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Revision of the *Omophron (Phrator) 'vittulatum'* species group (Coleoptera: Carabidae)

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Review of the *Omophron (Phrator) 'vittulatum'* group led to an increase in the number of known species to four – *Omophron (Phrator) vittulatum* Fairmaire, 1894, *Omophron (Phrator) schoutedeni* Deleve, 1924, *Omophron (Phrator) alluaudi* Dupuis, 1913 stat. nov., and *Omophron (Phrator) barsevskisi* sp.n. One species was newly described: *Omophron (Phrator) barsevskisi* n. sp. The new species differs from other species of this group by a smaller size, rounded shape of elytra, and almost smooth elytral striae. *Omophron (Phrator) alluaudi* Dup. is recognized as a valid species. A key to the species is provided. Redescription, habitus illustrations, and distribution maps are provided for all species.

Key words: Carabidae, *Omophron, Phrator, vittulatum,* species group, revision

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INTRODUCTION

Altogether, 8 ground-beetle species of the subgenus *Omophron (Phrator* Semenov, 1922) are known worldwide, 7 of which can be found in the Afro-tropical region. The species of the *Omophron (Phrator) 'vittulatum'* group differ from other species of the *Omophron (Phrator)* subgenus by 15 elytral striae (other *Omophron (Phrator)* species have 14 elytral striae). Both adults and larvae of the *Omophron (Phrator) 'vittulatum'* group, like other species of the genus *Omophron* Latreille, 1802, live in bare sandy areas near the water. During daytime, they hide under stones while burrowing in soil. They are active at night and feed on small epigaeic invertebrates.

Altogether, 4 species of the *Omophron (Phrator) 'vittulatum'* group are known – *Omophron (Phrator) vittulatum* Fairmaire, 1894, *Omophron (Phrator) schoutedeni* Deleve, 1924, *Omophron (Phrator) alluaudi* Dupuis, 1913 stat. nov., and *Omophron (Phrator) barsevskisi* sp. n. All four species can be traced in the Afro-tropical region. *Omophron (Phrator) vittulatum* F. is known only from Sudan whereas *Omophron (Phrator) schoutedeni* D. is known only from the Democratic Republic of Congo. While *Omophron (Phrator) barsevskisi* n. sp. can be found in the Western Tropical Region, *Omophron (Phrator) alluaudi* Dup. stat. nov is distributed in Western to Central Tropical Africa.

MATERIALS AND METHODS

This study was based on a total of 334 specimens, including a number of primary types. The

material used for this study is deposited with the following collections:

BMNH - The British Museum of Natural History (United Kingdom, London).
ETHZ - Eidgenössische Technische Hochschule Zurich (Switzerland, Zurich).
ISNB - Institut Royal des Sciences Naturelles de Belgique (Belgium, Brussels).
MNHN - National Museum of Natural History (France, Paris).
MRAC - Musee Royal de l'Afrique Centrale (Belgium, Tervuren).
ZMHB - Museum für Naturkunde der Humboldt-Universität (Germany, Berlin).

Pictures were taken by a stereomicroscope *Nikon SMZ 745T* and a *Nikon* digital camera. They were processed and the morphometrical measurements were made by the software *NIS Elements F.3.2.*. Total body length of the beetles was measured from the tip of the labrum to the apex of the right elytron; the width of the head (HW) was the maximum linear distance across the head, including the compound eyes; the length of the pronotum (PL) was measured from the anterior to the posterior margin along the midline, the length of the elytra (EL) from the basal margin to the apex of the elytron, and the width of the pronotum (PW) and elytra (EW) each at their broadest point.

THE KEY TO THE *PHRATOR VITTULATUM* SPECIES GROUP

1 (2) Elytra with 14 elytral striae…….....***Omophron (Phrator) 'variegatum'* group**

2 (1) Elytra with 15 elytral striae

3 (4) Mandibles short, their outward margin without wedge-shaped extension. Metafemora and mesofemora only slightly exceed the border of elytra.....***Omophron (s.str.)* Latreille, 1802**

4 (3) Mandibles longer, their outward margin with wedge-shaped extension. Metafemora and mesofemora expressly exceed the border of elytra.....
.....***Omophron (Phrator) 'vittulatum'* group**

5 (6) Elytra evenly short semicircular. Striae extremely slightly punctured on the disc and smooth on the base. Dark elytral pattern with metallic lustre.....……..... ***O. (P.) barsevskisi* sp. n.**

6 (5) Elytra elongated oval. Punctures on elytral striae well developed. Dark elytral pattern without metallic lustre.

7 (8) Larger than 10 mm. Base of pronotum unequally punctured, punctures smaller.....……
…….....……..***O.(P.) schoutedeni* Deleve, 1924**

8 (7) Smaller than 10 mm. Base of pronotum evenly punctured, punctures bigger.

9 (10) Dark elytral pattern with clear limits. Base of pronotum with broad and deep impression.....……
…..…….....……... ***O. (P.) alluaudi* Dupuis, 1913 stat. nov.**

10 (9) Dark elytral pattern disarranged, without clear limits. Impression on the base of pronotum narrow and shallow.....***O. (P.) vittulatum* Fairmaire, 1894**

RESULTS

Genus *Omophron* Latreille, 1802: 89
Type species: *Carabus limbatus* Fabricius, 1776
= *Scolytus* Fabricius, 1790: 221 [HM] (type sp. *Carabus limbatus* Fabricius, 1777) (preoccupied by *Scolytus* Geoffroy, 1762)
= *Homophron* Rye, 1875 (emendation)
= *Epactius* D. H. Schneider, 1791: 23 [HN] (type sp. *Carabus limbatus* Fabricius, 1777)
= *Lithophilus* D. H. Schneider, 1791: 23 [HN] (type sp. *Carabus limbatus* Fabricius, 1777)
= *Phromoon* Lutshnik, 1933: 132 [HN] (type sp. *Omophron tesselatum* Say, 1823)

Subgenus *Phrator* Semenov, 1922: 44
Type species: *Omophron variegatum* Olivier, 1811

***Omophron (Phrator) alluaudi* Dupuis, 1913: 213 stat. nov.**

Description. Body length 8.12 – 9.01 mm; width 5.24 – 5.38 mm (holotype 8.14 mm and 5.28 mm, respectively). Habitus (Fig. 1).

Colour: Head, pronotum, elytra, legs, and antennae yellowish brown. Patches of pronotum and elytral patterns brown. Mandibles yellowish brown, their apical part dark brown, almost black. Ventral side excluding epipleura yellowish brown; epipleural sides of elytra, pronotum, and prosternum lighter.

Head fairly flat, coarsely punctured laterally and posteriorly, sparsely punctured around clypeus and on the middle of frons. In the middle of head punctures smaller and more shallow. With one supraorbital setiferous puncture on each side of head near the eye. Subocular ridge well developed, curved upwards and slightly rounded. Clypeus wrinkled, bisetose. Labrum distinctly emarginated, with jagged sides and six setae near the front margin. Anterior angles of labrum acute, expressly curved upwards. First segment of antennae unisetose at apex, 5 – 11 segments covered with thin setae, 1 – 4 segments bare, only with some longer setae near apex, HW: 2.64 – 2.72 mm.

Pronotum moderately convex, base bisinuated on each side, sides slightly rounded, with edge expanding toward the anterior margin. Anterior angles nearly acute. Apex and base of pronotum coarsely punctured, disc finely punctured. Median impression well developed. The front part of proepisternum smooth, posterior part with coarse puncture, strongly inclined towards the mesepisternum. Prosternum with gentle and irregular puncture. PL: 2.32 – 2.39 mm, PW: 4.02 – 4.15 mm.

Elytra moderately convex, oval. Elytra with 15 full striae. 1 – 5 interstriae flat on the base, striae composed of large punctures only. 6 – 13 interstriae convex, striae deep. At the apical two thirds of elytra 3rd stria joining 4th and 7th joining 8th , 1 stria remains evanescent in the middle of elytra. 12th stria joining 13th on the base of elytron. Metasternum and metepimeron gently punctured. Sides of sterna slightly wrinkled. EL: 5.35 – 5.51 mm, EW: 5.24 – 5.38 mm.

Comments. Until now *O. (P.) alluaudi* was considered to be a synonym of *O. (P.) vittulatum*, however, when comparing the holotypes of both taxa, sufficient morphological differences have been observed to regard them as two valid species. In comparison with *O. (P.) vittulatum*, *O. (P.) alluaudi* is larger, its dark elytral pattern clearly bordered, and the impression on base of pronotum more pronounced. Sides of pronotum in the case of *O. (P.) alluaudi* are moderately rounded, but in the case of *O. (P.) vittulatum* are almost straight.

There are no specific differences observed among the species of genus *Omophron (Phrator*) in the structure of aedeagus.

Distribution. Western to Central Tropical Africa. Distribution map (Fig. 5).

Material examined. Bimu (2 female, 1 male, Glauning leg.); **Angola**: Lunda Norte Province, Dundo, 08.-09.1948 (1 male, de Baross Machado leg.) (MRAC); Lunda Norte Province, Riv. Tshlkapa, 50 km S. O. de Dundo, 07.1948 (1 male, 1 female, de Baross Machado leg.) (MRAC);

Cameroon: Edea, Bsse-Sanaga, Vadon! (1 female, 1 male) (MNHN); Edea (1, Le Moult leg.) (ETHZ); Edea, (Base Senegal) (1 female, Vadon leg.) (MNHN), Younde (1 male) (MRAC); Benue b. Lau, 17.04.1905 (1 female, Glauning leg.); Benue (2 female, 1 male, Glauning leg.) (ZMHB); **Central African Republic:** Kemoperfecture, Sibut, (1, Le Moult leg.) (ETHZ); **Democratic Republic of Congo:** Congo: (1) (ETHZ); Congo (1 female) (MNHN); Kasai, Kondue (1 female, Luja leg.) (holotype) (ISNB); "Bata", 05.1924 (1 female, Donchrind) (ETHZ); "Lambarinia", 1924 (2 males, Haug) (ETHZ); "Lambarinia", 1896 (2 females, 1 male, Haug leg.) (MNHN); Kasai, Djokopunda, 10.08.1921 (1 female, Schouteden leg.) (ETHZ); Kasai, Djokopunda, 10.08.1921 (18 males, 20 females, Schouteden leg.) (MRAC); Kasai, Ilebo, 14-15.07.1925 (1 male, Prince Leopold leg.) (MRAC); Kasai-Occidental Province, Bena Makima, 08.08.1921 (3 males, 3 females, Ghesquiere leg.) (MRAC); Sud-Ubangi Province, Libenge, 04.01.1948 (25 males, 18 females, Cremer & Neuman leg.); 06.01.1948 (5 males, 8 females, Cremer & Neuman leg.); Sud-Ubangi Province, Libenge, Mawuya, 06.01.1948 (1 male, Cremer & Neuman leg.) (ISNB); Sud-Ubangi Province, Libenge, Ubangi river, 04.01.1948 (29 males, 33 females, Cremer & Neuman leg.) (ISNB); Sud-Ubangi Province, Libenge, Zambi, 06.01.1948 (2 males, 23 females, Cremer & Neuman leg.) (ISNB); Sud-Ubangi Province, Libenge, Zambi, 06.01.1948 (7 males, 9 females, Cremer & Neuman leg.) (MRAC); Mai-Ndombe Province, Inongo, Lake Mai-Ndombe, 11.-24.06.1925 (1 male, Prince Leopold leg.) (ISNB); Sankuru Province, Sankuru river, 09.1924 (19 males, 23 females, Ghesquiere leg.) (MRAC); Orientale Province, Kungulu; 06.1923 (1 male, 2 females, Ghesquiere leg.) (MRAC); Lomami river, 08.1924 (1 female, Ghesquiere leg.) (MRAC); De Kwamoutha, Port Irangui, 05.1930 (1 male, 1 female, Vanderyst leg.) (MRAC); Basongo, 10.09.1930 (1 male, De Vitte leg.) (MRAC); Basongo, River Kasai, 06.1929 (1 male, 1 female, Overlaet leg.) (MRAC); Basongo, 10.09.1930 (1 female, Witte leg.) (MNHN); "Env. Lac Leipold II", 11.-24.06.1925 (1 female, Prince Leopold leg.); Haut-Zaire, Bambesa, Alipago, 02.1935 (9 males, 4 females, Leroy leg.) (MRAC); Haut-Zaire, Equater, Bokuma, 1938 (1 male, Hulstaert leg.) (MRAC); Equater, Bokuma, 07.1952 (1 male, Lootens leg.) (MRAC); 1953 (2 males, 2 females, Lootens leg.); Tshuapa, Bokuma, 1953 (2 males, Lootens leg.); 03.1954 (2 males, 2 females, Lootens leg.) (MRAC); Kimpangu river, Fulezi, 850 m, 06.07.1949 (6 males, 3 females, Leleup leg.) (MRAC); Lomami, 08.1924 (1 female, Ghesquiere leg.) (MNHN); Dutch Zambezi (1 male) (MNHN); Fort Archambault, Mission Chari-Tchad, 1904 (1 female, Decorse leg.) (MNHN); Fort Archambault, Moyen Chari, Bongoul, Mission Chari-Tchad (Ba Kare) (MNHN), 04.1904 (2 male, Decorse leg.) (MNHN); Fort Archambault, Baha Sara, Mission Chari-Tchad, 04.1904 (1 male, Decorse leg.) (MNHN); Congo Belge, Rives du Congo, Mission du Bourg de Bozas, 1903 (1 female) (MNHN); **Gabon**: Ogowe (1 male) (MNHN); Ogooue, Lambarene, 1898 (5 females, 9 males, Haug leg.) (MNHN), Bas. Ogooue, Lambarene, 1901 (1 male, Haug leg.) (MNHN); Ogooue, Lambarene, 1901 (1 female, 1 male, Haug leg.) (MNHN); Congo, Libreville, 1899 (1 female, 3 male, Boucher leg.) (MNHN); **Mali**: Macina, Dioura, OICMA, 20.09.1969 (1 female, Farrow leg.) (BMNH); Macina, Tilembeya, Niger Bank, OICMA, 05.06.1969 (2 males, 1 female, Farrow leg.) (BMNH); Kara, Flood plain, OICMA, 29.06.1969 (5 males, 6 females, Farrow leg.) (BMNH); **Nigeria:** Adamawa State, Yola, Benue river, 12.-20.04.03 (1 male, Schultze leg.) (ETHZ); Benue, 16.05.1903 (1 male) (ZMHB); Tarbata State, Sardauna, Sunkuru, 09.1924 (1 male, Ghesquiere) (ETHZ); **Senegal:** Clermont (1, Nodier leg.) (ETHZ); Haut Senegal (1 female) Comp. Type Basilewsky (MRAC); Haut Senegal (1 female) (MRAC); Senegal (1 female) (MNHN).

References: Dupuis, 1913; Deleve, 1924; Alluaud, 1935

***Omophron (Phrator) barsevskisi* sp. n.**

Description: Body length 6.7 – 7.11 mm; width 4.29 – 4.43 mm (holotype 7.09 mm and 4.41 mm, respectively). Habitus (Fig. 2).

Colour: Head, pronotum, and elytra brown. Legs and antennae amber yellow. Patches of pronotum

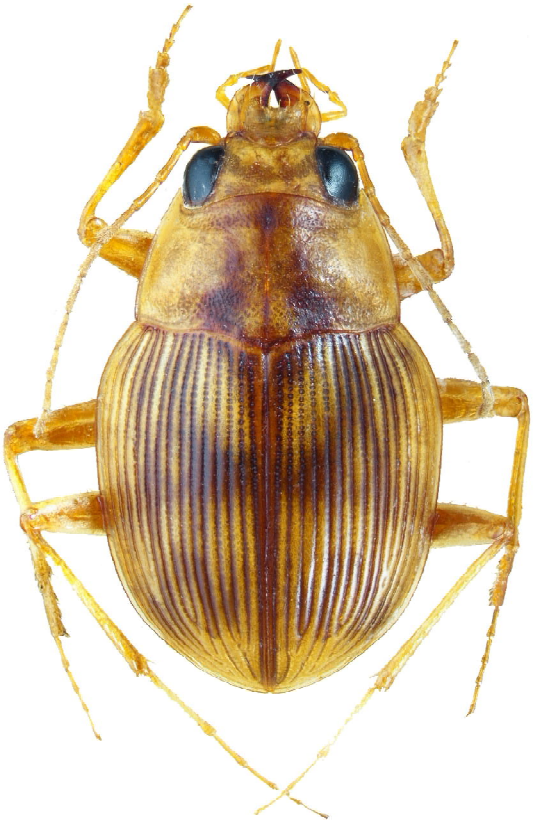

Fig. 1. *Omophron (Phrator) alluaudi* Dupuis, 1913 stat. nov., habitus

Fig. 2. *Omophron* (*Phrator) barsevskisi* sp. n., habitus (holotype)

and elytral patterns phthalo green, with metalic lustre. Mandibles near base amber yellow, their apical part dark brown, almost black. Ventral side excluding epipleura and sternites brown; epipleura and sternites amber yellow.

Head fairly flat, sparsely punctured, gently wrinkled on vertex and frons, more wrinkled near eyes. Subocular ridge well developed, curved upwards and slightly rounded. Head with one supraorbital setiferous puncture on each side of head near the eye. Frons with gentle but broad impression toward clypeus. Clypeus convex, frontal part smooth, near labrum wrinkled, bisetose. Labrum with moderately rounded sides and six setae near the front margin. First segment of antennae unisetose at apex, 5 – 11 segments covered with thin setae, 1 – 4 segments bare, only with some longer setae near apex, HW: 2.21 – 2.35 mm.

Pronotum moderately convex, base bisinuated, edge weakly expressed. On the base lateral edge curved towards the exterior, but near the head curved towards the interior. Anterior angles nearly acute. Base, disc and apex of pronotum wrinkled, coarsely punctured, sides almost smooth. Median impression well developed. Green pattern on pronotum weakly expressed, tripartite, without clear borders. Prosternum almost smooth, with some coarse punctures around coxa. Front part of proepisternum smooth, posterior part gently wrinkled, coarsely punctured, strongly in-

Fig. 3. *Omophron* (*Phrator) schoutedeni* Deleve, 1924, habitus (holotype)

Fig. 4. *Omophron* (*Phrator) vittulatum* Fairmaire, 1894, habitus (holotype)

clined towards the mesepisternum. PL: 1.76 – 1.83 mm, PW: 3.32 – 3.39 mm.

Elytra moderately convex, oval, with weakly expressed edge. Elytra with 15 striae, all striae evanescent towards apex. Striae well developed but shallow, extremely slightly punctured on the disc and smooth on the base. At the apical two thirds of elytra 3rd stria joining 4th. Intervals smooth. Elytral pattern divided into three irregular bands. In 6th and 10th intervals apical band of elytral pattern may converge with median band. Metasternum and metepimeron almost smooth. Sides of sterna with weak wrinkles. Last three sternites bisetose. EL: 4.10 – 4.30 mm, EW: 4.29 – 4.43 mm.

Comments. *O. (P.) barsevskisi* n. sp. clearly differs from other *Omophron (Phrator)* species. The shape of the new species resembles the species of subgenus *Omophron*, although peculiar mandibles as well as metafemurs and mesofemurs strongly projecting beyond elytral borders undeniably indicate the association of this species to subgenus *Omophron (Phrator)*. The new species can be easily distinguished from other species of the *Omophron (Phrator) 'vittulatum'*

group by evenly rounded elytra, smooth elytral striae, and a different elytral pattern.

The only male sample known up to now has been damaged, therefore aedeagus is not described in this article.

Etymology. This species is named after my colleague and supervisor of my Ph.D. thesis Prof. Dr. biol. Arvīds Barševskis (Institute of Systematic Biology, Daugavpils University, Daugavpils, Latvia).

Fig. 5. Distribution map of *Omophron* (*Phrator) alluaudi* Dupuis, 1913

Fig. 7. Distribution map of *Omophron* (*Phrator) schoutedeni* Deleve, 1924

Fig. 6. Distribution map of *Omophron* (*Phrator) barsevskisi* n. sp.

Fig. 8. Distribution map of *Omophron* (*Phrator) vittulatum* Fairmaire, 1894

Distribution. Up to now known only from three locations in Cameroon and one location in Nigeria. Distribution map (Fig. 6).

Material examined. Holotype: Cameroon: Edea (Bsse-Sanaga) (1 female) (MRAC). **Paratypes**: Cameroon: Younde (2 females) (MRAC); Vadon (1 male) (MRAC); Nigeria: Taraba State, Lau, Benue river, 14.04 (1 female).

***Omophron (Phrator) schoutedeni* Deleve, 1924**

Description. Holotype body length 11.9 mm; width 7.5 mm. Habitus (Fig. 3).

Colour: Head and pronotum orange brown. Elytra amber yellow. Legs and antennae yellowish brown. Patches of pronotum and elytral patterns umber, almost black. Mandibles yellowish brown, their apical part umber, almost black. Ventral side yellowish brown; epipleural sides of elytra, pronotum, and prosternum lighter.

Head fairly flat, rarely and finely punctured. With one supraorbital setiferous puncture on each side of head near the eye. Subocular ridge well developed, curved upwards and slightly rounded. Clypeus wrinkled, bisetose. Labrum distinctly emarginated, with moderately jagged sides and six setae near the front margin. Neck smooth. First segment of antennae unisetose at apex, 5 – 11 segments covered with thin setae, 1 – 4 segments bare, only with some longer setae near apex. Last segment of maxillary palps longer than penultimate segment, with longitudinal impression. HW of holotype: 3.8 mm.

Pronotum moderately convex, base bisinuated, sides almost straight, gently rounded only towards anterior angles. Sides with well developed edge. Anterior angles nearly acute. Apex and base of pronotum coarsely punctured, disc moderately wrinkled without puncture. Basal impression weakly expressed. Median impression well developed. Pattern on pronotum tripartite, brown, almost reduced. Front part of proepisternum smooth, posterior part coarsely punctured, strongly inclined towards the mesepisternum. Prosternum weakly punctured. PL of holotype: 3.30 mm, PW of holotype: 5.70 mm.

Elytra moderately convex, longitudinally oval. Sides slightly concave in two thirds of elytra. Elytra with 15 striae reaching from base to apex. Striae well developed, deep, punctures clearly marked. Near apex, striae become shallower. Intervals expressly convex, smooth, narrower at sides. Elytral pattern consists of rambling dark brown spots, which may be divided in three bands. The median band of elytral pattern converges with apical and basal bands in 6th and 10th intervals. Metasternum and metepimeron gently punctured. Sterna smooth, last three sterna with two setae. EL of holotype: 7.65 mm, EW of holotype: 7.50 mm.

Comments. Morphologically, this species resembles *O.(P.) vittulatum*, although *O.(P.) schoutedeni* is at least 1.5 times bigger. *O.(P.) schoutedeni* can be distinguished by its orange brown pronotum, darker elytral pattern, and less expressed puncture on the base of pronotum.

Significant differences in the build of aedeagus compared to other species of subgenus *Omophron (Phrator*) were not observed in this species.

Distribution. Known only from one type location (Djokopunda, Kasai Province, Democratic Republic of Congo). Distribution map (Fig. 7).

Material examined. Democratic Republic of Congo: Kasai Province, Djokopunda, 10.08.1921 (1 male, Schouteden leg.) (holotype) (MRAC).

References: Deleve, 1924; Alluaud, 1935

***Omophron (Phrator) vittulatum* Fairmaire, 1894**

Description. Holotype body length 7.54 mm; width 4.40 mm. Habitus (Fig. 4).

Colour: Head and pronotum dark yellowish brown. Elytra, legs, and antennae light yellowish

brown. Elytral patterns umber. Mandibles yellowish brown, their apical part umber, almost black. Ventral side yellowish brown; epipleural sides of elytra, pronotum, and prosternum lighter.

Head fairly flat, smooth, rarely and finely punctured only on vertex. With one supraorbital setiferous puncture on each side of head near the eye. Subocular ridge well developed, curved upwards and slightly rounded. Clypeus wrinkled, bisetose. Anterior margin of labrum concaved, expressly jagged, anterior angles moderately elevated, with six setae near the front margin. First segment of antennae unisetose at apex. Last segment of maxillary palps longer than penultimate segment, in the middle with expressed narrowing. HW of holotype: 2.48 mm.

Pronotum moderately convex, base bisinuated, sides almost staight, gently rounded only toward anterior angles. Sides of pronotum with edge. Anterior angles nearly acute. Anterior part of pronotum punctured, base of pronotum coarsely punctured: disc gently wrinkled, without puncture. Impression on basal part of pronotum narrow and shallow. Median impression well developed. Pattern on pronotum almost reduced to only two unexpressed spots on the base of pronotum. Proepisternum smooth, with gentle but coarse puncture on the basal part. Prosternum smooth. PL of holotype: 2.38 mm, PW of holotype: 3.74 mm.

Elytra moderately convex, longitudinally oval. Sides slightly concave in two thirds of elytra. Elytra with 15 striae reaching from base to apex. Striae well developed, deep; intervals expressly convex, smooth. Base of elytra as wide as base of pronotum. Elytral pattern consists of irregularly shaped brown spots, which may be divided into three bands. Punctures are characteristic only for the first 6 elytral striae, less frequent and shallower in two thirds of elytra, evanescent towards apex. 11 elytral striae terminate in the first third of elytra. At the apical two thirds of elytra 3rd stria joining 4th, 7th stria joining 8th, and 9th stria joining 10th. The median band of elytral pattern converges with apical and basal bands in 6th and 10th intervals. Metasternum and metepimeron gently punctured. Sterna smooth, last three segments bisetose. EL of holotype: 4.98 mm, EW of holotype: 4.89 mm.

Comments. Morphologically, this species resembles *O.(P.) schoutedeni*, although *O.(P.) vittulatum* is at least 1.5 times smaller. *O.(P.) vittulatum* can be distinguished by its yellowish brown pronotum, lighter elytral pattern, and well developed puncture on the base of pronotum.

Significant differences in the build of aedeagus compared to other species of the *Omophron (Phrator*) subgenus were not observed in this species.

Distribution. Known only from one type location (Haut Sudan). Distribution map (Fig. 8).

Material examined. Sudan: Haut Soudan, 1896 (1 male, Fairmaire leg.) (holotype) (MNHN).

References: Fairmaire, 1894; Rousseau, 1900

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REFERENCES

Alluaud C. 1935. Estudesur les Omophron du s. G. Phrator Semenov. Afra, Cahiers d'Entomologie, 9: 1 – 10

Deleve J. 1924. Les Omophron congolais des collections du Musee de Tervueren. Rev. Zool. Afr., XII (1): 103-111

Dupuis P. 1913. Description d'un Omophron provenant du Congo belge. Rev. Zool. Afric. Bruxelles 2 1913: 213-217

Fabricius J. C. 1790. Nova insectorum genera. Skrifter af Naturhistorie-Selskabet, Copenhagen, Skriviter 1: 221

Fairmaire L. 1894. Coleopteres de L'Afrique intertropicale et australe. Ann. Soc. Ent. Belg. XXXVIII: 651

Latreille P. A. 1802. Histoire naturelle, générale et particulière des crustacés et des insectes. Paris: Dufart, xii + pp., 3: 89

Lutshnik V. N. 1933. Analecta carabidologica. II. Časopis Československé Společnosti Entomologisché, 30: 132

Rousseau E. 1900. Contribution a l'etude des Carabides de l'Afrique Centrale Part I Omophronini. Extrait des Annales de la Societe entomologique de Belgique, Tome XLIV - 3 p

Rye E. C. 1875. Zol. Rec. Vol. 12: 279

Semenov-Tian-Shanskij A. 1922. Carabinorum tribus Omophronina (Coleoptera) classificata. Conspectus praecursorius. Revue Russe d'Entom., 18: 36 – 45

Schneider D. H. 1791. In Fabricius J. C.: Nova insectorum genera. Neuestes Magazin für die Liebhaber der Entomologie, 1: 22 – 24

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