellar segments, except for apical one, wider than long; length of ultimate segment no less than 1.5 times its maximum thickness and nearly twice length of preapical segment.

Pronotal carina with fine median depression on upper side, with rounded sides, without lateral angles and transverse carinae, with clearly separated bordering at posterior margin; humeral calli small, rounded, without carinae; mesoscutum weakly regularly convex, slightly higher than level of pronotal carina; admedian lines strongly approximate, fine and smoothened,

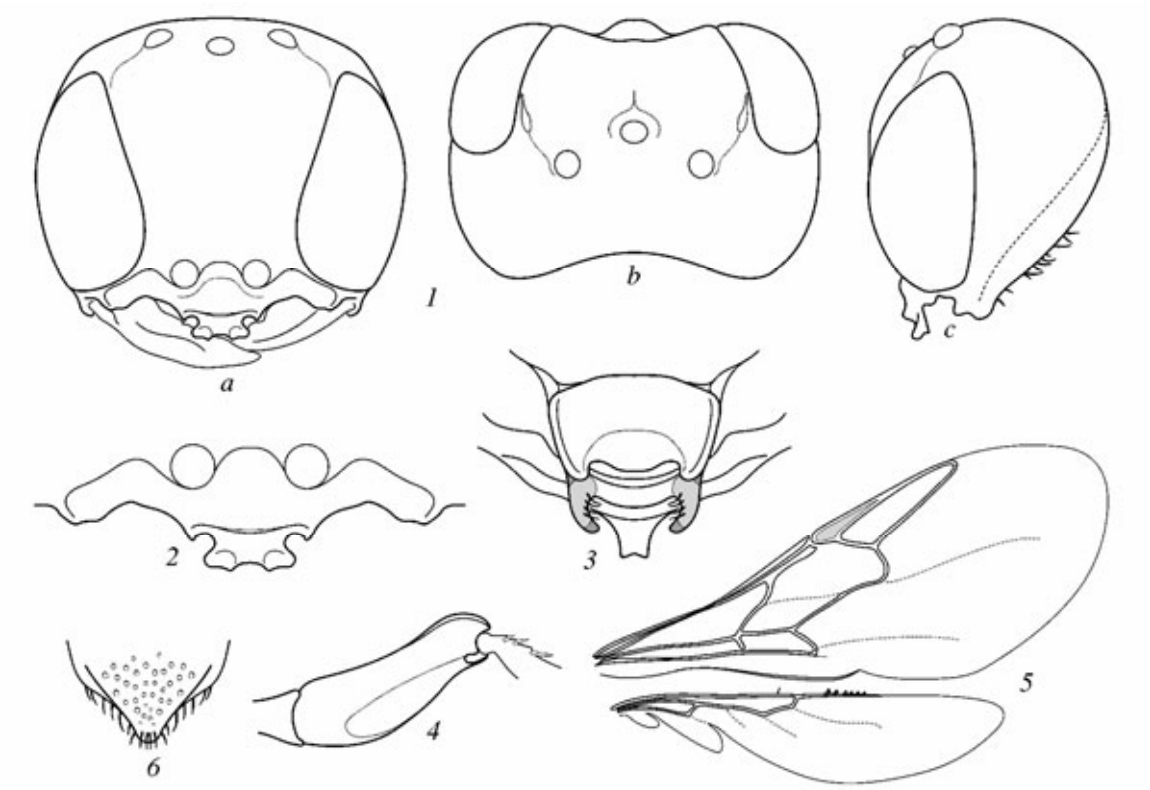

Fig. 4. *Guichardus assyriacus* sp. n., female: (*1*) head [(*a*) front, (*b*) dorsal, and (*c*) lateral view]; (*2*) clypeus; (*3*) scutellum and metanotum, dorsal view; (*4*) hind femur, lateral view; (*5*) wings; (*6*) metasomal tergite VI, dorsal view.

hardly reaching 1/4 of length of mesoscutum; parapsidal grooves absent; adlateral lines in form of distinct sulci; scutellum flatly convex, widely depressed in posterior part, with acute lateral carinae and apically rounded posterolateral lobes; metanotum short (not longer in middle part than diameter of anterior ocellus), transversely convex, without carinae; scales of metanotum falcate, very widely spaced, about twice as long as middle part of metanotum, with apices curved inwards and with raised hairs along inner margins (Fig. 4, *3*); mesopleuron regularly convex at sides, widely concave on lower side, flatly concave in anterior part; episternal suture distinct and deep, slightly widened in lower part; omaulus in form of fine and short carina not reaching lower flexure of episternal suture; postspiracular and acetabular carinae and sternaulus absent; hypersternaulus in form of short depression; precoxal tubercle in form of flattened tooth acute at apex and slightly curved downwards; metapleura narrow, without widened dorsal carina; tarsi and tibiae not modified; fore femur with angular outer margin, without separated carina; hind femur not depressed and not widened on upper side before apex, with fine longitudinal apical carina nearly reaching middle of femur (Fig. 4, *4*). Marginal cell of fore wing sharply rounded at apex, second subdiscoidal cell narrow, with acute outer angle (Fig. 4, *5*). Propodeum with short and wide dorsal spine concave on anterior portion, length of spine (in dorsal view) less than twice its width at apex, apex of spine twice as wide as scale of metanotum (Fig. *4,3*). Metasomal tergite VI with wide pygidial area rounded at apex (Fig. 4, *6*).

Sculpture of body irregular. Lower part of frons with fine microscopic punctures vanishing in middle (d = 1–2∅); upper part of frons with larger regular punctures against shining background (d = 2–3∅); vertex with finer and sparser regular punctures, d = 3∅ in middle, d = 5∅ at sides of lateral ocelli); temples with fine regular punctures round in upper part and vertically elongate in lower part (d = 2–3∅). Pronotal carina with dense vague punctures (d = 1–2∅); mesoscutum with punctures similar to those on upper part of frons, posterior part of mesoscutum also with fine striae; scutellum with sparser punctures (d = 2–3∅) and denser longitudinal wrinkles; metanotum smooth; mesopleuron with punctures similar to those on scutellum and with even denser striae above level

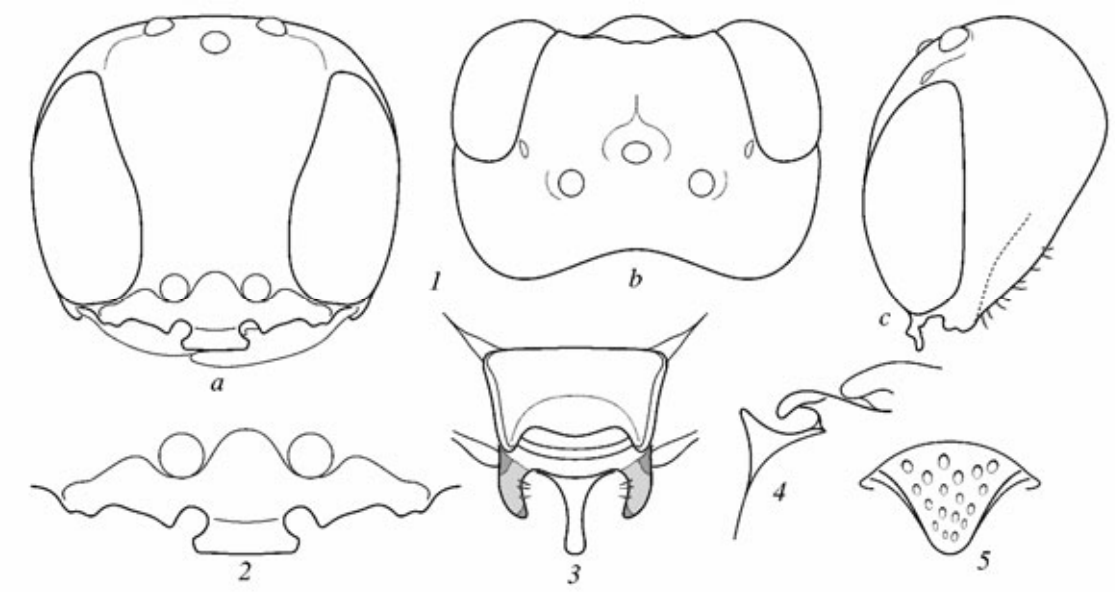

Fig. 5. *Guichardus jordanicus* sp. n., female: (*1*) head [(*a*) front, (*b*) dorsal, and (*c*) lateral view]; (*2*) clypeus; (*3*) scutellum and metanotum, dorsal view; (*4*) scutellum and metanotum, lateral view; (*5*) metasomal tergite VI, dorsal view.

of hypersternaulus, lower part of mesopleuron without wrinkles, d = 1–1.5∅; metapleuron with longitudinal wrinkles along entire length. Dorsal side of propodeum not bounded, without carinae at base, entirely regularly covered with microscopic alveolation similar to that on posterior side; short radial costae developed along inner side of lateral carinae; median pit of posterior part bounded mainly in lower part and at sides, with indistinct high boundary and with matte bottom; sides of propodeum with smoothened surface in anterior part and with microscopic alveolation closer to lateral carinae. Segments of metasoma with denser microscopic punctation at bases of recumbent hairs (d = 1–2∅); punctures on tergites I–V about equal in size; those on tergite VI largest, slightly longitudinally elongate (d = 1.5∅); sternites without distinct punctation, mainly with microscopic punctures at bases of recumbent hairs.

Pubescence of body mainly formed by very short, recumbent, silvery hairs not longer than half diameter of anterior ocellus (length of hairs at apex of metasomal tergite VI subequal to diameter of anterior ocellus) and slightly concealing sculpture of cuticle only on lateral lobes of clypeus; scales of metanotum with raised hairs along inner margins; lower part of temples without distinct psammophore, only with raised setae not longer than diameter of anterior ocellus (Fig. 4, *7c*); length of setae on mandibles not exceeding their width at base; fore trochanter and femur without setae of psammophore; fore tarsus without digging carina.

Body mainly black; base of median lobe of clypeus and most part of mandible yellow; scape entirely brownish; humeral calli white; middle and hind tarsi at bases and metasoma brownish; middle and hind tibiae mainly dark brownish; pygidial area rufous.

Body length 3.2 mm.

Male unknown.

Differential diagnosis. The female of *G. assyriacus* sp. n. differs from those of *G. dromedarius* and *G. jordanicus* sp. n. in the wider apical plate, yellow base of the median lobe of the clypeus (apex emarginate and separated from lateral lobes by less deep emarginations, and from posterior part of median lobe, by long transverse carina reaching lateral teeth), shorter and wider spine of the propodeum, white humeral calli, and reddish-brownish metasomal tergites with the fine rufescent preapical edgings. In addition, the female of *G. assyriacus* sp. n. differs from that of *G. jordanicus* sp. n. in the larger body, mainly yellow mandibles, yellow base of the median lobe of the clypeus, mainly rufous middle and hind tarsi and pygidial area, and brownish middle and hind tibiae.

Etymology. The species name is a toponym.

Guichardus jordanicus Antropov sp. n.

Material. Holotype: ♀: "JORDAN S: Vadi Rum [Ramm], 4–5.5.1996 (Marek Halada)" [LM].

Description. Female. Head in front view roundly square (Fig. 5, *1a*), with slightly convex lateral parts

of vertex (Fig. 5, *1b*), in lateral view with distinctly widened and slightly angular temples (Fig. 5, *1c*); frons flatly depressed in lower part, moderately convex in upper part, with weak median sulcus near median ocellus; vertex weakly convex in middle; parietal areas in form of small oval matte pits with distinct borders; median lobe of clypeus with truncate apex, with deep rounded lateral emarginations and with short transverse carina between them; carina not reaching lateral teeth (Fig. 5, *2*); mandible thickened at base, with small emargination at inner margin (when mandibles closed, emargination situated at level of rounded emargination of median lobe of clypeus, and apices of mandibles not reaching opposite angle of its apical plate); flagellar segments, except for ultimate one, wider than long; length of ultimate segment twice its maximum thickness and length of preapical segment.

Pronotal carina weakly regularly convex, with distinct median depression, with clearly separated posterior bordering, without transverse carinae and lateral angles; humeral calli weakly roundly convex, without carinae; mesoscutum regularly convex; admedian lines feebly marked, slightly longer than diameter of lateral ocellus; parapsidal grooves absent; adlateral lines in form of weak fine sulci; scutellum wider than long, convex at base and at sides, with wide median depression in posterior part, roundly projecting posterior margin, and developed posterolateral lobes edged with fine carinae along outer margins; metanotum short (its length in middle part not exceeding diameter of anterior ocellus), transversely convex, without carinae; scales of metanotum falcate, very widely spaced, nearly 3 times as long as middle part of metanotum, curved inwards at apices, with raised hairs along inner margins (Fig. 5, *3*); mesopleuron depressed on lower side, regularly convex at sides in posterior part, slightly depressed on anteroventral side; episternal suture in form of row of approximate punctures; omaulus fine and short, not reaching flexure of episternal suture in lower part; hypersternaulus in form of flat depression near lower angle of episternal suture; sternaulus and acetabular carina absent; precoxal tubercle in form of flattened tooth acute at apex and slightly curved downwards; metapleuron narrow, without widened dorsal carina; tarsi and tibiae not modified; fore femur with angular outer margin, without separated carina; hind femur not depressed on upper side before apex and not widened, with fine longitudinal apical carina nearly reaching middle of femur. Marginal cell of fore wing with tapered apex, auxillary cell absent, second subdiscoidal cell not narrowed. Propodeum with long and fine dorsal spine concave in anterior part, length of spine (in dorsal view) more than 3 times its width at apex, apex not wider than scale of metanotum (Fig. 5, *3, 4*). Metasomal tergite VI with wide pygidial area slightly narrowed before rounded apex (Fig. 5, *5*).

Sculpture of body mainly formed by more or less pronounced punctation with smooth intervals between punctures; apical plate of median lobe of clypeus depressed, shining, without sculpture; clypeus with fine irregular sculpture; upper part of frons roundly convex, shining; lower part of frons with fine punctures (d = ∅); upper part of frons with more distinct punctures (d = 2–4∅); vertex with finer punctures (d = 3–5∅); temples in lower and posterior parts with dense fine vertical wrinkles and with sparse, vertically elongate, very sparse punctures. Pronotal carina with dense microscopic punctures (d = ∅); mesoscutum with sparser punctures in middle (d = 2–5∅), in anterior part and at sides (d = 2–3∅) with smooth intervals, with short dense striae along posterior margin; scutellum with punctures similar to those on sides of mesoscutum (d = 2–3∅), smooth intervals, strongly smoothened striae at sides, and smooth posterior depression; middle part of metanotum convex, without carinae and sculpture; mesopleura below hypersternaulus with punctures similar to those on sides of mesoscutum (d = 2–3∅), above hypersternaulus with dense striae concealing very sparse punctation; metapleuron with dense striae along entire length. Propodeum with dense microscopic alveolation on upper and posterior side, matte with several radial folds along inner side of lateral carinae; sides of propodeum mainly with dense microscopic alveolation, with smoothened sculpture in anterior part. Metasomal tergite I with most distinct microscopic punctures at base of recumbent hairs and with microscopic transverse striation; tergites II–IV mainly with smoothened microscopic strigation; tergite V with distinct fine punctures at bases of recumbent hairs; tergite VI with largest punctures (d = 1–2∅).

Pubescence of body very short, sparse, concealing sculpture only on lateral lobes of clypeus near eyes, recumbent, silvery; temples and fore trochanter and femur without psammophore; mandible with 2 or 3 setae, length of which equal to width of base of mandible; digging carina of fore tarsi absent, 1st segment with only one raised seta shorter than width of segment.

Body mainly black, including median lobe of clypeus, scapes, humeral calli, middle and hind femora and tibiae, and metasoma; 1st–3rd and ultimate flagellar segments almost entirely brownish; 4–9th segments brownish on upper side and rufous on lower side; mandibles mainly brownish; fore tibia and tarsus yellowish rufous; middle and hind tarsi and pygidial area rufescent-brownish.

Body length 2.5 mm.

Male unknown.

Differential diagnosis. The female of *G. jordanicus* sp. n. differs from the females of *G. dromedarius* and *G. assyriacus* sp. n. in the smaller and darker body: clypeus and middle and hind tibiae black, and mandibles and humeral calli brownish. In addition, the female of *G. jordanicus* sp. n. differs from that of *G. assyricus* sp. n. in the narrower apical plate of the median lobe of the clypeus, which is truncate at the apex and separated from the lateral lobes by deeper emarginations, and from the posterior part of the median lobe, by a short transverse carina not reaching the lateral teeth, it also differs in the longer and more slender spine of the propodeum and the mainly black metasoma.

Etymology. The species name is a toponym.

A Key to Species of Guichardus gen. n.

1. Males: antenna 13-segmented; metasoma with 7 visible segments; apical part of median lobe of clypeus not separated by transverse carina and lateral emarginations; scape on lower side before apex and fore coxa on lower side along sides depressed (apical half of scape on lower side, all tarsi, most part of fore and middle tibiae, and base of hind tibia whitish yellow) [United Arab Emirates, Oman, Saudi Arabia] .... *G. dromedarius* (Guichard, 1991).

—Females: antenna 12-segmented; metasoma with 6 visible segments; apical part of median lobe of clypeus separated by transverse carina in posterior part, and at sides, by rounded emarginations; scape and fore coxa not modified; scape entirely brownish or black; middle and hind tarsi brownish at base or entirely black ..... 2.

2. Median lobe of clypeus yellow at base, emarginate at apex, with less deep lateral emarginations and with long transverse carina reaching weak lateral teeth; spine of propodeum short and wide, its length less than twice its apical width, its apex twice as wide as white scales of metanotum; mandible mostly yellow; humeral calli white; middle and hind tarsi brownish at bases; middle and hind tibiae mainly dark brownish; metasomal tergites reddish-brownish, with fine rufescent preapical edgings; pygidial area reddish rufous [Iraq] .... *G. assyriacus* Antropov, sp. n.

—Median lobe of clypeus with truncate apex, with deeper lateral emarginations and short transverse carina not reaching strong lateral teeth; spine of propodeum long and fine, its length more than twice its apical width, its apex not wider than yellow scales of metanotum; metasoma mainly black ..... 3.

3. Median lobe of clypeus rufous, mandibles mainly yellow; humeral calli and middle tibia on outer side yellowish rufous; pygidial area reddish rufous .... *G. dromedarius* (Guichard, 1991).

—Median lobe of clypeus black, mandible mainly brownish; humeral calli and middle and hind tibiae entirely black; pygidial area rufescent- brownish [Jordan] ..... *G. jordanicus* Antropov, sp. n.

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1. Guichard, K.M., "Old World *Belomicrus* A. Costa, 1871," Entomofauna **12**, 353–372 (1991).