

A new *Clivina* (*Leucocara*) species from Tanzania (Coleoptera: Carabidae: Scaritinae: Clivinini)

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Abstract. *Clivina* (*Leucocara*) *bartolozzii* sp. nov. from Tanzania is described, illustrated including the female styli, and compared with similar hitherto known African species of the subgenus.

INTRODUCTION

The genus *Clivina* Latreille, 1802 is almost world-wide distributed and has over eight hundred taxa. The Afrotropical species are rather poorly known, last revision with description of several new species was done by Kult (1959). He also restored the subgenus *Eupalamus* Schmidt-Goebel, 1846, later renamed by Bousquet (2009) as *Leucocara* Bousquet, 2009.

MATERIAL AND METHODS

The specimens were dry-mounted and studied, including measurements and examination of the microsculpture, at a magnification of 56×. Two type specimens of the new taxon were studied and measured and were compared with other similar species mostly placed in the collection of the second author. Length of body (including closed mandibles) is given with 0.05 mm accuracy; other measurements including ratios and means are rounded to two decimal places. All photographs of new species were prepared by Paolo Magrini with a Nikon D2X or D800 mounted on a Nikon Labophot II binocular microscope or Nikon SMZ 1000 stereomicroscope equipped with lenses containing diaphragms. Label locality data of all specimens are quoted verbatim except standardized dates.

The following abbreviations are used to indicate the depository of specimens:

PBPC Petr Bulirsch, private collection, Praha, Czech Republic;

MSNF Museum of Natural History of Florence “La Specola”, Florence, Italy.

Other abbreviations:

HT: Holotype; PT: Paratype; BSP: basal (prescutellar) setiferous puncture(s); SP: setiferous puncture(s); /, // by locality labels: end of line, label; L: length of body from closed mandibles to elytral apex; TL: length of body from clypeus to elytral apex; HMW: maximum width of head; LA: length of antennae; PL: length of pronotum along middle line; PMW: maximum width of pronotum; EL: length of elytra along sutura; EW: maximum width of elytra; AN: length of antennomeres.

RESULTS

Genus *Clivina* Latreille, 1802 (Clivinini Rafinesque, 1815)

Subgenus *Leucocara* Bousquet, 2009

(= *Eupalamus* Schmidt-Goebel, 1846 [nom. preocc.])

Afrotropical species of the subgenus *Leucocara* could be recognized from the other *Clivina* species by the following combination of the characters: the lateral margin of pygidium has either two pairs of lateral setae very close together on both sides or only one pair, and the middle part of clypeus is distinctly separated from the wings. According to Kult (1959), Afrotropical species could be divided into four species groups; the new species belongs to the *C. madagascariensis* (= *natalensis*) group which is characterized by the middle tibiae having very short to missing lateral thorn (spur) and two pairs of lateral setae. Kult (1959) included 42 species and 10 subspecies to this group, later only Basilewsky (1968) described next species of this group.

Clivina (Leucocara) bartolozzii sp. nov.

(Figs. 1-3, Tab. 1)

Type material. Holotype (♀): Tanzania, Magara (a S / del lake Manyara sulla / strada fra Mbulu e Magugu) / (1000 m), alla luce / 15.iv.1999 // L. Bartolozzi, B. Carletti, / B. Cecchi & A. Sforzi legit / 10-25.iv.1999, (n° Mag. 2187), (PBPC). Paratype (♀): with the same data as HT, (MSNF).

Description. Habitus as in Fig. 1; L 5.85 mm in HT and 6.10 mm in PT; detailed measurement of HT quoted below in Tab. 1. Body dark ferruginous, middle and hind legs very slightly lighter; tarsi, mouthparts and antennae yellowish brown.

Head. Mandibles short and broad with narrowly rounded, oblique tip; labrum 7-setose; anterior margin of medial part of clypeus distinctly bordered, slightly concave, superficially separated from lateral wings, latter very slightly shifted backwards, separated from moderately convex, irregularly reticulated supraantennal plates by blunt notch. Clypeal field transverse, slightly narrowed backwards, with barely irregular surface and irregular, fine microreticulation; clypeal suture transverse, short, deep and wide. Frontal sulci very wide and deep, nearly engraved, wider laterally of clypeal suture, its bottom roughly reticulated. Neck constriction uninterrupted, very broad and deep, formed by about three rows of irregular, deep and dense punctures. Vertex irregularly and finely reticulated especially latero-anteriorly, with irregular central pit in bottom of very irregular v-shaped sulcus; antero-lateral margin of vertex distinctly separated from interior border of frontal sulci by sharp keel; latter connected with fine keel below posterior margin of transverse furrow in blunt angle, its anterior part divergent up to mid-eye level then subparallel up to neck constriction. Eyes rather large, convex and prominent, genae very slightly developed, covered very small part of posterior margin of eyes. Antennae submoniliform, antennomeres 4-7 slightly, 8-10 just longer than wide.

Pronotum. In HT 1.03, in PT 1.04 times as wide as long, in HT 1.32, in PT 1.27 times as wide as head, in lateral view slightly vaulted; outline below not protruding, narrowly rounded

anterior angles regularly, shortly narrowed; laterally outline parallel between anterior SP and two third of distance between lateral SP, then very slightly convex to posterior angles formed by small and blunt lateral teeth. Posterior lateral SP on level of lateral tooth, distinctly moved inward of lateral channel. Latter laterally moderately broad up to lateral teeth, below them much narrower above almost directly narrowed lateral margin of base (very distinctly prolonged posteriorly) and finally, again deeper above flange. Anterior transverse impression deep and rather narrow; median line moderately wide, with several very dense and very fine punctures. Surface of lateral and especially basal parts of pronotum with rather broad strip of isodiametric reticulation, disc with irregular rests of reticulation, moderately shiny, disc with several fine and irregular wrinkles and each side of basal half of median line with irregular, broad and sublongitudinal strip of very fine and moderately dense punctures. Base with very superficial and irregular basal foveae and with few irregular transverse waved wrinkles.

Elytra. In HT 1.93 in PT 1.98 times as long as wide, in HT 1.14, in PT 1.12 times as wide as pronotum, in HT 2.28, in PT 2.32 times as long as pronotum; in lateral view very broadly and finely concave in about anterior fourth; base almost truncate to moderately distinct, rather narrowly rounded humeri, without humeral tooth; outline subparallel, in anterior two thirds directly, very slightly broadened, then barely rounded; maximal width at about two thirds of length. Elytral striae 1-7 subequally deep throughout, basal half densely and rather finely punctuate, apically punctures much finer, almost diminishing. Intervals almost regularly, moderately strongly reticulated, rather strongly convex throughout, interval 8 formed on / just below humeri and before / on apex as very thin keel, interval 7 on apex as sharp as 8, apically connected with interval 5 and later with 3; intervals 1-6 on apex strongly vaulted, 4 and especially 6 abruptly shortened on apex. Base with deeply engraved suture, with BSP and irregular tubercles in intervals 1-4, intervals 5-6 with irregular basal border, laterally connected with broad lateral channel. Interval 3 with four large DSP (mostly near stria 3).

Thoracic wings. Fully developed.

Legs. Protibia with distinct sulcus and with three lateral teeth: lower long and sharp, median distinctly shorter, upper small and rather blunt; mesotibiae with small tubercle.

Lower surface. Mentum irregularly wrinkled, surface with rough, irregular reticulation; antero-lateral angles almost rectangular; median keel barely elevated, its tip very broad and blunt, barely shorter than lateral wings. Proepisterna dull, with rough isodiametric reticulation, laterally with few very fine transverse wrinkles. Sternites as in Fig. 3, 4-6 without distinct punctures, laterally with moderately rough isodiametric reticulation and 4-6 laterally with fine sublongitudinal and 6 in middle with irregularly transverse wrinkles.

Styli. As in Fig. 2, with large laterotergites IX, each with five large bristles.

<i>C. (L.) bartolozzii</i> sp. nov.	L	TL	LA	L ---- LA	P M W	PL	PMW ---- PL	EL	EW	EL ---- EW	EW ----- PMW	ST	HM W	AN 1°	AN 2°	AN 3°	AN 4°	AN 11°
HT(♀)	5.85	5.46	1.64	3.56	1.35	1.31	1.03	2.98	1.54	1.93	1.14	0.52	1.02	0.17	0.16	0.14	0.12	0.20

Tab. 1. *C. (Leucocara) bartolozzii* sp. nov. Measurement of HT.

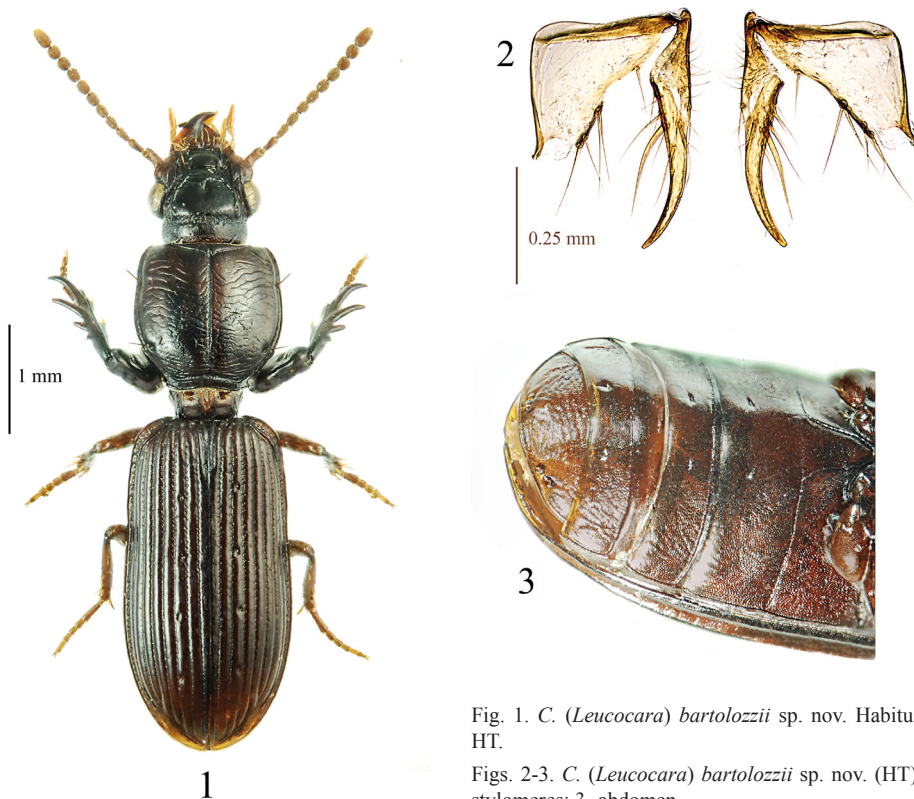


Fig. 1. *C. (Leucocara) bartolozzii* sp. nov. Habitus of HT.

Figs. 2-3. *C. (Leucocara) bartolozzii* sp. nov. (HT). 2- stylomeres; 3- abdomen

Differential diagnosis. *C. bartolozzii* sp. nov. is a characteristic member of the *C. madagascariensis* (= *natalensis* group s. Kult, 1959) due to the structure of the head, the mesotibiae without any long thorn and especially by having two apical SP on each side of the posterior border of the sternite 6 being very close together. Within this group it could be placed to a small subgroup of the species with the elytra having distinct isodiametric reticulation on its whole surface. Except *C. decellei* described by Basilewsky (1968), all remaining species were partly described and keyed in Kult (1959).

Among these 10 taxa (8 species and 2 subspecies) the new species is most similar to *C. schatzmayri* Kult, 1959, having similar shape of the elytra and similarly strongly vaulted elytral intervals. *C. bartolozzii* sp. nov. can be distinguished from the latter taxon by the head with less shiny surface; by the pronotum being laterally more flattened, having laterobasally more distinct reticulation and having posterior part much more prolonged posteriorly, and finally, by the sternite 6 (the pygidium) being without distinct punctures. Among other species. *C. straneoi* Kult, 1959 and *C. muelleri* Kult, 1959 differs especially by the episterna being distinctly punctuate; *C. maxima* Kult, 1959 (its body length is 8.9 mm) by having much larger body and much longer antennomeres 4-10; *C. orientalis* Kult, 1959 and *C. interstitialis* Kolbe, 1883 by having much broader elytra (being about 1.8 times as long as

broad) with apically less vaulted intervals and the former also by the more shiny sternite 6, without rough isodiametric microsculpture; *C. decellei* Basilewsky 1968, described from Ivory Coast, the only species missing in Kult (1959), clearly differs by having much larger body and especially much broader elytra and by the pronotum being regularly reticulated also on disc. Both remaining two species *C. kochi* Schatzmayr, 1936 and *C. caffra* Putzeys, 1861 (with subspecies *dainellii* Kult, 1959 and *heyrovskyi* Kult, 1959), have similarly narrow elytra. They can be distinguished by having larger body (especially the latter species with all subspecies) and especially by having apically much finer striae and only slightly vaulted intervals.

Name derivation. With great pleasure we dedicate this new species to our friend and colleague Luca Bartolozzi, Curator of the Department of Entomology of the Museum of Natural History “La Specola” in Florence, who allowed us to study this new taxon.

Distribution. *C. (L.) bartolozzii* sp. nov. is known only in two females from the type locality in Tanzania.

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