Two new genera of African scelionid wasps (Hymenoptera, Proctotrupoidea: Scelionidae)

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Two new genera and five new species of Scelionidae are described from the African continent: Stenotele a palustris n. gen., n. sp. (The Gambia, Ivory Coast), and Anthonya n. gen. with mandibulatum n. sp. (type species; Zimbabwe), alidorsis n. sp. (Somalia), aipteles n. sp. (Somalia) and cephalotes n. sp. (Sierra Leone). The higher classification of the new genera is discussed.


Since the classical work of J. J. Kieffer (1926), the scelionid fauna of Africa has received relatively little attention. During the period between the two World Wars, G. E. J. Nixon (formerly of the Commonwealth Institute of Entomology, London) contributed significantly by series of papers mainly on the subfamily Telenominae. After World War II, the late J. Risbec (O.R.S.T.O.M., Bondy) published numerous papers on various groups of African scelionids. Except for Masner’s (1976) key to genera of the world, we still lack a comprehensive key to all African genera. The present paper aims to contribute to the above need by describing two remarkable new genera of African Scelionidae. These two new taxa were purposely selected due to their importance in the higher classification of the family Scelionidae, especially at the tribal level.

Abbreviations and measurements: For morphological abbreviations used in this paper, see Masner (1976) and Huggert (1977).
[CNRC] Canadian National Collection of Insects, Arachnids and Nematodes, Ottawa, Canada.
[HUGG] Collection of L. Huggert, Department of Systematic Zoology, University of Lund, Sweden.
[TOWNES] Collection of Henry and Marjorie Townes, Ann Arbor, U.S.A.

Stenotele a n. gen.

Figs. 1, 2.

Type-species: Stenotele a palustris n. sp. (described below).

Diagnosis (♀): Elongate species with spindle-shaped metasoma (Fig. 1). Head globular; frons above toruli with small, unmarginated declivity; cheeks not distinctly striate; ocelli in low triangle, with lateral ocellus not contiguous with inner orbit; eyes large, globose; mandibles small, each with 3 subequal teeth: dyleps small; palpal formula 4–2; antenna 12-segmented, with non-abrupt 6-segmented clava and radicle 1/5 length of A1; skaphion distinct; notauli pronounced, posterior margin of skaphion as well as margins of mesoscutum and scutellum with deep crenulae; scutellum transverse, deeply excavate posteriorly, unarmored; metanotum and propodeum unarmored, deeply excavate medially to house horn on T1; epomia sharp; metasoma open, large, and acetabular carina fine; mesopleuron with depression and carina well developed; metapleural pit large, close to pleural-propodeal suture, which is doubled in front of pit; fore wings rather narrow, with costal cell rather broad distally; submarginalis without indication of break point; and basal and medialis not indicated; marginals very short, postmarginalis almost absent and stigmatic slanted; submarginalis in hind wing complete; legs rather slender, with spur formula 1–1–1 and with tarsal formula 5–5–5; metasoma slender, spindle-shaped with 6 visible tergites; T1 with horn reaching level of scutellum (Fig. 2); horn with distinct horizontal ledge in basal third; T3 only slightly longer than T2; T6 styliform, covering most of T7.

Etymology: From the Greek stenos meaning narrow and telos meaning the end or completion of something, here the metasoma. The suffix -telea is preferred over...
steleia as the former is grammatically more correct. The gender is feminine.

Remarks

In Masner's (1976) key to the world genera of Scelionidae (subfamily Scelioninae), this new genus runs straight to Styloteleia Kieffer. However, the females of the latter genus have an ovoid, 4 to 5 segmented clava, long marginalis, and postmarginalis much longer than stigmalis. The horn on T1 with a flat anterior surface (but with a rim as in Stenoteleia) and T7 is long, external, not retracted or attached to the ovipositor.

In habitus, Stenoteleia is similar to Probaryoncus Kieffer and some members of Paridis Kieffer; however, the latter two differ in the absence of a skaphion and notauli, and in cephalic characters (mandibles bidentate, clypeus prominent, eyes hairy and cheeks distinctly striate). The postmarginal vein may be short or absent in some Paridis-species but is always long and well-developed in Probaryoncus. We believe that Stenoteleia should be placed close to the Caloteleia-complex as some species (e.g., of Lamproteleia Kieffer) obviously belonging to this cluster, have percurrent notauli. However, none of the species known to us have the notauli foveolate nor a rim on the horn on T1.

The forewing venation is always different in Caloteleia s.l., with the marginalis distinctly elongate and the postmarginalis longer than the marginalis. The cheeks are also uniquely distinctly striate (only vaguely so in one species of the Lamproteleia-group). In Caloteleia s.l., as in Probaryoncus and Paridis, T7 is very small and attached to the ovipositor. This is most probably also the case with Stenoteleia and the character should be regarded as a synapomorphy.

Stenoteleia is certainly a remarkable genus within the subfamily Scelioninae. It cannot be satisfactorily placed in any of the existing tribes as it exhibits characters of both the Calliscelionini and the Psilanteridini. The main problem is the presence of a well-developed skaphion in combination with six visible tergites and the lack of distinct striae on the cheeks. We feel that further critical studies on the interrelationships of the genera involved are needed to determine natural limits between these two tribes.

1. Stenoteleia palustris n.sp.

Figs. 1–2.

Type area: The Gambia, Ivory Coast (West Africa).

Diagnosis (♀): Very slender brownish species; head globose; skaphion present; notauli deeply crenulate; scutellum transversely, deeply excavate posteriorly as median part of metanotum and propodeum; fore wing with marginalis very short, postmarginalis knob-like and costal cell broadened distally; T1 with black horn reaching level of scutellum, and horn with horizontal ledge posterolaterally in basal third; T6 very long, styliform.

Etymology: Palustris in Latin means marshy or wet, here referring to the biotope of the type material.

Description

Female

Length 4.20 mm. Colour light brown with ocellar region dark brown, eyes blackish, mesoscutum, except notauli, dark brown, horn on T1 predominantly black, sides of metasoma dark brown, tergites slightly darker medially and last three tergites successively darker, with T6 blackish; teeth on mandibles blackish; Al light brown, flagellum progressively darker distally, and clava blackish; legs light brown to yellow; wings somewhat infuscate.

Head globose (Fig. 1), from above wider than long (51:28), eyes about twice as long as strongly bulging temples; frons gently arched and occiput rather deeply excavate with distinct, crenulate carina running down to mandibles; ocelli rather large; posterior ocellus slightly less than its diameter from inner orbit with small but distinct depression behind it; POL: LOL: OOL = 12:7:2; scape clearly longer than shortest width of vertex between eyes (29:23). In lateral view head distinctly higher than long (50:39), eye higher than long (29:26); malar space subequal to half of eye height. Head from in front almost as wide as high (50:51) and eye height larger than interorbital space (30:22); clypeus small, not wider than width of toruli, with anterolateral corners not prominent; frons smooth, with some delicate transverse wrinkles that are more pronounced towards toruli; head, except for smooth ocellar area, with delicate small meshed reticulation, most pronounced along inner orbits and with
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Figs. 1, 2. *Stenoteleca palustris* n. gen. and n. sp. ♀ —
1. Dorsal view. — 2. Horn on T1 in lateral view.
scattered piliferous punctures; genae with rougher sculpture due to larger punctures, that are elongate to appear almost striate at mouth corners.

**Antenna** (Fig. 1) with segments in proportions 30:6; 13:4; 8:3; 5:4; 5:4:5; 5:5; 5:7; 7:8; 6:8; 6:8; 5:5:7:5; 8:7.

**Mesosoma** (Fig. 1) somewhat wider than high (45:43); mesocutum with percurrent, deeply crenulate notaulli converging evenly posteriorly; skaphion distinct, with deeply crenulate, sharp posterior margin and with exterior margin of side lobes crenulate; mesocutum smooth and shiny except for delicate reticulation in anterolateral corners of midlobe; rows of piliferous punctures along scutal suture and notaulli; scutellum strongly transverse (5:5:31) due to hind margin being deeply excavate to fit horn on T1; scutellar suture and hind margin of scutellum with distinct crenulation; scutellum along horn margin with 5 or 6 long bristles directed diagonally backwards; metanotum as a very narrow lunate strip, broadened laterally; propodeum deeply excavate medially, with semivertical flanges running to metanotum and flanking horn of T1; posterolateral corners of propodeum produced backwards, not pointed; pronotum with sharp epomia and with pronounced crenulata along scutal suture; netrion large, open, transversely foveolate; mesopleuron below tegula with strong, transverse, costate foveolae; pleural depression deep, smooth; mesopleural carina delicate but complete; mesopleuron below carina smooth; posterodorsal margin of metapleuron strongly expanded; metapleural depression narrow but pleural pit large, placed close to pleural-propodeal suture which is doubled in front of pit; metapleuron above hind coxa with foveolate reticulation.

**Wings** reaching to about middle of T4; forewings with short marginal cilia about 1/10 of wing width; submarginalis with about 15 short bristles and running far from fore margin in distal 1/3; marginalis slightly longer than wide, less than half length of stigmalis; stigmalis forming angle of 40° to fore margin; group of microtrichia on fore wing near area of basalis directed towards submarginalis; costal cell with microtrichia; hind wing with cilia less than half width of wing.

**Metasoma** at least 3× as long as body; T1 (25:25 without horn), tapering anteriorly, with pronounced horn slanting at 30° angle and reaching slightly above level of scutellum (Fig. 2); horn cylindrical, posteroventrally with prominent, horizontal horseshoe-shaped rim in basal third; rim with dorsal margin crenulate, and fading anteriorly into irregular rugulose directed towards top of otherwise smooth horn; horn, below rim, concave with irregular rough sculpture originating from anterior part of longitudinal ridges of T1; T2 (63:40); T3 (60:41); T4 (43:38); T5 (40:25); T6 (80:14); T2-T4 laterally somewhat angular due to stronger longitudinal ridge medially, with tergites distinctly ridged with transverse rugulose anastomoses; T5 and T6 hardly ridged but with rows of knobs from which hairs arise. T1 with some hairs laterally; T2 and T3 with sparse hairs medially; T4 with dense hairs converging medially; T5 and T6 with hairs directed posterolaterally.

**Male**

**Bionomics**: Unknown. All Gambian specimens were swept from grasses over a pond in a wood. Similarily, the specimens from the Ivory Coast were collected around an irrigated rice field. The wasp is probably attacking the eggs of some orthopteran associated with marshes.

**Remarks**

We regard the two populations sampled as conspecific despite the fact that the Ivory Coast specimens are all smaller (3.05-3.45 mm compared with 3.82-4.20 mm) and lighter coloured (yellowish rather than brownish). Slight morphological differences in sculpture, etc., may all be correlated to size of body (e.g., relative length of T5 and T6 ranges between 31:66 and 30:51 in the two Gambian paratypes and between 25:52 and 20:34 in the four Ivory Coast paratypes). A possible explanation for the above variation is that this wasp parasitizes the eggs of two closely related host species of different size.

**Anthonyon n. gen.**

Figs. 3-22.

**Type-species**: *Anthonyon mandibulatum* n.sp. (described below).

**Diagnosis** (♀): Stocky, cylindrical forms (Fig. 3) with short, stout appendages; head in dorsal view distinctly...
transversely oval (Fig. 3), or only slightly transverse (Fig. 7); in lateral view head sublenticular (Figs. 5, 6, 9), in one species roundly triangular (Fig. 4) with several (4–5) transverse ridges on frons and vertex; head from in front subquadratic (Figs. 10, 11) or circular (Figs. 8, 12); frons in three species virtually without depression and in one species with distinct, transversely costate depression bordered by ledge below anterior ocellus; ocelli in low or equalateral triangle, with lateral ocelli close to inner orbits; eyes glabrous; occipital carina crenulate, weaker medially; lower genae with few irregular fan-like ridges; clypeus large to small, wider than toruli, with lower margin sinuate (Figs. 10, 11), or pointed (Fig. 8); mandibles bidentate, long and slender (Figs. 18, 20), or short and powerful (Fig. 21); palpal formula 4–2; female antenna 12-segmented, with abrupt 6-segmented clava and radicle about half of scape (Figs. 13–17); male antenna 12-segmented, with short, transverse flagellomere (Fig. 16); skaphion absent; notauli pronounced, crenulate and slightly diverging posteriorly; margins of mesoscutum and scutellum deeply crenulate; scutellum united, semicircular to trapezoidal; metasternum united but dorsum seta sometimes more or less bluntly projecting; propodeum united with posteriori corners not prominent but bluntly projecting over anterolateral corners of T1 and more or less deeply excavate medially; propodeal spiracles large, slit-like; epomia absent and pronotum dorsally with fine horizontal ridge below spiracle; metanotum broad, open below and acutangular carina absent; mesopleural depression deep, its carina distinct to almost absent, and dorsal of depression (below tegula) pleuron with about three horizontal costae; fore wing rather short and broad, with costal cell remarkably broad; submarginalis bow-like, without indication of break point; basalts not indicated but medians and radials visible as traces; marginalis almost forming stigma, postmarginalis absent, stigmatic much angular; hind wing with complete submarginal vein; fore tibia with two to six pronounced spines externally and with several additional spines apically (Figs. 3, 22); mid and hind tibia with 1 or 2 distinct externodermal spines each; in male these spines generally weak; tibial spur formula 1–1–1; tarsal formula 5–5–5; metasoma ovate, with 6 visible tergites in female and 8 in male; T2 and T3 largest, subequal in length; T7 in female entirely internal (probably not attached to ovipositor).

Etymology: The genus is named in honour of Rev. Anthony Watsham (St. Ignatius College, Chishawasha Mission nr. Harare(formerly Salisbury, Zimbabwe) for his generous and energetic contributions to the knowledge of the Zimbabwean fauna of Parasitic Hymenoptera. The gender is neuter (suffix -on in Greek).

Remarks

Among the sixteen tribes of the Scelioninae (Masner 1976), only the Baryconini and the Scelionini may be considered for the classification of Anthonyon. Perhaps the best position of this new genus is in the tribe Baryconini, mainly because of the palp formula (4–2), the pre-
Fig. 3. *Anthonyon mandibulatum* n. gen. and n.sp., ♀ in dorsal view.

- Head in frontal view circular, with clypeus not exposed (Figs. 8, 12); frons with larger polygons bordered by raised margins; fore tibia in female with 3 or 6 spines (Fig. 22) .................... 3
- Fore tibia in ♀ with 2 exteriorian spines (Fig. 3) ... 2
- Fore tibia in ♀ with 2 exetermedian spines (Fig. 3) ... 2
- Head in frontal view almost as high as wide.
genae angularly arched (Fig. 11); head in lateral view with highest point behind posterior ocellus (Fig. 9); mandible with ventral tooth situated 1/3 from apex of dorsal tooth (Fig. 19) (Zimbabwe)

- Head in frontal view higher than wide, genae more parallel (Fig. 10); head in lateral view with highest point above posterior ocellus (Fig. 6); mandible with ventral tooth situated 1/6 from apex of dorsal tooth (Fig. 18) (Somalia) ............... 2. A. altifrons n.sp. 3

3. Head without transverse ridges on frons and vertex (Fig. 5); frons without depression (Fig. 12); head in lateral view lenticular, with long semicircular hairs on frons (Fig. 5); clypeus shaped as in Figs. 10, 11 but much shorter; mandible distinctly tapering apically (Fig. 30); fore tibia with 6 pronounced extramedian spines (Fig. 22) (Somalia) ............... 3. A. spinipes n.sp. 2

- Head with about 5 transverse ridges on frons and vertex (Fig. 4); frons with distinct depression (Fig. 8); head in lateral view subtriangular, with short semicircular hairs on frons (Fig. 4); clypeus subtriangular, pointed apically (Fig. 8); mandible short and broad (Fig. 21); fore tibia with 3 extramedian spines (Sierra Leone) ............... 4. A. cephalotes n.sp. 9

1. Anthonyon mandibulatum n.sp.
Figs. 3, 9, 11, 14, 16, 19

Type area: Zimbabwe (formerly Rhodesia).
Type material: Holotype ♀, Zimbabwe, Harare-Chinhoyi Mission, yellow pan trap, X–XII.1974 (Anthony Watsham) [CNW No. 17773]. — Paratypes. From same locality as holotype but II–III.1974 ♀; right clava with 4 apical segments missing, left antenna and left pair of wings on slide [HUGG]; same locality but IV.1982 ♂ (A. Watsham) [CNW No. 17773].

Diagnosis (♀ ♂). Stout, black species with hyaline wings; head subrectangular, as high as wide, with genae angularly arched; mandibles with ventral tooth situated 1/3 from apex of dorsal tooth; head and mescutum, except for smooth scutellum, coriaceous, with scattered large, shallow, setigerous punctures, which are very dense on pronotum; metastoma ovate, with dense, large, foveolate, setigerous punctures becoming gradually finer towards apex; fore and hind tibiae in female with 2–1–1 extramedian spines respectively and in male with formula 0–1–0.

Etymology. The name mandibulatum refers to the unusual development of the mandibles of this species.

Description

Female

Length 2.15 mm. Body black, with metastoma slightly lighter; antenna brown with blackish clava; mandibles brown with darker teeth; legs light brown with coxae and femora darker; wings glassy with veins pale and microtrichia whitish.

Head in dorsal view transverse (Fig. 3), less than twice as wide as long (56:33), with frons and occiput evenly, not strongly arched; occipital carina fine, crenulate; eyes oval, distinctly longer than rather arched temples (25:10), and inner orbits strongly converging anteriorly; ocelli of ordinary size; posterior ones less than half their diameter from inner orbit; POL : LOL : OOL = 9 : 12 : 2; A1 shorter than shortest width of vertex between eyes (21:27). In lateral view (Fig. 9) head (39:58) with frons rather convex, vertex distinctly elevated with highest point behind posterior ocellus, and eyes oval (22:30); malar space subequal to shortest width of eye and occipital carina along gena more pronounced than mandibles. Head from in front (Fig. 11) almost as high as wide (54:58), with genae angularly ventrally and subocular sutures broad and deep; clypeus with anterior margin subtrideterminate and anterolateral corners sharp; mandibles appearing undeterminate (Fig. 19), long and slender with ventral tooth 1/3 from apex of dorsal tooth, dorsally with shallow setigerous depression; frons just above toruli with remnants of declivity and with some rugulose sculpture; otherwise head covered by fine-meshed, dense, coriaceous sculpture and with scattered, large, shallow, slightly irregular, setigerous punctures; anterior ocellus encircled by fine, irregular ridge continuing down on frons; hairs on head of medium length.

Antenna (Fig. 14) with A1 to radicis as 21:10.5 and with antennomeres in proportions 21:7; 9:5; 4:4; 3:4:5:2.5:5.5:3.6:5.5:6:9:5:9; 4:5:9:4:9:4:9; 5:5:7:5.

Metasoma subrectangular (Fig. 3), slightly wider than high (55:46), with pronounced protstral shoulders, notauli broadest posteriorly and here slightly diverging, fading out and strongly diverging anteriorly; scutellum more than twice as wide as long (41:17); metanotum glabrous, with dorsally slightly elevated as strongly foveolate strip; mescutum with fine-meshed, coriaceous sculpture and scattered, large, shallow, setigerous punctures (with hairs rather long, semidecumbent); side lobes of mescutum with submedian, longitudinal, smooth parapsidal line; scutellum smooth with few setigerous punctures along posterolateral margin; propodeum broad with posteromedian margin as A-shaped incision continuing as two short parallel median keels in anterior 1/3; propodeum on each side of
keels with irregular branching costa, and foveolate, medially glabrous, and pilose exterior to this costa: sides of mesosoma predominantly coriaceous; pronotum with pronounced, setigerous punctures dorsally and posteriorly, and with anterior margin crenulate; metanotum with setigerous punctures; mesopleural depression finely and transversely foveolate-striate: metapleuron anterodorsally distinctly separated from propodeum but behind large slit-like spiracle only vaguely separated: posteroventral corner of metapleuron produced at hind coxa.

Wings hardly reaching tip of T5 (Fig. 3); fore wing broad (135:50), and marginal cilia very short; submarginals in fore wing with about 10 bristles, not exceeding fore margin of wing, and stigmata forming 55° angle withalar margin; hind wing (98:25) with cilia about 1/9 of wing width. Fore tibia with 2 intermedian spines, mid and hind tibiae with 1 such spine each.

Metasoma (105:55) subequal to rest of body; T1 (16:48) with anterolateral corners slightly produced, medially somewhat elevated but barely produced anteromedially and with several irregular, longitudinal ridges; lateral to this median part, anterior margin with fine groove; T2 (30:55) subequal to T3 (28:55); T4 (20:51); T5 (10:36); T6 (5:20); tergites with even mesh of large, promonounced, densely foveolate, setigerous punctures, each with one moderately long seta; this sculpture strongest on T1–T3, becoming gradually finer towards apex of metasoma.

Male

Length 2.15 mm. Colour as in female, but antennae and legs slightly darker.

Head in dorsal view subequal to that of female (33:52), and A1 somewhat shorter than least width of vertex (22:27); occipital carina at meson weak, with only crenulae left. In lateral view head (35:54) subequal to that of female, eye more rounded (20:32), and malar space clearly shorter than shortest width of eye (15:20). From in front, head (54:52) with clypeus shorter and midlooth of clypeus more pronounced than in female; genae slightly less angular and frons above toruli with small but distinct declivity, divided by fine median carina.

Antenna (Fig. 16) with radicle less than half length of A1; antennomeres in proportions 20:7; 6:5; 6:6; 4.5:6.5; 6:7; 5:6:5; 5:6:5; 4.5:6.5; 5:6:5; 5.5:6:5; 7.5:6.5; A5 with bulging smooth spot on interior side.

Metasoma as in female but with coriaceous sculpture posteriorly on midlobe more delicate; propodeum more uniformly foveolate, without distinct, irregular, branching costa on each side of median carinae.

Wings and legs as in female, but wings surpassing tip of metasoma and only mid tibia with fine, rather distinct, intermedian spine.

Metasoma more or less as in female, but with short lunate T7 and T8 fingernail-like, vertical.

Bionomics: Unknown, but because of the spinose tibiae, the powerful mandibles and the large clypeus, we suppose that the female searches in soil for host eggs.

Remarks

The differences between the sexes (e.g. in the frontal declivity, the shape of the clypeus, the malar space and the propodeum) and the different formula of the intermedian spines on tibiae, are believed to represent sexual dimorphism.

2. Anthonyon altifrons n.sp.

Figs. 6. 10. 15. 18.

Type area: Somalia.


Diagnosis (9): Very similar to A. mandibulatum, but differs in the following: head in frontal view slightly higher than wide, genae more parallel and only slightly angular; head in lateral view with highest point above posterior ocelli, thus front less convex; mandible with ventral notch 1/3 from apex of dorsal tooth; toruli, mid and hind tibiae with 2–3–1 intermedian spines respectively.

Etymology: The name refers (in Latin) to the unusually high frons in this species.

Description

Female

Length 2.28 mm. Colour basically same as in A. mandibulatum.

Head in dorsal view (50:30) with occipital carinae fading out medially: POL:LOL:OOL = 17:11:1.5: A1 shorter than shortest width of vertex between eyes (21:25). In lateral view head (Fig. 6) (54:59; toruli somewhat more produced and highest point of vertex above posterior ocel-
lus. Head from in front (Fig. 10) higher than wide (58:50), with genae almost straight, not particularly angulate above base of mandibles; clypeus as in *A. mandibulatum* but mandible with ventral tooth 1/6 from apex of dorsal tooth (Fig. 18); frons above toruli without declivity.

*Antenna* (Fig. 15).

*Mesosoma* with scuto-scutellar suture clearly crenulate also medially; mesoscutum slightly depressed and angularly bent at parapsidial lines; scutellum in lateral view gradually sloping towards dorsellum; dorsellum more transversely developed, almost as long at sides as at meson; surface of propodeum only foveolate without
any branching costae on each side of median incision; pronotum only with scattered punctures dorsally (lateral view).

Wings basically the same as in A. mandibulatum. Fore, mid and hind tibiae with exteromedian spines 2–2–1 respectively.

Metasoma as in A. mandibulatum.

Male

Unknown.

Bionomics: Unknown.

3. Agyon spinipes n.sp.

Figs. 5, 12, 17, 20, 22

Type area: Somalia.

Type material: Holotype ♀, Somalia, Mogadiscio, Af-
got-Shabelli Valley, 1–4 IV, 1977 (F. Bin), Malaise trap [CNC No. 17798].

Diagnosis (♀): Dark, robust, cylindrical species, with wings slightly yellowish; head circular, without raised transverse ridges on frons and vertex; frons without median depression and head in lateral view subglobose; frons with long semierect hairs; clypeus wide but short, rectangular with sinuate lower margin; mandible distinctly tapering apically and ventral tooth less than 1/6 from apex of dorsal tooth; fore tibia with 6 exteromedian spines, mid and hind tibiae with 2 spines each.

Etymology: The name refers (in Latin) to the abundance of spines on the legs, the fore tibia in particular.

Description

Female

Length 2.63 mm. Black, with legs and antennae yellow, except for dark brown clava; wings slightly yellowish with light brown veins.

Head in dorsal view clearly wider than long (62:43), similar to fig. 3 but more globose with frons more convex; vertex rounded curved towards antennae with pronotum subequal to shortest length of vertex between eyes; POL: LPL: OOL = 20 : 14 : 2. In lateral view head (Fig. 5) higher than long (60:44) and shortest width of eye (21:33) subequal to malar space (21:18); frons rather strongly curved, subocular suture rather deeply impressed and occipital carina along genae distinctly foveolate. Head from in front (Fig. 12) circular (60:62) with genae strongly rounded and space outside subocular sutures not particularly wide; clypeus of same shape as in figs. 10, 11 but much shorter, hidden under toruli; mandible (Fig. 20) with broad base and distinctly tapering apically and ventral tooth placed less than 1/6 from apex of dorsal tooth; head covered by granular microsculpture and with large setigerous punctures placed in irregular polygons with raised borders; borders of polygons forming irregular ridges running down frons and radiating up genae from mouth; hairs on frons and vertex long, but only about 1/4 as long as on genae; frons without depression.

Antenna (Fig. 17) as in next species but clava slightly narrower.

Metasoma with rather distinct parapsidal lines and setigerous punctures on mesoscutum rather scattered (cf. Fig. 3), with more than one diameter between each, or less; otherwise mesoscutum covered by a dense granular reticulation leaving posterior tips of sidelles and posterior third of midlobe smooth and shiny as scutellum; dorsellum almost semicircular, foveolate and not especially projecting; propodeum medially almost semicircularly excavate with median keels very short; inner corners of lateral flanges of propodeum most pronounced and from here a more distinct costa obliquely transverse to flank towards base of wings; outside this costa propodeum hairy and whole propodeum foveolate; propodeal spiracles slit-like, rather large; pronotum in lateral view with sharp percurrent; horizontal ridge below spine: above this ridge, pronotum with large, deeply impressed setigerous punctures and below ridge punctures smaller and denser; anterior margin of pronotum thickened, circulate behind, netron long, open below, reaching spine and setigerous punctures transversely foveolate; mesopleuron with setigerous punctures anteriorly, mesopleural carina distinct, percurrent; mesopleural depression deep, glabrous, only with rather fine transverse foveolae, most pronounced at posterior edge of depression; metaeleuron roughly sculptured due to setigerous punctures and with sharp edge anterior of propodeal spine.

Wings as in fig. 3, but marginal cilia in fore wing slightly longer. Fore tibia with about 6 strong exteromedian spines placed in an irregular longitudinal row and apex with some more spines (Fig. 22); mid and hind tibiae with 2 exteromedian spines each.

Metasoma slightly shorter than rest of body;
T1 (15:51) subtrapezoidal, anteromedially rectangularly produced to fit excavation on propodeum and with deep anterolateral depressions to fit posterolateral flanges of propodeum: T2 (35:65); T3 (31:64); T4 (22:60); T5 (15:45); T6 (7:30); sculpture and setation of metasoma similar to next species, but punctures not so dense and their borders not forming distinct, elongate costae or keels; apex of metasoma as a sharp lunate blade.

**Male**

Unknown.

**Bionomics:** Unknown.

4. *Anthonyon cephalotes* n.sp.  
Figs. 4, 7, 8, 13, 21.

**Type area:** Sierra Leone (West Africa).  
**Type material:** Holotype ♀. Sierra Leone, Freetown.
V. 1970 (D. F. Owen). Malaise trap; right antenna with 3 apical segments missing; left antenna and one maxillary palpus mounted on the point [TOWNES].

Diagnosis (♀): Closely related to *A. spinipes*, but head with about 5 pronounced transverse ridges on frons and vertex and anterior ridge bordering a distinct frontal depression; head in lateral view rounded triangular; clypeus small, triangularly pointed and mandibles short, strong and subdeltate; dorsellum produced into subrectangular blunt tooth; posterolateral corners of propodeum bluntly projecting over T1 and propodeum medially strongly rectangularly excavate to fit anteromedian produced part of T1; wings not surpassing tip of ovate metasoma; fore tibia with 3 exterior spines in mid and hind tibiae with 1 such spine each; setigerous punctures on metasoma dense, borders of punctures raised, forming elongate irregular costae.

Etymology: The specific name is derived from the Greek *kephalatos* in the sense of an unusual head.

Description

Female

Length 3.35 mm. Black, with legs (except for darker coxae). Radicle, scape and A2-A5 yellowish-brown; wings almost hyaline, with veins and microtrichia light brown.

Head (Fig. 5) in dorsal view slightly transverse (67:74); frons and vertex with about 5 transverse ridges, first ridge (on frons) forms a ledge, second one (on vertex) concave medially to house anterior ocellus and three remaining ridges within ocellar area; occipital carina pronounced, complete, crenulate; eyes distinctly longer than temples (35:25); posterior ocelli virtually contiguous with inner orbits and A1 shorter than least width of vertex between eyes (30:40); anterior ocellus concealed under second transverse ridge; POL:OOL:OOL = 31:26:1. In lateral view head (70:71) about as long as high; upper frons plus vertex with about 5 ridges (Fig. 4); shortest width of eye (37:38) longer than malar space (37:25). Head from in front (Fig. 8) subcircular (71:74), with genae strongly rounded and space below deep, subocular suture wide; genae near mandibular base with 3-4 fan-like, irregular ridges or grooves; clypeus small, triangular, pointed apically and not appreciably wider than toruli; exterior surface of broad, subdeltate mandibles (Fig. 21) with several setigerous punctures, and mandibles distinctly hollowed out on interior side. This hollow bordered by sharp edges; frontal depression shallow, microcorniaceous, with numerous transverse wrinkles interconnected to main polygones laterally on frons, median keel ascending from between toruli to middle of frontal depression, and depression bordered above by arc of first transverse ledge: sides of frons, temples, vertex and occiput with large irregular polygones with raised borders and with one long seta in each temples behind eyes with area of strong granular microsculpture on borders between polygones (polygones here approaching shape of shallow, setigerous punctures).

Antenna (Fig. 13) with radicle less than half length of A1 (13:31); antennomeres in proportions 31:8; 12:5; 7:4; 5:5; 5:6; 5:10; 6:12.5; 6:13; 6:13; 6:12.5; 8:11.

Mesosoma cylindrical, as high as wide; pronotal shoulders perfectly rounded but broadly visible from above; notauli deep, strongly diverging anteriorly; sidolobes medially with fine, shallow parapsidal furrow parallelling notauli. Abbreviates in anterior half; mesoscum and scutellum distinctly crenulate along margins; scutellum almost semicircular (27:50), nearly twice as wide as long; sculpture on mesoscutum consisting of rather dense, setigerous, deep punctures with borders densely coriaceous; punctures absent medially on sidolobes, and coriaceous sculpture fading out in posterior half of midlobe, but covering sidolobes; scutellum only with rather dense mixture of large to small setigerous punctures; median keels of propodeum reduced to points, and posterolateral corners, especially inner corners, projecting bluntly, flange-like over anterolateral corners of T1; from inner corners a more pronounced costa obliquely transverses flange towards base of wings; propodeum in lateral half covered by short pilosity and spiracles as narrow slits; pronotum with percurrent, horizontal ridge extending from cervical part of pronotum to upper corner of metanotum; sculpture of pronotum above this ridge with large, setigerous punctures as on occiput, below ridge with small, setigerous punctures; anterior margin of pronotum thickened, crenulate behind; metanotum covered with deep setigerous punctures, mesopleuron anteriorly with deep, setigerous punctures; mesopleural carina distinct, percurrent, mesopleural depression deep, glabrous, transversely foveolate or striate; metapleuron with deep, rather large, setigerous punctures and anterodorsal suture ridge-like in front of very narrow spiracle.

Wings as in Fig. 3, reaching to middle of T5;
fore wing broad (190:70), and marginal cilia very short, submarginalis with about 11 bristles, not exceeding fore margin of wing; marginalis spot-like, and stigmalis forming 55° angle with alar margin; hind wing (136:36) with cilia about 1/12 of wing width; coxae anteriorly hairy and posteriorly glabrous. Fore tibia with 3 pronounced spines exeromedially and with several spines apically; mid and hind tibiae with 1 exeromedian spine each.

Melasoma (162:75) ovate, slightly shorter than rest of body; T1 (23:63) subtrapezoidal, anteromedially subrectangularly produced, with anterolateral depressions giving way to overlapping, posterolateral corners of propodeum; T2 (43:74); T3 (40:75); T4 (22:65); T5 (15:43); T6 (11:30); T1 with 4 longitudinal, irregular keels medially, otherwise with deep, irregular, setigerous punctures; T2-T4 with deep, elongate, setigerous punctures, of which lateral borders form longitudinal keels; punctures on T5 fading out; T6 subtriangular, with few shallow punctures, and apex as a sharp truncate blade.

References

