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NOTES ON *ZAMIUM* PASCOE AND *HOLORUSIUS* FAIRMAIRE, TWO AFRICAN CERAMBYCID GENERA (COLEOPTERA, CERAMBYCIDAE)

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Abstract

Zamium *Pascoe, 1864, up to the present included in the tribe Saphanini, is provisionally transferred to Hesperophanini. Two species originally described in* Zamium, crocatum *Pascoe, 1888 and* laevicolle *Jordan 1904* (= Holorusius perrieri *Fairmaire, 1898*) *are treated in* Holorusius, *previously included by Lepesme (1948) in Aseminae and now transferred to Smodicini. A revision of this genus is added.*

Several taxonomic problems arose when the revision of the world Methiini was started, because of genera catalogued in other tribes, but referred to Methiini either through observations, notes or transference of species by previous authors.

This first note deals with the genera *Zamium* Pascoe and *Holorusius* Fairmaire (= *Parandroeme* Aurivillius, 1908), and is based on the study of Pascoe's, Fairmaire's, Jordan's and Aurivilius' types loaned by the British Museum (Dr. R. D. Pope), the Museum für Naturkunde (Dr. E. Wendt) and by the Muséum National d'Histoire Naturelle (Dr. A. Villiers).

As Müller (1941) established the synonymy of *Zamium laevicolle* Jordan, 1904 and *Parandroeme brunnea* Aurivillius, 1908, it was necessary to study *Zamium* Pascoe, 1864, placed by Lacordaire (1869) in the Saphanini (Cerambycinae) and transferred by Lepesme (1948) to Aseminae.

Pascoe (1864) described *Zamium* which he compared to *Callidium*. Lacordaire (1869) included *Zamium* in his "Saphanides", having failed to study the structure of the "languette" (1869: 211, note 1) and asserted that in Saphanini, "leur fascies serait très-homogène sans un genre (*Zamium*) qui a celui d'un Callidiide..." This observation reveals the heterogenity of the Saphanini since Lacordaire's time.

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Lepesme (1948: 256) considered *Zamium* strange to Saphanini (with what I agree), and transferred the genus, without well founded justifications, to the Aseminae, an erroneous action in my opinion.

Since Lacordaire the Aseminae are characterized by anterior coxal cavities widely angulated at sides. They occur both in the Palearctic and Nearctic Regions and, more recently, were characterized by Linsley (1962: 67) as having posterior wings of a primitive type and a divided mesonotal stridulatory plate.

The too precious available materials preclude the investigation of the membranous wings, since this would involve damaging types. However, in *Zamium incultum,* type of the genus (according to Ferreira & Veiga-Ferreira, 1959: 88), and in other related species, the anterior coxal cavities are *not* angulate, but closed laterally and the mesonotal plate does *not* present a longitudinal sulcus comparable to that of the Aseminae. Thus, *Zamium* is not an Aseminae.

With the exception of Smodicini and Methiini, I have a poor knowledge of the African cerambycid fauna to be able to place *Zamium* (based on *Z. incultum*) correctly. Following Lacordaire's classification (1869: 203) I am including the genus in the Hesperophanini. This position seems to me provisionally acceptable.

Returning to Lepesme's work (1948), I agree with his doubts on the maintenance of *Zamium laevicolle* (= *Parandroeme brunnea*) in *Zamium*. *Z. laevicolle* and *Z. crocatum* obviously belong to the Smodicini and are not related to *Zamium incultum* and allied species.

Afterwards Lepesme (1948: 257) states: "Par ailleurs l'*Holorusius Perrieri* FRM., ... tombe également en synonymie de *Parandroeme brunnea* AURIV., donc le *Zamium laevicolle* JORD. et le genre *Holorusius* devient un *nomen nudum*."

There are two mistakes in this proposition: (1) *Holorusius perrieri* was described by Fairmaire in 1898 and thus, has priority over *laevicolle* Jordan, 1904; (2) *Holorusius* was formally described and could never be considered a *"nomen nudum"*.

In Ferreira & Veiga-Ferreira's catalogue (1959) there is a series of mistakes and omissions: (1) *Zamium,* transferred by Lepesme (1948, see above) to Aseminae, is included in the Saphanini (p. 88). (2) The genera *Holorusius* and *Parandroeme* are not catalogued as synonyms of *Zamium* as established by Lepesme (1948). (3) *Holorusius* (erroneously considered by Lepesme a synonym of *Parandroeme,* see above), appears in Asemini (p. 85); however, *Holorusius perrieri* is also included in the synonymy of *Zamium laevicolle* (p. 89). As discussed above, *Holorusius perrieri* takes priority over *Zamium laevicolle*. (4) The genus *Parandroeme* was omitted (it does not appear either in the synonymy of *Holorusius* or *Zamium*. (5) The reference under *Zamium crocatum* (p. 88) should read: Pascoe, 1888, Trans. Ent. Soc. London p. 492, instead of Pascoe, 1864, Journ. Ent. 2: 289. (6) The bibliographical references under *Zamium laevicolle* (p. 89), in Lepesme, should read: 1953, Cat. Inst. fr. Afr. noire, instead of 1955, Bull. Inst. fr. Afr. noire.

The scant material available does not allow me to solve another problem related to *Zamium*: (1) It would be very important to reassess the genus *Alocerus* Mulsant where *Zamium bicolor* Distant is now included (Ferreira & Veiga-Ferreira, 1959). (2) To examine *Macrocaulus* Fairmaire; according to Lepesme (1948: 257) this genus should eventually prove to be a synonym of *Zamium*: "... les diverses espèces de *Macrocaulus*... semblent être également des *Zamium* et le genre *Dacrocaulus* (*sic*) doit devenir probablement aussi un *"nomen nudum"*. *Dacrocaulus* is a misspelling.

Because these critical data are wanting, the status and limits of *Zamium* must be left undecided. *Holorusius,* however, is undoubtedly a Smodicini. This genus is here redescribed to complete my recent revision of the tribe (Martins, 1975), with the inclusion of an additional species (*crocatus* Pascoe), transferred from *Zamium*.

Tribe Smodicini

The key to genera, presented by the writer (1975), couplet 5, should be changed to include *Holorusius*:

5(4). Each elytron with a conspicuous longitudinal, dorsal elevation on middle of disc; mesosternal process notched in the middle of apex; (male prosternum withouth depressed areas of sexual punctuation). West Indies (Hispaniola) .... *Metaphrenon* Martins

Elytral surface without modifications; mesosternal process not deeply notched 6

6(5). Scutellar suture absent; without depressed areas of sexual punctuation in male prosternum; abdomen (♂♂) densely and strongly pubescent. Africa and Madagascar .... *Holorusius* Fairmaire

Scutellar suture present; in general, presence of depressed areas of sexual punctuation in male prosternum (except *dinellii* and *depressum*); abdomen almost glabrous in both sexes. Americas ..... *Smodicum* Haldeman

Holorusius Fairmaire, 1898

Holorusius Fairmaire, 1898: 250; Aurivillius, 1912: 22 (Cat.); Lepesme, 1948: 257; Ferreira & Veiga-Ferreira, 1959: 85 (Cat.).

Parandroeme Aurivillius, 1908: 141; 1912: 27 (Cat.).

Body depressed. Labrum conspicuous. Superior lobes of eyes present. Antennae (fig. 3) shorter than body, with short, dense pubescence and scattered long hairs; segment III as long as scape; IV shorter than V; all segments destitute of depressed sensorial areas. Prothorax (fig. 1) wider than long, scarcely tuberculated at sides, constricted at base. Prosternum (♂) without depressed areas of sexual punctuation. Prosternal process (fig. 2) narrower than one anterior coxa, parallel sided; mesosternal process as wide as or a little wider than one intermediate coxa, parallel sided, scarcely notched posteriorly for reception

of anterior process of metasternum. Mesonotum without scutellar suture. Elytra with (*crocatum*, ♂) or almost without (*perrieri*) depressed hairs; few long setae at margins and apex. Abdomen (♂) strongly and densely pubescent. Femora fusiform (♂) or gradually enlarged to apex (♀); tips of posterior ones not reaching apices of elytra. Posterior tibiae straight. Posterior tarsi shorter than posterior tibiae; segment III bilobed.

Type species, *Holorusius perrieri* Fairmaire, 1898, monobasic.

KEY TO SPECIES

Dense and rugose punctuation of posterior lateral parts of prothorax invades disc and reaches base of pronotum; elytral depressed hairs abundant and long (length subequal to diameter of base of segment IV of antennae). South Africa (Natal) ..... *crocatus* Pascoe.

Punctuation of posterior lateral regions of prothorax, when present, does not reach pronotum; elytral depressed hairs (♂) sparse and short (length shorter than diameter of base of segment IV). Africa (widely distributed) and Madagascar ..... *perrieri* Fairmaire.

Holorusius perrieri Fairmaire, 1898

(Figs. 1-4)

Holorusius perrieri Fairmaire, 1898: 250; Aurivillius, 1912: 22 (Cat.); Lepesme, 1948: 257 (Syn.); Ferreira & Veiga-Ferreira, 1959: 89 (Cat.).

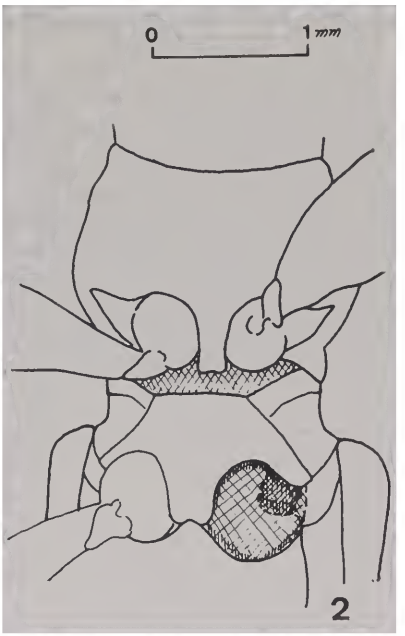
Zamium laevicolle Jordan, 1904: 364; Müller, 1941: 352 (Syn.); Lepesme, 1948: 257; 1953: 15, pl. 4: fig. 3; 1955: 840 (Geogr.); Ferreira, 1955: 372; Veiga-Ferreira, 1964: 554, pl. 23; Fuchs, 1969: 344 (Geogr.); 1972: 95 (Geogr.); 1974: 219 (Geogr.).

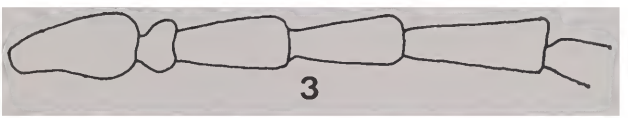
Parandroeme brunnea Aurivillius, 1908: 141, fig. 1; Müller, 1941: 352 (Syn.).

Orange, shining, almost completely glabrous on upper surface. Antennae as in fig. 3. Pronotum (fig. 1) very sparsely punctate on disc; the limits with lateral areas densely punctured, especially in males. Prosternum (fig. 2). Elytra densely and finely punctured; depressed pubescence very scarce; hairs shorter than diameter of base of segment IV of antennae. Abdomen densely pubescent (♂) or almost glabrous (♀).

Measurements, in mm

	♂	♀
Total length	8.2–12.7	9.0–14.9
Prothorax length	0.9– 2.2	1.5– 2.2
Prothorax width	1.7– 2.	1.8– 3.0
Elytral length	6.1– 9.2	6.5–11.5
Humeral width	2.0– 3.1	2.1– 3.3





Holorusius perrieri, ♂: 1, head and pronotum; 2, sternal processes; 3, antenna. All figures in the same scale.

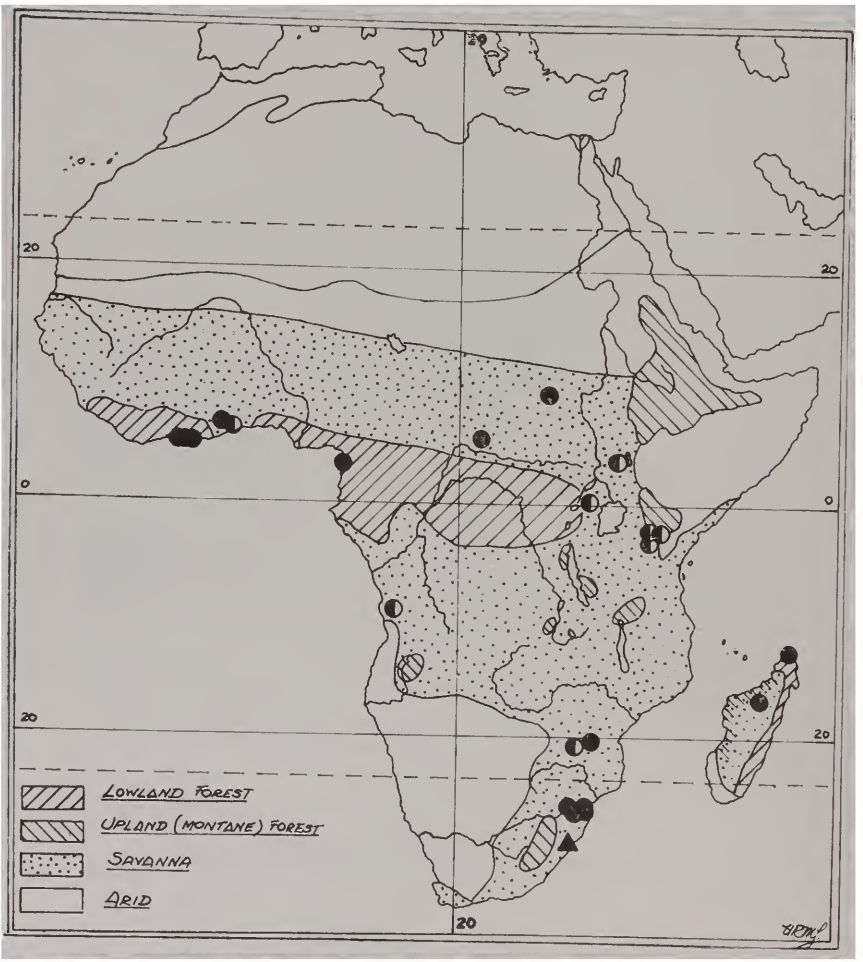


Fig. 4 — Geographical distribution of *Holorusius*: *crocatus* (triangles), *perrieri* (circles). Divided circles, occurrences of specimens studied; black circles, bibliographical data.

Types, type-localities

The type of *Holorusius perrieri* according to Lepesme (1948: 257), belongs to the Muséum National d'Histoire Naturelle. Type-locality: Suberbieville and Diego-Suarez are cited in the original description, which indicates that Fairmaire had, at least, two specimens. A lectotype should be selected to define the type-locality. Ferreira & Veiga-Ferreira (1959: 85), erroneously cite only Diego-Suarez. According to Quentin & Villiers (1975), Maevatanana is the present name of Suberbieville. The cotype studied is from Diego-Suarez, Madagascar.

Zamium laevicolle. According to Ferreira & Veiga-Ferreira (1959: 89) the type is in the Tring Museum; there is no mention of paratypes. I have studied four specimens of the type-locality ("Jkutha, Afr. or."), one ♀ of this series is labelled "cotype" (Museum für Naturkunde); another ♀, labelled as "type", belongs to the Muséum National d'Histoire Naturelle. The selection of a lectotype should be very important. The correct spelling of the type-locality is Ikutha, Kenya.

Parandroeme brunnea. Ferreira & Veiga-Ferreira (1959: 89) refer only to a type specimen in the Riksmuseum, Stockholm. The Museum für Naturkunde houses three topotypical females (Meru, Sjöstedt, 1905) labelled "cotypes" (one of them with a *ms* label with the name of the species). In the National Museum of Natural History (ex-Tippmann Collection), there are two males from the same locality, probably additional cotypes.

Host plant: *Khaya anthotheca* (label datum).

Geographical distribution (fig. 4)

The species is related to savanna formations (fig. 4) as clearly demonstrated if the occurrences of the specimens studied by myself (divided circles) and those cited in the bibliography (clack circles) are superimposed on a simplified map (base on Moreau, 1951, Milne-Redhead, 1954 and Grove, 1970) of vegetation. The occurrences in lowland forests (Ivory Coast and Cameroun) correspond to Mangroves in Grove's map.

Material studied

GHANA. *Eastern*: Tafo (6.13 N, 0.22 W), 7 ♂, 6 ♀ (CNCI). CENTRAL AFRICAN REPUBLIC. La Maboke, 6 ♂ (MNHN). UGANDA. 1 ♂, 1♀, "ex-*Khaya anthotheca* log" (BMNH). Katonga (River), 1 ♂ (USNM). KENYA. *Rift Valley*: Lodwar (3.07 N, 35.36 E), 1 ♂, 2 ♀ (BMNH). *Eastern*: Kibwezi (2.25 S, 37.58 E), 1 ♂ (MNHU). Kitui (1.22 S, 30.01 E), 1 ♂ (BMNH). Ikutha, 3 ♂, 1 ♀ (MNHU). Meru (0.03 N, 37.39 E), 2 ♂ (USNM), 3 ♀ (MNHU). ANGOLA. *Cuanza-Norte*: Quiculungo (8.31 S, 15.19 E), 1 ♂, 1 ♀ (CNCI). RHODESIA. Lower Sabi (River), 1 ♀ (USNM).

Holorusius crocatus (Pascoe, 1888), n. comb.

(Fig. 4)

Zamium crocatum Pascoe, 1888: 492; Aurivillius, 1912: 25 (Cat.); Ferreira & Veiga-Ferreira, 1959: 88 (Cat., wrong bibliographical citation, see above).

Closely related to *perrieri,* this species is distinguished by key characters. The limited material studied suggests a different geographical distribution (fig. 4); the status should be revised, as more specimens become available.

Measurements, in mm

	Holotype	♂	♀
Total length		12.0	15.5
Prothorax length		2.1	2.6
Prothorax width		2.6	3.3
Elytral length		8.9	11.7
Humeral width		3.0	4.2

Type, type-locality

There is a pair of specimens of the ex-Pascoe's Collection, from Natal (type-locality), in the British Museum. The male, which agrees with the original description, has the handwritten Pascoe's label and is also labeled "Type". The female, larger than the male, has no identification labels and was not included in the original description (only one measurement was given).

Material studied

SOUTH AFRICA. *Natal*: 1 ♂ (holotype, BMNH), 1 ♀ (BMNH). Durban, 1 ♀ (MNHN).

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