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A new species of the genus *Pheropsophus* Solier, 1833 from Cameroon (Coleoptera: Carabidae: Brachinini)

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Abstract. A new species *Pheropsophus sehnali* sp. nov. from Cameroon is described and illustrated, including an illustration of the male genitalia of the holotype and female genitalia of the paratype.

INTRODUCTION

The last complete revision of the tribe Brachinini was published by Chaudoir (1876). A checklist with the distribution of species from the African Region was published by Csiki (1932, 1933). A complete revision of the genus *Pheropsophus* from the African Region with up-to-date information on the distribution of each species was published by Roux (2023). In the African Region the genus *Pheropsophus* Solier, 1833 is represented by 91 species.

MATERIAL AND METHODS

The material examined is housed in the collections listed below:
cHRDL coll. Jan Hrdlička, Babice u Říčan, Czech Republic;
cRS coll. Rostislav Sehnal, Unhošť, Czech Republic.

Photographs of the general habitus of specimens and photographs of aedeagi were taken with the Canon EOS 600D digital camera with Canon MP-E 65 mm and Canon EF-S 60 mm objectives, images of the same objects at different focal planes were combined by using the Helicon Focus 6.4.3 software, two light sources Philips Master LEDspot PAR20 6W, 500 lumen, 2700K were used for lighting). Each paratype has its own number. The label text of type specimens is cited as originally given, separate lines on labels are indicated by „/“, separate labels by „//“. Notes and comments of the author are given in brackets. [p] - the preceding data were printed; [hw] - the same was hand-written.

Measurements of body parts and corresponding abbreviations used in the text are as follows:
TL total length - measured from the apex of the left mandible (mandibles opened) to the apex of the left elytron;
DVH dorso-ventral height - maximum dorso-ventral height of the body;
HL length of head - measured from the clypeus apex to the neck constriction;

HW width of head - maximum width of the head (including eyes);
AL antennae length;
PL pronotal length - length of the pronotum measured along the mid-line;
PW1 pronotal width 1 - width of the anterior margin of pronotum;
PW2 pronotal width 2 - maximum width of the pronotum;
PW3 pronotal width 3 - minimum width of the pronotum;
PW4 pronotal width 4 - width of the posterior margin of the pronotum;
EL elytral length - measured from the anterior margin of the scutellum to the posterior margin of the elytra;
EW elytral width - maximum width of both elytra combined.
PW1/PW2; PW2/PW2; PW3/PW2; PW4/PW2 individual dimensions (PW1, PW3, PW4) are recalculated in relation to PW2 (expresses the curvature of the lateral sides of the pronotum). The location of the PW2 and PW3 of the pronotum are given as a percentage of the PL (calculated from the anterior margin of the pronotum). The location of the EW of the elytra is given as a percentage of the EL (calculated from the anterior margin of the scutellum).

TAXONOMY

Pheropsophus (*Stenaptinus*) *sehnali* sp. nov.

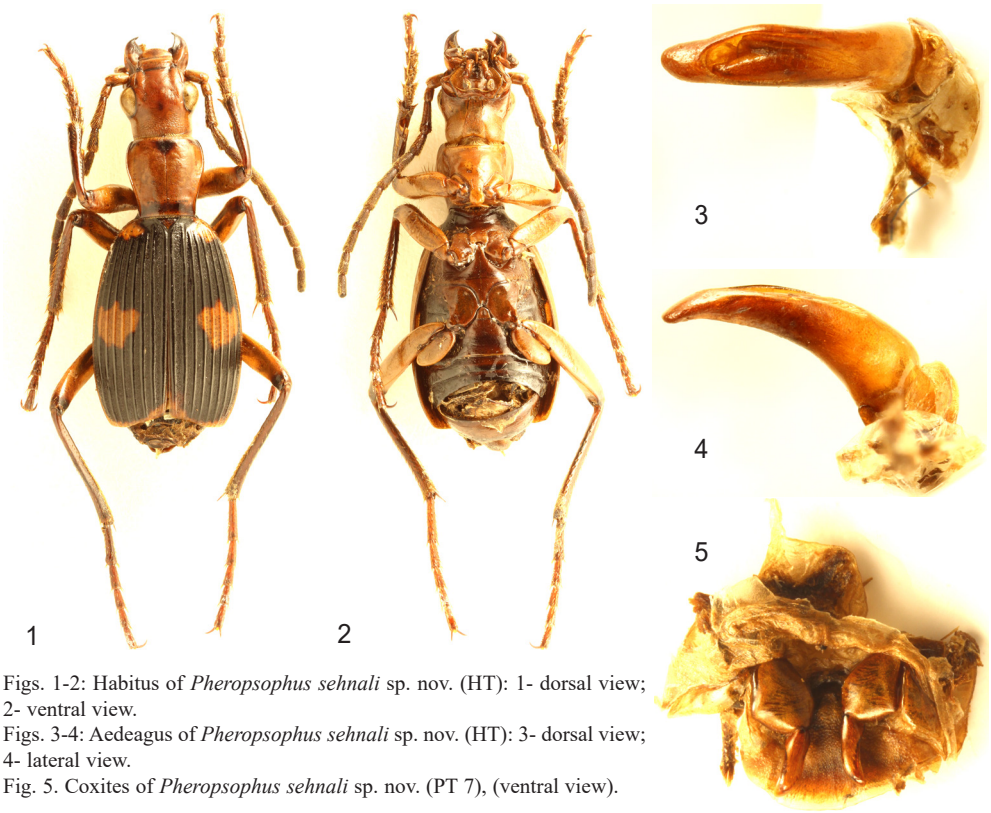
(Figs. 1-6)

Type material. Holotype (♂) labelled: „Afr.- Cameroon- NW / Tubah sbdiv., Big Babanki / N 6°6′58′′; E 10°15′46′′ / 1236 m, XII. 2009, lgt. R. Sehnal [p, white label] // HOLOTYPE / Pheropsophus / sehnali sp. n. / Hrdlička des. 2024 [p, red label]“ (cHRDL). Paratypes nos. 1-8 (8 ♀♀) labelled: with same data as holotype (cRS, cHRDL). Paratype labels are the same as the holotype label, additionally with number of paratype.

Description of the male holotype. Habitus (Figs. 1-2). A medium-sized *Pheropsophus* (TL 13.45 mm); 2.69 times longer than wide (TL/EW). Body flat (TL/DVH 3.84). Head, antennomeres 1-2, prothorax, femora and trochanters, front coxae, humeral spots and spots in the middle of elytra, posterior margin of elytra and epipleura of elytra reddish-brown. Small spot in the middle of frons, antennomeres 3-11, anterior and posterior margins of pronotum, elytra, mesothorax, metathorax, abdomen, middle and hind coxa, tibia and tarsi black-brown. The real coloration under daylight or normal illumination is dark than in Figs. 1-2. The coloration in Figs. 1-2 is lighter because strong spot lighting was used during photography. The reddish-brown colour is original and did not originate secondarily by way of death or by deposition before preparation.

Head longer than wide (HL/HW 1.21), wider than pronotum (HW/PW2 1.04). Eyes flatter. Head shiny with two setiferous punctures above and one under each eye. Frontal furrows and neck wrinkled. Antennae long, narrow (TL/AL 1.49). Antennomeres 1-2 with scattered long setae, 3-4 pubescent with short setae and scattered longer setae, 5-11 densely pubescent with short setae.

Pronotum longer than wide (PL/PW2 1.06). PL 2.70 mm, PW1 2.00 mm, PW2 (at the 28% of PL) 2.55 mm, PW3 (at the 100% of PL) 1.90 mm, PW4 1.90 mm. Lateral margins weakly rounded (PW1/PW2; PW2/PW2; PW3/PW2; PW4/PW2 0.78; 1; 0.75; 0.75). Disc



Figs. 1-2: Habitus of *Pheropsophus sehnali* sp. nov. (HT): 1- dorsal view; 2- ventral view.
Figs. 3-4: Aedeagus of *Pheropsophus sehnali* sp. nov. (HT): 3- dorsal view; 4- lateral view.
Fig. 5. Coxites of *Pheropsophus sehnali* sp. nov. (PT 7), (ventral view).

convex, shiny, without punctation and pubescence. Lateral groove poorly visible, with a setiferous puncture approximately in the middle (both setae are broken on the holotype). Posterior angles of pronotum rectangular, slightly rounded at the tip. Anterior and posterior margins with a fringe of short setae. Episterna of prothorax and pronotal epipleura smooth and shiny.

Scutellum with macrosculpture.

Elytra 1.40 times longer than wider (EL/EW). Elytra widest somewhat behind the middle, approximately at the level of the end of the basal 56 % of EL. Humeri not produced. Each elytron with 8 costae (sharply defined, rounded, smooth and shiny) and eight intercostal intervals (matte with macrosculpture). Eighth intercostal interval (at lateral margin) pubescent with short setae. Posterior margin of elytra with membranous fringe without setae.

Hind wings reduced to about half of EL.

Abdomen shiny, sparsely pubescent with short yellow setae.

Male genitalia (Figs. 3-4). Median lobe of aedeagus long, narrow and conical. The short apical part is dorsoventrally flattened, the tip asymmetric rounded.

Variability. TL 13.10-15.55 (aver. 14.42) mm (9 specimens measured). Coloration of pronotum is variable (five paratypes lack dark anterior and posterior margins).

Differential diagnosis. *Pheropsophus sehnali* sp. nov. is similar to *P. motoensis* Burgeon, 1937, but this species differs from the new one by longer elytra (in proportion to TL), more robust, shorter and unicoloured light legs, unicoloured light pronotum, missing light posterior margin of elytra, straight posterior margin of elytra, and by the apical part of median lobe which is less rounded and less dorsoventrally flattened.

Collecting habitat. Specimens were caught during the day under rocks and driftwood at the edge of a stream in a valley covered with tropical forest at altitude 1.236 m.

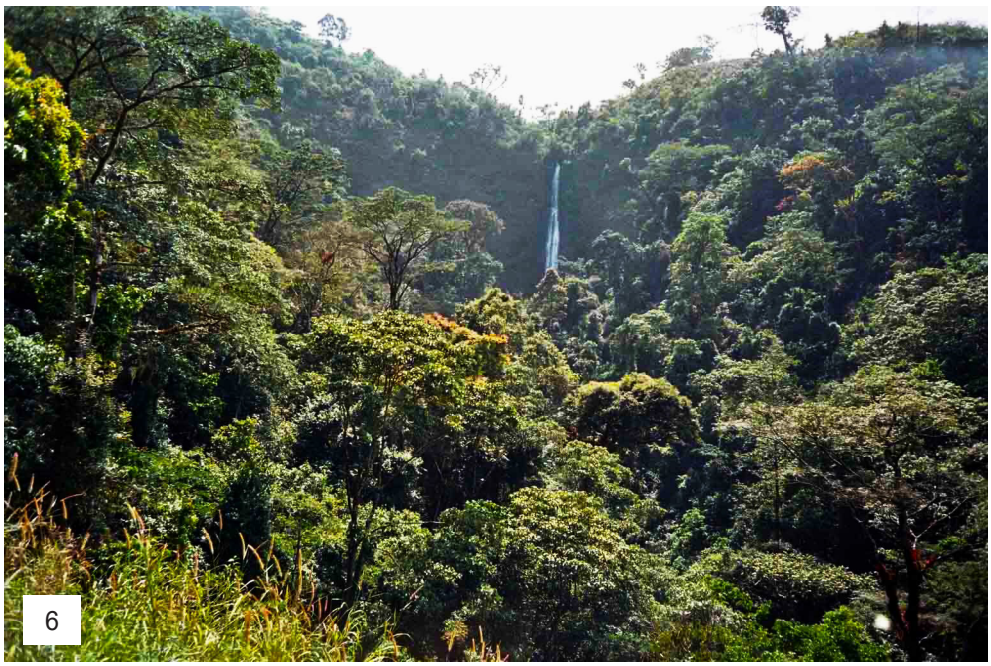


Fig. 6. Collecting habitat: Northwestern Cameroon, Tubah Sub Division, Big Babanki.

Name derivation. This species is dedicated to its collector Rostislav Sehnal from Unhošť, Czech Republic.

Distribution. Currently only known from the department Mezam, Tubah Sub Division, in north-western Cameroon.

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