

Two new species of *Afrocyrona* from Socotra Island (Coleoptera: Trogossitidae)

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Abstract. Two new species of Trogossitidae: Lophocaterinae: Ancyronini (Coleoptera) from Socotra Island are described and classified within the genus *Afrocyrona* Kolibáč, 2007. One species, *Afrocyrona volatilis* sp. nov. is winged, while the second described species, *A. pedestris* sp. nov., is brachypterous and thus flightless. Both species were found to be related to known members of *Afrocyrona* and thereby confirm a possible biogeographical relationship of Socotra to the South African fauna. All species of *Afrocyrona* share hidden feeding habits in litter or rotten wood, unique in this group of beetles.

Key words. Coleoptera, Cleroidea, Trogossitidae, Lophocaterinae, Ancyronini, *Afrocyrona*, new species, Yemen, Socotra

Introduction

The subfamily Lophocaterinae is distributed worldwide and its classification belongs to the most complex issues of trogossitid systematics. The subfamily has been divided into three tribes (KOLIBÁČ 2006), i.e. Decamerini, Lophocaterini, Ancyronini, whose mutual relationships as well as generic composition are still unclear. In contrast to rather primitive herbivorous Lophocaterini, Ancyronini constitutes an advanced group of lophocaterines, mostly with modified mouth parts adapted to predaceous way of life. One of the genera, *Ancyrona* Reitter, 1876, is one of the most species-rich and complex groups of Trogossitidae and its sixty extant species are widely distributed over the Palaearctic, Ethiopian (incl. Madagascar), Oriental, and Australian Regions.

The African fauna of Ancyronini was studied by KOLIBÁČ (2005, 2007) who described two South African and one Madagascan species of *Ancyrona* as well as five informal species-groups within the genus and established *Afrocyrona* Kolibáč, 2007 for three new South African species. A record of new, perhaps endemic, lophocaterines from Socotra presented herein uses results of the later mentioned work and brings interesting information on distribution

and morphology of the group of beetles. With certain prudence, it can be concluded from the evidence mentioned below that the two new species are phylogenetically and biogeographically related with South African fauna of Ancyronini, probably, considering the similar way of life and several morphological characters, with the genus *Afrocyrona* in which they are tentatively described.

Material and methods

The separated body parts (head, abdomen and front legs) of softened beetles were briefly boiled in 10% KOH solution. The mouth parts were dissected from the head capsule in a drop of glycerol. The female copulatory organs were stained in Congo red. After examination, all dissected body parts (legs, male and female copulatory organs, wings, mouth parts, abdominal segments) were mounted in a drop of dimethyl hydantoin formaldehyde on a card and pinned under the specimens.

Ink drawings were made using a camera lucida and a compound microscope (Olympus BX41). Detailed photographs of small, semi-transparent body parts were also taken with the Olympus BX41 fitted with an Olympus C5060 digital camera. Other photographs of specimens were taken with a Leica Z16Apo. Body parts were measured with LAS 3.6.0 software. QuickPhoto Camera 2.3 with DeepFocus 3.1 module and LAS 3.6.0 programs were used to stack certain images.

The holotypes of the newly described species are deposited in the National Museum, Prague, Czech Republic (NMPC), and the paratype of *Afrocyrona volatilis* sp. nov. is deposited in the Moravian Museum, Brno, Czech Republic (MMBC).

The following abbreviations are used in figures: asm – apical spines (part of lacinia); bcx – bursa copulatrix; bsg – basigalea; bss – basistipes; cxs – coxita, row of setae; em – empodium; ep – epipleuron; lac – lacinia; mas – spine (modified seta); mod – median oviduct; mt – mentum; mta – ‘mental apodeme’ (term explained in description); pap – phallobasic apodeme (term explained in description); par – paramere; prs – prostheca; pst – phallobasic strut (term explained in description); spg – spermathecal gland; st IX – remnant of abdominal sternite IX; tr – trochanter; vg – vagina.

Taxonomy

Afrocyrona Kolibáč, 2007

Type species. *Afrocyrona dwesae* Kolibáč, 2007, original designation.

The present classification of the two species newly described within *Afrocyrona* is based on the following synapomorphies: (1) head almost hypognathous, (2) frontoclypeal suture absent, (3) ovipositor with distinct row of setae along apex of coxitae. They also share a common tendency to winglessness which is likely connected with their hidden way of life in litter or rotten wood in all the known species. In this way, the genus also distinctly differs from neighbouring *Ancyrona*, whose species are rather surface dwellers and insect hunters. Morphologically, *Ancyrona* differs in (1) prognathous/orthognathous head, (2) frontoclypeal

suture mostly present, (3) ovipositor irregularly pubescent at apex of coxitae, (4) functional wings.

See Table 2 for a synoptic differential diagnosis between both new species.

Afrocyrona volatilis sp. nov.

(Figs 1–3, 4E, 4F, 5E)

Type material. HOLOTYPE: ♀, 'YEMEN, SOCOTRA Island / Hagher Mts., SCAND Mt. env. / broad-leaved evergreen woodland / 16.–18.vi.2012 / 12°34.6'N, 54°01.5'E, 1450 m'; 'Socotra expedition 2012 / J. Bezděk, J. Hájek, V. Hula / P. Kment, I. Malenovský / J. Niedobová & L. Purchart leg.' (NMPC). PARATYPE: ♀, 'YEMEN, SOCOTRA Island, 18.vi. / Hagher Mts., WADI MADAR, 2012 / montane shrubland with / *Cephalocroton socotranus* / 12°33.2'N, 54°00.4'E, 1170 m'; 'Socotra expedition 2012 / J. Bezděk, J. Hájek, V. Hula / P. Kment, I. Malenovský / J. Niedobová & L. Purchart leg.' (MMBC).

Description. *Body length* (from elytral apex to clypeus): Holotype 2.7 mm, paratype 3.2 mm. For other measurements see Table 1.

Coloration and sculpture (Figs 2C–E, 4E–F): Body oval, moderately convex; all dorsal surface dark brown to black but yellow-brown lateral margins of pronotum, margins of elytra, two transverse patches in each elytron, legs, and antennomeres 1–6 (i.e., excepting club). Head finely, sparsely punctate (interspaces larger than diameter of punctures); punctures with thick decumbent whitish setae. Pronotum densely punctate (interspaces less than diameter of punctures), punctures larger than those on head; pronotum covered with thick semi-erect whitish setae; lateral margins finely punctate, with sparser pubescence. Each elytron with light L-shaped patch in humeral third and transverse patch in apical quarter, the latter not touching suture and side margin; elytral punctation regular, composed of about 14 rows, interspaces among rows inconspicuously elevated; pubescence similar to that on pronotum – composed of thick, semi-erect setae which are whitish in area of light patches and dark on brown-black background. Ventral surface sparsely punctate, punctures relatively large and distinctly separated (interspaces larger than diameter of punctures); anterior and posterior margins of cranium, hypomer area of prothorax and basal margin of metaventricle without punctation. Pubescence of ventral surface scarce, conspicuous only on metaventricle, formed by short, sparse, decumbent pale setae. Legs without sculpture, sparsely pubescent in same way as metaventricle.

Head (Fig. 2A): almost hypognathous (position in picture artificial), frons distinctly flat; gular sutures widely separated at base, extending to approximately midpoint of cranium, strongly convergent; frontoclypeal suture inconspicuous or weak, not arcuate or emarginate; antennal grooves on ventral side of cranium short, shallow; antennal sockets not visible from above; eyes relatively small (space between them more than nine times as wide as eye diameter), distinctly elevated, not emarginate, elliptic, their greater part situated ventrally; epicranial acumination inconspicuous; cervical sclerites well-developed.

Maxilla (Figs 1C, 5E): lacinia relatively robust, with seemingly three spines at apex in pattern 2+1 (two apical spines are part of body of lacinia while spine beneath them is modified seta), and with several thin and soft setae; basigalea relatively large, pigmented; galea weakly clavate, without spines and ciliate setae; with numerous thick and rigid elongate setae and thin soft setae among them; mediostipes perfectly free, not fused with

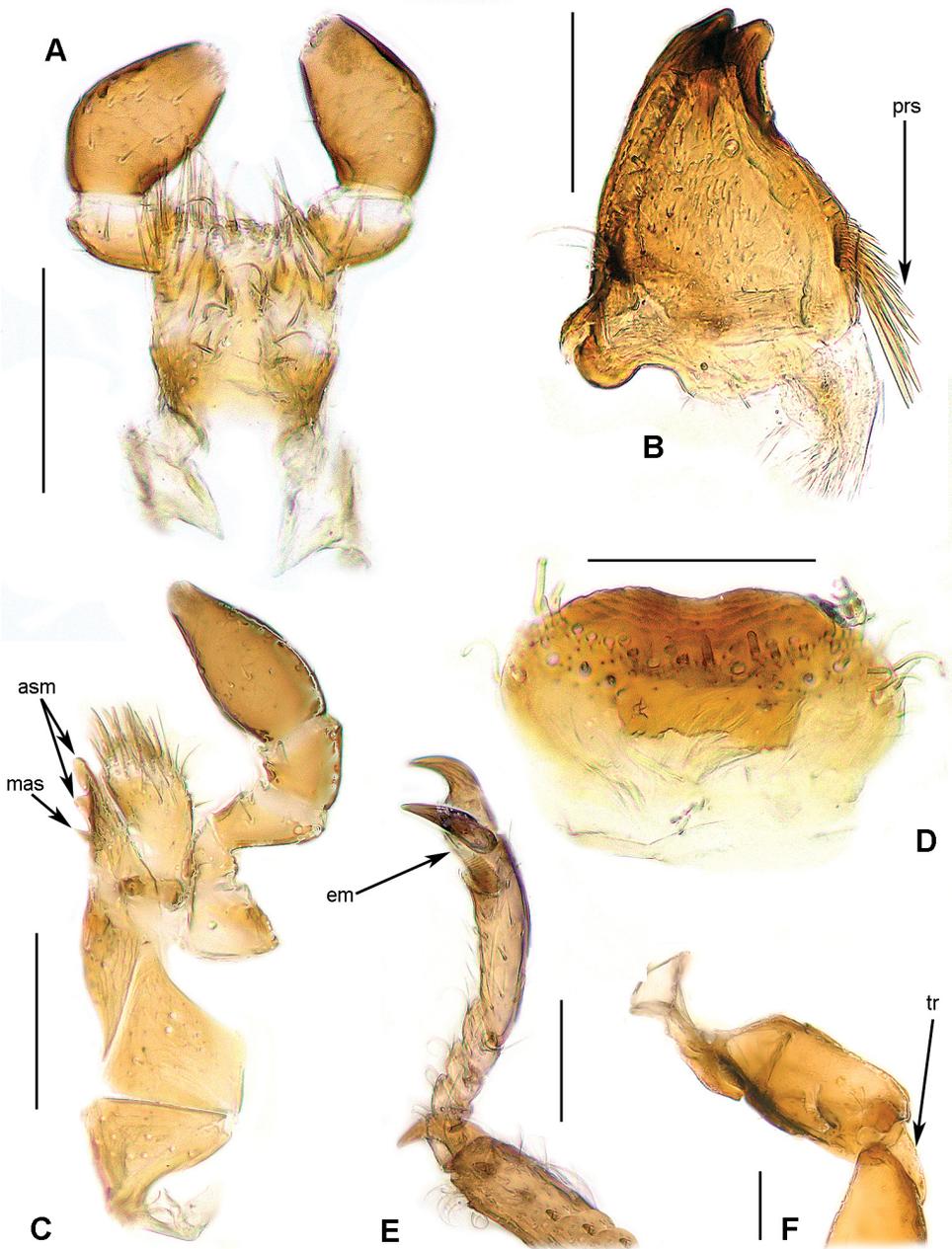


Fig. 1. *Afrocyrona volatilis* sp. nov., female paratype: A – labium (mentum removed); B – right mandible ventrally; C – maxilla; D – labrum; E – protarsus; F – procoxa with trochanter. Scale bars = 0.1 mm. For abbreviations see Material and methods.

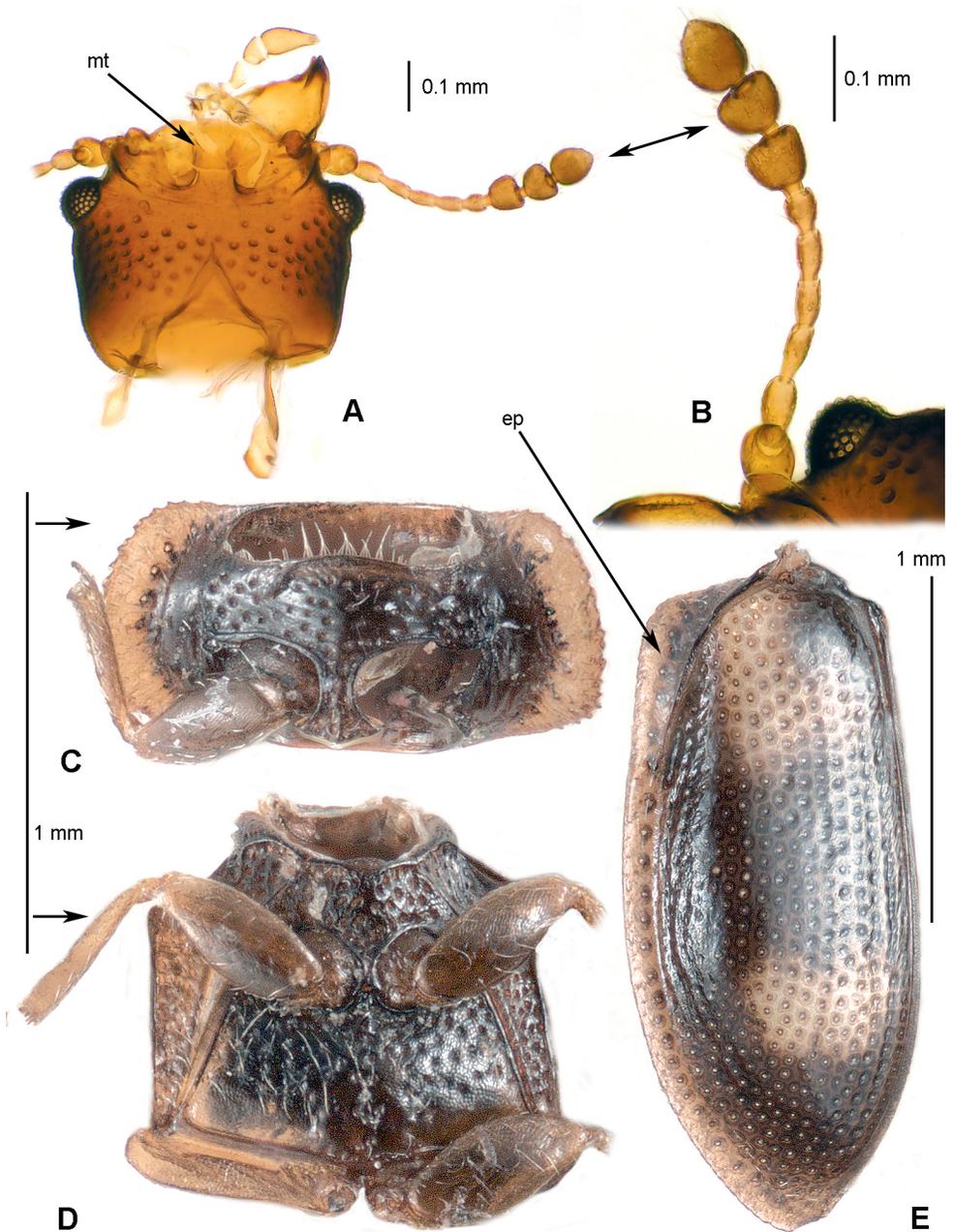


Fig. 2. *Afrocyrona volatilis* sp. nov., female paratype: A – cranium ventrally (with one maxilla, mandible and mentum); B – antenna, detail; C – prothorax ventrally; D – meso- and metathorax ventrally; E – right elytron, ventral view. For abbreviations see Material and methods.

lacinia, quadrangular in shape; basistipes probably fused with lacinia; palpifer relatively small, trapezoidal, not denticulate along outer margin; maxillary palps tetramerous, terminal palpomere conical, elongate.

Mandible (Fig. 1B): with two apical teeth situated side by side (in horizontal axis); medial tooth absent; mola absent; prostheca situated along cutting edge, formed by tuft of long, robust setae; transparent appendage (not pubescent) situated beneath cutting edge (cf. *Trichocateres*, KOLIBÁČ 2010: 39); basal notch weakly developed.

Labrum (Fig. 1D): free (not fused with cranium); oval, emarginate in apical part; epipharynx without distinct sclerites; (lateral) tormal processes not separated from body of labrum and not connected in middle; labral (dorsal) sclerite with several thick setae along lateral margins, epipharynx with transverse row of stout sensillae.

Labium (Figs 1A, 3F): submentum without ctenidium; mentum trapezoidal, anterior corners extended, anterior margin emarginate, lateral margins rounded; prementum not perfectly divided into two parts; ligula transparent but rigid, weakly emarginate, without ciliate setae, with long pale setae; 'mental apodeme' (sclerites beneath mentum or between mentum and prementum) composed of two trapezoidal sclerites; hypopharyngeal sclerite(s) (frequent cleroid structure on hypopharyngeal membrane between mentum and submentum) absent; hypopharynx without longitudinal strip(s) of sensillae; labial palps trimerous, terminal palpomere shorter than labial one, less conical.

Antennae (Fig. 2B): with nine antennomeres; antennal club trimerous, relatively loose; antennomeres 1–6 symmetrical, 7–9 very weakly asymmetrical, without conspicuous sensorial fields, with sparse pubescence; scape robust, pedicel smaller, shorter than antennomere 3, antennomeres 4–6 also shorter than 3; antennae relatively short, extending backwards to midway along pronotum.

Prothorax (Figs 2C, 4E–F): pronotum transverse; anterior margin weakly emarginate (arcuate) or nearly straight, anterior corners not projecting, rounded; lateral margins rounded, excavate; lateral edge present, finely denticulate; prosternal process distinctly dilated at apex, with sharp side corners; procoxal cavities externally narrowly open, closed to halfway by postcoxal projections, internally open; trochantin slender and small; inner part of hypomeron without longitudinal line; anterior margin with long pubescence.

Mesothorax (Fig. 2D): prepectus present in anterior part of mesepisternum only, absent above mesoventrite; mesocoxal cavities narrowly separated, externally widely open; mesoventral process shorter than coxal diameter; projection of metaventrite reaches approximately towards basal quarter of mesocoxae; mesotrochantin minute; scutum relatively wide, scutellum oval.

Hind wing (Fig. 3A): well-developed; radial cell open, moved downwards; r4 missing; pigmented fleck (below Rc) small, pale, not complete; medial field with all four veins, cross-veins between MP3–MP4 and MP4–AA1+2 missing (wedge cell absent); MP3 short (reduced in size); wing weakly pigmented above remnant of vein Rp2.

Metathorax (Fig. 2D): metaventrite flat and wide, distinctly narrowed towards anterior portion, widely bordered along lateral margins; discriminial line (discrimen) inconspicuous; paracoxal sutures well-demarcated, parallel with coxae, narrowly separated from base of metaventrite; metepisternum distinctly triangular; metanotum rectangular, wide.

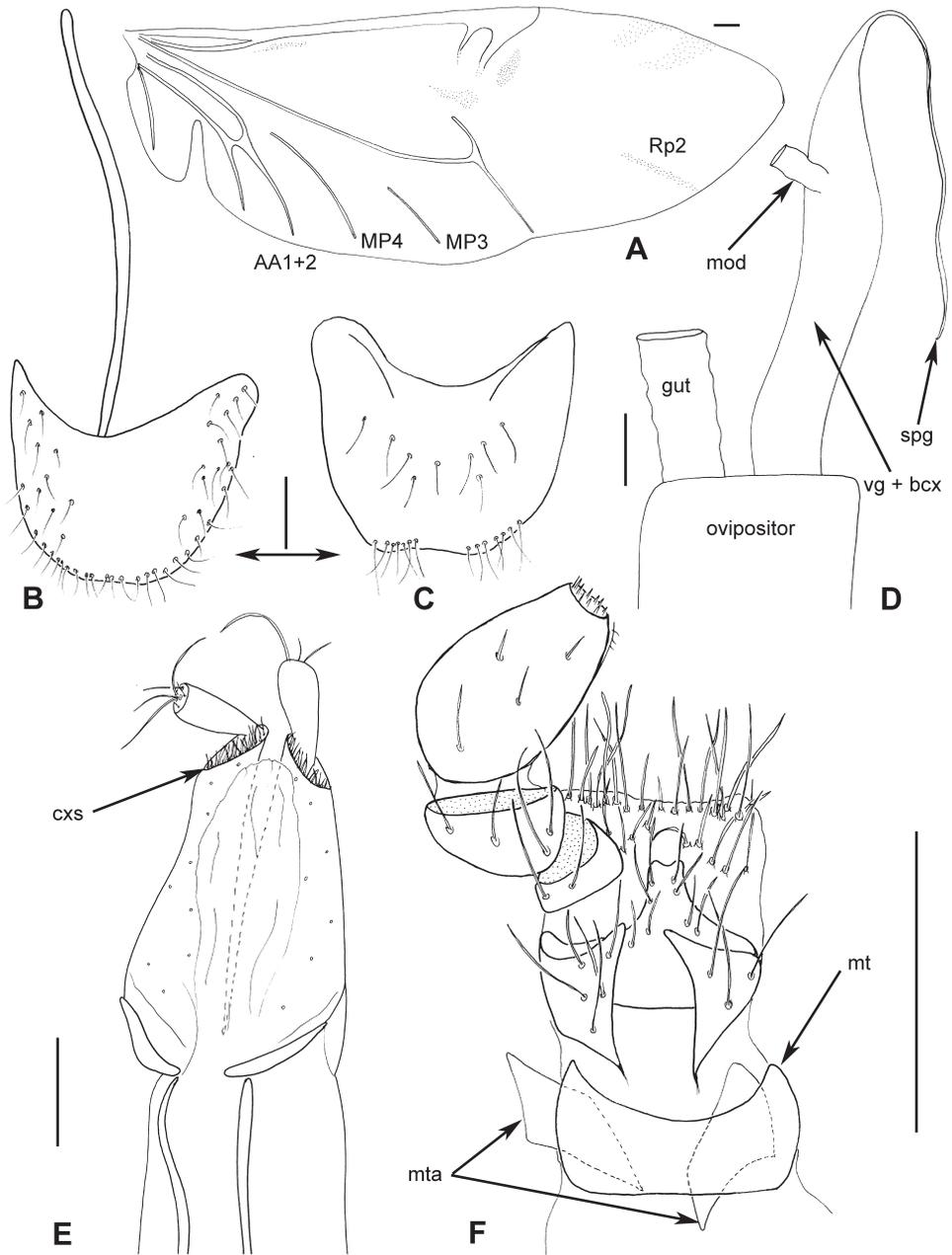


Fig. 3. *Afrocyrona volatilis* sp. nov., female paratype: A – wing; B – sternite VIII; C – tergite VIII; D – internal copulatory organs; E – ovipositor, apical part; F – labium. Scale bars = 0.1 mm.

Table 1. Measurements of *Afrocyrona volatilis* sp. nov. and *A. pedestris* sp. nov. (HT – holotype, PT – paratype).

Measurements (in mm)	<i>A. volatilis</i> HT	<i>A. volatilis</i> PT	<i>A. pedestris</i> HT
Body without mandibles	2.73	3.24	2.54
Head, length of visible part	0.28	0.34	0.24
Head, max. width incl. eyes	0.64	0.82	0.67
Head, max. width excl. eyes	0.58	0.73	0.60
Head, mean width between eyes	0.51	0.65	0.54
Eye, longitudinal diameter	0.11	0.14	0.10
Antenna, total length	0.67	0.78	0.61
Antenna, length of scape	0.08	0.10	0.08
Antenna, length pedicel	0.07	0.09	0.07
Antenna, length of 3-segmented club	0.26	0.29	0.24
Pronotum, length	0.51	0.67	0.52
Pronotum, max. width	1.12	1.43	1.13
Elytra, max. width	1.37	1.76	0.68
Elytron, max. length	1.94	2.18	1.73

Table 2. Differential diagnosis between *Afrocyrona volatilis* sp. nov. and *A. pedestris* sp. nov. The particular character states are explained in detail in descriptions or illustrated.

Character	<i>A. volatilis</i> sp. nov.	<i>A. pedestris</i> sp. nov.
Frons, punctuation	interspace = 2× diameter of puncture	interspace = 3–5× diameter of puncture
Head, prothorax ventrally	punctures separated	punctures conjoined
Dorsal pubescence	semierect thick setae	decumbent scale-like setae
Pronotum	densely punctate	sparsely punctate
Elytra	with two light brown patches	without patches
Elytra, side margins	moderately explanate	narrowly explanate
Wings	well-developed	rudimentary
Meso- and metatibiae	apical spurs small, indistinct	apical spurs distinct

Elytra (Figs 2E, 4E–F): regularly punctate, with moderately wide epipleura conspicuous along whole length of elytra; interlocking mechanism not developed; elytra without distinct longitudinal carinae; lateral margins of elytra narrowly explanate.

Legs (Figs 1E–F, 2C–D): procoxae not projecting, transverse; mesocoxae oval, metacoxae extended to lateral margin of metathorax; trochanters relatively small, triangular; femora weakly clavate; tibiae with row of small spines along outer margin; tibial apical spur pattern 1(2)-2-2 (2nd spur of protibiae reduced in size); large protibial spur distinctly hooked; apices of meso- and metatibiae with row of ca. 3 spines; tarsomere 1 in all pairs of legs conspicuous, approximately as long as tarsomere 2; tarsomere 5 as long as, or slightly longer than, 1–4 combined; tarsal lobes absent; claws without denticles; empodium large, projecting, bisetose; tarsal formula 5-5-5.

Abdomen (Figs 3B–E): six ventrites distinctly visible; female sternite VIII weakly emarginate at apical margin, with setae along apical margin and in centre; female tergite VIII straight

or rounded at apex, with long spiculum; ovipositor relatively short, reaching posteriorly beyond base of sternite VI; coxitae with row of setae along concave apex; coxital styli relatively large, truncate at apex; vagina and bursa copulatrix connected into single membranous sac; spermatheca not observed, only (spermathecal) gland extending from apex of membranous sac.

Differential diagnosis. See Table 2.

Etymology. The species name is Latin adjective *volatilis* (-is, -e) = flying, able to fly, winged.

Biology. Both specimens were knocked down from shrub branches in mountainous forest (see the section on biology of the next species). See BATELKA (2012) for details on the species habitat.

Gut contents of the dissected paratype consisted of abundant remnants of detritus and perhaps mould spores. No fragments of insect cuticle were observed. Unlike advanced lophocaterines (*Ancyrona*), the species is probably not exclusively predaceous but maybe fungivorous/herbivorous and partially predaceous. Such way of life is also supposed in some other lophocaterines, including South African species of *Afrocyrona*.

Afrocyrona pedestris sp. nov.

(Figs 4A–D, 4G, 5A–D)

Type material. HOLOTYPE: ♂, 'YEMEN, SOCOTRA Island / Hagher Mts., SCAND Mt. env. / broad-leaved evergreen woodland / 16.–18.vi.2012 / 12°34.6'N, 54°01.5'E, 1450 m'; 'Socotra expedition 2012 / J. Bezděk, J. Hájek, V. Hula / P. Kment, I. Malenovský / J. Niedobová & L. Purchart leg.' (NMPC).

Description. *Body length* (from elytral apex to clypeus): 2.5 mm. For other measurements see Table 1.

Coloration and sculpture (Fig. 4G): Body oval, conspicuously convex; all dorsal surface black-brown to black but brown lateral margins of pronotum, margins of elytra, mesonotum, legs, and antennae. Setae covering dorsal surface scale-like, much thicker than those in *A. volatilis* sp. nov. Head very finely and very sparsely punctate (interspaces much larger than those in *A. volatilis* sp. nov.); punctures with thick erect or decumbent whitish setae. Pronotum finely and sparsely punctate (interspaces larger than diameter of punctures), size of punctures nearly same as that on head; centre of pronotum covered with thick, perfectly decumbent whitish setae; lateral margins with denser erect pubescence composed of black and white clavate setae. Elytral punctuation regular, composed of about 14 rows of punctures which are clearly visible from ventral side only (covered with pubescence from above), interspaces among rows inconspicuously elevate; pubescence similar to that in centre of pronotum, composed of thick, decumbent setae which are whitish in humeral and apical areas as well as along lateral margins and black on rest of elytra; margins of elytra also with short erect setae. Sculpture of ventral surface of head and prothorax coarser than that in *A. volatilis* sp. nov.: punctures relatively large, not separated, joined to transverse wrinkles; sculpture and pubescence of meso- and metaventrite as well as legs similar to that in *A. volatilis* sp. nov.: punctuation sparse, punctures relatively large and distinctly separated (interspaces larger than diameter of punctures); hypomerall area of prothorax and basal margin of metaventrite without punctuation; pubescence scarce, conspicuous only in metaventrite, formed by short, sparse, decumbent pale hairs.

Head (Fig. 4G): almost hypognathous (position in picture artificial), frons distinctly flat; gular sutures widely separated at base, extending to approximately midpoint of cranium, strongly convergent; frontoclypeal suture inconspicuous; antennal grooves on ventral side of cranium short but relatively deep, more distinct than those in *A. volatilis* sp. nov.; antennal sockets not visible from above; eyes relatively small (space between them about twelve times as wide as eye diameter) but coarsely faceted, distinctly elevated, not emarginate, elliptic, their greater part situated ventrally.

Mouth parts of unique holotype not dissected. Maxillary palps tetramerous, terminal palpomere conical, elongate; labial palps with terminal palpomere distinctly shorter than the labial one, cylindrical to weakly securiform; anterior margin of labrum shallowly emarginate.

Antennae (Fig. 4G): with nine antennomeres; antennal club trimerous, relatively loose; antennomeres 1–6 symmetrical, 7–9 very weakly asymmetrical, without conspicuous sensorial fields, with sparse pubescence; scape robust, pedicel smaller, slightly shorter than antennomere 3, antennomere 4 approximately as long as antennomere 4, 5–6 distinctly shorter; antennae relatively short, extending backwards to midway along pronotum.

Prothorax (Fig. 4G): pronotum transverse; anterior margin straight, anterior corners not projecting, rounded; lateral margins rounded, excavate; lateral edge present, finely denticulate; prosternal process distinctly dilated at apex, with sharp side corners; procoxal cavities externally narrowly open, closed to halfway by postcoxal projections; anterior margin with long pubescence.

Mesothorax: prepectus present in anterior part of mesepisternum only, absent above mesoventrite; mesocoxal cavities externally widely open; mesoventral process reaches towards base of mesocoxae (anterior projection of metaventrite minute), mesoventral process with longitudinal groove; mesonotum wide.

Hind wing (Fig. 4C): rudimentary, vestigial; venation reduced.

Metathorax: metaventrite wide and relatively convex, distinctly narrowed towards anterior portion; discriminial line (discrimen) inconspicuous; paracoxal sutures well-demarcated, parallel with coxae, narrowly separated from base of metaventrite; metepisternum distinctly triangular; metanotum rectangular, well-developed (in spite of nonfunctional wings).

Elytra (Figs 4G): regularly punctate, with moderately wide epipleura conspicuous along whole length of elytra; interlocking mechanism not developed; elytra without distinct longitudinal carinae; explanation of lateral margins of elytra much narrower than those in *A. volatilis* sp. nov.

Legs (Fig. 4D): procoxae not projecting, transverse; mesocoxae oval, metacoxae extended to lateral margin of metathorax; trochanters relatively small, triangular; femora weakly clavate; tibiae with row of small spines along outer margin; tibial apical spur pattern 1(2)-2-2 (2nd spur of protibiae reduced in size) but apical spurs in meso- and metatibiae larger and more conspicuous than those in *A. volatilis* sp. nov.; large protibial spur distinctly hooked; apices of meso- and metatibiae without conspicuous row of spines; tarsomere 1 in all pairs of legs conspicuous, approximately as long as tarsomere 2; tarsomere 5 distinctly longer than 1–4 combined; tarsal lobes absent; claws without denticles; empodium large, projecting, bisetose; tarsal formula 5-5-5.

Abdomen (Figs 4A–B, 5A–D): male segment IX incomplete (reduced), only with membranous (pubescent) rudiment of sternite IX and well-developed spiculum, tergite IX

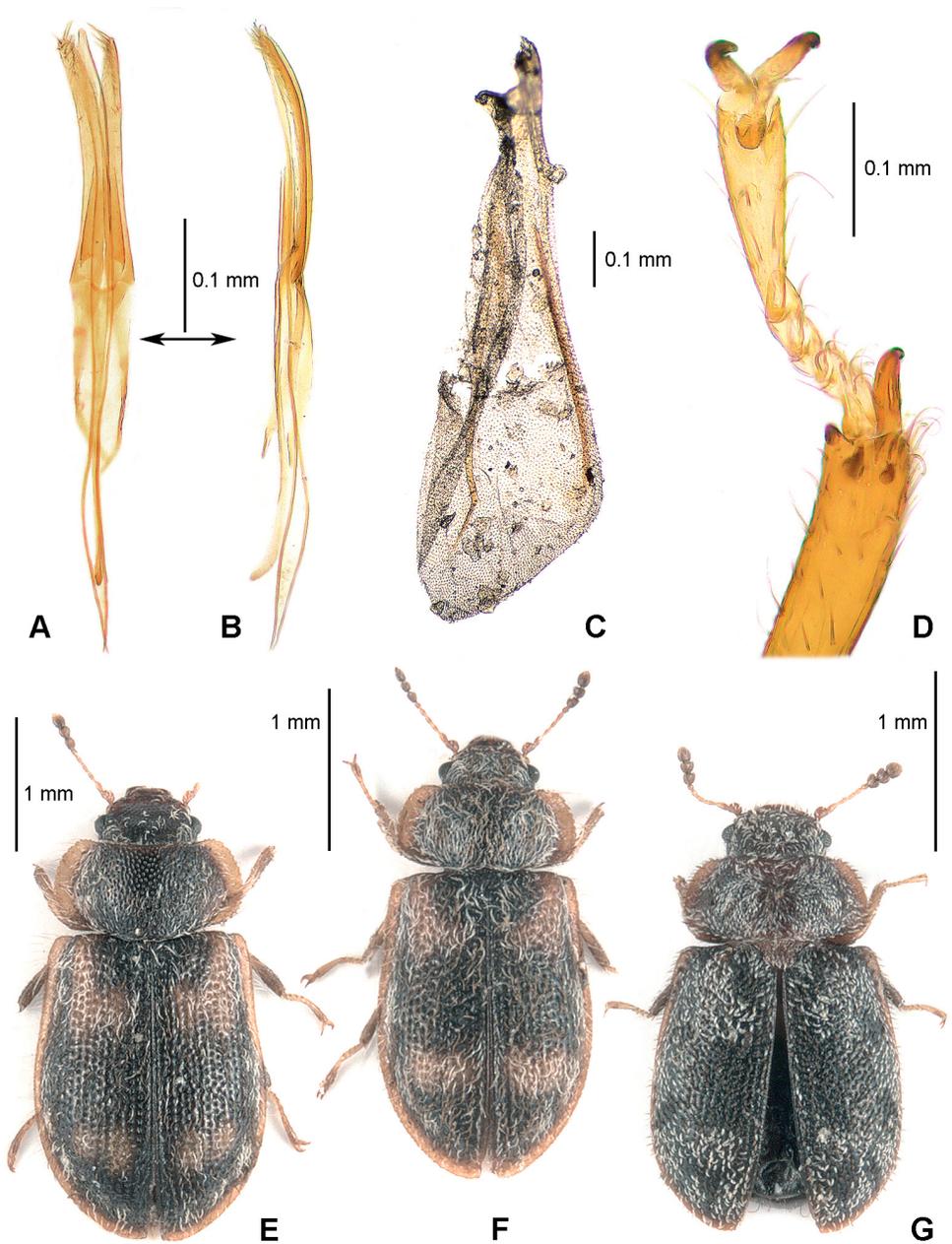


Fig. 4. A–D – *Afrocyrona pedestris* sp. nov., male holotype: A – aedeagus ventrally; B – aedeagus laterally; C – rudimentary wing; D – protarsus. E – *A. volatilis* sp. nov., paratype; F – *A. volatilis* sp. nov., holotype; G – *A. pedestris* sp. nov., holotype.

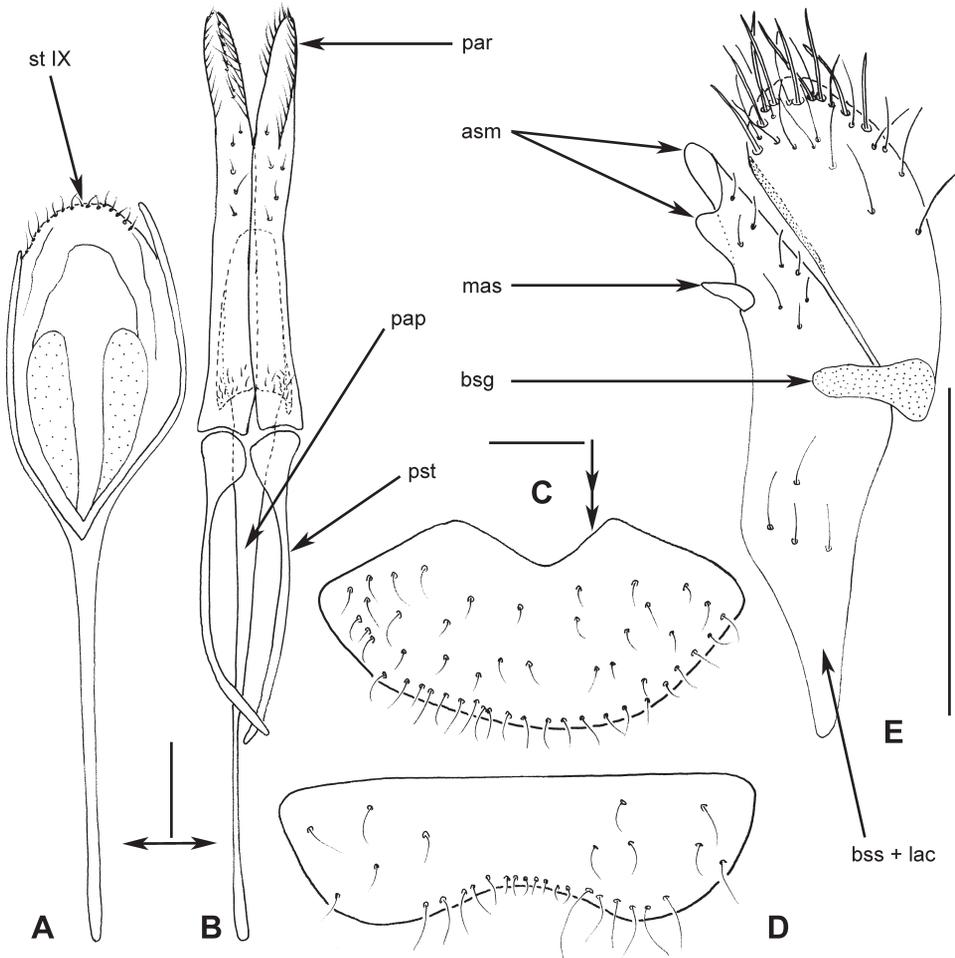


Fig. 5. A–D – *Afrocyrona pedestris* sp. nov., male holotype: A – abdominal segment IX with spiculum of sternite IX ('spicular fork'); B – tegmen ventrally; C – sternite VIII; D – tergite VIII. E–H – *A. volatilis* sp. nov., female paratype: E – lacinia (incl. basistipes) and galea (incl. basigalea). Scale bars = 0.1 mm.

inconspicuous; tegmen composed of three parts (originally, i.e. in uninverted aedeagus, dorsal 'parameres' separated from 'phallobase' which is split into separate ventral 'apodeme' and lateral 'struts'), inverted (phallobase ventrally open; i.e., parameres ventrally and apodeme dorsally situated); margins of parameres shortly pubescent; phallus slender, slightly longer than tegmen.

Differential diagnosis. See Table 2.

Etymology. The species name is Latin adjective *pedestris* (-tre) = on foot, afoot, pedestrian.

Biology. The single male specimen was obtained by litter sifting in the same locality as the

holotype of *A. volatilis* sp. nov.; however, the two specimens were not collected together. Wingless species. Gut empty, without content.

Discussion

The currently known members of *Afrocyrona* as well as both new species from Socotra show several interesting morphological and biological features, namely the uncommonly convex body with bent head and possible, at least partial, herbivory and/or fungivory within otherwise predaceous Ancyronini. Also, presence of well-developed wings in *A. volatilis* sp. nov. and strongly reduced, nonfunctional ones in *A. pedestris* sp. nov. (both species were found in the same locality), i.e. wing dimorphism among related species of a single genus, is uncommon although known among genera of Cleroidea. (Also, the wings in the type of *Afrocyrona*, *A. dwesae*, are distinctly reduced in size and the species is perhaps unable to fly; KOLIBÁČ 2007).

The issue of generic relations in Lophocaterinae is still not satisfyingly resolved. Apart from floricolous Decamerini that inhabit South and Central America, two remaining tribes, Lophocaterini and Ancyronini, form a complex cluster of genera with unclear phylogeny (KOLIBÁČ 2008, 2013). This fact was also pointed out by LAWRENCE et al. (2014: 447) although their argumentation is not perfectly clear: at present, adult Lophocaterini can be defined well by the distinctly broadly emarginate frontoclypeal suture, the unique synapomorphy among all Trogossitidae, while Ancyronini possess advanced sharp predaceous mandibles without the mola. However, it seems that trogossitid evolution from herbivory/fungivory to carnivory is not perfectly correlated with the adaptation of their mandibles (cf. *Gymnocheilus* Dejean, 1835; *Tenebroides* Piller et Mitterpacher, 1783; *Trichocateres*). Thus, a speculation about ancestral fungivory/herbivory of Lophocaterini within Lophocaterinae or *Afrocyrona* within Ancyronini (a detritus was found in guts of *A. dwesae* as well as *A. volatilis* sp. nov.) and, therefore, their 'in group' primitiveness would be premature. Moreover, possible insect remnants were also found among gut contents of *Afrocyrona ciskeiensis* Kolibáč, 2007, and only two guts were examined in the Socotran species. Thus, an absence of the mandibular mola in *Afrocyrona* indicates rather reversal feeding habits of some species than a direct phylogenetic relation to fungivorous/herbivorous members of Lophocaterini with a distinct mola (cf. *Lophocateres* Olliff, 1883).

Some of South African and Madagascan species of *Ancyrona* (for example, *A. ciskeiensis*; *A. muelleriae* Kolibáč, 2007; *A. colobicoides* Fairmaire, 1868; *A. kosnovskorum* Kolibáč, 2005) are also partly similar to those of *Afrocyrona* in their body shape and dorsal scale-like vestiture. However, the way of life is not known in the mentioned species excepting the fact they were (along with *Ancyrona endroedyi* Kolibáč, 2007) attracted by light. Taxonomy of *Ancyrona* is still in its infancy and its revision can reveal surprising phylogenetic relations among species-groups as well as splitting into several genera. Structures of the male aedeagus and the last abdominal segment in South African or Madagascan *A. muelleriae*, *A. endroedyi*, *A. kosnovskorum* are primitive among *Ancyrona* and similar to those in *Afrocyrona* (see KOLIBÁČ 2005, 2007). Together with features mentioned above, it induces a tentative assumption about a relationship between that, probably basal, group of *Ancyrona* species and the genus *Afrocyrona*.

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