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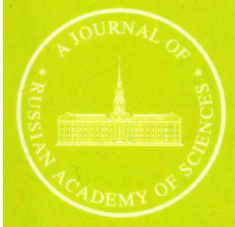

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A Revision of Digger Wasps of the Genus *Oxybelomorpha* (Hymenoptera, Crabronidae, Oxybelini): 3. The *O. braunsii* Species-group

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Abstract—Four species of digger wasps of the genus *Oxybelomorpha* Brauns, 1897, belonging to the South African *O. braunsii* species-group, are revised. Two new species are described: *O. pseudosordida* from Namibia and *O. separata* from South African Cape Province. The lectotype of *Belomicrus sordidus* Arnold, 1927 is designated.

The third part of a revision of digger wasps of the genus *Oxybelomorpha* Brauns, 1897 deals with species of the South-African *O. braunsii* group characterized by the following features: scales of metanotum apically bifurcate, dorsal carina of metapleura more or less widened in form of lobe, dorsal propodeal spine widened, and fore coxa in male depressed on lower side.

Oxybelomorpha braunsii Species-group

Description. Occipital carina passing below into distinct ridges reaching bases of mandibles (Fig. 2, *3*; 5, *1d*); pronotal carina usually with distinct lateral angles; mesoscutum depressed medially; scutellum wider than long, depressed medially, with developed posterolateral lobes; scales of metanotum separated by wide semicircular emargination, bifurcate apically, with inner angle directed backwards; precoxal tooth of mesopleura distinct, triangular; metapleura with more or less widened upper lobe; fore coxa in male with deep depression on lower side; fore femur in female with, or without weak outer carina; hind femur narrowed in upper part before apex and widened at apex; 1st segment of hind tarsus in both sexes with preapical pit on inner surface; propodeal spine wide, rather short, more or less emarginate at apex; metasomal tergite I with weak dorsal pit.

I place four species in this group of rather small representatives of the genus, distributed in South Africa and Namibia (Fig. 1): *O. braunsii* (Kohl, 1923), *O. sordida* (Arnold, 1927), and also *O. pseudosordida* sp. n. and *O. separata* sp. n. (described below).

Oxybelomorpha braunsii (Kohl, 1923)

Belomicrus (*Oxybelomorpha*) *braunsii* Kohl, 1923 : 186. ♀, ♂, South Africa, Cape Province [NHMW]. The holotype was examined.

B. (*O.*) *braunsii*: Arnold, 1927 : 69; 1930 : 14; 1936:31;

B. braunsii: Pate, 1940 : 223; Bohart and Menke, 1976 : 363.

Material. Holotype: ♀, "Capland, Willowmor, 5.XII.1903 (Dr. Brauns);" "*Handlirschii*, Tours, Brs. (det. Brauns);" "*Braunsii*, ♀ (det. Kohl) Type;" "*Oxybelomorpha braunsii* (Kohl) (Maidl teste)" (Fig. 2, *11c*) [NHMW]. Other material: 1 ♀, "Capland, Willowmor, 5.XI.1905 (Dr. Brauns)" "*Belomicrus* Handlirschii (det. Brauns)" (Fig. 2, *11c*) [Collection G. Mercet—MNCN]; 15 ♀, 5 ♂, "South Africa, Cape Province, Little Carroo, 38 km E Ceres, 17–25.XI. 1924 (R.E. Turner—Brit. Mus., 1924–518);" 1 ♂, "South Africa, Cape Province, Little Carroo, 38 km E Ceres, 17–25.XI.1924 (R.E. Turner—Brit. Mus., 1924–518.245);" 1 ♀, "South Africa, Cape Province, Little Carroo, 38 m E Ceres, 17–25.XI.1924 (R.E. Turner—Brit. Mus., 1924–518. 247)" [BMNH], 43 km ENE Ceres on road to Sutherland, 2–3.XII,1989 (F.W. and S.K. Gess)" (Fig. 2, *11e*); 1 ♀, "CAPE PROVINCE: 43 km ENE Ceres on road to Sutherland, 2–3.XII.1989, 89/90/221 (F.W. and S.K. Gess)," 1 ♀, 1 ♂, "CAPE PROVINCE: 43 km ENE Ceres on road to Sutherland, 2–3.XII.1989, 89/90/236 (H.W. Gess). On flowers of *Athanasia* sp. (Compositae)" (Fig. 2, *11d*); 1 ♀, "CAPE PROVINCE: 60 km ENE Ceres on road to Sutherland, 3.XII.1989, 89/90/231

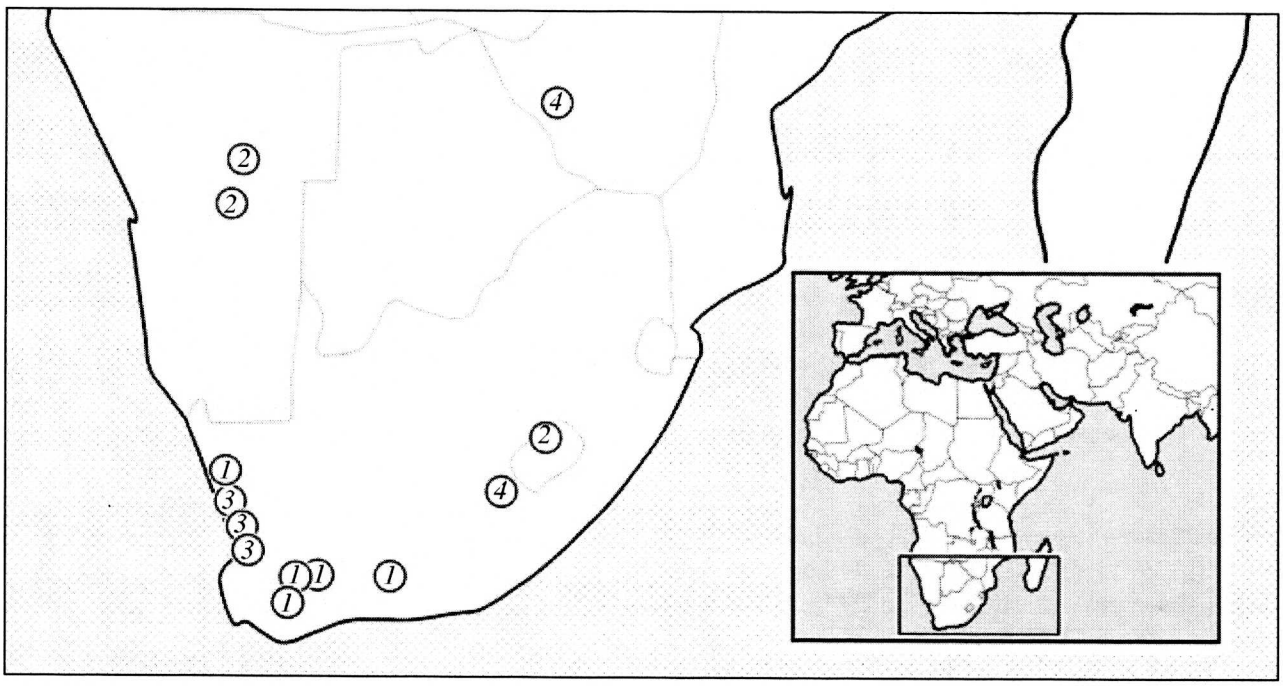

Fig. 1. Distribution of species of the *Oxybelomorpha braunsii* group: (*1*) *O. braunsii*, (*2*) *O. pseudosordida*; (*3*) *O. separata*; (*4*) *O. sordida*.

(R.W. Gess). On flowers of *Pentzia suffruticola* (L). Hutch, ex Merxm. (Compositae)" (Fig. 2, *11b*) [AMC]; 35 ♀, "R.S.A., N CAPE, 50 km SW Springbok, wadi Buffels, 18.X.1999 (M. Halada);" 1 ♀, "R.S.A., W CAPE, Ashton (Robertson), 26.X.1999 (Marek Halada)," 2 ♀, 1 ♂, "R.S.A., N Cape, SW of SPRINBOK, 4.XI.1999 (M. Halada)" [LM].

Description. Female. Head in front view rounded, distinctly wider than long (Fig. 2, *1d*); frons with moderately concave and lustrous area in lower part and with distinct longitudinal depression before median ocellus in upper part, convex at sides; IOD = 43 : 26; vertex uniformly convex; parietal areas distinct, bordered, with smooth lustrous bottom (Fig. 2, *1b*); OOD : OD : POD = 7 : 6 : 18; temples uniformly rounded (Fig. 2, *1c*). Median lobe of clypeus oval-rounded in anterior part, bounded at sides by distinct lateral angles separated by distance nearly twice that between angle and antennal socket, with wide median depression near base; this depression bounded at sides by rounded carinae converging in upper part and forming depressed triangular area (Fig. 2, *2*); flagellar segments wider than long. Pronotal carina short, with distinct posterior edging along entire length, tapered lateral angles, and transverse ridge (Fig. 2, *4*); mesoscutum uniformly convex, with median depression extending beyond middle of mesoscutum; admedial lines fine, approximate, distinct; parapsidial grooves and adlateral lines absent; scutellum transversely-rectangular, slightly depressed in middle, rounded at posterior end, with distinct lateral edging turning at posterior angles into rounded lobes; metanotum depressed in middle, without median carina and with well-developed scales bifurcate in posterior part to form two lobes: wider, short inner one directed obliquely upwards and narrow outer lobe tapered at apex, projecting beyond margin of inner lobe, curved downwards (Fig. 2, *5a*, *5b*); posterior margin of metanotum with entire sharp edging connecting inner lobes of scales; emargination between scales widely oval; mesopleura flattened at sides, with distinct triangular precoxal tooth; upper part of metapleura forming rounded lobe; this lobe convex on outer side, densely pubescent, and bearing separate fine inner prominence, closing in anterior part deep depression of anterodorsal angle of propodeum (Fig. 2, *6*); fore femur with weak carina on lower side (Fig. 2, *7*); hind femur depressed on upper side before apex, widened at apex, bearing distinct longitudinal apical carina (Fig. 2, *9*); 1st segment of hind tarsus with preapical pit on inner side (Fig. 2, *10*). Propodeum with strong lateral carinae (as in Fig. 3, *7*); dorsal spine with weakly diverging lateral sides, shallowly emarginate at apex, rounded at apex and at sides, roundly depressed on

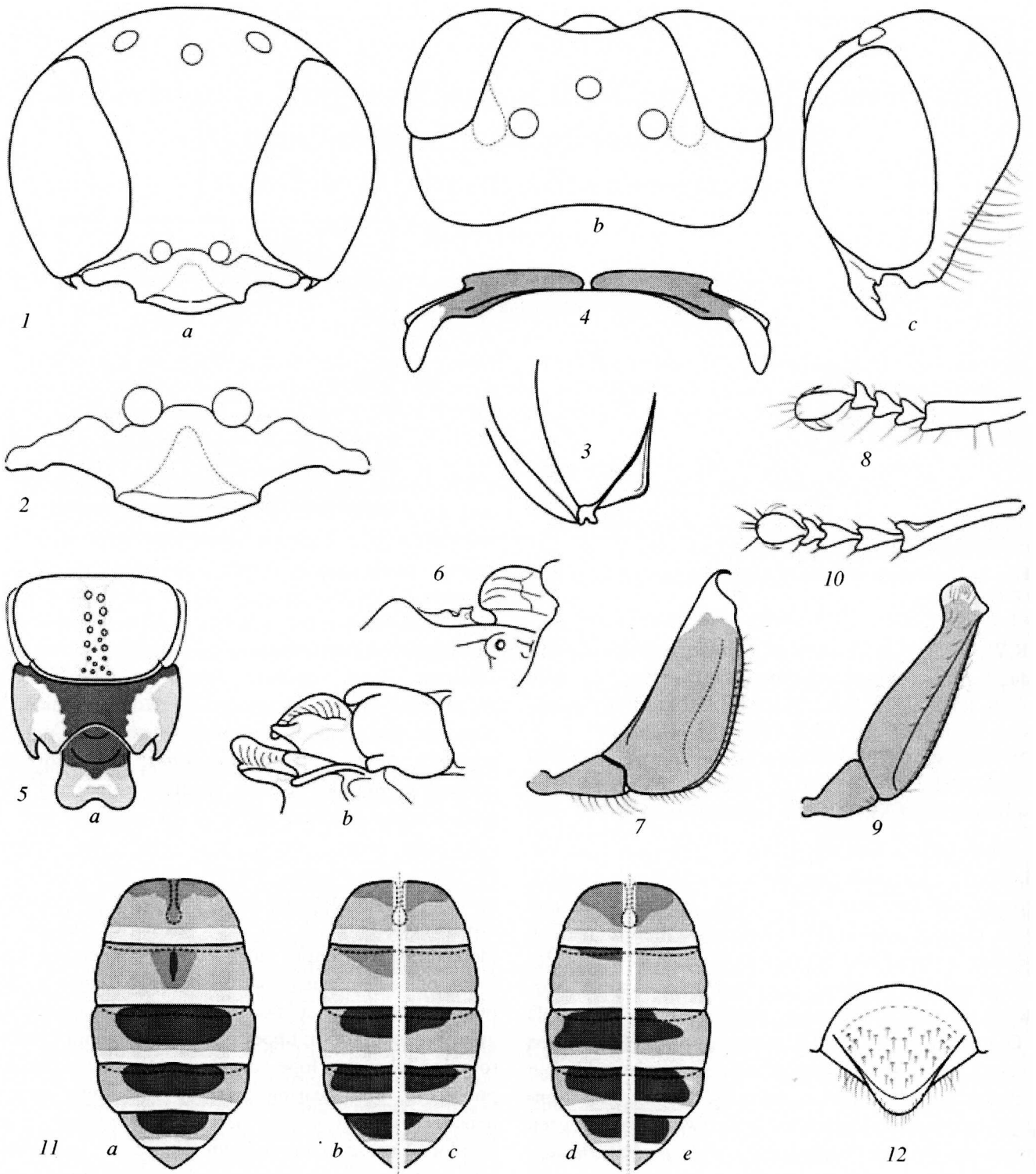

Fig. 2. *Oxybelomorpha braunsii*, female: (*1*) head [(*a*) front view, (*b*) dorsal view, (*c*) lateral view]; (*2*) clypeus, front view; (*3*) lower part of left temple, posterior view; (*4*) pronotal carina, dorsal view; (*5*) scutellum, metanotum, and propodeal spine [(*a*) dorsal; (*b*) dorsolateral view]; (*6*) upper part of metapleuron; (*7*) fore trochanter and femur, view from inner side; (*8*) fore tarsus, view from outer side; (*9*) hind femur, view from outer side; (*10*) hind tarsus, posterior view; (*11*) metasoma, dorsal view [(*a–e*) see Material]; (*12*) metasomal tergite VI.

upper surface; width of spine not less than length of emargination between inner lobes of scales, length slightly exceeding it (Fig. 2, *5a*). Metasomal tergites II–IV depressed at base; metasomal tergite I with short distinct median depression, but without separated pit (Fig. 2, *11*).

Punctation distinct, coarse, mainly rather sparse, with smooth and lustrous intervals between punctures. Intervals on frons d = 1–2∅; on vertex d = 2∅ in middle and $d \geq$ 4–5∅ at sides; punctures on temples distinctly smaller, elongate, d = 1–3∅. Punctures on mesoscutum large, d = 1–2∅ in anterior part, rather dense on median stripe (d = 1–2∅), sparse in posterior part at sides; scutellum with scattered large punctures, mainly arranged in posterior part; mesopleura punctate more uniformly than mesoscutum (d = 1–3∅); metapleura distinctly uniformly longitudinally carinate. Propodeum densely and finely alveolate and matte in posterior part and on upper side, also finely alveolate at sides in anterodorsal part, smoothened in lower part. All metasomal tergites distinctly punctate, except for posterior areas of tergites I–V, intervals from d = 1–2∅ in middle and at base to $d \geq$ 5∅ at sides before apex; pygidial area with largest punctures and intervals shorter than diameter (Fig. 2, *12*); sternites with fine vague microsculpture and scattered punctures at base of preapical raised hairs.

Pubescence short, mainly recumbent, raised on vertex, pygidial area, and in some parts of metasomal tergites. Setae of psammophore on temples developed; their length subequal to width of mandibular base (Fig. 2, *1c*), slightly greater in lower part of mandible; fore trochanter with long raised setae similar to those on postero-outer angles of propleura (Fig. 2, *7*); fore femur with row of short dense setae along lower outer margin, length of setae subequal to diameter of anterior ocellus; digging comb on 1st segment of fore tarsus formed by 4 or 5 setae, their length not less than width of segment (Fig. 2, *8*).

Head and mesosoma mainly black; median lobe of clypeus fuscous, with rufescent fuscous lower margin between lateral angles; flagellum black on upper side; scape, pedicel, and flagellum fuscous on lower side; mandibles yellowish white in basal half, then reddish rufous, reddish fuscous at apex. Pronotal carina black; humeral calli white; apical margins of lateral parts of scutellum and metanotum with narrow cream-white stripes; metanotum with black triangular area in middle; scales on outer side and posterior part of inner lobes with discolored translucent areas, with white spots in middle; metapleural carina mainly discolored, translucent, with white spot in middle; all tarsi yellowish rufous, fore one slightly paler; fore tibia white on outer side, rufescent on inner side; middle and hind tibiae white on outer side, fuscous on inner side; fore and middle femora yellow at apices; hind femur mainly blackish fuscous, rufous only on projecting part of apex; all coxae and trochanters brownish black; tegulae translucent, fuscous; basal wing sclerites black; veins of wings fuscous. Propodeal spine black at base, translucent at sides and at apex, with whitish yellow spot in middle. Metasoma mainly reddish rufous (Fig. 2, *11a–11e*); tergite I with fuscous spots at sides of base, with transverse fuscous spot in middle; tergite II with smaller dark spot at base; fuscous spots of tergites III and IV larger, those on tergite V becoming smaller again; pygidial area entirely reddish rufous, with reddish fuscous lateral carinae; metasomal sternites mainly reddish fuscous.

Body length 4.5 mm.

Male similar to female, except in characters associated with sex. IOD = 37 : 24 (Fig. 3, *1a*); OOD : OD : POD = 7 : 6 : 16 (Fig. 3, *1b*); median lobe of clypeus truncate at anterior end, slightly projecting between distinct lateral angles; its anterior surface nearly flat, with weakly developed lateral carinae bounding smooth triangular area separated from lower margin by row of punctures; all flagellar segments, except for ultimate one, not modified, wider than long (Fig. 3, *2*). Pronotal carina with less pronounced lateral angles (Fig. 3, *3*). Fore coxa with deep depression of lower side (Fig. 3, *5*). Propodeal spine not widened at apex (Fig. 3, *4*).

Setae of psammophore on temple weak, their length mainly half width of mandibular base (Fig. 3, *1c*); setae on propleura and fore trochanter ill-defined; fore femur with sparser row of fine setae, length of which less than diameter of anterior ocellus (Fig. 3, *5*); digging comb on fore tarsus inconspicuous; length of 4 lateral setae of 1st segment nearly half width of this segment at apex (Fig. 3, *6*).

Fore tarsus rufescent fuscous, hind and middle ones darker, fuscous; fore tibia yellow on outer side, fuscous on inner side; middle and, especially, hind tibiae brownish black in apical 2/3, whitish cream at apex on outer side. Metasoma almost entirely black, except for reddish rufous segment VII and discolored brownish posterior areas of other tergites.

Body length 4 mm.

Differential diagnosis. *O. braunsii* differs from the other members of this group in the sparsely punctate vertex, mesoscutum, scutellum, and mesopleura, and in the rufous female metasoma with black spots (such a coloration of the metasoma is also typical of

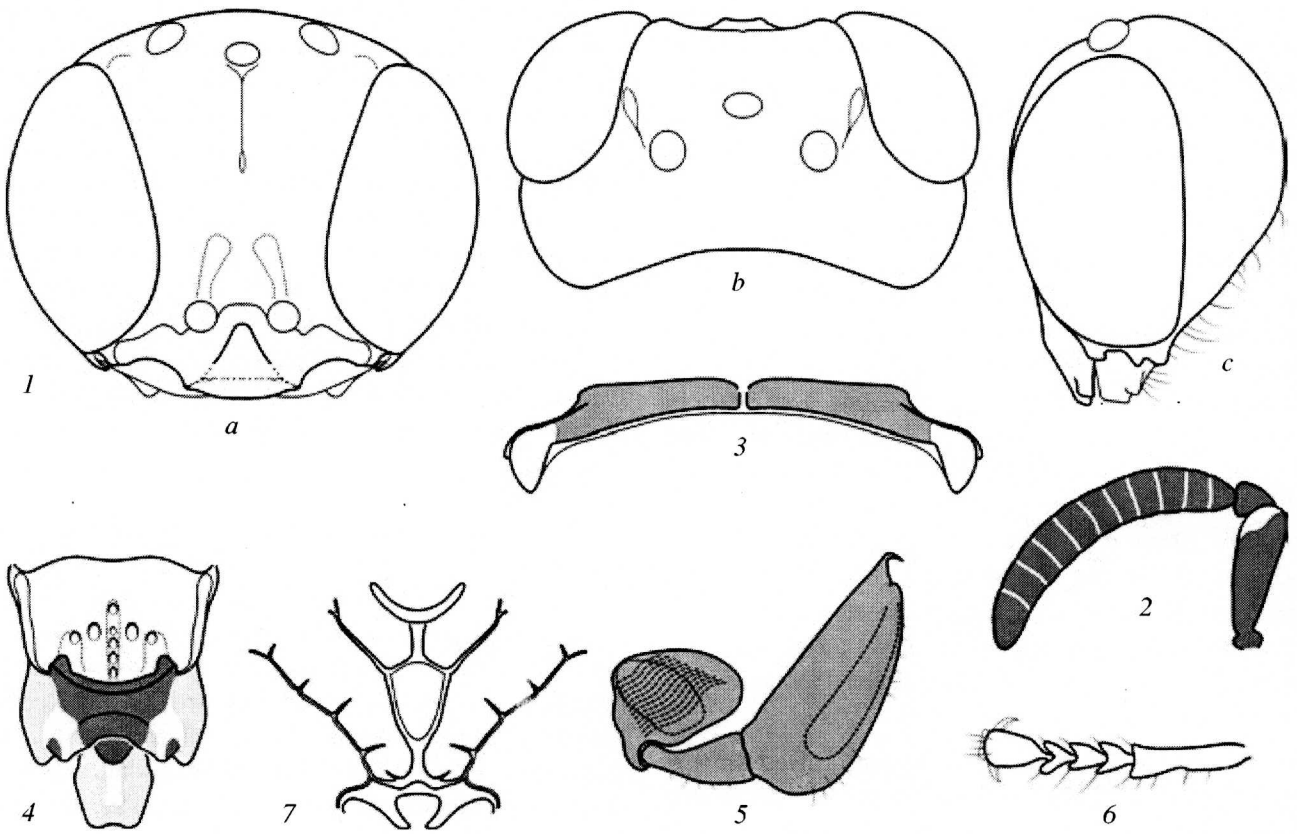

Fig. 3. *Oxybelomorpha braunsii*, male: (*1*) head [(*a*) front, (*b*) dorsal, (*c*) lateral view]; (*2*) antenna, front view; (*3*) pronotal carina, dorsal view; (*4*) scutellum, metanotum, and propodeal spine, dorsal view; (*5*) fore coxa, trochanter, and femur, ventral view from inner side; (*6*) fore tarsus, view from outer side; (*7*) propodeum, posterior view.

O. separata). The female of *O. braunsii* differs from that of *O. separata* in the wider median lobe of the clypeus with a flat glabrous area bounded by the lateral carinae, black pronotal carina with distinct lateral angles, weak apical outer prominence of 1st segment of the fore tarsus, and mainly dark scape and femora.

Notes. In his description of *Belomicrus* (*Oxybelomorpha*) *braunsii*, Kohl mentioned not only the female, but also two males; however, he indicated only a single type specimen, which I consider as the holotype.

Oxybelomorpha pseudosordida Antropov, sp. n.

Material. Holotype: ♀, "NAMIBIA: Gobabis District: 40 km W Witvlei 16 February, 1990 W.J. Pulawski" [CAS]. Paratypes: 1 ♀, "NAMIBIA: Windhoek District: 28 km S Windhoek, 17 February, 1990 (W.J. Pulawski)" [CAS]; 1 ♂, "MAMATHES Basutoland, 11.II.1945 (C. Jacot Guillarmod);" 1 ♀, "MAMATHES Basutoland, 26.XII.1946 (C. Jacot-Guillarmod);" 1 ♀, "MAMATHES Basutoland, 22.II.1947 (C. Jacot Guillarmod)" [AMC]; 1 ♀, "MAMATHES Basutoland, 26.XII.1946 (C. Jacot-Guillarmod);" 1 ♂, "MAMATHES Basutoland, 13.III.1949 (C. Jacot Guillarmod)" [BMNH]; 1 ♀, "NAMIBIA: Gobabis: 40 km W Witvlei, 16.II.1990 (Max. Schwarz)" [MS].

Description. Female. Head in front view rounded, wider than long (Fig. 4, *1d*); IOD = 44 : 30; lower part of frons depressed, with two smooth vertical areas converging upwards behind appressed scapes; upper part of frons weakly convex at sides of vague median groove; vertex moderately and uniformly convex; OOD : OD : POD = 7 : 6 : 20; parietal areas weakly convex, not bounded, lustrous (Fig. 4, *1b*); median lobe of clypeus with moderately convex smooth triangular area not bounded at sides by carinae; distance between lateral angles exceeding that between angle and antennal socket (Fig. 4, *2*). Pronotal carina convex, with fine median depression and rectangular lateral angles (Fig. 4, *3*); mesoscutum uniformly convex, with median depression deep in anterior part and reaching 3/4 of length of mesoscutum; admedial lines

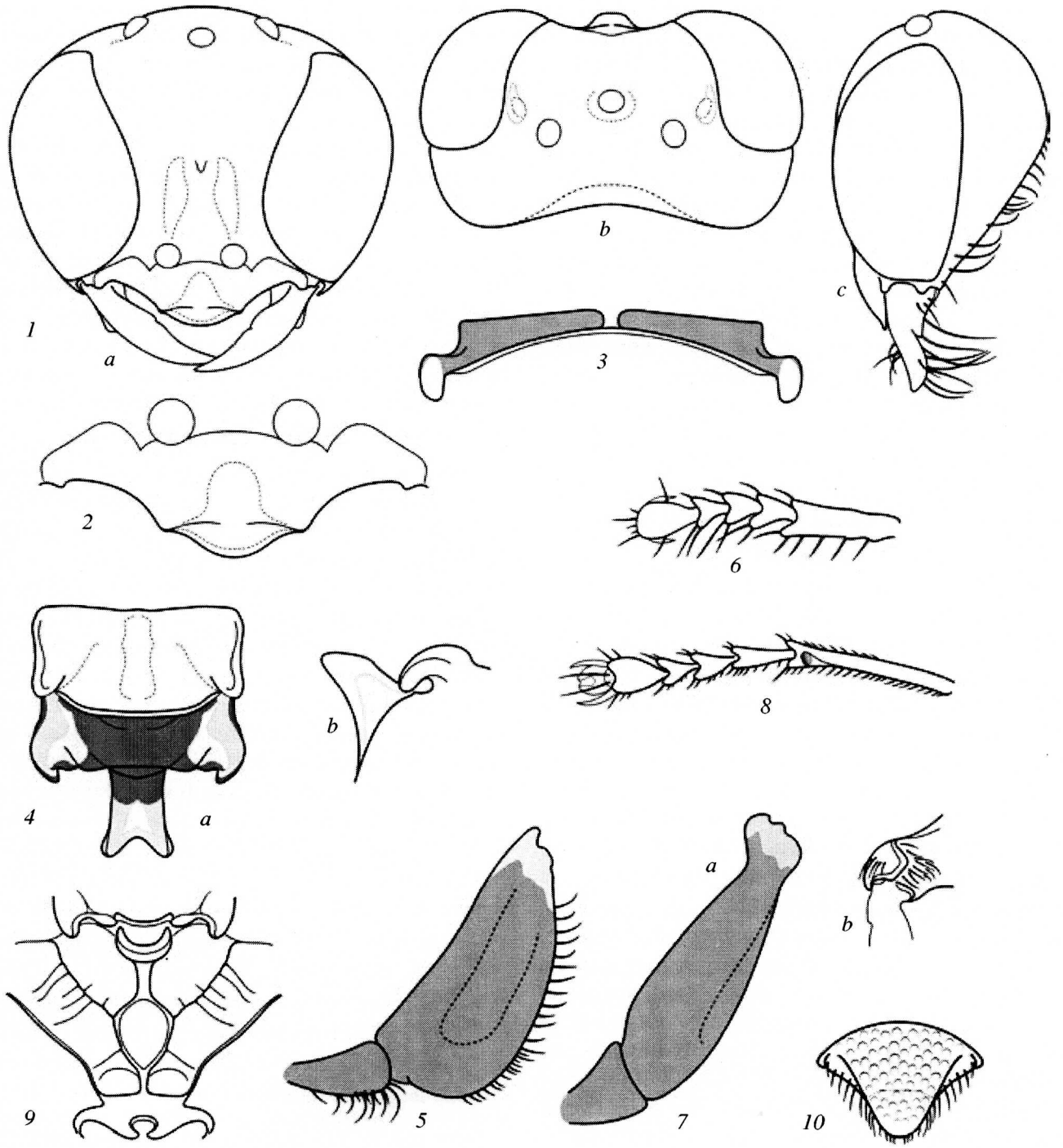

Fig. 4. *Oxybelomorpha pseudosordida*, female: (*1*) head [(*a*) front, (*b*) dorsal, (*c*) lateral view]; (*2*) clypeus, front view; (*3*) pronotal carina, dorsal view; (*4*) scutellum, metanotum, and propodeal spine [(*a*) dorsal view; (*b*) lateral view]; (*5*) fore trochanter and femur, view from inner side; (*6*) fore tarsus, view from outer side; (*7*) hind femur [(*a*) view from outer side; (*b*) apex, view from inner side]; (*8*) hind tarsus, posterior view; (*9*) propodeum, posterior view; (*10*) metasomal tergite VI, dorsal view.

concealed by punctation of median depression; parapsidial grooves and adlateral lines absent; scutellum transversely rectangular, widely medially depressed, with nearly straight projecting posterior margin, bearing well-developed posterolateral lobes with deflexed apices (Fig. 4, *4a*); metanotum concave in middle, smooth, bearing bifurcate scales with widely rounded inner angles, which much shorter than larger outer angles tapered and deflexed at apices (Fig. 4, *1a*, *1b*); mesopleura uniformly convex, with triangular pre-

coxal tooth; upper part of metapleura with lobe convex on outer side and covering depressed dorsoanterior angle of propodeum; inner tooth of lobe ill-defined; fore femur longitudinal depressed in anterior part along margin, with weak carina in apical half on outer side (Fig. 4, *5*); hind femur strongly depressed before apex on upper side, widened at apex, with distinct incurved carina (Fig. 4, *7a*, *7b*); 1st segment of hind tarsus with distinct preapical pit on inner side (Fig. 4, *8*). Propodeum with entire lateral carinae extending from its apex and slightly widened in upper part; dorsal area of propodeum finely bounded; median pit of posterior side closed (Fig. 4, *9*); dorsal spine wide, parallel-sided, strongly medially depressed in anterior part and with upcurved margins, forming deep ovate-triangular emargination at apex. Metasomal tergite I with ill-defined dorsal pit smoothly turning into wide median depression; tergites II and III with deep transverse basal depressions; posterior areas of tergites III–V separated from convex parts by weak bends.

Sculpture of body formed by dense uniform punctation with smooth intervals between punctures; lower part of frons with dense minute punctures in middle and along inner orbits of eyes (d = 0.5–1∅); upper part of frons with large dense punctures (d = ∅) scattered in upper part (d = 2∅); vertex with smaller, but also dense punctures forming strigulae in posterior part; similar dense punctures on temples forming vertical rugulae. Punctures on pronotal carina as those on vertex, but denser (d <∅); mesoscutum with punctures similar to those on vertex (d = ∅), slightly larger and sparse (d = 1.5–2∅) in middle of sides, also with short carinae in posterior part; punctures of scutellum slightly larger (d = ∅), forming striae; metanotum smooth in middle, without pronounced sculpture; mesopleura with dense punctures at sides (d = 0.5–1∅), largest in anterior part, distinctly smaller and denser (d < 0.5∅) in lower part; metapleura densely uniformly plicate, smoothened in upper part. Dorsal area of propodeum finely alveolate, matte; sides of upper part finely alveolate, matte, with transverse carinae along lateral carinae; sides of propodeum finely alveolate, matte, irregularly plicate along lateral carinae. Metasomal tergites with dense (d = ∅) uniform punctures becoming larger from tergite I to tergite V; discolored posterior areas of metasomal tergites smooth, impunctate; punctation of pygidial area very dense, punctures slightly larger and distinctly deeper than those in upper part of mesopleura, nearly merging (Fig. 4, *10*).

Pubescence of body silvery, mainly recumbent and short (length of raised hairs on vertex half diameter of lateral ocellus), sparse, dense (concealing sculpture of cuticle) only on lateral lobes of clypeus and in lower part of frons along median line and inner orbits of eyes; setae of psammophore on temple developed along entire length, longest in lower part of temples, their length there equal to width of base of mandible (Fig. 4, *1c*); length of setae on mandible distinctly exceeding width of mandibular base; length of setae on fore trochanter equal to width of trochanter; fore femur on outer side with regular row of setae, length of which not exceeding width of 1st segment of fore tarsus; digging comb on 1st segment of fore tarsus consisting of 5 raised setae, length of which not exceeding width of segment (Fig. 4, *6*).

Body mainly black. Scape with whitish yellow spot in apical half (as in Fig. 5, *2*); mandible yellowish white in basal 1/3, rufous in middle, fuscous at apex; humeral calli yellowish white; tegula translucent, fuscous; basal wing sclerites entirely dark brown; metanotum black in middle; scales of metanotum translucent on outer side, with triangular yellowish white spot on inner side; upper lobe of metapleura with yellowish white stripe, translucent on outer side; fore tarsus rufous; middle and hind tarsi pale brownish; fore and middle tibiae whitish yellow on outer side, rufous and bearing fuscous spot on inner side; hind tibia yellow on outer side in proximal half, black on inner side and outer side in distal half; fore and middle femora black, yellow or yellowish rufous at apex; hind femur entirely black, less frequently with rufescent apex. Dorsal propodeal spine black at base, with short median yellowish white stripe and translucent margins. Posterior areas of metasomal tergites translucent, brownish; pygidial area reddish rufous at apex.

Body length 4.7 mm.

Male mainly similar to female, except in characters associated with sex. IOD = 41 : 26 (Fig. 5, *1d*); OOD : OD : POD = 6 : 5 : 11; parietal areas nearly absent (Fig. 5, *1b*); pronotal carina with less strong lateral angles (Fig. 5, *3*); fore coxa with deep oval ventral depression (Fig. 5, *4*); setae of psammophore on temples inconspicuous, sparse, their length in lower part of temples no more than half width of base of mandible (Fig. 5, *1c*); length of ventral setae of psammophore on mandible not exceeding width of mandibular base; raised setae on fore trochanter scattered, their

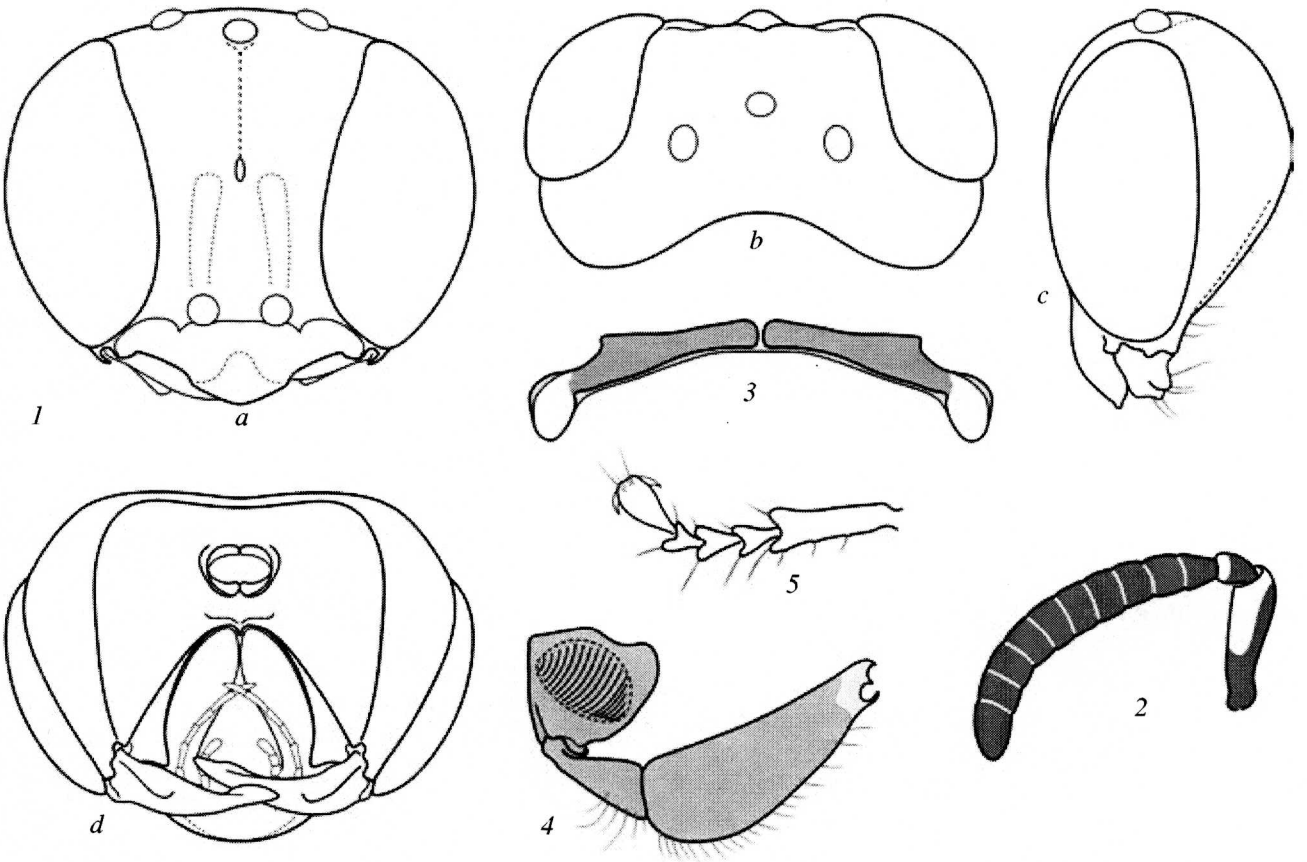

Fig. 5. *Oxybelomorpha pseudosordida*, male: (*1*) head [(*a*) front, (*b*) dorsal, (*c*) lateral, (*d*) posterior view]; (*2*) antenna, front view; (*3*) pronotal carina, dorsal view; (*4*) fore coxa, trochanter, and femur, ventral side view from inner side; (*5*) fore tarsus, view from outer side.

length less than width of trochanter; outer row of setae on fore femur weakly developed (Fig. 5, *4*).

Body length 3.8 mm.

Differential diagnosis. *O. pseudosordida* sp. n. differs from the all other members of the group in the rounded inner angles of scales of the metanotum, which do not project backwards beyond the apices of the outer angles. It also differs from *O. braunsii* in the densely and uniformly punctate body and black metasoma of the female, from *O. separata*, in the black pronotal carina with pronounced lateral angles, short apical prominence of the 1st segment of the fore tarsus, and black metasoma of the female, and from *O. sordida*, in the median lobe of the clypeus forming a convex glabrous area not bounded by lateral carinae and in the scape bearing on the lower side a yellow apical spot reaching half of its length.

Etymology. The species name originates from the Greek word ψευδής, which means "false," and from "*sordida*" (species name).

Oxybelomorpha separata Antropov, sp. n.

Material. Holotype: ♀, "R.S.A., N. CAPE, Groenriviersmond coast, 15.X.I999 (leg. Marek Halada)" [LM]. Paratypes: 25 ♀, "R.S.A., W. CAPE, Lamberts Bay coast, 29.X.1999 (leg. M. Halada)," 1 ♀, "R.S.A., W. CAPE, 40 km S coast, Lamberts Bay coast, 29.X.1999 (leg. M. Halada)" [LM].

Description. Female. Head in front view rounded, slightly wider than long (Fig. 6, *1d*); IOD = 38 : 25; lower part of frons shallowly depressed, with 2 smooth vertical stripes behind appressed scapes; upper part of frons weakly convex at sides of smoothened median groove; vertex uniformly convex; OOD : OD : POD = 7 : 5 : 17; parietal areas narrowly oval, depressed, smooth (Fig. 6, *1b*); temples angularly roundly convex (Fig. 6, *1c*). Pronotal carina convex, with fine median depression, rounded at sides, without pronounced lateral angles (Fig. 6, *3*); mesoscutum uniformly convex, with weak median depression hardly reaching its middle; admedial lines fine, approximate, parapsidial

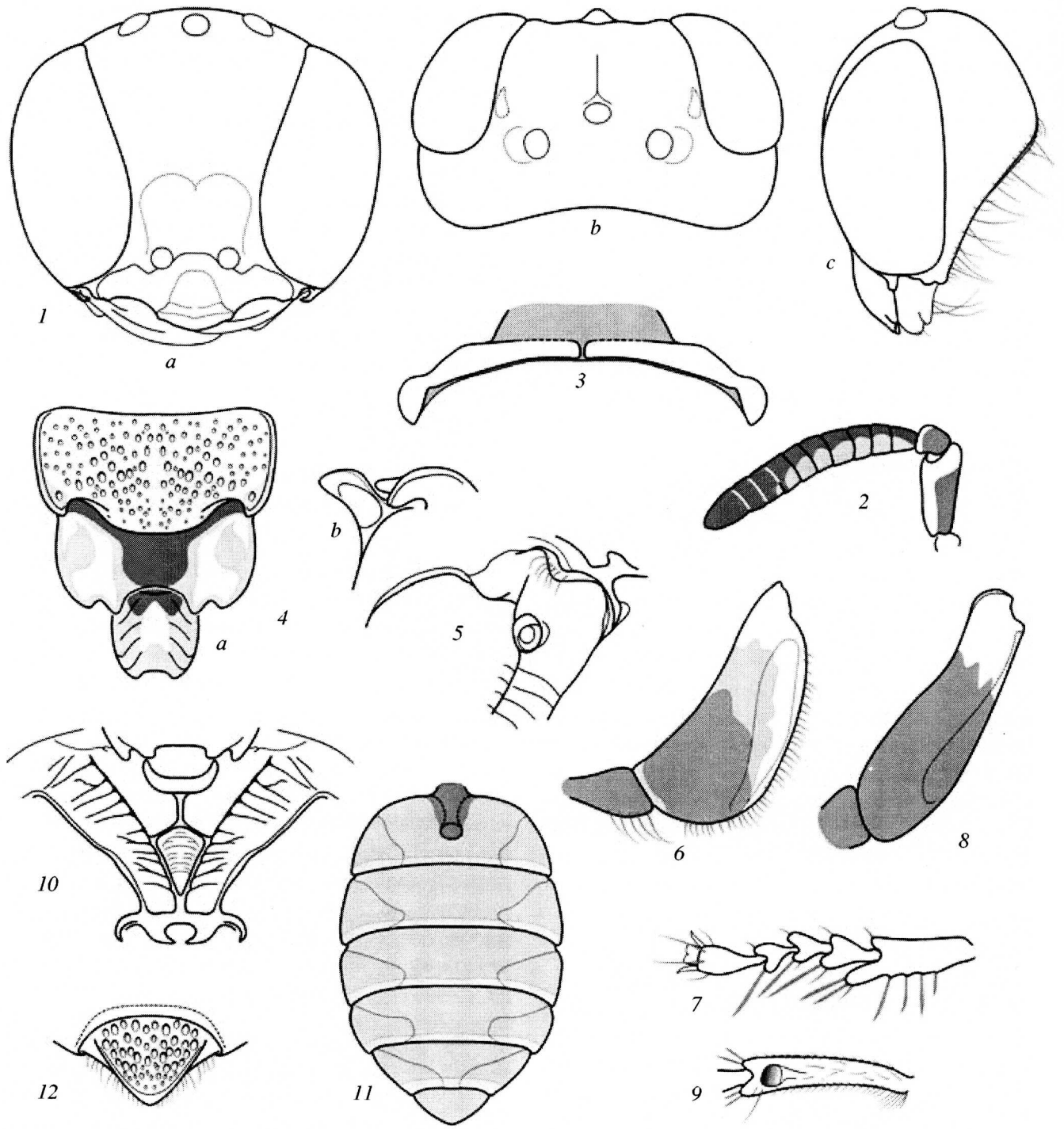

Fig. 6. *Oxybelomorpha separata*, female: (*1*) head [(*a*) front, (*b*) dorsal, (*c*) lateral view]; (*2*) antenna, front view; (*3*) pronotal carina, dorsal view; (*4*) scutellum, metanotum, and propodeal spine [(*a*) dorsal, (*b*) lateral view]; (*5*) upper part of metapleuron; (*6*) fore trochanter and femur, view from inner side; (*7*) fore tarsus, view from outer side; (*8*) hind femur, view from outer side; (*9*) 1st segment of hind tarsus, view from inner side; (*10*) propodeum, posterior view; (*11*) metasoma, dorsal view; (*12*) metasomal tergite VI, dorsal view

grooves in the form of punctate rows not longer than pronotal carina, adlateral lines absent; scutellum wider than long, weakly depressed medially, roundly projecting in posterior part, with developed posterolateral lobes (Fig. 6, *4a*); metanotum depressed in middle, bearing apically bifurcate scales with inner angles slightly longer than outer ones (Fig. 6, *1a*, *1b*); mesopleura uniformly convex; precoxal tooth small, trian-

gular; metapleura with dorsal carina weakly widened in posterior part (Fig. 6, *5*); 1st segment of fore tarsus asymmetrical, with outer apical prominence nearly as long as 2nd segment of tarsus (Fig. 6, *7*); fore femur longitudinal depressed on anterior side, with fine longitudinal carina at base on outer side (Fig. 6, *6*); hind femur slightly depressed before apex, widened at apex, with fine dorsal carina (Fig. 6, *8*); 1st segment of hind tarsus with preapical pit on inner side (Fig. 6, *9*). Propodeum with fine lateral carinae extending from its apex, finely bounded dorsal area, and entirely closed longitudinal elongate median depression on posterior side (Fig. 6, *10*); dorsal propodeal spine wide, depressed in anterior part, slightly narrowed toward apex, roundly truncate, with slightly developed apical emargination. Metasomal tergite I with small rounded dorsal pit and distinct median depression (Fig. 6, *11*); tergites II–V with narrow transverse depressions at base.

Sculpture of body mainly consisting of dense uniform punctation with smooth intervals between punctures. Punctures large and dense (d <∅) of upper part of frons, smaller and sparse (d = ∅) on vertex and temples, forming transverse striae in posterior part of vertex and vertical striae and in lower part of temples. Pronotal carina with punctures smaller and denser (d = 0.5–1∅) than those on vertex; mesoscutum with punctures similar to those in upper part of frons (d = 0.5∅); scutellum with smaller punctures along median line, which very sparse (d > 3–5∅) on posterolateral lobes; metanotum smooth; punctures on mesopleura similar to those on vertex (d = 1–1.5∅), sparser (d = 2–4∅) in lower area of anterior part; metapleura with dense longitudinal carinae, smooth in upper part. Dorsal area of propodeum finely alveolate, matte; dorsal side of propodeum between dorsal area and lateral carinae finely alveolate and irregularly radially carinate, matte; sides of propodeum finely alveolate and covered with fine oblique wrinkles, semi-matte. Metasomal tergites I–V uniformly and densely (d = ∅) punctate; punctures on tergite I as those on mesoscutum, punctures on tergite V as those on vertex; posterior areas very narrow, without bends or regular punctate rows separating them from basal part of tergite; punctures on pygidial area largest, nearly merging, elongate (Fig. 6, *12*); metasomal sternites very finely striate, with fine punctures at base of preapical fimbria and largest punctures at sides of sternite VI.

Pubescence of body pale, mainly silvery, short, recumbent; length of raised hairs on vertex less than diameter of anterior ocellus; hairs of lateral lobes of clypeus and lower part of frons dense, concealing sculpture of cuticle; upper part of frons with sparser recumbent hairs directed transversely from median groove toward inner orbits of eye; metasomal tergites I–V with wide apical areas of recumbent hairs at sides (Fig. 6, *11*). Length of setae of psammophore on temple 1.2 times, of those on ventral side of mandible 1.5 times width of base of mandible (Fig. 6, *1c*); setae on fore trochanter curved forwards, their length slightly exceeding width of trochanter; outer side of fore femur with regular row of setae, length of which not less than width of 1st segment of fore tarsus (Fig. 6, *6*); digging comb on 1st segment of fore tarsus consisting of 4 or 5 raised setae, length of which slightly exceeding width of segment (Fig. 6, *7*).

Head and mesosoma mainly black, metasoma reddish rufous. Median lobe of clypeus with transverse yellow stripe before translucent rufous lower margin; scape mainly yellowish white, with vertical fuscous spot in posterior part; flagellum rufous on lower side, fuscous on upper side; apical flagellar segment brownish rufous on upper side (Fig. 6, *2*); mandible white at base, rufous in middle, reddish fuscous at apex. Pronotal carina and humeral calli yellowish white; posterolateral lobes of scutellum reddish fuscous at apices; metanotum black in middle; scales mainly yellowish white, with small translucent spot in middle, translucent at margins; dorsal carina of metapleura with fine yellowish white stripe, translucent at margins; basal tarsal segments yellow, middle ones rufous, apical ones dark rufous; tibiae mainly yellowish white, with rufescent spots on inner side; fore femur rufous on anterior side; fore and middle femora yellowish white at apex and on outer side nearly up to base; hind femur yellowish white in apical 1/3; tegula translucent, rufescent; basal wing sclerites mainly yellowish white, translucent at margins, rufous; veins pale fuscous. Dorsal propodeal spine with narrow white median stripe not reaching its apex, translucent at margins, pale. Metasoma entirely reddish rufous, occasionally with darkened dorsal pit on tergite I; posterior areas translucent, rufescent.

Body length 4.2 mm.

Male unknown.

Differential diagnosis. *Oxybelomorpha separata* sp. n. differs from the other members of the *O. braunsii* group in the pronotal carina having no pronounced lateral angles, strongly asymmetrical apex of the 1st

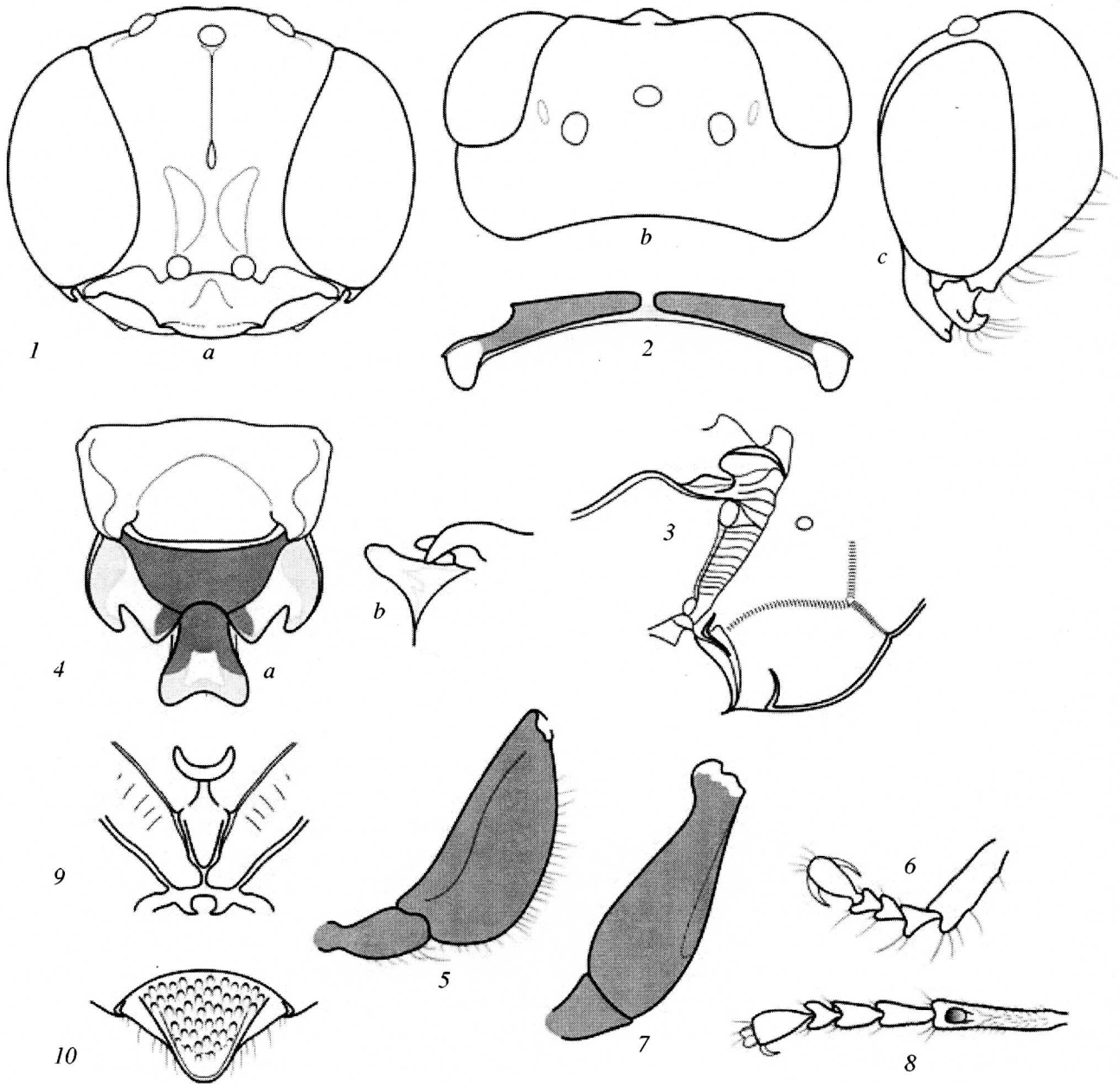

Fig. 7. *Oxybelomorpha sordida*, female: (*1*) head [(*a*) front, (*b*) dorsal, (*c*) lateral view]; (*2*) pronotal carina, dorsal view; (*3*) metapleuron and lower part of mesopleuron, lateral view; (*4*) scutellum, metanotum, and propodeal spine [(*a*) dorsal, (*b*) lateral view]; (*5*) fore trochanter and femur, view from inner side; (*6*) fore tarsus, view from outer side; (*7*) hind femur, view from outer side; (*8*) hind tarsus, posterior view from inner side; (*9*) propodeum, posterior view; (*10*) metasomal tergite VI, dorsal view.

segment of the fore tarsus, less strong dorsal carina of the metapleura, and coloration of the body: entirely yellowish white pronotal carina, almost entirely yellowish white tibiae, large yellowish white spots on the outer side of the fore and middle femora and at apex of the hind femur, yellowish white basal wing sclerites without dark spots, and almost entirely reddish rufous metasoma.

Etymology. The species's name originates from the Latin word "separatus" (separate), which indicates an isolated position of this species in the group.

Oxybelomorpha sordida (Arnold, 1927)

Belomicrus (*Belomicrus*) *sordidus* Arnold, 1927 : 71. ♀, ♂, South Africa, Cape Province [BMNH]. Lectotype designated here.—Arnold, 1930 : 14.

Belomicrus sordidus: Bohart, Menke, 1976 : 364.

Material. Lectotype: ♀, "S. Africa. R.E. Turner. Brit. Mus., 1923–70.," "Aliwal North, Cape Province., 4350 ft. 1–1311923.," "TYPE ♀, *Belomicrus sordidus*, G. Arnold.," "241," "B.M. TYPE, HYM. 21.1, 146b" [BMNH]. Paralectotype, ♂, "S. Africa. R.E. Turner. Brit. Mus., 1923–70.," "Aliwal North, Cape Province., 4350 ft. 1–13. U923.," "TYPE ♂, *Belomicrus sordidus*, G. Arnold.," "242," "B.M. TYPE, HYM. 21.1, 146a" [BMNH]. Other material: 1 ♂, "Sawmills, S. Rhod[esia], 1st April, 1923 (Roy Stevenson)" [DNSM]; 1 ♀, "MAMATHES, Basutoland, 12 XI 1944 (C. Jacot Guillarmod)" [AMC]; 1 ♂, "S. Africa, Aliwal North, Cape Province, Dec., 1922 (R.E. Turner—Brit. Mus., 1923–45 Africa, Aliwal North, Cape Province., 4350 ft. 1–13.I.1923 (R.E. Turner. Brit. Mus., 1923–70)" [BMNH]; 1 ♂, "MAMATHES, Basutoland, 12.XI.1944 (C. Jacot Guillarmod)-AO13315;" 1 ♀, 1 ♂, "S. Africa, Aliwal North, Cape Province, 4350 ft. 1–13.I.1923 (R.E. Turner—Brit. Mus., 1923–70)-AO13316" [SAM].

Description. Female. Head in front view rounded, distinctly wider than long (Fig. 7, *1a*); frons weakly concave (mainly flat) in lower part, moderately convex in upper part at sides of fine median groove reaching anterior ocellus; IOD = 39 : 26; vertex uniformly convex; parietal areas small, depressed, narrow, with smooth and lustrous bottom, distinctly bordered mainly in posterior part (Fig. 7, *1b*); OOD : OD : POD = 7 : 5 : 18; temples rounded (Fig. 7, *1c*); median lobe of clypeus widely oval-projecting, bounded by distinct lateral angles separated by distance nearly twice that between angle and antennal socket, weakly depressed in middle part, bounded at sides and on upper side by rounded carinae forming smooth triangular area not separated in anterior part from lower margin; flagellar segments, except for 1st and apical ultimate ones, wider than long. Pronotal carina short, with fine translucent posterior edging and distinct lateral angles (Fig. 7, *2*); mesoscutum moderately convex, with median depression not reaching posterior margin; admedial lines indistinct; parapsidial grooves and adlateral lines absent; scutellum transversely-rectangular, weakly medially slanting in posterior part, widely oval at posterior margin, with distinct lateral carinae turning at posterior angles into apically rounded lobes (Fig. 7, *4a*); metanotum with depressed trapezoid median area, without median carina, with lateral scales bilobed at apices; inner lobe triangular, straight, projecting backwards beyond the smaller outer lobe curved inwards and downwards (Fig. 7, *4a*, *4b*); mesopleura uniformly convex at sides; precoxal tooth small, triangular; upper part of metapleura with lobe convex on outer side and covering depressed dorsoanterior angle of propodeum (Fig. 7, *3*); inner tooth of lobe ill-defined; fore femur without distinct carina on lower side (Fig. 7, *5*); hind femur distinctly depressed on upper side before apex, roundly projecting at apex, with fine longitudinal carina along prominence (Fig. 7, *7*); 1st segment of fore tarsus with weak apical outer prominence (Fig. 7, *6*); 1st segment of hind tarsus with preapical pit on inner side (Fig. 7, *8*). Propodeum with rather narrow lateral carinae, finely outlined dorsal area, and median pit not closed on upper side (Fig. 7, *9*); lateral sides of propodeal spine diverging toward apex with more or less distinct triangular emargination; upper surface deeply roundly depressed. Metasomal tergite I with wide shallow preapical pit and with ill-defined median groove in anterior part; metasomal tergites II–IV depressed at bases.

Punctation uniform, large and dense; intervals between punctures smooth and lustrous; lower part of frons with smaller punctures ($d = \varnothing$); upper part of frons with larger punctures ($d < \varnothing$); vertex between lateral eyes with scattered punctures ($d = 1–3\varnothing$); temples with distinctly elongate punctures forming vertical striae ($d = \varnothing$). Mesoscutum finely and densely punctate in anterior part (punctures similar to those in lower part of frons ($d < \varnothing$), punctures on rest surface of mesoscutum large (as those in upper part of frons), dense ($d = \varnothing$), $d = 1–2\varnothing$ at sides of median depression; scutellum also coarsely punctate ($d \leq \varnothing$), with punctures forming striae most distinct in middle of posterior part of scutellum; metanotum without distinct sculpture in middle; mesopleura with uniform punctures ($d = 1–2\varnothing$) smaller at border with metapleura and in lower part, oblong before episternal suture; metapleura uniformly finely longitudinally costate. Propodeum on upper and posterior sides finely alveolate, semi-matte, with irregular transverse costae near lateral carinae, with vague microsculptured semi-matte sides. Metasomal tergites uniformly punctate, including posterior areas; punctures on tergite I large ($d = \varnothing$), becoming gradually smaller toward metasomal apex on tergites II–V; similarly dense, largest, oval, longitudinally oblong punctures present on pygidial area ($d = 0.3–0.5\varnothing$) (Fig. 7, *10*).

Pubescence weak, silvery, mainly recumbent, or semi-recumbent at apices of tergites and on pygidial area, raised on vertex and last metasomal sternite. On

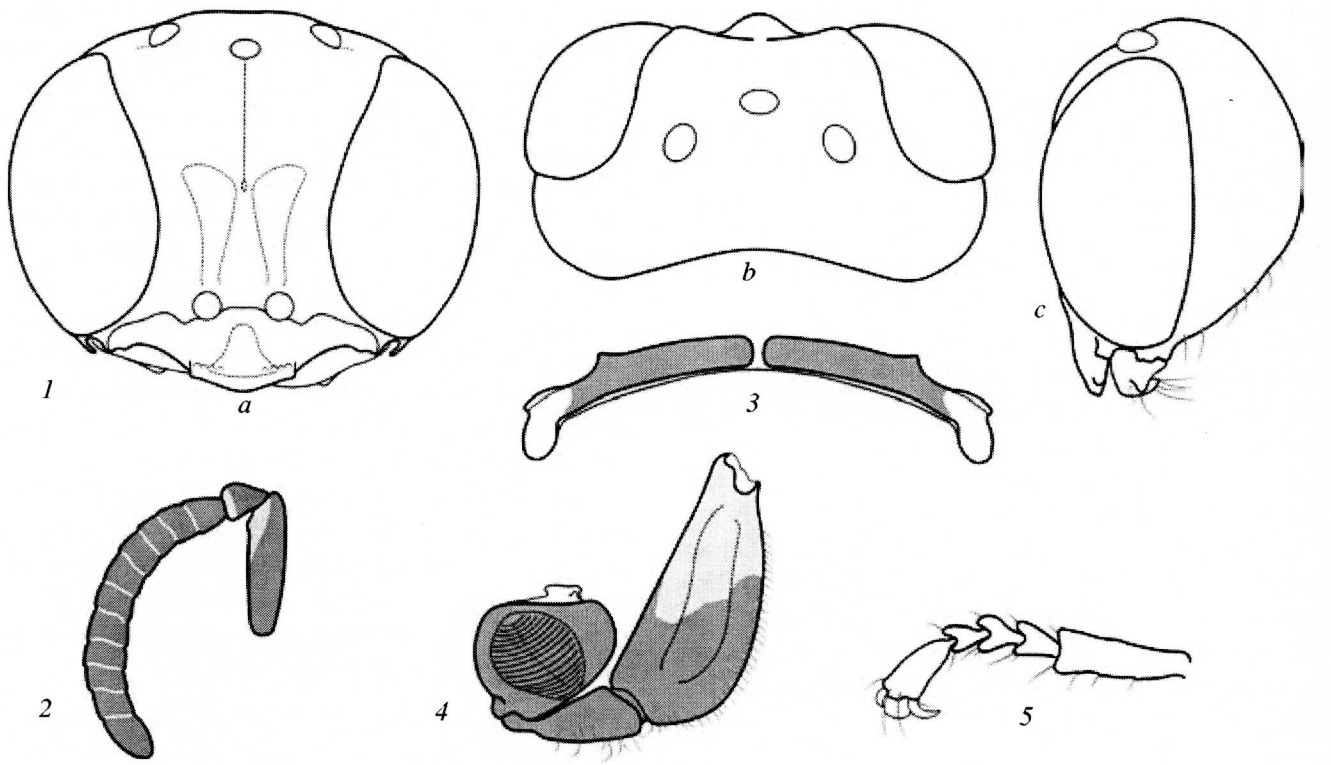

Fig. 8. *Oxybelomorpha sordida*, male: (*1*) head [(*a*) front, (*b*) dorsal, (*c*) lateral view]; (*2*) antenna, front view; (*3*) pronotal carina, dorsal view; (*4*) fore coxa, trochanter, and femur, ventral view from inner side; (*5*) fore tarsus, view from outer side.

vertex, length of hairs less than diameter of anterior ocellus; densest recumbent pubescence concealing sculpture situated at sides of lower part of frons and on lateral lobes of clypeus. Setae of psammophore on temple moderately developed, mainly near mandible; maximum length of setae subequal to width of mandibular base (Fig. 7, *1c*); setae of psammophore of lower margin of mandible present, their length exceeding width of mandibular base; posterior angles of propleura and trochanters with fine raised setae curved forwards (Fig. 7, *5*); lower side of fore femur with row of dense setae, length of which equal to diameter of anterior ocellus; digging comb on 1st segment of fore tarsus consisting of 4 fine outer setae, length of which equal to maximum width of segment (Fig. 7, *6*).

Body mainly black. Scape, pedicel, and lower side of flagellum dark brown; mandible yellow in basal half, then reddish rufous, reddish fuscous at apex; humeral calli cream-white. Pronotal carina black; lateral parts of scutellum and metanotum with fine apical white stripes; median part of metanotum black; scales with translucent outer areas widened at base, with cream-white spots in middle; metapleural lobe with yellowish white stripe, translucent on outer side; fore tarsus rufescent fuscous; middle and hind tarsi darker, fuscous; all tibiae yellow on outer side, dark brown on inner side; all femora mainly blackish fuscous; fore and middle femora yellow at apices; hind femur yellowish rufous on upper side at apex; tegulae translucent, fuscous; basal wing sclerites black; veins of wing fuscous. Propodeal spine black in basal 1/3, translucent and brownish on outer side and at apex, with yellowish white spot in middle. Metasomal tergites mainly black, with discolored posterior areas; pygidial area reddish at apex.

Body length 4 mm.

Male similar to female in appearance, except in characters associated with sex. Lower part of frons with less distinct median depression (Fig. 8, *1d*); IOD = 34 : 26; OOD : OD : POD = 7 : 6 : 16; parietal areas very weak (Fig. 8, *1b*); median lobe of clypeus relatively narrower; all flagellar segments, except for ultimate one, distinctly wider than long (Fig. 8, *2*). Fore coxa with ventral depression (Fig. 8, *4*). Psammophore on temple very ill-defined, length of some setae 0.33–0.5 times width of mandibular base; length of setae in lower part of mandibles not exceeding width of mandibular base (Fig. 8, *1c*). Propleura and fore trochanter with ill-defined setae; lower side of fore femur with

row of finer setae, length of which less than diameter of anterior ocellus (Fig. 8, *4*); digging comb absent; length of 1 or 2 outer setae on 1st segment half apical width of segment (Fig. 8, *5*). Apex of tergite VII reddish rufous.

Body length 3.6 mm.

Differential diagnosis. *Oxybelomorpha sordida* differs from *O. braunsii* in the densely and uniformly punctate vertex, mesoscutum, scutellum, and mesopleura and in the entirely black metasoma of the female; from *O. separata* sp. n., in the wider median lobe of the clypeus with a flat glabrous area bounded by lateral carinae, weak apical prominence of the 1st segment of the fore tarsus, black pronotal carina with distinct lateral angles, and black metasoma of the female; from *O. pseudosordida* sp. n., in the mainly black scape and in the sharp inner angles of scales of metanotum, projecting backwards beyond the apices of the outer angles.

Notes. The species was described from the two specimens mentioned in the description and equally designated as the types. In order to keep a correct and consecutive use of the respective name, I have designated the female from the type series of *Belomicrus sordidus* Arnold, 1927, as the lectotype (no. 241-21.1, 146b).

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