



A new species of *Leptomenes* Giordani Soika from Uganda (Hymenoptera: Vespidae: Eumeninae)

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Leptomenes Giordani Soika, 1939 is an Afrotropical genus of small-sized potter wasps, presently comprising eight species in continental Africa and another three species in Madagascar. The continental species are mainly distributed in eastern Central Africa, but some species reach Kwazulu-Natal in the south and Senegal in the west (Carpenter *et al.* 2010).

It was described by Giordani Soika (1939) to accommodate various small-sized species with elongate T1 and submarginal carina of propodeum produced in a triangular tooth, but actually comprehends only the species showing the following combination of characters: clypeus opaque, metanotum oblique and not carinate, propodeal valvula fused to submarginal carina, T1 triangular in dorsal view and T2 without apical lamella.

In Giordani Soika's collection, housed in MSNVE, a single female specimen belonging to an undescribed species of *Leptomenes* was found. In this paper, the new species is described. A key to the continental species of the genus and new distributional records for *Leptomenes ugandensis* Giordani Soika are also provided.

Material and methods

The adult morphology and coloration were observed on pinned dried specimens under an Optech SZ-NT stereoscopic microscope. Images were taken with a Jessop 50mm f3.5 magnifying lens mounted on a Canon EOS 1300D. The plate was arranged with Photoshop CC 2018.

“Body length” indicates the length in dorsal view of head, mesosoma, and first two metasomal terga combined. Measurements were taken using a digital Vernier caliper (accuracy ± 0.1 mm). Metasomal terga, metasomal sterna and antennal flagellomeres are abbreviated as T, S and F respectively. In reproduction of labels, single slash (/) divides lines on same label and double slash (//) divides labels. Localities marked with an asterisk (*) under the heading “Distribution” are new records for the species.

The acronyms used are as follows:

BMNH	The Natural History Museum, London;
MSNVE	Museo Civico di Storia Naturale, Venezia, Italy;
MSVI	Private collection of Marco Selis, Viterbo, Italy.

Leptomenes baphomet Selis, sp. nov. (Figs 1–5)

Material examined. Holotype, ♀, labelled “*Mpumu* / Uganda // *Leptomenes baphomet* / Selis, sp. nov. / HOLOTYPE ♀ / Det. Marco Selis 2018” (MSNVE).

Diagnosis. This species can be distinguished from all other species of the genus by the protuberances on the vertex.

Description. *Female.* Body length 7.1 mm; fore wing length 5.2 mm.

Head $1.1 \times$ as long as wide in frontal view (Fig. 2). Clypeus in frontal view as long as wide, apical emargination $4 \times$ as wide as deep and $0.25 \times$ as wide as clypeus width, apical teeth triangular and apically rounded, from the tooth a pair of longitudinal folds run up to one third of clypeus, area between folds flattened; clypeus in lateral view weakly convex in basal half, then flattened to the apex. Interantennal space weakly tuberculate above. Frons in lateral view convex. Distance from posterior ocellus to inner eye margin $0.9 \times$ as long as distance from posterior ocellus to occipital margin; ocelli disposed as an obtuse triangle, ocellar area raised. Vertex obliquely sloping from posterior ocelli to occipital carina and

bearing a pair of rounded protuberances behind dorsal lobes of eyes (Fig. 3). Gena in dorsal view convex; in lateral view $0.7 \times$ as wide as eye at bottom of ocular sinus; occipital carina entire, shortly lamellate on sides. Scape $3.4 \times$ as long as apically wide; F1 $1.55 \times$ as long as wide; F2–F5 weakly longer than wide; F6–F9 subquadrate; F10 bullet shaped, weakly longer than basally wide. Mesosoma in dorsal view elongate, $1.4 \times$ as long as wide. Pronotum in dorsal view slightly narrowed anteriorly, lateral margins sinuate; pronotal carina reduced to a fold dorsally, shortly lamellate on sides and humeri, which are right angled in dorsal view; anterior face with a median irregularly striate pit; pretegular carina fine and complete. Mesoscutum $1.15 \times$ as long as wide, barely convex in lateral view. Scutellum flattened and on same level of mesoscutum, anterior margin crenate and bearing nine pits; axillary fossa large and rounded, as wide as long. Metanotum oblique and flattened on disk, anterior margin slightly raised. Tegulae equaling parategulae, outer margin straight on anterior third, then rounded, posterior lobe triangular and flattened, apically pointed. Parategulae long and nearly straight, weakly rounded basally, apex broadly rounded. Mesepisternum weakly convex, epicnemial carina distinct and reaching transverse furrow. Propodeum in lateral view convex, then depressed before apical teeth; dorsal faces convex, not distinctly separated from posterior face, which is narrow and becoming deeper apically; lateral faces flattened and smoothly passing into dorsal faces; submarginal carina produced in a long triangular lamella fused with propodeal valves; median line of propodeum with a complete longitudinal carina. T1 in dorsal view triangular and $1.5 \times$ as wide as long, lateral sides distinctly diverging posteriorly (Fig. 4); T1 in lateral view convex in basal two thirds, then shallowly depressed in apical third. T2 in dorsal view longer than apically wide, sides weakly convex and converging anteriorly; T2 in lateral view weakly convex in basal half, then flattened. S2 in lateral view similar to T2, but more convex basally (Fig. 5).

Clypeus weakly shining, densely micropunctate in basal half and on lateral margins, shagreened in apical half between longitudinal folds, some sparse macropunctures on basal third and lateral margins. Frons with deep small punctures, interspaces micropunctate and irregular, ranging from shorter to larger than punctures diameter; punctures absent on interantennal space and becoming sparser on ocular sinus. Vertex punctured similar to frons, but punctures larger and denser and interspaces more shiny; area between posterior ocelli densely micropunctate; protuberances smooth and shiny on sides, with a central patch of dense micropunctures. Gena with sparse deep punctures, densely micropunctate in ventral half. Anterior face of pronotum shagreened and dull on ventral corners, median part shiny and largely smooth, with some deep punctures on lateral thirds; dorsal face of pronotum punctured similar to frons, punctures larger and denser, interspaces narrower than punctures diameter; lateral faces irregularly striate on margins. Mesoscutum punctured like pronotum, punctures becoming denser in the middle of posterior third, with a patch of dense micropunctures opposite to tegula. Scutellum punctured like pronotum, interspaces less shiny and very narrow on posterior margin. Metanotum with large shallow punctures covering median third, lateral thirds smooth. Tegula shiny and micropunctate in anterior half, dull and shagreened posteriorly. Mesepisternum with sparse deep punctures, interspaces shiny and densely micropunctate; mesepimeron densely and coarsely punctured, interspaces carina-like; epicnemium shagreened with some shallow punctures ventrally. Dorsal plate of metaepisternum dull, with fine irregular striae; ventral plate of metaepisternum dull and irregularly rugose. Dorsal faces of propodeum with large flat bottomed punctures, interspaces very narrow and reduced to irregular ridges; median depression dull with fine and irregular oblique striation, apical pits at sides of carina smooth and shiny; lateral faces of propodeum irregularly rugose like metaepisternum. T1 with oblique deep punctures, sparser basally where interspaces are several times larger than punctures diameter, becoming dense in apical third where interspaces are equal to or shorter than punctures diameter, punctures not reaching apical margin and leaving a smooth apical band. T2 with dense oblique punctures, interspaces micropunctate and equal to or shorter than punctures diameter, apical margin with larger punctures. T3–T5 with shallow punctures, interspaces larger than punctures diameter. T6 shagreened and shiny, with some fine punctures on disc. S1 with irregular fine longitudinal striae and deep punctures on posterior corners. S2 with deeper punctures than T2, interspaces shagreened. S3–S5 similar to respective terga. S6 densely micropunctate. Clypeus, lower half of frons and genae and sides of mesosoma with short silvery pubescence; rest of body with short dense reddish pubescence; apical teeth of propodeum with fine silvery setae; protuberances on head bare.

Color. Black; following parts pale yellow: two small spots at base of clypeus, small spot above interantennal space, postocular dot, ventral side of scape, spot on humerus, parategula, almost whole metanotum, narrow apical band on T1, wider apical band on T2 and S2, median transverse spot at apex of T4–T5, median circular spot on T6, apex of fore and mid femur, outer face of all tibiae; underside of flagellum ferruginous. Wings weakly fuscous.

Male. Unknown.

Distribution. Uganda.

Etimology. This species is named after the horned deity Baphomet, in reference to the “horns” present on the vertex. Treat as a noun in apposition.

1



2



3



FIGURES 1–3. *Leptomenes baphomet* Selis, **sp. nov.**, ♀. 1. Habitus in lateral view. 2, Head in frontal view. 3, Head in dorsal view.

Notes. Following the key provided by Giordani Soika (1977), this species presents a mixture of characters listed in the first couplet, such as anterior face of pronotum with a median rugose pit, distinct pretegular carina and T1 about as long as wide apically. However, the presence of protuberances on the head allows immediate recognition of this species.



FIGURES 4–5. *Leptomenes baphomet* Selis, **sp. nov.**, ♀. 4, T1 in dorsal view. 5, T1–T2 and S2 in lateral view.

***Leptomenes ugandensis* Giordani Soika, 1940**

Leptomenes ugandensis Giordani Soika 1940: 268, ♀, ♂ – “Uganda: Kampala” (BMNH)

Material examined. DEMOCRATIC REPUBLIC OF CONGO: Haut-Uele, Paulis, VI.1947, leg. P.L.G. Benoit, 1♂ (MSVI).

Distribution. Democratic Republic of Congo*, Uganda (Giordani Soika 1940).

Key to the continental species of the genus *Leptomenes*

[Modified from Giordani Soika (1977), characters of subsequently described species taken from Giordani Soika (1983, 1987) and Gusenleitner (1997)]

1. Vertex with a pair of rounded protuberances behind dorsal lobe of eyes *Leptomenes baphomet* **sp. nov.**
- Vertex normally developed, without protuberances 2
2. T1 distinctly longer than apically wide. Pronotal carina right angled on humerus. Anterior face of pronotum with a median rugose pit 3
- T1 shorter than or about as long as apically wide. Pronotal carina obtusely angled on humerus. Anterior face of pronotum without pit 6
3. Propodeum with sharp dorsolateral teeth 4, *Leptomenes eumenoides* (Smith)
- Propodeum without dorsolateral teeth, dorsal faces rounded 5
4. Clypeus apically and legs ferruginous *Leptomenes eumenoides claripes* Giordani Soika
- Clypeus apically black and legs black with yellowish markings *Leptomenes eumenoides eumenoides* (Smith)
5. Lateral faces of propodeum smooth, with some large shallow punctures near posterior margin
..... *Leptomenes ugandensis* (Giordani Soika)
- Lateral faces of propodeum with dense deep punctures *Leptomenes richardsi* Giordani Soika
6. Frons shiny, with dense deep punctures, interspaces shorter than puncture diameter 7
- Frons sub-opaque, with sparse small punctures, interspaces as wide as puncture diameter 8
7. Clypeus wider than long, opaque with small and sparse punctures. Tegula wider in the posterior half. Dorsal faces of propodeum with punctures larger than those on mesoscutum, interspaces flat. Posterior face of propodeum rugose-striate, with barely distinct sparse punctures *Leptomenes cribratus* Giordani Soika
- Clypeus about as wide as long, weakly shiny and impunctate. Tegula wider in the anterior half. Dorsal faces of propodeum with punctures smaller than those on mesoscutum, interspaces narrowly carinate. Posterior face of propodeum not rugose, with large and dense punctures *Leptomenes major* Giordani Soika
8. Apical emargination of clypeus shallow and wide. T1 about 1.5 × wider apically than long. Mesepisternum without silvery pubescence *Leptomenes convexus* Giordani Soika
- Apical emargination of clypeus deeper and narrower. T1 as long as wide apically. Mesepisternum with dense silvery pubes-

cence	9
9. Posterior face of propodeum obliquely striate and shining. Tegula smooth and shiny	<i>Leptomenes pulawskii</i> Gusenleitner
- . Posterior face of propodeum not striate and opaque. Tegula micropunctate and dull	<i>Leptomenes stevensoni</i> Giordani Soika

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