

Revision of the genus *Epuraea* Er. from Africa with remarks to related genera (Col., Nitidulidae)

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Introduction and acknowledgments

The present paper is the first attempt at a taxonomic revision of the beetle genus *Epuraea* Er. of Ethiopian and Malagassy regions. Faunas of these two regions are treated together because of their close affinity. As the work on this subject proceeded, it became obvious that the revision could not strictly be limited to the genus *Epuraea* proper and that the taxonomy of the related genera must also be discussed since many species have wrongly been described as *Epuraea*. It was necessary to carry out a critical revision of the entire complex of related genera, i.e. *Epuraea* Er., *Trimenus* Murray, *Haptoncurina* gen. n. and *Parepuraea* gen. n., the two latter genera being described below as new to science. Generic characters of all these genera as well as those of the genus *Haptoncus* Murray are also discussed.

This work could never have been completed without the generous assistance of the following entomologists and institutions, who sent me type-specimens of ethiopian and malagassy species as well as other important material. It is my pleasant duty to express to them my best thanks.

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The attached abbreviations are used below to designate origin of the material examined.

In order to enable later identification of the material examined in particular collections, I preserved in this paper the original names of localities, even though many local names, especially in the Zaire, have been changed in the meantime.

Historical review

The study of ethiopian *Epuraea* was started by Boheman (1851), whilst the first malagassy species were described by Reitter (1873) and Waterhouse (1876). Particular descriptions of a few species were published by Schaufuss (1891) and Kraatz (1895). But the main contribution to the knowledge of ethiopian *Epuraea* was made by Grouvelle, who described about half the ethiopian *Epuraea* hitherto known in his series of six papers (1895, 1899 a, 1899 b, 1909 a, 1909 b, 1912). This period of the basic investigation of ethiopian *Epuraea* was concluded by Grouvelle's (1913 b) Catalogue of Nitidulidae, in which 14 species of *Epuraea* Er. are listed from the Ethiopian and Malagassy regions. Apart from occasional nomenclatorial change by Plavilshnikov (1924) nobody paid attention to the matter from that time until recently, when a few species of the subgenus *Epuraeanelle* Crotch were revised and one new species was described by Jelínek (1967).

Problems of generic classification

The thorough study of the matter and especially of the type-specimens of all species under discussion revealed the fact, that, under the generic name *Epuraea* Er., a set of very heterogeneous species had been described from Africa and Madagascar. It became therefore impossible to carry out any useful revision of ethiopian *Epuraea* without also including the problems of taxonomy of closely related genera.

Species wrongly attributed to *Epuraea* Er. may be divided into two groups. The first group represent species belonging to genera quite different from *Epuraea* Er. They are:

1. *Stelidota costata* (Schaufuss, 1891)

Epuraea costata Schaufuss (1891) : 6

Stelidota costata; Jelínek (1967) : 113

2. *Pria singularis* (Grouvelle, 1899) comb. n.

Epuraea singularis Grouvelle (1899 b) : 136

Types of *Epuraea singularis* Grouvelle from Cape of Good Hope ought to be deposited according to Grouvelle (1899 b) in collections Fry [now in British Museum (Natural History)] and Grouvelle (now in Natural History Museum, Paris). However any specimens of this species are lacking in the British Museum. Through the kindness of Dr. A. Descarpentries I have been allowed to study one type specimen from the collection Grouvelle (MHNP). It fits well the Grouvelle's (1899 b) description (especially in size, close yellow pubescence, pronotum widest at the base) and belongs without any doubt to the genus *Pria* Stephens.

The other group, a much more involved one, represent species belonging to several genera, closely related to *Epuraea* and constituting a natural complex within the family Nitidulidae, even though it has never been established by any preceding authors. It is not the intention of this paper to discuss the taxonomic status and position of this "epuraeoid complex" of genera. Only its most important characters can be mentioned here:

1. Antennal furrows on the ventral side of the head shallow, strongly converging backwards and connected by shallow transverse impression of postmentum.

2. Prosternal process distinctly curved upwards behind anterior coxae (i.e. depressed, if observed from below) and distinctly dilated at the apex.

3. The eighth abdominal tergite, so called "additional segment", visible at the apex of pygidium in males.

4. Tegmen of aedeagus distinctly bilobed, except in extremely rare cases (*Epuraea scutellaris* Kraatz), where the lateral lobes are obviously secondarily conrescent.

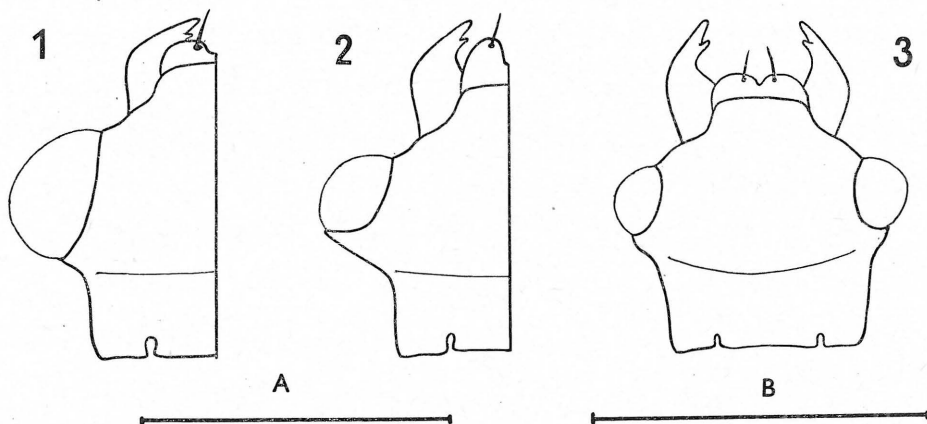
5. Basal piece of tegmen prolonged proximad into the more or less distinct apodeme, moderately dilated at the apex and under normal conditions protecting ventral side of the internal sac of aedeagus.

6. Despite Gillogly's (1947) remarks I observed sensillum ampullaceum on the eleventh antennal segment also in the genus *Epuraea* [Palaeartic species *E. limbata* (F.), *E. guttata* (Ol.), *E. bergeri* Sjöberg, *E. laeviuscula* (Gyll.) and *E. depressa* (Ill.) examined] except subgenus *Micruria* Reitt. [*E. melanocephala* (Marsh.), *E. auripubens* Reitt. and *E. commutata* Grouv. examined], as well as in other epuraeoid genera except *Aphenolia* Reitt.

Presence of the antennal sensillum ampullaceum together with bilobed tegmen and trend to abbreviation of elytra, distinct e.g. in the genus *Haptoncus* Murr., suggest closer relationship of epuraeoid genera to *Carpophilus* Steph. than to genuine Nitidulinae.

All epuraeoid genera represented in the Ethiopian and Malagassy regions may be distinguished according to the following key:

- 1 (4) Terminal segment of labial palpi securiform or cup-shaped, widest at the broadly truncate apex.
- 2 (3) Eyes large, occupying almost entire sides of the head, temples suppressed. Posterior tarsi simple, narrow, tarsal claws strongly dentate. Terminal segment of labial palpi securiform. Body oblong, flat. *Trimenus* Murray
- 3 (2) Eyes of normal size, temples distinct. Tarsi moderately dilated, tarsal claws simple. Terminal segment of labial palpi cup-shaped (fig. 71). Body oval. *Haptoncus* Murray
- 4 (1) Terminal segment of labial palpi oval, subcylindrical or conical, narrowly truncate but never reaching its maximal width at the apex.
- 5 (8) Body moderately oblong, anterior margin of pronotum more or less truncate, anterior angles hardly prominent (figs. 74, 85–86). Eyes rather large, temples short, rather suppressed.
- 6 (7) Tarsal claws simple. Ovipositor of nitiduloid type with distinct styli (fig. 45). Body small. *Haptoncurina* gen. n.



Figs. 1—3: Head of *Haptoncurina motschulskyi* (Reitt.) (1), *Haptoncus ocellaris* (Fairm.) (2) and *Epuraea cadaverina* (Roth) (3). Note different development of eyes and temples. Scale A — 1 mm (figs. 1—2), scale B — 1 mm (fig. 3).

- 7 (6) Tarsal claws dentate. Ovipositor with short, broad diverging hemisternites, each of them bifurcate at the apex. Styli completely reduced (fig. 46). Body larger. All tibiae of males simple. *Parepuraea* gen. n.
- 8 (5) Anterior margin of pronotum usually distinctly emarginate, eyes of normal size, temples distinct, arcuate or bluntly angulate, converging backwards (fig. 3). Tarsal claws simple or dentate, in latter case ovipositor with distinct styli and male intermediate tibiae often curved or dilated at the apex. *Epuraea* Erichson

Revision of particular genera

1. Genus: *Trimenus* Murray, 1864

Trimenus Murray (1864): 405

Type species: *Trimenus adpressus* Murray (1864): 406 (by monotypy).

Head transverse, flat, shallow antennal furrows strongly converging backwards. Eyes large, occupying almost entire sides of the head capsule, on ventral side reaching outer margins of antennal furrows. Temples strongly suppressed by eyes. Antennae 11 segmented, the eleventh segment with sensillum ampullaceum (at least in *T. adpressus* Murr.). Labrum bilobed. Mandibles arcuate, acute, with additional tooth on inner margin. Maxillary palpi 4 segmented, terminal segment subcylindrical. Mentum strongly transverse, twice widely, arcuately emarginate at its anterior margin. Labial palpi 3 segmented, terminal segment securiform, broadly truncate at the apex. Pronotum transverse, anterior margin very shallowly emarginate, sides moderately regularly arcuate. Prosternal process very narrow, moderately curved, abruptly dilated behind anterior coxae. Mesosternum moderately impressed. Scutellum triangular. Elytra longer than their combined width, truncate

at the apex. Intermediate and posterior coxae close together, intermediate ones almost contiguous. Intercoxal process of the first abdominal sternite acute. Part of the eighth abdominal tergite of male overlapped by posterior margin of pygidium. Three basal segments of anterior and intermediate tarsi dilated, posterior tarsi simple, narrow. Tarsal claws distinctly dentate. Tegmen almost entirely divided, lateral lobes rather modified. Aedeagus weakly sclerotized, short. Ovipositor of common nitidulid type with contiguous hemisternites and distinct styli.

The genus *Trimenus* Murr. was hitherto known to be represented by three species in the Oriental region and one species in New Caledonia. The only known ethiopian species has been described as *Epuraea*.

Trimenus kraatzi n. n.

Epuraea ocularis Kraatz (1895) : 148 (nec Fairmaire, 1849)

Holotypus: Togo, Conradt lgt., in DEI

Body oblong oval, flat, shining, testaceous. Length 2.5–2.9 mm.

Head widely shallowly impressed beside insertions of antennae. Eyes conspicuously large, coarsely faceted. Temples almost indistinct. Pronotum about 1.6 times wider than long, widest at the midlength. Lateral margins moderately arcuate, slightly more converging forwards than backwards, borders narrowly explanate, explanation hardly as wide as antennal flagellum. Anterior margin almost straight, very broadly and shallowly arcuately emarginate, anterior angles prominent, slightly obtuse, almost rectangular, posterior ones distinctly rectangular. Elytra nearly 1.4 times longer than their combined width, widest at two fifths of their length and here as wide as pronotum, feebly vaulted in lateral parts and flattened along suture. Lateral margins as narrowly explanate as those of pronotum. Tips of elytra truncate, sutural angles moderately roundly obtuse, outer posterior ones broadly rounded. Upper surface with simple punctures smaller than eye facets, separated by nearly one diameter. Spaces between them smooth and shining, with very feeble traces of reticulation. Pubescence sparse, recumbent, yellow, inconspicuous. Prosternum and mesosternum dull, reticulate, metasternum with fine longitudinal line in the middle, very finely, dispersely punctate (punctures separated by two or three diameters), rather shining, only lateral parts dull, distinctly reticulate. Anterior margin of anterior femora with strong flat teeth in the middle (fig. 65). No sexual dimorphism in the shape of tibiae. Anterior tarsi strongly dilated in both sexes, almost as wide as anterior tibiae, intermediate tarsi moderately dilated, posterior ones narrow. Tarsal claws strongly dentate. Male external genitalia as figured (figs. 10, 11). Tegmen almost entirely divided, lateral lobes cornet-shaped, each of them rolled up around its longitudinal axis. Median lobe rather reduced, small, weakly sclerotized. Ovipositor as figured (fig. 23).

Kraatz (1895) described his *Epuraea ocularis* after two specimens from Togo. In his collection in DEI there is however only one male with corresponding data. labelled: Togo, Conradt/Typus. I designated this specimen as Lectoholotypus. As the specific name *ocularis* was preoccupied by Fairmaire (1849) in the genus *Epuraea* Er. [see *Haptoncus ocularis* (Fairm.)], the name of *E. ocularis* Kraatz must be changed appropriately. I propose the name *kraatzi* in honour of the discoverer of this remarkable species.

This species, originally described as *Epuraea*, differs from the common oriental species *Trimenus adpressus* in some details, especially by its small body, sparse, inconspicuous pubescence and shining appearance of its upper surface, absence of sexual dimorphism in the shape of tibiae and strongly dentate anterior femora. In addition, a further set of important characters, such as the enlarged eyes, securiform terminal segment of labial palpi, simple posterior tarsi, dentate tarsal claws, peculiar form of lateral lobes of aedeagus and, last but not least, the general form of body leave no doubt of its true generic position.

Distribution: West Africa.

Material examined: Ivory Coast: N'zida, i. 1953, A. Villiers lgt., 1 spec. (IFAN). Togo: Conradt lgt., 1 spec. (Lectoholotype, DEI). Cameroon: Conradt lgt., 4 spec. (DEI). Zaire: Mayumbe: Pulu-Banzi, 17. ii. 1924, A. Collart lgt., 2 spec. (MRAC) — Kivu: riv. Natulonga, terr. Fizzi, 1. 1957, Leleup lgt., 1 spec. (MRAC) — Elisabethville, Seydel lgt. (at light), 3 spec. (MRAC) — 18 mls SW Elisabethville, 1928, Evans lgt., 3 spec. (BMNH).

2. Genus : *Epuraea* Erichson, 1843

Epuraea Erichson (1843) : 267
Dadopora Thomson (1859) : 68
Epuraenella Crotch (1874) : 76
Omosiphora Reitter (1875) : 56
Micruria Reitter (1875) : 58
Micrurula Reitter (1884) : 209

Type species: *Nitidula decemguttata* Fabricius, 1792 (nec Olivier, 1790)
 = *Nitidula guttata* Olivier, 1811. Subsequent designation by Parsons (1943).

Body of very variable form. Head flatly vaulted, transverse, eyes of normal size, temples distinct. Shallow antennal furrows strongly converging backwards, connected by shallow transverse impression of postmentum. Antennae 11 segmented with three segmented club, the eleventh segment, at least in some species, with sensillum ampullaceum. Labrum bilobed. Mandibles arcuate, acute, inner margin with additional tooth behind the apex. Maxillary palpi 4segmented, terminal segment long, subcylindrical. Mentum moderately transverse with arcuate lateral margins. Labial palpi 3segmented, terminal segment moderately longer than wide, egg-shaped, narrowly truncate at the apex. Pronotum transverse, anterior margin usually distinctly emarginate. Prosternal process curved upwards and dilated behind anterior coxae. Mesosternum above the level of metasternum (below it if observed from the ventral side), scutellum triangular. Posterior coxae separated by greater distance than anterior and intermediate ones, shape of the intercoxal process of the first abdominal sternite depending on that distance. It may be truncate in forms with widely separated metacoxae (subg. *Epuraeanella* Crotch) or more or less angulate in other forms. The eighth abdominal segment visible in males. Tibiae of all three pairs may be subject to modifications in males of some species. Anterior and intermediate tarsi dilated, posterior ones simple (subg. *Epuraeanella* Crotch) or dilated. Tarsal claws simple or dentate (e.g. subg. *Micrurula* Reitter). Tegmen bilobed with prolonged basal plate, exceptionally lateral lobes conerescent (*E. scutellaris* Kraatz). Median lobe of aedeagus oblong, moderately sclerotized, internal sac sometimes (especially in subg. *Epuraeanella* Crotch) with well developed struc-

tures. Ovipositor of common nitidulid type with contiguous hemisternites and distinct styli.

Subgeneric classification of numerous species of the genus *Epuraea* Er. is based mainly on holarctic fauna and seems not always to be sufficient for classification of some tropical forms. The subgenus *Epuraeanella* Crotch (*Omosiphora* Reitter) is an undoubtedly homogeneous group and would probably deserved generic status, proposed for it already by Reitter (1875). With its rather uniform, broadly oval body, widely separated metacoxae with truncate intercoxal process of the first abdominal sternite and simple posterior tarsi it seems to be more closely related to *Aphenolia* Reitter than to *Epuraea* proper. It is distributed primarily in the tropical zone and includes most ethiopian *Epuraea*.

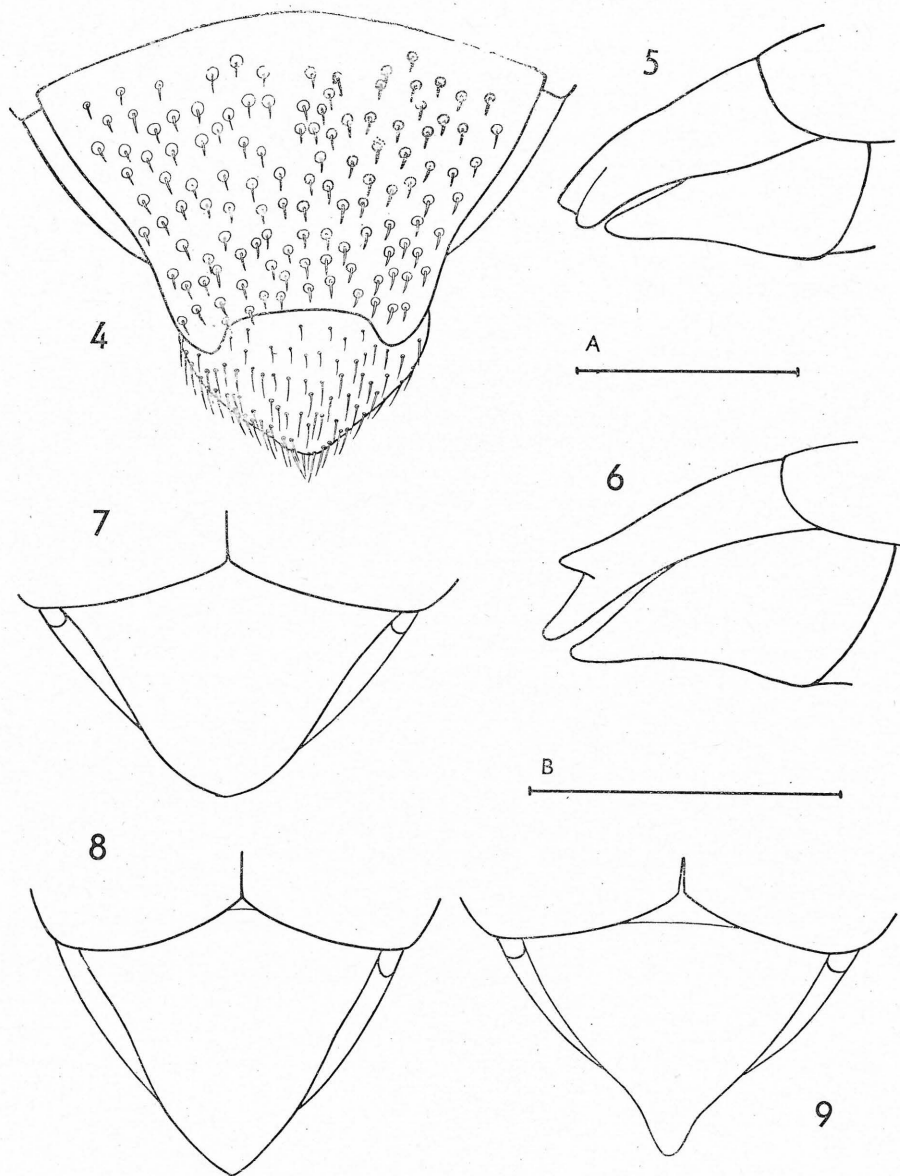
The subgenus *Micrurula* Reitter (*Micruria* Reitt.) has the centre of its distribution in southeastern Asia. Ethiopian species attributed to it by Grouvelle (1913 b), belong to the new genus *Parepuraea*. There are, however, other ethiopian *Epuraea* with dentate tarsal claws (*E. subelongata* Grouv., *E. scutellaris* Kraatz), but I am not sure whether they are closely related to the true *Micrurula*. It seems me more probable that the dentate claws developed independently in several groups of *Epuraea*. This is suggested also by parallel evolutionary trends in related genera (e. g. *Trimenus* Murray and *Parepuraea* gen. n.).

Ethiopian species of *Epuraea* Er. (apart from the subgenus *Epuraeanella* Crotch) may easily be divided into two distinct species groups. The *Epuraea inexpectata*-complex includes small, oval species with simple tarsal claws and characteristic form of ovipositor with divergent hemisternites (fig. 42). To the *Epuraea scutellaris*-complex belong oblong species with distinctly dentate claws and ovipositor of the normal type with contiguous hemisternites. Both groups are characterized by extraordinarily broad lateral lobes of aedeagus. In addition to it, may be observed in the latter group, a trend to concrescence of the lateral lobes, which are still distinctly separated in *E. subelongata* Grouv., but wholly concrescent in *E. scutellaris* Kraatz.

Key to ethiopian and malagassy *Epuraea*

- 1 (15) Body large, broadly oval. Metacoxae widely separated, intercoxal process of the first abdominal sternite broadly truncate. Posterior tarsi simple, narrow. (*Epuraeanella* Crotch).
- 2 (5) Disc of pronotum regularly vaulted, without distinct impressions or faults except explanate sides of pronotum.
- 3 (4) Male: anterior tibiae simple, inner side of the intermediate ones arcuately emarginate in the apical part and strongly calcarate at the apex (fig. 35). Female: pygidium simple. West Africa. *E. sinuatifemur* Grouvelle
- 4 (3) Male: inner margins of anterior and intermediate tibiae widened at the midlength (figs. 38, 39). Female: pygidium longitudinally carinate in the middle, carina does not reach apex of pygidium and prolonged backwards into strong, sharp thorn (fig. 6). Madagascar. *E. terminata* Reitter
- 5 (2) Disc of pronotum with two pairs of impressions, often also divided from lateral parts by more or less distinct longitudinal faults.

- 6 (7) Body comparatively small (length 2.8—3.4 mm). Elytra reaching its maximal length at suture, transition between lateral and apical margins indistinct (fig. 68). Outer apical angles of anterior tibiae rounded. Male: intermediate tibiae widened at midlength (fig. 40), posterior angles of pygidium elevated or moderately prominent backwards. Zaire. *E. joannae* sp. n.
- 7 (6) Body always larger than 3.5 mm, apex of elytra broadly flatly rounded, almost truncate. Outer apical angles of anterior tibiae distinctly angulate, usually more or less rectangular. Posterior angles of pygidium in males always simple.
- 8 (11) Male: anterior tibiae simple, intermediate ones strongly curved, both their inner margins with conspicuously long and close pubescence (fig. 41). Female: if pygidium longitudinally carinate in the middle, then sides of elytra subparallel in the basal half, punctures of elytra close, separated by less than one diameter and upper surface of elytra with shallow impressions.
- 9 (10) Entire sides of elytra moderately arcuate. Male: lateral lobes of aedeagus short, simply rounded at the apex, separated by broad, U-shaped excision (fig. 28). Median lobe of aedeagus narrowed in its apical third (fig. 29). Female: pygidium moderately convex, not longitudinally carinate. East Africa. *E. omositina* Jelinek
- 10 (9) Sides of elytra subparallel in the basal half. Male: lateral lobes of aedeagus long, narrow, more or less distinctly unciform at the apex (fig. 31). Median lobe of aedeagus not distinctly narrowed towards the apex (fig. 30). Female: pygidium longitudinally carinate in the middle. West, central and south Africa. *E. cadaverina* (Rodth).
- 11 (8) Male: anterior and intermediate tibiae widened at the midlength and at the apex. Female: pygidium longitudinally carinate in the middle or with backwards directed thorn. If pygidium carinate, then entire sides of elytra rather regularly arcuate, punctures of the upper surface sparse, separated by one diameter and disc of elytra regularly convex, without impressions.
- 12 (13) Upper surface rather sparsely punctate, punctures separated by nearly one diameter. Male: anterior tibiae widened at the apex, intermediate ones deeply roundly emarginate in the apical part (figs. 36, 37). Internal sac of aedeagus with two enlarged chitinous teeth prominent from the apical orificium and unciform at the apex (fig. 17). Female: pygidium obtusely longitudinally arcuate in the middle. Zaire. *E. paradoxa* sp. n.
- 13 (12) Punctures of the upper surface closer, separated by less than one diameter. Impressions on pronotum very shallow, inconspicuous. Anterior and intermediate tibiae in males widened, never emarginate.
- 14 (15) Male: anterior tibiae strongly dilated in the apical half, intermediate ones moderately curved, becoming wider towards the apex, with short blunt tooth in the apical fourth of inner margin. Female: pygidium bluntly longitudinally carinate in the middle, shallowly impressed along lateral margins. Island Maurice. *E. mauritiana* sp. n.
- 15 (14) Impressions on pronotum sometimes almost indistinct (see also item 3 of this key). Male: anterior and intermediate tibiae dilated at the midlength.



Figs. 4–9: Male pygidium of *Epuraea joannae* sp. n. dorsal view (4). Lateral view of female pygidium in *E. cadaverina* (Roth) (5), and *E. terminata* Reitter (6). Dorsal view of female pygidium in *Parepuraea nitida* (Reitt.) (7), *P. spinifera* sp. n. (8) and *P. kolbei* (Grouv.) (9). Scale A — 0.5 mm (figs. 5, 6), scale B — 0.33 mm (figs. 4, 7–9). Figs. 5–6 after Jelínek (1967).

- Female: pygidium with sharp thorn directed backwards. Madagascar.
E. terminata Reitter
- 16 (1) Body smaller, of various form. Posterior tarsi more or less distinctly dilated. Posterior coxae situated closer together, intercoxal process of the first abdominal sternite more or less angulate.
- 17 (22) Tarsal claws simple, at most thickened at the base. Ovipositor in female with diverging hemisternites. (*E. inexpectata*-complex).
- 18 (19) Pubescence of the upper surface of normal length, particular hairs reaching base of the following ones. Body oblong oval. Male: intermediate tibiae dilated. *E. decellei* sp. n.
- 19 (18) Pubescence of the upper surface very short, particular hairs never reaching base of the following ones.
- 20 (21) Male: Intermediate tibiae feebly dilated at the apex. Lateral lobes of aedeagus broad with prolonged narrow tips (fig. 57). Median lobe of aedeagus oblong, narrow, with prolonged rounded apex (fig. 58). Female unknown with certainty. East Africa. *E. franzi* sp. n.
- 21 (20) Male: Intermediate tibiae simple. Lateral lobes of aedeagus broad with very short tips (fig. 59). Median lobe of aedeagus narrowed in the apical half, truncate at the apex. Congo. *E. inexpectata* sp. n.
- 22 (17) Tarsal claws strongly dentate. Body oblong. Intermediate tibiae in males always more or less dilated. Ovipositor with contiguous hemisternites. (*E. scutellaris*-complex).
- 23 (24) Elytra reaching their maximal length at lateral margins, their apical margins converging forwards towards the suture (fig. 67). Posterior femora conspicuously broad, almost triangular (fig. 64). Male: lateral lobes of aedeagus completely concrescent (fig. 56). Apex of median lobe of aedeagus narrower, bluntly rounded, almost truncate (fig. 55). Intermediate tibiae simple, only feebly dilated at the apex. Female: Ovipositor long, slender, hemisternites separated at the midlength, their lateral margins entirely concave, styli long (fig. 24). *E. scutellaris* Kraatz
- 24 (23) Elytral sutures as long as outer margins of elytra, apical margins transversely flatly arcuate (fig. 66). Posterior femora narrower than in the preceding species (fig. 63). Male: intermediate tibiae strongly calcarate at the apex (fig. 52). Lateral lobes of aedeagus separated by deep narrow excision (fig. 54). Apex of median lobe of aedeagus rather broadly truncate (fig. 53). Female: ovipositor shorter and wider than in the preceding species, hemisternites completely contiguous, their lateral margins convex in basal half, styli short (fig. 25). *E. subelongata* Grouvelle

1. *Eपुरaea* (*Eपुरaeanelle*) *sinuatipes* Grouvelle, 1912

Eपुरaea sinuatipes Grouvelle (1912) : 11

Holotypus: Zaire : Kisantu (MRAC)

Body broadly oval, rather strongly convex. Length 2.5–3.6 mm. Head with two very shallow impressions besides insertions of antennae. Pronotum transverse,

widest behind the midlength, more narrowed forwards than backwards, narrower than elytra. Anterior margin deeply emarginate. Base of pronotum widely shallowly emarginate besides posterior angles. Anterior angles sharply angulate, posterior ones obtuse. Disc of pronotum rather strongly convex, without impressions. Lateral margins strongly arcuate, distinctly explanate. Explanate borders of pronotum narrower than in other *Epuraeanella*, widest at posterior angles and here nearly as wide as anterior tarsi, narrowed forwards. Scutellum large, triangular. Elytra hardly longer than their combined width, widest at two fifths of their length, sides moderately arcuate, more converging backwards than towards the base, very narrowly explanate. Apical margins widely flatly arcuate. Disc of elytra rather strongly convex, humeral bulges little distinct. Punctures of the head and pronotum larger than eye facets, coarse, circular, separated by less than one diameter, becoming gradually larger backwards. Punctures of elytra less distinct, shallow, separated by nearly one diameter. Spaces between punctures smooth and shining, only apical part of elytra with feeble traces of reticulation. Pubescence fine, yellow, very sparse, recumbent, inconspicuous, particular hairs reaching base of the following ones. Pygidium very closely and coarsely punctate with feeble traces of reticulation. Reddish brown, disc of pronotum often with two more or less distinct black spots, sometimes also disc of elytra blackish. Inner side of intermediate tibiae with deep semicircular excision at the apex and strongly calcarate behind it in males. Tegmen short and wide, widest in basal third and moderately narrowed towards the base as well as towards the apex, lateral lobes short, broad, obliquely truncate, separated by short, narrow v-shaped excision (fig. 14). Median lobe of aedeagus dilated in the apical part, broadly arcuate at the apex (fig. 15). Ovipositor as figured (fig. 21).

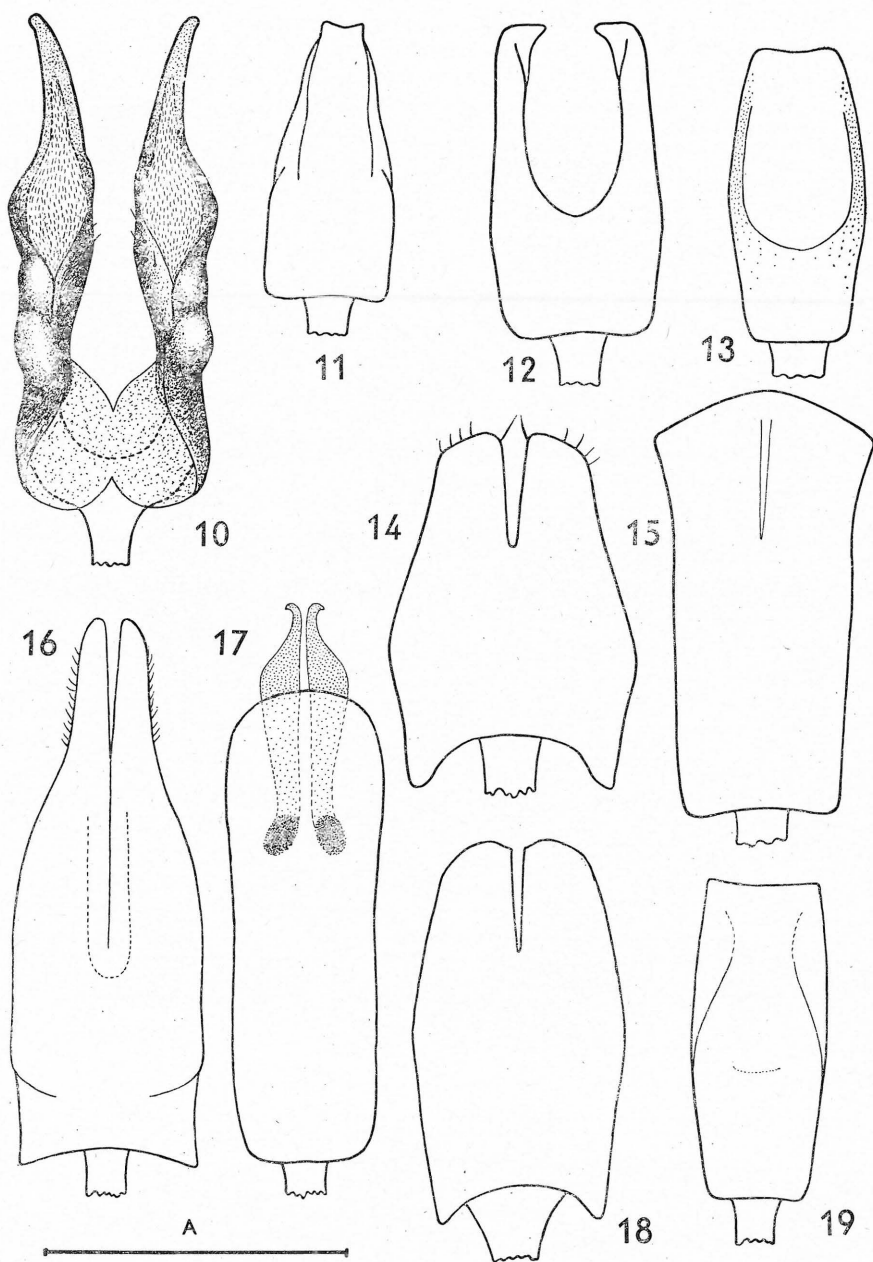
This species has a rather distinct position among other *Epuraeanella* owing to its broadly oval and rather convex body with very narrowly explanate lateral margins and non-impressed disc of pronotum. Also modification of the male intermediate tibiae differs from that in other species. Very distinct species, which can hardly be confused with any other.

Distribution: Zaire, Rwanda, Uganda.

Material examined: Zaire: Kisantu 1 spec. (Holotypus, MRAC) — Haut Uelé: Moto, Burgeon lgt., 2 spec. (MRAC) — Haut Uelé: Watsa, xi. 1919, Burgeon lgt., 1 spec. (MRAC) — Albertville, xiii. 1918, Mayné lgt., 1 spec. (MRAC) — Ituri, La Moto: Madyu, Burgeon lgt., 1 spec. (MRAC) — Congo da Lemba, x—xii. 1911, Mayné lgt., 1 spec. (MRAC) — Lulua: Kapanga, ii. 1933, Overlaet lgt., 1 spec. (MRAC) — Parc Nat. Albert, 11. ii. 1957, Vanschuytbroek lgt., 1 spec. (IPNC). Uganda: Bugumbura, ii. 1939, Taylor lgt., 1 spec. (BMNH) — Kawanda, ii.—iii. 1958, Whalley lgt. (light trap), 1 spec. (BMNH). Rwanda: Nyabikenke, terr. Nyanza, 1700 m, 12. 1. 1953, Basilewsky lgt., 1 spec. (MRAC).

2. *Epuraea* (*Epuraeanella*) *paradoxa* sp. n.

Male: Body large, broadly oval, flatly vaulted. Length 3.9 mm. Clypeus somewhat convex, front between insertions of antennae flatly impressed. Eyes small, convex, finely faceted. Temples converging backwards. Punctures circular, larger than eye facets, separated by less than one diameter, spaces between them smooth and shining. Pronotum transverse, almost twice as wide as long in the middle, widest behind the midlength. Anterior margin deeply emarginate, emargination occupying



Figs. 10–19: Male genitalia (tegmen and median lobe) of *Trimenus kraatzi* Jelinek (10, 11), *Epuraea joannae* sp. n. (12, 13), *E. sinuatipes* Grouv. (14, 15), *E. paradoxa* sp. n. (16, 17) and *E. mauritiana* sp. n. (18, 19). Scale A — 0.33 mm, resp. 0.5 mm (figs. 16, 17).

about one fourth of the total length of pronotum, truncate in the middle. Anterior angles strongly prominent, roundly acute, posterior ones obtuse. Base truncate in the middle, very broadly shallowly emarginate besides scutellum. Lateral margins rather strongly curved, more converging forwards than backwards, broadly explanate, emargination almost as wide as anterior tibiae in front, moderately widened before posterior angles. Disc of pronotum with two pairs of shallow impressions, at the level of eyes limited by longitudinal faults. Punctures circular, larger than eye facets, separated by one diameter, spaces between them smooth and shining. Scutellum largely triangular, closer punctate, with traces of reticulation. Elytra about 1.15 times longer than their combined width, widest at midlength and here wider than pronotum, almost truncate at the apex. Lateral margins rather strongly and regularly arcuate, only slightly more converging backwards than towards the base, distinctly explanate (width of explanation about half of that of pronotal sides in front). Disc of elytra moderately regularly convex, circular punctures larger than eye facets, separated by one diameter, spaces between them rather shining with traces of reticulation. Pygidium bluntly longitudinally carinate in the middle, punctures smaller and closer than those of elytra, separated by less than one diameter, spaces between them reticulate but despite of it rather shining, especially in the middle. Punctures of prosternum shallow, equal in size to eye facets, separated by one diameter on sternum, by less than one diameter on hypomera, spaces between them dull, reticulate. Metasternum and abdominal sternites sparsely punctate, punctures separated by one diameter or more, becoming sparser towards hypopygidium; spaces between them smooth and shining in the middle, but more or less dull at sides. Anterior tibiae moderately curved, strongly dilated in the apical fourth, their outer apical edges almost rectangular. Anterior tarsi dilated, almost as wide as anterior tibiae at the apex. Intermediate tibiae with deep semicircular excision in the apical third on inner margin (fig. 37). Posterior tibiae slender, long, slightly curved. Intermediate tarsi moderately dilated, posterior ones simple. Tarsal claws simple. Reddish brown, two obsolete spots on the disc of pronotum, scutellum and apical half of elytra blackish, dark colour reaching more forwards along lateral margins of elytra. Pubescence short, sparse, recumbent, yellow, inconspicuous, particular hairs never reaching over the base of the following ones. Aedeagus conspicuously large. Lateral lobes broad, for most of their length concrescent, only in the apical fourth separated by extremely narrow excision. Tegmen subparallel, abruptly narrowed in the apical third and prolonged into long narrow tip, represented by separated but almost contiguous lateral lobes (fig. 16). Median lobe of aedeagus subparallel, weakly sclerotized, internal sac with two chitinous teeth extremely enlarged, protruding by one third from the apical orifice forwards, abruptly narrowed and uncinat at the apex (fig. 17).

Female: In most characters corresponding with male. The 8th abdominal tergite lacking, anterior and intermediate tibiae simple. Pygidium rather distinctly carinate. Ovipositor long, slender, lateral margins of hemisternites parallel in the apical half. Styli long, narrow (fig. 20).

Variation: Distinctness of pronotal impressions somewhat variable, anterior ones usually smaller but deeper than the posterior ones. Rather variable in extent and distinctness of the black areas on the upper surface as well as its reticulation; spaces between punctures sometimes, at least on elytra, distinctly finely and closely reticulate and dull.

Comparative notes: At the first sight *E. paradoxa* resembles malagassy species *E. terminata* Reitt., from which it differs in both sexes by distinct impressions on pronotum and the form of genitalia. In males anterior and intermediate tibiae are different in each species, in females pygidium is simply carinate for the whole length in *E. paradoxa*, while carina is prolonged into sharp thorn in *E. terminata* Reitt.

From other species of *Epuraeanaella* males of *E. paradoxa* differ by the form of tibiae and aedeagus. Female resembles, especially by its carinate pygidium, that of *E. cadaverina* (Roth), from which it differs by more sparsely punctate elytra without impressions as well as by different coloration.

Name derivation: The name *paradoxa* is derived from the surprising development of aedeagus in males of this species, which is, as far as known to me, without analogy in the genus.

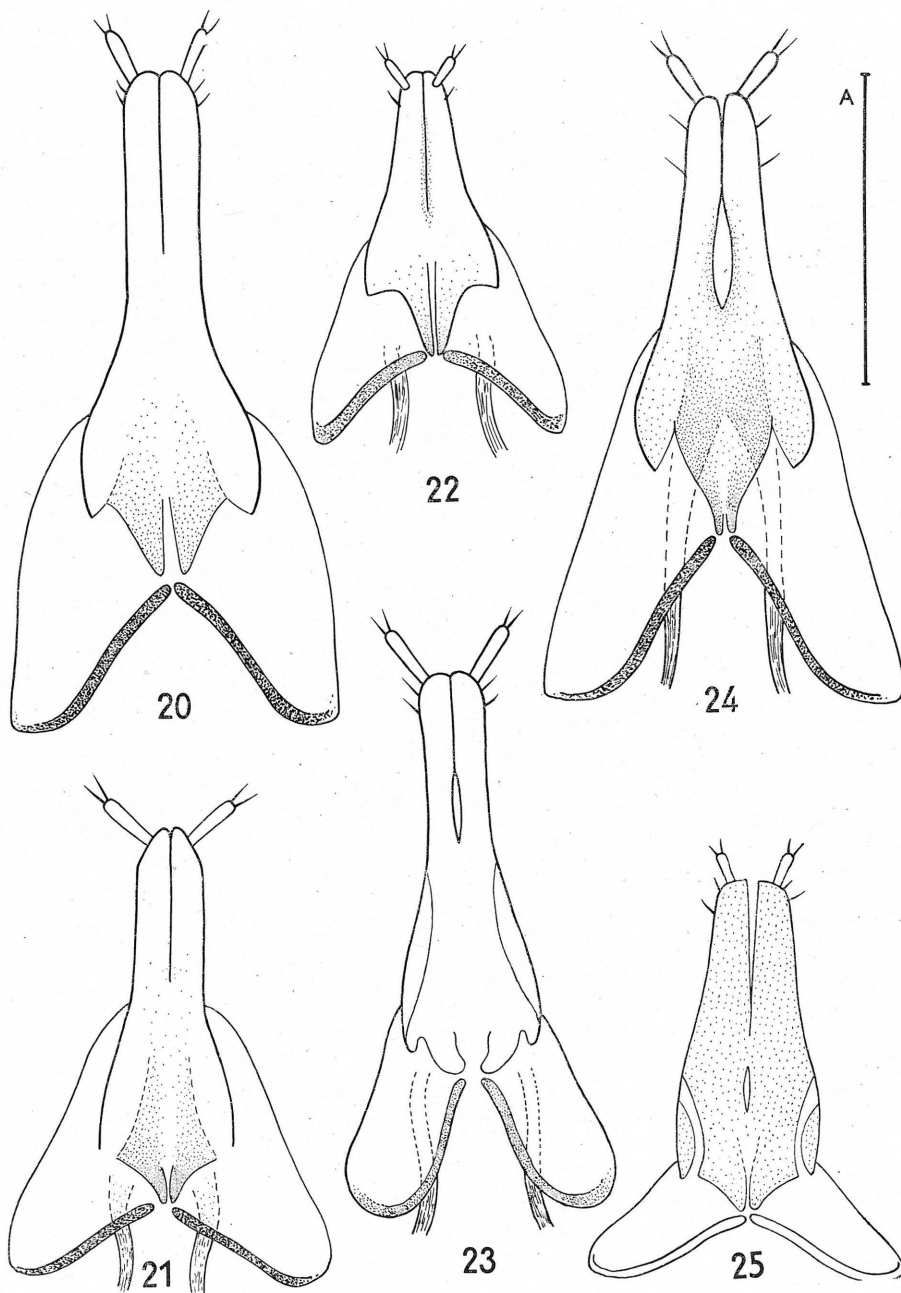
Type material: Holotypus: male, Zaire: Arebi (Rondo Mabé), 26. vii. 1925, H. Schouteden lgt. Deposited in MRAC.

Allotypus: female, Zaire : Arebi (Rondo Mabé), 24. vii. 1925, H. Schouteden lgt. Deposited in MRAC.

Paratypes: Zaire : Arebi : Bondo Moto, 25. vii. 1925, Schouteden lgt., 1 male (NMP) — Haut Uélé: Moto, 1920, Burgeon lgt., 1 female (NMP), dtto, ii.—iii.—1923, Burgeon lgt., 1 female (MRAC).

3. *Epuraea* (*Epuraeanaella*) *joannae* sp. n.

Male: Body broadly oval, flatly vaulted with broadly explanate sides. Length 3.1 mm. Head strongly transverse, eyes small, rather finely faceted. Temples nearly as long as eyes, arcuately converging backwards. Clypeus convex, sides of front moderately elevated above the insertions of antennae, front between insertions of antennae with two broad shallow impressions, more or less connected in the middle. Punctures of the head large, flat and very close, on the clypeus aequal in size to eye facets, becoming much larger backwards, separated by much less than one diameter, spaces between them dull. Antennae 11 segmented, segment 2. somewhat wider than the following ones, segments 3—5 very slender, long, the fourth one twice as long as wide, the third and fifth ones even longer, segment 6 slightly longer than wide, the 7th one as wide as long, the 8th estronglyon transverse and wider than the preceding ones. Antennal club oblong, egg-shaped, widest at the distal end of segment 10, about 1.55 times longer than wide. Pronotum very strongly transverse, widest behind the midlength, about 2.5 times wider than long in the middle. Anterior margin truncate in the middle, very deeply emarginate, the apical excision occupying nearly one third of the total length of pronotum. Anterior angles strongly prominent, bluntly obtuse. Base truncate in the middle, very shallowly and flatly emarginate besides obtuse posterior angles. Lateral margins strongly curved, much more converging forwards than backwards, very broadly explanate, explanate border occupying on each side nearly one sixth of the total width of pronotum. Disc of pronotum moderately convex, with two pairs of large, flat impressions, the posterior ones more distinct. Disc of pronotum limited by two lateral longitudinal faults and the third transverse one along the truncate median part of basal margin of pronotum. Punctures much larger than eye facets, flat, shallow, separated by distinctly less than one diameter, spaces between them reticulate, rather dull. Scutellum rather broadly triangular, as punctate as pronotum. Elytra short and wide, hardly longer



Figs. 20—25: Ovipositor of *Trimenus kraatzi* Jelinek (23), *Epuraea paradoxa* sp. n. (20), *E. sinuatipes* Grouv. (21), *E. joannae* sp. n. (22), *E. scutellaris* Kraatz (24) and *E. subelongata* Grouv. (25). Scale A — 0.33 mm.

than their combined width, widest slightly before the middle and here slightly wider than pronotum. Lateral margins in the two basal thirds of their length moderately and rather regularly arcuate, in the apical third very strongly converging towards the suture. Elytra reaching their maximal length at suture, separately rounded at the apex. Lateral borders of elytra broadly explanate (about two thirds of lateral borders of pronotum). Disc of elytra convex, humeral bulges little distinct, base of elytra between them and scutellum moderately impressed. Punctures of elytra smaller than those of pronotum, little distinct, distinctly granular, close, spaces between them rather dull. Pygidium truncate at the apex, with posterior angles elevated and moderately prominent, moderately depressed between them at posterior margin. Surface of pygidium closely, coarsely and granularly punctate, dull, with fine inconspicuous pubescence. Prosternum and very broad hypomera very indistinctly flatly punctate, feebly shining, reticulate. Metasternum with flat granular punctures slightly larger than eye facets, separated by less than one diameter. Spaces between them smooth and shining in the middle, reticulate in lateral parts. Punctures of abdominal sternites similar, but less distinct, not granular; spaces between them reticulate, weakly shining. Metasternum impressed in the middle of posterior half. All tibiae very slender, long, anterior ones moderately arcuate with rounded outer apical angle, intermediate ones arcuately dilated at midlength of their inner margins. Anterior tarsi feebly dilated, as wide as half the width of anterior tibiae. Posterior tarsi simple, tarsal claws long, narrow, not dentate. Chestnut brown, explanate lateral borders, legs and antennae yellowish brown, disc of pronotum and elytra as well as antennal club darker, blackish. Pubescence very sparse and short; recumbent, particular hairs reaching on pronotum (on elytra hardly reaching) the base of the following ones. Genitalia as figured (figs. 12, 13). Lateral lobes of aedeagus narrow, parallel, heavily sclerotized, separated by deep wide U-shaped excision, their tips curved down and inward. Median lobe of aedeagus widest at the midlength, feebly narrowed forwards as well as backwards, apex blunt, strongly curved down.

Female: General form of body, size and coloration corresponding with those of male. Intermediate tibiae simple, not dilated. Metasternum without impression. Pygidium flat, oblong, triangular, rounded at the apex. The eighth abdominal tergite invisible. Hemisternites of the ovipositor almost triangular, their lateral margins feebly arcuate, almost straight, styli short (fig. 22).

Variation: The species seems to be rather constant in most characters. Coloration sometimes pale, yellowish brown (probably immature specimens). Length of the body varies from 2.8 to 3.4 mm.

Comparative notes: *Epuraea joannae* differs from all ethiopian species hitherto known by the shape of apical margins of elytra, obliquely converging backwards to the suture (but transverse, almost truncate in other *Epuraeanelle*). At the first sight it is smaller than other similar *Epuraeanelle*. Males differ from those of other species in the shape of genitalia, intermediate tibiae and pygidium, females in the shape of ovipositor and quite flat pygidium.

Name derivation: I devote this species to my wife Jana for her understanding and help in my work.

Type material: Holotypus: 1 male, Zaire: Katanga, Kundelungu, 1750 m, xi. 1949, Leleup lgt. Deposited in MRAC, Tervuren.

Allotypus: 1 female, Zaire, Katanga, Kundelungu, 1750 m, iii.—iv. 1950, Leleup lgt. Deposited in MRAC, Tervuren.

Paratypes: Zaire: Kibali — Ituri, terr. Djugu, Mt. Aboro, 2200 m, i. 1954, Leleup lgt., 1 female (NMP) — Kivu: terr. Kabare, Nyakasiba, 2350 m (mountain forest), i. 1951, Leleup lgt., 1 female (MRAC) — Kivu: terr. Lubero, 2200 m (mountain forest), 1. 1952, Celis lgt., 1 male, 4 females (MRAC) — terr. Albertville, upper Kiyambi, Mt. Kabobo, 1700 m, x. 1958, Leleup lgt., 1 female (NMP) — Katanga: Kundelungu Muhulu, 1725 m, 4. x. 1951, Leleup lgt., 2 females (MRAC) — Katanga: Kundelungu, 1700 m (gallery forest), x. 1951, Leleup lgt., 2 males 2 females (MRAC, NMP) — Parc Nat. Upemba, Mukana-Lusinga, 1810 m, 16. iv. 1947, Mission de Witte, 1 female (IPNC) — Parc Nat. Upemba, Buye-Bala (left tributary of Muye, right tributary of river Lufira), 1750 m, 14. iv. 1948, Mission de Witte, 1 male (IPNC). Angola: Alto Chicapa, gallery forest of river Tshirimbo, 1350 m, 9. vii. 1954, Machado lgt., 1 female (Mus. Dundo).

4. *Epuraea* (*Epuraeanelia*) *cadaverina* (Roth, 1851)

Omosita cadaverina Roth (1851) : 122

Epuraea conradti Grouvelle (1899a) : 130

Epuraea cadaverina Jelínek (1967) : 119

Holotypus: Abyssinia (ZSSM)

Lectoholotypus of *E. conradti* Grouv. : Cameroon (DEI)

Large, broadly oval, moderately convex. Length 3.2–4.0 mm. Head small, front biimpressed between insertions of antennae. Punctures equal in size to eye facets or larger, separated by less than one diameter, spaces between them more or less shining. Pronotum transverse, lateral margins strongly arcuate, more converging forwards than backwards, widely explanate. Anterior margin truncate in the middle, deeply emarginate, anterior angles strongly prominent, almost rectangular, posterior ones rectangular. Base truncate in the middle, broadly shallowly emarginate besides scutellum. Disc with two pairs of large impressions, the posterior ones deeper and larger than the anterior ones, limited by longitudinal faults laterally. Punctures flat, nearly equal to eye facets, separated by less than one diameter, spaces between them smooth and shining. Scutellum large, triangular, more closely punctate than pronotum. Elytra slightly longer than their combined width, as wide as pronotum, vaulted, almost truncate at the apex. Lateral margins of elytra subparallel in the basal half, moderately arcuately converging backwards in the posterior half, distinctly explanate. Elytra with several feeble impressions, especially at the inner side of humeral bulge and along the basal part of suture. Punctures of elytra equal in size to those of pronotum, spaces between them smooth and shining. Pygidium bluntly longitudinally carinate in the middle in female. Anterior tibiae in male conspicuously pubescent on inner margins, intermediate ones strongly curved, with long conspicuous pubescence on inner margins (figs. 41). In female tibiae of all three pairs simple. Anterior tarsi distinctly dilated, reaching almost two thirds of the width of anterior tibiae, intermediate tarsi feebly dilated, posterior ones simple, narrow. Tarsal claws simple. Pitchy blackish brown, mouth parts, antennae, legs, explanate borders of pronotum and elytra, prosternum and epipleura of elytra reddish brown. Pubescence pale, recumbent, short. Lateral lobes of aedeagus long, narrow, subparallel, heavily sclerotized, uncinat at the apex (fig. 31). Median lobe of aedeagus not distinctly narrowed towards the apex, broadly truncate (fig. 30). Ovipositor slender, parallel, with rounded apex and rather short styli (fig. 34).

Distribution: the most common and widely distributed ethiopian *Epuraeana*, occurring in the greater part of Africa south of Sahara, except East Africa, where it is replaced by closely related species *E. omositina* Jelínek.

Material examined: Guinea: Dalaba, 17. iv. 1954, Villiers lgt., 1 spec. (IFAN) — Togo: Aledjo, 850 m, 8. vi. 1950, Villiers lgt., 1 spec. (IFAN). Cameroon: Johann-Albrecht-Höhe (now Kumba?), 2 spec. (DEL, incl. Lectoholotype) — Yoko, i. 1957, Cantaloube lgt. (MRAC). Zaire: Parc Nat. Garamba, Aka, 22. v. 1952, de Saeger lgt., 1 spec. (IPNC) — Parc Nat. Albert II., Massif Ruwenzori, Kalonge, 2060 m, stream Karambura, tribut. of Katauleko, 30. i. — 21. ii. 1953, Vanschuytbroeck and Kekenbosch lgt., 1 spec. (IPNC); dtto, river Nyamwamba, tribut. of Butahu, 2. — 3. ii. 1953, 1 spec. (IPNC); dtto, 21. — 22. viii. 1952, 1 spec. (IPNC). — Parc Nat. Albert II, sector Tshiaberimu, river Mbulikerere, 2720 m, 26. — 28. viii. 1953, Vanschuytbroeck and Kekenbosch lgt., 1 spec. (IPNC) — Parc Nat. Albert II, Mont Hoy, 1280 m, 7. — 15. vii. 1955, Vanschuytbroeck lgt., 1 spec. (IPNC) — Parc Nat. Albert II, sector North, Ihunga, tribut. of river Semliki, 1050 m, 12. xi. 1956, Vanschuytbroeck lgt., 1 spec. (IPNC) — Parc Nat. Albert, sect. North, Kivisa, nr. river Lume, 1480 m, 18. xii. 1956, Vanschuytbroeck lgt., 1 spec. (IPNC) — Parc Nat. Albert II, sect. North, Kilia, 1000 m, 13. i. 1957, Vanschuytbroeck lgt., 1 spec. (IPNC) — Kivu: Rwankwi, 15. — 30. iv. 1948, Leroy lgt., 6 spec.; dtto, iii. 1951, 7 spec.; dtto, xi. 1951, 1 spec. (MRAC) — Kivu: terr. Kalehe, SW Kahuzi, 2200 m, viii. 1951, Leleup lgt. (MRAC) — Kivu: terr. Mwenga, SW Itombwe, Luiko, 1900 m, 9. i. 1952 Leleup, 1 spec.; dtto, 26. i. 1952, 1 spec. (MRAC) — Kivu: terr. Kabare, Lwiro, 2000 — 2200 m, ix. 1953, Leleup lgt., 1 spec.; terr. Kabare, SE Kahuzi, 2080 — 2200 m, viii. 1951 (mount. forest), Leleup lgt., 1 spec. (MRAC) — Kivu: Mulungu, 30. v. 1932; Hendricx lgt., 2 spec.; dtto, 18. xi. 1932, Burgeon lgt., 1 spec. (MRAC) — Kivu: terr. Uvira, Mulenge, 1880 — 2010 m (humus), v. 1951, Leleup lgt., 1 spec. (MRAC) — Kivu: terr. Lubero, 2200 m (humus in mount. forest), i. 1952, Celis lgt. (MRAC) — Rutshuru, v. 1937, Ghesquière lgt., 3 spec. (MRAC) — Kasongo, viii. — ix. 1959, Benoit lgt., 3 spec. (MRAC) — Mongbwalu, vii. 1938, Scheitz lgt., 1 spec. (MRAC) — Lulua: Kapanga, xii. 1932 — iii. 1933, Overlaet lgt., 9 spec. (MRAC) — Albertville: Moyenne Kiyumbi, Abakungu, 950 m (gallery forest), i. 1951, Leleup lgt., 1 spec. (MRAC) — Albertville: Haute Kiyumbi, Mt. Kabobo, 1800 m, x. 1958, Leleup lgt., 9 spec. (MRAC) — Elisabethville, ii. 1940, Brédo lgt., 3 spec. (MRAC) — Elisabethville, Seydel lgt. (at light), 6 spec. (MRAC). Rwanda: Kayove, terr. Kisenyi, 2000 m, 14. ii. 1953, Basilewsky lgt., 1 spec. (MRAC). Burundi: Kitega, 1600 — 1700 m, 3. — 4. iii. 1953, Basilewsky lgt., 1 spec. (MRAC) — Kanyinya, 1500 m, vi. — xii. 1946, Dames de Marie, 1 spec. (MRAC). Abyssinia: Holotype of *Omosita cadaverina* Roth (ZSSM). Tanzania: Lusaka, iv. 1953 (on oranges), Boomans lgt., 2 spec. (MRAC). Angola: Alto Chicapa, gallery forest of river Gungo, affl. Tchito, 1250 m, 27. vi. 1934, Machado lgt. 1 spec. (Mus. Dundo). South Africa: Ngomi For., Nongoma D., x. 1960 (humus), 27 spec. (TMP) — Port St. John, Ingogo Forest, xii. 1961 (humus), 1 spec. (TMP) — Barbeton, x. 1961 (humus), 3 spec. (TMP) — Barbeton Dist., Suid Kaap R., x. 1961 (humus), 1 spec. (TMP).

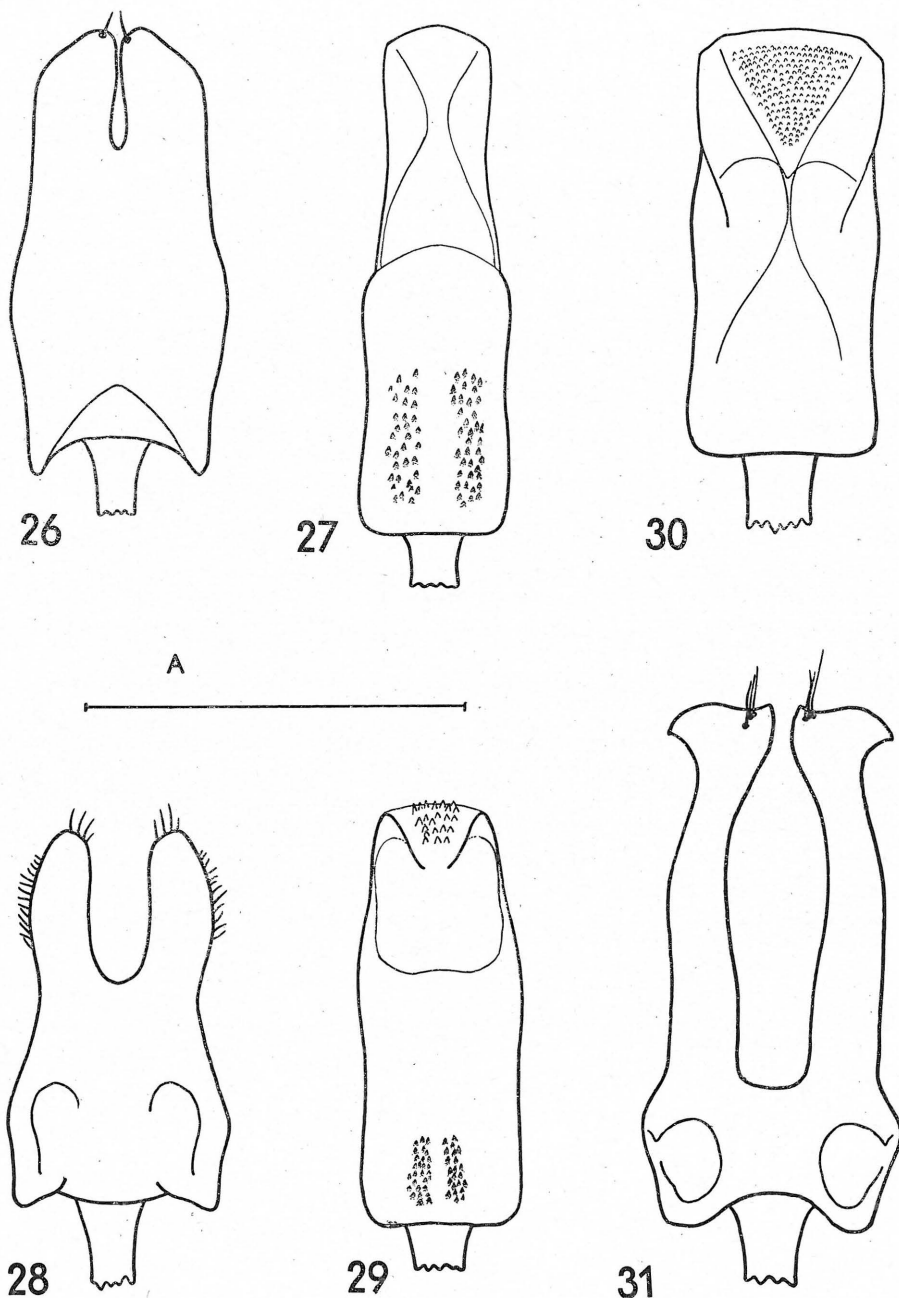
5. *Epuraea* (*Epuraeana*) *omositina* Jelínek, 1967

Epuraea omositina Jelínek (1967) : 115

Holotypus: Tanganyika, Škulina lgt. (NMP)

This species is very similar to the preceding one. Revision of richer material revealed, that fine differences in the shape of lateral and apical margins of elytra, suggested by Jelínek (1967) are not sufficient for exact identification of the two species. Nevertheless *E. omositina* Jelínek differs from *E. cadaverina* (Roth) quite distinctly in the form of genitalia and in the female sex by its uncarinate pygidium. Lateral lobes of aedeagus are rather short, separated by wide U-shaped excision, simply rounded at the apex, median lobe of aedeagus in the apical third narrowed, almost truncate at the apex (figs. 28, 29). Ovipositor long, narrow, parallel, rounded at the apex, styli longer than in *E. cadaverina* (Roth) (fig. 33).

Distribution: East Africa.



Figs. 26—31: Male genitalia (tegmen and median lobe) of *Epuraea terminata* Reitt. (26, 27), *E. omositina* Jelinek (28, 29), *E. cadaverina* (Roth) (30, 31). Scale A — 0.5 mm. After Jelinek (1967).

Material examined: Uganda: Kawanda, ii.—iii. 1958, Whalley lgt. (light trap), 1 spec. (BMNH). Kenya: Kabete, 13. vii. 1918, Anderson lgt. (rotten orange), 2 spec. (BMNH). Tanzania: Tanganyika, 1937, Škulina lgt., 2 spec. (incl. Holotype, NMP) — W slope of Mt. Meru, Franz lgt., 1 spec. (coll. Franz, Wien) — Mt. Meru, Olkokola, gorge de Tsorongiro, 2500 m, 4. vii. 1957, 1957, Basilewsky and Leleup lgt., 1 spec. (MRAC) — Zanzibar, 2 spec. (DEI).

6. *Epuraea* (*Epuraeanelle*) *terminata* Reiter, 1873

Epuraea terminata Reitter (1873) : 24, 30.

Holotypus: Madagascar (MHNP).

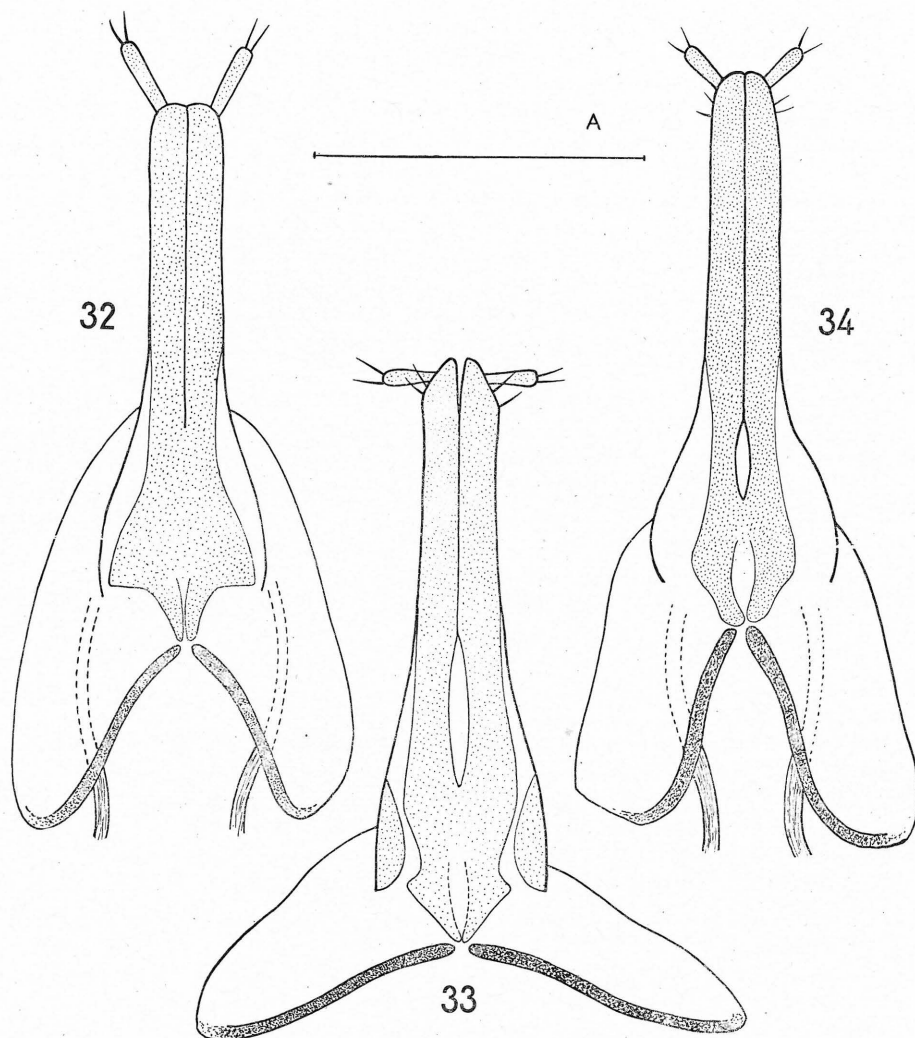
Body broadly oval, moderately convex. Length 3.8–4.2 mm. Front shallowly impressed beside insertions of antennae, antennae long, narrow, with oblong, oval club. Pronotum widest behind the midlength, more narrowed forwards than backwards, with broadly explanate sides and without distinct impressions on the disc (only feeble traces of them visible in some specimens). Anterior angles strongly prominent, acute, posterior ones nearly rectangular. Anterior margin deeply emarginate, straight in the middle. Scutellum large, triangular. Elytra longer than their combined width, their lateral marginus subparallel in the anterior half and moderately converging backwards in the apical part. Apex of each elytron very flatly arcuate, almost truncate. Metasternum in male broadly and deeply longitudinally impressed in the middle. Pygidium of male simple, with visible eighth abdominal tergite, that of female with carina prolonged backwards into strong sharp thorn (fig. 6). Inner side of anterior tibiae in male broadly and deeply emarginate in basal half and obtusely angulate in the middle (fig. 38). Intermediate tibiae arcuately sinuate at the midlength (fig. 39). Anterior tarsi in male almost as wide as anterior tibiae. Punctures of the upper surface small and close, separated by less than one diameter, finer and sparser on the ventral side. Spaces between them smooth and shining, pubescence short and sparse, yellow, inconspicuous. Body testaceous with two darker longitudinal spots on the disc of pronotum and darker antennal clubs. Lateral lobes of aedeagus broad, obliquely truncate at the apex and separated by short, very narrow excision, reaching nearly one fourth of the total length of tegmen (fig. 26). Median lobe of aedeagus long, narrow, in the apical half little narrower than in the basal one, subparallel, moderately arcuate at the apex (fig. 27). Ovipositor as figured (fig. 32).

Distribution: Madagascar.

Material examined: No exactly labelled specimens have been examined. About ten specimens simply labelled "Madagascar" are deposited in MHNP, NMW, DEI and BMNH.

7. *Epuraea* (*Epuraeanelle*) *mauritiana* sp. n.

Male: Body as in other *Epuraeanelle*, broadly oval, flatly convex. Length 3.2 to 3.7 mm, width 1.6–1.9 mm. Head almost flat, broadly and shallowly impressed besides insertions of antennae, clypeus moderately convex. Eyes small, regularly convex, temples converging backwards. Antennae slender, long, reaching the midlength of pronotum, ant. segment 2. slightly larger than the following ones, segments 3.—5. almost equal in size, long, narrow, roughly three times longer than wide, segments 6.—7. almost as long as wide, the 8th one distinctly transverse, antennal club oval, twice as long as wide. Pronotum strongly transverse, as wide as elytra,



Figs. 32—34: Ovipositor of *Epuraea terminata* Reitt. (32), *E. omositina* Jelínek (33) and *E. cada-verina* (Roth) (34). Scale A — 0.33 mm. After Jelínek (1967).

widest at the basal third, flatly vaulted, disc of pronotum almost flat with four feeble impressions. Anterior margin truncate in the middle, deeply emarginate, anterior angles almost rectangular. Lateral margins broadly explanate, strongly curved, more converging forwards than backwards, posterior angles obtuse. Base almost truncate, very shallowly emarginate besides posterior angles. Scutellum large, triangular. Elytra widest at the base, moderately and regularly narrowed towards the truncate apex, nearly 1.15 times longer than their combined width.

Lateral margins of elytra feebly arcuate, almost straight, narrowly explanate. Humeral bulges distinct, oblong. Disc of elytra flatly convex except the weak, oblique longitudinal fault, reaching from the midlength of lateral margin to the middle of truncate apex of each elytron. Punctures of the upper surface coarse and close, larger than eye facets, circular, separated by less than one diameter, spaces between them shining with more or less distinct traces of reticulation. Pubescence pale, recumbent, inconspicuous. Pygidium shallowly impressed along lateral margins, moderately elevated in the middle. The 8th abdominal tergite visible. Prosternum smooth and shining with sparse, shallow, indistinct punctures, hypomera closely and coarsely punctate with traces of reticulation. Punctures on metasternum, abdominal sternites and epipleura well developed, equal in size to eye facets, separated by one diameter, spaces between them smooth and shining in the middle of sclerites, with traces of reticulation in their lateral parts and distinctly reticulate on metepisterna. Metasternum broadly longitudinally impressed in the middle. Pubescence of the ventral surface and pygidium sparse, recumbent, inconspicuous, very short, particular hairs on ventral surface hardly reaching base of the following ones. Anterior tibiae of male strongly dilated in the apical half, anterior tarsi dilated, reaching nearly three fourths of the width of anterior tibiae. Intermediate tibiae slightly curved, gradually widened towards the apex, inner margin with short, blunt tooth in the apical fourth. Posterior tarsi simple. Aedeagus as figured (figs. 18, 19). Tegmen moderately narrowed towards the apex beginning from the basal third, lateral lobes broad, broadly separately rounded at the apex, separated by very narrow excision, reaching one third of the total length of tegmen. Dark testaceous, two large indistinct spots on pronotum pitchy blackish brown.

Female: the only female I have had at my disposal differs in some details from both the males examined. In some of them it is very difficult to decide, whether they are manifestation of constant sexual dimorphism or result of mere individual variation. Sides of elytra straight, more distinctly converging backwards than in males, the oblique lateroapical faults of elytra curved around the apical margins. Upper surface duller, well reticulate. Anterior and intermediate tibiae simple. Pygidium long, narrowed towards the truncate apex, shallowly impressed along the lateral margins, bluntly longitudinally carinate in the middle. Ovipositor unknown, because the unique female has not been dissected.

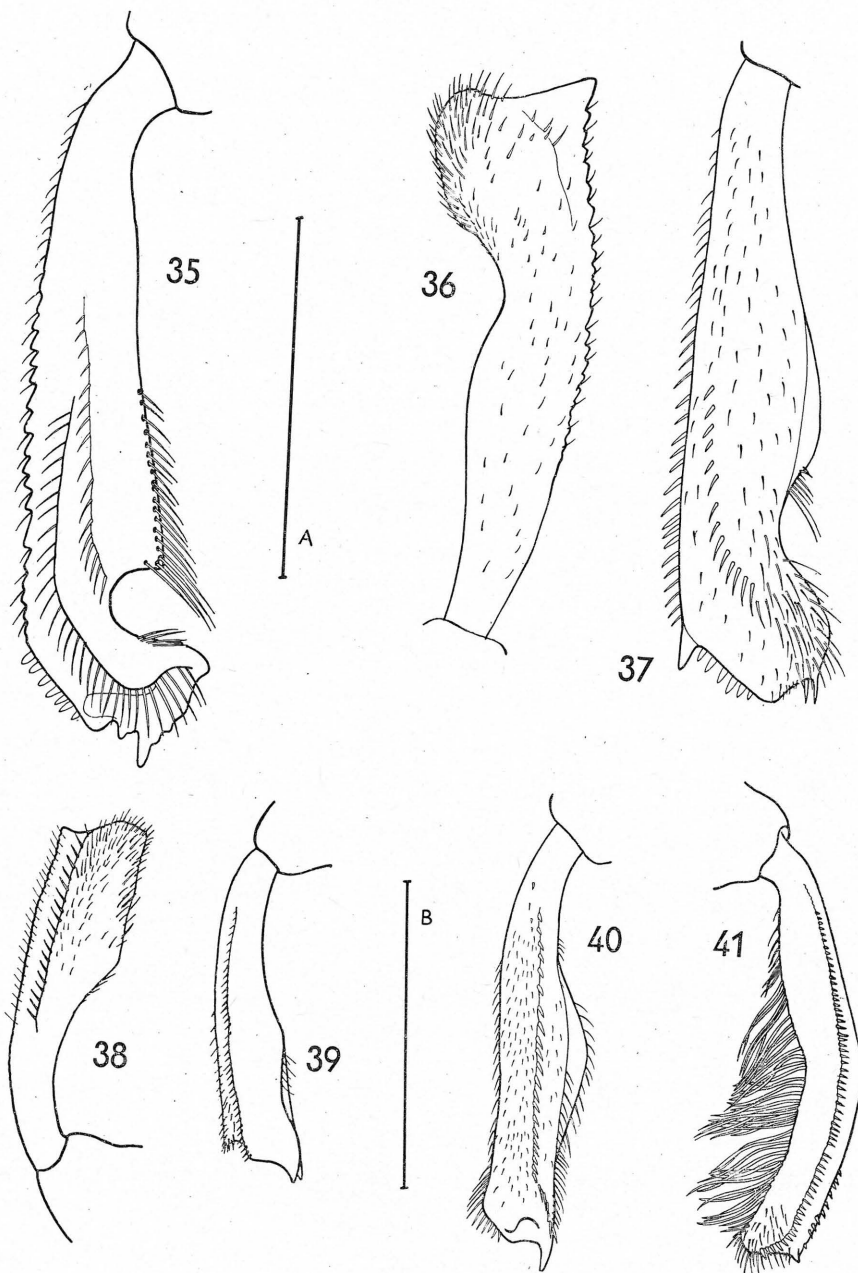
Comparative notes: This species seems to be closely related to *E. terminata* Reitt. from Madagascar. It has also only feebly impressed pronotum, similar anterior and intermediate tibiae in males and very similar type of male genitalia, especially tegmen. However the two species differ in the shape of male genitalia and intermediate tibiae in males, in females very conspicuously in the shape of pygidium, which is simply carinate in *E. mauritiana* but bearing sharp thorn in *E. terminata*. Generally speaking, *E. mauritiana* is more flat, with depressed disc of pronotum (moderately but distinctly convex in *E. terminata* Reitt.) and with more straight and converging sides of elytra.

Name derivation: The name *mauritiana* is derived from the island of Mauritius, where the species occurs.

Type material: Holotypus: male, Mauritius, J. E. M. Brown lgt., no. 99—265, identified by Grouvelle, 1905 as "*Epuraea nitida* Reitt." Deposited in BMNH.

Allotypus: female, the same data. BMNH.

Paratypus: 1 male, the same data, BMNH.



Figs. 35—41: Male anterior tibiae of *Epuraea paradoxa* sp. n. (36) and *E. terminata* Reitt. (38). Male intermediate tibiae of *Epuraea sinuatipes* Grouv. (35), *E. paradoxa* sp. n. (37), *E. terminata* Reitt. (39), *E. joannae* sp. n. (40) and *E. omositina* Jelinek (41). Scale A — 0.33 mm (fig. 35), scale B — 0.33 mm (figs. 36, 37, 40), resp. 0.5 mm (figs. 38, 39, 41).

8. *Eपुरaea decellei* sp. n.

Male: body small, oblong oval, moderately convex, testaceous. Length 2.0–2.9 mm. Head flat, frontal impressions besides insertions of antennae very shallow, almost indistinct. Temples converging backwards. Pronotum rather strongly transverse, about 1.65 times wider than long, widest behind the middle, more narrowed forwards than backwards. Anterior margin broadly arcuately emarginate, anterior angles almost rectangular, posterior ones obtuse. Arcuate lateral margins very narrowly explanate, the explanate borders becoming slightly wider towards posterior angles. Elytra oblong oval, almost subparallel, 1.15–1.25 times longer than their combined width, widest at the midlength and here slightly wider than pronotum. Lateral margins moderately regularly arcuate, very narrowly explanate. Apex of each elytron flatly rounded, almost truncate. Metasternum somewhat flattened in the posterior half. Upper surface convex, punctures slightly larger than eye facets, umbilicate, close, separated by less than one diameter, on elytra oval and coarser than those on pronotum. Spaces between punctures smooth and shining, sometimes, especially on elytra, with more or less distinct traces of reticulation. Pubescence long, recumbent, yellow. Anterior tarsi strongly dilated, almost as wide as anterior tibiae. Intermediate tibiae strongly dilated at the apex. Tarsal claws simple with moderately thickened base, not distinctly dentate. Tegmen rather short and broad, lateral lobes of aedeagus broad, bevelled in the apical parts towards short acute tips, separated by deep, very narrow V-shaped excision reaching over midlength of the tegmen (fig. 61). Median lobe of aedeagus subparallel, weakly sclerotized, broadly truncate at the apex (fig. 62). Internal sac with two short strong, more or less transverse thorns in the basal third of the median lobe.

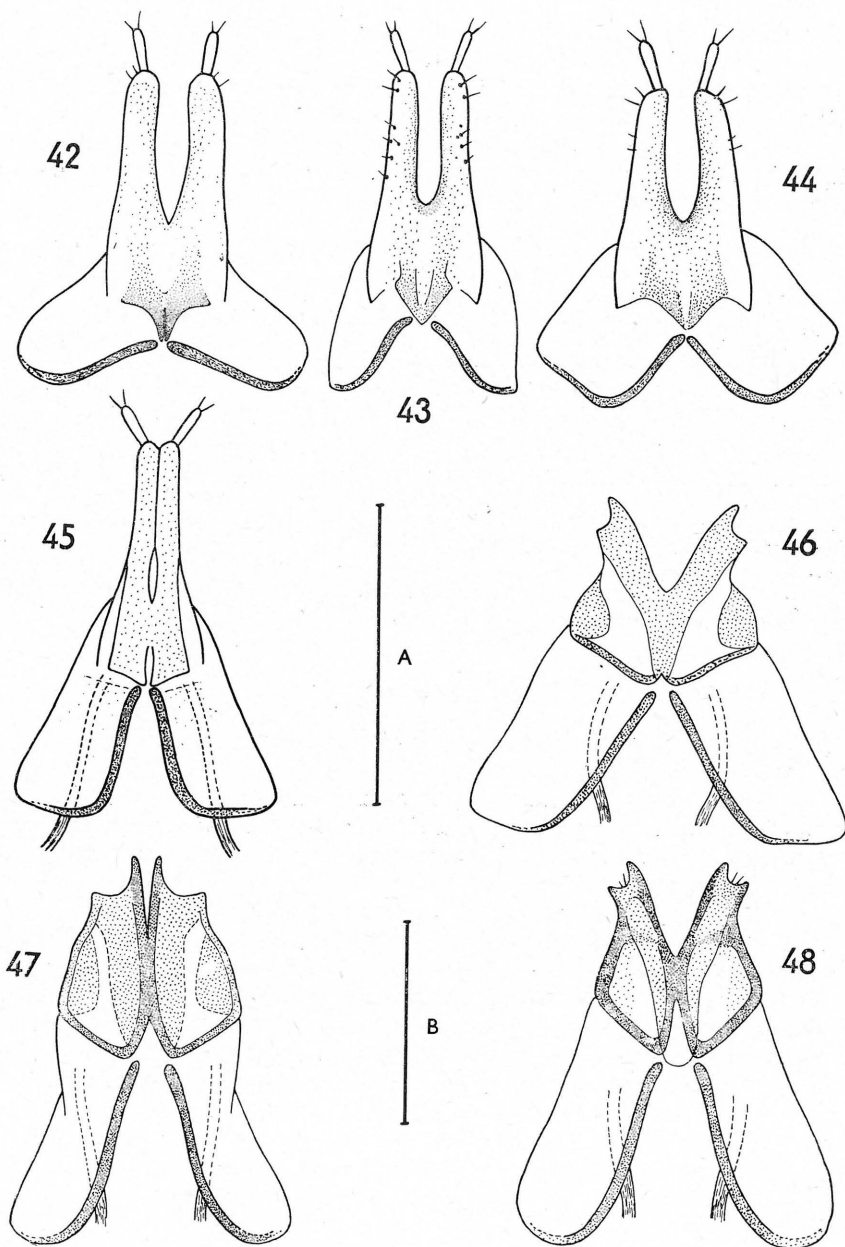
Female: in most characters mentioned corresponding with male but usually larger, longer and more parallel than the male. Intermediate tibiae simple. Anterior tarsi less dilated, distinctly narrower than anterior tibiae. Ovipositor with parallel, widely separated hemisternites and long styli (fig. 42).

Variation: The species is rather variable in the form of body. Especially the comparative length of elytra and the shape of their lateral margins are subject of variation. Generally speaking, the males are smaller, more oval, with comparatively shorter elytra. Length of examined specimens varies from 2.0 to 2.9 mm.

Comparative notes: *Eपुरaea decellei* sp. n. belongs to the distinct species group together with *E. inexpectata* sp. n. and *E. franzi* sp. n., described below. This species group is especially characterized by conspicuous adaptation of the ovipositor with widely separated hemisternites and also by the common form of body and simple tarsal claws. *Eपुरaea decellei* differs from the other species of this complex at first sight by its long, not abbreviate pubescence.

Longer females especially of *E. decellei* slightly resemble species of *E. scutellaris*-complex, from which they differ, however, by more transverse pronotum, simple tarsal claws and different type of the ovipositor. Nevertheless, similarity in the form of body in female *E. decellei* and species of the *E. scutellaris*-complex as well as similarity in the shape of male genitalia in *E. inexpectata*-complex and *E. subelongata* Grouv. (from *E. scutellaris*-complex) could suggest the close relationship between the two species groups of ethiopian *Eपुरaea*. It would mean, that dentate tarsal claws in *E. scutellaris*-complex developed independently from the subgenus *Micrurula* Reitt.

E. decellei, representing, at least in the form of female body, a link between the



Figs. 42–48: Ovipositor of *Epuraea decellei* sp. n. (42), *E. inexpectata* sp. n. (43), *E. franzi* sp. n.? (44), *Haptoncurina motschulskyi* (Reitt.) (45), *Parepuraea spinifera* sp. n. (46), *P. nitida* (Reitt.) (47) and *P. kolbei* (Grauv.) (48). Scale A — 0.33 mm (figs. 42–45), scale B — 0.33 mm (figs. 46–48).

two species groups mentioned, has sometimes wrongly been identified as *E. subelongata* Grouvelle even by Grouvelle himself (e. g. specimens from Zanzibar in DEI), but according to the type material the name *subelongata* Grouv. must be applied to another species (see under *E. subelongata* Grouv.).

Name derivation: I beg to devote this species to Dr. J. Decelle from Musée Royal d'Afrique Centrale, Tervuren, who kindly enabled me to study extensive material of Ethiopian *Epuraea*, deposited in that Museum.

Type material: Holotypus: 1 male, Zaire, Elisabethville, 1957, 1958, Ch. Seydel lgt. (at light). Deposited in MRAC, Tervuren.

Allotypus: 1 female, the same data, deposited in MRAC, Tervuren.

Paratypes: Cameroon: Conradt lgt. identified as "*E. ocularis* Kraatz", 1 male (DEI). Nigeria: Ibadan, 26. ix. 1956, Caswell lgt. (at light), 1 female (BMNH). Zaire: Ituri: Mahagi, 20. v. 1925, Schouteden lgt., 1 female (MRAC) — Stanleyville, 28. v. 1926, Ghesquière lgt., 2 females (MRAC) — Kivu: Kamimvira (Uvira), i. 1956, Marlier lgt., 1 male, 1 female; dtto, ix.—x. 1954, 1 male (MRAC) — Parc Nat. Albert, Mt. Hoyo, 1280 m, 7.—15. vii. 1955, Vanschuytbroeck lgt., 1 male (IPNC) — Elisabethville, ii. 1950, Seydel lgt. (at light), 1 male; dtto, x.—xi. 1950, 2 males, 2 females; dtto, xi. 1950—vi. 1951, 4 males, 16 females; dtto, xi. 1951—ii. 1952, 3 males, 12 females; dtto, i. iii. 1952—30. ix. 1953, 3 males, 2 females; dtto, 1953—1955, 4 males, 27 females; dtto, i. 1956—i. 1957, 3 females; dtto, xi. 1956, 1 female; dtto, 1957—1958, 1 male, 1 female (MRAC, NMP) — Elisabethville, ii. 1940, Brédo lgt., 1 male (MRAC). Abyssinia: marsh nr. lake Hora Abjata, 5000 ft, 17. xi. 1926, Omer-Cooper lgt., 1 male (BMNH). Uganda: Kawanda, 15. ii.—6. iii. 1958, Whalley lgt. (MV light trap), 1 spec. (BMNH). Tanzania: Zanzibar, coll. Kraatz, "*E. subelongata*" det. Grouvelle, 2 males (DEI). Rhodesia: Mashonaland, Salisbury, iv. 1899, Marshall lgt., 1 spec. (BMNH).

9. *Epuraea inexpectata* sp. n.

Male: Small, short, oval, with short, sparse pubescence. Head with two broad impressions beside insertions of antennae. Temples convergent. Punctures equal in size to eye facets, close, separated by less than one diameter. Pronotum nearly 1.8 times wider than long, widest behind the middle, sides rather regularly arcuate, more converging forwards than backwards. Anterior margin broadly arcuately emarginate. Anterior angles prominent, feebly roundly obtuse, posterior ones obtuse. Base almost straight, besides posterior angles only very shallowly flatly emarginate. Explanate lateral borders in anterior part nearly twice as wide as antennal flagellum, in posterior half strongly widened, at posterior angles almost twice as wide as in anterior part. Punctures umbilicate, circular, very close, separated by nearly half of the diameter, spaces between them smooth and shining. Scutellum triangular, as punctate as pronotum. Elytra nearly 1.15 times longer than their combined width, widest at midlength, slightly larger than pronotum, narrowed backwards, very flatly arcuate, almost truncate at the apex. Explanate lateral margins rather narrow, as wide as antennal flagellum. Humeral bulges weak. Punctures equal in size to those of pronotum but sparser, separated by nearly one diameter. Spaces between them smooth and shining. Hypomera and sides of prosternum roughly closely punctate, reticulate, dull. Disc of prosternum and prosternal process rather shining, sparsely and indistinctly punctate, punctures separated by nearly one diameter. Metasternum and abdominal sternites coarsely closely punctate, punctures rounded, equal in size to eye facets, separated by less than one diameter, spaces between them rather shining. Metasternum flattened in the middle. Anterior tibiae widest at the apex, outer edge finely denticulate, outer apical angle rectangular. Anterior tarsi

dilated, nearly as wide as two thirds of the width of anterior tibiae. Intermediate tibiae simple, not dilated (fig. 49). Posterior tibiae slender, feebly curved. Tarsal claws strongly thickened at the base but not distinctly dentate. Yellowish brown, large obsolete triangular spot around scutellum blackish. Pubescence yellow, very sparse and short, particular hairs not reaching base of the following ones. Genitalia as figured (figs. 59, 60). Lateral lobes broad, with short rounded prominent tips, separated by narrow excision reaching almost to midlength of the tegmen. Aedeagus moderately narrowed towards the apex in the apical half, rather broadly truncate at the apex.

Female: in general appearance corresponding with the male, from which it differs, as in all *Epuraea*, by lack of the eighth abdominal tergite. Ovipositor with narrow, subparallel hemisternites separated by deep U-shaped excision, rounded at the apex, bearing long slender styli (fig. 43).

Variation: Pronotum 1.75–1.85 times as wide as long, explanate lateral borders of pronotum sometimes wider than it is given above. Upper surface of body between punctures sometimes rather shining with traces of reticulation, in some specimens quite dull with well developed reticulation. Length 2.0–2.7 mm.

Comparative notes: With its general form of body, indistinctly dentate tarsal claws and the shape of genitalia in both sexes, this species is closely related to *E. decellei* sp. n. and *E. franzi* sp. n. From *E. decellei* sp. n. it differs at first sight by its conspicuously short pubescence and, in the male sex, by simple intermediate tibiae and form of genitalia, especially by narrowed median lobe of aedeagus. In general appearance and short pubescence, *E. inexpectata* agrees with *E. franzi* sp. n., described below. In that species however the male intermediate tibiae are slightly dilated at the apex and the male genitalia are rather different. Some subtle distinguishing characters between both species have been further observed, but their true value depends on variation in *E. franzi* sp. n., extent of which is not known so far, as only a few specimens are known. They are as follows:

E. franzi sp. n.

Pronotum more transverse, 1.95 times wider than long, reaching its maximal width closer towards the base.

Explanate lateral borders of pronotum narrower, slightly widened backwards.

Anterior angles more sharply pointed.

Antennal club dark.

E. inexpectata sp. n.

Pronotum less transverse, 1.75–1.85 times wider than long, widest at the midlength.

Explanate lateral borders wider, in the posterior part almost twice as wide as in front.

Anterior angles of pronotum more or less roundly obtuse.

Antennae unicoloured, testaceous.

Name derivation: From Latin "inexpectatus" — unexpected.

Type material: Holotypus: 1 male, Zaire, Elisabethville, i. 1956–i. 1957, Ch. Seydel lgt. (at light). Deposited in MRAC, Tervuren.

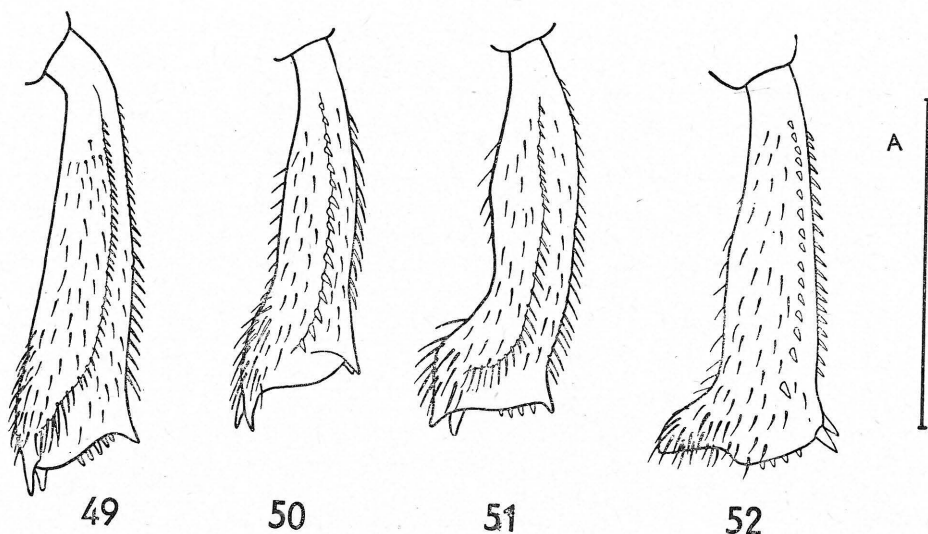
Allotypus: 1 female, Zaire: Elisabethville, x.–xi. 1950, Ch. Seydel lgt. (at light). Deposited in MRAC, Tervuren.

Paratypes: Nigeria: Ibadan, 27. xi. 1955, Caswell lgt. (at light), 1 ♀; dtto, 26. i. 1956, 1 ♀; dtto, 26. ix. 1956, 1 ♂ (BMNH). Zaire: Elisabethville, Ch. Seydel lgt. (at light), x.–xi. 1950, 1 ♀; xi. 1950–vi. 1951, 2 ♂♂, 1 ♀; dtto, xi. 1951–ii. 1952, 1 ♂, 1 ♀; 1. iii. 1952–30. ix. 1953, 1 ♀; 1953–1955, 1 ♂; 1956–1957, 1 ♀; 1957–1958, 1 ♀ (MRAC and NMP) — Lualaba: Kolwezi, 20.–25. i. 1961, Allard lgt. (at light), 2 ♂♂, 1 ♀ (MRAC and NMP). Uganda: Bububu, x. 1938, Taylor lgt., 3 spec.; xi. 1938, Taylor lgt., 2 spec. (BMNH).

10. *Epuraea franzi* sp. n.

Male: Small, rather shortly oval, with conspicuously short, sparse pubescence. Length 2.5 mm. Head with two shallow oblique impressions beside insertions of antennae, rather closely punctate. Punctures nearly equal in size to eye facets, separated by less than one diameter, spaces between them dull, reticulate. Antennal segment 2 wider than the following ones, nearly 1.3 times longer than wide, segment 3 twice longer than wide, segments 4 and 5 nearly as long as wide, segments 6 and 7 slightly transverse, segment 8 strongly transverse, wider than the preceding ones. Club egg-shaped, about 1.6 times longer than wide, widest at the end of segment 10. Temples convergent. Pronotum 1.95 times wider than long, widest in the basal third, sides moderately arcuate, more converging forwards than backwards. Anterior margin broadly shallowly arcuately emarginate, anterior angles moderately prominent, moderately obtuse. Base of pronotum almost straight, almost indistinctly flatly emarginate beside obtuse posterior angles. Explanate lateral borders of pronotum hardly twice as wide as antennal flagellum, slightly widened backwards. Punctures of pronotum umbilicate, rounded, slightly larger than eye facets, separated by one diameter or less, spaces between them smooth and shining. Scutellum triangular, as punctate as pronotum. Elytra oval, as wide as pronotum, about 1.15 times longer than their combined width, from the midlength rather distinctly narrowed backwards, separately very flatly rounded, almost truncate, at the apex. Explanate lateral borders of elytra nearly as wide as antennal flagellum. Punctures similar to those of pronotum but rather oval, spaces between them smooth and shining. Humeral bulges distinctly vaulted. Hypomera and lateral parts of prosternum coarsely conspicuously punctate, punctures equal in size to eye facets, close, separated by less than one diameter, spaces between them dull, reticulate. Punctures on the disc of prosternum sparser and shallower, spaces between them more or less shining. Punctures of metasternum hardly equal in size to eye facets, separated by less than one diameter, spaces between them smooth and strongly shining in the middle, more or less dull with traces of reticulation in lateral parts. Similar punctures also on abdominal sternites. Metasternum with light longitudinal impression in the middle. Anterior tibiae widest at the apex, their outer margins finely denticulate, outer apical angles rectangular. Anterior tarsi dilated, moderately narrower than tibiae at the apex. Intermediate tibiae slightly dilated at the apex (fig. 50). Yellowish brown, large triangular spot around scutellum and indistinct spots before the middle of each elytron obsoletely blackish. Antennal club darker than rest of antennae. Pubescence yellow, very short and sparse, particular hairs hardly reaching base of the following ones. Genitalia as figured (figs. 57, 58). Tegmen oblong, moderately narrowed towards the apex, lateral lobes of aedeagus broad, prolonged into long narrow tips at the apex, separated by narrow excision reaching nearly one third of the total length of tegmen. Median lobe of aedeagus rather long, narrowed towards the small rounded tip.

Female: *E. franzi* sp. n. is known with certainty only on the basis of the male sex. In MRAC, Tervuren, there is one female from Kilimandjaro, resembling with its more transverse pronotum with more acute anterior angles and darker antennal club, the male of *E. franzi* and differing by the mentioned characters from numerous females examined of *E. inexpectata* sp. n. Ovipositor of this specimen is wider, with outer margins of hemisternites more converging than in *E. inexpectata*. It



Figs. 49–52: Male right intermediate tibiae of *Epuraea inexpectata* (49), *E. franzi* sp. n. (50), *E. decellei* sp. n. (51), *E. subelongata* Grouv. (52). Scale A — 0.33 mm.

seems probable that this specimen is conspecific with the Holotype of *E. franzi*, but I hesitate to designate it as Allotypus of this species (fig. 44).

Comparative notes: *Epuraea franzi* sp. n. is very closely related to the preceding species *E. inexpectata* sp. n. In the male sex it differs, however, by slightly dilated intermediate tibiae and conspicuously different form of genitalia. Some further subtle distinguishing characters, validity of which must be verified on the base of larger material in future, are given above (see *E. inexpectata* sp. n.).

Name derivation: I beg to dedicate this species to Prof. Herbert Franz from Institut für Bodenforschung, Wien, who kindly lent me his small but highly interesting collection of *Epuraea* from East Africa.

Type material: Holotypus: 1 male, Kenya, env. of Nairobi, H. Franz lgt. Deposited in collection of Prof. Franz, Wien. Further material examined: Tanzania: Kilimandjaro, Marangu, 2400 m, 20. ii. 1956, J. and N. Leleup lgt., 1 female.

11. *Epuraea subelongata* Grouvelle, 1909

Epuraea subelongata Grouvelle (1909b) : 131.

Holotypus: Tanzania, Kwai, in MHNP.

Male: Oblong, subparallel, transversely vaulted. Length 3 mm. Front with two broad shallow impressions besides insertions of antennae, rather coarsely and closely punctate, punctures umbilicate, equal in size to eye facets, separated by less than one diameter, spaces between them rather shining with traces of reticulation. Temples short, roundly converging backwards. Antennal segment 2 wider than the

following ones, hardly 1.2 times longer than wide, segment 3 more than twice as long as wide, widest at the distal end, segments 4 and 5 slightly longer than wide, subequal, segment 6 hardly as long as wide, segment 7 distinctly, the 8th one strongly transverse, segment 8 distinctly wider than the preceding ones. Antennal club broadly oval, 1.3 times longer than wide, widest at midlength. Pronotum rather long, only 1.55 times longer than wide, widest at midlength, sides moderately and rather regularly arcuate, only slightly more converging forwards than backwards. Anterior margin of pronotum broadly arcuately emarginate, anterior angles roundly obtuse. Base of pronotum almost straight, only flatly emarginate besides posterior angles. Posterior angles obtuse. Explanate borders of pronotum very narrow, much narrower than antennal flagellum. Punctures of pronotum umbilicate, equal in size to eye facets, separated by less than one diameter, spaces between them moderately shining with traces of reticulation, in lateral parts duller, distinctly reticulate. Scutellum triangular, closely punctate, shining. Elytra oblong, subparallel, transversely vaulted, widest at midlength and here as wide as pronotum, 1.25 times longer than their combined width, separately flatly rounded at the apex. Lateral margins of elytra as long as suture, feebly arcuate, only slightly more converging backwards than towards the base, very narrowly explanate. Humeral bulges weak. Punctures of elytra similar to those of pronotum, separated by less than one diameter, spaces between them moderately shining with traces of reticulation. Ventral surface simply punctate, punctures smaller than eye facets, separated by nearly one diameter, spaces between them dull, reticulate on prosternum, rather shining with traces of reticulation in the middle of metasternum and abdominal sternites, in their lateral parts dull. Metasternum with deeply impressed longitudinal line in the middle. Anterior tarsi strongly dilated, almost as wide as anterior tibiae. Inner margin of intermediate tibiae strongly calcarate at the apex (fig. 52). Tarsal claws strongly dentate. Yellowish brown, pubescence of normal length (particular hairs reaching over base of the following ones), recumbent, yellow, inconspicuous. Lateral lobes of aedeagus broad, separated by deep narrow incision, from the basal third of tegmen moderately narrowed towards the obliquely truncate apex with feebly prolonged tips (fig. 54). Median lobe of aedeagus from the midlength narrowed towards the broadly truncate apex (fig. 53).

Female: In most characters corresponding with male. Anterior tarsi narrower than in male, reaching only two thirds of the width of anterior tibiae. Intermediate tibiae simple. Metasternum without impressed longitudinal line, only lightly flattened in the posterior half. Ovipositor with comparatively short broad hemisternites, almost truncate at the apex and with outer margins of hemisternites only in apical half moderately concave. Styli short (fig. 25).

Length varies from 2.1 to 3.0 mm. Explanate lateral borders of pronotum are also variable, sometimes very narrow, in other cases moderately widened at anterior as well as posterior angles and here almost as wide as antennal flagellum. Also reticulation of upper surface and the shine, depending on it, exert some variations.

Epuraea subelongata Grouv. is a member of *E. scutellaris-complex*, both species having similar oblong form of body and strongly dentate tarsal claws. They may be, however, easily distinguished according to the following characters:

E. scutellaris Kraatz

Lateral margins of elytra longer than suture, apical margins converging obliquely forwards towards the suture (fig. 67).

Posterior femora conspicuously broad in both sexes, almost triangular (fig. 64).

Intermediate tibiae in males only slightly dilated at the apex.

Ovipositor slender, styli long, hemisternites separated in the middle, entire outer margins of hemisternites concave (fig. 24).

Lateral lobes of aedeagus completely crescent.

Apex of median lobe of aedeagus narrow, bluntly rounded, almost truncate.

E. subelongata Grouv.

Lateral margins of elytra as long as suture, apical margins transverse, flatly rounded (fig. 66).

Posterior femora in both sexes narrower (fig. 63).

Intermediate tibiae in males strongly calcarate (fig. 52).

Ovipositor shorter, wider, hemisternites in their entire length contiguous, their outer margins convex in basal half. (fig. 25).

Lateral lobes of aedeagus separated by deep narrow excision.

Apex of median lobe of aedeagus rather broadly truncate.

E. subelongata Grouv. may also be confused with female of *E. decellei* sp. n., from which it differs by longer pronotum and strongly dentate tarsal claws, apart from quite different form of genitalia in both sexes.

Grouvelle (1909b) described his *Epuraea subelongata* after specimens from Kwai, Usambara Mts., Tanzania, collected by Weise, which ought to be deposited in DEI and coll. Grouvelle, now in MHNP. In collections of DEI, Eberswalde, there are, however, no specimens appropriately labelled. Through the kindness of Dr. A. Descarpentries I was able to study only one male specimen from the typical series, labelled appropriately and fitting well the original description. It is deposited in collection Grouvelle (MHNP) and was subsequently designated by Dr. Endrödy-Younga as Paratype. However, as other specimens from the original series are not available, I designated this male specimen as Lectoholotype. The only specimen deposited in DEI and identified by Grouvelle as "*Epuraea subelongata*" originate from Zanzibar and belong to a different species, described above as *Epuraea decellei* sp. n.

Distribution: Tropical Africa from Nigeria to Uganda and Tanzania.

Material examined: Nigeria: Ibadan, 27. xi. 1955, Caswell lgt. (at light), 2 spec.; dtto, 26. ix. 1956, 2 spec. (BMNH). Zaire: Kivu: terr. Uvira, Mulenge, 1880–2010 m, v. 1951, Leleup lgt., 1 spec. (MRAC) — Kivu: vallée de la Loso, viii. 1937, Ghesquière lgt., 1 spec. (MRAC) — Elisabethville, Seydel lgt. (at light), various data, 35 spec. (MRAC). Uganda: Kampala, 27. v. 1927, Hargreaves lgt. (in decaying fig), 1 spec. (BMNH). Tanzania: Musosa, 980 m, xi. 1953, Boomans lgt., 1 spec. (MRAC) — Mpala, 780 m, xii. 1953, Boomans lgt., 1 spec. (MRAC).

12. *Epuraea scutellaris* Kraatz, 1895

Epuraea scutellaris Kraatz (1895) : 147

Lectoholotypus: Togo, Conradt lgt. In DEI, Eberswalde.

Oblong oval, subparallel. Length 2.5–3.2 mm. Head flatly vaulted, only shallowly impressed besides insertions of antennae, eyes small, finely faceted. Pronotum moderately transverse, 1.5–1.6 times wider than long, widest at midlength, only slightly more narrowed forwards than backwards. Lateral margins moderately arcuate, obsolete narrowly explanate. Anterior margin rather deeply emarginate,

anterior angles moderately obtuse, posterior ones almost rectangular. Base of pronotum flatly emarginate besides posterior angles. Elytra almost 1.2 times longer than their combined width, widest slightly behind the midlength and here feebly wider than pronotum. Lateral margins subparallel, only moderately arcuate and very narrowly explanate. Lateral margins of elytra longer than suture, apex of each elytron obliquely truncate (fig. 67). Metasternum with fine longitudinal line in the middle, in males in posterior half triangularly impressed. Intermediate tibiae in males usually simple, only rarely feebly dilated at midlength and moderately calcarate at the apex. Posterior femora in both sexes conspicuously broad, almost triangular. Anterior tarsi in both sexes conspicuously broad, in females almost as wide as anterior tibiae, in males wider. Tarsal claws strongly dentate. Umbilicate punctures on the upper surface slightly larger than eye facets, separated by one diameter or less, spaces between them smooth and shining, only sometimes with feeble traces of reticulation. Elytra often somewhat duller than pronotum. Testaceous, pubescence long, sparse, recumbent, yellow, inconspicuous, sometimes completely rubbed down, so that beetle appears to be bare. Tegmen rather large with completely conrescent lateral lobes, narrowed towards the apex, which is moderately prolonged into short prominent tip and bears long unpaired bristle (fig. 56). Median lobe of aedeagus moderately narrowed towards the bluntly rounded apex (fig. 55). Ovipositor slender, long, entire lateral margins of hemisternites concave, styli longer than in *Epuraea subelongata* Grouv. (fig. 24).

This species is without any doubt closely related to the preceding species, *Epuraea subelongata* Grouv., from which it differs by a set of distinct characters, discussed above (see *E. subelongata* Grouvelle).

Epuraea scutellaris was described by Kraatz (1895) from a series of specimens collected in Togo by Conradt and deposited in DEI, Eberswalde. In the collections of this institute I found 7 specimens pinned on a common pin and labelled: Togo Conradt (coll. Kraatz) *Epuraea scutellaris* / Typus apart from further 21 specimens bearing the same data but not labelled as Types. One male from the typical series of 7 specimens was pinned separately by me and designated as Lectoholotypus of this species.

Distribution: West Africa.

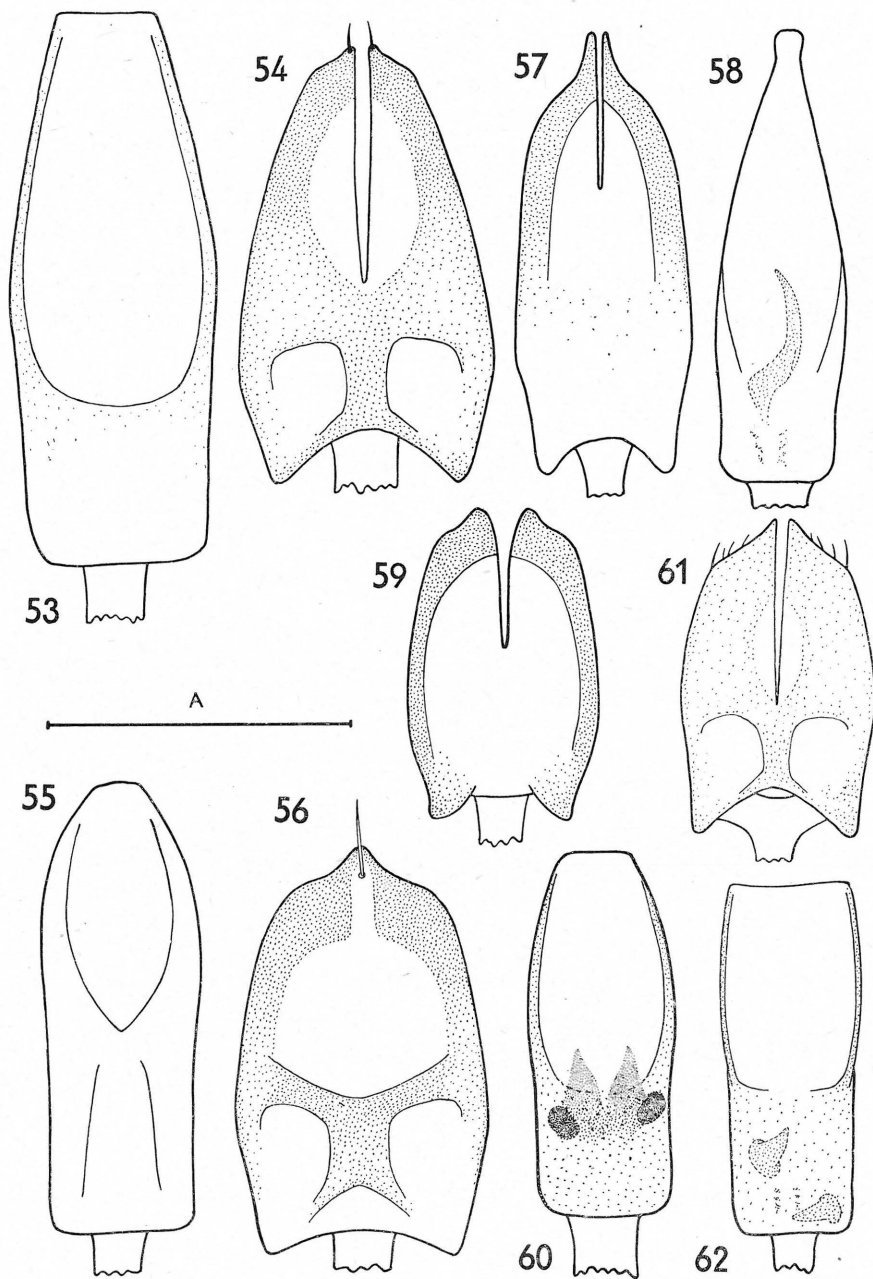
Material examined: Togo: Conradt lgt., 27 spec. (DEI, incl. Lectoholotypus). Nigeria: Ibadan, 27. xi. 1955, Caswell lgt. (at light), 2 spec. (BMNH). Zaire: Mongende, 17. iv. 1921, Schouteden lgt., 1 spec. (MRAC) — Congo da Lemba, i. 1913, Mayné lgt., 1 spec. (MRAC) — Equateur: Bamania, vii. 1958, Hulstaert lgt., 1 spec. (MRAC) — N. lake Kivu: Rwankwi, 25. xii. 1950, Leroy lgt., 1 spec.; dtto, 15. ii. 1952, 1 spec. (MRAC) — Rutshuru, v. 1937, Ghesquière lgt., 1 spec.; dtto, ii. 1938, 5 spec. (MRAC).

4. Genus: **Haptoncurina** gen. n.

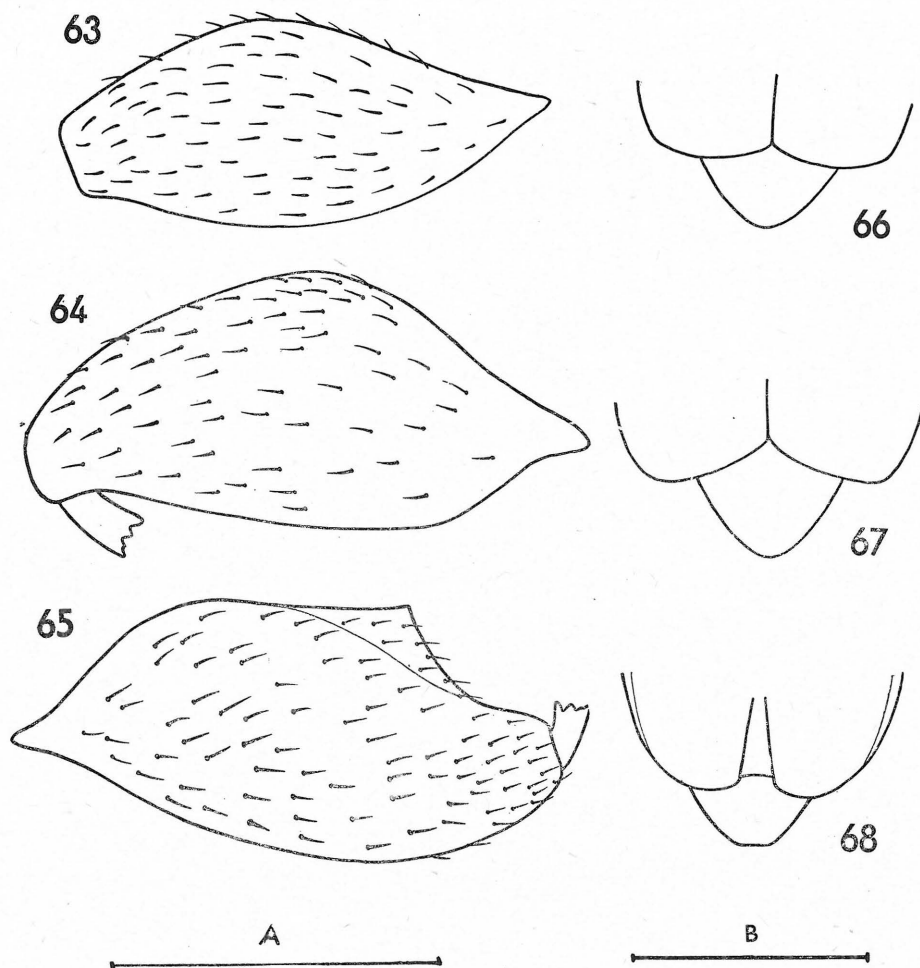
Gender: feminine.

Type species: *Epuraea angustula* Motschulsky (1863) : 439 (nec Sturm, 1844)
= *Epuraea motschulskii* Reitter (1873) : 29

Body small, oblong, subparallel, flatly vaulted. Eyes large, occupying greater part of sides of the head capsule, temples suppressed (fig. 1). Antennal furrows strongly converging backwards. Antennae 11 segmented with distinct, three-segmented club. Ampullaceous sensillum on the 11th antennal segment present, simple, cup-shaped



Figs. 53—62: Male genitalia (tegmen and median lobe) of *Epuraea subelongata* Grouv. (53, 54), *E. scutellaris* Kraatz (55, 56), *E. franzi* sp. n. (57, 58), *E. inexpectata* sp. n. (59, 60), *E. decellei* sp. n. (61, 62). Scale A — 0.33 mm.



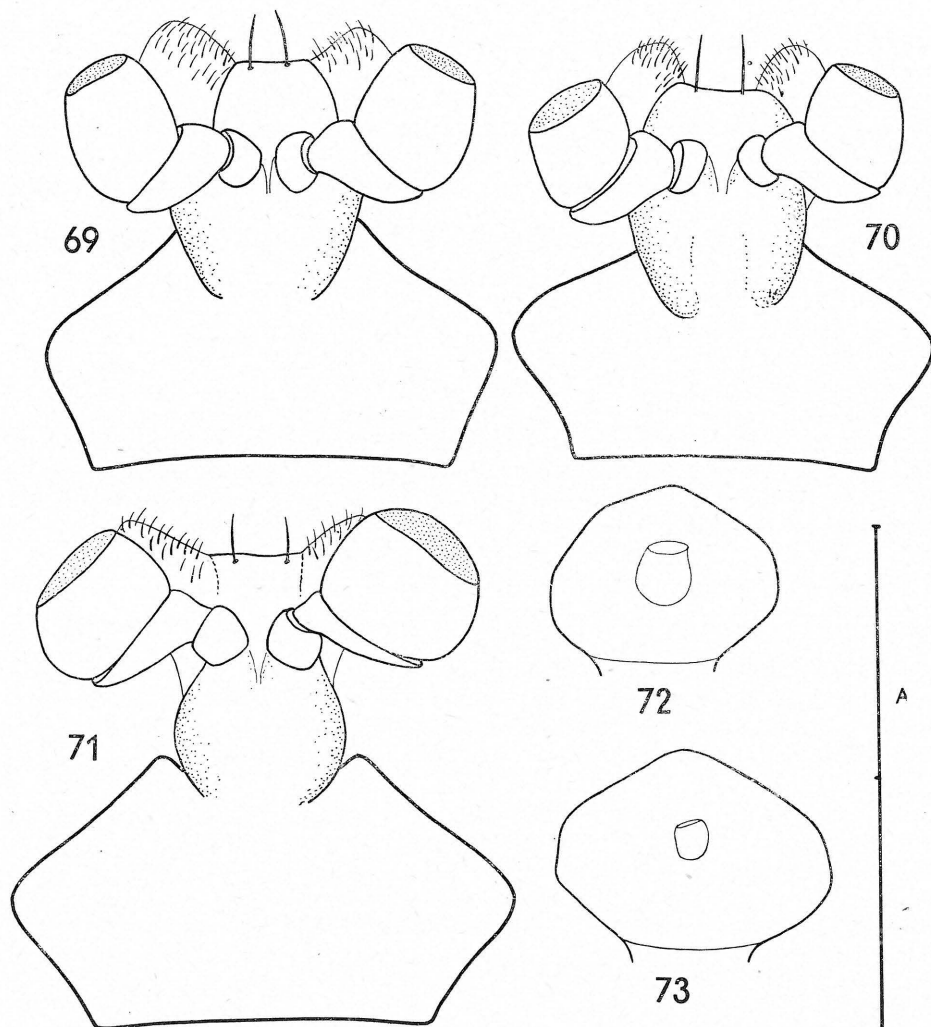
Figs. 63—68: Left posterior femora of *Epuraea subelongata* Grouv. (63) and *E. scutellaris* Kraatz (64). Right anterior femur of *Trimenus kraatzi* Jelinek (65). Apex of elytra in *Epuraea subelongata* Grouv. (66), *E. scutellaris* Kraatz (67) and *E. joannae* sp. n. (68). Scale A — 0.3 mm (63—65), scale B — 1 mm (figs. 66—68).

(fig. 72). Labrum bilobed, mandibles, arcuate, acute, inner margin with additional tooth behind the tip. Maxilla without galea, lacinia broadly oval, maxillary palpi 4-segmented, terminal segment long, subcylindrical, narrowly truncate at the apex. Mentum transverse with strongly curved lateral margins, paraglossae short, broad, rounded, labial palpi 3-segmented. Terminal segment of labial palpi sometimes oval, moderately longer than wide, narrowly truncate at the apex [*H. motschulskii* (Reitt.)], in other species sometimes abbreviate, as long as wide (*H. obscura* Grouv.) (figs.

69—70). Pronotum transverse, anterior margin almost truncate, anterior angles usually rounded. Prosternal process curved upwards and dilated behind anterior coxae. Mesosternum depressed, above the level of metasternum. Elytra usually longer than their combined width, their lateral margins subparallel and apex very flatly rounded, almost truncate. The 8th abdominal tergite in males visible. Abdominal spiracles always annuliform. Tibiae of all three pairs simple in both sexes, tarsi moderately dilated, tarsal claws simple or thickened at the base. Aedeagus of epuraeoid type, tegmen oblong, bilobed, lateral lobes narrow, subparallel, proximal process of the basal piece short but distinct. Ovipositor of the common nitiduloid type with contiguous hemisternites and distinct styli. Pubescence and reticulation of the upper surface tending to be reduced in some species.

I propose the generic status and generic name *Haptoncurina* for the distinct group of Nitidulidae, distributed chiefly in the Indian Ocean region. Species of this group have hitherto been classified as members of genera *Epuraea* and *Haptoncus*, often with certain hesitation. While the entire group possesses a few characteristic common features as the general form of body, truncate anterior margin of pronotum and enlarged eyes, it shows spectacular development of the terminal segment of labial palpi, which has always been considered as an important generic character. It is sometimes egg-shaped, distinctly longer than wide [*H. motschulskii* (Reitt.)] becoming gradually shorter in other species, so that it is then as long as wide [e. g. *H. obscura* (Grouv.)], resembling thus a little the broadly truncate, cup-shaped terminal segment of labial palpi in the genus *Haptoncus* Murr. As the shape of this segment represented the only distinguishing character between genera *Haptoncus* and *Epuraea*, variations and occurrence of transitional types of the segment in *Haptoncurina* caused great confusion and hesitation in generic classification of some species. Thus *H. motschulskii* (Reitter) was originally described as *Epuraea* by Motschulsky (1863) and Reitter (1873) and then transferred to *Haptoncus* by Grouvelle (1908) only to be replaced again in *Epuraea* by Sjöberg (1939). Nevertheless, the distinctness of this group has probably been felt by some authors (e. g. Grouvelle, 1897) who applied to some species generic name *Haptoncura* Reitter, which is, however, objective synonym of *Haptoncus* Murray.

In fact, *Haptoncurina* gen. n. and *Haptoncus* Murray represent, according to my opinion, two closely related but subsequently diverging evolutionary lineages, characterized by different development of some characters (eyes, temples, abdominal spiracles) or different rates in parallel evolution of other ones (e. g. labial palpi). *Haptoncurina* retained plesiomorph type of annuliform abdominal spiracles and did not develop distinct sexual dimorphism in the shape of tibiae. On the other hand the entire genus possesses conspicuous apomorphy in enlarged eyes and probably also in abbreviate anterior angles of pronotum. Comparative abbreviation of the terminal segment of labial palpi emerged only later in development of this group, being not distinct in some species like *H. motschulskii*. The same concerns also subsequent reduction of pubescence of upper surface. In *Haptoncus*, on the other hand, the transverse broadly truncate terminal segment of labial palpi is conspicuous apomorphy common to all species of the genus, while eyes not only retained their plesiomorph form, but temples developed into short thorns behind eyes in some obviously derived species [e. g. *H. ocularis* (Fairm.)]. This development of eyes emerged later in evolution of the genus like conspicuous apomorph development of last abdominal spiracles, which are strongly transverse with fine chitinous lattice



Figs. 69—73: Labium of *Haptoncurina motschulskii* (Reitt.), Congo: Lukombe, MRAC (69), *Haptoncurina obscura* (Grouv.), Seychelles, Paratype, BMNH (70) and *Haptoncus ocularis* (Fairm.), Japan (NMP) (71). Eleventh antennal segment of *Haptoncurina motschulskii* (Reitt.) (72) and *Parepuraea simoni minor* ssp. n. (73). Scale A — 0.2 mm.

in some species (e. g. *H. ocularis* Fairm., *H. luteolus* Er.), analogous to those, described by Lesne (1938) in some *Carpophilus*. Such a development of abdominal spiracles seems to be a correlation with the trend to abbreviation of elytra, distinct in *Haptoncus*. Further apomorph character in some species of *Haptoncus* is the sexual dimorphism in the shape of posterior tibiae.

Most species of the genus *Haptoncurina* occur in countries surrounding Indian Ocean and some of them seem to have (like some true *Haptoncus*) rather large distributions, representing thus typical "oceanic element" as defined by Gressitt (1961). Revision of this genus as well as the genus *Haptoncus* Murray is badly needed, it was, however, not within the intentions of this paper. Without such revision the exact classification of Malagassy (as well as Oriental) species is hardly possible and has therefore been avoided here. In Africa this genus is represented by the only widely distributed species, described below.

Name derivation: Generic name *Haptoncurina* (gender: feminine) is derived from the name *Haptoncura* Reitter (= *Haptoncus* Murray), applied formerly to some species of the genus.

***Haptoncurina motschulskii* (Reiter, 1873) comb. n.**

Epuraea angustula Motschulsky (1863) : 439 (nec Sturm, 1844)

Epuraea motschulskii Reitter (1873) : 29

Haptoncus motschulskyi; Grouvelle (1908) : 344

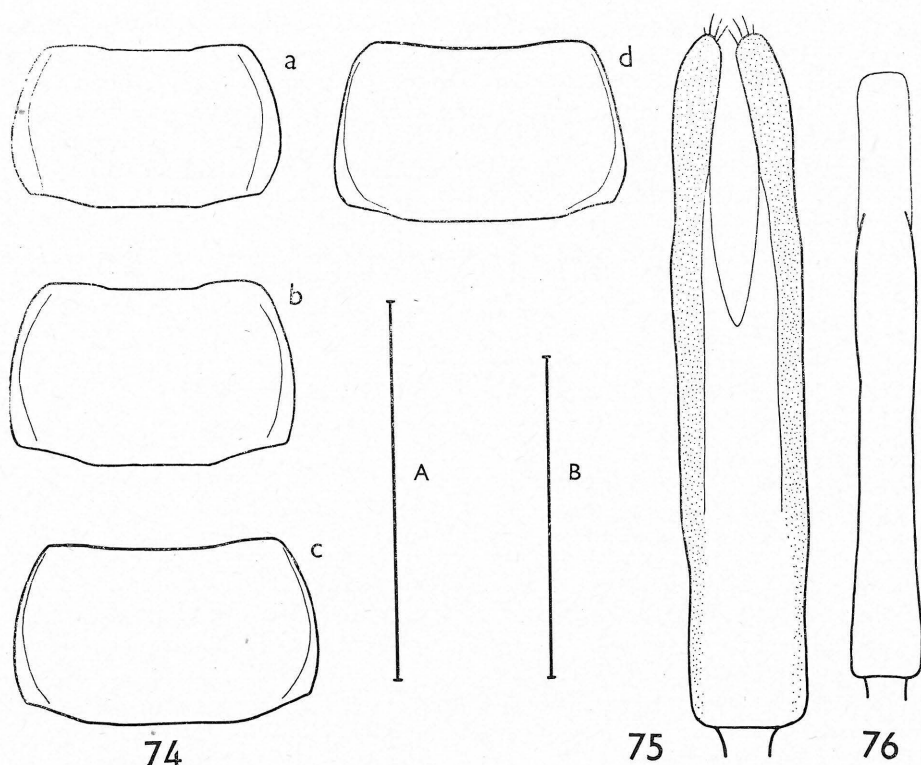
Epuraea weisei Grouvelle (1909b) : 132

Holotypus: Ceylon, in Zoological Museum of the University, Moscow.

Small, oblong, subparallel, testaceous, flatly vaulted. Length 1.8–2.2 mm. Head flatly vaulted, eyes conspicuously large, coarsely faceted, temples suppressed (fig. 1). Terminal segment of labial palpi moderately longer than wide, egg-shaped, truncate at the apex. Sensillum ampullaceum in the 11th antennal segment simple, oval (fig. 72). Pronotum transverse, about 1.65 times wider than long. Anterior margin truncate, anterior as well as posterior angles roundly obtuse. Lateral margins of pronotum rather variable (fig. 74), in various degree arcuate, sometimes almost straight, slightly more converging forwards than backwards, indistinctly explanate. Scutellum triangular. Elytra feebly wider than pronotum, about 1.25 times longer than their combined width, flatly transversely vaulted, with subparallel, not distinctly explanate lateral margins, truncate at the apex. Punctures of the upper surface smaller than eye facets, shallow, obsolete, separated by nearly one diameter, spaces between them very closely and finely reticulate, quite dull. Pubescence pale, very fine, recumbent, inconspicuous. Anterior tarsi in male dilated, as wide as anterior tibiae. The eight abdominal tergite triangular with acute apex. Tegmen very long, narrow, with slender subparallel lateral lobes (fig. 75). Median lobe of aedeagus long, narrow, subparallel, weakly sclerotized (fig. 76). Ovipositor as figured (fig. 45), small, narrow, with contiguous hemisternites and long styli.

This species is rather variable in some details, especially in distinctness of punctures of the upper surface and the shape of lateral margins of pronotum (fig. 74) but occurrence of transitional forms suggests that even the extreme forms are conspecific.

Epuraea weisei Grouv. was described after specimens from Usambara, Tanzania, deposited in DEI, Eberswalde and collection Grouvelle, now in MHNP, Paris. I have been able to study a series of 6 specimens from collections of DEI, labelled appropriately and identified as *Epuraea weisei* by Grouvelle, but not designated as types. They fit perfectly the Grouvelle (1909b) description and doubtless originate from the typical series. They are conspecific with *E. motschulskyi* Reitter, not known to Grouvelle (1908). I believe there can be no doubt of the true identity of *Epuraea*



Figs. 74–76: *Haptoncurina motschulskii* (Reitt.): variability of pronotum within one population. Zaire: Bambesa, MRAC (74a–d). Scale A — 1 mm. Male genitalia (75, 76), scale B — 0.33 mm,

weisei Grouvelle, also because no similar species occurs in the whole of Africa so far as known to me.

Distribution: Africa south of Sahara, Madagascar and tropical Asia from Ceylon to China and Formosa. The species is rather common throughout the Ethiopian region and with respect to the rather peculiar features of epuraeoid fauna of this region, it seems to be rather a recent immigrant here, like some species of the related genus *Haptoncus* Murray.

Material examined: Guinea: Kindia, iv. 1956, Villiers lgt., 1 spec. (IFAN). Sierra Leone: Njala, 14. x. 1932, Hargreaves lgt. (*Ipomaea* flowers), 1 spec. (BMNH). Nigeria: Samaru, 17. v. 1959, Sands lgt. (light trap), 1 spec. (BMNH) — Ibadan, 5. iv. 1923, Golding lgt., 1 spec. (BMNH) — Ibadan, 27. xi. 1955, Caswell lgt. (at light), 20 spec.; dtto, 26. ix. 1956, 4 spec. (BMNH). Cameroon: Yoko, i. 1957, Cantaloube, lgt., 3 spec. (MRAC). Zaire: Congo da Lemba, ii. — iii. 1913, Mayné lgt., 2 ex. (MRAC) — Dungu, xi. 1919, Van den Plas lgt., 1 spec. (MRAC) — Kisantu, 1931, Vanderyst lgt., 1 spec. (MRAC) — Boma, 10. vii. 1920, Schouteden lgt., 3 spec.; ii. — iii. 1937, Darteselle lgt., 1 spec. (MRAC) — M'Paka, terr. Libenge, vii. — viii. 1959, Pecheur lgt., 1 spec. (MRAC) — Tshuapa: Bokuma, 1954, Lootens lgt., 5 spec. (MRAC) — Bokuma, Lootens lgt., i. 1952, 2 spec.; dtto, ix. 1952, 3 spec.; ii. — iii. 1954, 7 spec. (MRAC) — Uele, Dingila, 1. viii. 1933, Brédo lgt., 8 spec. (MRAC) — Bambesa, 1. ix. 1934, Brédo lgt., 28 spec.; 23. iii. 1943, Vrydaght lgt.

(cotton flowers), 9 spec.; dtto, iv. 1943, 16 spec.; vii. 1943, 17 spec. (MRAC) — Haut Uelé: Watsa, 1922, Burgeon lgt., 7 spec. (MRAC) — Haut Uelé: Tuku, 30. iv. 1915, Van den Plas lgt., 4 spec. (MRAC) — Kasenyi, 19. viii. 1937, Brédo lgt., 1 spec. (MRAC) — Faradje, 5. viii. 1931, Brédo lgt., 2 spec. (MRAC) — Yangambi, 10.—19. vi. 1948, Benoit lgt., 12 spec. (MRAC) — Kivu: Mulungu, 1939, Hendrix, 1 spec. (MRAC) — Kivu: terr. Mwenga, Kitutu, 650 m, iv. 1958, Leleup lgt., 1 spec. (MRAC) — Haut Uelé: Dili-Poko, 1.—6. iv. 1947, Benoit lgt., 1 spec. (MRAC) — Rutshuru, v.—xii. 1937, Ghesquière lgt., 14 spec.; dtto, ii. 1938, 1 spec. (MRAC) — Costermansville, iv. 1937, Ghesquière lgt., 1 spec. (MRAC) — Kivu: Sanghe, pl. Ruzizi, xii. 1951, Boomans lgt., 2 spec. (MRAC) — Kivu: terr. Uvira, vall. Ruzizi, Runingo, xii. 1957, Marlier lgt., 1 spec. (MRAC) — Manyema, Niemba Tengo, Gérard lgt., 1 spec. (MRAC) — Nyangwe, iv. 1918, Mayné lgt., 1 spec. (MRAC) — Lualaba: Ruwe, ii. 1960, Allard lgt. (light trap), 1 spec. (MRAC) — Katanga: La Kando, iv. 1925, Seydel lgt., 1 spec. (MRAC) — Elisabethville, Seydel lgt., various data, 16 spec.; dtto, xii. 1952, Boomans lgt., 5 spec. (MRAC) — Lulua: Kapanga, ix. 1932, Overlaet lgt., 2 spec. (MRAC). Rwanda: Kibuye, 1500 m, 12. ii. 1953, Basilewsky lgt., 1 spec. (MRAC) — env. Astrida, 1954—1955, Foucart lgt., 2 spec. (MRAC) — Bugarama, 25. i. 1926, Schouteden lgt., 1 spec. (MRAC). Burundi: Kitega, vii.—viii. 1934, Lefébvre lgt., 19 spec. (MRAC). Sudan: Juba, 30. x. 1950, Reid lgt. (at light), 1 spec. (BMNH). Uganda: Entebbe, xii. 1951, Krauss lgt., 3 spec.; dtto, 31. xii. 1955, Corbet lgt., 1 spec. (BMNH) — Jinja, xii. 1954 to ii. 1955, Corbet lgt. (MV light trap), 1 spec. (BMNH) — Kawanda, 15. ii.—6. iii. 1958, Whalley lgt. (light trap), 8 spec. (BMNH) — Kampala, 20. ii. 1923, Hargreaves lgt., 7 spec.; dtto, 20. xi. 1923 (flowers of *Ipomaea* sp.), 4 spec.; dtto, 20. xi. 1929, 1 spec.; 20. ii. 1930 (flowers of *Gaedenia* sp.), 3 spec. (BMNH). Kenya: Kwali forest, 20 mls W Mombasa, 1. vi. 1948, Steele lgt., 1 spec. (BMNH). Tanzania: Mayoba, Biharamulo, 20. iv. 1959, Robertson lgt., 2 spec. (BMNH) — Usambara, Weise lgt., 6 spec. (DEI). Zambia: Nyassaland, Namiwawa, 29. iii. 1923, Smee lgt. (cotton flowers), 3 spec. (BMNH). — Boreila Gds., vi. 1913, Ballard lgt., 19 spec. (BMNH). Rhodesia: Manetsi River, Malipati, iv.—v. 1961, Weir lgt. (MV light trap), 5 spec. (BMNH) — Nuanetsi River, Mijini Pan, iv.—v. 1961, Weir lgt. (MV light trap), 2 spec. (BMNH). South Africa: Zululand: Gingindhlovn, 5. vii. 1926, Turner lgt., 1 spec. (BMNH) — Natal: Weenen, ii. 1925, Thomasset lgt., 4 spec. (BMNH) — Durban, 1902, Muir lgt., 1 spec. (BMNH) — Pondo-land: Port St. John, iii.—v. 1923, Turner lgt., 17 spec. (BMNH). Madagascar: Ambodiwangy, Vadon lgt., 2 spec. (MRAC).

In the Malagassy region occur the two following species of the genus *Haptoncurina*, which may be distinguished from the preceding species already according to their dark, pitchy black colour:

1. *Haptoncurina picina* (Grouvelle, 1906) comb. n.

Haptonenus picus Grouvelle (1906):73, 75.

Distribution: Réunion (Grouvelle, 1906), Mauritius (BMNH).

2. *Haptoncurina obscura* (Grouvelle, 1913) comb. n.

Haptonenus obscurus Grouvelle (1913c): 15

Distribution: Seychelles.

4. Genus: *Parepuraea* gen. n.

Type species: *Epuraea simoni* Grouvelle (1895): 161.

Body of intermediate size, oblong oval, moderately convex. Head with large eyes occupying greater part of head sides, temples rather suppressed. Antennal furrows

strongly converging backwards. Antennae eleven-segmented with distinct three-segmented club. Sensillum ampullaceum on the 11th antennal segment oval, not segmented (fig. 73). Labrum bilobed, mandibles strongly arcuate, acute, inner margin with rather long additional tooth behind the tip. Maxilla without galea, lacinia comparatively narrow, oblong, maxillary palpi four-segmented, their terminal segment slender, subcylindrical, nearly three times longer than wide. Mentum transverse with strongly curved lateral margins, paraglossae roughly triangular, labial palpi three-segmented, their terminal segment moderately longer than wide, truncate at the apex. Pronotum transverse with anterior margin truncate and both anterior and posterior angles roundly obtuse. Prosternal process curved upwards and dilated behind anterior coxae. Scutellum triangular. Elytra longer than their combined width. Mesosternum depressed, not at the same level as metasternum. The eighth abdominal tergite visible in males. No sexual dimorphism in the shape of tibiae. Tarsi of all three pairs moderately dilated, tarsal claws strongly dentate. Aedeagus of the epuraeoid type, tegmen oblong with narrow, widely separated lateral lobes and basal plate prolonged proximad into short process. Ovipositor very uniform within the genus, of very peculiar form, with short, broad, flat, rather heavily sclerotized dichotomously diverging coxites, each of which is deeply emarginate and bifurcate at the apex. Styli completely lacking (fig. 46).

The genus is without any doubt the closest relative of the preceding genus *Haptoncurina*. Both genera share a few peculiar characters like the enlarged eyes and the form of body with truncate anterior margin of pronotum. *Parepuraea* gen. n. differs however by its larger body, strongly dentate tarsal claws and, primarily, by the profound adaptation of its ovipositor. This peculiar form of ovipositor, analogous to that of some mycetophagous Nitidulidae (e. g. *Pocadius*, *Pocadiodes*) seems to suggest the mycetophagous way of life of *Parepuraea*. As this genus seems to be limited to Africa and Madagascar, it is probable, that *Haptoncurina* and *Earepuraea* represent two lineages derived from the common stock and separated by both ecological and geographic radiation.

Name derivation: The generic name *Parepuraea* (gender: feminine) is derived from Latin "par" = equal and the generic name "*Epuraea*", under which species of this genus were described.

Revision of the genus *Parepuraea* gen. n.

- 1 (10) Pubescence of the upper surface sparse, recumbent, sometimes inconspicuous, but always of the normal length, particular hairs reaching the base of the following ones (fig. 89).
- 2 (3) Sides of pronotum regularly arcuate, posterior angles obtuse but always distinctly angulate. Elytra rather short (1.10—1.13 times longer than their combined width). Male: ventral margin of lateral lobes of aedeagus, if observed from side, twice distinctly shallowly broadly emarginate (fig. 81). Median lobe of aedeagus widest before the midlength, narrowed towards the truncate apex as well as towards the base (fig. 80). Internal sac with long, narrow thorn on the dorsal wall and with two broad arcuate teeth, curved backwards (fig. 88). Length 2.1—2.9 mm. West and Central Africa.

P. spinifera sp. n.

- 3 (2) Sides of pronotum sometimes more curved at the posterior angles, which thus become roundly obtuse. Elytra 1.05 to 1.25 times longer than their combined width. Male: lateral lobes of aedeagus, seen from the side, longer and narrower than in the preceding species, their ventral margin almost straight (except the apex, which is always curved down) (fig. 77). Median lobe of aedeagus slender, subparallel. Internal sac with semicircular structure open towards the apex, before it with very short thorn and two flat teeth directed forwards (fig. 87). (*P. simoni* Grouvelle).
- 4 (7) Body comparatively shorter and wider, elytra 1.05–1.15 times longer than their combined width (seldom longer), sides of pronotum usually more or less regularly arcuate, those of elytra flatly arcuate (fig. 85). Pubescence yellow, thin, recumbent, inconspicuous.
- 5 (6) Body smaller, 2.0–2.6 mm, upper surface more or less shining (especially on pronotum), reticulation often reduced to simple microscopic punctures. West and Central Africa. *P. simoni minor* ssp. n.
- 6 (5) Body distinctly larger, 3.0–3.4 mm, upper surface always dull with well developed reticulation. Equatorial province of Zaire. *P. simoni maior* ssp. n.
- 7 (4) Body larger, subparallel, elytra 1.17–1.27 times longer than their combined width (usually over 1.20), sides of elytra almost straight in the basal half. Pubescence more conspicuous, longer and closer, covering more the upper surface, particular hairs reaching fairly over base of the following ones.
- 8 (9) Average size smaller, upper surface moderately shining, with slightly reduced reticulation. Pronotum slightly narrower than elytra, usually widest at the basal fifth, sides abruptly curved towards posterior angles. Length 2.2–2.5 mm. Abyssinia, East Africa, Rwanda, southern Katanga. *P. simoni intermedia* ssp. n.
- 9 (8) Average size larger (2.8–3.2 mm), upper surface dull with well developed reticulation. Rhodesia, South Africa. *P. simoni simoni* (Grouvelle)
- 10 (1) Pubescence of the upper surface rudimentary, particular hairs distinctly not reaching base of the following ones (fig. 90), upper surface apparently bare.
- 11 (12) Sides of pronotum strongly arcuate. Upper surface between punctures with extremely fine microsculpture consisting often only of simple microscopic punctures. Female: apex of pygidium more or less distinctly prolonged and moderately curved upwards (fig. 9). East Africa. *P. kolbei* (Grouvelle)
- 12 (11) Sides of pronotum flatly arcuate. Microsculpture of the upper surface even more reduced than in preceding species, small areas around punctures quite smooth and shining (fig. 91). Female: apex of pygidium not prolonged, bluntly angulate (fig. 7). Madagascar. *P. nitida* (Reitter)

1. *Parepuraea simoni* (Grouvelle, 1895) comb. n.

Epuraea simoni Grouvelle (1895) = 161

Holotypus: Makapan, Transvaal, in MHNP, Paris.

Oblong oval, moderately convex. Head flatly vaulted, impressions besides insertions of antennae very shallow, little distinct. Eyes strongly, irregularly convex,

reaching the top near their posterior margin. Pronotum nearly 1.75 times wider than long, widest behind the middle, more narrowed forwards than backwards. Anterior margin truncate, base truncate in the middle, flatly emarginate besides posterior angles. Lateral margins arcuate, not explanate. Elytra oval, 1.05—1.25 times longer than their combined width, slightly wider than pronotum, widest at the midlength, truncate at the apex. Lateral margins of elytra moderately arcuate or almost straight in the basal half, finely bordered, not explanate, more converging towards the apex. Punctures smaller than eye facets, separated by less than one diameter, spaces between punctures finely microscopically punctulate, feebly shining or dull. Sometimes punctulation more or less confluent into fine reticulation. Pubescence rusty, recumbent, particular hairs reaching slightly over the base of the following ones. Pronotum and hypomera with sparse, obsolete punctures, separated by more than one diameter, spaces between them finely reticulate. Metasternum distinctly punctate, punctures smaller than eye facets, separated by nearly one diameter, spaces between them finely reticulate, moderately shining in the middle, coarsely reticulate, quite dull in lateral parts. Metasternum in the middle with feebly impressed longitudinal line in the posterior half. Punctures of abdominal sternites similar to those of metasternum, but, especially in the middle, less distinct. Anterior tarsi dilated, slightly narrower than anterior tibiae. Intermediate tibiae simple in both sexes. All tarsi dilated, with close long pubescence on the lower side. Tarsal claws strongly dentate. Lateral lobes of aedeagus long, slender, rounded at the apex, in the lateral view moderately curved, with ventral margin almost straight (fig. 77). Median lobe of aedeagus narrow, subparallel, truncate at the apex, weakly sclerotized (fig. 79). Internal sac with semicircular structure open towards the apex and with two flat teeth, directed forwards (fig. 87). Ovipositor as figured (fig. 46).

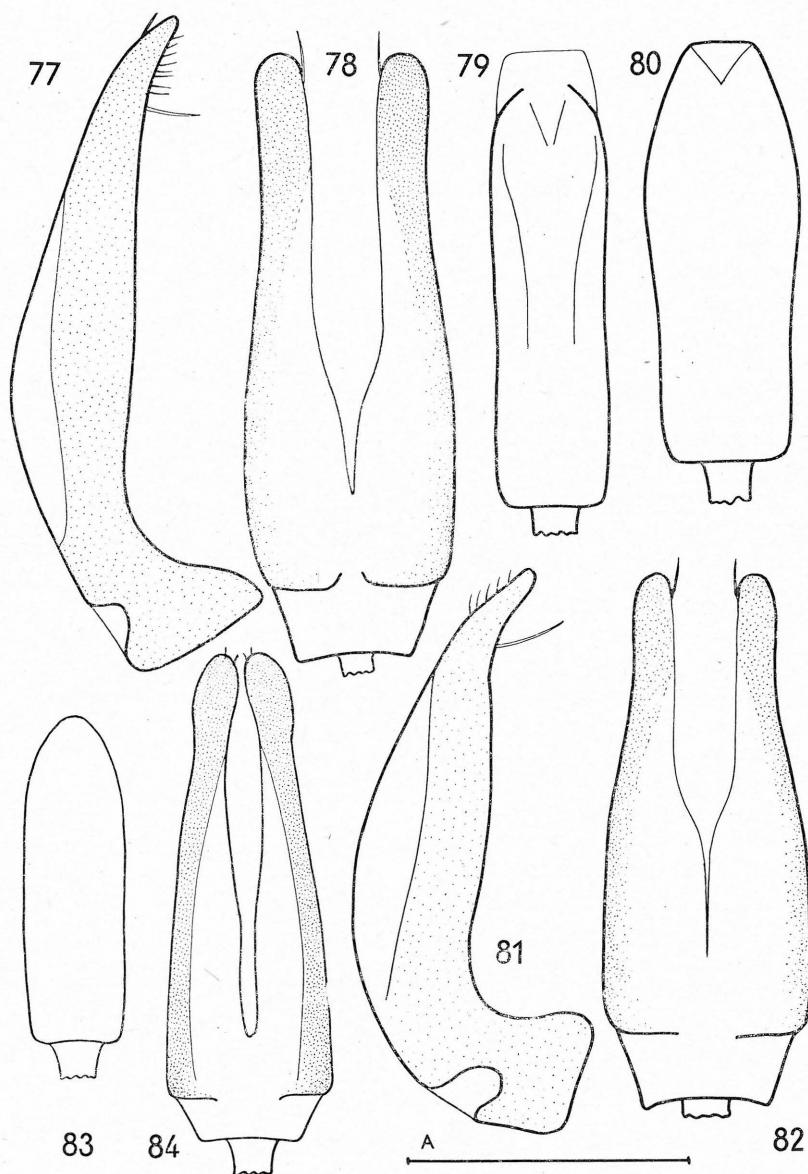
This widely distributed species is the most variable one within the genus. Especially the size of body, comparative length of elytra, shape of lateral margins of pronotum and elytra, pubescence and reticulation of the upper surface are subject of extensive variation. Variation of the most conspicuous character, i. e. of the comparative length of elytra, seems to have clinal character, increasing gradually from the territory around Gulf of Guinea towards southeast. Combination of this character with other ones allows one to distinguish four distinct geographic races, described below.

a) *Parepuraea simoni simoni* (Grouvelle, 1895)

This subspecies fits the original Grouvelle's (1895) conception of the species, based upon specimens from Makapan, Transvaal. I have been able to examine two males (Holotypus and Paratypus), deposited in MHNP. The form of aedeagus and structures of the internal sac are quite identical with those of more northerly specimens.

Average size larger, length of body 2.8—3.2 mm. Body comparatively longer, elytra 1.20—1.27 times longer than their combined width, lateral margins of elytra almost straight, subparallel (fig. 86). Upper surface always dull with distinct reticulation. Pubescence of the upper surface rather conspicuous, longer and closer than in other subspecies. Body testaceous.

Distribution: Rhodesia, South Africa.



Figs. 77–84: Male genitalia (dorsal and lateral view of tegmen, median lobe) of *Parepuraea simoni* (Grouv.) (77, 78, 79) and *P. spinifera* sp. n. (80, 81, 82), dorsal view of male genitalia of *P. kolbei* (Grouv.) (83, 84). Scale A = 0.33 mm.

Material examined: Rhodesia: Salisbury, Marshall lgt., 30. iv. 1895, 1 spec.; dtto, iv. 1899, 1 spec.; dtto, ix. 1899, 2 spec.; viii. 1900, 1 spec. (BMNH). South Africa: Transvaal, 1 spec. (BMNH) — Transvaal, Makapan, Simon lgt., 2 spec. (incl. Holotype), (MHNP) — Buttons kop. 29. ix. 1909 (on *Protea* sp.), 4 spec. (TMP) — E. Cape Prov.: Katberg, 1. — 13. xi. 1932, Turner lgt., 1 spec. (BMNH).

b) *Pareपुरaea simoni intermedia* ssp. n.

Oblong and subparallel like *P. simoni simoni* (Grouv.), but average size of body smaller, length 2.2—2.5 mm and upper surface more or less shining. Elytra 1.17 to 1.28 times longer than their combined width (usually over 1.20), some individuals sometimes even longer than those of the nominal subspecies. Pubescence of the upper surface rather close and conspicuous like that of *P. simoni simoni* (Grouv.).

Some intergrades between *P. simoni intermedia* ssp. n. and *P. simoni minor* ssp. n. may be observed. The comparative length of elytra in the latter race increases moderately in southeastern parts of its areal, elytral index (i. e. length: combined width of elytra) reaching thus in some specimens from Kivu and Katanga provinces of Zaire values over 1.15, exceptionally up to 1.20. From such specimens *P. s. intermedia* may usually be easily distinguished by its conspicuously long yellow pubescence and the shape of pronotum, which is often only as wide as the base of elytra, reaching its maximal width closely at posterior angles, with sides abruptly curved backwards.

An interesting sample from the Kasai province of Zaire (Lulua, source Losoka) is deposited in MRAC. There occur some oblong subparallel specimens with thin, inconspicuous pubescence and, on the contrary, some shorter, broader specimens with comparatively long close pubescence, resembling that of ssp. *intermedia*, in this population. Elytral index varies in this population between 1.12 and 1.17. This population seems to have transitional character between *P. simoni minor* ssp. n. and *P. simoni intermedia* ssp. n.

Name derivation: Name of this subspecies is derived from its position between the nominal form and *P. simoni minor* ssp. n.

Distribution: East Africa, Rwanda, southern Katanga.

Type material: Holotypus: 1 male, Tanzania: Lulanguru, 17 mls. W Tabora, 1148 m, xi. 1917, C. D. H. Carpenter lgt. Deposited in BMNH, London.

Allotypus: 1 female, the same data. Deposited in BMNH, London.

Paratypes: Abyssinia: without further data, 2 spec. (BMNH) — Tanzania: Lulanguru, 17 mls. W Tabora, Carpenter lgt., xi. 1917, 7 spec. (BMNH) — Rwanda: Bugarama, 25. i. 1926, Schouteden lgt., 3 spec. (MRAC) — Kisenyi, xi. 1951, Bertrand lgt., 1 spec. (MRAC). Zaire: Elisabethville, Ch. Seydel lgt., 5 spec. (MRAC).

c) *Pareपुरaea simoni minor* ssp. n.

Average size of body smaller, length 2.0—2.6 mm. Elytra short, wide, mostly less than 1.14 times longer than their combined width. Lateral margins of elytra distinctly arcuate (fig. 85). Lateral margins of pronotum usually almost regularly arcuate, but varying considerably in the shape. Pubescence of the upper surface rather long, rusty, but sparse and very thin, recumbent, almost invisible at the first sight. Reticulation of the upper surface usually (but not always), especially on pronotum, more or less reduced, upper surface moderately shining. Body reddish brown.

Variation: Especially shape of lateral margins of pronotum and distinctness of the reticulation of upper surface are rather variable. Also the comparative length of elytra increases moderately from northwest towards southeast within area of this race. Along eastern and southern boundaries of the area occur often specimens with increased comparative elytral length. They can, however, be easily distinguished from *P. simoni intermedia* ssp. n. by their thin, inconspicuous pubescence and often more arcuate sides of elytra. Some examples of increased variation on the elytral index in such marginal populations may be given:

Locality	Extreme values of elytral index	Number of spec. examined
Zaire: Ituri, Djugu	1.14—1.20	12
Zaire: Kibondwe nr. Lusaka	1.13—1.18	3
Zaire: Kivu, Ibanda	1.10—1.17	3
Zaire: Lulua, source Losoka*)	1.12—1.17	9

*) see under *P. simoni intermedia* ssp. n.

Comparative notes: This rather conspicuous subspecies differs from the neighbouring ssp. *intermedia* by its shorter, more oval body with distinctly arcuate sides of elytra and thin, very inconspicuous pubescence. It is however very similar to *P. simoni maior*, from which it differs by smaller body and usually moderately shining upper surface.

This subspecies is superficially very similar to the closely related species, *Parepuraea spinifera* sp. n. with overlapping geographic distribution. The two species may be distinguished with certainty only by the male genitalia, so that identification of single females, unaccompanied by males, is never sure. Far a more detailed discussion of distinguishing characters of the two forms see below, under *P. spinifera* sp. n.

Name derivation: Latin "minor" — smaller, from the smaller body in distinction to closely related ssp. *maior*.

Type material: Holotypus: 1 male, Zaire: Lukombe, x. 1908, A. Koller lgt. Deposited in MRAC, Tervuren.

Allotypus: 1 female, the same data. Deposited in MRAC, Tervuren.

Paratypes: Liberia: Monrovia, ix. 1964, Massot lgt., 2 spec. (NMP). Nigeria: Ibadan, 26. v. 1954, Caswell lgt. (at light), 1 spec.; dtto, 27. xi. 1955, 14 spec.; dtto, 26. ix. 1956, 7 spec. (BMNH). Cameroon: Mt. Cameroon, Musake, 6350 feet, 14. i. 1932, Steele lgt., 1 spec. (BMNH). Ivory Coast: Adiopodoumé, 16. i. and 15. v. 1937, 3 spec. (MRAC). Zaire: Madinga (Mayumbe), 26. viii. 1924, Collart lgt., 3 spec. (MRAC) — Ubangi: Nouvelle Anvers, 9. xii. 1952, Basilewsky lgt., 2 spec. (MRAC) — Bokuma, i. 1952, Lootens lgt., 1 spec.; dtto, ix. 1952, 2 spec.; dtto, iii. 1954, 1 spec. (MRAC, NMP) — Eala, 18. viii. 1912, Mayné lgt., 1 spec. (NMP) — Uélé: Rungu, vi. 1938, Ghesquière lgt., 2 spec. (MRAC) — Mongbwalu (Kilo), 1938, Scheitz lgt., 5 spec. (MRAC, NMP) — Kivu: Ibanda, 1952, Vandellannoite lgt., 3 spec. (MRAC) — Manyema: Niemba Tongo, Gérard lgt., 2 spec. (MRAC) — Sankuru: Komi, 13. ii. 1930, Ghesquière lgt., 4 spec. (MRAC, NMP) — Kibondwe, env. Lusaka, W shore of lake Tanganyika, ii. 1954, Boomans lgt., 3 spec. (MRAC) — Lake Tanganyika, Mpala, 780 m, x. 1953, Boomans lgt., 1 spec. (MRAC) — Katanga: Kisanga, ii. 1925, Seydel lgt., 2 spec. (MRAC).

Apart from the material mentioned above, transitional populations were examined that, according to my opinion, belong to ssp. *minor*, but have not been designated as paratypes: Congo: Ituri: Djugu, vi. 1938, Ghesquière lgt., 12 spec. (MRAC) — Lulua: source Sosoka, 9. ii. 1932, Overlaet lgt., 9 spec. (MRAC, NMP).

d) *Parepuraea simoni maior* ssp. n.

This subspecies agrees in most characters with the preceding one, from which it differs, however, by its distinctly larger body. As all examined specimens come from the limited territory in the middle Congo basin. I prefer to distinguish them as distinct subspecies.

Body broadly oval, moderately convex, larger than in the preceding subspecies, length 3.0–3.4 mm. Elytra short, 1.06–1.13 times longer than their combined width. Lateral margins of pronotum and elytra more or less regularly arcuate. Upper surface dull with distinct microscopic reticulation. Pubescence rusty, thin, recumbent, inconspicuous. Body reddish brown.

Name derivation: from Latin “maior” — larger, from the larger average size of body in contradistinction to related ssp. *minor*.

Type material: Holotypus: 1 male, Zaire: Sankuru, Komi, xi. 1930, J. Ghesquière lgt. Deposited in MRAC, Tervuren.

Allotypus: 1 female, Zaire: Kunungu, iv. 1921, H. Schouteden lgt., Deposited in MRAC, Tervuren.

Paratypes: Zaire: Stanleyville à Kilo, Burgeon lgt., 1 spec. (MRAC); Stanleyville, 18. v. 1926, Ghesquière lgt., 1 spec. (NMP) — terr. Lisala, 1937, Leontovitch lgt., 2 spec. (MRAC) — Kunungu, iv. 1921, Schouteden lgt., 3 spec. (MRAC, NMP) — Yangambi, xii. 1936, Ghesquière lgt., 2 spec. (MRAC) — Tshuapa: Flandria, xi.–xii. 1947? Hulstaert lgt., 7 spec. (MRAC) — Eala, 24. vi. 1914, Mayné lgt., 4 spec. (MRAC) — Bokuma, i.–v. 1942, Hulstaert lgt., 1 spec. (NMP) — Haut Uélé: Abimwa, vi.–vii. 1925, Burgeon lgt., 1 spec. (NMP).

2. *Parepuraea spinifera* sp. n.

This new species is superficially very similar to *Parepuraea simoni minor* ssp. n., so that a detailed description would be superfluous. It seems to be only more uniform, less variable. Length 2.1–2.9 mm, body always comparatively broader, oval, flatly vaulted, elytra wider than pronotum, only 1.10–1.13 times longer than their combined width, with moderately arcuate lateral margins more converging towards the truncate apex. Head and pronotum usually somewhat more shining than elytra. Lateral lobes of aedeagus in lateral view shorter, broader, more curved than in *P. simoni*, distinctly bisinuate on their ventral margins (fig. 81). Median lobe of aedeagus shorter and broader than in *P. simoni*, in apical half distinctly narrowed towards the narrowly truncate apex (fig. 80). Owing to its weak sclerification it may be however considerably deformed during extraction. The internal sac is furnished with a long sclerotized thorn on its dorsal wall and with two flat teeth curved backwards like anchor branches as figured (fig. 88).

Female: in general appearance corresponding wholly with the male, lacking, however, the visible eighth abdominal sternite. Ovipositor of the same form as in *P. simoni*. Apex of pygidium angulate, moderately curved upwards in most specimens [apex of pygidium more rounded, hardly distinctly curved upwards in *P. simoni* (Grouv.)].

Whenever larger samples have been examined, *Parepuraea spinifera* sp. n. and *P. simoni minor* ssp. n. have never been established to occur together. Thus it may be supposed that females in those samples are conspecific with males. However, individual females collected without males can hardly be identified with certainty. Such females have been determined in the examined material as "*P. simoni*-complex, ♀".

Name derivation: From Latin "spina" = thorn and "fero, ferre" = to bear, from the characteristic structure of internal sac of aedeagus.

Type material: Holotypus: 1 male, Zaire: Kivu, Vallée de la Loso, viii. 1937, J. Ghesquière lgt. Deposited in MRAC, Tervuren.

Allotypus: 1 female, the same data. Deposited in MRAC, Tervuren.

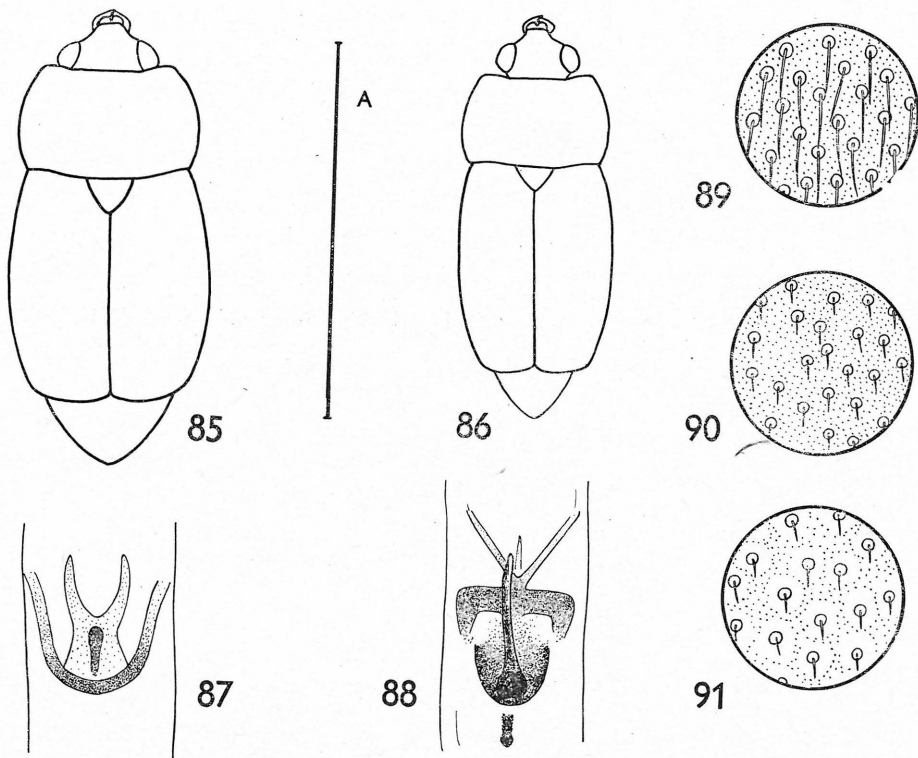
Paratypes: Cameroon: Yoko, i. 1957, Cantaloube lgt., 11 spec. (MRAC, NMP). Zaire: Basongo, 15.—31. vii. 1921, Schouteden, lgt., 1 ♂ (MRAC) — Costermansville, iv. 1937, Ghesquière lgt., 3 spec. (MRAC) — Rutshuru, i. 1937, Ghesquière lgt., 40 spec. (MRAC, NMP) — Vallée de la Loso (Kivu), viii. 1937, Ghesquière lgt., 18 spec. (MRAC, NMP) — Kivu: terr. Uvira, Mulenge, 1880—2010 m, v. 1951, Leleup lgt. (from humus), 4 spec. (MRAC, NMP). Rwanda: env. Astrida, 1954—1955, Foucart lgt., 8 spec. (MRAC) — Kayove, terr. Kisenyi, 14. ii. 1953, Basilewsky lgt., 1 ♂ (MRAC).

3. *Parepuraea kolbei* (Grouvelle, 1909) comb. n.

Eपुरaea kolbei Grouvelle (1909a) : 99

Holotypus: Tanzania, Amani. Deposited in MNHP, Paris.

Oblong, subparallel, transversely vaulted. Length 2.5—2.8 mm. Head flatly vaulted, front almost indistinctly impressed beside insertions of antennae. Eyes large, coarsely faceted. Pronotum transverse, nearly 1.65 times wider than long, distinctly narrower than elytra, widest in the basal fourth, more narrowed forwards than backwards. Anterior margin almost truncate, anterior angles roundly obtuse, posterior ones bluntly obtuse, almost rounded. Lateral margins of pronotum strongly arcuate, not explanate. Elytra oval, about 1.15 times longer than their combined width, truncate at the apex. Lateral margins of elytra moderately arcuate, not explanate. Pygidium of female with more or less prolonged apex, feebly curved upwards (fig. 9). Punctures of the head almost equal in size to eye facets, separated by less than one diameter, spaces between them smooth. Punctures of pronotum equal in size to those of the head, rather obsolete, separated usually by less than one diameter. Punctures of elytra slightly finer, shallower and sparser than those of pronotum, becoming still finer and sparser towards the apex, where they are separated by much more than one diameter. Spaces between punctures rather shining, microscopically punctulate (fig. 90). Elytra often slightly duller than pronotum. Pubescence extremely short, almost reduced, particular rudimentary hairs not reaching base of the following ones (fig. 90). Upper surface appears smooth and bare at first sight. Prosternum with fine, rather indistinct punctures, dull, finely reticulate. Prosternal process strongly narrowed between anterior coxae. Simple punctures of metasternum and the 1st abdominal sternite fine, separated by nearly one diameter, spaces between them smooth and shining in the middle but dull and reticulate in lateral parts. Further abdominal sternites duller and more finely punctate. Metasternum simple in both sexes. Anterior tarsi of male more dilated but narrower than anterior tibiae. Tarsal claws strongly dentate. Tegmen narrow, deeply excised, similar to that of



Figs. 85—91: Form of body of *Parepuraea simoni maior* ssp. n. Congo: Bokuma, NMP (85) and *P. simoni simoni* (Grouv.), S. Africa: Butons kop, TMP (86). Scale A — 3 mm. Armature of the terminal part of internal sac in *Parepuraea simoni* (Grouv.) (87) and *P. spinifera* sp. n. (88). Pubescence and microscopic puncturation of elytra in *Parepuraea simoni minor* ssp. n. (89), *P. kolbei* (Grouv.) (90) and *P. nitida* (Reitt.) (91).

other *Parepuraea*, lateral lobes narrow, rounded at the apex (fig. 84). Median lobe of aedeagus oblong, subparallel, rounded at the apex (fig. 83). Ovipositor of the same form as in other *Parepuraea*, but its hemisternites slightly longer, narrower, their lateral margins fluently arcuate, concave, not s-shaped as in other species (fig. 48).

This species has often been confused with *P. simoni minor* and *P. simoni maior*, from which it differs by its rudimentary pubescence and narrow pronotum with strongly arcuate lateral margins. The conspicuously abbreviate pubescence it shares with closely related malagassy species *P. nitida* (Reitt.), which has, however, only flatly arcuate sides of pronotum and more reduced microscopic punctulation of the upper surface. Zaire (MRAC) and Angola (BMNH).

Distribution: East Africa.

Material examined: Uganda: Fort Portal, 2. i. 1954, Hargreaves lgt., 5 spec. (BMNH). Rwanda: Kayove, terr. Kisenyi, 2000 m, 14. ii. 1953, Basilewsky lgt., 4 spec. (MRAC). Tanzania: Amani, Eichelbaum lgt., 1 spec. (Holotypus, MNHP); Amani, 27. x. 1935, Krauss lgt., 1 spec. (BMNH) — Usambara, coll. Kraatz, 15 spec. (DEI).

In West and Central Africa occur specimens of *Parepuraea* with rudimentary pubescence, but in other aspects rather different from *P. kolbei* (Grouv.). Their pronotum is usually wider, with lateral margins distinctly converging forwards but only flatly arcuate. Apex of pygidium not distinctly prolonged, but usually slightly curved upwards. As the scarce material available does not allow thorough examination, especially owing to lacking males, I hesitate to decide about the true taxonomic status of these animals. I have seen a few individuals from Nigeria (BMNH), Zaire (MRAC) and Angola (BMNH).

4. *Parepuraea nitida* (Reitter, 1873) comb. n.

Epuraea nitida Reitter (1873) : 25

Holotypus: Madagascar. Deposited in NMW, Wien.

Body oblong oval, transversely vaulted. Length 2.5–3.0 mm. Head flatly vaulted, almost indistinctly impressed beside insertions of antennae, with large, coarsely faceted eyes. Pronotum strongly transverse, about 1.8 times wider than long, almost as wide as elytra, widest at the basal third. Anterior margin almost truncate, anterior as well as posterior angles roundly obtuse, lateral margins arcuate, more converging forwards than backwards, not explanate. Elytra rather short, nearly 1.1 times longer than their combined width, truncate at the apex. Lateral margins of elytra moderately arcuate, not explanate. Apex of pygidium in female roundly obtuse (fig. 7). Punctures of the upper surface nearly equal in size to eye facets, separated by nearly one diameter or slightly more. Microscopic punctulation between them rather reduced, so that around each puncture remains a small rounded area quite smooth and shining. Pubescence strongly abbreviate, particular hairs not reaching the base of the following ones (fig. 91). Upper surface appears bare, moderately shining. Male genitalia unknown, as the only examined male has not been dissected. Ovipositor of the same form as in other *Parepuraea*, but its hemisternites less diverging, separated by rather narrow v-shaped excision, with lateral margins less sinuate behind the excised apex than those of *P. spinifera* (fig. 47).

This species was described by Reitter (1873) from specimens from the Natural History Museum, Vienna and collection Marseul, now in MHNP. I have been able to study these specimens — one male from Vienna and two females from Paris. I designated the only male as Lectoholotypus of this species.

With its heavily reduced pubescence *P. nitida* (Reitt.) resembles the ethiopian species *P. kolbei* (Grouv.). It differs from it, however, by its wider pronotum, small smooth areas around punctures of the upper surface, shorter body and less curved lateral margins of pronotum and elytra.

Distribution: Madagascar.

Material examined: Madagascar, without further data, 1 spec. (Lectoholotype, NMW) 2 spec. (MHNP), 1 spec. (BMNH).

5. Genus: *Haptoncus* Murray, 1864

Haptoncus Murray (1864) : 401

Haptoncura Reitter (1875) : 61, 64

Type species: *Haptoncus tetragonus* Murray, 1864
= *H. ocularis* (Fairmaire, 1849)

Small oval, flatly vaulted beetles, resembling small *Epuraea* Er. Head with small eyes, temples converging, in some species acutely prominent behind eyes [e. g. *H. ocularis* (Fairm.)]. Antennae 11 segmented with distinct three-segmented club, the eleventh segment with sensillum ampullaceum, described and figured by Gillogly (1947). Labrum bilobed, mandibles arcuate, inner margin with additional tooth behind the acute apex. Maxillae without galea, lacinia oblong oval, maxillary palpi four-segmented, their terminal segment long, subcylindrical. Mentum transverse with strongly curved sides, labial palpi three-segmented, their terminal segment distinctly transverse, broadly truncate (cfr fig. 71). Antennal furrows strongly converging backwards, connected by transverse impression of postmentum. Anterior margin of pronotum usually distinctly emarginate. Prosternal process curved and dilated behind anterior coxae. Mesosternum not at the level of metasternum. Elytra slightly abbreviate (visible especially in living specimens or those, preserved in liquid media). Last abdominal spiracles in some species strongly transverse [e. g. *H. luteolus* Er., *H. ocularis* (Fairm.)]. The eighth abdominal sternite visible in males. In some species posterior tibiae of males curved or dilated. Tarsi moderately dilated, tarsal claws simple. Tegmen of epuraeoid type, rather short, with narrow, widely separated lateral lobes and distinct proximal process of the basal plate. Ovipositor of common nitiduloid type with narrow contiguous hemisternites and distinct styli.

The genus *Haptoncus* Er. is distributed over intertropical zone of the earth, especially in Palaetropis and some species have rather wide distribution. Taxonomic revision of this genus is badly needed but the genus must be revised in its entirety, to solve all actual problems. I therefore decided not to review the fauna of the limited Ethiopian and Malagassy regions. Nevertheless, one species must be mentioned here, as it directly concerns the problem of the classification of the ethiopian *Epuraea*:

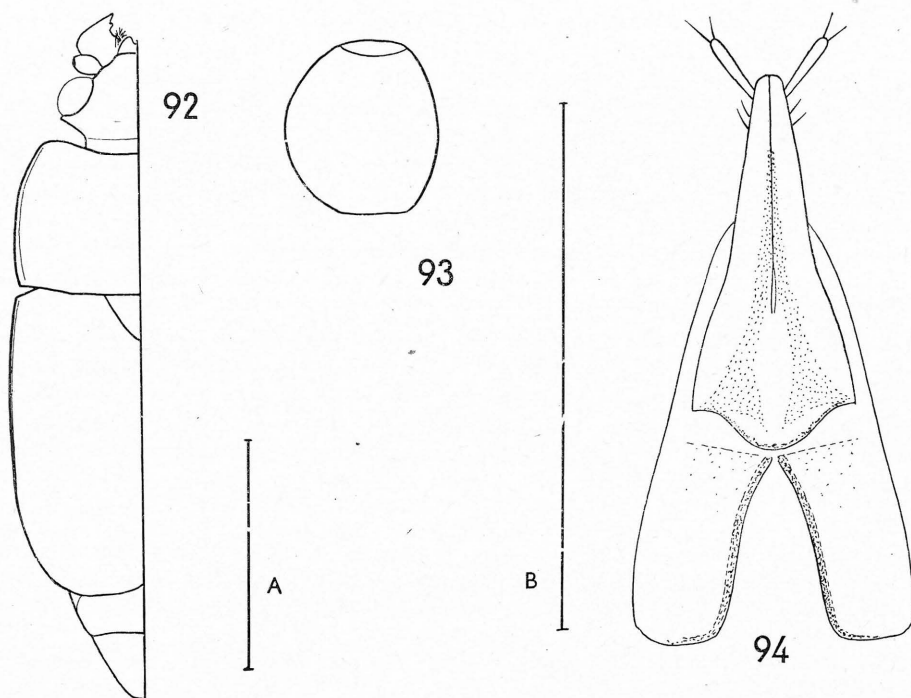
***Haptoncus ocularis* (Fairmaire, 1849)**

- Epuraea ocularis* Fairmaire (1849) : 363
Epuraea bisignata Boheman (1851) : 565 (nec Sturm, 1844), **syn. n.**
Nitidula significans Walker (1858) : 206
Haptoncus tetragonus Murray (1864) : 401
Epuraea thiemei Reitter (1873) : 28, 41
Haptoncura ocularis; Reitter (1875) : 62
Epuraea bifasciata Kraatz (1895) : 148
Haptoncus ocularis; Fauvel (1903) : 301
Epuraea bohemani Plavishtshikov (1924) : 232, **syn. n.**

This rather variable and widely dispersed palaetropical species seems to be common throughout Africa south of the Sahara. From Africa it was described under various names by Boheman (1851) and Kraatz (1895).

The true identity of *Epuraea bifasciata* Kraatz (1895), established by Grouvelle (1913a) was confirmed by a new revision of type specimens deposited in DEI, Eberswalde.

Through the kindness of Dr. G. Hallin I was enabled to study also two type-specimens of *Epuraea bisignata* Boheman (1851) (= *Epuraea bohemani* Plavilstshikov, 1924) from South Africa, deposited in Naturshistoriska Riksmuseet, Stockholm. They are *Haptoncus ocularis* (Fairm.) with black coloration of elytra more extended



Figs. 92—94: *Epuraea* (?) *ophthalmica* Waterhouse, holotype: form of the body (92), terminal segment of labial palpus (93) and ovipositor (94). Scale A — 1 mm (fig. 92), scale B — 0.5 mm (fig. 94).

than usual. No other difference between them and typical specimens of *H. ocularis* (Fairm.) was revealed.

Species incertae sedis

Epuraea ophthalmica Waterhouse, 1876

Epuraea ophthalmica Waterhouse (1876) : 111

Distribution: Island Rodriguez.

This species is known only from the female holotype, deposited in the British Museum (Natural History), London.

Body oval, flatly vaulted, resembling e. g. that of *Haptoncus luteolus* Er. Length 2.8 mm. Head rather flat, eyes large, coarsely faceted, regularly convex, temples converging backwards, behind the eyes finely acute (fig. 92). Terminal segment of labial palpi almost globular with narrowly truncate apex. Pronotum transverse, 1.73 times wider than long, as wide as elytra. Anterior margin very shallowly emarginate, anterior angles feebly prominent, broadly rounded, disc flatly transversely vaulted, almost flat in the middle. Lateral margins of pronotum moderately arcuate,

more converging forwards than backwards, very narrowly explanate, the explanate border widest at the posterior angles and there nearly as wide as antennal flagellum. Base of pronotum almost straight in the middle, obliquely flatly excised beside obtuse, almost rectangular, posterior angles. Elytra 1.1 times longer than their combined width, their lateral margins subparallel in their basal half, not distinctly explanate, tips separately rounded. Punctures of the upper surface nearly equal in size to eye-facets, separated by nearly one diameter, those of elytra shallower, less distinct. Spaces between punctures reticulate, dull. Pubescence of normal length, particular hairs reaching over base of the following ones, recumbent, yellow. Elytra testaceous, head, pronotum and scutellum somewhat darker. Tarsi dilated, tarsal claws simple. Ovipositor fig. 94.

I hesitate to decide about the generic classification of this species. Its general appearance resembles species of the genus *Haptoncus* and this similarity is emphasized by acute temples, occurring, as far as known to me, only in some species of *Haptoncus* Murr. However the form of the terminal segment of labial palpi differs distinctly from that of the genus *Haptoncus* (fig. 93), resembling that of some *Haptoncurina*.

Conclusions

1. Apart from a few obviously heterogeneous elements, ethiopian and malagassy Nitidulidae, hitherto described as *Eपुरaea*, belong to a complex of five closely related genera.
2. Two of those genera, *Haptoncurina* and *Pareपुरaea*, are described as new to science in the present paper.
3. The genus *Trimenus* Murray is given as new to the ethiopian fauna.
4. Genus *Eपुरaea* Er. is represented by 10 species in Ethiopian and 2 species in Malagassy regions. Six of them are described as new to science.
5. Genus *Haptoncurina* Jelínek is represented by only widely distributed species in Africa. Two further malagassy species are listed.
6. Genus *Pareपुरaea* Jelínek includes three ethiopian and one malagassy species. 1 species and 3 subspecies are new to science.
7. *Eपुरaea bohemani* Plavilshchikov (= *E. bisignata* Boheman) is conspecific with *Haptoncus ocellaris* (Fairm.).
8. Ethiopian and Malagassy faunas of *Eपुरaea* Er. and *Pareपुरaea* are without any doubt very closely related. They have, like the only ethiopian species of *Trimenus*, some peculiar features, suggesting their long isolated development. On the other hand, *Haptoncurina* and *Haptoncus* Murray are essentially oriental genera and they seem to be rather recent immigrants to the Ethiopian region.

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