



A new species of *Pegylis* Erichson, 1847 (Coleoptera: Scarabaeidae: Melolonthinae: Pegylini) from Ethiopia

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The Afrotropical genus *Pegylis* Erichson, 1847 (Coleoptera: Scarabaeidae: Melolonthinae: Pegylini) was recently treated by Lacroix (2015), who keyed and figured most of the known species and divided the genus into six species groups based on the number of antennomeres, shape of male genitalia and number of teeth on the protibia. Unfortunately, Lacroix (2015) overlooked two earlier papers by Harrison (2014a, 2014b). Harrison (2014a, 2014b) provided a phylogenetic analysis of the tribe, synonymised *Hypopholis* Erichson, 1847 with *Pegylis*, and redescribed the three known South African species of *Pegylis*. Based on these papers, the genus *Pegylis* currently contains 37 species.

Recently, Vladimír Major (Brno, Czech Republic) kindly gave me specimens of *Pegylis* collected in Ethiopia. Examination of this material revealed an undescribed species belonging to the species group 1 *sensu* Lacroix (2008a, 2008b, 2010, 2015), which is described in this paper.

Specimens were examined with a Novex stereomicroscope and measurements were taken in 20 mm with an ocular grid. Length measurements are from the anterior margin of the clypeus to apices of the elytra. The habitus photographs were taken with a Canon MP-E 65mm/2.8 1–5× macrolens on bellows attached to a Canon EOS 550D camera. Partially focused images of each specimen were stacked using the Helicon Focus 3.20.2 Pro software. Specimens in the type series are provided with one red printed label: “*Pegylis majori* sp. n., HOLOTYPUS or PARATYPUS [with type number], ♂ or ♀, Richard Sehnał det. 2017”. Exact label data are cited for type material examined with lines separated by a slash [/].

Pegylis majori Sehnał, new species (Figs. 1A–J; 2A–C)

Type locality. Ethiopia, Hamer Region, Turmi.

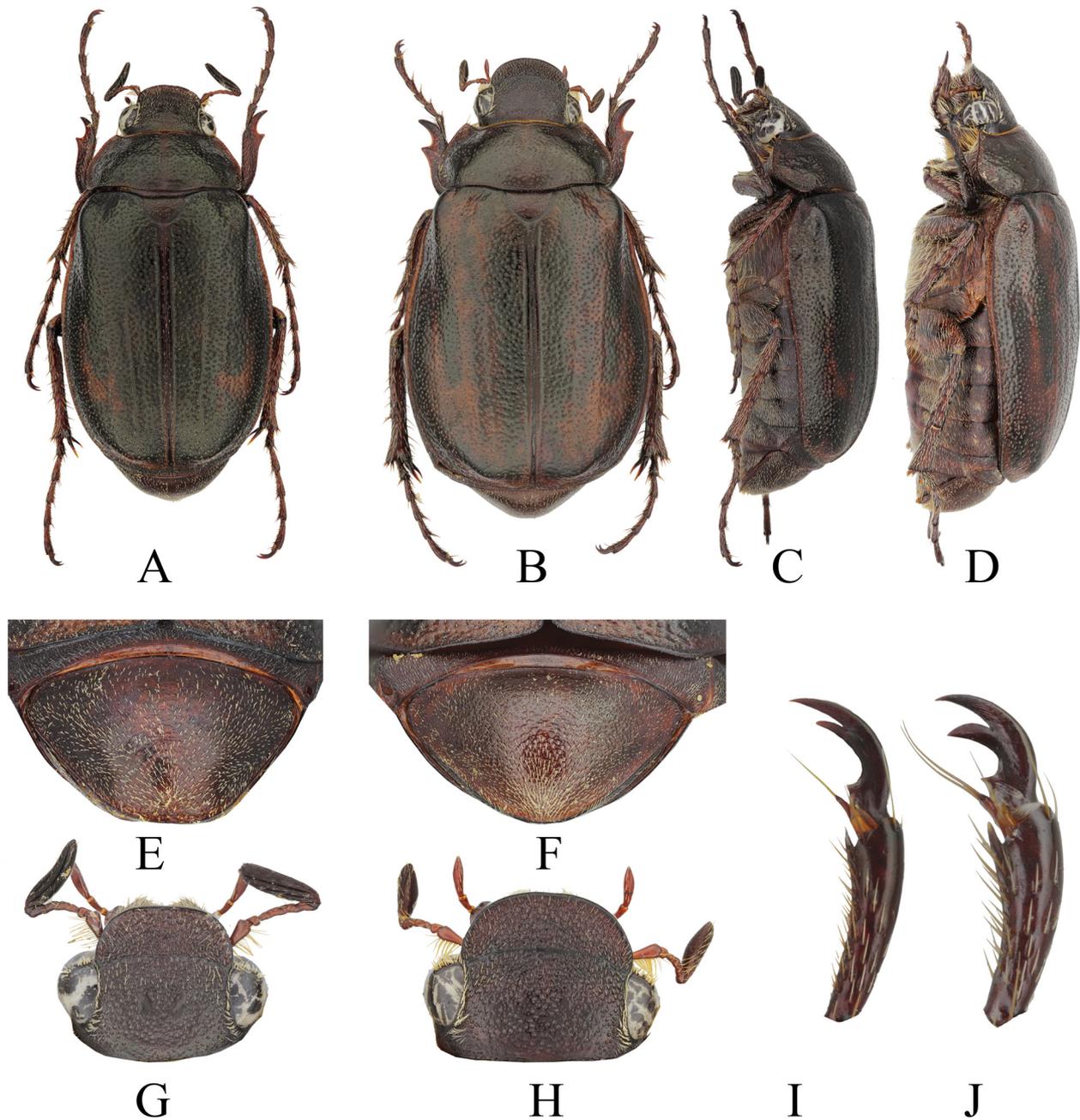
Type material. Holotype and 15 paratypes (11 males and 4 females): “ETHIOPIA—Hamer or. / Turmi near 950 m. / 04°58'31"N 036°30'53"E / 27-30.11.2016 / Vladimír Major leg. [printed]”. Type depository: holotype in Národní muzeum Praha, Prague, Czech Republic (Jiří Hájek); 13 paratypes in Richard Sehnał Collection, Velenice, Czech Republic; 2 paratypes in Wits Life Sciences Museum, Johannesburg, South Africa (James du G. Harrison).

Description of holotype (♂). Body length 15.1 mm, elongate, almost parallel-sided, gently convex. Dorsal and ventral surface weakly metallic, glossy; head, pronotum, and elytra blackish brown to almost metallic black; pronotum with lighter sides; elytral disc metallic black, posterior sides shiny orange, macrosetation almost reddish yellow (Fig. 1A–D). Dorsal surface of head, pronotum, scutellum, and elytra covered with narrow, short, recumbent macrosetae; ventral surface of thorax and abdomen with narrow, whitish-yellow, short and long, recumbent macrosetae and with sparse long, yellow, erect macrosetae. Head appendages and legs covered with reddish-yellow, moderately short macrosetae.

Head with labrum transverse, deeply bilobed; lobes rounded, irregularly and weakly punctate, covered with long, erect macrosetae. Head including clypeus strongly wrinkled, densely coarsely punctate; each puncture with a semierect macroseta as long as puncture diameter. Clypeus sparsely, evenly, moderately punctate, with macrosetae 2x longer than puncture diameter. Convex frontoclypeal carina sinuate in forward direction. Frontoclypeal suture undulate. Frons densely punctate, punctures arranged in rows with ensuing macrosetae as long as puncture diameter. Occipital carina absent (Fig. 1G). Occiput sparsely, evenly, moderately punctate. Occular canthus narrow, short, glabrous. Width of both eyes combined approximately equal to maximum width of frons between eyes, eye distinctly extending beyond canthus. Antenna with 10 antennomeres; club with three antennomeres, almost straight, same length as antennal shaft (antennomeres 1–7 combined). Antennomeres 1–7 with sparse, long macrosetae; club sparsely, shortly macrosetose. Terminal maxillary palpomere expanded medially, club-shaped, longer than palpomeres 2 and 3 combined (Fig. 1G).

Pronotum transverse, widest in basal half, with a small but shallow, anterolateral wrinkles. Lateral margins non-crenulate and macrosetose. Base bordered, medially gently arched toward elytra, with smooth margin paralleled by a row of fine punctures and hind angles broadly rounded. Disc deeply punctate, with setae as long as puncture diameters; punctures separated by 3x their diameters. Punctuation of remaining surface same, macrosetae yellowish white, semirecumbent (Fig. 1G).

Scutellum large, almost equilaterally triangular, sides and apex rounded; punctuation irregular, each puncture bearing a narrow, white, almost recumbent macroseta shorter than puncture diameter.



FIGURES 1A–J. *Pegylis majori* new species, holotype male (A, C, E, G, I): A, habitus, dorsal view; C, habitus, lateral view; E, pygidium, anterior view; G, detail of head, dorsal view; I, inner protarsal claw. *Pegylis majori* new species, paratype female (B, D, F, H, J): B, paratype, habitus, dorsal view; D, paratype, habitus, lateral view; F, paratype, pygidium, anterior view; H, paratype, detail of head, dorsal view; J, paratype, inner protarsal claw.



FIGURES 2A–L. *Pegylis* species group 1 aedeagus in dorsal, frontolateral and lateral view. *Pegylis majori* new species, holotype (A, B, C); *P. conspurcata* (Gerstaecker, 1867) (D, E, F); *P. gestroi* Brenske, 1895 (G, H, I); and *P. lineata* Lacroix, 2008 (J, K, L).

Elytra weakly convex, posteriorly widening, apically rounded; apical angle approximately rectangular. Striae present but feeble. Humeral umbones present, weakly swollen. Surface not microsculptured (at 20 magnification), metallic shiny; punctures shallow, regularly spaced, separated by 2x their diameters. Each puncture bearing a narrow, yellowish-white, almost recumbent macroseta shorter than puncture diameter. Epipleuron distinct, complete, wide, membranous, glabrous laterally. Macropterous.

Legs with femora narrow, shiny, irregularly punctate, macrosetose. Protibia narrow, distinctly bidentate; without terminal spine. Mesotibia and metatibia slightly expanded distally, with two macrosetiferous longitudinal carinae. Metatibial carina vague. Upper terminal spine of metatibia slightly longer than lower spine, both spines apically pointed. Claws bifid, with ventrobasal teeth (Figs. 1A).

Ventral surface covered only by narrow, recumbent, yellowish-white macrosetae. Pygidium slightly transverse, convex, completely bordered; apically broadly rounded; irregularly covered by fine, macrosetose punctures.

Male genitalia (Figs. 2A–C). Parameres asymmetrical, both longer than phallobase; left paramere slender and nearly straight, curved out only at apex; right paramere thicker, gently curved medially throughout length, near apex with a large ventrolateral extension appearing semicircular in dorsal view and finger shaped in lateral view.

Variability in males. Paratypes 14.4–16.3 mm ($n = 11$) in body length, slightly variable in dorsal punctation density and length and in distribution of macrosetae. Colour as in holotype.

Sexual dimorphism. Females differ from males in the following characters: body length 18.0–18.5 mm ($n = 4$); antennal club shorter; border of clypeus regularly rounded (Fig. 1H); distal protibial tooth wider and longer; shape of protarsal claw (Fig. 1J); elytra widest in apical half (Fig. 1B); pygidium wider, concave (Fig. 1F, 1D); metatibia more strongly expanded distally; tarsomeres of all legs shorter.

Distribution. Ethiopia, Hamer Region, Turmi.

Differential diagnosis. *Pegylis majori* falls in group 1 (Lacroix, 2015) because of the following characters: mesosternal process absent; antenna with 10 antennomeres, inner protarsal claw with inner tooth near apex; protibia

bidentate. From other species of group 1 it can be differentiated using the following diagnostic characters: anterior angles of the pronotum rounded; metasternum weakly pubescent, setae absent in the middle; elytra blackish brown to almost metallic black; pronotum irregularly rounded; elytral striae prominent; antennal shaft the same length as club; parameres asymmetrical, shape of aedeagus (Figs. 2A–C).

Etymology. Patronymic, named in honour of Mr. Vladimír Major (Brno, Czech Republic), my friend and collector of this species.

New localities in Kenya for other *Pegylis* species

Pegylis conspurcata (Gerstaecker, 1867) (Figs. 2D–F). Kenya: Eastern, Mwingi, Nguni environs, 28.xi.1999, M. Snížek. 1 ♂ in Richard Sehnal Collection, Velenice, Czech Republic.

Pegylis gestroi Brenske, 1895 (Figs. 2G–I). Kenya: Kiboko environs, 21.xi.1999, M. Snížek, 5 ♂, 3 ♀ in Richard Sehnal Collection, Velenice, Czech Republic.

Pegylis lineata Lacroix, 2008 (Figs. 2J–L). Kenya: Eastern, E 729, Sosoma environs, 202 km E of Thika, 11.v.2007, M. Snížek, 2 ♂, 3 ♀ in Richard Sehnal Collection, Velenice, Czech Republic.

Key to *Pegylis* species of group 1 (modified from Lacroix 2015)

1. Anterior angles of the pronotum rounded; metasternum with abundant pilosity 2
- Anterior angles of the pronotum acute; metasternum sparsely pilose, without setae in middle 5
2. Elytra yellowish brown to golden yellow, with two longitudinal darker strips; clypeus with granular punctation, anterior margin of clypeus rounded; proximal tooth of protibia very short, rounded at apex; length 14 mm; Uganda *P. ugandensis* Lacroix, 2008b
- Elytra dark brown, with multiple, poorly visible maculae; clypeus punctate and wrinkled, anterior edge of clypeus straight; proximal tooth of protibia elongate 3
3. Pronotum regularly rounded, length 14 mm; Tanzania, Kenya *P. rufolineata* Kolbe, 1894
- Pronotum irregularly rounded 4
4. Antennal shaft (antennomeres 1–7 combined) of same length as club; elytral striae prominent *P. majori* Sehnal, **new species**
- Antennal shaft (antennomeres 1–7 combined) longer than club; elytral striae absent; length 15–18 mm; Kenya, Ethiopia, Somalia *P. gestroi* Brenske, 1895
5. Dark elytral maculae abundant over entire elytra; anterior margin of clypeus rounded; pronotum 2.4 times wider than long; metasternum densely covered with long setae; anterior margin of clypeus flat; elytral punctation not wrinkled; length 14–18 mm; Kenya, Tanzania *P. conspurcata* (Gerstaecker, 1867)
- Dark elytral maculae present only on sides; anterior margin of clypeus straight; pronotum 2.2 times wider than long; metasternum with short setae; anterior margin of clypeus upturned; elytral punctation strongly wrinkled with indicated striae; length 14–15 mm; Kenya *P. lineata* Lacroix, 2008

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