

A REVISION OF THE *PACHNEPHORUS* FROM THE  
AFROTROPICAL REGION  
(Coleoptera, Chrysomelidae)

STEFANO ZOIA (\*)

INTRODUCTION

The present contribution includes all the *Pachnephorus* specimens - over 2300 - I have had the opportunity to examine, both from public collections and private ones. The studied region includes Africa south of Sahara, Madagascar and Southern Arabia. All available types of previously known taxa have been studied and are here redescribed. Some morphological characters are introduced for the first time to discriminate the considered taxa. The known taxa for the considered area here rises to 48 from the previous 8 (the latter number excludes one taxon here considered a synonym, one Mediterranean species erroneously reported in literature for Africa and Madagascar, two taxa described in *Pachnephorus* and transferred to *Mecistes* Chapuis, 1874).

ACRONYMS FOR COLLECTIONS:

PPRI (Plant Protection Research Institute, Pretoria);  
BMNH (British Museum of Natural History, London);  
JBcoll (Jan Bezděk coll., Brno);  
MSNG (Museo civico di Storia naturale di Genova);  
MSNM (Museo civico di Storia naturale di Milano);  
MDcoll (Mauro Daccordi coll., Verona);  
MNHN (Musée National d'Histoire Naturelle, Paris);  
NMPH (National Museum, Museum of Natural History, Praha);  
MNHU (Museum für Naturkunde an der Humboldt Universität zu Berlin);  
MRAC (Musée Royal de l'Afrique Central, Tervuren);  
MZLU (Zoological Museum Lund University);  
NHMB (Naturhistorische Museum Basel);  
SMNS (Staatliches Museum für Naturkunde Stuttgart);  
SZcoll (Stefano Zoia coll., Milano);  
UAcoll (Ulf Arnold coll., Schöneiche - Berlin);  
ZMUH (Zoological Museum of the University of Helsinki).

(\*) Via Ponte Nuovo, 109/4 - 20128 Milan, Italy. E-mail:stefano.zoia@unimi.it

## **Pachnephorus** Chevrolat, 1837

subgen. *Pachnephorus* Chevrolat, 1837

Chapuis F. 1874: 323.

Weise J. 1893: 282.

Selman 1972: 6.

subgen. *Pachnephoriscus* Lopatin, 1976 (type species: *Pachnephorus* (*Pachnephoriscus*) *jacobsoni* Lopatin, 1976)

Lopatin 1976: 111.

TYPE SPECIES: *Cryptocephalus arenarius* F., 1798 (designated by Monrós & Bechyné 1956: 1127)

DIAGNOSIS. A genus of the tribus Adoxini Jacoby, 1908 characterized by the subcylindrical body, with the prothorax narrower than the elytra, the latter oblong, usually feebly enlarged in the middle, with humeri well developed. Head hypognathous, partially retracted into the prothorax, the eyes more or less covered by the distal process of the prothoracic sides; frons punctured, more or less widely covered with scale-like bifid setae, partially covering or not the clypeus; labrum with distal margin concave; mandibles robust; palpi with the last joint more than twice the 2<sup>nd</sup> in length. Antennae with the first joint large, ovoidal, 2<sup>nd</sup> antennal segment oblong, arcuate, 7<sup>th</sup> to 11<sup>th</sup> forming a moderately enlarged club. Pronotum with the base slightly narrower, equal to, or a little wider than the distal border, sides more or less curved; lateral border evident, reaching or not the distal edge of the prothorax in relation to the development of the post-ocular lobe which can extend dorsally over the level of the lateral border; surface more or less covered by bifid, usually scale-like, setae; prothoracic epimera either glabrous or more or less pubescent, sometimes with scale-like setae, the distal border convex, projecting, partially covering the eyes (post-ocular lobe); this process usually bears several bifid setae and is separated from the prothoracic epimera by a deep sulcus; prosternum with deep lateral convergent sulci to receive the antennae in a defensive attitude. Mesothoracic epimera triangular; metathoracic episterna long, narrow, with 1 to 3 rows of punctures with or without bifid setae. Sternites with setae, usually bifid on the sides of the metasternum and simple in its middle and on the abdominal sternites, which are rarely without setae. Pygidium without a median groove. Elytra striate, more or less covered with bifid, scale-like setae on the interstriae; punctures of the striae either with setae, scales, or

without either; epipleura with the fold of the inner margin either bare or pubescent. Metathoracic wings fully developed. Legs relatively robust, bearing bifid setae or scales; femora unarmed; protarsi in males either simple or weakly widened in comparison with females; tarsal claws simple or appendiculate; in males the claws of the protarsi can be simple, bifid or appendiculate, also with the two claws of the same protarsus showing a different morphology; mesotibiae apically with a strong emargination which is preceded by a more or less developed tooth; metatibiae apically with a weak emargination. Aedeagus tube-like, strongly flexed vertically at about its middle; apex strongly tapering with sides straight, curved or sinuate; ostium dorsal, ovate or oblong; the inner sac usually has a slender longitudinal sclerotization near the ostium. Spermatheca c-shaped with a long ductus spermathecae.

NOTE. The subgenus *Pachnephoriscus* was described by Lopatin (1976) to include a species (*P. (Pachnephoriscus) jacobsoni* Lopatin, 1976, from Uzbekistan) with lateral borders of the pronotum "barely indicated around the anterior angles of the pronotum". I have not had the opportunity to examine this species, but the given description seems to match well the characteristics of many other species of the genus, so the erection of a subgenus for it may not be justified. Nevertheless, in default of type examination, I still maintain the name *Pachnephoriscus*, though only referring to its type species.

DISTRIBUTION. *Pachnephorus* is widely distributed in Eurasia and Africa, reaching Northern Europe (Finland), Russia, Siberia, India, South-East Asia, Philippines, Macassar, South Africa and Madagascar.

BIOLOGICAL AND ECOLOGICAL NOTES. Almost nothing is known about the biology and ecology of *Pachnephorus* and no host plants are known for certain. A list of host plants has been given by Jolivet & Hawkeswood 1995: all of them need confirmation upon careful observations of the true host plants; moreover, these authors erroneously report the genus as being cosmopolitan. Available data gives collecting sites near water, both brackish and fresh. I personally collected *P. canus* Weise, 1882 on a little *Juncus* sp. (Juncaceae) near a salt lake in Turkey (Tuz Gölü); I had not the opportunity to verify if it

was the true host plant, although it was the most common species in that place, which was very poor in vegetation. *Pachnephorus* in some African localities has been recorded more or less throughout the year showing the adults to be always present.

MORPHOLOGICAL ASPECTS - SPECIES RELATIONS. *Pachnephorus* is a monophyletic group, including closely similar species, as demonstrated both by the external characters and the genitalia; its relationships to other genera are at present uncertain. *Pachnephorus* is identified within the Adoxini by the "tarsal claws appendiculate and the body covered in small scales" (Selman 1972); both characters show a certain variability as is explained below.

The species key I propose does not divide the examined taxa into natural groups of species; a few characters, useful for identification, need a short dissertation as they involve taxonomic problems:

TARSAL CLAWS. As observed till now, in the African *Pachnephorus*, claws in female specimens are either simple or appendiculate in relation to the species; they are of the same type in all three pairs of legs. A simple claw tapers more or less gradually from base to apex (fig. 107), sometimes a rounded step can be observed at the base of the lower side (fig. 108: claw at the right), while the dorsal side is nearly evenly curved from base to apex; so the base is obviously the widest point of the claw. The appendiculate situation is due to the presence, on the basal portion of the claw, of an extension of the inner-lower side of the claw, ending in a right-angled (fig. 109) or a more or less acute tooth (fig. 110: claw at the right).

In males, things are more complex, due to different situations, which seem to be derived from one each other. Meso- and metatarsi are the same as in female in each species, but in a few cases, when claws are appendiculate, the appendiculation seems to be somewhat more developed.

The male protarsi, on the other hand, show a greater variety of claw structure. Beside the previously described cases (simple and appendiculate), bifid claws can also be observed, the latter being the most common case. In bifid case, the claw is doubled, the inner part being usually a little shorter than the outer one (figs 108 and 110 - claws at the left -, fig. 111); in *Pachnephorus*, the division of the claw starts usually near midlength and the two ends are slightly diverging;

the basal portion of the claw is then strongly enlarged, being the sum of the bases of the two ends. Both sides of the claw are more or less evenly curved all along their length. This condition can be regarded as apomorphic for this character.

Many situations can be observed in males of different species, as the two claws of the same protarsus can have different morphology; till now I have verified the following:

- both claws of the ♂ protarsus are simple (in this case all the claws, both in male and female, are simple) (fig. 107);
- both claws of the ♂ protarsus are appendiculate (in this case all the claws, both in male and female, are appendiculate) (♀: fig. 109);
- the inner claw of each ♂ protarsus is bifid, the outer is simple (fig. 108) (observed only in one species, whose ♀ is unknown to me);
- the inner claw of the ♂ protarsus is bifid, the outer is appendiculate (fig. 110) (in this case, females have appendiculate claws);
- both claws of the ♂ protarsus are bifid (fig. 111) (in this case, females have appendiculate claws).

Only the combination simple-appendiculate in the ♂ protarsus has not been found in the examined material. It is to be observed that, in a “mixed situation”, the inner claw is always the more complex (bifid versus simple, bifid versus appendiculate) and that the meso- and metatarsi are not involved in these morphological variations.

As far as I know, this situation has not been recorded before in other Eumolpinae genera.

**SETAE.** The body vestiture evolves from a weakly covered body to a full covered one. *P. sprecheriae* n. sp. has only a few setae beneath and a really poor dorsal coverage of bifid setae (figs 95-96, 99). Setae are either simple (mainly on the sternites and, where present, in the elytral punctures) or more or less enlarged and bifid (“scales”, auctt.) (which is the rule both on sides of the sternites and on the dorsum of the body and the legs), and sometimes they are dome-like in shape with bifid distal part (on the upperside in some species). The latter situation must be regarded as apomorphic for this character. All cases, and intermediates, are shown in the African species.

Although the vestiture may vary in colour and distribution, in particular between different populations, it nevertheless gives useful information.

**EYE SIZE.** The eye size differs sometimes considerably between species and frequently between the sexes, the males having somewhat larger eyes; I evaluate them in frontal view of the head, comparing the width of an eye with the distance between the two eyes, at the same horizontal level.

**EPIPLEURA.** Epipleura may (figs 103-104), or may not (figs 99-100), bear hairs along the fold of the inner margin; this character divides two main parts of the key; yet the division is sometimes not so obvious because some specimens have very small and short hairs only, hardly visible, and are here included in the “without hairs” section.

**AEDEAGUS.** The aedeagus morphology is very uniform throughout the genus; on the other hand it shows a certain variability in specimens of the same species, also in the same population (figs 127-130), making its use in taxonomy difficult, or even unsuitable. I include drawings of the aedeagi of all the treated species (where ♂ is available), stating that they cannot be used alone for species identification; the inner sac usually shows an oblong, thin sclerotization, that looks variable in size, and is not here taken into consideration for taxonomic purpose.

**SPERMATHECA.** Drawings of the spermatheca of all the treated species (where ♀ is available) are provided; their comparison can give useful indications, yet not of absolute value in taxonomy.

**BIOGEOGRAPHY.** At present, 75 taxa belonging to the genus *Pachnephorus* are known: 48 belong to the Afrotropical Region (including Southern Arabia), 26 to Palaearctic Region (including the Mediterranean). A comprehensive study of the Palaearctic species would be allow a comparison with the African fauna and possibly the species of the two faunae might reach more or less the same number, leaving the bordering regions of the area the poorest in species (at present: 1 in Northern Europe, 1 in Siberia, 1 in the Cape Province).

African fauna includes both species that are widespread on a large part of the Continent and others at present known only from one or few localities; for the latter both rarity and lack of researches might be taken into consideration, but we have no reason to suppose a real so limited distribution area since most of them are known from the few well investigated areas.

For a biogeographical analysis, I refer to the chorotypes proposed by Biondi & D'Alessandro (2006), although these do not apply in some cases:

continental Africa	type loc. (Nation)	distribution area	chorotype
<i>crocodilinus</i> n. sp.	Zambia	Africa South of Sahara between 18°N and 30°S	AIT + Natal
<i>torridus</i> Baly	Niger	Africa South of Sahara between 18°N and 30°S	AIT + Natal
<i>gardinii</i> n. sp.	Etiopia	Africa South of Sahara between 18°N and 5°S	AIT
<i>senegalensis</i> Achard	Senegal	Africa South of Sahara between 18°N and 15°S	AIT
<i>camerunensis</i> n. sp.	Camerun		AEQ
<i>fabianae</i> n. sp.	Congo	Central-Western Africa along the Equator	AEQ
<i>pacificus</i> n. sp.	Central Afr. Rep.		AEQ?
<i>moseykoi</i> n. sp.	Chad	Africa South of Sahara between 18°N and 0°	NAT
<i>achardi</i> n. sp.	Mali		NWA
<i>bryanti</i> n. sp.	Mali		NWA
<i>danielssoni</i> n. sp.	Sierra Leone	Western Africa between 18°N and 8°N	NWA
<i>f. occidentalis</i> n. sp.	Nigeria	Western Africa south of Sahara from Senegal to 10°E	NWA
<i>lopatini</i> n. sp.	Senegal		NWA
<i>malicus</i> n. sp.	Mali		NWA
<i>parentorum</i> n. sp.	Ghana		NWA
<i>sassii</i> n. sp.	Guinea Bissau		NWA
<i>aethiopicus</i> n. sp.	Etiopia		NEA
<i>beharui</i> n. sp.	Etiopia		NEA
<i>poggii</i> n. sp.	Somalia	Eastern Africa: Kenya and Somalia	NEA
<i>rigatoi</i> n. sp.	Kenya	Eastern Africa: Kenya, Ethiopia and Somalia	NEA
<i>conspersus</i> Gerstaecker	Kenya	coasts of S Kenya and Tanzania	NEA?
<i>aequatorianus</i> n. sp.	R. P. Congo		CAT
<i>bezdeki</i> n. sp.	R. P. Congo		CAT
<i>bracarumvestitus</i> n. sp.	R. P. Congo	Rift Valley between 0° and 10°S	CAT
<i>crisiani</i> n. sp.	Namibia	between 0° and 20°S	CAT
<i>d. congoanus</i> n. sp.	R. P. Congo		CAT
<i>demeyeri</i> n. sp.	R. P. Congo		CAT
<i>fasciatus</i> Burgeon	Lubulu	Central-Western Africa between 10°N and 10°S	CAT
<i>medvedevi</i> n. sp.	Zambia	Rift Valley between 0° and 10°S	CAT
<i>regalini</i> n. sp.	Zambia	Middle Southern Africa between 10°S and 20°S	CAT

*continued*

continental Africa	type loc. (Nation)	distribution area	chorotype	
<i>grobbeaarae</i> n. sp.	South Africa	Southern Africa between 15°S and 32°S	EAF	
<i>burgeoni</i> n. sp.	Natal		SEA	
<i>shuteae</i> n. sp.	R South Africa		SEA	
<i>metallicus</i> Bryant	Sudafrica: Cape Prov.		SWA	
<i>bertiae</i> n. sp.	Madagascar		MAL	
<i>episternalis</i> n. sp.	Madagascar		MAL	
<i>hajeki</i> n. sp.	Madagascar		MAL	
<i>latior</i> Pic	Madagascar		MAL	
<i>maroantsetranus</i> n. sp.	Madagascar		MAL	
<i>sprecheriae</i> n. sp.	Madagascar		MAL	
<i>testaceipes</i> Fairmaire	Madagascar		MAL	
<i>daccordii</i> n. sp.	Yemen		South-Western Arabia	endemic
<i>yemenicus</i> Lopatin	Yemen			endemic
<i>balyi</i> n. sp.	Angola		not defined	
<i>baehri</i> n. sp.	Namibia		not defined	
<i>gerstaeckeri</i> n. sp.	Namibia		not defined	
<i>uhlīgi</i> n. sp.	Namibia		not defined	
<i>willersi</i> n. sp.	Namibia		not defined	

Although the presence of *Pachnephorus* species depends to the presence of water, we have no evidence that a distribution pattern could be in relation to a single basin; on the other hand, it seems that there are no species in common with outer regions from the Afrotropical (but a revision of the species from Northern Africa is needed) and even no common species between continental Africa and Madagascar, the latter having a relatively high number of species and endemism = 100%. The Pan-African and Afrotropical chorotypes seem not present in *Pachnephorus*; I refer the wide distribution of *P. crocodilinus* n. sp. and *P. torridus* to the Afro-Intertropical chorotype with extension to Natal. With the above exceptions, all the other chorotypes proposed by Biondi & D'Alessandro (2006) are here represented with a clear advantage of the Central Afrotropical (9 species) and Northern-Western Afrotropical (8 species) chorotypes, interestingly followed by the Northern-Eastern Afrotropical species (5). Excluding the Madagascar, the only endemic taxa, with constricted distribution area, are *P. daccordii* and *P. yemenicus* from Arabia and *P. metallicus* from the Cape Province. It is to be noted that the Central Afrotropical and the Northern-Western Afrotropical areas are the richest in species (each of them with 14 species reported).



KEY FOR THE IDENTIFICATION OF THE *PACHNEPHORUS* SPECIES FROM THE AFRO-TROPICAL REGION

- 1 Species from Madagascar . . . . . 43
- 1' Species from continental Africa and Southern Arabia . . . . . 2
- 2 Epipleura bare along the fold of the inner margin and usually all along their length, sometimes with only a few small hairs at their base or with very small scattered hairs; sometimes, along the fold of the inner margin, there are very small hairs, visible only at enlargement higher than 50, whose length usually is shorter than the distance between two near hairs; metathoracic episterna narrow, with a single row of punctures each with a seta inside, only near the anterior end this line is sometimes doubled, rarely other very small setae are present and visible at enlargement greater than 50 . . . . . 25
- 2' Epipleura pubescent along the fold of the inner margin with a row of short white hairs, usually evident in lateral view, the length of these hairs not less than half the distance between two near hairs (moreover, the epipleuron, near the humerus, as a rule with scattered small hairs); and/or, metathoracic episterna, at least in a part of their length, with a double row of scales (if the scales are in a single row, the presence of pubescence along the fold of the inner margin of the epipleura is obvious) . . . . . 3  
(see also *P. fasciatus occidentalis*, with epipleura bare or with a very fine pubescence, which is characterized by the squat elytra, small size and a high chromatic contrast of the scales on the elytra, appendiculate claws of the ♂ protarsus)
- 3 Mesothoracic episterna densely covered with oblong scales, deeply split; metathoracic episterna relatively wide, closely covered by scales which resemble those of the mesothoracic episterna, but smaller; prothoracic episterna covered on the whole surface by bifid, relatively wide scales; scales on the elytral surface dense, uniformly covering the integument; tarsal claws appendiculate with a very small tooth near the base . . . . . *P. burgeoni* n. sp.  
(Rep. South Africa: Natal)
- 3' Mesothoracic episterna bare; metathoracic episterna narrow, with a single or double row of punctures with scales, never covering the whole surface . . . . . 4
- 4 Only the distal process of the prothoracic episterna, partially covering the eyes, with evident scattered pubescence; on the remaining proepisternal surface may exist some small hairs on the distal part or a few setae on the proximal part which never cover the punctured integument . . . . . 6
- 4' Prothoracic episterna with bifid scales on the whole or a large part of the surface 5
- 5 Prothoracic episterna with scales on the whole surface, reaching the pronotal border; these scales are relatively short and wide, their distal split with subparallel sides, weakly divergent distally; punctures of the outer elytral striae with white, weakly widened setae, punctures of the striae on the discus with white setae, sometimes clearly bifid; metathoracic episterna with scales arranged in a single row on the middle of the episternon, in double or triple row near the distal edge and, sometimes, the proximal edge; both claws of the ♂ protarsi bifid . . . . .  
. . . . . *P. cristiani* n. sp.  
(Rep. Pop. Congo, Angola, Namibia, Zambia, Zimbabwe, Mozambique, Lesotho (?))  
(see also *P. bezdeki* n. sp. with epipleura briefly pubescent along the fold of the inner margin, scales of the prothoracic episterna more deeply divided and with this division clearly divergent, bifid setae inside the punctures of the outer striae of the elytra)
- 5' The proximal part of the prothoracic episterna bare, median and distal part covered by more elongate scales, with their distal split clearly divergent; punctures of

- the outer striae of the elytra with thin, less evident setae, punctures of the striae on the discus without setae or with very thin hairs; scale coverage of the dorsum not so dense; the two claws of the same protarsus in ♂ with different structure: the inner one is bifid, the outer appendiculate (species as a rule with bare prothoracic episterna, see under 24') . . . . . *P. crocodilinus* n. sp. (Sudan, Ethiopia, Nigeria, Cameroon, Rep. Pop. Congo, Tanzania, Namibia, Zambia, Malawi, Mozambique, South Africa)
- 6 Elytral interstriae more or less convex, as wide as, or narrower than the diameter of the striae punctures; elytral vestiture less dense, on the discus each interstria with one or two scales on its width (except for the presence of spots of white scales) . . . . . 8
- 6' Elytral interstriae flat, clearly wider than the diameter of the punctures which are relatively small on the discus; vestiture denser, usually with 2-3 scales on the width of each interstria, at least on a part of the elytral discus . . . . . 7
- 7 Species broader with elytra more widened at sides (elytra length/prothorax length ratio = 2.3; elytra length/elytra width at humeral level = 1.4) and more convex (the suture, in lateral view, convex throughout); frons, between the eyes, with two round superficial impressions, which are separated, in the middle of the frons, by a brighter, almost impunctate line; coverage of lighter scales on the elytra more widespread; punctures of the outer elytra striae with thin setae, clearly thinner than the scales on the interstriae; protarsus in ♂ with both claws bifid . . . . . *P. baehri* n. sp. (Namibia)
- 7' Species more slender (elytra length/elytra width at humeral level  $\geq 1.5$ ); elytra not so convex, the sides subparallel or weakly convergent towards the base, the suture, in lateral view, almost flat or weakly convex the basal third, feebly convex posteriorly, before the elytral declivity; discus of the elytra with 2-3 scales on the width of each interstria, the white scales less numerous; punctures of the elytral striae without setae or with very small, not evident hairs; frons feebly, transversely elevated between the antennal fossae; the two claws of the same protarsus in ♂ with different structures: the inner one is bifid, the outer appendiculate . . . . . *P. fabianae* n. sp. (Rep. Pop. Congo)
- 8 Species more slender, elytra length/elytra width at humeral level  $\geq 1.5$ ; punctures of the elytral striae either without or with setae . . . . . 10
- 8' Species broader, elytra length/elytra width at humeral level  $< 1.5$ ; punctures of the elytral striae without setae throughout the elytra; claws of the ♂ protarsus both appendiculate . . . . . 9
- 9 Epipleura, as a rule, pubescent along the fold of the inner margin; metathoracic episterna with a single row of punctures throughout their whole length, near the anterior edge there is a single puncture; frons feebly transversely elevated between the antennal fossae; scales of the elytral interstriae relatively wide and short, the brown scales arranged in a single row on each interstria, as a rule with a strong chromatic contrast between white and brown scales . . . . . *fasciatus* ssp. *fasciatus* Burgeon (Camerun, Central African Rep., Rep. Pop. Congo, Angola)  
(see also some specimens of *P. torridus* with pubescent fold of the inner margin of the epipleura, clearly separated from *P. fasciatus*, between the other characters, by the frons strongly transversely elevated between the antennal fossae)
- 9' Epipleura either with very thin and scarce pubescence along the fold of the inner margin, or bare; row of punctures of the metathoracic episterna either single or doubled in a part of its length; frons distally flat, not or weakly elevated at the

- beginning of the clypeus . . . . . *fasciatus occidentalis* n. ssp.  
(Senegal, Gambia, Guinea Bissau, Sierra Leone, Nigeria)
- 10 Punctures of the elytral striae with an hair inside, sometimes very thin, but usually distinct at least in the outer elytral striae . . . . . 14
- 10' Punctures of the elytral striae without setae, the punctures of the outer striae may contain a very small seta, hardly visible and confused in colour with the integument; distal emargination of the mesotibiae proximally delimited by a strong tooth, strongly protruding, its height equal to or more than 1/2 the mesotibial width at that point . . . . . 11
- 11 Vestiture of dorsum composed of more elongate scales; on the pronotal discus each scale is more than 4 times longer than wide . . . . . 13
- 11' Vestiture of dorsum composed of less elongate scales; on the pronotal discus each scale is less than 2 times longer than wide . . . . . 12
- 12 Slender species, the pronotum relatively lengthened, elytra length/pronotum length ratio about 1.6; epipleural pubescence less evident, composed of very small setae, or absent; scales of the dorsum usually with a lower chromatic contrast, lighter scales are whitish; pronotum longer than wide, with the maximum width a little beyond its middle length; metathoracic episterna with a double row of scales, or at least so at both ends; claws of the protarsi appendiculate in both sexes . . . . . *P. demeyeri* n. sp.  
(Rep. Pop. Congo)
- 12' Broader species, pronotum wider, elytra length/pronotum length ratio about 2; epipleura pubescent along the fold of the inner margin; scales of the dorsum with a higher chromatic contrast, lighter scales are snow-white; pronotum transverse, with the maximum width in the distal third; metathoracic episterna with a single row of scales, doubled near the proximal end . . . . . *P. sassii* n. sp.  
(Guinea Bissau)
- 13 Larger species (2.9-4.1 mm); scales of the dorsum light, whitish, more uniform in colour; sides of pronotum with uniformly whitish scales; antennae brown, the club slightly darker; pronotum weakly widened distally, subcylindrical; ♂ protarsus with both claws bifid; aedeagus relatively wide distally and stout . . . . .  
. . . . . *P. yemenicus* Lopatin  
(Yemen)
- 13' Smaller species (2.7-3.1 mm); vestiture of the pronotum, also at its sides, and of the elytra composed of brown and whitish scales; antennae with basal segments reddish brown; club distinctly darker; pronotum with sides widened distally, wider at distal border than at base; the pronotum widest at the distal fourth; claws of the protarsi appendiculate in both sexes . . . . . *P. willersi* n. sp.  
(Namibia)
- 14 Outer striae of the elytra with simple setae in the punctures, which are thinner, at least 1/2, than the scales on the interstriae; the punctures of the striae on the elytral discus with very thin and small setae or without (in *P. malicus* n. sp., included in this section of the key, only a few setae in the median portion of the last two striae are more enlarged and like the scales on the interstriae) . . . . . 16  
(in *P. danielssoni* n. sp e *P. d. congoanus* n. ssp. the scales on the interstriae are relatively thin; due to this, the setae of the outer striae of the elytra, also if only weakly enlarged, are as wide as 1/2 the scales on the interstriae; yet the two taxa are easily recognizable from the others in this group by the thinner and scattered scales; the scales on the pronotal sides are about 3 times longer than wide)
- 14' Outer striae of the elytra with punctures containing whitish setae, widened, more or less of the same size as the scales on the interstriae; as a rule, also the punctures of the striae on the elytral discus with an enlarged seta inside . . . . . 15

- 15 The two claws of the same protarsus in ♂ with different structure: the inner claw is bifid, the outer appendiculate; pronotum with moderately strong punctures, which are thinner near the pronotal distal edge; elytra with most of the brown scales arranged in a single row on each interstria; white scales covering the elytral sides and making a transverse band on the basal third of the elytra, a sublateral spot behind the middle, a diagonal band, which is not always entire, at the beginning of the declivity, all these groups of scales not always well marked or complete; pronotum in the middle with most scales brown, at sides with whitish broader scales, about twice, or more, as long as wide . . . . . *P. moseykoi* n. sp. (Senegal, Gambia, Guinea Bissau, Sierra Leone, Mali, Ghana, Congo, Sudan, Ethiopia)
- 15' Both claws of the ♂ protarsus appendiculate; pronotum strongly punctured, in the middle with brown scales and a thin longitudinal row of white scales, at sides with white scales; on the elytra, the white scales making a longitudinal band near the base of the suture, a transverse band behind the middle and covering a large part of the sides and of the declivity; eyes relatively small (in frontal view, the distance between the eyes in ♂ is 3.4 times the width of an eye) . . . . *P. acharidi* n. sp. (Mali)
- 16 Punctures of the outer elytral striae in part with shortly bifid setae, also on the discus the punctures of the striae with an whitish seta inside, moderately enlarged; eyes large (in frontal view, the distance between the eyes in ♂ is 2.9 times the width of an eye), the greatest diameter of the eye is as long as the 1st and the 2nd antennomeres together); the two claws of the same protarsus in ♂ with different structures: the inner claw bifid, the outer appendiculate; distal emargination of the mesotibiae proximally delimited by a small, obtuse tooth, its height less than 1/4 the mesotibial width at that point . . . . . *P. malicus* n. sp. (Mali)
- 16' Other characters; punctures of the elytral striae with more slender setae . . . . . 17
- 17 The two outermost interstriae of the elytra with scales arranged in double row, sometimes the last interstria with a triple row of scales; also parts of other interstriae sometimes with a double row of scales . . . . . 22
- 17' Each elytral interstria with a single row of scales, with the exception of the outermost interstria which has a double row of scales; small spots of lighter denser scales may be present . . . . . 18
- 18 Smaller on average (body length 2.2-3.1 mm), and slender species; elytra slender; pronotum longer than wide or quadrate; elytral subbasal impression deeper, usually posteriorly bordered by a more or less evident band of whitish scales . . . . . 20
- 18' Larger on average (body length 2.5-3.4 mm), and relatively robust species; elytra comparatively broad; pronotum square or weakly transverse; elytral subbasal impression weak and without bands of whitish scales . . . . . 19
- 19 Eyes relatively small (in front view, the distance between the eyes is about 3.5 times the width of an eye); frons with strong microreticulation between the punctures, which are comparatively smaller and denser; scales on the frons smaller, each scale about twice in length the diameter of a puncture; integument dark, pronotum black, elytra dark brown; elytral scales regularly spaced, most of them of a light colour, from light brown to white . . . . . *P. shuteae* n. sp. (South Africa: Natal)
- 19' Eyes larger (in front view, the distance between the eyes is about 1.9-2.5 times the width of an eye); frons shiny between the punctures, with a very weak microreticulation, punctures comparatively wider; scales on the frons longer, each scale 2-3 times in length the diameter of a puncture, equally dense to the distal margin of the frons; claws of the protarsi appendiculate in both sexes . . . *P. rigatoi* n. sp. (SW Ethiopia, Somalia, Kenya)

- 20 Eyes larger and protruding (in front view, the distance between the eyes is 2.4 times the width of an eye); scales of the dorsum wider, on the pronotal sides the scales are about 2 times longer than wide; surface of frons opaque because of dense microreticulation and strongly punctate, particularly between the antennal fossae; punctures of the elytral striae with small hairs, clearly visible only on the elytral sides; the punctures of the first three striae usually without setae or with very small and thin hairs, also on the declivity; metathoracic episterna with a row of punctures which become double near the anterior edge where more punctures may be present; claws of the protarsi appendiculate in both sexes (body length 2.5-2.7 mm) . . . . . *P. lopatini* n. sp. (Senegal)
- 20' Eyes smaller (in frontal view, the distance between the eyes is more than 3 times the width of an eye); surface of frons shiny or with a very fine and superficial microreticulation and with a relatively fine punctuation; punctures of the elytral striae with a white hair inside, clearly seen also on the discus; the two claws of the same protarsus in ♂ with different structures: the inner claw is bifid, the outer appendiculate . . . . . 21
- 21 Punctures at the base of the outermost elytral stria, behind the humeri, with setae which are bifid; punctures of the outer striae with larger, whitish setae; also the punctures of the striae on the discus with an evident seta; elytral subbasal impressions shallower; metathoracic episterna with a single row of punctures (body length 2.4 mm) . . . . . *P. danielssoni* n. sp. (Senegal, Sierra Leone)
- 21' Punctures at the base of the outermost elytral stria, behind the humeri, with entire setae, slightly enlarged; setae in the punctures of the elytral striae less enlarged, not so evident, usually golden; elytral subbasal impressions deeper and more evident; metathoracic episterna with a row of punctures which usually becomes double near the fore end (body length 2.2-3.1 mm) . . . . .  
. . . . . *P. danielssoni congoanus* n. ssp. (Rep. Pop. Congo)
- 22 Body integuments black, legs dark brown; most elytral scales whitish, weakly curved, recumbent; pronotal scales thinner, curved, brown on the discus, wider and lighter in colour on pronotal sides; eyes relatively small (in frontal view, the distance between the eyes is about 3 times the width of an eye); eyes with a thin and moderately deep supra-ocular sulcus, evanescent near the antennal fossae; scales of the head relatively short, regularly arranged, reaching the proximal end of the clypeus; the two claws of the same protarsus in ♂ with different structures: the inner claw is bifid, the outer appendiculate . . . . . *P. aequatorianus* n. sp. (Rep. Pop. Congo)
- 22' Other characteristics; elytral scales of two colours, the white or whitish scales making spots and bands more or less clearly marked; the two claws of the same protarsus in ♂ with different structures: the inner claw with a more developed basal tooth or bifid, the outer claw appendiculate; scales of the elytral interstriae more or less diffusely arranged in a double row on each interstria . . . . . 23
- 23 Scales of the dorsum wider (on the elytral discus each scale is about 3 times longer than wide on average) and more densely covering the integuments; slender species (elytra length/width ratio at humeral level is about 1.6, elytra length/pronotum length ratio is about 2.1); integuments with or without a feeble metallic reflexion; scales of the frons relatively small and numerous, regularly arranged, thinner in the region between the eyes, reaching proximal edge of the clypeus; eyes of medium size (in frontal view, the distance between the eyes is a little more than 3 times the width of an eye); claws of the protarsus in ♂ appendiculate, the tooth at the base of the inner claw more developed than the one of the outer claw;

- apex of the aedeagus relatively wide and robust . . . . . *P. bryanti* n. sp.  
(Mali)
- 23' Scales of the dorsum narrower - on average each scale is 4-5 times longer than wide -, more regularly arranged, leaving the integuments, which are dark with a metallic reflexion, more uncovered . . . . . 24
- 24 Scales of the dorsum narrower, most of them arranged in a double row on each interstria of the elytra; the space between the suture and the first stria in a large part with a double row of scales; eyes smaller (in frontal view, the distance between the eyes is about 2.8 times the width of an eye); supra-ocular sulcus narrow, but clearly marked; frons scales short, regularly and closely arranged, white, with two wide spots of brown scales on both sides of the median line; in the region between the eyes the frons has a weak depression with very thin setae, extending to the proximal edge of the clypeus . . . . . *P. balyi* n. sp.  
(Angola)
- 24' Scales of the dorsum a little wider, most of the brown scales arranged in a single row on each interstria of the elytral discus; the space between the suture and the first stria of the elytra in a large part with a single row of scales; eyes larger and more protruding (in frontal view, the distance between the eyes is about 2.8-3 times the width of an eye); supra-ocular sulcus weak, completely absent in the middle of the frons; scales of the frons longer, light and more uniform in colour, much smaller and narrower between the eyes and the proximal edge of the clypeus . . . . . *P. crocodilinus* n. sp.  
(Sudan, Ethiopia, Nigeria, Cameroon, Rep. Pop. Congo, Tanzania, Namibia, Zambia, Malawi, Mozambique, South Africa)
- 25 Large species (4.1 mm), robust; elytral discus with flat and wider interstriae, their width is 1-2 times the diameter of the punctures; mesothoracic episterna bare; frons with a transverse impression between the antennal fossae; pronotum in the middle, near the base, with a short, longitudinal, shiny line in relief; pronotal sides weakly sinuate near the base . . . . . *P. uhligi* n. sp.  
(Namibia)
- 25' Smaller species (< 3.2 mm), usually slender; elytral discus with narrow interstriae, their width equal to or less than the diameter of the punctures; as a rule the pronotal sides are more sinuate near the base . . . . . 26
- 26 Epipleura with very small scattered hairs, in particular on the distal half, rarely lacking; pronotal punctures on the discus fine, the space between the punctures is flat, as wide as or wider than the diameter of the punctures; dark integuments, bright, with obvious metallic reflexion; elytra with an arched impression between the humeri - so they are clearly defined - and the suture; space between the suture and the first stria wide, bright and bare; scales of the elytral interstriae small, thin, arranged in small, whitish, scattered spots; claws of the ♂ protarsus bifid, with the inner tooth of each claw clearly shorter than the outer one . . . . .  
. . . . . *P. metallicus* Bryant  
(South African Rep.: Cape Prov.)
- 26' Epipleura bare; very short and slender hairs, visible only at an enlargement of 50x or more, may be present along the fold of the inner margin; punctures on the pronotal discus larger, the distance between the punctures as wide as or less than the diameter of a puncture; scales on the dorsum wider, closer, usually bifid; pronotal sides with more adpressed scales, which more or less cover the integument . . . 27
- 27 Eyes small and weakly protruding, their horizontal diameter hardly wider than the length of the 2<sup>nd</sup> antennomere; surface of eye more or less equal to the surface of the antennal fossa, the lower edge of the eye does not extend beyond the antennal insertion; in frontal view, the distance between the eyes is about 4 times the width of an eye; frons distally flat, not impressed; most scales of the elytral

- interstriae whitish and mainly arranged in a single row on each interstria (the holotypus with dark integuments with a feeble bluish metallic reflexion) . . . . .  
. . . . . *P. conspersus* Gerstaecker (♀)  
(Kenya, Tanzania)
- 27' Eyes relatively small and not strongly protruding; in frontal view, the distance between the eyes is about 3.5 times the width of an eye . . . . . 28
- 27'' Eyes larger; in frontal view the distance between the eyes is 3.2 times, or less, the width of an eye (in this section, only *P. aethiopicus* shows a value of 3.2; in the other species this value is equal to or less than 3) . . . . . 29
- 28 Supra-ocular sulci parallel, moderately deep, evanescing over the antennal fossae towards the middle of the frons; scales on the frons bifid, oblong, not different in the region over and between the antennal fossae; most scales on the elytral sides white; punctures of the outer striae, starting from the 4<sup>th</sup> stria, containing setae which are white, widened, and as long as the scales on the interstriae . . . . .  
. . . . . *P. medvedevi* n. sp.  
(Zambia, Rep. Pop. Congo)
- 28' Supra-ocular sulci superficial, obsolete; on the dorsum scales are short and relatively wide; dorsal side of the tibiae with small scales, weakly enlarged; space between the suture and the first stria, in particular in its proximal part, with small scales, clearly shorter and thinner than the scales of the adjacent interstriae; scales of the elytra smaller and closer, nearly everywhere arranged in a double row on each interstria; punctures of the elytral striae without setae; metathoracic episterna often with a double longitudinal row of punctures with setae . . . . .  
. . . . . *P. demeyeri* n. sp.  
(Rep. Pop. Congo)  
(this taxon is also placed among those species with a double row of setae on the metathoracic episterna, because of some variability in this character; see couplet 12 of the key)
- 29 Antennae relatively short but with antennomeres of the funicle thin, oblong; eyes relatively small (in frontal view, the distance between the eyes is about 3 times the width of an eye) yet their horizontal width greater than the 2<sup>nd</sup> and the 3<sup>rd</sup> antennomeres together; small species (2.2 mm) with oblong pronotum (length/width = 1.1, elytra length/pronotum length = 1.7); scales of the elytra mainly whitish, short, numerous, arranged in single or double row on each interstria, with a few series of dark brown scales, most of them on the discus; pronotum with brown scales on the discus and on the distal portion, whitish scales at the base and sides; on the sides of the pronotum the scales are wide, short, dome-shaped; both claws of the protarsi in ♂ appendiculate . . . . . *P. pacificus* n. sp.  
(Central African Republic)
- 29' Antennomeres of the funicle relatively broad, in particular the 2<sup>nd</sup>; eyes relatively small, their horizontal diameter as long as the 2<sup>nd</sup> and 3<sup>rd</sup> antennomeres together; eyes with a relatively deep and parallel supra-ocular sulci, evanescing over the antennal fossae; the proximal border of the antennal fossae strongly convex, carinate; prothoracic episterna with scales on the distal half; elytral discus with a strong impression on the basal third, between the 2<sup>nd</sup> and 5<sup>th</sup> interstria; punctures of the outer interstriae of the elytra with a white seta inside, punctures on the discus without setae; fold of the inner margin of the epipleura strong, step-like . . . . . 30
- 29'' Other characters; antennomeres of the funicle slender; eyes larger and more strongly protruding, their horizontal diameter clearly greater than the length of the 2<sup>nd</sup> antennomere, but smaller than the length of the 2<sup>nd</sup> and the 3<sup>rd</sup> antennomeres together; in frontal view, the distance between the eyes is about 3 times, or less, the width of an eye . . . . . 31



- 30 The last three outer interstriae of the elytra, the region near the scutellum and a part of the declivity with mostly whitish scales; moreover there are two spots of whitish scales at sides of the discus of each elytron; pronotum with a wide band at both sides and a thin basal line of mostly whitish scales; eyes slightly larger (in frontal view, the distance between the eyes is about 3 times the width of an eye); 6<sup>th</sup> antennomere in the ♂ with an asymmetrical furrow on the inner side (fig. 202); the two claws of the same protarsus in ♂ with different structures: the inner claw bifid, with the inner tooth clearly shorter than the outer and starting at 1/3 of the claw's length, and the outer claw appendiculate . . . . . *P. parentorum* n. sp. (Ghana)
- 30' Most of the elytral scales brown, also at the sides and on the declivity; scales on pronotum brown, with the exception of a narrow band of whitish scales on each side; eyes smaller (in frontal view, the distance between the eyes is about 3.2 times the width of an eye); 6<sup>th</sup> antennomere with inner side not hollowed; the two claws of the same protarsus in ♂ with different structures: the inner claw bifid, with the inner tooth clearly shorter than the outer and starting at 1/2 of the claw's length, the outer claw appendiculate . . . . . *P. aethiopicus* n. sp. (Ethiopia)
- 31 Prothoracic episterna bare, only in some species with setae or scales on their distal portion or with thin setae, only the distal process, covering the eyes, with bifid, white setae; punctures of the outer striae of the elytra without white bifid setae inside . . . . . 33
- 31' A wide part of the prothoracic episterna covered with white bifid setae; punctures of the outer elytral striae with white, enlarged setae inside, at least some of them clearly bifid . . . . . 32
- 32 Punctures of the striae on the elytral discus with a white, bifid seta inside; claws of the protarsi appendiculate in both sexes; apex of the aedeagus less elongate and with sides weakly sinuate . . . . . *P. bezdeki* n. sp. (Rep. Pop. Congo)
- 32' Punctures of the striae on the elytral discus with simple hairs; apex of the aedeagus more elongate and with sinuate sides . . . . . *P. daccordii* n. sp. (Saudi Arabia, Yemen)
- 33 Punctures of the outer elytral striae with broad scales, which are like the scales of the interstriae or only a little narrower . . . . . *P. regalini* n. sp. (Zambia)
- 33' Punctures of the outer elytral striae either without setae, with simple hairs, or with weakly enlarged setae; sometimes these setae are longer than the scales of the interstriae, but never like them . . . . . 34
- 34 Less slender species, the elytra weakly elongate (elytra length/pronotum length  $\leq 1.8$ , elytra length/elytra width at humeral level  $\leq 1.4$ ); prothorax, particularly at sides, and elytra with wide, dome-shaped, bifid scales; dorsal side of the tibiae with white wide scales, twice as long as wide, covering a large part of the dorsal side of the meso- and metatibiae; the claws of the protarsi appendiculate in both sexes . . . . . *P. bracarumvestitus* n. sp. (Rep. Pop. Congo, Zambia)
- 34' More slender species, with slender elytra (elytra length/pronotum length  $> 1.8$ , elytra length/elytra width at humeral level  $\geq 1.4$ ); scales of the dorsum more elongate; dorsal edge of the meso- and metatibiae with thinner setae, hence the integuments more visible . . . . . 35
- 35 Claws of the protarsi appendiculate in both sexes; scales on the frons regularly arranged and similar in shape on the whole surface, reaching the proximal edge of the clypeus; clypeus bare, shiny; eyes moderately large (in frontal view, the distance between the eyes is 3 times the width of an eye); scales of the dorsum



- mainly whitish, almost everywhere arranged in a single row on each interstria; punctures of the elytral striae with a thin hair; pronotum relatively large, as wide as the humeri (elytra length/pronotum length = 1.6); punctures of the pronotum strong, the scales, also at sides, relatively thin and separate, leaving the integument visible . . . . . *P. conspersus* Gerstaecker ( $\delta$ ) (Kenya, Tanzania)
- 35' At least one of the two claws of each protarsus in  $\delta$  bifid; frons either with scales uniformly coloured or with a spot of darker scales on either side of the median line; the distal part of the frons with thin setae or bare . . . . . 36
- 36 The lighter scales of the elytra not clearly arranged in bands or spots; usually only two small spots, ill-defined, of lighter and wider scales can be seen on the basal third and behind the middle of each elytron; the interstriae on the declivity with most scales whitish, ranged in a single row on each interstria; frons flat distally, not or weakly raised between the antennal fossae; clypeus with punctures proximally, the punctuation evanescing towards the distal edge; both claws of the  $\delta$  protarsus bifid . . . . . *P. poggii* n. sp. (Kenya, Somalia)
- 36' The whitish scales of the elytra forming usually well-defined bands and/or spots, in contrast with the darker scales; or, most scales brown, uniform in colour; interstriae of the declivity with whitish and/or brown scales arranged in single or double row on each interstria . . . . . 37
- 37 Scales of the elytra bicoloured, most of the white scales widened, forming distinct bands or spots; general aspect slender with sides of pronotum sinuate and more strongly widened distally; pronotum on both sides with an evident band of white scale . . . . . 39
- 37' Most scales of the dorsum brown, rather uniform in colour, without evident bands or spots of lighter scales; sometimes there are 1 or 2 small spots composed of a few white scales; body more broad, sides of pronotum weakly sinuate near the base and less widened distally; the bands of lighter scales on the pronotal sides almost indistinct . . . . . 38
- 38 Elytral interstriae with both light brown scales and whitish scales, almost everywhere arranged in double row on each interstria; frons with weaker punctuation and a feeble transverse impression between the antennal fossae; prothoracic epimera in part with whitish setae; both claws of the  $\delta$  protarsus bifid, the division starting at the distal third of each claw . . . . . *P. camerunensis* n. sp. (Camerun)
- 38' Scales of the elytral interstriae almost all brown, moderately spaced, with two small spots of a few whitish scales on the discus sides and a few scattered lighter scales on the declivity; pronotal scales dark brown, similar in colour to the integument; sides of the pronotum with a band of whitish scales interrupted in the middle by brown scales; the two claws of the same protarsus in  $\delta$  with different structures: the inner claw is bifid, the outer appendiculate; the area of the frons between the antennal fossae, at the beginning of the clypeus, transversely convex . . . . . *P. beharui* n. sp. (Ethiopia)
- 39 Smaller species (body length 2.4-3 mm), slender; the white scales of the elytra more numerous and closer; punctures of the striae with white setae, many of them enlarged and flattened, hence clearly visible; pronotum with some white scales on the discus and a wide band of white scales at both sides; frons feebly depressed between the eyes and feebly raised between the antennal fossae; both claws of the  $\delta$  protarsus bifid . . . . . *P. gerstaeckeri* n. sp. (Namibia)

- 39' Species on average larger and with scales not so close on the dorsum; setae in the punctures of the elytral striae not so evident, usually thin, or only weakly widened . . . . . 40
- 40 Scales of all the elytral interstriae arranged in double or triple rows on each interstria; only in some parts of the basal impression and of the surface between the suture and the 1<sup>st</sup> stria the scales are arranged in a single row; punctures of the elytral striae, also on the discus, with a white seta inside, sometimes flattened and moderately widened; scales of pronotum almost uniform in colour, the ones at sides lighter; frons with a very thin longitudinal furrow in the middle, distally with a feeble depression, then transversely and distinctly convex between the antennal fossae; both claws of the ♂ protarsus bifid, the inner tooth of each claw a little shorter than the outer . . . . . *P. torridus* Baly (f. typ.) (= *P. costatus* Achard) (Senegal, Gambia, Guinea Bissau, Mali, Niger, Burkina, Ivory Coast, Nigeria, Chad, Sudan, Cameroon, Central African Republic, Rep. Pop. Congo)
- 40' Other characters; the elytral interstriae, in more or less wide areas, with a single row of scales; punctures of the striae on the elytral discus either without setae or with thin hairs . . . . . 41
- 41 Frons distally feebly depressed, then transversely and distinctly convex between the antennal fossae; both claws of the ♂ protarsus bifid, the inner tooth clearly shorter than the outer; apex of the aedeagus usually with sides feebly sinuate . . . . . *P. torridus* Baly (s. l.) (Senegal, Sierra Leone, Togo, Cameroon, Ethiopia, Kenya, Equatorial Guinea, Gabon, Congo, Rep. Pop. Congo, Tanzania, Zambia, Malawi, Namibia, Mozambique, Rep. South Africa)
- 41' Frons distally feebly depressed, then transversely and distinctly convex between the antennal fossae; the two claws of the same protarsus in ♂ with different structures: the inner claw bifid, with the inner tooth shorter than the outer, and the outer claw appendiculate, with the inner tooth reaching the middle of the claw's length; apex of the aedeagus usually with sides feebly sinuate . . . . . 42
- 41'' Frons distally flat between the antennal fossae; both claws of the ♂ protarsus bifid, the inner tooth only a little shorter than the claw's length; apex of the aedeagus relatively wide, the sides usually straight . . . . . *P. senegalensis* Achard (Senegal, Gambia, Guinea Bissau, Mali, Togo, Benin, Nigeria, Chad, Ethiopia, Rep. Pop. Congo, Tanzania, Zambia)
- 41''' Frons distally flat, then weakly convex between the antennal fossae; the two claws of the same protarsus in ♂ with different structures: the inner claw bifid, the outer appendiculate; the brown scales on the elytral interstriae arranged in a single row on each interstria . . . . . *P. grobbelaarae* n. sp. (Tanzania, Angola, Zambia, Malawi, Mozambique, Zimbabwe, Rep. South Africa)
- 42 Punctures of the outer elytral striae with thin or weakly widened setae, punctures on the discus usually without setae; prothoracic episterna bare, sometimes with a few scales near the distal corners; antennomeres of the funicle less elongate, the 3<sup>rd</sup> antennomere about 1.5 times longer than wide; smaller species (2.4-3.1 mm) . . . . . *P. gardinii* n. sp. (Senegal, Gambia, Guinea Bissau, Mali, Ivory Coast, Nigeria, Chad, Cameroon, Sudan, Ethiopia, Kenya, Congo, Rep. Pop. Congo, Rwanda, Tanzania)
- 42' Punctures of the outer elytral striae with enlarged setae, sometimes also with a few bifid ones; also the punctures on the discus clearly with a seta inside; prothoracic episterna as a rule with bifid white scales on their distal half; antennomeres of the funicle more elongate, the 3<sup>rd</sup> antennomere twice as long as wide; larger species (3.1-3.7 mm) . . . . . *P. daccordii* n. sp. (Saudi Arabia, Yemen)
- 43 Ventral side of the body almost bare (figs 96, 99), strongly punctured, only the

- distal process of the prothoracic epimera with a few setae; dorsum with sparse, light, shortly bifid setae; claws of the ♂ protarsus simple, only widened at the base (fig. 107) (the only known specimen lacks the left fore leg and a part of the inner claw of the right protarsus); claws of the meso- and metatarsi simple . . . . . *P. sprecheriae* n. sp. (Madagascar)
- 43' Ventral side of the body clearly pubescent, with setae and/or scales; dorsum covered with more or less close bifid scales and sometimes with setae in the punctures of the striae; claws of the protarsi in ♂ either appendiculate or bifid; in the other tarsi and in ♀♀ the claws are appendiculate . . . . . 44
- 44 Mesothoracic episterna, on the entire surface, with bifid, whitish pubescence; prothoracic epimera bare, with the exception of the distal process, covering the eyes, which is covered with bifid setae; epipleura with very small hairs along the fold of the inner margin; metathoracic episterna with a row of bifid setae, which is doubled at least near its hind end; pronotum and elytral interstriae covered with wide scales, on average as long as wide, of two colours, most of them arranged in a double row on each interstria, but in a triple row on the outermost interstria . . . . . *P. episternalis* n. sp. (Madagascar)
- 44' Not as above; mesothoracic episterna bare . . . . . 45
- 45 Punctures of the elytral striae small, round; interstriae on the discus flat, about 3 times wider than the diameter of the punctures; punctures of the striae with an indistinct white seta, which is usually absent in the punctures of the discus and is more distinct and longer than the scales in the punctures of the outer striae; scales of the elytral interstriae small, close together, golden, arranged in 3 or 4 rows on each interstria; each elytron with a small spot of whitish scales behind the middle; elytra with distinct impression extending from the basal third to the middle; pronotum with a median longitudinal line and a lateral wide band of lighter and denser scales; frons distally with a feeble impression, then transversely convex between the antennal fossae . . . . . *P. maroantsetranus* n. sp. (Madagascar)
- 45' Punctures of the elytral striae wider and strong; interstriae slightly narrower or a little wider than the punctures and evenly convex . . . . . 46
- 46 Punctures of the elytral striae each with a white seta inside which is clearly visible; on the declivity and on the elytral sides the setae inside the punctures are as long as, or longer than the scales of the interstriae; lateral borders of the pronotum not reaching the distal corners because of the presence of the distal process of the prothorax sides, covering the eyes, which extends dorsally clearly beyond the lateral borders . . . . . 47
- 46' Punctures of the elytral striae, also on the elytral sides, without setae or containing a thin, not clearly visible, hair; the two claws of the same protarsus in ♂ with different structures; lateral border of the pronotum reaching the pronotum distal edge, the distal lateral process, covering the eyes, not extending dorsally beyond the lateral borders of the pronotum . . . . . 48
- 47 Frons distally flat, not convex between the antennal fossae, strongly punctured to the clypeus, in the middle with a thin longitudinal furrow; frons distally in the middle with small and thin pubescence, clearly smaller than the scales at the distal edge of the pronotum; scales of the dorsum thinner, weakly covering the integument; the scales at the base of the pronotum 4-5 times longer than wide; scales of the elytra less close, the space between the suture and the first stria with a single row of scales; both claws of the ♂ protarsus shortly bifid . . . . . *P. bertiae* n. sp. (Madagascar)

- 47' Frons distally feebly depressed, then strongly transversely convex between the antennal fossae; frons distally, to the depressed area, with a thin longitudinal furrow; frontal scales relatively large, of the same size as the scales near the distal edge of the pronotum; scales of the dorsum wider, better covering the integument, in particular on the pronotal sides; the scales on the pronotal base and on both sides of the median line about 1.5-2 times longer than wide aedeagus robust, the apex triangular, the vertex rounded, with sides feebly sinuate; both claws of the ♂ protarsus bifid; relatively large species (3.4-3.8 mm) . . . . . *P. hajeki* n. sp. (Madagascar)
- 48 Rear tibia with thin, golden setae; the setae on the dorsal edge of the rear tibia equal to, or weakly wider than the setae at sides and on the ventral surface of the same tibia; scales of the elytral interstriae thin, golden, arranged mostly in a single row on each interstria; on the humeri, scales are like the ones on the sides of the pronotum; stria near the scutellum short, usually composed of 6 punctures, feebly sunken in relation to the suture; the two claws of the same protarsus in ♂ with different structures: the inner claw bifid, the outer simple; relatively large (2.8-3.1 mm) and robust species . . . . . *P. latior* Pic (Madagascar)
- 48' Rear tibia with whitish setae on the outer side, these setae are clearly wider than the ones on the inner side of the same tibia; scales of the elytral interstriae wider, relatively short, arranged partially in double row on many interstriae; often there are spots of lighter scales on the elytra; the first interstria and the space between the suture and the first stria, on the elytral discus, with a single row of smaller and thinner scales; stria near the scutellum usually longer and weakly sunken in relation to the suture; epipleura with thin and small hairs along the fold of the inner margin; the two claws of the same protarsus in ♂ with different structures: the inner claw bifid, the outer appendiculate; species larger on average (3.1-3.4 mm) . . . . . *P. testaceipes* Fairmaire (Madagascar)

The following descriptions, although referring to the Holotypus, or Lectotypus, of each species, include, if significant, observations on the variability observed in the paratype series.

The previous citations in literature have been verified and corrected. In a few cases, I have been unable to accomplish this aim: these unverified cases are here reported as doubtful due to the fact that many incorrect identifications have been found in the examined collections.

Collecting data are reported as they are on the specimen labels.

**Pachnephorus (Pachnephorus) achardi** n. sp.

TYPE LOCALITY: Mali: Koulikoro.

TYPE DEPOSITORY: MNHN.

HOLOTYPE LABELS: Niger, Koulikoro, Mission de Girouncourt 1910 [blue printed label]; Holotypus, Pachnephorus (Pachnephorus) achardi n. sp., S. Zoia det. 2007 [printed red label] ( $\delta$ ).

EXAMINED MATERIAL. Only the holotypus

DESCRIPTION. Body length 2.9 mm.

Habitus as in figs 1-2. Body dark brown, feebly shiny; palpi, antennae, legs and elytra brown, slightly paler than the body.

Head: frons evenly convex, distally flat, not raised between the antennal fossae at the beginning of the clypeus; the surface punctured, between the eyes also; the clypeus feebly inclined, densely punctate, with a few setae; the frons with enlarged scales which are 2.5-3 times as long as wide on average, split for half their length or less and curved; scales are mainly whitish with two spots of light brown scales at both sides of the median line; surface of the frons between the eyes with bifid scales, a little smaller than the ones on the vertex; eyes relatively small and convex (in frontal view the distance between the eyes is 3.4 times the width of a single eye), without any sulcus above. Antennae: 2<sup>nd</sup> antennal segment as long as first and half as wide, 3<sup>rd</sup> and 4<sup>th</sup> subequal, 5<sup>th</sup> a little longer than the 4<sup>th</sup> and the 6<sup>th</sup>, 7<sup>th</sup> a little longer than wide, 8<sup>th</sup> to 10<sup>th</sup> somewhat transverse, 11<sup>th</sup> 1.4 times the 10<sup>th</sup> in length.

Pronotum as long as wide, distal border a little wider than the base; sides briefly sinuate near the base, then strongly enlarged to the distal third and constricted distally; lateral borders well marked, not reaching the distal edge of the prothorax for the presence of the distal process of the epimera which spreads a little over the lateral border; scales twice as long as wide, split at the apex for half of their length and strongly curved; most scales brown on the discus, with a thin median line of whitish scales, most whitish at sides. Prothoracic epimera bare, strongly punctate, with a few whitish scales near the distal corners; the distal process covered with whitish, bifid scales.

Mesothoracic episterna bare.

Metathoracic epimera narrow, with a single row of punctures each containing a white seta. Metasternum covered at sides by broad white bifid setae, in the middle by white hairs.

Legs: long, with oblong, distally bifid, white scales; all the claws appendiculate, with a strong basal tooth; tooth at the base of the mesotibial emargination moderately small, acute, its height a little less than 1/3 of the mesotibial width at that point.

Elytra elongate (length/width at humeral level = 1.5), with a really feeble transverse impression on the basal third; sides feebly curved to middle, then regularly curved to the apical corners; scales on the interstriae are like the ones on the pronotum; elytra with two spots at both sides of the suture near the scutellum, a transverse band beyond the middle and a large part of the sides, including the humeri and the apical corners, of white scales; the brown scales arranged mostly in a single row on each interstria, the white scales in single or double row; punctures of the striae large, with a seta which is in most cases enlarged and distally bifid; interstriae convex, moderately narrow, on the elytral discus their width equals the diameter of the punctures; epipleura moderately wide, with white curved hairs along the fold of the inner margin.

Aedeagus (figs 112-113).

DERIVATIO NOMINIS. The species is named after Julien Achard, one of the few entomologists who described *Pachnephorus* from Africa before the present study.

VERIFIED DISTRIBUTION: Mali.

### ***Pachnephorus (Pachnephorus) aequatorianus* n. sp.**

TYPE LOCALITY: Rep. Pop. Congo: Parc National Albert: May ya Moto.

TYPE DEPOSITORY: MRAC.

HOLOTYPE LABELS: Congo belge, P. N. A., May ya Moto, 950 m, 9.xi.1934, G. F. de Witte: 732 [printed white label]; Coll. Mus. Congo [printed white label]; *Pachnephorus conspersus* Gerst. Det. G. E. Bryant [handwritten and printed white label]; Holotypus,

*Pachnephorus* (*Pachnephorus*) *aequatorianus* n. sp., S. Zoia det. 2007 [printed red label] (♂).

PARATYPI: I. R. S. A. C. - Mus. Congo, Kivu: Runingo, vall. Ruzizi, terr. Uvira (à la lumière) G Marlier I-1957 (1 ♀, SZcoll).

DESCRIPTION. Body length of the holotypus 2.7 mm, of the ♀ paratypus 3.0 mm.

Habitus as in figs 3-4. Body dark brown to black, shiny, with paler elytra; palpi, antennae and legs brown.

Head: frons evenly convex, distally flat with a longitudinal narrow sulcus in the middle, not raised between the antennal fossae at the beginning of the clypeus; the surface with a strong microreticulation between the punctures; the clypeus inclined, shiny, punctate, with a few setae; the frons with regularly arranged, oblong, white and light brown scales, the latter making two not well defined spots at both sides of the frons median line; scales are small, 2.5-3 times as long as wide on average, split for 1/2 or less of their length and moderately curved; surface of the frons between the eyes with white, thinner, bifid scales; eyes moderately small and highly convex, less so in ♀ (in frontal view the distance between the eyes is about 2.5 times the width of a single eye in ♂, 2.7 in ♀), with a narrow sulcus above. Antennae reddish-brown, in the holotypus with last five segments darker: 2<sup>nd</sup> antennal segment as long as first and half as wide, 3<sup>rd</sup> and 4<sup>th</sup> subequal, 2.5 times longer than wide, 5<sup>th</sup> a little longer than the 6<sup>th</sup>, 7<sup>th</sup> as long as wide, 8<sup>th</sup> to 10<sup>th</sup> transverse, 11<sup>th</sup> 1.5 times the 10<sup>th</sup> in length.

Pronotum a little wider than long, wider at distal border than at base; sides enlarged from base to slightly beyond middle (to the distal third in ♀), constricted distally; lateral borders well marked, reaching the distal edge of the prothorax; the distal process of the epimera extends a little beyond the lateral border of the pronotum; scales on the pronotal sides wide, 2-2.5 times as long as wide, split for 1/3 or more of their length; scales thinner on the pronotal discus, 3-4 times as long as wide, and a little smaller along the base; scales brown on the pronotum discus (with some white scales along the median line in the paratypus ♀), mostly white at sides. Prothoracic epimera bare, strongly punctate; the distal process with white, bifid setae.

Mesothoracic episterna bare.

Metathoracic epimera narrow, with a single row of punctures

which is doubled at the front end, each puncture with a single white seta. Metasternum covered at sides by white bifid setae, in the middle by white hairs.

Legs: long, with oblong, distally bifid, white scales; claws of each fore tarsus in ♂ with different structures: the inner claw distally bifid, with the inner tooth a little shorter than the outer one, the partition being over half length of the claw; the outer claw appendiculate with a small basal tooth; external side of both claws regularly curved (the inner claw of the left protarsus in the holotypus seems to be anomalous, as it looks simple with a very small tooth near the base); all the other claws in ♂ and all claws in ♀ appendiculate, with a small tooth near the base.

Elytra elongate (length/width at humeral level = 1.5) with a feeble transverse impression on the basal third; sides feebly curved to middle, then regularly curved to the apical corners; scales on the interstriae oblong, 3 times longer than wide, split for 1/3 or less of their length; the first three interstriae near the suture on the basal third of the elytra with clearly smaller scales; white scales diffuse on the entire elytra, sometimes mixed with light brown scales; most scales arranged in a double row on each interstria, in some places, particularly near the suture and on part of the declivity, arranged in a single row; punctures of the striae large, each with a thin seta which is very small in the punctures of the elytral discus; interstriae convex, narrower than the diameter of the punctures; epipleura wide, with a row of white hairs along the fold of the inner margin.

Aedeagus (figs 114-115).

Spermatheca (fig. 116).

DERIVATIO NOMINIS. The name underlines the presence of this species near the equator.

NOTE. This species was reported by Burgeon 1942 for the Parc National Albert under the name *P. conspersus* (det. Bryant); I have had the opportunity to examine only one of the four specimens he cited.

VERIFIED DISTRIBUTION: Rep. Pop. Congo.



**Pachnephorus (Pachnephorus) aethiopicus** n. sp.

TYPE LOCALITY: Ethiopia: Kefa: Bonga.

TYPE DEPOSITORY: MZLU.

HOLOTYPE LABELS: Ethiopia, Kaffa, Bonga, 18.2.1974, H. Silfverberg [printed white label]; Holotypus, Pachnephorus (Pachnephorus) aethiopicus n. sp., S. Zoia det. 2007 [printed red label] ( $\delta$ ).

EXAMINED MATERIAL. Only the holotypus.

DESCRIPTION. Body length of the holotypus 2.6 mm.

Habitus as in figs 5-6. Body dark brown to black, shiny, with a feeble metallic reflexion on the pronotum; palpi, antennae, legs and elytra reddish-brown.

Head: frons regularly convex, with a short, longitudinal groove in the middle; frons distally with a superficial, transverse furrow joining the two supra-ocular sulci, interrupted in the middle; area between the antennal fossae transversely raised at the beginning of the clypeus; the clypeus inclined, shiny, with a few punctures; the frons with small, oblong scales, 3 times longer than wide, split for half of their length; scales whitish with a spot of light brown scales on both sides of the median line; surface of the frons strongly punctate, alutaceous between the punctures, shining and with small setae in the furrow between the eyes; eyes moderately large and convex (in frontal view the distance between the eyes is about 3.2 times the width of a single eye) with a sulcus above. Antennae reddish brown: 2<sup>nd</sup> antennal segment as long as first and half as wide, 3<sup>rd</sup> subequal to the 4<sup>th</sup>, 1.5 times longer than wide, 5<sup>th</sup> longer than the 6<sup>th</sup>, 7<sup>th</sup> feebly longer than wide, 8<sup>th</sup> to 10<sup>th</sup> as long as wide, 11<sup>th</sup> 1.4 times the 10<sup>th</sup> in length.

Pronotum slightly wider than long, wider at distal border than at base; sides enlarged from base to the distal fourth, shortly constricted distally; surface of pronotum shiny, with strong and close punctures; lateral borders well marked to the distal corners; the distal process of the prothorax sides, covering the eyes, extending dorsally a little over the lateral borders; pronotum at sides with a band of whitish and light brown scales, 2.5-3 times longer than wide, split for 1/3 of their length; scales thinner, divided for half their length and mostly dark brown on the pronotal discus. Prothoracic epimera strongly punc-

tate, widely bare, with whitish bifid setae on the distal half; the distal process with whitish bifid setae.

Mesothoracic episterna bare.

Metathoracic epimera narrow, with a single row of punctures, each puncture with a single whitish seta. Metasternum covered at sides by white, bifid setae, in the middle by white hairs.

Legs: long, with oblong, distally bifid, whitish scales; the two claws of each fore tarsus in ♂ with different structures: the inner claw bifid, with the inner tooth shorter than the outer one, the division beyond half claw's length; the outer claw appendiculate with a strong basal tooth; external side of both claws regularly curved throughout; all the other claws appendiculate, with a well developed tooth near the base; tooth at the base of the mesotibial emargination acute, weakly protruding, its height less than 1/4 of the mesotibial width at that point.

Elytra elongate (length/width at humeral level = 1.5) with a strong impression on the basal third; sides feebly curved to the distal third, then regularly curved to the apical corners; interstriae of the elytra mainly with brown scales, 3 times longer than wide, split for 1/3-1/2 of their length; a few whitish scales are gathered on each elytron near the shoulder and in two small spots beyond half elytron length; scales arranged mainly in a single row on each interstria, in double row on the outermost interstria and on some interstriae on the declivity; punctures of the striae large, without setae on the discus, with a whitish seta on the elytral sides; interstriae convex, narrower than the diameter of the strial punctures; epipleura wide, bare.

Aedeagus (figs 117-118).

DERIVATIO NOMINIS. From Aethiopia, native land of this species.

VERIFIED DISTRIBUTION: Ethiopia.

## **Pachnephorus (Pachnephorus) baehri** n. sp.

TYPE DEPOSITORY: MNHU

HOLOTYPE LABELS: Namibia, 2.-4.iii.1994, 18°07'16"S/21°34'51"E, Popa Falls, lux, leg. U. Göllner [printed blue label]; Holotypus, Pachnephorus (Pachnephorus) baehri n. sp., S. Zoia det. 2007 [printed red label] (♀).

PARATYPE: Namibia, 2.-4.iii.1994, 18°07'16"S/21°34'51"E, Popa Falls, lux, leg. U. Göllner (2 ♂♂, MNHU); Namibia, Mahango Game Res., 18°17'S/21°43'E, 1.-4.III.1994, leg. J. Deckert (1 ♀, SZcoll).

DESCRIPTION. Body length of the holotypus 3.4 mm (length range in the examined specimens: 3.2-3.4 mm).

Habitus as in figs 7-8. Body dark brown, with some metallic reflexion; palpi and antennae reddish, the latter with the distal segments a little darkened; legs brown.

Head: frons distally slightly depressed, then slightly raised between the antennal fossae; surface covered with short scales, on average 3 times longer than wide and split for 1/3 of their length; scales whitish with two spots of light brown scales on either sides of the frons median line; setae smaller and finer on the depressed distal area and hardly reach the region between the antennal fossae (one specimen has no setae at all on the distal part of frons); eyes large, the horizontal diameter as long as the 2<sup>nd</sup> and 3<sup>rd</sup> antennal segments together, with a very narrow sulcus above. Antennae: 2<sup>nd</sup> antennal segment as long as first and half as wide, 4<sup>th</sup> twice as long as wide and a little longer than the 3<sup>rd</sup>, 5<sup>th</sup> twice as long as wide and clearly longer than the 6<sup>th</sup>, 7<sup>th</sup> transverse, strongly widened to the apex, 8<sup>th</sup> to 10<sup>th</sup> 1.5 times wider than long, 11<sup>th</sup> 1.7 times the 10<sup>th</sup> in length.

Pronotum a little wider at base than at distal border; sides sinuate near the base, then regularly curved, constricted distally, the widest point a little over middle length; basal corners right; lateral borders evanesce near the distal border, distal corners not prominent; scales on the discus like the ones on the head, of different colour from white to brown, with a narrow median stripe of whitish scales; scales wider, denser and white at sides. Prothoracic epimera strongly punctate, with a few white setae near the pronotum borders; the distal process with fine bifid setae.

Mesothoracic episterna bare.

Metathoracic epimera narrow, with a single row of punctures in the rear half, with a double series anteriorly, each puncture with a single short seta. Metasternum with white bifid setae at sides, white setae in the middle.

Legs: moderately long, robust, with oblong white scales, half as wide as the ones on the lateral interstriae of the elytra; protarsi in ♂ widened, both claws of each protarsus in ♂ bifid: the inner tooth just

a little shorter than the outer one, the division at over half the claw's length; external side of both claws regularly curved throughout; tooth at the base of the mesotibial emargination short, its height less than 1/3 of the mesotibial width at that point.

Elytra moderately long (length/width at humeral level = 1.5), with sides regularly curved, widened till halfway to the declivity; scales are like the ones on the prothorax but with a very short distal split or without any split, of two colours, making spots or bands of white or pale brown scales; there are 3-5 scales on the width of each interstria; punctures of the striae moderately large, on the discus with a really thin whitish seta; the punctures of the outer striae each with a wider white seta; interstriae flat on the discus, weakly convex at sides, wide, their width 2 (on sides) or 3 times (on discus) the diameter of the strial punctures; epipleura wide, with a row of very thin and short white setae along the fold of the inner margin and a few setae on the surface at humeral level.

Aedeagus (figs 119-120).

Spermatheca (fig. 121).

DERIVATIO NOMINIS. The species is named after Martin Baehr who helped me in my stay in the MNHU.

VERIFIED DISTRIBUTION: Namibia

### **Pachnephorus (Pachnephorus) balyi** n. sp.

TYPE LOCALITY: Angola: Rocadas.

TYPE DEPOSITORY: BMNH.

HOLOTYPE LABELS: Angola (A42) Rocadas, 30.iii.1972 [printed white label]; at light [printed white label]; Holotypus, Pachnephorus (Pachnephorus) balyi n. sp., S. Zoia det. 2007 [printed red label] (♂).

PARATYPI: Angola (A42) Rocadas, 30.iii.1972 (1 ♀, SZcoll); Angola (A2) Rocadas, R. Cunene, 19-22.ii.1972, in mud & litter by pools (1 ♀, BMNH).

DESCRIPTION. Body length of the holotypus 2.8 mm, of the paratypes 2.7 mm and 3.3 mm.

Habitus as in figs 9-10. Body ventrally blackish, dorsally dark

brown to black, shiny, with a light metallic reflexion; palpi, first antennal segments and legs brown, paler than the body.

Head: frons evenly convex, distally flat, transversely raised between the antennal fossae at the beginning of the clypeus; the surface with evident microreticulation between the punctures; the clypeus inclined, shiny, punctured, with a few setae; the frons with regularly arranged, oblong scales; scales are moderately long, 4 times or more longer than wide, split for 1/2 or less of their length and curved; surface of the frons between the eyes with white, thin setae, some of them bifid; eyes moderately small and convex (in frontal view the distance between the eyes is about 2.9 times the width of a single eye) without any sulcus above. Antennae reddish-brown with the last five segments darker: 2<sup>nd</sup> antennal segment as long as first and half as wide, 3<sup>rd</sup> and 4<sup>th</sup> subequal, a little more than 1.5 times longer than wide, 5<sup>th</sup> longer than the 6<sup>th</sup>, 7<sup>th</sup> 1.4 times longer than wide, 8<sup>th</sup> to 10<sup>th</sup> as long as wide, 11<sup>th</sup> 1.4 times the 10<sup>th</sup> in length.

Pronotum a little longer than wide, wider at distal border than at base; sides enlarged from base to the distal fourth, shortly constricted distally; lateral borders well marked, reaching the distal edge of the prothorax; distal process of the epimera weakly spreading over the lateral border of the pronotum; scales on the sides of the pronotum oblong, more than 3 times as long as wide, split for 1/3-1/2 of their length; scales thinner and more deeply split on the discus; scales brown on the discus with a median thin line of white scales, mixed light brown and whitish on the sides. Prothoracic epimera bare, strongly punctate, with only a few small bifid setae near the distal corners; the distal process with white, bifid setae.

Mesothoracic episterna bare.

Metathoracic epimera moderately narrow, with a double row of punctures, each puncture with a single white seta. Metasternum covered at sides by white bifid setae, in the middle by white hairs.

Legs: long, with oblong, distally bifid, white scales; the two claws of each protarsus in ♂ with different structures: the inner claw bifid, with the inner tooth a little shorter than the outer one, the split being over half length of the claw; the outer claw appendiculate with a small basal tooth; external side of both claws regularly curved throughout; all the other claws in ♂ and all claws in ♀ appendiculate, with a strong tooth near the base; tooth at the base of the mesotibial emargination acute, protruding, its height about 1/3 of the mesotibial width at that point.

Elytra elongate (length/width at humeral level = 1.5) with a feeble transverse impression on the basal third; sides subparallel to middle, then regularly curved to the apical corners; scales on the interstriae relatively thin, oblong, 4-5 times longer than wide, split for 1/3-1/2 of their length, the white scales a little wider than the brown scales; surface between the suture and the first stria and base of the elytra with smaller scales; scales are light brown and white, the latter gathered in an ill-defined transverse band starting from the humeri, a small spot at sides near the middle, a transverse band on the declivity and on a part of the penultimate and outermost interstria on each elytron; with the exception of the white spots, scales are arranged mainly in a double row on each interstria, and in a triple row on the outer interstriae; punctures of the striae moderately large, each with a thin seta which is absent from some of the punctures on the elytral discus; interstriae weakly convex on the discus, more so at sides, as wide as or narrower than the diameter of the strial punctures; epipleura wide, with a row of white hairs along the fold of the inner margin.

Aedeagus (figs 122-123).

Spermatheca (fig. 124).

DERIVATIO NOMINIS. The species is named after Joseph Sugar Baly, one of the few entomologists who described *Pachnephorus* from Africa before the present study.

VERIFIED DISTRIBUTION: Angola.

### **Pachnephorus (Pachnephorus) beharui** n. sp.

TYPE LOCALITY: Ethiopia, Asella.

TYPE DEPOSITORY: ZMUH.

HOLOTYPE LABELS: Ethiopia, Asella, 13.8-1.9.1954, Exp. Smeds [printed white label]; Holotypus, *Pachnephorus (Pachnephorus) beharui* n. sp., S. Zoia det. 2007 [printed red label] (♂).

EXAMINED MATERIAL. Only the holotypus.

DESCRIPTION. Body length of the holotypus 2.8 mm.

Habitus as in figs 11-12. Body dark brown to black, shiny, not metallic; legs and elytra dark brown, paler than the body; palpi and basal antennal segments reddish brown.

Head: frons evenly convex, with a superficial longitudinal groove in the middle; frons transversely depressed in the region between the eyes and transversely raised between the antennal fossae at the beginning of the clypeus; the clypeus inclined, shiny, not punctate, bare in the middle, with a few setae at sides; the frons with oblong, small scales: in the middle of the frons the scales are 4 times longer than wide, moderately curved, split for half or less of their length; scales light brown, with a median line of white scales; surface between the eyes, to the clypeus, with small, thin, whitish setae; surface of the frons strongly punctate, with fine microreticulation between the punctures; eyes relatively large and convex (in frontal view the distance between the eyes is about 3 times the width of a single eye) with a thin sulcus above which is confluent with the depression that goes from one eye to the other. Antennae dark brown, with basal segments slightly paler: 2<sup>nd</sup> antennal segment as long as first and half as wide, 3<sup>rd</sup> a little longer than the 4<sup>th</sup>, about 1.5 times as long as wide, 5<sup>th</sup> a little longer than the 6<sup>th</sup>, 7<sup>th</sup> 1.2 times longer than wide, 8<sup>th</sup> to 10<sup>th</sup> as long as wide, 11<sup>th</sup> 1.4 times the 10<sup>th</sup> in length.

Pronotum as long as wide, a little wider at distal border than at base; sides enlarged from base to the distal third, constricted distally; distal corners not protruding; surface of the pronotum shiny between the punctures; punctures strong, close, not confluent; lateral borders thin, well marked, not reaching the distal edge of the prothorax; the distal process of the prothorax sides, covering the eyes, extending dorsally clearly over the lateral borders; pronotum at sides with a band of whitish (mainly near the corners) and light brown, bifid scales, on the discus with brown scales; at sides, scales are wider, 2.5-4 times longer than wide, split for 1/3 or more of their length; on the pronotum discus, scales are thinner, more deeply split, not in evidence because of their colour. Prothoracic epimera strongly punctate, with a few whitish setae near the distal corners; the distal process with white bifid setae.

Mesothoracic episterna bare.

Metathoracic epimera narrow, with a single row of punctures, each puncture with a single white seta. Metasternum covered at sides with white, bifid setae, in the middle by white hairs.

Legs: relatively long, with thin, distally bifid, whitish setae; the two claws of each protarsus in ♂ with different structures: the inner claw distally bifid, with the inner tooth a little shorter than the outer one, the partition being a little over half length of the claw; the outer claw appendiculate with a strong, acute basal tooth, reaching more than half length of the claw; external side of both claws regularly curved; all the other claws appendiculate, with a strong tooth near the base; tooth at the base of the mesotibial emargination acute, protruding, its height more than 1/3 of the mesotibial width at that point.

Elytra elongate (length/width at humeral level = 1.5) with a feeble impression on the basal third; sides feebly curved till the distal third, then regularly curved to the apical corners; interstriae of the elytra with oblong scales, 3-4 times longer than wide and split for 1/2, or less, of their length; scales brown, weakly in evidence because of their colour, with a few, small spots of white scales; scales arranged in single row on each interstria, except for the groups of white scales; punctures of the striae large, without setae on the discus, with a white seta on the elytral sides and base; interstriae convex, narrower than the diameter of the striae punctures; epipleura wide, bare.

Aedeagus (figs 125-126).

DERIVATIO NOMINIS. Beharu is an Ethiopian child and this dedication is a wish for his future and for the future of his country.

VERIFIED DISTRIBUTION: Ethiopia.

### **Pachnephorus (Pachnephorus) bezdeki** n. sp.

TYPE LOCALITY: Rep. Pop. Congo: Parc National de la Garamba.

TYPE DEPOSITORY: MRAC.

HOLOTYPE LABELS: Congo Belge, P. N. G. [Parc National de la Garamba] Miss. H. De Saeger, II/gc/6, 5.IV.1952, H. De Saeger. 3287 [printed white label]; R. DET. 7943 [printed white label]; Holotypus, Pachnephorus (Pachnephorus) bezdeki n. sp., S. Zoia det. 2007 [printed red label] (♂).

PARATYPI. [Rep. Pop. Congo] Kinshasa, IX-1920, P. Vanderijst (1 ex., MRAC); Congo Belge, P. N. G., 1949-1952, Réc H. De Saeger (1 ex., MRAC); Congo Belge, P. N. G., Akam, 19.V.1950, Réc. H. De Saeger, 528 (1 ex., MRAC); Congo Belge, P. N. G.,



I/a/M, 7-VI-1950, Réc. G. Demoulin, 585 (1 ex., MRAC); Congo Belge, P. N. G., II/fd/15, 24.V.1951, Réc. H. De Saeger, 1801 (4 exx., MRAC); Congo Belge, P. N. G., II/gc/6, 25-VII-1951, Réc. H. De Saeger, 2140 (1 ex., MRAC); Congo Belge, P. N. G., II/fd/6, 23-VIII-1951, Réc. H. De Saeger (1 ex., MRAC); Congo Belge, P. N. G., II/fd/16, 29-X-1951, Réc. H. De Saeger, 2697 (4 exx., MRAC; 2 exx., SZcoll); Congo Belge, P. N. G., II/gc/6, 5-IV-1952, H. De Saeger, 3287 (42 exx., MRAC; 1 ex., MSNM; 2 exx, MDcoll; 8 exx., SZcoll); Congo Belge, P. N. G., II/hd/9, 7-IV-1952, H. De Saeger, 3299 (1 ex., MRAC); Congo Belge, P. N. G., II/fd/7", 5-V-1952, H. De Saeger, 3424 (4 exx., MRAC; 1 ex., SZcoll); Congo Belge, P. N. G., II/fd/18, 6-V-1952, H. De Saeger (1 ex., MRAC); Congo Belge, P. N. G., Aka/2, 19.V.1952, H. De Saeger, 3476 (1 ex., MRAC); Congo Belge, P. N. G., II/hd/6, 30-V-1952, H. De Saeger, 3567 (2 exx., MRAC); Congo Belge, P. N. G., II/fc/11, 25-VI-1952, H. De Saeger, 3695 (3 exx., MRAC); Congo Belge, P. N. G., II/fd/18, 28-VI-1952, H. De Saeger, 3714 (2 exx., MRAC); Congo Belge, P. N. G., II/dd/9, 7-VII-1952, H. De Saeger, 3744 (1 ex., MRAC); Congo Belge, P. N. G., II/gd/4, 12-VIII-52, H. De Saeger, 3932 (6 exx., MRAC; 2 exx., SZcoll); Congo Belge, P. N. G., II/gc/6, 14-VIII-52, H. De Saeger, 3941 (7 exx., MRAC; 3 exx., SZcoll); [Rep. Pop. Congo] Tshuapa: Lukolela, 7/XII-1952, P. Basilewsky (1 ex., MRAC).

DESCRIPTION. Body length of the holotypus 2.8 mm (length range in the examined specimens: 2.5-3.3 mm).

Habitus as in figs 13-14. Body dark brown with darker prothorax and head, shiny, not metallic; palpi, antennae, legs and elytra reddish-brown, paler than the body.

Head: frons evenly convex, with a thin, longitudinal groove in the middle; frons distally flat, not or feebly transversely raised between the antennal fossae at the beginning of the clypeus; the clypeus inclined, shiny, with a few punctures and white setae, some of them distally bifid; the frons with close, broad scales, 2-3 times longer than wide, thinner in the region between the eyes, split for half or more of their length; scales are white above and between the eyes and along the median line, with two large spots of light brown and dark brown scales on both sides of the median line; surface of the frons strongly punctate, shiny between the punctures; eyes moderately large and strongly convex (in frontal view the distance between the eyes is about 3.4 times the width of a single eye) with a narrow sulcus above. Antennae reddish brown, usually with paler basal segments: 2<sup>nd</sup> antennal segment shorter than the first, the half in diameter, 3<sup>rd</sup> subequal to the 4<sup>th</sup>, 2 times longer than wide, 5<sup>th</sup> longer than the 6<sup>th</sup>, 7<sup>th</sup> feebly longer than wide, 8<sup>th</sup> to 10<sup>th</sup> as long as wide, 11<sup>th</sup> 1.6 times the 10<sup>th</sup> in length. Pronotum slightly longer than wide, wider at distal border than at base; sides enlarged from base to the distal third, weakly constricted distally; surface of the pronotum shiny, with close punctures; lateral borders well marked to the distal corners; the distal process of the

prothorax sides, covering the eyes, weakly extending dorsally over the lateral borders; pronotum at both sides with a band of wide, mixed white and light brown scales, 2-2.5 times longer than wide, split for 1/2 or more of their length; on the pronotal discus, scales are thinner, mostly dark brown, with a median line of white scales. Prothoracic epimera strongly punctate, with small, white, bifid scales; the distal process with white bifid setae.

Mesothoracic episterna bare.

Metathoracic epimera narrow, with a single row of punctures, each puncture with a single whitish seta. Metasternum covered at sides with white, bifid setae, in the middle with white hairs.

Legs: long, covered with oblong, distally bifid, whitish scales; all the claws of the fore tarsi, both in ♂ and ♀, appendiculate, with a well developed tooth near the base; tooth at the base of the mesotibial emargination acute, weakly protruding, its height less than 1/2 of the mesotibial width at that point.

Elytra elongate (length/width at humeral level = 1.5) with a feeble impression on the basal third; sides feebly curved to the distal third, then regularly curved to the apical corners; interstriae of the elytra with light brown, dark brown and whitish scales; the latter are wide, 2-2.5 times longer than wide, the brown scales are thinner, split for 1/4 or less of their length; most scales arranged in a double row on each interstria; punctures of the striae large, each with a short, wide, bifid and white seta; interstriae convex, narrower than the diameter of the striae punctures; epipleura wide, bare.

Aedeagus: wide variability has been observed in specimens collected in the same locality and date (figs 127-128 and 129-130).

Spermatheca (fig. 131).

DERIVATIO NOMINIS. The species is named after Jan Bezděk, a friend and a known specialist in Chrysomelidae.

VERIFIED DISTRIBUTION: Rep. Pop. Congo.

NOTE. A large part of the type material, including the holotypus, has been collected in marshland, on a sandy soil, with a low vegetation of Gramineae (De Saeger 1956).

**Pachnephorus (Pachnephorus) bracarumvestitus** n. sp.

TYPE LOCALITY: Rep. Pop. Congo: Parc National de la Garamba.

TYPE DEPOSITORY: MRAC.

HOLOTYPE LABELS: Congo Belge, P. N. G., Miss. H. De Saeger, Mabanga, 23.IX.1952, H. De Saeger, 4070 [printed white label]; R. DET. 7943 [printed white label]; Holotypus, Pachnephorus (Pachnephorus) bracarumvestitus n. sp., S. Zoia det. 2007 [printed red label] (♂).

PARATYPI. Congo Belge, P. N. G., Miss. H. De Saeger, Mabanga, 23.IX.1952, H. De Saeger, 4070 (1 ex., MRAC; 2 exx., SZcoll).

DESCRIPTION. Body length of the holotypus 2.8 mm; of the paratypti: 3.0, 3.1, 3.1 mm.

Habitus as in figs 15-16. Body dark brown, shiny, not metallic, with paler elytra; palpi, antennae and legs reddish-brown, paler than the body.

Head: frons evenly convex; frons distally flat, not raised between the antennal fossae at the beginning of the clypeus; the clypeus inclined, shiny, punctured, covered with white, distally bifid scales and a few setae; the frons with close scales: in the middle of the frons the scales are wide, 2-2.5 times longer than wide, strongly curved, split for 1/2 of their length, brown, with a line of white scales along the median line; scales are gradually thinner and small towards the sides and the proximal end of the head; between the eyes, scales are white, 3-4 times longer than wide, making a transverse white strip; surface of the frons strongly punctate, shiny and with fine microreticulation between the punctures; eyes relatively small and convex (in frontal view the distance between the eyes is about 3 times the width of a single eye in ♂, about 3.2 times in ♀) with a thin sulcus above. Antennae reddish brown: 2<sup>nd</sup> antennal segment a little shorter than the first, the half in diameter, 3<sup>rd</sup> subequal to the 4<sup>th</sup>, 1.5 times longer than wide, 5<sup>th</sup> a little longer than the 6<sup>th</sup>, 7<sup>th</sup> a little longer than wide, 8<sup>th</sup> to 10<sup>th</sup> as long as wide, 11<sup>th</sup> 1.6 times the 10<sup>th</sup> in length.

Pronotum as long as wide, as wide at distal border as at base; sides enlarged from base to the distal third, constricted distally; pronotal surface shiny between the punctures; punctures close and strong; lateral borders well marked to the distal corners; the distal process of the prothorax sides, covering the eyes, shortly extending

dorsally over the lateral borders; pronotum at sides with a band of wide, dome-like, white scales, 2 times, or less, longer than wide, split for 1/3-1/2 of their length; on the pronotum discus, scales are generally of the same shape but a little smaller, mostly dark brown, with a thin median line of white scales. Prothoracic epimera strongly punctate, bare; the distal process with white bifid setae.

Mesothoracic episterna bare.

Metathoracic epimera narrow, with a single row of punctures, each puncture with a single whitish seta. Metasternum covered at sides by white, wide, bifid setae, in the middle by white hairs.

Legs: moderately long, with oblong, distally bifid, white scales which are clearly wider on the dorsal side of the meso- and metatibiae where they cover a large part of the integument; all the claws in ♂ and ♀ relatively long, appendiculate, with a well developed tooth near the base; tooth at the base of the mesotibial emargination acute, protruding, its height about 1/3 of the mesotibial width at that point.

Elytra moderately elongate (length/width at humeral level = 1.4) with a feeble impression on the basal third; sides feebly curved to the distal third, then regularly curved to the apical corners; interstriae of the elytra with wide, dark brown, light brown and white scales, 2 times longer than wide on average and split for 1/3 or more of their length; the white scales mostly gathered in a transverse band on the basal third of each elytron, in a small spot in the middle, in an arched longitudinal strip on the declivity, at the base of the shoulder and along the outer margin; with the exception of the spots of white scales, most scales are arranged in a single row on each interstria on the discus, largely in double rows on the declivity and on the elytral sides; punctures of the striae large, without setae; interstriae convex, narrower than the diameter of the striae punctures; epipleura moderately wide, bare.

Aedeagus (figs 132-133).

Spermatheca (fig. 136).

DERIVATIO NOMINIS. The species name is a compound of the Latin words “bracarum” (of trousers) and “vestitus” (dressed), from the wide scales covering the legs of this species.

VERIFIED DISTRIBUTION: Rep. Pop. Congo, Zambia.

OTHER EXAMINED MATERIAL (not included in paratypes). Zambia, 22.-24.iii.1993, 13°06'03"S/31°47'32"E, South Luangwa NP, Msuwe Crocodile Farm, pond bank sievings, 450 m, leg. M. Uhlig (1 ♂, MNHU).

NOTE. The specimen from Zambia differs in having the white scales on the head and the dorsum more widely diffuse, the three outermost interstriae almost exclusively with white scales and the spots of scales on the elytra not clearly defined; aedeagus in figs 134-135.

**Pachnephorus (Pachnephorus) bryanti** n. sp.

TYPE LOCALITY: Mali: K. Macina.

TYPE DEPOSITORY: BMNH.

HOLOTYPE LABELS: N. W. Africa, Mali, K. Macina, xi.1973, D. R. Reynolds (C. O. R. R.), B. M. 1974-222 [printed white label]; Holotypus, Pachnephorus (Pachnephorus) bryanti n. sp., S. Zoia det. 2007 [printed red label] (♂).

EXAMINED MATERIAL. Only the holotypus.

DESCRIPTION. Body length of the holotypus 3.3 mm.

Habitus as in figs 17-18. Body dark brown to black, shiny; antennae and legs brown, paler than the body.

Head: frons evenly convex, with a narrow longitudinal groove in the middle, distally flat, feebly raised between the antennal fossae at the beginning of the clypeus; the surface with evident microreticulation between the punctures; the clypeus inclined, shiny, with a few setae at sides; the frons with regularly arranged, oblong, whitish and very light brown scales; scales are moderately long, 3-4 times as long as wide, split for 1/2 or less of their length and highly curved; surface of the frons between the eyes with white, thin, bifid setae; eyes moderately large and convex (in frontal view the distance between the eyes is about 2.7 times the width of a single eye) without any sulcus above. Antennae reddish-brown, elongate: 2<sup>nd</sup> antennal segment as long as first and half as wide, 3<sup>rd</sup> a little longer than the 4<sup>th</sup>, elongate, 3 times longer than wide, 5<sup>th</sup> longer than the 6<sup>th</sup>, 7<sup>th</sup> 1.6 times longer than wide, 8<sup>th</sup> to 10<sup>th</sup> longer than wide, 11<sup>th</sup> 1.4 times the 10<sup>th</sup> in length.

Pronotum a little wider than long, a little wider at distal border than at base; sides enlarged from base to the distal third, constricted

distally; lateral borders well marked, not reaching the distal edge of the prothorax for the presence of the distal process of the epimera which spreads a little over the pronotal lateral border; scales on the pronotum sides short, wide, about 2.5 times as long as wide, split for 1/3 or less of their length; scales are thinner on the pronotal discus; scales are mixed light brown and whitish. Prothoracic epimera bare, strongly punctate; the distal process with white, bifid setae.

Mesothoracic episterna bare.

Metathoracic epimera narrow, with a double row of punctures, each puncture with a white seta. Metasternum covered at sides by white bifid setae, in the middle by white hairs.

Legs: moderately long, with oblong, distally bifid, white scales; claws of the fore tarsi appendiculate ( $\delta$ ): the tooth at the base of the inner claw more developed than the tooth at the base of the outer claw, it reaches half length from its partition and the apex of the claw; all the other claws appendiculate, with a well developed basal tooth; height of the tooth at the base of the mesotibial emargination about 1/3 of the mesotibial width at that point

Elytra elongate (length/width at humeral level = 1.6) with a feeble transverse impression on the basal third; sides subparallel in basal half, then regularly curved to the apical corners; scales on the interstriae wide, oblong, 2.5-3 times longer than wide, shortly split; sutural stria near the scutellum with a row of small, thin scales; scales are light brown, with a not well defined transverse band starting from the humeri and 2 small and not well defined spots of whitish scales on each elytron; light brown scales arranged partly in single rows and partly in double rows on each interstria, only the outermost interstria in part with a triple row of scales; punctures of the striae moderately large, each with a thin seta which is very small in the punctures of the elytral discus, more evident in the outer striae; interstriae mostly flat or weakly convex, as wide as or narrower than the diameter of the striae punctures; epipleura wide, with a row of white hairs along the fold of the inner margin.

Aedeagus (figs 137-138).

DERIVATIO NOMINIS. The species is named after G. E. Bryant, one of the few entomologists who described *Pachnephorus* from Africa before the present study.

VERIFIED DISTRIBUTION: Mali.

NOTE. I have examined 2 ♀♀ (Ethiopia: Ilubabor prov, Pokwo, Baro riv., 25.VIII.[19]72, R. O. S. Clarke) from MRAC collection which may belong to a new species close to *P. bryanti* n. sp. Lacking a male, I cannot decide the true identity of these specimens.

**Pachnephorus (Pachnephorus) burgeoni** n. sp.

TYPE LOCALITY: Natal: Idaleni.

TYPE DEPOSITORY: MRAC

HOLOTYPE LABELS: Mus. Roy. Afr. Centr., Natal: Idaleni, (Rev. W. Hunt), ex. coll. Dr Breuning (printed white label); *Pachnephorus fasciatus* Burg., B. J. Selman det. 1963 (handwritten/printed white label); Holotypus, *Pachnephorus* (*Pachnephorus*) *burgeoni* n. sp., S. Zoia det. 2007 [printed red label] (♂).

EXAMINED MATERIAL. Only the holotypus.

DESCRIPTION. Body length 2.7 mm.

Habitus as in figs 19-20. Body dark brown with bronze metallic reflexion; palpi, antennae and legs reddish, paler than the body.

Head: frons evenly convex, distally flat between the eyes and the antennal fossae; frons and clypeal surface regularly punctured; the frons with small scales, twice longer than wide and distally split for their half length; between the antennal fossae with thin and deeply split scales; scales are mainly whitish, with two spots of brown scales on either side of the median line; eyes moderately large and convex (in frontal view the distance between the eyes is 3 times the width of a single eye), without a sulcus above. Antennae: 2<sup>nd</sup> antennal segment longer than the first, the half in diameter, 3<sup>rd</sup> and 4<sup>th</sup> subequal, more than twice longer than wide, 5<sup>th</sup> longer than the 6<sup>th</sup> and 2.5 times longer than wide, 7<sup>th</sup> to 10<sup>th</sup> subequal, a little longer than wide, 11<sup>th</sup> 1.5 times the 10<sup>th</sup> in length.

Pronotum as long as wide, subequal in width at base and at distal border; sides weakly sinuate and enlarged from the base to the distal third, constricted distally; lateral borders reaching the distal edge of the prothorax; scales relatively short, moderately wide, adpressed, curved, covering a large part of the integument; they are split for 1/2 or

more of their length; scales are brown (mostly on the discus) to whitish, the two colours mixed on the sides of the pronotum. Prothoracic epimera strongly punctate, covered with close, whitish, bifid scales, which resemble the ones on the pronotal sides but are smaller; the same type of scales are on the distal process of the epimera.

Mesothoracic episterna densely covered by deeply split white scales.

Metathoracic epimera relatively wide, densely covered by deeply split white scales; there are at least three scales on the width of the metathoracic epimeron. Metasternum covered by white, deeply bifid scales, which are thinner in the middle.

Legs: relatively long and slender, with oblong, distally bifid, white scales; both fore tarsi are missing; all the claws of meso- and metatarsi are relatively long, appendiculate, with a small tooth near the base; tooth at the base of the mesotibial emargination of medium size, its length about 1/3 of the mesotibial width at that point.

Elytra relatively long and wide (length/width at humeral level = 1.4), convex, without any transverse impression on the basal third; sides regularly curved, widened for half length, then regularly curved to the apical corners; elytra uniformly covered with scales, both on the interstriae and in the punctures of the striae; scales are nearly all of the same size, 2.5-3 times as long as wide, whitish and brown, mixed all over the surface; the scales in the punctures are mainly simple, the ones on the interstriae are split at the end; interstriae flat on the discus, weakly convex and narrower on the elytral sides, their width narrower than the diameter of the striae punctures; epipleura wide, suddenly constricted at level of the 3<sup>rd</sup> abdominal sternite, with a row of tiny, bifid, whitish scales along the fold of the inner margin. Aedeagus (figs 139-140).

DERIVATIO NOMINIS. The species is named after Burgeon, one of the few entomologists who described *Pachnephorus* from Africa before the present study.

VERIFIED DISTRIBUTION: Rep. South Africa: Natal.



**Pachnephorus (Pachnephorus) camerunensis** n. sp.

TYPE LOCALITY: nord Cameroon, 65 km S F.t Foureau, Logone.

TYPE DEPOSITORY: SZcoll.

HOLOTYPE LABELS: N-Camerun, Logone, Salix, 65 km S. F. Foureau, 9.3.73 (hand-written white label); Holotypus, *Pachnephorus (Pachnephorus) camerunensis* n. sp., S. Zoia det. 2007 [printed red label] ( $\delta$ ).

EXAMINED MATERIAL. Only the holotypus.

DESCRIPTION. Body length of the holotypus 2.7 mm.

Habitus as in figs 21-22. Body dark brown, shiny, with a feeble metallic reflexion on the prothorax; palpi, antennae, legs and elytra brown, paler than the body.

Head: frons evenly convex, with a thin longitudinal groove in the middle; frons distally flat between the eyes and transversely raised between the antennal fossae at the beginning of the clypeus; the clypeus inclined, shiny, not punctate in the middle and with a few setae at sides; the frons with oblong, whitish scales: in the middle of the frons the scales are 3-4 times longer than wide, moderately curved, split for half of their length; surface between the eyes with smaller, thinner, distally bifid setae; surface of the frons strongly punctate, partially covered by the scales, with evident microreticulation between the punctures; eyes large and convex (in frontal view the distance between the eyes is about 3 times the width of a single eye) with a very narrow sulcus above with small scales. Antennae reddish brown, with basal segments slightly paler: 2<sup>nd</sup> antennal segment as long as first and half as wide, 3<sup>rd</sup> and 4<sup>th</sup> subequal, about 1.5 times longer than wide, 5<sup>th</sup> a little longer than the 6<sup>th</sup>, 7<sup>th</sup> 1.2 times longer than wide, 8<sup>th</sup> to 10<sup>th</sup> shortly longer than wide, 11<sup>th</sup> 1.6 times the 10<sup>th</sup> in length.

Pronotum a little wider than long, as wide at distal border as at base; sides enlarged from base to the distal third, constricted distally; distal corners not protruded; surface of the pronotum shiny between the punctures, with fine microreticulation on the basal half; punctures relatively small, dense, not confluent; lateral borders thin, well marked, not reaching the distal edge of the prothorax; the distal process of the prothorax sides, covering the eyes, shortly extending dorsally over the lateral borders; pronotum at sides with mixed whitish and

light brown, bifid scales, in the middle with whitish and grey scales; at sides, scales are wider, 2.5-3 times longer than wide, split for 1/3 or more of their length; on the pronotum discus, scales are thinner and more deeply split, even smaller along the median line of the pronotum. Prothoracic epimera strongly punctate, with white setae on a large part of their surface; the distal process with white setae.

Mesothoracic episterna bare.

Metathoracic epimera narrow, with a single row of punctures, each puncture with a single white seta. Metasternum covered at sides by white, bifid setae, in the middle by white hairs.

Legs: relatively long, with oblong, distally bifid, whitish setae; claws of the protarsus in ♂ bifid, with the inner teeth of each claw shorter than the outer ones, the partition at half the claw's length; dorsal side of both claws regularly curved; all the other claws appendiculate, with an acute tooth near the base; tooth at the base of the mesotibial emargination acute, weakly protruding, its height about 1/4 of the mesotibial width at that point.

Elytra elongate (length/width at humeral level = 1.5) with a feeble impression on the basal third; sides feebly curved to the distal third, then regularly curved to the apical corners; interstriae of the elytra with oblong scales, 3-4 times longer than wide and split for 1/3 of their length; scales mixed whitish and light brown; scales arranged in double row on each interstria, including a large part of the surface along the suture, in triple row on the outermost interstria; punctures of the striae large, each with a white, weakly enlarged seta which is more enlarged on the outer striae; interstriae convex, narrower than the diameter of the strial punctures; epipleura wide, bare.

Aedeagus (figs 141-142).

DERIVATIO NOMINIS. The name recalls the Cameroon, the only known country for this species.

VERIFIED DISTRIBUTION: Cameroon.

### **Pachnephorus (Pachnephorus) conspersus** Gerstaecker, 1871

*Pachnephorus conspersus* Gerstaecker, 1871: 81;  
*Pachnephorus conspersus*, Gerstaecker 1873: 271.

TYPE LOCALITY: Wanga.

TYPE DEPOSITORY: MNHU

LECTOTYPUS (here designated): 56673 [printed white label]; conspersus Gerst. \* Wanga v.d.Dech. [handwritten blue label]; Syntypus, Pachnephorus conspersus Gerstaecker, 1871, labelled by MNHU 2005 [printed red label]; LECTOTYPUS, Pachnephorus conspersus Gerstaecker, 1871, S. Zoia des., 2007 [printed red label] (♀) (although it is labeled as "syntypus", possibly the original description was based on this specimen only).

OTHER EXAMINED MATERIAL. [Tanzania] Kilona [= Kilwa (?)] Kivinje, Raffray (1 ♂, MNHN).

DESCRIPTION. Body length of the syntypus 3.0 mm, of the other specimen 2.7 mm.

Habitus as in figs 23-24. Body blackish, with a feeble metallic reflexion on the pronotum; mouth-parts, antennae and legs brown, paler than the body.

Head: frons convex, shortly flat distally, the clypeus a little inclined; surface with relatively strong punctures, bearing whitish short scales, more than twice as long as wide and split for more than 1/3 of their length; scales smaller and finer, although split, on the area between the eyes; clypeus impunctate, with a few setae; eyes very small and scarcely prominent in ♀, somewhat larger and more convex in ♂, not exceeding the distal corners of the pronotum (in frontal view the distance between the eyes is about 4 times the width of a single eye in the ♀ holotypus, 3.5 times in the ♂), with a narrow and parallel-sided sulcus above. Antennae: 2<sup>nd</sup> antennal segment as long as first and half as wide, 3<sup>rd</sup> and 4<sup>th</sup> subequal, 1.5 times longer than wide, 5<sup>th</sup> 2 times longer than wide and only a little longer than the 6<sup>th</sup>, 7<sup>th</sup> to 10<sup>th</sup> transverse, 11<sup>th</sup> about 1.7 times the 10<sup>th</sup> in length.

Pronotum as large at base as at distal border; sides slightly sinuated near the base and shortly constricted distally, the widest point at level of the distal third; lateral borders evanescent near the distal angles (intere in the specimen from Kivinje), anterior angles not prominent; scales resemble the ones on the head but are a little longer, whitish. Prothoracic epimera largely bare, with a few whitish setae, punctate; the distal process not strongly projecting, only extending a little beyond the distal corners of the pronotum, and with a few bifid setae.

Mesothoracic episterna bare.

Metathoracic epimera moderately wide (length/width = 5), with a single row of punctures, each with a single very short seta. Metasternum covered with white, bifid, wide setae.

Legs: moderately long, robust, with oblong white scales, as wide on the femora as the ones on the sides of the pronotum; syntypus ♀ with simple claws, moderately enlarged at base, regularly curved; the ♂ from Tanzania with all the claws appendiculate, the basal tooth flat, weakly separated from the main part of the claw.

Elytra moderately long (length/width at humeral level = 1.5), with sides evenly curved to the declivity; scales arranged in a single row on each interstria, except for the outermost interstria in part with a double series of scales; scales a little shorter than the ones on the prothorax, mostly whitish with a few setae slightly darker; punctures of the striae large, without setae on the discus; the punctures of the 3 outermost striae with a thin white seta (in the specimen from Tanzania, all the punctures of the striae have a small seta); interstriae weakly convex, narrow, their width equal to or less than the diameter of the strial punctures; epipleura moderately wide, bare, with only a few very small setae at humeral level.

Aedeagus (figs 143-144).

Holotypus has not been dissected.

VERIFIED DISTRIBUTION: coasts of Kenya and Tanzania.

NOTE. The specimen from Tanzania matches well the lectotypus except for the claws morphology and the larger eyes; these characters might be either due to sex or geographic variation. Further material would be necessary for a correct interpretation.

DISTRIBUTION CITED IN LITERATURE. *P. conspersus* has been reported by authors from different localities spread across the whole Africa, south of the Sahara, and Arabia (Burgeon 1942; Bryant 1957, 1959; Selman 1972; Selman 1973a; Selman 1973b; Daccordi 1983; Medvedev 1996). Following the present study, only the original description, and the subsequent report by Clavareau 1914, can be regarded as correct. The citation for Zanzibar (Lefèvre 1885) is a misunderstanding of the type locality.

**Pachnephorus (Pachnephorus) cristiani** n. sp.

TYPE LOCALITY: Namibia: Kavango: Mahango Game Reserve.

TYPE DEPOSITORY: MNHU

HOLOTYPE LABELS: Namibia, 24.xi.1993, 18°13'S/21°45'E, Kavango: Mahango Game Reserve: Piknik Site, lux, leg. M. Uhlig [printed blue label]; Holotypus, *Pachnephorus (Pachnephorus) cristiani* n. sp., S. Zoia det. 2007 [printed red label] (♂).

PARATYPI. Namibia, 24.xi.1993, 18°13'S/21°45'E, Kavango: Mahango Game Reserve: Piknik Site, lux, leg. M. Uhlig (74 exx, MNHU; 15 exx., SZcoll); Namibia, 24.xi.1993, 18°14'S/21°43'E, Kavango: Mahango Game Res., leg. F. Koch (1 ♀, MNHU); Namibia, 23.iii.1993, 13°06'03"S/31°47'32"E, South Luangwa NP, Mfuwe Crocodile Farm, 450 m, lux, leg. M. Uhlig (2 ♂♂); Namibia-Exp. ZMB 1992, E. Caprivi, Katima Mulilo, 17°29'S/24°17'E, 3.-8.III.92, leg. Göllner (1 ♂, 2 ♀♀, MNHU; 1 ♂, SZcoll); Namibia-Exp. ZMB 1992, Kavango: Kaudom Kamp, 18°31'N/20°43'E, lux, 22.-25.-II.92, leg. Uhlig (3 exx., MNHU; 1 ex., SZcoll); Namibia-Exp. ZMB 1992, East Caprivi, 4km E Katima Mulilo, Zambezi-Insel, 17°29'S/24°18'E, Wald+Teichufer, 6.III.92, leg. M. Uhlig (1 ♂, MNHU); Namibia, Caprivi, Lusikili, Zambezi River, 17.33S 24.28E, 900m, 06.iii.1992, R. Oberprieler (2 ♂♂, 1 ♀, PPRI); Namibia bor. or., Caprivi Zipfel, Katima Mulilo, 15.-24.1.1995, leg. M. Šnizek (1 ♀, SZcoll); Namibia bor. or., Okavango riv., Bagani, Popa falls, 25.1.-4.2.1995, lgt. M. Šnizek (1 ♂, SZcoll); Botswana bor., Kasane, 1.1.1984, Lgt. M. Šnizek (1 ♂, SZcoll); Zimbabwe, 11-12.xii.1993, 17°53'S/25°49'E, Victoria Falls: Zambezi-NP-Camp, lux, leg. M. Uhlig (1 ♂, 2 ♀♀, MNHU; 2 ♀♀, SZcoll); [Mozambique] Zambèze, Chiramba, P. Lesne 1929, 15 janvier (1 ♀, MNHN); [Mozambique] Zambèze, env. de Nova Choupanga, P. Lesne 1929 (1 ex., MNHN); [Mozambique] Zambèze, Nova Choupanga, près Chemba, P. Lesne 1929, janvier (4 exx., MNHN); [Mozambique] Zambèze, env. de Nova Choupanga, P. Lesne 1929, 1er janvier (1 ♂, MNHN); [Mozambique] Luabo, Sambesi, Mozamb., XII.1959, B. u. P. Stuckenberg (3 ♀♀, NHMB); [Mozambique] Fambani, Lower Zambesi, H. B. Cott., B.M.1930-437, from stomach of a Tree-frog (9 exx., BMNH; 1 ex., SZcoll).

DESCRIPTION. Body length of the holotypus 2.8 mm (length range in the examined specimens: 2.3-3.4 mm).

Habitus as in figs 25-26. Body dark brown, shiny; palpi, antennae and legs brown, slightly paler than the body.

Head: frons evenly convex, distally with a median longitudinal very narrow groove; between the antennal fossae feebly and transversely raised; the surface punctured between the eyes, with distinct microreticulation; the clypeus moderately inclined, punctate; the frons with short, enlarged scales, twice as long as wide on average, split for half of their length; scales white with two large spots of dark brown ones; surface of the frons between the eyes and on the clypeus with thinner, small, whitish setae; eyes moderately large and strongly convex (in frontal view the distance between the eyes is 3 times the

width of a single eye), without any sulcus above. Antennae: 2<sup>nd</sup> antennal segment as long as first and half as wide, 3<sup>rd</sup> and 5<sup>th</sup> subequal, more than twice as long as wide and a little longer than the 4<sup>th</sup> and the 6<sup>th</sup>, 7<sup>th</sup> a little longer than wide, 8<sup>th</sup> to 10<sup>th</sup> weakly transverse, 11<sup>th</sup> 1.4 times the 10<sup>th</sup> in length.

Pronotum a little longer than wide, wider at distal border than at base; sides feebly sinuate near the base, enlarged from base to a little more than half length and clearly constricted distally; lateral borders well marked to the anterior angles which are not prominent and on the distal edge of the prothorax; the anterior seta a little above the lateral margins; scales twice as long as wide, thinner on the median line, split for 1/2 or less of their length; scales mixed, white and brown, except for a thin median line of white scales. Prothoracic epimera covered with white bifid scales (fig. 103); the distal process with thinner, deeply bifid scales.

Mesothoracic episterna with a few white scales.

Metathoracic epimera narrow, with a double row of punctures each of them with a single white seta (fig. 103). Metasternum covered at sides by white bifid wide setae, in the middle by white hairs.

Legs: moderately long, with oblong, distally bifid, white scales; both claws of the protarsus in male bifid, the inner tooth a little shorter than the outer one in length, the cleft being a little over 1/2 the claw's length; dorsal side of each claw regularly curved to the apex; all the other claws in ♂ and all the claws in ♀ appendiculate, with a little tooth near the base; tooth at the base of the mesotibial emargination acute, relatively large, its height a little more than 1/3 of the mesotibial width at that point.

Elytra moderately long (length/width at humeral level = 1.5), with a feeble transverse impression on the basal third; sides subparallel to half length, then regularly curved to the apical corners; scales on the interstriae resemble the ones on the pronotum, the white ones mainly gathered in four-five spots and near the lateral edges; scales arranged mostly in double rows on each interstria; punctures of the striae large, each with a white seta inside on the whole elytral surface; interstriae moderately convex, narrow, their width narrower than the diameter of the strial punctures; epipleura moderately wide, with evident white hairs all along the fold of the inner margin (fig. 103).

Aedeagus (figs 145-146).

Spermatheca (fig. 147).

DERIVATIO NOMINIS. I dedicate this taxon to my son Cristian who is now beginning to know the world around him.

OTHER EXAMINED MATERIAL (not included in paratypes). ANGOLA: Lobito, iii.1934, K. Jordan, B.M.1934-435 (1 ♀, BMNH). REP. POP. CONGO: Lokandu, 1937, Lt Marée (3 exx., MRAC; 1 ex., SZcoll); Sankuru: Gandajika, V-1955, J. Decelle (1 ex., MRAC); Gandajika (bord étang) 1/15-IV-1959, J. Decelle (2 exx., MRAC; 1 ex., SZcoll); Nyangwe, 20-III-1918, R. Mayné (1 ex., MRAC); Nyangwe, IV-1918, R. Mayné (1 ex., MRAC); Katanga: Katombe, 1/15-VI-1930, Dr P. Gérard (2 exx., MRAC; 1 ex., SZcoll); Katanga: Kando, 4-IV-1931, G. F. de Witte (2 exx., MRAC; 1 ex., SZcoll); Mulongo (Mafinge) 10/17-VII-1930, Dr P. Gérard (2 exx., MRAC; 1 ex., SZcoll); Boma, M. Tschoffen (2 exx., BMNH)

VERIFIED DISTRIBUTION: Rep. Pop. Congo, Angola, Namibia, Botswana, Zimbabwe, Mozambique.

### **Pachnephorus (Pachnephorus) crocodilinus** n. sp.

TYPE LOCALITY: Zambia: South Luangwa N. P.: Mfuwe Crocodile Farm.

TYPE DEPOSITORY: MNHU.

HOLOTYPE LABELS: Zambia, 23.iii.1993, 13°06'03"S/31°47'32"E, South Luangwa NP. Mfuwe Crocodile Farm, 450 m, lux, leg. M. Uhlig [printed blue label]; Holotypus, Pachnephorus (Pachnephorus) crocodilinus n. sp., S. Zoia det. 2007 [printed red label] (♂).

PARATYPI. Zambia, 23.iii.1993, 13°06'03"S/31°47'32"E, South Luangwa NP. Mfuwe Crocodile Farm, 450 m, lux, leg. M. Uhlig (12 ♂♂, 6 ♀♀, MNHU; 5 ♂♂, 2 ♀♀, SZcoll); Zambia, 21.-24.iii.1993, 13°06'S/31°47'E, Lux, South Luangwa N. P., Mfuwe Crocodile Farm, 450 m ü.n., leg. J. Deckert (3 ♂♂, MNHU).

DESCRIPTION. Body length of the holotypus 2.8 mm (length range of the examined specimens: 2.4-3.4 mm).

Habitus as in figs 27-28. Body dark brown, shiny, with a light metallic reflexion; palpi, antennae and legs reddish-brown, paler than the body.

Head: frons evenly convex, distally flat, not or weakly raised between the antennal fossae at the beginning of the clypeus; the clypeus inclined, shiny, not punctate in the middle and with a few setae at sides; the frons with oblong, regularly arranged scales; scales are white, with two spots of light brown scales at sides of the median line: in the middle of the frons the scales are 4 times longer than

wide, curved, split for 1/3 of their length; surface between the eyes with thin, white, bifid setae; surface of the frons punctate, with evident microreticulation between the punctures; eyes moderately large and strongly convex (in frontal view the distance between the eyes is about 2.8 times the width of a single eye in the ♂, about 3 times in the ♀) without any sulcus above. Antennae reddish brown: 2<sup>nd</sup> antennal segment as long as first and half as wide, 3<sup>rd</sup> and 4<sup>th</sup> subequal, about 2.5 times longer than wide, 5<sup>th</sup> longer than the 6<sup>th</sup> and about 1.5 times longer than the 4<sup>th</sup>, 7<sup>th</sup> 1.4 times longer than wide, 8<sup>th</sup> to 10<sup>th</sup> as long as wide, 11<sup>th</sup> 1.6 times the 10<sup>th</sup> in length.

Pronotum as wide as long, a little wider at distal border than at base; sides enlarged from base to the distal third, weakly constricted distally; distal corners not protruded; surface of the pronotum shiny between the punctures, usually with very weak microreticulation; punctures moderately large, not confluent; lateral borders thin, reaching the distal corners; the distal process of the prothorax sides, covering the eyes, weakly extending dorsally over the lateral borders; pronotum at sides with mixed whitish and light brown, bifid scales, in the middle with light brown scales and, as a rule, a thin median line of smaller, whitish scales; at sides, scales are 3-4 times longer than wide, split for 1/3 of their length; on the pronotum discus, scales are 4-5 times longer than wide. Prothoracic epimera strongly punctate, bare or with a few bifid setae near the distal corners (fig. 104) (see also the note at the end of this description); the distal process with white, bifid setae.

Mesothoracic episterna bare.

Metathoracic epimera moderately narrow, with a row of punctures which is more or less doubled at both ends, each puncture with a single white seta (fig. 104). Metasternum covered at sides with white, bifid setae, in the middle with white hairs.

Legs: long, with oblong, distally bifid, white setae; tarsi widened, specially the protarsi in ♂; the two claws of the protarsus in ♂ with different structures: the inner claw bifid, with the inner tooth almost as long as the outer one, the cleft at over half claw's length; the outer claw appendiculate with a well developed basal tooth; dorsal side of both claws regularly curved to the apex; all the other claws in ♂ and all the claws in ♀ appendiculate, with a square, flat tooth near the base; tooth at the base of the mesotibial emargination acute, protruding, its height about 1/4 of the mesotibial width at that point.



Elytra elongate (length/width at humeral level = 1.5) with a feeble impression at sides of the basal third; sides feebly curved to middle, then regularly curved to the apical corners; interstriae of the elytra with oblong scales, 4-5 times longer than wide and split for 1/3 or less of their length; scales are light brown and white, the latter forming a band along the basal impression, two spots behind middle, a longitudinal band on the declivity and a line along the lateral edge; brown scales arranged mainly in a single row on each interstria on the discus, in double row on the two outermost interstriae and partially on the declivity; punctures of the striae large, without setae on the discus, with a thin seta on the elytral sides; interstriae convex, less so on the discus, narrower than the diameter of the strial punctures; epipleura moderately wide, with a row of white setae along the fold of the inner margin (fig. 104).

Aedeagus (figs 148-149).

Spermatheca (fig. 153).

**DERIVATIO NOMINIS.** The name is from the Latin “*crocodilus*” (crocodile), both from the type locality and from the fact that *Pachnephorus* species usually live near water, as do crocodiles.

**OTHER EXAMINED MATERIAL** (not included in paratypes). **SUDAN:** Wad Medani a. Bl. Nil, 18.10.1979, lux, leg. Hieke (1 ♂); Blue Nile, Umm Banein, 14.11.62, Linnavuori (1 ♂, ZMUH; 1 ♀, SZcoll). **ETHIOPIA:** Ilubabor Prov.: Gambela, 21/23.V.1972 (1 ♂, MRAC; 1 ♂, SZcoll). **IVORY COAST(?):** Addah. (2 ♂♂, MNHN). **GHANA:** Kaffa Prov., Jimma, VII/VIII.1971, G. de Rougemont (1 ♀, MRAC). **NIGERIA:** Zaria, à la lumière, 1969, Dr H. Roberts (1 ex., MRAC). **CAMEROUN:** Maroua (lumière) X/XI.1965, G. Schmitz (1 ♀, MRAC). **REP. POP. CONGO:** Kiabo (sur Luapula) 6-V-1931, H. J. Bredo (1 ♂, 1 ♀, MRAC); P. N. A., May ya Moto, 950 m, 15-xi-1934, G. F. de Witte: 758 (1 ex., MRAC); Boma, M. Tschoffen (1 ♀, MRAC); Kisantu, 1919, P. Vanderijst (1 ♂, MRAC; 1 ♂, SZcoll); Léopoldville, 1930, A. Tinant (1 ♀, MRAC); Kasenyi, 19-VIII-1937, H. J. Brédo (1 ♂, MRAC); P. N. G., I/b/3, 21-XII-1949, Réc. H. De Saeger, 63 (1 ♀, MRAC); P. N. G., II/hc/4, 31-V-1951, Réc. J. Verschuren, 1849 (1 ♀, MRAC); P. N. G., II/fc/18, 24-XI-1951, Réc. H. De Saeger, 2805 (1 ♂, 2 ♀, MRAC); P. N. G., II/fc/17, 29-XI-1951, Réc. H. De Saeger, 2818 (1 ex., MRAC); P. N. G., II/fc/18, 29-XI-1951, H. De Saeger, 2819 (2 ♂♂, 3 ♀♀, MRAC; 2 ♂♂, 1 ♀, SZcoll); P. N. A., II/hc/8, 12-XII-1951, Réc. H. De Saeger, 2902 (6 ♀♀, MRAC; 3 ♀♀, SZcoll); P. N. G., II/gc/15, 17-XII-1951, Réc. H. De Saeger, 2916 (1 ♂, MRAC); P. N. G., II/fc/14, 26-XII-1951, J. Verschuren, 2942 (2 ♂♂, MRAC); P. N. G., II/gd/10, 28-XII-1951, Réc. H. De Saeger, 2967 (1 ♀, MRAC); P. N. G., II/fd/18, 3-III-1952, H. De Saeger, 3158 (2 ♀♀, MRAC); P. N. G., II/jc/9, 4-III-1952, H. De Saeger, 3161 (1 ♀, MRAC); P. N. G., II/gb/14, 8-III-1952, H. De Saeger, 3177 (2 ♂♂, MRAC); P. N. G., II/gd/5, 23-IV-1952, H. De Saeger, 3566 (1 ♀, MRAC); P. N. G., II/fc/11, 25-VI-1952, H. De Saeger, 3700 (1 ♂, MRAC); P. N. G., II/fc/5, 26-VIII-[19]52, H. De Saeger, 3982 (1 ♂, SZcoll); P. N. G., II/gd/4, 5-XII-1951, Réc. H. De Saeger, 2863 (1 ♀, MRAC). **TANZANIA:** Kwakiyembe [locality unknown to me], D. O. Afr., Mai 1916, leg. Methner (1

♀, MNHU). NAMIBIA: E Caprivi: 30 km SE Katima Mulilo, 17°31'S/24°25'E, Zambezi Altwasserarm, lux, 6.III.[19]92, lg. M. Uhlig (1 ♀, MNHU); 20 km E Rundu, 1100 m, 13.-14.III.2006, leg. W. Schawaller (1 ♂, SMNS). ZAMBIA: N. W. Rhodesia, Kafue R., iii-1913, H. C. Dollman (1 ♂, BMNH). MALAWI: Mulanje Mts. env., 22.-26.xii.2001, J. Bezděk leg. (1 ♀, JBColl). MOZAMBIQUE: Luabo, Sambesi, XII.1959, B. u. P. Stuckenberg (1 ♂, 2 ♀♀, NHMB; 1 ♂, SZcoll); Beira, 16.XI.1902, P. A. Sheppard (1 ♀, BMNH); Zambèze, Noca Choupanga, près Chemba, P. Lesne 1929, fin Aout (1 ♂, MNHN); Prov. de Gorongoza, Tendos de L'Uréma, G. Vasse 1907, Février (1 ♀, MNHN); Prov. de Gorongoza, Tendos du Sungoué et Riy Vunduzi (alt 40 m), G. Vasse 1907 (2 ♀♀, MNHN; 1 ♀, SZcoll). REP. SOUTH AFRICA: Mkuzi, Zulu, Dec. 1947 (1 ♂, 4 ♀♀, PPRI); Kwa-Zulu, Lake Sibaya E. shore, 27.22S 32.43E, 18-20.i.1981, G. L. Prinsloo (1 ♂, PPRI); Natal, Ndumu Game Reserve, 26.54S 32.15E, 21-22.i.1981, I. M. Miller (2 ♂♂, 2 ♀♀, PPRI; 2 ♂♂, SZcoll); 3.ii.1994, 27°36'S/32°13'E, leg. Uhlig, Natal: Mkuze NP: Ensumo Pan, sievings: reed, gras, flood débris (1 ♂, MNHU); 29.xi.1995, KwaZulu-Natal, Mkuze Game Res., 27°36'S/32°13'E, leg. F. Koch (1 ♀, MNHU; 1 ♀, SZcoll); KwaZulu-Natal, Ndumu Game Reserve, 20.-22.XI.2002, leg. W. Schawaller (2 ♂♂, 2 ♀♀, SMNS; 1 ♂, SZcoll).

VERIFIED DISTRIBUTION: Sudan, Ethiopia, Nigeria, Cameroon, Rep. Pop. Congo, Tanzania, Namibia, Zambia, Malawi, Mozambique, Rep. South Africa.

NOTE. This species shows a certain variability, both within each population and between populations from different localities of its wide distribution area; this may indicate that sibling species could be involved. Some specimens from Rep. Pop. Congo and from Sudan have the prothoracic epimera widely covered with whitish, bifid setae, showing an individual variability for this character; aedeagus variability is shown in figs 148-152. Specimens from Rep. Pop. Congo are as a rule larger, with scales on the elytra more widely arranged in a double rows on the interstriae. Some specimens from Mozambique have tarsi less widened than in the specimens from other localities.

Moreover, I refer with doubt to *P. crocodilinus* n. sp. some examined specimens from Western Africa: Senegal, Tatki, 15.IV.1967, T. Leye, R. Roy (3 ♀♀, MNHN); Senegal, Richard-Toll, XI-1967, A. Descarpentries, T. Leye et A. Villiers (8 ♀♀, MNHN); Gambia, about 1 km E Tendeba, camp at River Gambia, at light, 19.20-21.00, 1.III.1977, Loc. No. 12, UTM 28PDK13-85, Cederholm, Danielsson, Larsson, Mireström, Norling, Samuelsson (1 ♀, MZLU); Gabon, Lac Zilé, J. De Muizon (1 ♂, MNHN); Mali (1 ♀, MNHN)

**Pachnephorus (Pachnephorus) daccordii** n. sp.

TYPE LOCALITY: Yemen: Al Kawd.

TYPE DEPOSITORY: NHMB.

HOLOTYPE LABELS: Al-Kawd [= Al Kowd], I.-III.2003, hand sample, 1305'04"N 4522'E, 20 m [printed white label]; Holotypus, Pachnephorus (Pachnephorus) daccordii n. sp., S. Zoia det. 2007 [printed red label] (♀).

PARATYPI. Al-Kawd [= Al Kowd], I.-III.2003, hand sample, 1305'04"N 4522'E, 20 m (1 ♀, NHMB; 1 ♀, SZcoll); Al Kadan, ca. 20 km N Bajil, V.2002, light trap (1 ♀, NHMB); Arabia merid., Yemen, leg. G. Scortecci, Mafhak, m 1550, 29.VIII.1965 (1 ♂, MDcoll); Saudi Arabia, C. Holzschuh, Gizan am Roten Meer, 25-26.III.1983 (1 ♀, NHMB; 1 ♀, SZcoll); Saudi Arabia, C. Holzschuh, Fifa, 1240 m, nr. Gizan, 27-31.III.[19]83 (2 ♀ ♀, NHMB)

DESCRIPTION. Body length of the holotypus 3.3 mm (length range in the examined specimens: 3.1-3.7 mm).

Habitus as in figs 29-30. Body dark brown, shiny, with metallic reflexion; elytra usually slightly paler than the body; palpi, antennae and legs reddish brown, paler than the body.

Head: frons evenly convex to the region between the eyes which is feebly concave in the middle; clearly transversely raised between the antennal fossae at the beginning of the clypeus; the clypeus inclined, shiny, with punctures at sides; the frons with oblong, regularly arranged scales: in the middle of the frons the scales are 4-5 times longer than wide, moderately curved, split for 1/3-1/2 of their length; scales are whitish with two spots of light brown scales on either side of the median line; surface between the eyes, to the clypeus, with small, whitish, bifid setae; surface of the frons punctate, shiny, with fine but evident microreticulation and, usually, a short, thin and superficial longitudinal sulcus in the middle; eyes large and convex (in frontal view the distance between the eyes is about 2.7 times the width of a single eye in ♂, 2.5 times in ♀) with a thin sulcus above. Antennae reddish brown: 2<sup>nd</sup> antennal segment a little longer than the first and half as wide, 3<sup>rd</sup> subequal to the 4<sup>th</sup>, 2 times as long as wide, 5<sup>th</sup> a little longer than the 6<sup>th</sup>, 7<sup>th</sup> 1.4 times longer than wide, 8<sup>th</sup> to 10<sup>th</sup> subquadrate, 11<sup>th</sup> 1.6 times the 10<sup>th</sup> in length.

Pronotum slightly wider than long, a little wider at distal border than at base; sides enlarged from base to beyond the middle, con-

stricted distally; distal corners not protruded; pronotum surface shiny between the punctures, usually with very fine microreticulation only near the base; punctures strong, deep, close but not confluent, smaller near the distal border; lateral borders strong, both visible at once in dorsal view, not reaching the distal edge of the prothorax; the distal process of the prothorax sides, covering the eyes, extending dorsally clearly beyond the line of the lateral borders; pronotum at sides with a band of whitish bifid scales; on the discus scales are mostly brown, gradually darker from the sides to the middle line, sometimes with a thin strip of whitish scales along the median line; at sides, scales are wider, 2-3 times longer than wide, split for 1/3 or less of their length; on the pronotum discus, scales are thinner and small, even smaller along the base and the distal border and in part of the median line. Prothoracic epimera strongly punctate, with small, whitish, bifid scales on the distal half, bare elsewhere; the distal process with white bifid setae.

Mesothoracic episterna bare.

Metathoracic epimera narrow, with a single row of punctures, each puncture with a single white seta. Metasternum covered at sides with white, bifid setae, in the middle with white hairs.

Legs: relatively long, with thin, bifid, whitish setae; the two claws of the protarsus in ♂ with different structures: the inner claw bifid, with the inner tooth shorter than the outer one, the split a little more than half length of the claw; the outer claw appendiculate with an acute basal tooth; dorsal side of both claws regularly curved to the apex; all the other claws in ♂ and all the claws in ♀ appendiculate, with a well developed tooth near the base; tooth at the base of the mesotibial emargination acute, projecting, its height about 1/3 of the mesotibial width at that point.

Elytra elongate (length/width at humeral level = 1.6) with a feeble impression on the basal third, deeper from the 3<sup>rd</sup> to the 5<sup>th</sup> stria; sides feebly curved, or almost straight, to the distal third, then regularly curved to the apical corners; interstriae of the elytra with oblong, brown and light brown scales, 3-4 times longer than wide and split for 1/3 or more of their length, and with strips of whitish, wider scales; brown scales mostly arranged in a single row on each interstria, the whitish and light brown scales mostly arranged in double or triple rows on each interstria; along the suture there is usually a single row of scales on each elytron; the white scales usually grouped in a trans-

verse strip along the basal impressions of the elytra, a transverse strip behind the middle, a lateral spot and a longitudinal median strip on the declivity, a band along the sides; these spots of white scales are frequently confused by the presence of light brown scales and then not distinct; punctures of the striae moderately large, each with a white seta which is thin on the discus and clearly enlarged on the elytral sides where also some distally bifid setae usually occur; interstriae almost flat and as wide as the diameter of the striae punctures on the discus, convex and narrower than the diameter of the punctures at sides; epipleura wide, bare.

Aedeagus (figs 154-155).

Spermatheca (fig. 156).

DERIVATIO NOMINIS. I dedicate this taxon to my friend Mauro Daccordi, companion of many research trips and known specialist in Chrysomelidae Chrysomelinae.

VERIFIED DISTRIBUTION: Saudi Arabia, Yemen.

### **Pachnephorus (Pachnephorus) danielssoni** n. sp.

TYPE LOCALITY: Sierra Leone: Makeni.

TYPE DEPOSITORY: MZLU.

HOLOTYPE LABELS: Sierra Leone: Makeni, 12°03'W, 8°53'N, 27.XI.1993, loc. 9, light trap 18-21 [printed white label]; Lund University Sierra Leone Expedition 1993, leg. L. Cederholm - R. Danielsson - R. Hall [printed white label]; Holotypus, Pachnephorus (Pachnephorus) danielssoni n. sp., S. Zoia det. 2007 [printed red label] (♀).

PARATYPI: Senegal, village Saré Sara, 21 km ESE Kolda, at light, 19.00-21.00, 6.III.1977, Loc. No. 19. UTM 28PEK268191, Cederholm - Danielsson - Larsson - Mireström - Norling - Samuelsson (1 ♂, SZcoll).

DESCRIPTION. Holotypus lacking middle and rear left legs, middle right leg and right protarsus. Body length of both holotypus and paratype 2.45 mm.

Habitus as in figs 31-32. Body dark brown, with darker prothorax and head, shiny; palpi, antennae, elytra and legs paler than the body.

Head: frons evenly convex, with a thin longitudinal sulcus in the

middle, somewhat depressed over the antennal fossae, transversely raised between the antennal fossae at the beginning of the clypeus; the surface shiny, with relatively small punctures; clypeus inclined, shiny, punctate; frons with oblong white scales, which are 4-5 times as long as wide on average, split for 1/3 of their length and curved; surface of the frons between the eyes with thinner bifid setae; eyes relatively large and convex (in frontal view the distance between the eyes is about 3.1 times the width of a single eye, the vertical diameter of the eyes clearly larger (about 1.4 times) than the horizontal diameter), without any sulcus above. Antennae reddish-brown with a moderately darker club: 2<sup>nd</sup> antennal segment as long as first and half as wide, 3<sup>rd</sup> a little longer than the 4<sup>th</sup>, three times longer than wide, 5<sup>th</sup> longer and a little wider than the 6<sup>th</sup>, 7<sup>th</sup> a little longer than wide, 8<sup>th</sup> to 10<sup>th</sup> a little wider than long, 11<sup>th</sup> 1.5 times the 10<sup>th</sup> in length.

Pronotum a little longer than wide, as wide at distal border as at base; sides strongly enlarged from base to the distal third, constricted distally; lateral borders well marked, not reaching the distal edge of the prothorax; the distal process of the prothorax sides, covering the eyes, extending dorsally a little beyond the lateral borders; scales on the sides of the pronotum oblong, 3-4 times or more as long as wide, shortly split; scales thinner and more deeply split on the pronotum discus, smaller along the base; scales are whitish and light brown on the pronotum discus, mainly white at sides. Prothoracic epimera bare, strongly punctate, with a few small white setae near the distal corners; the distal process with white, bifid setae.

Mesothoracic episterna bare.

Metathoracic epimera narrow, with a single row of punctures, each puncture with a single white seta. Metasternum covered at sides with white bifid setae, in the middle with white hairs.

Legs: moderately long, with oblong, distally bifid, whitish scales; the two claws of the protarsus in ♂ with different structures: the inner claw bifid, with the inner tooth shorter than the outer one, the split being a little before middle of the claw; the outer claw appendiculate with a strong basal tooth; dorsal side of both claws regularly curved to the apex; all the other claws in ♂ and all claws in ♀ appendiculate, with a well developed tooth near the base.

Elytra elongate (length/width at humeral level = 1.6) with a transverse impression on the basal third; sides subparallel to 1/3 of their length, then regularly curved to the apical corners; scales on the in-

terstriae oblong, 4-5 times longer than wide, the white scales partially mixed with the light brown ones; white scales are diffuse on the whole surface, forming also a ill-defined transverse band on the basal impression of the elytra; scales arranged mostly in a single row on each interstria, only the outermost interstria with a double row of scales; punctures of the striae large, each with a white or light brown seta which is as long as the scales of the interstriae, the setae in the punctures of the outer striae are also moderately widened; interstriae convex, narrower than the diameter of the strial punctures; epipleura wide, with a row of white hairs along the fold of the inner margin.

Aedeagus (figs 157-158).

Spermatheca (fig. 159).

DERIVATIO NOMINIS. The species is named after Roy Danielsson, who personally collected a part of the examined material and had the kindness to send me the *Pachnephorus* of the MZLU collections.

VERIFIED DISTRIBUTION: Senegal, Sierra Leone.

***Pachnephorus (Pachnephorus) danielssoni congoanus* n. ssp.**

TYPE LOCALITY: Rep. Pop. Congo: Parc National de la Garamba.

TYPE DEPOSITORY: MRAC.

HOLOTYPE LABELS: Congo Belge, P. N. G., Miss. H. De Saeger, PpK, 90/115, 3-XII-1951, Réc. H. De Saeger, 2860 [printed white label]; R. Det. 7943 [printed white label]; Holotypus, *Pachnephorus (Pachnephorus) danielssoni congoanus* n. ssp., S. Zoia det. 2007 [printed red label] (♂).

PARATYPI. Congo Belge, P. N. G., Miss. H. De Saeger, PpK, 90/115, 3-XII-1951, Réc. H. De Saeger, 2860 (2 ♀♀, MRAC; 1 ♂, 1 ♀, SZcoll); Congo Belge, P. N. G., I/a/2, 23.I.1950, Réc. H. De Saeger, 175 (1 ♀, MRAC); Congo Belge, P. N. G., Akam, 19.V.1950, Réc. H. De Saeger, 528 (2 ♂♂, 2 ♀♀, MRAC; 1 ♂, 1 ♀, SZcoll); Congo Belge, P. N. G., I/a/1, 5.VI.1950, Réc. H. De Saeger, 578 (1 ♂, MRAC); Congo Belge, P. N. G., I/a/M, 7.VI.1950, Réc. G. Demoulin, 585 (1 ♂, 2 ♀♀, MRAC; 1 ♂, 2 ♀♀, SZcoll); Congo Belge, P. N. G., I/b/1, 14.VI.1950, Réc. G. Demoulin, 605 (1 ♂, MRAC); Congo Belge, P. N. G., II/fc/18, 24.XI.1951, Réc. H. De Saeger, 2805 (1 ♀, MRAC); Congo Belge, P. N. G., II/fc/18, 20.XI.1951, H. De Saeger, 2819 (1 ♂, 2 ♀♀, MRAC); Congo Belge, P. N. G., II/hc/18, 12.XII.1951, Réc. H. De Saeger, 2902 (1 ♂, MRAC); Congo Belge, P. N. G., I/b/2, 21.XII.1949, Réc. G. Demoulin, 140 (1 ♀, MRAC); Congo Belge, P. N. G., Miss. H. De Saeger, Mt. Ndogo, 15-III-1950, Réc. H. De Saeger, 305 (1 ♂, 1 ♀, MRAC; 1 ♀, SZcoll).



DESCRIPTION. Body length of the holotypus 2.6 mm (length range in the examined specimens: 2.2-3.1 mm).

Habitus as in figs 33-34. Body dark brown to blackish, shiny, not metallic; palpi, antennae and legs reddish brown, paler than the body.

Head: frons evenly convex, usually with a superficial longitudinal groove in the middle; frons with a transverse, moderate impression between the eyes, weakly transversely raised between the antennal fossae at the beginning of the clypeus; the clypeus inclined, shiny, impunctate in the middle, with a few setae at sides; the frons with oblong, regularly arranged, moderately close scales: in the middle of the frons the scales are 4-5 times longer than wide, moderately curved, split for 1/3 of their length; scales are white with two spots of light brown scales on either side of the median line, sometimes extending to a large part of the head; surface between the eyes, to the clypeus, with thinner, distally bifid, white setae; surface of the frons punctate, shiny, in part with fine microreticulation; eyes moderately large and convex (in frontal view the distance between the eyes is about 3 times the width of a single eye in ♂) with a very thin and superficial sulcus above. Antennae reddish brown with last five segments darker: 2<sup>nd</sup> antennal segment as long as first and half as wide, 3<sup>rd</sup> subequal to the 4<sup>th</sup>, about 1.5 times longer than wide, 5<sup>th</sup> a little longer than the 6<sup>th</sup>, 7<sup>th</sup> 1.3 times longer than wide, 8<sup>th</sup> to 10<sup>th</sup> subquadrate, 11<sup>th</sup> 1.5 times the 10<sup>th</sup> in length.

Pronotum a little longer than wide, as wide at distal border as at base; sides enlarged from base to the distal third, constricted distally; distal corners not protruded; pronotum surface shiny between the punctures, with very fine microreticulation on the basal half; punctures moderately strong, not confluent, smaller and more superficial near the distal border; lateral borders thin, well marked, not reaching the distal edge of the prothorax; the distal processes of the prothorax sides, covering the eyes, extending dorsally a little beyond the lateral borders; pronotum at sides with a band of whitish and light brown, bifid scales, the band shortly extending inwards in the middle with a few white scales; pronotum base with a line of smaller whitish scales; on the discus scales are mostly brown, usually with a ill-defined strip of white scales at base of the median line; at sides, scales are larger and wider, 2.5-3 times longer than wide, split for 1/3 or less of their length; on the pronotum discus, scales are thinner, 4 times, or more,



longer than wide and more deeply split. Prothoracic epimera strongly punctate, bare, sometimes with a few small, bifid, white setae near the distal corners; the distal process with white bifid setae.

Mesothoracic episterna bare.

Metathoracic epimera narrow, with a single row of punctures, each puncture bearing a white seta usually divided near the tip. Metasternum at sides with white, bifid setae, in the middle with white hairs.

Legs: relatively long, with thin, distally bifid, white setae; the two claws of the protarsus in ♂ with different structures: the inner claw bifid, with the inner tooth shorter than the outer one, the split at middle length of the claw; the outer claw appendiculate with a large basal tooth; dorsal side of both claws regularly curved to the apex; all the other claws in ♂ and all the claws in ♀ appendiculate, with a well developed tooth near the base; tooth at the base of the mesotibial emargination acute, weakly projecting, its height about 1/4 of the mesotibial width at that point.

Elytra elongate (length/width at humeral level = 1.5) with a distinct impression on the basal third; sides feebly curved to the distal third, then regularly curved to the apical corners; interstriae of the elytra with oblong, brown scales, 4 times longer than wide and split for 1/3 or less of their length, and with spots and transverse strips of white, wider scales, 3-4 times longer than wide; brown scales arranged mostly in a single row on each interstria, in a double row on the last interstria; white scales making a curved strip from the shoulder to the suture along the basal impression of the elytron, a small spot at side beyond the middle, a transverse band at the beginning of the declivity and covering the three outermost interstriae; punctures of the striae large, each with a whitish or dark brown, usually enlarged, small seta on the discus, with wider setae on the three outermost striae; interstriae convex, narrower than the diameter of the strial punctures; epipleura moderately wide, with a row of small white setae along the fold of the inner margin.

Aedeagus (figs 160-161).

Spermatheca (fig. 162).

DERIVATIO NOMINIS. The taxon name refers to the country where this subspecies has been collected.

VERIFIED DISTRIBUTION: Rep. Pop. Congo.

NOTE. For the explanations of the specimen labels see De Saeger 1956. A large part of the specimens were collected in savanna environment.

**Pachnephorus (Pachnephorus) demeyeri** n. sp.

TYPE LOCALITY: Rep. Pop. Congo: Parc National de la Garamba.

TYPE DEPOSITORY: MRAC.

HOLOTYPE LABELS: Congo Belge, P. N. G., Miss. H. De Saeger, II/hd/8, 3-viii-1951, Réc. H. De Saeger, 2195 [printed white label]; R. Det. 7943 [printed white label]; Holotypus, *Pachnephorus (Pachnephorus) demeyeri* n. sp., S. Zoia det. 2007 [printed red label] (♂).

PARATYPI. Congo Belge, P. N. G., Miss. H. De Saeger, I/a/M, 7-vi-1950, Réc. G. Demoulin, 585 (9 exx., MRAC; 3 exx., SZcoll); Congo Belge, P. N. G., Miss. H. De Saeger, I/a/2, 17-vii-1950, Réc. G. Demoulin, 704 (1 ex., MRAC); Congo Belge, P. N. G., Miss. H. De Saeger, I/a/3, 12-vi-1950, Réc. G. Demoulin, 595 (2 exx., MRAC); Congo Belge, P. N. G., Miss. H. De Saeger, I/b/3", 16-vi-1950, Réc. G. Demoulin, 610 (1 ex., MRAC); Congo Belge, P. N. G., Miss. H. De Saeger, II/fd/17, 11-vi-1951, Réc. H. De Saeger, 1890 (4 exx., MRAC; 1 ex., SZcoll); Congo Belge, P. N. G., Miss. H. De Saeger, I/o/1, 30-vi-1950, Réc. G. Demoulin, 656 (7 exx., MRAC; 2 exx., SZcoll); Congo Belge, P. N. G., Miss. H. De Saeger, II/fc/18, 12-x-1951, Réc. H. De Saeger, 2653 (7 exx., MRAC; 2 exx., SZcoll); Congo Belge, P. N. G., Miss. H. De Saeger, II/fc/18, 24-xi-1951, Réc. H. De Saeger, 2805 (1 ex., MRAC); Congo Belge, P. N. G., Miss. H. De Saeger, II/fd/16, 29-x-1951, Réc. H. De Saeger, 2697 (1 ex., MRAC); Congo Belge, P. N. G., Miss. H. De Saeger, II/fd/17, 28-v-1951, Réc. H. De Saeger, 1824 (1 ex., MRAC); Congo Belge, P. N. G., Miss. H. De Saeger, II/fd/17, 31-viii-1951, Réc. H. De Saeger, 2341 (1 ex., MRAC); Congo Belge, P. N. G., Miss. H. De Saeger, II/td/18, 6-x-1951, Réc. H. De Saeger, 2522 (5 exx., MRAC; 1 ex., SZcoll); Congo Belge, P. N. G., Miss. H. De Saeger, II/fd/18, 6-v-1952, H. De Saeger, 3429 (1 ex., MRAC); Congo Belge, P. N. G., Miss. H. De Saeger, II/fd/17, 11-vi-1951, Réc. H. De Saeger (8 exx., MRAC; 3 exx., SZcoll); Congo Belge, P. N. G., Miss. H. De Saeger, II/fd/17, 6-viii-1951, Réc. H. De Saeger (2 exx., MRAC); Congo Belge, P. N. G., Miss. H. De Saeger, II/fd/17, 18-viii-1951, Réc. H. De Saeger, 2281 (3 exx., MRAC; 1 ex., SZcoll); Congo Belge, P. N. G., Miss. H. De Saeger, II/fd/18, 28-vi-1952, H. De Saeger, 3708 (1 ex., MRAC); Congo Belge, P. N. G., Miss. H. De Saeger, II/gc/6, 9-viii-1951, Réc. H. De Saeger, 2243 (1 ex., MRAC); Congo Belge, P. N. G., Miss. H. De Saeger, II/gd/4, 12-viii-52, H. De Saeger, 3932 (2 exx., MRAC); Congo Belge, P. N. G., Miss. H. De Saeger, II/gd/17, 30-vi-1952, H. De Saeger, 3719 (1 ex., MRAC); Congo Belge, P. N. G., Miss. H. De Saeger, II/fc/18, 12-x-1951, Réc. H. De Saeger, 2653 (1 ex., MRAC); Congo Belge, P. N. G., Miss. H. De Saeger, Akam, 19-v-1950, Réc. H. De Saeger, 528 (2 exx., MRAC; 1 ex., SZcoll); Congo Belge, P. N. G., Miss. H. De Saeger, Pp.K/55, 26-x-1951, Réc. H. De Saeger, 2680 (1 ex., MRAC); [Rep. Pop. Congo] P. N. G., Miss. H. De Saeger, PpK, 90/115, 3-XII-1951, Réc. H. De Saeger, 2860 (1 ♀, MRAC);

[Rep. Pop. Congo] Tshuapa: Bamanía, V-1952, R. P. Hulstaert (1 ex., MRAC); [Rep. Pop. Congo] Tshuapa: Bamanía, III-1962, Rév. P. Hulstaert (1 ex., MRAC); [Rep. Pop. Congo] Tshuapa: Bamanía, VI-1963, R. P. Hulstaert (1 ex., MRAC); [Rep. Pop. Congo] Tshuapa: Bamanía, VIII-1963, Rév. P. Hulstaert (1 ex., MRAC; 1 ex., SZcoll); [Rep. Pop. Congo] Zaïre: Bamanya, VIII-1971, R. P. Hulstaert (1 ♀, MRAC); [Rep. Pop. Congo] Eala, 21-I-1921, Dr H. Schoudeten (1 ♀, MRAC); [Rep. Pop. Congo] Eala, VIII-1930, J. Vrydagh (1 ex., MRAC); [Rep. Pop. Congo] Eala, II-1935, J. Ghesquière (1 ex., MRAC); [Rep. Pop. Congo] Wombali, IX-1913, P. Vanderijst (1 ex., MRAC); [Rep. Pop. Congo] Stanleyville, X-1930, J. Vrydagh (1 ex., MRAC); [Rep. Pop. Congo] Flandria, II-1931, Rév. P. Hulstaert (1 ex., MRAC); [Rep. Pop. Congo] Ubangi: Nouvelle-Anvers, 9-XII-1952, P. Basilewsky, a la lumière (1 ♀, MRAC).

DESCRIPTION. Body length of the holotypus 2.4 mm (length range in the examined specimens: 2.2-2.9 mm).

Habitus as in figs 35-36. Body dark brown, feebly shiny; palpi, antennae, legs and elytra brown, slightly paler than the body.

Head: frons evenly convex, distally flat, not raised between the antennal fossae at the beginning of the clypeus; the surface punctured, between the eyes also; clypeus inclined, shiny, impunctate, with a few setae; the frons with short, regularly arranged scales, which are about twice as long as wide on average, split for somewhat less than 1/2 their length and strongly curved; scales whitish, with two spots of brown scales at sides of the median line; surface of the frons between the eyes with thinner bifid scales; eyes relatively small and convex (in frontal view the distance between the eyes is 3 times the width of a single eye), without any sulcus above. Antennae: 2<sup>nd</sup> antennal segment as long as first and half as wide, 3<sup>rd</sup> a little longer than the 4<sup>th</sup>, 5<sup>th</sup> longer than the 4<sup>th</sup> and the 6<sup>th</sup>, 7<sup>th</sup> a little longer than wide, 8<sup>th</sup> to 10<sup>th</sup> as long as wide, 11<sup>th</sup> 1.4 times the 10<sup>th</sup> in length.

Pronotum a little longer than wide, as wide at base as at distal border; sides enlarged from base to middle, constricted distally; lateral borders obsolete distally; the distal processes of the prothorax sides, covering the eyes, extending dorsally a little beyond the lateral borders; scales on the sides of the pronotum short and broad, 1.5 times as long as wide, split for less than 1/2 of their length; scales thinner, 2-3 times longer than wide, on the pronotum discus and along the base; most scales are brown on the discus, light brown or whitish at sides. Prothoracic epimera mostly bare, strongly punctate, with a few small, whitish scales near the distal corners; the distal process with whitish, thin, bifid setae.

Mesothoracic episterna bare.

Metathoracic epimera narrow, with a row of punctures, usually

more or less doubled in a part or in all of its length, each puncture with a white seta. Metasternum covered at sides by wide white bifid setae, in the middle by white hairs.

Legs: long, with oblong, distally bifid, white scales; ♂ protarsi slightly widened, in particular the 3<sup>rd</sup> tarsomere; claws of the tarsi appendiculate in both sexes with a right-angled basal tooth (fig. 109); tooth at the base of the mesotibial emargination projecting, acute, its height a little more than 1/3 of the mesotibial width at that point.

Elytra elongate (length/width at humeral level = 1.5), with a feeble transverse impression on the basal third; sides feebly curved to middle, then regularly curved to the apical corners; scales on the interstriae resemble the ones on the pronotum, the white ones diffuse on the whole elytra, mixed with light brown ones; dark brown scales are mainly on the elytral discus and at the beginning of the declivity; scales arranged mostly in double or triple rows on each interstria, in a single row only in the impressions on the basal third of the elytra; punctures of the striae large, without setae; interstriae convex, narrow, on the elytral discus their width narrower than the diameter of the striae punctures; epipleura moderately wide, with a row of small whitish hairs along the fold of the inner margin (sometimes missing).

Aedeagus (figs 163-164).

Spermatheca (fig. 165).

DERIVATIO NOMINIS. The species is named after Marc De Meyer, for his help during my visits to the MRAC.

VERIFIED DISTRIBUTION: Rep. Pop. Congo.

NOTES. The holotypus was collected by sweeping on a "strate d'Herbacées paludicoles" in a "milieu confiné et humide" (De Saeger 1956). No host plant was identified for this species, nevertheless nearly all the specimens were collected by sweeping on Gramineae, or on grass including also Gramineae, usually near a river or a wet place.

### **Pachnephorus (Pachnephorus) f a b i a n a e** n. sp.

TYPE LOCALITY: Congo, Brazzaville.

TYPE DEPOSITORY: MNHN

HOLOTYPE LABELS: Museum Paris, Congo. Brazzaville, Mission Chari-Tchad, Dr J. Decorse 1904 [printed and partially handwritten blue label]; Holotypus, *Pachnephorus* (*Pachnephorus*) *fabianae* n. sp., S. Zoia det. 2007 [printed red label] (♀).

PARATYPI. Museum Paris, Congo. Brazzaville, Mission Chari-Tchad, Dr J. Decorse 1904 (2 ♂♂, MNHN; 1 ♀, SZcoll); [Rep. Pop. Congo] Wombali, VIII.1913, P. Vanderijst (1 ex., MRA); [Rep. Pop. Congo] Mulongo (Mafinge), 10/17-VII-1950, Dr P. Gérard (2 ♀♀, MRAC); [Rep. Pop. Congo] Kunungu, 5-IV-1921, Dr H. Schouteden (1 ♀, MRAC); Congo Belge, P. N. U., Mabwe (r. E. lac Upemba) 585 m, 12-I-1949, Mis. G. F. de Witte, 2204a (1 ♀, MRAC); Congo Belge, P. N. G., II/fd/17, 15-V-1951, Réc. H. De Saeger, 1733 (1 ♂, SZcoll); Congo Belge, P. N. G., II/fd/17, 9-VI-1951, Réc. H. De Saeger, 1888 (1 ♀, SZcoll); Congo Belge, P. N. G., II/fd/17, 4-IX-1951, Réc. H. De Saeger, 2380 (1 ♀, MRAC); Congo Belge, P. N. G., II/fd/15, 9-X-1951, Réc. H. De Saeger, 2578 (1 ♂, 1 ♀, MRAC); 1 ♀, SZcoll); Congo Belge, P. N. G., II/fc/18, 29-XI-1951, Réc. H. De Saeger, 2819 (1 ♂, SZcoll); Congo Belge, P. N. G., II/gc/15, 17-XII-1951, Réc. H. De Saeger, 2916 (1 ♀, MRAC); Congo Belge, P. N. G., II/gb/14, 8-III-1952, H. De Saeger, 3177 (1 ♀, MRAC); Congo Belge, P. N. G., II/fc/11, 25-VI-1952, H. De Saeger, 3695 (1 ♂, MRAC); Congo Belge, P. N. G., II/fd/18, 30-V-1952, H. De Saeger, 3548 (1 ♀, SZcoll); Congo Belge, P. N. G., II/gd/17, 30-VI-1952, H. De Saeger, 3719 (1 ♀, MRAC).

DESCRIPTION. Body length of the holotypus 3.2 mm (length range in the examined specimens: 2.6-3.2 mm).

Habitus as in figs 37-38. Body dark brown, moderately shiny; palpi, antennae, legs and, elytra brown, slightly paler than the body.

Head: frons evenly convex, distally with a median longitudinal thin groove; feebly depressed above the antennal fossae, feebly and transversely raised between the antennal fossae at the beginning of the clypeus; the surface punctured, with strong microreticulation between the punctures on the whole surface; the clypeus moderately inclined, impunctate in the middle, with a few setae at sides; the frons with elongate scales, about 3.5-4 times as long as wide on average and strongly curved, split for more than 1/3 of their length; scales are light brown with a few whitish ones; surface of the frons between the eyes with thin, moderately long, whitish setae; eyes large and highly convex (in frontal view the distance between the eyes is 2.8 times the width of a single eye), without any sulcus above. Antennae: 2<sup>nd</sup> antennal segment as long as the first, a little less than half in diameter, 3<sup>rd</sup> and 4<sup>th</sup> subequal, 5<sup>th</sup> a little longer than the 6<sup>th</sup> and 3 times longer than wide, 7<sup>th</sup> a little longer than wide, 8<sup>th</sup> to 10<sup>th</sup> as long as wide, 11<sup>th</sup> 1.4 times the 10<sup>th</sup> in length.

Pronotum a little wider than long, as wide at base as at distal border; sides feebly sinuate near the base, enlarged from base to the distal third and briefly constricted distally; lateral borders well marked, reaching the distal edge of the prothorax; the distal process of the

prothoracic epimera starts at the level of the lateral margin of the pronotum; scales 3-5 times as long as wide, thinner on the median line of the pronotum, more enlarged at sides, split for half their length; scales are mixed, white and light-brown, mostly brown at sides of the pronotum median line. Prothoracic epimera strongly punctured, with strong microreticulation, bare; the distal process with thin and bifid white scales.

Mesothoracic episterna bare.

Metathoracic epimera, in part of their length, with a double row of punctures, each with a single white seta. Metasternum covered at sides by wide bifid white setae, in the middle by white hairs.

Legs: moderately long, with thin, distally bifid, white scales; the two claws of the protarsus in ♂ with different structures: the inner claw bifid, with the inner tooth only a little shorter than the outer one, the split at over half the claw's length; the outer claw appendiculate with a strong basal tooth; external side of both claws regularly curved to the apex; all the other claws in ♂ and all the claws in ♀ appendiculate, with a well developed tooth near the base; tooth at the base of the mesotibial emargination acute, projecting, its height about 1/3 of the mesotibial width at that point.

Elytra long and moderately wide (length/width at humeral level = 1.5), with a feeble transverse impression on the basal third, which does not reach the suture; sides feebly curved for 2/3 of their length, then regularly curved to the apical corners; scales on the interstriae resemble the ones on the pronotum, whitish and light brown or golden, the white ones mostly gathered in an ill-defined diagonal band along the basal impression of the elytra, in a small spot near the middle and in a few groups on the declivity; scales in ♀♀ are arranged mostly in double series on each interstria, in places in triple series, in single series only on the elytral basal impressions; usually in ♂ the brown scales are more widely arranged in single series on each interstria; punctures of the striae without setae on the discus, each with very small hairs on the elytral sides; interstriae on the discus flat, 2-3 times wider than the diameter of the strial punctures; in some specimens they are thinner, but wider than the diameter of the punctures; at the elytral sides the interstriae are convex and narrower; epipleura moderately wide, with a series of whitish hairs along the fold of the inner margin.

Aedeagus (figs 166-167).

Spermatheca (fig. 168).

DERIVATIO NOMINIS. I dedicate this taxon to my wife Fabiana, because she only can be so kind to accept my entomological studies and all the time they require.

VERIFIED DISTRIBUTION: Congo, Rep. Pop. Congo.

NOTE. I refer with doubt to this taxon a single specimen from Zambia (23.iii.1993, 13°06'03"S/31°47'32"E, South Luangwa NP, Mfuwe Crocodile Farm, 450 m, leg. M. Uhlig (1 ♀, MNHU)).

### **Pachnephorus (Pachnephorus) fasciatus spp. fasciatus**

Burgeon, 1941

*Pachnephorus fasciatus* Burgeon, 1941: 268.

TYPE LOCALITY: Rep. Pop. Congo, Lubulu.

TYPE DEPOSITORY: MRAC.

HOLOTYPE LABELS: Holotypus [printed red label]; Musée du Congo, Lubulu, 13.III.1911, L. Burgeon [printed and handwritten white label]; *Pachnephorus fasciatus* type Burg. [handwritten white label].

OTHER EXAMINED MATERIAL. Musée du Congo, Lubulu, 13.III.1911, L. Burgeon (2 Paratypi, MRAC); Musée du Congo, Kikwit, 1920, P. Vanderijst (1 Paratypus, BMNH). CAMEROON: Duala, IX.1912, v. Rothkirch S.G. (4 exx., MNHU; 2 exx. SZcoll). CENTRAL AFRICAN REPUBLIC: Haut Obangui, Bessou (Mission), amont de Fort de Possel, mission Chari-Tchad, Dr J. Decorse, 1904, septembre (1 ex., MNHN). GABON: Lac Oguémoué, J. De Muizon (1 ex., MNHN); Riv. Awagné, J. De Muizon (1 ex., MNHN); Komo, Contreforts des Mts de Cristal, 400 m, 1-15-X-1969, A. Villiers (3 exx., MNHN; 2 exx. SZcoll); Cap Esterias, 30 km NW Libreville, 15-30-IX-1969, A. Villiers (1 ex., MNHN). REP. POP. CONGO: Eala, II.1936, J. Ghesquière (1 ex., MRAC); Eala, III.1935, J. Ghesquière (1 ex., SZcoll); Mayidi, 1943, Rév. P. Van Eyen (MRAC); Watsa à Niangara, VII.1920, L. Burgeon (1 ex., MRAC); P. N. G., Miss. H. De Saeger, II/fd/17, 31-viii-1951, Rév. H. De Saeger, 2341 (1 ex., BMNH); Tshuapa: Bamanya, 31.III. 1963, Rév. P. Hulstaert (1 ex., SZcoll); Tshuapa: Bamanya, V.1963, Rév. P. Hulstaert (1 ex., MRAC); Mbandaka, 16.17. V.1962, lumière (1 ex., MRAC); Itouri, L. Burgeon 1918 (1 ex., MNHN); Daula, Afr., Coll. David (1 ex., NMPC). ANGOLA: Alto Cuilo, riv. Teba, Muchito, 4103-11, VI.1954, A. de Barros Machado (1 ex., MRAC).

DESCRIPTION. Body length of the holotypus 2.2 mm (length range in the examined specimens: 2.1-2.6 mm).



Habitus as in figs 39-40. Body dark brown, not metallic, darker above; palpi, antennae and tarsi reddish.

Head: frons evenly convex, the distal part flat, separated from the clypeus by a low narrow ridge; surface covered by short scales, a little longer than wide and split for 1/2 of their length; scales of two colours, white on the entire surface with a spots of brown scales at sides of the frontal median line; setae finer near the clypeus; eyes moderately large and convex (the horizontal diameter as long as the 2<sup>nd</sup> and 3<sup>rd</sup> antennal segments together; in frontal view the distance between the eyes is 2.8 times the width of an eye) with a thin and superficial sulcus above.

Antennae: 2<sup>nd</sup> antennal segment as long as first and half as wide, 3<sup>rd</sup> and 4<sup>th</sup> subequal, twice as long as wide, 5<sup>th</sup> three times as long as wide and 1.5 times longer than the 6<sup>th</sup>, 7<sup>th</sup> to 10<sup>th</sup> transverse, 11<sup>th</sup> twice as long as 10<sup>th</sup>.

Pronotum a little wider at distal border than at base; sides evenly widening from base and shortly constricted distally, the widest point before middle; lateral border complete, anterior angles not prominent; scales twice as large as on the head: most scales white on the sides of the pronotum, at base and on the median line, mostly brown at sides of the median line of the discus. Prothoracic epimera bare, strongly punctate; the distal process with fine bifid setae.

Mesothoracic episterna bare.

Metathoracic epimera narrow, with a single row of punctures each of them with a single very short seta. Metasternum covered by white bifid wide setae.

Legs: moderately long, robust, with oblong white scales, finer than those on the elytra; protarsi in males somewhat enlarged, both claws of the ♂ protarsus appendiculate: the inner tooth of the claw flat, large, reaching 1/3 of the claw's length, the claw curved in a right angle; tooth at the base of the mesotibial emargination short, its height not exceeding 1/3 of the mesotibial width at that point.

Elytra moderately short (length/width at humeral level = 1.4), with sides only weakly curved to the middle, then regularly curved to the apical corners; scales on the interstriae in a single or double row on each interstria; scales resemble those on the prothorax but, in the majority, with a shorter distal split; most scales brown throughout, with spots and bands of white scales; punctures of the striae large, without setae or with a very fine seta; interstriae convex, narrow, their



width near half the diameter of the strial punctures; epipleura moderately large, with a row of very fine pubescence all along the fold of the inner margin.

Aedeagus (figs 169-170).

Spermatheca (fig. 171).

DISTRIBUTION CITED IN LITERATURE. *P. f. fasciatus* was reported in the original description from Mayumbe (not seen by me), Kikwit, Bokuma and Lubulu-Maniema (Burgeon 1941).

After examination of specimens, I can give the following corrections to citations of *P. f. fasciatus* in literature: Ruanda: Mahembre, 1400 m, terr. Nyanza (Bryant 1956) must be referred to *P. gardinii* n. sp.; Kagogo, 1900 m, terr. Ruhengeri (Bryant 1956) must be referred to *P. torridus*; Guinea Portoghese: Suzana (Brivio 1960) must be referred to *P. torridus*; Tanganyika Terr.: Longido, Masai Distr., 1500 m (Bryant 1960) must be referred to *P. senegalensis*. I had not the opportunity to verify the citation for Kinazi, 1600 m, terr. Nyanza (Bryant 1956).

VERIFIED DISTRIBUTION: Cameroon, Central African Rep., Gabon, Rep. Pop. Congo, Angola.

***Pachnephorus (Pachnephorus) fasciatus occidentalis***  
n. ssp.

TYPE LOCALITY: Nigeria: Opobo.

TYPE DEPOSITORY: MZLU.

HOLOTYPE LABELS: Nigeria SE.St., near Opobo, 3.7.1973, R. Linnavuori [white printed label]; Holotypus, *Pachnephorus (Pachnephorus) fasciatus occidentalis* n. ssp., S. Zoia det. 2007 [printed red label] (♂).

PARATYPI. Nigeria SE.St., near Opobo, 3.7.1973, R. Linnavuori (79 exx., ZMUH; 13 exx., SZcoll); Nigeria R St., nr. Mbiama, 4-5.7.1973, R. Linnavuori (6 exx. ZMUH; 2 exx., SZcoll); Gambia, River Tanji, 3 km SW Brufut, 28.II.1977, Loc. No. 9, UTM 28PCK087773, Cederholm, Danielsson, Larsson, Mireström, Norling, Samuelsson (1 ex., MZLU); Gambia, 1 km N Tanji River Bridge, at light in dense forest, 18.30-20.00, 19.XI.1977, UTM 28PCK0578, Loc. 39, Cederholm, Danielsson, Hammarstedt, Hedqvist, Samuelsson (1 ex., MZLU); Gambia, 2 km S Kitty, 7 km SSW Brikama Road Junction, in and at fresh water stream, 27.II.77, Loc. No. 7, UTM 28PCK17-61,

Cederholm, Danielsson, Larsson, Mireström, Norling, Samuelsson (1 ex., MZLU); Senegal, in forest, 1 km NE Djibelor, about 7.5 km SW Ziguinchor, swept along roadside, 8.XI.1977, UTM 28PCJ5687, Loc. 29, Cederholm, Danielsson, Hammarstedt, Hedqvist, Samuelsson (1 ex., MZLU); Guinea Bissau: Regiao Cacheu, 10 km W of Sao Domingos, 31.X.1992, leg. M. Söderlund (1 ex., MZLU); Guinea Bissau: Cacheu, 5 km W Bula, 4.VII.1993, leg. S. Persson (2 exx., MZLU; 1 ex., SZcoll); Sierra Leone, Makeni, 12°03'W, 8°53'N, 27.XI.1993, loc. 9, light trap 18-21, leg. L. Cederholm, R. Danielsson, R. Hall (1 ex., MZLU; 1 ex., SZcoll).

DESCRIPTION. Body length of the holotypus 2.3 mm (length range in the examined specimens: 2.0-3.0 mm).

Habitus as in figs 41-42. Body dark brown, paler on the dorsum, feebly shiny; palpi, antennae and legs brown, slightly paler than the dorsum.

Head: frons evenly convex, distally flat, not raised between the antennae at the beginning of the clypeus; the surface punctured, between the eyes also; the clypeus feebly inclined, impunctate, bare; the frons with short, enlarged scales, 2-2.5 times longer than wide on average, split for half length and strongly curved; scales are white except for two spots of light brownish ones; surface of the frons between the eyes with small, whitish setae; eyes moderately large and strongly convex (in frontal view the distance between the eyes is 2.4 times the width of an eye), without any sulcus above. Antennae: 2<sup>nd</sup> antennal segment as long as first and half as wide, 3<sup>rd</sup> and 4<sup>th</sup> subequal, 5<sup>th</sup> a little longer than the 4<sup>th</sup> and the 6<sup>th</sup>, 7<sup>th</sup> a little longer than wide, 8<sup>th</sup> to 10<sup>th</sup> as long as wide, 11<sup>th</sup> 1.4 times the 10<sup>th</sup> in length.

Pronotum a little longer than wide, as wide at base as at distal border; sides widening from base to the distal third and shortly constricted distally; lateral borders well marked, not reaching the distal edge of the prothorax because of the presence of the distal process of the epimera which spreads beyond the level of the lateral border; scales twice as long as wide, thinner on the discus, split for 1/2 or more of their length; scales are mostly brown on the discus, mostly whitish or light brown at sides. Prothoracic epimera bare, strongly punctate; the distal process with golden, deeply bifid setae.

Mesothoracic episterna bare.

Metathoracic epimera narrow, with a single row of punctures, each of them with a single white seta. Metasternum covered at sides by wide white bifid setae, in the middle by white hairs.

Legs: long, with oblong, distally bifid, white scales; all the claws appendiculate, both in male and female, with a strong basal tooth;

tooth at the base of the mesotibial emargination small, its height about 1/4 of the mesotibial width at that point.

Elytra relatively short (length/width at humeral level = 1.3 in the holotypus), with a feeble transverse impression on the basal third; sides subparallel or feebly curved to middle, then regularly curved to the apical corners; scales on the interstriae smaller than those on the pronotum, the white ones mostly gathered in four spots and along the lateral edges; the brown scales arranged mostly in a single row on each interstria; punctures of the striae large, without setae; interstriae convex, narrower than the diameter of the strial punctures; epipleura moderately wide, with small hairs along the fold of the inner margin or even sometimes bare.

Aedeagus (figs 172-173).

Spermatheca (fig. 174).

DERIVATIO NOMINIS. This subspecies occurs in an occidental region compared to the area of the nominal subspecies.

VERIFIED DISTRIBUTION: Senegal, Gambia, Guinea Bissau, Sierra Leone, Nigeria.

NOTE. I refer with doubt to this taxon a single specimen from Senegal (1 km NW Bignona 26 km N Ziguinchor, at light, 19.15-20.30, 3.III.1977, Loc. No. 14, UTM 28PCK654170, Cederholm, Danielsson, Larsson, Mireström, Norling, Samuelsson (1 ex., MZLU)) showing the following differences from typical *P. fasciatus occidentalis* n. ssp.: larger size (3 mm long), larger number of white scales on the dorsum, denser and more prominent white pubescence along the fold of the inner margin of the epipleura and presence of white bifid scales near the distal angles of the mesothoracic episterna.

### **Pachnephorus (Pachnephorus) gardinii** n. sp.

TYPE LOCALITY: Etiopia, Kaffa, Anderaccia, Gurgutto natural bridge.

TYPE DEPOSITORY: MSNM.

HOLOTYPE LABELS: Etiopia - Kaffa - Loc. 18, Anderaccia, ponte naturale di Gurgutto,

m 1650 circa - 26-X-1973 [printed white label]; P. Brignoli leg. [printed white label]; Holotypus, *Pachnephorus* (*Pachnephorus*) *gardinii* n. sp., S. Zoia det. 2007 [printed red label] (♂).

PARATYPI. Etiopia, Kaffa, Loc. 18, Anderaccia, ponte naturale di Gurgutto, m 1650 circa, 26-X-1973, P. Brignoli leg. (2 ♂♂, 3 ♀♀, MSNM; 2 ♂♂, 1 ♀, SZcoll); Etiopia, Kaffa, Loc. 16, Baca, m 1800 circa, 25-X-1973, P. Brignoli leg. (1 ♂, MSNM); Etiopia, Illubabor, Loc. 77, Bedelle, m 1900, 27-V-1975, P. Brignoli e V. Cottarelli leg. (2 ♀♀, MSNM); Ethiopie, Illubabor Prov.: Gambela (Black light), 27.VIII.1972, R. O. S. Clarke (1 ♂, MRAC); Ethiopie, Illubabor prov., Pokwo, Baro riv., 25.VIII.1972, R. O. S. Clarke (2 ♂♂, 1 ♀, MRAC; 1 ♂, 1 ♀, SZcoll); Ethiopie, Illubabor Prov.: 15 km N-W of Chora, alt. 1600 m, VI.[19]73, G. de Rougemont (2 ♂♂, 2 ♀♀, MRAC; 1 ♀, SZcoll); Ethiopie, Kaffa Prov., Jimma, VII/VIII.1971, G. de Rougemont (1 ♂, MRAC); Ethiopie, Jimma, 1700 m, 5/28.VII.1971, R. O. S. Clarke (1 ♀, MRAC); Abyssinia, Hawash Railway Stn., circa 3,500 ft. 2.ix.1926, J. Omer Cooper (1 ♂, BMNH); Abyssinia, 76.36 (1 ♂, BMNH).

DESCRIPTION. Body length of the holotypus 2.7 mm (length range in the examined specimens: 2.4-3.1 mm).

Habitus as in figs 43-44. Body dark brown to blackish, shiny, not metallic; palpi, basal segments of the antennae and legs reddish brown, paler than the body.

Head: frons evenly convex to the region between the eyes which is moderately impressed, clearly transversely raised between the antennal fossae at the beginning of the clypeus (fig. 105); the clypeus inclined, shiny, with a few punctures and setae at sides; the frons with oblong, regularly arranged scales: in the middle of the frons the scales are 3-4 times longer than wide, moderately curved, split for 1/2 or more of their length; scales are white with two spots of light brown scales at sides of the median line; surface between the eyes, to the clypeus, with thinner, white setae; surface of the frons punctate, shiny, with fine but evident microreticulation; eyes large and convex (in frontal view the distance between the eyes is about 2.6 times the width of a single eye in ♂, 3 times in ♀) with a very thin and superficial sulcus above which is usually confluent with the depressed area above the antennal fossae (fig. 105). Antennae with reddish brown basal segments and last five segments darker: 2<sup>nd</sup> antennal segment as long as first and half as wide, 3<sup>rd</sup> subequal to 4<sup>th</sup>, less than 1.5 times longer than wide, 5<sup>th</sup> a little longer than 6<sup>th</sup>, 7<sup>th</sup> a little wider than long, 8<sup>th</sup> and 9<sup>th</sup> transverse, 10<sup>th</sup> subquadrate, 11<sup>th</sup> 1.6 times the 10<sup>th</sup> in length.

Pronotum as long as wide, a little wider at distal border than at base; sides shortly sinuate near the base, widening from base to the

distal third, constricted distally; distal corners not projecting; surface of the pronotum shiny between the punctures, usually with very fine microreticulation in the basal portion; punctures strong, deep, not confluent, smaller and more superficial near the distal border; lateral borders thin, well marked, not reaching the distal edge of the prothorax; the distal process of the prothorax sides, covering the eyes, extending dorsally a little beyond the lateral borders; pronotum at sides with a band of white and light brown, bifid scales; on the discus scales are mostly brown, usually with an ill-defined thin strip of white scales along the median line; at sides, scales are wider, 2-3 times longer than wide, split for 1/3-1/2 of their length; on the pronotal discus, scales are thinner, 3-4 times longer than wide and with the split more divergent. Prothoracic epimera strongly punctate, with strong microreticulation, bare except for the punctures near the distal corners which bear bifid, white scales; the distal process with white bifid setae.

Mesothoracic episterna bare.

Metathoracic epimera narrow, with a single row of punctures, each puncture with a single white seta. Metasternum covered at sides with white, bifid setae, in the middle by white hairs.

Legs: relatively long, with thin, distally bifid, white setae; the two claws of the protarsus in ♂ with different structures: the inner claw bifid, with the inner tooth shorter than the outer one, the split at over half the claw's length; the outer claw appendiculate with a strong, acute basal tooth; dorsal side of both claws regularly curved to the apex (fig. 110); all the other claws in ♂ and all the claws in ♀ appendiculate, with a well developed tooth near the base; tooth at the base of the mesotibial emargination acute, weakly projecting, its height about 1/4 of the mesotibial width at that point.

Elytra elongate (length/width at humeral level = 1.5) with a strong impression on the basal third, deeper from the 3<sup>rd</sup> to the 5<sup>th</sup> stria; sides feebly curved to the distal third, then regularly curved to the apical corners; interstriae of the elytra with brown, oblong scales, 4 times longer than wide and split for 1/3 of their length, and with small spots and strips of wider white scales, 3-4 times longer than wide, which are individually variable in number and extension; brown scales arranged in a single row on each interstria, also at the elytral sides and along the suture; white scales are arranged in small groups on the basal edge of the elytra, on the shoulder, along the basal part of the elytral sides, along the basal impression, in three small spots behind the

middle of each elytron, near the suture and at sides of the declivity; these spots of white scales are frequently greatly reduced in number and extent; punctures of the striae large, each with a white seta which is usually absent from the punctures of striae 1 to 3, two outermost striae with weakly widened setae in the punctures; interstriae convex, narrower than the diameter of the strial punctures; epipleura wide, bare.

Aedeagus (figs 175-176).

Spermatheca (fig. 177).

DERIVATIO NOMINIS. It is a pleasure to dedicate this species to my friend Giulio Gardini.

OTHER EXAMINED MATERIAL (not included in paratypes). SENEGAL: 1 km NW Bignona, N Ziguinchor, at light 19.15-20.30, 3.III.1977, Loc. No. 14, UTM 28PCK654170, Cederholm, Danielsson, Larsson, Norling, Samuelsson (1 ♂, MZLU); Richard-Toll, XI-1967, A. Descarpentries, T. Leye et A. Villiers (3 ♂♂, 4 ♀♀, MNHN); Sangalkam, VII.1971, A. Villiers (4 ♂♂, 3 ♀♀, MNHN; 1 ♂, 1 ♀, SZcoll); Sangalkam, VIII.1971, A. Villiers (1 ♂, 2 ♀♀, MNHN); Kati, 12.1913, coll. Clavareau (1 ♂, MRAC); Podor, Maindron 1881 (1 ♂, 1 ♀, MNHN). GAMBIA: River Tanji 3 km SW Brufut, at light 19.00-21.00, 28.II.1977, Loc. No. 9, UTM 28PCK087773, Cederholm, Danielsson, Larsson, Norling, Samuelsson (1 ♀, MZLU; 1 ♂, SZcoll). GUINEA BISSAU: Regiao Cacheu, 10 km W of Sao Domingos, 31.X.1992, leg. M. Söderlund (1 ♂, MZLU; 1 ♂, SZcoll). LIBERIA: Sinoe, Gbabony Camp, 11.III.1988, leg. F.-T. Krell (1 ♂, SMNS). MALI: Kogoni, X-1966, G. Schmitz (1 ♂, MRAC); Côte d'Ivoire: Bingerville, IV.1961, J. Decelle (2 exx., MRAC); idem, X.1961 (1 ex., MRAC); idem, XI.1961 (2 exx., MRAC); idem, 1/12.III.1962 (3 exx., MRAC; 33 exx. SZcoll); idem, VI.1962 (2 exx., MRAC); idem, X.1962 (2 exx., MRAC); idem, XI.1962 (2 exx., MRAC); idem, 1/15.XI.1962 (1 ex., MRAC); idem, XII, 1962 (2 exx., MRAC); idem, I.1963 (1 ex., MRAC); idem, II.1963 (2 exx., MRAC); idem, 1-18.III.1963 (2 exx., MRAC); idem, X.1963 (2 exx., MRAC); idem, XI.1963 (3 exx., MRAC; 2 exx., SZcoll); idem, XII, 1963 (3 exx., MRAC); idem, I.1964 (2 exx., MRAC); idem, II.1964 (4 exx., MRAC); idem, 23.II.1964 (1 ex., MRAC); idem, III.1964 (6 exx., MRAC); idem, 1-8.III.1964 (2 exx., MRAC); idem, IV.1964 (7 exx., MRAC; 4 exx., SZcoll); idem, V.1964 (2 exx., MRAC); Bassam [18]97 (11 exx. MNHN). GHANA: Accra Airport, 28.-29.V.1988, leg. F.-T. Krell (1 ♀, SMNS). NIGERIA: SE. St. nr Obopo, 3.7.1973, R. Linnavuori (1 ♂, 2 ♀♀, ZMUH; 1 ♂, SZcoll); Lagos, 93\_61 (1 ♂, BMNH). CHAD: Bol, Lago Ciad, IX.[19]87, leg. Melandri (1 ♂, 1 ♀, MSNM; 1 ♀, MDcoll; 1 ♂, SMNS; 1 ♂, SZcoll); Bas-Chari, env. de Douggia, 9.8.1963, J. Péricart coll. (1 ♀, MNHN). CAMEROON: Bas-Logone, Rés. forestière de Logone-Birni, Kidam, 3.VIII.1963, J. Péricart, coll. (1 ♂, MNHN); N'Kongsamba, Aou.1957, J. Cantaloube (1 ♂, 1 ♀, MNHN; 1 ♀, SZcoll). SUDAN: a. Bl. Nil, 22.10.1979, Nilufer 25 km s.v. Senaar, leg. Hieke (1 ♂, MDcoll); Blue Nile, Umm Banein, 14.11.[19]62, Linnavuori (1 ♂, ZMUH); Moyen Chari, Fort Archambault, Boungoul (Ba-Karé), Dr J. Decorse, Mai 1904 (1 ♂, MNHN). KENYA: M. Elgon, 2000 m, T. Palm, 30.I.[19]79 (1 ♂, MZLU); Kenya, M. Elgon, 1950 m, T. Palm, 24.I.[19]79 (1 ♀, MZLU); Kenya: Mt Elgon, 12.I-5.II.1979, 1900-2500 m, leg. T. Palm (1 ♂, 2 ♀♀, MZLU; 1 ♂, SZcoll); Afrique Orientale Anglaise, environs de Nairobi, Ch. Alluaud, X-XII.1908 (1 ♂, MNHN). CONGO: Brazzaville, Dr J. Decorse, Juillet 1904 (1 ♂, BMNH). REP. POP. CONGO: Haut Uele, Watsa, XI-1919, L. Burgeon (2 ♀♀, MRAC); Haut Uele,....-VII-1925,

L. Burgeon (1 ♀, MRAC); P. N. G., II/fc/18, 24-XI-1951, Réc. H. De Saeger, 2805 (1 ♂, MRAC); Mayumbé: Kiniati, 7-VI-1911, R. Mayné (1 ♂, MRAC); Mayumbe: Zobe, 4 au 12-1-1916, R. Mayné (1 ♂, MRAC); Tshuapa: Bamanía, I-1954, R. P. Hulstaert (1 ♀, BMNH); Kinchassa, Waelbroeck, 9 Nov. 1896 (1 ♂, BMNH); Kisantu -V-1919, P. Vanderyst (1 ♀, MRAC); Kisantu, 1928, R. P. Vanderyst (1 ♀, MRAC); Kisantu -1931, R. P. Vanderyst (2 ♀♀, MRAC; 1 ♀, SZcoll); Kisantu -1932, R. P. Vanderyst (1 ♂, 1 ♀, MRAC; 1 ♂, SZcoll); Haur Uelé: Moto, 1920, L. Burgeon (1 ♂, SZcoll); idem, fin-1922 (2 exx., MRAC); idem, 1923 (1 ex., MRAC); idem, -IV-V-1923 (4 exx., MRAC); idem, -VI-VII-1923 (1 ♂, MRAC); idem, XI-1922 (1 ex., MRAC); idem [no date] (1 ex., MRAC); Tshuapa: Bamanía, II-1952, R. P. Hulstaert (1 ♂, MRAC); Equateur: Bamanía, II/III-1958, Réc. P. Hulstaert (1 ♀, MRAC); idem, IV/V-1958, (1 ♂, MRAC). RWANDA: Mahembe, 1400 m, terr. Nyanza, P. Basilewsky, 13/15-I-[19]53 (1 ♂, MRAC); TANZANIA: Lukuledi, 1914, coll. Ertl (1 ♂, MRAC).

VERIFIED DISTRIBUTION: Senegal, Gambia, Guinea Bissau, Mali, Ivory Coast, Nigeria, Chad, Cameroon, Sudan, Ethiopia, Kenya, Congo, Rep. Pop. Congo, Rwanda, Tanzania.

NOTE. Some populations from the western distribution area (Senegal, Gambia, Guinea Bissau, Nigeria, Cameroon, Mali, a part of the Rep. Pop. Congo, Chad), which I refer to this taxon too, usually show a denser scales coverage of the elytra: external interstriae mostly with a double series of scales and punctures on the discus with setae.

### **Pachnephorus (Pachnephorus) gerstaeckeri** n. sp.

TYPE LOCALITY: Namibia, Caprivi Zipfel, Katima Mulilo.

TYPE DEPOSITORY: MNHU.

HOLOTYPE LABELS: Namibia bor. or., Caprivi Zipfel, Katima Mulilo, 15.-24.1.1995, leg. M. Šnizek [printed white label]; Holotypus, Pachnephorus (Pachnephorus) gerstaeckeri n. sp., S. Zoia det. 2007 [printed red label] (♂).

PARATYPI. Namibia bor. or., Caprivi Zipfel, Katima Mulilo, 15.-24.1.1995, leg. M. Šnizek (1 ♂, 2 ♀♀, SZcoll); Namibia: Rundu District, Mile 46 Agric. Research Station, 67 km SW Rundu, northern Kalahari woodland, Biota 01.005.2002.7.01.267, 18°18'09.7"S/19°15'11.9"E, light trap, 26.-28.iii.2002, leg. M. Uhlig & V. Richter (1 ♀, MNHU); idem, 27.-28.iii.2002 (1 ♀, MNHU; 1 ♀, SZcoll).

DESCRIPTION. Body length of the holotypus 2.6 mm (length range in the examined specimens: 2.4-3.0 mm).

Habitus as in figs 45-46. Body dark brown to black, shiny, with a



light metallic reflexion on the head, pronotum and elytra; palpi, antennae and legs reddish brown, paler than the body.

Head: frons evenly convex, with a superficial longitudinal groove in the middle; frons transversely depressed in the region between the eyes and weakly transversely raised between the antennal fossae at the beginning of the clypeus; the clypeus inclined, shiny, not punctate, with a few setae; the frons with oblong, moderately close scales: in the middle of the frons the scales are 4-5 times longer than wide, moderately curved, split for 1/3 of their length; scales are white with two spots of brown scales at sides of the median line; surface between the eyes, to the clypeus, with small, white setae; surface of the frons punctate, with fine microreticulation between the punctures; eyes large and convex (in frontal view the distance between the eyes is about 2.8 times the width of a single eye) with a very thin sulcus above, which is confluent with the depression which goes from one eye to the other. Antennae reddish brown, with basal segments slightly paler: 2<sup>nd</sup> antennal segment as long as first and half as wide, 3<sup>rd</sup> subequal to 4<sup>th</sup>, about 2 times longer than wide, 5<sup>th</sup> a little longer than 6<sup>th</sup>, 7<sup>th</sup> 1.4 times longer than wide, 8<sup>th</sup> to 10<sup>th</sup> a little longer than wide, 11<sup>th</sup> 1.7 times the 10<sup>th</sup> in length.

Pronotum a little wider than long, a little wider at distal border than at base; sides shortly sinuate near the base, widening from base to the distal third, constricted distally; distal corners not projecting; pronotal surface shiny between the punctures, with fine microreticulation on the basal half; punctures strong, close, not confluent; lateral borders thin, well marked, evanescent distally, not reaching the distal edge of the prothorax; the distal process of the prothorax sides, covering the eyes, extending dorsally a little beyond the lateral borders; pronotum at sides with a wide band of white (along the borders) and light brown bifid scales, on the discus scales are mixed, light brown and white, with a strip of white scales along the median line; at sides, scales are larger and wider, 3-4 times longer than wide, split for 1/3 or less of their length and covering a large part of the integument; on the pronotal discus, scales are thinner, smaller, more deeply split, leaving the integument visible. Prothoracic epimera strongly punctate, bare, sometimes with a few small setae near the distal corners; the distal process with white bifid setae.

Mesothoracic episterna bare.

Metathoracic epimera narrow, with a single row of punctures,



each puncture with a single white seta. Metasternum covered at sides with close, white, bifid setae, in the middle by white hairs.

Legs: relatively long, with thin, distally bifid, white setae; the two claws of the protarsus in ♂ bifid, with the inner tooth shorter than the outer one, the split being a little over half length of the claw; dorsal side of both claws regularly curved to the apex; the other claws in ♂ and all the claws in ♀ appendiculate, with a strong tooth near the base; tooth at the base of the mesotibial emargination acute, weakly projecting, its height less than 1/3 of the mesotibial width at that point.

Elytra elongate (length/width at humeral level = 1.6) with a distinct impression on the basal third; sides subparallel or feebly curved to the distal third, then regularly curved to the apical corners; interstriae of the elytra with brown oblong scales, 4 times longer than wide and split for 1/3 of their length, and with spots and transverse strips of wider white scales, 3 times longer than wide; brown scales arranged partly in a single row and partly in double rows on each interstria; outer interstriae mostly with white or whitish scales arranged in a double row on each interstria; punctures of the striae large, each with a white, usually enlarged, seta; interstriae convex, as wide as or narrower than the diameter of the strial punctures; epipleura wide, with very small, scattered setae along the fold of the inner margin and a few setae on the distal portion.

Aedeagus (figs 178-179).

Spermatheca (fig. 180).

DERIVATIO NOMINIS. The species is named after Carl Eduard Adolph Gerstaecker, the first entomologist who described a *Pachnephorus* species from Africa.

VERIFIED DISTRIBUTION: Namibia.

### ***Pachnephorus (Pachnephorus) grobbelarae* n. sp.**

TYPE LOCALITY: South Africa: Transvaal: Kruger National Park: Pafuri: Bobomene Research Camp.

TYPE DEPOSITORY: PPRI.

HOLOTYPE LABELS: South Africa, Tvl, Kruger Nat. Park, Pafuri, Bobomene Research

Camp, 22.26S 31.12E, 250 m, 02.ii.1994, E. Grobbelaar [printed white label]; Light trap [printed white label]; National Coll. of Insects Pretoria, S. Afr. [printed white label]; Holotypus, *Pachnephorus* (*Pachnephorus*) *grobbelarae* n. sp., S. Zoia det. 2007 [printed red label] (♂).

PARATYPI. South Africa, Kruger Nat. Park, Pafuri, Bobomene Research Camp, 22.26S 31.12E, 250m, 02.ii.1994, E. Grobbelaar (1 ♂, 4 ♀♀, PPRI; 1 ♂, 1 ♀, SZcoll); South Africa, Tvl, Kruger Nat. Park, Satara, 24.23S 31.46E, 350m, 5.ii.1988, B. Grobbelaar (1 ♂, 1 ♀, PPRI); South Africa, TVL., Loskopdam Nature Res., 25.25S 29.20E, 9-13.ii.1981, S. J. van Tonder, G. Kok (1 ♀, PPRI); South Africa, KNP, Crooke's Corner, nr. Pafuri, 22.23S 31.15E, 250m, 02.ii.1994, E. Grobbelaar, light trap (3 ♀♀, PPRI); South Africa, Natal, Ndumu Game Reserve, 26.54S 32.15E, 21-22.i.1981, I. M. Millar (1 ♂, 1 ♀, PPRI; 1 ♂, 1 ♀, SZcoll); South Africa, TVL, Pongola Poort Nat. Reserve, 27.20S 31.57E, 13-14.ii.1990, I. M. Millar (1 ♂, 2 ♀♀, PPRI; 1 ♂, SZcoll); South Africa, Natal, Leeukop, E of Pongola, 24.i.1992, Vogt & Holm (1 ♂, 4 ♀♀, PPRI; 1 ♂, 2 ♀♀, SZcoll); South Africa, NTL, Dukuduku, 28.22S 32.15E, i.1978, G. L. Prinaloo (1 ♂, 1 ♀, PPRI); Mkuzi, Zululand, Light-trap, DDT No. 619 (1 ♂, 1 ♀♀, PPRI; 1 ♂, SZcoll); R. S. Africa, 25.xi.1996, 33°24'S/25°45'E, Cape Province: Addo, Elephant NP, pond shore sievings, leg. M. Uhlig (1 ♂, 1 ♀, MNHU; 1 ♂, SZcoll); [South Africa] Zululand, Mkuzy Gm. Reserv, G. O. Cooper, B.M.-1948-275 (3 ♂♂, 6 ♀♀, BMNH; 1 ♂, 1 ♀, SZcoll); RSA, Transvaal, Hans Merensky NR, 20.I.1999, P. Schule leg. (1 ♀, SMNS); Südafrika, Kwazulu-Natal, Ndumo NR, 23.XI.2001, P. Schüle leg. (1 ♂, SMNS); RSA, KwaZulu-Natal, Ndumu Game Reserve, 20.-22.XI.2002, leg. W. Schawaller (1 ♂, 1 ♀, SMNS); A. Africa, R. E. Turner, Brit. Mus. 1923-414, Port St. John, Pondoland, Aug. 1-6.1923 (1 ♀, BMNH).

DESCRIPTION. Body length of the holotypus 2.3 mm (length range in the examined specimens: 2.2-3.3 mm).

Habitus as in figs 47-48. Body dark brown, shiny, with a light metallic reflexion; elytra usually slightly paler than the body; palpi, antennae and legs reddish brown, paler than the body.

Head: frons evenly convex to the region between the eyes which is flat in the middle, weakly transversely raised between the antennal fossae at the beginning of the clypeus; the clypeus inclined, shiny, with a few punctures and setae at sides; the frons with oblong, regularly arranged scales: in the middle of the frons the scales are more than 5 times longer than wide, moderately curved, split for 1/3 or more of their length; scales are white with two spots of light brown scales at either side of the median line; surface between the eyes, to the clypeus, with smaller, white setae; surface of the frons punctate, shiny, with fine but evident microreticulation and a short, thin, longitudinal sulcus in the middle; eyes large and convex (in frontal view the distance between the eyes is about 3 times the width of a single eye in ♂, 2.7 times in ♀) with a very thin and superficial sulcus. Antennae reddish brown: 2<sup>nd</sup> antennal segment as long as first and half as wide,

3<sup>rd</sup> subequal to 4<sup>th</sup>, 1.5 times longer than wide, 5<sup>th</sup> clearly longer than 4<sup>th</sup> and a little longer than 6<sup>th</sup>, 7<sup>th</sup> a little longer than wide, 8<sup>th</sup> to 10<sup>th</sup> subquadrate, 11<sup>th</sup> 1.7 times the 10<sup>th</sup> in length.

Pronotum slightly wider than long, a little wider at distal border than at base; sides widening from base to the distal third, constricted distally; distal corners not projecting; pronotal surface shiny between the punctures, usually with very fine microreticulation in the basal portion; punctures strong, deep, not confluent, smaller near the distal border; lateral borders thin, not reaching the distal edge of the prothorax; the distal process of the prothorax sides, covering the eyes, extending dorsally a little beyond the line of the lateral borders; pronotum at sides with a band of white bifid scales; on the discus scales are mostly brown, with a few whitish scales, usually with a thin strip of white scales along the median line; at sides, scales are wider, 3-4 times longer than wide, split for 1/3-1/2 of their length and covering a large part of the integument; on the pronotal discus, scales are thinner, 4-5 times longer than wide and with the split more strongly diverging. Prothoracic epimera strongly punctate, with a fine microreticulation, bare; the only punctures near the distal corners usually with small, white setae; the distal process with white bifid setae.

Mesothoracic episterna bare.

Metathoracic epimera narrow, with a single row of punctures, each puncture with a single white seta. Metasternum covered at sides with white, bifid setae, in the middle with white hairs.

Legs: relatively long, with thin, distally bifid, white setae; the two claws of the protarsus in ♂ with different structures: the inner claw bifid, with the inner tooth shorter than the outer one, the split a little over half the claw's length; the outer claw appendiculate with an acute basal tooth; external side of both claws regularly curved to the apex; all the other claws in ♂ and all the claws in ♀ appendiculate, with a well developed tooth near the base; tooth at the base of the mesotibial emargination acute, projecting, its height is about 1/3 of the mesotibial width at that point.

Elytra elongate (length/width at humeral level = 1.6) with an evident impression on the basal third, deeper from the 3<sup>rd</sup> to the 5<sup>th</sup> stria; sides feebly curved to the distal third, then regularly curved to the apical corners; interstriae of the elytra with brown, oblong scales, 4 times or more longer than wide and split for 1/3 of their length, and with small spots and strips of white, slightly wider scales; both brown

and white scales arranged in a single row on each interstria, at the elytral sides and along the suture also; sometimes the ultimate interstria in part with a double row of scales; the white scales usually arranged in small groups along the basal impressions of the elytra, in 2-3 small spots behind the middle of each elytron, on the declivity and along the sides of the elytra; these spots of white scales are frequently greatly reduced in number and extent; punctures of the striae large, each with a white seta which is very thin on the discus and more evident on the elytral sides; interstriae convex, narrower than the diameter of the striae punctures; epipleura wide, bare or with very small whitish setae along the fold of the inner margin.

Aedeagus (figs 181-182).

Spermatheca (fig. 183).

**DERIVATIO NOMINIS.** The species is named after Elizabeth (Beth) Grobbelaar, a well known specialist in Chrysomelidae, who has personally collected some of the specimens here described.

**OTHER EXAMINED MATERIAL** (not included in paratypes). **TANZANIA:** D. O. Afrika,...(unclear handwritten)..., Methner S. (1 ♂, MNHU); Mombo or., 9.-11.I.1996, lgt. Ing. M. Šnizek (2 ♂♂, 6 ♀♀, SZcoll); 14.XII.1997, near Mikumi, Morogoro, Werner & Lizler legg. (1 ♀, SZcoll); Utete-Rufiji Kindwitvi, 10.14.12.1993, lgt. M. Šnizek (2 ♂♂, SZcoll). **ANGOLA:** (A15) R. Giraul, 10 mls. NE Mocamedes, 27-29.ii.1972 (2 ♀♀, BMNH; 1 ♂, SZcoll); Lobito, III.1934, K. Jordan, B.M. 1934.435 (1 ♀, BMNH). **ZAMBIA:** Lusaka, Kafue City - Kafue River, m 1200, 22.XI/2.XII.1987 R. Mourglia leg. (3 ♀♀, SZcoll). **MALAWI:** 35 km SW Mokey Bay, Bushcamp, 490 m, 14°20'S/34°44'E, 27./28. viii.2001, leg. U. Göllner (1 ♂, 3 ♀♀, MNHU; 1 ♀, SZcoll); Masenjere env. (80 km S of Blantyre), 21.-22.xii.2001, J. Bezděk leg. (1 ♂, 2 ♀♀, JBColl; 1 ♂, 1 ♀, SZcoll); Jali env., (30 km SE of Zomba), 26.-27.xii.2001, J. Bezděk leg. (1 ♂, 4 ♀♀, JBColl; 1 ♀, SZcoll); Balaka env., 19.-20.xii.2001, J. Bezděk leg. (1 ♂, 2 ♀♀, JBColl; 1 ♂, SZcoll); Mulanje Mts. env., 22.-26.xii.2001, J. Bezděk leg. (3 ♂♂, 7 ♀♀, JBColl; 2 ♂♂, 2 ♀♀, SZcoll). **ZIMBABWE:** Salisbury, III.1895, G. A. K. Marshall (1 ♀, BMNH). **MOZAMBIQUE:** Zambèze, Nova Choupanga, lit du Sangadzè, P. Lesne, 21 Juin 1928 (4 ♂♂, 8 ♀♀, MNHN); Fambani, Lower Zambesi, H. B. Cott., B.M.1930-437, from Stomach of a Tree-frog (2 ♂♂, BMNH).

**VERIFIED DISTRIBUTION:** Tanzania, Angola, Zambia, Malawi, Mozambique, Rep. South Africa.

**NOTE.** I refer with doubt to this species a single ♀ specimen from Mozambique, Beira (P. Lesne, Decembre 1928 (1 ♀, MNHN)).

**Pachnephorus (Pachnephorus) lopatini** n. sp.

TYPE LOCALITY: Senegal: Bignona.

TYPE DEPOSITORY: MZLU.

HOLOTYPE LABELS: Senegal, 1 km NW Bignona, 26 km N Ziguinchor. At light 19.15-20.30, 3.III.1977, Loc. No. 14. UTM 28PCK654170 [printed white label]; Lund Univ. Syst. Dept. Sweden. - Gambia/Senegal Febr.-March 1977, Cederholm - Danielsson - Larsson - Norling - Samuelsson [printed white label]; Holotypus, Pachnephorus (Pachnephorus) lopatini n. sp., S. Zoia det. 2007 [printed red label] (♂).

PARATYPI: Senegal, 1 km NW Bignona, 26 km N Ziguinchor, at light 19.15-20.30, 3.III.1977, Loc. No. 14. UTM 28PCK654170, Cederholm - Danielsson - Larsson - Norling - Samuelsson (1 ♀, MZLU; 1 ♂, SZcoll).

DESCRIPTION. Body length of the holotypus 2.5 mm, in the paratype 2.5 mm (♂) and 2.7 mm (♀).

Habitus as in figs 49-50. Body dark brown, shiny, with paler elytra; palpi, antennae and legs reddish brown, paler than the body.

Head: frons evenly convex, distally flat, not raised between the antennae at the beginning of the clypeus; the surface with strong microreticulation between the punctures; the clypeus inclined, shiny, punctate; the frons with oblong white and light brown scales, the latter making two spots at sides of the frons median line; scales are 4-5 times as long as wide on average, split for 1/3 or more of their length and curved; surface of the frons between the eyes with thin bifid setae; eyes large and convex (in frontal view the distance between the eyes is about 2.3 times the width of a single eye in ♂ (2.5 in ♀), in the vertical diameter of the eyes clearly greater (about 1.3 times in ♂) than the horizontal diameter), without any sulcus above. Antennae reddish-brown with a darker club: 2<sup>nd</sup> antennal segment as long as first and half as wide, 3<sup>rd</sup> and 4<sup>th</sup> subequal, 2.5 times longer than wide, 5<sup>th</sup> longer than 6<sup>th</sup>, 7<sup>th</sup> a little longer than wide, 8<sup>th</sup> to 10<sup>th</sup> as long as wide, 11<sup>th</sup> 1.5 times the 10<sup>th</sup> in length.

Pronotum a little longer than wide, a little wider at distal border than at base; sides widening from base to the distal fourth (more proximal in ♀), shortly constricted distally; lateral borders well marked, reaching the distal edge of the prothorax; the distal process of the epimera ends at level of the pronotum lateral border; scales on the pronotal sides oblong, 2-3 times as long as wide, split for 1/3 or more

of their length; scales thinner on the pronotal discus, more deeply split, and a little smaller along the base; scales are light brown on the pronotal discus with some whitish scales along the median line, white and light brown at sides. Prothoracic epimera largely bare, punctate, with small, white setae only near the distal corners; the distal process with white, bifid setae.

Mesothoracic episterna bare.

Metathoracic epimera narrow, with a single row of punctures which is doubled at the proximal end, each puncture with a single white seta. Metasternum covered at sides by white bifid setae, in the middle by white hairs.

Legs: long, with oblong, distally bifid, whitish scales; all the claws appendiculate both in ♂ and ♀, with a well developed tooth near the base.

Elytra elongate (length/width at humeral level = 1.6) with a feeble transverse impression on the basal third; sides feebly curved till middle, then regularly curved to the apical corners; scales on the interstriae oblong, like the ones on the pronotum, 2-3 times longer than wide, split for 1/3 of their length; white scales forming a ill-defined transverse band on the elytral basal impression and 2-3 spots beyond middle; scales arranged mostly in a single row on each interstria, only the outermost interstria with a double row of scales; punctures of the striae large, without setae on the elytral discus, with a thin seta on the outer striae; interstriae convex, narrower than the diameter of the strial punctures; epipleura moderately wide, with a row of small white hairs along the fold of the inner margin.

Aedeagus (figs 184-185).

Spermatheca (fig. 186).

DERIVATIO NOMINIS. The species is named after Igor Lopatin, one of the few entomologists who described *Pachnephorus* from the region included in this study.

VERIFIED DISTRIBUTION: Senegal.

**Pachnephorus (Pachnephorus) malicus** n. sp.

TYPE LOCALITY: Mali: Koulikoro.

TYPE DEPOSITORY: MNHN.

HOLOTYPE LABELS: Niger, Koulikoro, Mission de Girouncourt 1910 [blue printed label]; Holotypus, *Pachnephorus (Pachnephorus) malicus* n. sp., S. Zoia det. 2007 [printed red label] ( $\delta$ ).

EXAMINED MATERIAL. Only the holotypus.

DESCRIPTION. Body length 2.5 mm.

Habitus as in figs 51-52. Body dark brown, feebly shiny; palpi, antennae, legs and elytra brown, slightly paler than the body.

Head: frons evenly convex, distally flat, feebly impressed over the antennal fossae, very feebly raised between the antennal fossae at the beginning of the clypeus; the surface punctured, between the eyes also; the clypeus feebly inclined, shiny, punctate, bare in the middle; the frons with thin oblong scales, more than 3 times longer than wide on average, split for half length or more and curved; scales whitish or light brownish; surface of the frons between the eyes with bifid scales, clearly smaller and thinner than the ones on the vertex; eyes large and convex (in frontal view the distance between the eyes is 2.8 times the width of a single eye; the maximum diameter of the eye equal to the length of the first and second antennomeres together), without any sulcus above. Antennae: 2<sup>nd</sup> antennal segment as long as first and half as wide, 3<sup>rd</sup> and 4<sup>th</sup> subequal, 5<sup>th</sup> and 6<sup>th</sup> subequal and a little longer than 4<sup>th</sup>, 7<sup>th</sup> a little longer than wide, 8<sup>th</sup> to 10<sup>th</sup> as long as wide, 11<sup>th</sup> 1.5 times the 10<sup>th</sup> in length.

Pronotum a little longer than wide, as wide at base as at distal border; sides widening from base to the distal third and constricted distally; lateral borders well marked, not reaching the distal edge of the prothorax because of the presence of the distal process of the epimera which spreads a little beyond the lateral border; scales on the pronotal sides 2-3 times longer than wide, split for less than 1/2 of their length; scales are thinner on the pronotal discus and along the base; most scales brown on the discus, light brown or whitish at sides. Prothoracic epimera bare, strongly punctate; the distal process with whitish, thin, bifid setae.

Mesothoracic episterna bare.

Metathoracic epimera narrow, with a single row of punctures, each of them with a single white seta. Metasternum covered at sides by white, bifid, broad setae, in the middle by white hairs.

Legs: moderately long, with oblong, distally bifid, white scales; the two claws of the protarsus ( $\delta$ ) with different structures: the inner claw bifid, with the inner tooth a little shorter than the outer one, the split being a little over half claw's length; the outer claw appendiculate with a well developed basal tooth; external side of both claws regularly curved to the apex; all the other claws appendiculate, with a well developed tooth near the base; tooth at the base of the mesotibial emargination obtuse, shortly projecting.

Elytra elongate (length/width at humeral level = 1.5), with a feeble transverse impression on the basal third; sides feebly curved to middle, then regularly curved to the apical corners; scales on the interstriae resemble the ones on the pronotum, the white ones mostly forming three spots on each elytron and scattered on the declivity and on elytral sides; the brown scales arranged mostly in a single row on each interstria; elytral striae punctures large, each with a simple seta which is light brownish and only a little enlarged; setae in the outermost stria larger, whitish, some simple, some bifid; interstriae convex, narrow, on the elytral discus their width narrower than the diameter of the striae punctures; epipleura moderately wide, with a row of whitish hairs along the fold of the inner margin.

Aedeagus (figs 187-188).

DERIVATIO NOMINIS. From Mali, the country where this species was collected.

VERIFIED DISTRIBUTION: Mali.

### **Pachnephorus (Pachnephorus) m e d v e d e v i** n. sp.

TYPE LOCALITY: Zambia: Livingstone [Maramba].

TYPE DEPOSITORY: MZLU

HOLOTYPE LABELS: N. Rhodesia, Livingstone, 16.V.[19]51. No. 306 [printed white label]; Swedish South Africa Expedition, 1950-1951, Brinck - Rudebeck [printed white label].



label]; Holotypus, *Pachnephorus (Pachnephorus) medvedevi* n. sp., S. Zoia det. 2007 [printed red label] (♂).

PARATYPI. N. Rhodesia, Livingstone, 16.V.[19]51. No. 306, Brinck - Rudebeck (8 ♂♂, 6 ♀♀, MZLU; 3 ♂♂, 2 ♀♀, SZcoll); Zambia, Mwingwa, 27°40'E. 13°S., 21.VII.1914, H. C. Dollman (1 ♀, BMNH); [Rep. Pop. Congo] Sankuru: Gandajika, I-1956, J. Decelle (1 ♀, MRAC).

DESCRIPTION. Body length of the holotypus 2.8 mm (length range in the examined specimens: 2.4-3.2 mm).

Habitus as in figs 53-54. Body dark brown, shiny, not metallic; palpi, first antennal segments, legs and elytra reddish brown, paler than the body.

Head: frons evenly convex, feebly transversely raised between the antennae at the beginning of the clypeus; the surface shiny between the punctures which are relatively small and superficial; the clypeus weakly inclined, shiny, with a few punctures and setae; the frons with oblong, whitish scales, 4 times longer than wide on average, split for 1/3 or less of their length and weakly curved; surface of the frons between the eyes with smaller setae; eyes relatively small and convex (in frontal view the distance between the eyes is about 3.8 times the width of a single eye in the ♂, 4 times in the ♀) with a thin sulcus above. Antennae with first segments reddish brown and last five segments darker: 2<sup>nd</sup> antennal segment a little shorter than first and half as wide, 3<sup>rd</sup> longer than the 4<sup>th</sup>, 2 times longer than wide, 5<sup>th</sup> a little longer than 6<sup>th</sup>, 7<sup>th</sup> 1.5 times longer than wide, 8<sup>th</sup> and 9<sup>th</sup> subquadrate, 10<sup>th</sup> transverse, 11<sup>th</sup> 1.6 times the 10<sup>th</sup> in length.

Pronotum as long as wide, a little wider at distal border than at base; sides shortly sinuate near the base, widening from base to the distal third, constricted distally; pronotum surface shiny, at base with fine microreticulation, punctures moderately large, the surface between the punctures usually narrower than the diameter of a puncture; lateral borders well marked, not reaching the distal edge of the prothorax because of the distal process of the prothorax sides, covering the eyes, which extends dorsally a little beyond the lateral borders; pronotum at sides covered by a large band of whitish scales, 2.5-3 times longer than wide, shortly split; pronotum discus with smaller, brown and whitish scales, 4-5 times longer than wide and split for 1/3 of their length; the pronotal base and usually a short band along the median line with whitish broad scales. Prothoracic epimera bare, strongly punctate; the distal process with whitish small scales.

Mesothoracic episterna with a few very small setae or bare.

Metathoracic epimera narrow, with a single row of punctures, each puncture with a single white seta. Metasternum covered at sides by white, briefly bifid, setae, in the middle by white hairs.

Legs: moderately long, with oblong, distally bifid, whitish scales; the two claws of the protarsus in ♂ with different structures: the inner claw bifid, with the inner tooth shorter than the outer one, the split being a little over half the length of the claw; the outer claw appendiculate with a strong basal tooth; external side of both claws regularly curved to the apex; all the other claws in ♂ and all claws in ♀ appendiculate, with a well developed tooth near the base; tooth at the base of the mesotibial emargination obtuse, moderately projecting, its height about 1/3 of the mesotibial width at that point.

Elytra elongate (length/width at humeral level = 1.5) with a very feeble transverse impression on the basal third; sides curved, enlarged to middle, then regularly curved to the apical corners; interstriae of the elytra with mostly whitish scales, usually with two spots of closer scales on the discus of each elytron; whitish scales are moderately wide, 3-4 times longer than wide, shortly split; the sutural stria and striae 1-3 in part with thinner, brown scales; scales arranged mostly in a single row on each interstria; punctures of the striae large, each with a broad seta which is about as wide and long as the scales of the interstriae; interstriae convex, narrower than the diameter of the striae punctures; epipleura moderately wide, bare.

Aedeagus (figs 189-190).

Spermatheca (fig. 191).

DERIVATIO NOMINIS. The species is named after Lev Medvedev, a friend and a well known specialist in Chrysomelidae.

OTHER EXAMINED MATERIAL (not included in paratypes). ZAMBIA: Nangweshi, N. R. (on island) 22.7.52, Carp Exp: Munro (1 ♀, PPR1): elytra scales in this specimen are white and more wide than in the other specimens.

VERIFIED DISTRIBUTION: Zambia, Rep. Pop. Congo.

## **Pachnephorus (Pachnephorus) metallicus** Bryant, 1959

*Pachnephorus metallicus* Bryant, 1959: 205.

TYPE LOCALITY: Cape Prov.: Cape Peninsula, Cape Point Nature Reserve

HOLOTYPE DEPOSITORY: MZLU.

HOLOTYPE LABELS: S. Afr. Cape Prov., Cape Peninsula, Cape Point Nature Reserve, 10.XII.50, No. 79 [printed white label]; Swedish South Africa Expedition 1950-1951, Brinck-Rudebeck [printed white label; Type [printed white and red round label]; *Pachnephorus metallicus* Typ. Bryant, G. E. Bryant det., 1956 [handwritten and printed white label]; Zool. Mus. Lund Sweden, Chrysomelidae: Eumolpinae, Type No. 2057:1-14 [handwritten and printed white label] (♂).

PARATYPI. S. Afr. Cape Prov., Cape Peninsula, Cape Point Nature Reserve, 10.XII.50, No. 79, Swedish South Africa Expedition 1950-1951, Brinck-Rudebeck (5 Paratypes, MZLU; 1 Paratypus, MNHU); S. Afr. Cape Prov., Cape Peninsula, Vlei, 3 miles NE Kommetjie, 24.X.1950 No. 14, Swedish South Africa Expedition 1950-1951, Brinck-Rudebeck (1 Paratypus, MZLU).

EXAMINED MATERIAL. REP. SOUTH AFRICA: Table Mt., Cape of G. hope, W. Bevins, 1906-167 (1 ♂, MNHN; 1 ♀, SZcoll); Cape Town, Milnerton, Feb. 1926, R. E. Turner (1 ex., BMNH); CBS [Cape of Good Hope] (1 ♀, BMNH); Cape Province, Ceres, Jan. 1925, R. E. Turner, Brit. Mus. 1925-79 (3 exx., BMNH); Ceres, Cape Province, 1,500 ft. Jan. 1921, R. E. Turner, Brit. Mus. 1921-78 (1 ex., BMNH); Cape Province, Knysna District, J. Balfour-Browne, B. M. 1954-797, Kaurbooms River Estuary, 18.iii.1954, beaten from plant (1 ♂, BMNH); 17.xi.1993, 34°27'S/20°24'E, leg. Uhlig, Cape Province: De Hoop Nat. Res., lake shore, reed slewing (9 exx., MNHU; 4 exx., SZcoll); Worcester (Cape Prov.), XII.1969, leg. Besnard (1 ♂, MRAC).

DESCRIPTION. Body length of the holotypus 2.9 mm (length range in the examined specimens: 2.4-3.6 mm).

Habitus as in figs 55-56. Body black, shiny, with cupreous metallic reflexion; palpi, first antennal segments and a part of the legs dark brown, the latter with cupreous metallic reflexion.

Head: frons evenly convex, distally feebly concave, feebly transversely raised between the antennae at the beginning of the clypeus; the surface with fine microreticulation between the punctures; the clypeus inclined, shiny, punctured, with a few setae at sides; the frons with thin setae, split for 1/3-1/2 of their length and weakly curved; surface of the frons between the eyes with smaller setae; eyes moderately large and convex (in frontal view the distance between the eyes is about 3.1 times the width of a single eye) with a thin and superficial

sulcus above. Antennae black with first segments dark brown, last five segments alutaceous: 2<sup>nd</sup> antennal segment a little shorter than first and half as wide, 3<sup>rd</sup> a little longer than 4<sup>th</sup>, 1.5 times longer than wide, 5<sup>th</sup> longer than 6<sup>th</sup>, 7<sup>th</sup> 1.2 times longer than wide, 8<sup>th</sup> to 10<sup>th</sup> transverse, 11<sup>th</sup> 1.6 times the 10<sup>th</sup> in length.

Pronotum longer than wide, a little wider at base than at distal border; sides widening from base to the distal fourth, shortly constricted distally; pronotal surface shiny, with fine microreticulation at base and sides, the surface between the punctures usually wider than the diameter of a puncture; lateral borders strongly marked from the base and suddenly evanescent near the distal edge of the prothorax; the distal process of the prothorax sides, covering the eyes, extends dorsally a little beyond the lateral borders; pronotum weakly covered by brown hairs and whitish setae, the latter entire or split for 1/3 of their length; whitish setae are mainly diffuse on the base and sides of the pronotum. Prothoracic epimera bare, strongly punctate, as a rule with only a few small white setae near the distal corners (fig. 102); the distal process with white setae.

Mesothoracic episterna bare.

Metathoracic epimera moderately narrow, with a single row of punctures, each puncture with a single white seta (fig. 101). Metasternum covered at sides with white, shortly bifid, setae, in the middle with white hairs.

Legs: long, with oblong, distally shortly bifid, white scales; claws of the protarsus in ♂ bifid, the inner tooth of each claw clearly shorter than the outer one, the split being over half the length of the claw; all the other claws in ♂ and all claws in ♀ simple; tooth at the base of the mesotibial emargination acute, moderately projecting, its height about 1/3 of the mesotibial width at that point in ♂, less so in ♀.

Elytra weakly elongate (length/width at humeral level = 1.2 in ♂, 1.5 in ♀) with a strong transverse impression on the basal third; sides curved, clearly enlarged to middle, then regularly curved to the apical corners; interstriae of the elytra scarcely covered on the discus by brown setae; each elytron with 3-4, rarely 5 small spots of white, oblong, shortly bifid scales on the discus and another one at the base of the last interstria; outermost interstriae with broader brown setae; sutural interstria broad, bare; brown setae usually arranged in a single row on each interstria, in a double row on the interstria starting from the humerus and on the outermost; punctures of the striae

large, usually without setae on the discus, each with a thin, white seta on the elytral sides; interstriae flat on the discus, convex at elytral sides, as wide as or narrower than the diameter of the striae punctures; epipleura wide, bare or with a row of very small white hairs along the fold of the inner margin, usually on the distal part with scattered whitish setae (fig. 101).

Aedeagus (figs 192-193).

Spermatheca (fig. 194).

VERIFIED DISTRIBUTION: South Africa: Cape Province.

NOTE. Bryant (1959) records of 14 paratypes of which I have had the opportunity to examine 7. In the De Hoop Nature Reserve, specimens have been collected on reed.

**Pachnephorus (Pachnephorus) moseykoi** n. sp.

TYPE LOCALITY: Chad, middle Chari, Fort Archambault.

TYPE DEPOSITORY: MNHN.

HOLOTYPE LABELS: Museum Paris, Moyen Chari, Fort Archambault, Bakaré ou Boungoul, Mission Chari-Tchad, D<sup>r</sup> J. Decorse 1904 [printed blue label]; Avril [printed white label]; Holotypus, *Pachnephorus (Pachnephorus) moseykoi* n. sp., S. Zoia det. 2007 [printed red label] (♂).

PARATYPI. Moyen Chari, Fort Archambault, Bakaré ou Boungoul, Mission Chari-Tchad, D<sup>r</sup> J. Decorse 1904, Janvier (3 ♀♀, MNHN); idem, Février (1 ♂, 1 ♀, MNHN); idem, Avril (3 ♂♂, 4 ♀♀, MNHN; 1 ♂, 2 ♀♀, SZcoll); idem, Mai (15 ♂♂, 18 ♀♀, MNHN; 3 ♂♂, 2 ♀♀, SZcoll).

DESCRIPTION. Body length of the holotypus 2.7 mm (length range in the examined specimens: 2.3-3.3 mm).

Habitus as in figs 57-58. Body dark brown, shiny, not metallic; palpi and antennae reddish brown, paler than the body.

Head: frons evenly convex, usually with a superficial longitudinal groove in the middle, flat in the region between the eyes, not or weakly transversely raised between the antennal fossae at the beginning of the clypeus; the clypeus inclined, shiny, superficially punctate, with a few setae; the frons with oblong, regularly arranged, moderately close scales: in the middle of the frons the scales are 3-4 times longer than

wide, moderately curved, split for 1/3 or more of their length; scales white with two spots of light brown scales at sides of the median line; surface between the eyes, to the clypeus, with thin, white, bifid setae; surface of the frons punctate, in part with fine microreticulation; eyes large and convex (in frontal view the distance between the eyes is about 2.5 times the width of a single eye in ♂, 2.8 times in ♀) with a very thin and superficial sulcus above, with an inner row of small, white setae. Antennae reddish brown: 2<sup>nd</sup> antennal segment as long as first and half as wide, 3<sup>rd</sup> subequal to 4<sup>th</sup>, about 2 times longer than wide, 5<sup>th</sup> a little longer than 6<sup>th</sup>, 7<sup>th</sup> 1.2 times longer than wide, 8<sup>th</sup> to 10<sup>th</sup> subquadrate, 11<sup>th</sup> 1.5 times the 10<sup>th</sup> in length.

Pronotum a little longer than wide, as wide at distal border as at base; sides widening from base to the distal third, constricted distally; distal corners not projecting; pronotum surface shiny between the punctures, with very fine microreticulation on the basal half; punctures moderately strong and close, not confluent, smaller and more superficial near the distal border; lateral borders thin, well marked, not reaching the distal edge of the prothorax; the distal process of the prothorax sides, covering the eyes, extending dorsally a little beyond the lateral borders; pronotal sides with a band of white, bifid scales, which extends dorsally from the middle and from the distal corners; pronotal base with a line of smaller white scales; on the discus scales are mostly brown, usually with an ill-defined strip of white scales along the median line; at sides, scales are larger and wider, 2.5-3 times longer than wide, split for 1/3 of their length and covering in part the integument; on the pronotal discus, scales are thinner, 4 times, or more, longer than wide. Prothoracic epimera strongly punctate, bare proximally, with small, bifid, white setae near the distal corners; the distal process with white bifid setae.

Mesothoracic episterna bare.

Metathoracic epimera narrow, with a single row of punctures, each puncture bearing a white seta. Metasternum at sides with white, bifid setae, in the middle with white hairs.

Legs: relatively long, with thin, distally bifid, white setae; the two claws of the protarsus in ♂ with different structures: the inner claw bifid, with the inner tooth a little shorter than the outer one, the split beyond half the claw's length; the outer claw appendiculate, with a well developed basal tooth; external side of both claws regularly curved to the apex; all the other claws in ♂ and all the claws in ♀ ap-

pendiculate, with a well developed tooth near the base; tooth at the base of the mesotibial emargination acute, projecting, its height is about 1/3 of the mesotibial width at that point.

Elytra elongate (length/width at humeral level = 1.5) with an impression on the basal third; sides subparallel or feebly curved to the distal third, then regularly curved to the apical corners; interstriae of the elytra with oblong, brown scales, 4 times longer than wide and split for 1/3 or less of their length, and white, wider scales, 3 times longer than wide; a line of smaller, grey scales along the suture behind the scutellum; brown scales arranged mostly in a single row on each interstria, in part in a double row along the suture; white scales making a curved strip from the shoulder to the suture along the basal impression of the elytron, a small spot at side beyond the middle, a transverse band at the beginning of the declivity and on the three outermost interstriae; punctures of the striae large, each with a whitish, usually enlarged seta, on the discus, with a broader seta on the three outermost striae where many of these setae are similar in size to the scales of the interstriae; interstriae convex, narrower than the diameter of the punctures; epipleura moderately wide, with a row of small, white setae along the fold of the inner margin.

Aedeagus (figs 195-196).

Spermatheca (fig. 197).

**DERIVATIO NOMINIS.** The species is named after Alexey G. Moseyko, a talented specialist in Chrysomelidae Eumolpinae.

**OTHER EXAMINED MATERIAL** (not included in paratypes). **SENEGAL:** Badoumbé, Dr. Nodier (1 ♂, 2 ♀♀, NHMB; 1 ♂, SZcoll); Bambey, Risbec 1945 (1 ♂, MNHN); Podor, Maindron 1881 (1 ♂, MNHN); Guedé, 27.ii.1946, J. Risbec (1 ♂, 1 ♀, BMNH); Richard-Toll, XI-1967, A. Descarpentries, T. Leye et A. Villiers (161 exx., MNHN; 8 exx., SZcoll). **MALI:** R. Demange (1 ♂, MNHN). **GAMBIA:** Keneba, 5.x.1975, M. Speight (1 ♀, BMNH); outside Abuko Nature Reserve at water works, at light, 18.30-21.00, 4.XI.1977, UTM 28PCK215812, loc. 6, Cederholm, Danielsson, Hammarstedt, Hedqvist, Samuelsson (1 ♂, 3 ♀♀, MZLU; 1 ♀, SZcoll); Oil Palm and Mangrove veg. close to the beach about 5 km SSW Gunjur, at light, 18.45-20.30, 13.XI.1977, UTM 28PCK0554, loc. 8, Cederholm, Danielsson, Hammarstedt, Hedqvist, Samuelsson (3 ♂♂, 1 ♀, MZLU; 2 ♂♂, 2 ♀♀, SZcoll); River Tanji 3 km SW Brufut, 28.II.1977, loc. No. 9, UTM 28PCK087773, Cederholm, Danielsson, Larsson, Mireström, Norling, Samuelsson (2 ♂♂, 1 ♀, MZLU); about 1 km E Tendebe Camp at River Gambia, at light, 19.20-21.00, 1.III.1977, loc. No. 12, UTM 28PDK13-85-, Cederholm, Danielsson, Larsson, Norling, Samuelsson (1 ♀, MZLU); Tendebe Camp, at light in semi arid veg. near River Gambia, 18.30-20.30, 14.XI.1977, UTM 28POK1285, loc. 12A, Cederholm, Danielsson, Hammarstedt, Hedqvist, Samuelsson (1 ♀, MZLU); Abuko Nature Reserve, at light at the Bamboo Pool, 18.30-20.30, 18.XI.1977, UTM 28PCK2181, loc. 24, Cederholm, Danielsson,

Hammarstedt, Hedqvist, Samuelsson (1 ♂, 1 ♀, MZLU); Bakau at Tropic Bungalow, swept in meadow rich in flowers, at the beach, 21-24.XI.1977, UTM 20PCK1790, loc. 25, Cederholm, Danielsson, Hammarstedt, Hedqvist, Samuelsson (1 ♀, MZLU); 1 km N Tanji River Bridge, at light in dense forest, 18.30-20.00, 19.XI.1977, UTM 28PCK0578, loc. 39, Cederholm, Danielsson, Hammarstedt, Hedqvist, Samuelsson (1 ♂, MZLU; 2 ♀♀, SZcoll); Kololi, 6.-18.7.2000, R. Grimm (1 ♀, SMNS). GUINEA BISSAU: Regiao Cacheu, 12 km W of Sedengal, 1.XI.1992, leg. M. Söderlund (1 ♀, MZLU). SIERRA LEONE: Makeni, 12°03'W, 8°53'N, 27.XI.1993, loc. 9, light trap 18-21, leg. L. Cederholm, R. Danielsson, R. Hall (1 ♀, MZLU). MALI: Samanko, 22.X.1985, Doumbia (1 ♂, BMNH); I.R.T.C., M'Pesoba, 8.VIII.1970, G. Pierrard (2 exx., MRAC; 1 ex., SZcoll); Kayes, G. Massiou 1899 (1 ♂, MNHN). IVORY COAST: Elfenbeinküste, Ferkessedougou, 19.4.1988, leg. F.-T. Krell (1 ♀, SMNS); [Ivory Coast?] Addah (4 exx., MNHN; 1 ex., SZcoll). GHANA: Ashante, Simon (1 ♂, 3 ♀♀, MNHU; 1 ♀, SZcoll). CONGO: Fort Crampel, Ubanghi, sept. [19]14 (1 ♂, MRAC); Bahr-Sara, Boubo, Dr J. Kérandel 1908 Mai (10 exx., MNHN; 2 exx., SZcoll). SUDAN: Roseires, Haut Nil Bleu, Ch. Alluaud 1907, Janvier (1 ♂, MNHN). ETHIOPIA: Ilubabor Prov.: Gambela, 21/23.V.1972, R.O.S. Clarke (2 ♂♂, 2 ♀♀, MRAC; 1 ♂, 1 ♀, SZcoll); Ilubabor prov., Gambela, X.1972, G. de Rougemont (2 ♂♂, MRAC).

VERIFIED DISTRIBUTION: Senegal, Gambia, Guinea Bissau, Sierra Leone, Mali, Ghana, Congo, Sudan, Ethiopia. *P. moseykoi* n. sp. seems to be widely distributed South of the Sahara from 5° to 15° North, showing a slight variation in its morphology in different populations, mainly in regard to scale coverage.

NOTE. I refer with doubt to *P. moseykoi* n. sp. some specimens of a population from Guinea Bissau (Guinea Port., Suzana, VI.58, Andreoletti (3 exx., MSNM; 1 ex., SZcoll)) which have more extensive white scales and a stronger contrast with the brown scales of the pronotum and elytra (already recorded by Brivio 1960 as *P. torridus*).

### **Pachnephorus (Pachnephorus) pacificus** n. sp.

TYPE LOCALITY: Central African Republic: La Naboke.

TYPE DEPOSITORY: MZLU

HOLOTYPE LABELS: Centr. Afr. Rep., La Naboke, 6-9.6.1973, R. Linnavuori [printed white label]; Holotypus, Pachnephorus (Pachnephorus) pacificus n. sp., S. Zoia det. 2007 [printed red label] (♂).

EXAMINED MATERIAL. Only the holotypus.

DESCRIPTION. Body length of the holotypus 2.2 mm.



Habitus as in figs 59-60. Body dark brown, shiny, not metallic; palpi, antennae, legs and elytra reddish brown, paler than the body.

Head: frons evenly convex, distally flat, not raised between the antennae at the beginning of the clypeus; the surface densely punctured, alutaceous between the punctures; the clypeus inclined, shiny, impunctate, with a few small setae; the frons with regularly arranged scales, 2-3 times longer than wide, split for 1/3-1/2 of their length and strongly curved; scales white, with two spots of brown scales at sides of the median line; surface of the frons near and between the antennal fossae with thin setae; eyes moderately large and strongly convex (in frontal view the distance between the eyes is about 2.8 times the width of an eye) without any sulcus above. Antennae reddish brown with paler 1<sup>st</sup> to 6<sup>th</sup> segments: 2<sup>nd</sup> antennal segment clearly shorter than first and half as wide, 3<sup>rd</sup> subequal to 4<sup>th</sup>, 2 times longer than wide, 5<sup>th</sup> longer than 6<sup>th</sup>, 7<sup>th</sup> 1.5 times as long as wide, 8<sup>th</sup> to 10<sup>th</sup> as long as wide, 11<sup>th</sup> 1.6 times the 10<sup>th</sup> in length.

Pronotum longer than wide, as large at base as at distal border; sides widening from base to the distal third, constricted distally; pronotal surface shiny, strongly punctate, the surface between the punctures narrower than the diameter of a puncture; lateral borders well marked, ending near the distal corners; the distal process of the prothorax sides, covering the eyes, extending dorsally a little beyond the line of the lateral borders; pronotum at sides covered by a large band of wide whitish scales, 1.5 times longer than wide, split for 1/3-1/2 of their length; scales gradually thinner towards the pronotal discus; on the median line scales are small, 3-4 times longer than wide, mostly brown; the distal edge of the pronotum with a row of small, elongate scales. Prothoracic epimera bare, strongly punctate; the distal process with whitish bifid setae.

Mesothoracic episterna bare.

Metathoracic epimera narrow, with a single row of punctures, each puncture with a single whitish seta. Metasternum covered at sides by white, shortly bifid, setae, in the middle by white hairs.

Legs: long, with oblong, distally bifid, whitish scales; all claws in ♂ appendiculate, with a well developed tooth near the base; tooth at the base of the mesotibial emargination acute, moderately projecting, its height about 1/3 of the mesotibial width at that point; the emargination as deep as half the mesotibial width.

Elytra elongate (length/width at humeral level = 1.5) with a very

feeble transverse impression on the basal third; sides feebly curved to middle, then curved to the apical corners; interstriae of the elytra with whitish and light brown scales; scales are short, moderately wide, 2-3 times longer than wide, split for 1/2-1/3 of their length; sutural stria mostly with a double row of scales; scales arranged mostly in a single row on each interstria on the discus, in a double row on each interstria at sides and on the declivity; punctures of the striae large, without setae; interstriae convex, narrower than the diameter of the striae punctures; epipleura moderately wide, bare.

Aedeagus (figs 198-199).

DERIVATIO NOMINIS. The name is a wish for peace for the African Continent, at present so devastated by wars and violence.

VERIFIED DISTRIBUTION: Central African Republic.

### **Pachnephorus (Pachnephorus) parentorum** n. sp.

TYPE LOCALITY: Ghana: Takoradi.

TYPE DEPOSITORY: SZcoll

HOLOTYPE LABELS: Ghana, Loc. 4, Abora I Takoradi, 13.V.1978, Brignoli Helou leg. [printed white label]; Holotypus, Pachnephorus (Pachnephorus) parentorum n. sp., S. Zoia det. 2007 [printed red label] (♂).

EXAMINED MATERIAL. Only the holotypus.

DESCRIPTION. Body length of the holotypus 2.5 mm.

Habitus as in figs 61-62. Body dark brown, shiny, not metallic; palpi, antennae and legs brown, paler than the body.

Head: frons evenly convex, distally with a superficial, transverse furrow joining the two supra-ocular sulci, then transversely raised between the antennal fossae at the beginning of the clypeus; the clypeus inclined, shiny, bare; the frons with small, whitish, oblong scales, 3-4 times longer than wide, split for 1/3-1/2 of their length; surface of the frontal furrow punctate, with small setae; eyes moderately large and convex (in frontal view the distance between the eyes is about 2.8 times the width of a single eye) with a relatively large and deep sulcus

above. Antennae reddish brown: 2<sup>nd</sup> antennal segment as long as first and less than half as wide, 3<sup>rd</sup> subequal to 4<sup>th</sup>, 1.5 times longer than wide, 5<sup>th</sup> as long as 6<sup>th</sup>, 6<sup>th</sup> strongly asymmetric having a furrow on the inner side (fig. 202), 7<sup>th</sup> to 10<sup>th</sup> as long as wide, 11<sup>th</sup> 1.5 times the 10<sup>th</sup> in length.

Pronotum slightly wider than long, wider at distal border than at base; sides widening from base to the distal third, constricted distally; pronotal surface shiny, with strong and close punctures; lateral borders well marked, evanescent near the distal corners; the distal process of the prothorax sides, covering the eyes, extending dorsally a little beyond the line of the lateral borders; pronotum at both sides with a large band of wide whitish scales, 2-2.5 times longer than wide, split for 1/3-1/2 of their length; scales gradually thinner towards the pronotal discus, where scales are mostly brown with a few whitish scales along the median line and at base. Prothoracic epimera widely bare, with a few small, whitish scales near the distal corners, strongly punctate; the distal process with whitish bifid setae.

Mesothoracic episterna bare.

Metathoracic epimera narrow, with a single row of punctures, each puncture with a single whitish seta. Metasternum covered at sides by white, bifid setae, in the middle by white hairs.

Legs: long, with oblong, distally bifid, whitish scales; the two claws of the protarsus in ♂ with different structures: the inner claw shortly bifid, with the inner tooth shortly exceeding half length of the outer one, the split being to about 1/3 of the claw's length; the outer claw appendiculate with a well developed basal tooth; dorsal side of both claws regularly curved to the apex; all the other claws appendiculate, with a well developed tooth near the base; tooth at the base of the mesotibial emargination acute, shortly projecting, its height less than 1/4 of the mesotibial width at that point.

Elytra elongate (length/width at humeral level = 1.6) with a strong impression on the basal third; sides feebly curved to the distal third, then regularly curved to the apical corners; outer interstriae of the elytra with whitish and light brown scales, 2-3 times longer than wide, split for 1/2 or less of their length; interstriae on the elytral discus with brown oblong scales, 3-4 times longer than wide, and with wider white scales, gathered in a band going from the humerus through the basal impression to the suture, in a small spot beyond half elytron length and on the declivity; scales arranged mostly in a single row

on each interstria; punctures of the striae large, without setae on the discus, with a whitish, weakly enlarged seta on the sides; interstriae convex, narrower than the diameter of the striae punctures; epipleura moderately wide, bare.

Aedeagus (figs 200-201).

DERIVATIO NOMINIS. The species is named in memory of my parents who always encouraged my interest in entomology.

VERIFIED DISTRIBUTION: Ghana.

### **Pachnephorus (Pachnephorus) poggii** n. sp.

TYPE LOCALITY: Somalia: Belet Amin (lower Giuba).

TYPE DEPOSITORY: MSNG.

HOLOTYPE LABELS: Somalia it., Belet Amin (Giuba), Apr. 1923, Patrizi [printed white label]; Museo civico di Genova [printed white label]; Holotypus, Pachnephorus (Pachnephorus) poggii n. sp., S. Zoia det. 2007 [printed red label] (♂).

PARATYPI. Somalia it., Belet Amin (Giuba), Apr. 1923, Patrizi [leg.] (21 ex., MSNG; 5 ex., SZcoll); Somalia It., Giuba, Belet Amin, Patrizi [leg.], V.1934 (2 ex., MSNG); Somalia It., Giuba, Belet Amin, Patrizi [leg.], VI.1934 (2 ex., MSNG); Somalia It., Giuba, Belet Amin, Patrizi [leg.], VII.1934 (7 ex., MSNG; 2 ex., SZcoll); Somalia It., Giuba, Belet Amin, Patrizi [leg.], VIII.1934 (2 ex., MSNG); Somalia It., Olà Uager, Patrizi [leg.], VIII.1934 (3 ex., MSNG); Somalia It., Afgoi, VIII-XII.1937, Nicotra leg. (1 ex., MSNM); Somalia, Afgoi, 1-15.IV.1974, leg. L. Masutti (1 ex., MSNM); Somalia, Afgoi, 16-30.IV.1974, leg. L. Masutti (28 ex., MSNM; 4 ex., SZcoll); Somalie: Afgoi, VIII-1977, leg. Olmi (2 ex., MRAC); Kenya, S Magadi lake, Magadi env., 6.XII.1997, M. Šnizek leg. (37 ex., SZcoll); Kenya, SE, Kiboko env., 21.xi.1999, M. Šnizek leg. (1 ex., SZcoll); Kenya S, Voi, 13-17.xii.1997, M. Šnizek leg. (2 ex., SZcoll); Kenya, Eastern, Katutu-Kithioko, 27.xi.1999, M. Šnizek leg. (3 ex., SZcoll); Kenya, Eastern, Mwingi, Nguni env., 28.xi.1999, M. Šnizek leg. (1 ex., SZcoll).

DESCRIPTION. Body length of the holotypus 2.7 mm (length range in the examined specimens: 2.6-3.4 mm).

Habitus as in figs 63-64. Body brown, shiny, not metallic; palpi and antennae reddish-brown, paler than the body.

Head: frons evenly convex, distally flat, not raised between the antennal fossae at the beginning of the clypeus; the clypeus not or feebly inclined, shiny, usually with a few punctures and setae; the

frons with spaced, oblong, white scales: in the middle of the frons the scales are 4-5 times longer than wide, moderately curved, split for 1/3, or less, of their length; surface between the eyes with white setae; surface of the frons strongly punctate, with fine microreticulation between the punctures and usually with a short longitudinal sulcus in the middle; eyes large and strongly convex (in frontal view the distance between the eyes is about 2.2 times the width of a single eye in ♂, 2.4 in ♀) with a thin sulcus above. Antennae reddish brown: 2<sup>nd</sup> antennal segment as long as first and half as wide, 3<sup>rd</sup> longer than 4<sup>th</sup>, 1.5 times longer than wide, 5<sup>th</sup> about 1.5-2 times longer than 3<sup>rd</sup> and a little longer than 6<sup>th</sup>, 7<sup>th</sup> 1.5 times longer than wide, 8<sup>th</sup> to 10<sup>th</sup> longer than wide, 11<sup>th</sup> 1.6 times the 10<sup>th</sup> in length.

Pronotum a little wider than long, as wide at distal border as at base; sides widening from base to the distal third, constricted distally; distal corners weakly projecting; pronotal surface shiny between the punctures; punctures moderately large, not confluent; lateral borders wide, simultaneously visible in dorsal view, ending near the distal corners; the distal process of the prothorax sides, covering the eyes, extending dorsally clearly beyond the line the lateral borders; pronotum with white, bifid scales; at sides, scales are wider, 3-4 times longer than wide, split for 1/3 or less of their length; on the pronotal discus, scales are thinner and small, white or whitish. Prothoracic epimera strongly punctate, bare; the distal process with small, white bifid setae.

Mesothoracic episterna bare.

Metathoracic epimera narrow, with a single row of punctures, each puncture with a white seta. Metasternum covered at sides by white, bifid setae, in the middle by white hairs.

Legs: moderately long, with oblong, distally bifid, white setae; claws of the protarsus in ♂ bifid, with the inner tooth a little shorter than the outer one, the split being at the distal third of the claw's length; dorsal side of both claws evenly curved to the apex; all the other claws in ♂ and all claws in ♀ appendiculate, with a strong tooth near the base, more developed in ♂; tooth at the base of the mesotibial emargination small, obtuse, shortly projecting, its height less than 1/4 of the mesotibial width at that point.

Elytra elongate (length/width at humeral level = 1.5 in ♂, 1.7 in ♀) with a feeble impression on the basal third; sides feebly curved to the distal third, then evenly curved to the apical corners; interstriae of the

elytra with oblong scales, 4-5 times longer than wide and split for 1/3 or less of their length; scales white or whitish, sometimes light brown on the discus; in some specimens, each elytron with two small spots of wider, white scales; sutural interstria with a single row of smaller scales; scales arranged in a single row on each interstria, in part in a double row on the ultimate interstria; punctures of the striae large, each with a white or whitish seta; interstriae convex, narrower than the diameter of the strial punctures; epipleura moderately wide, bare.

Aedeagus (figs 203-204).

Spermatheca (fig. 205).

DERIVATIO NOMINIS. The species is named after Roberto Poggi, a friend and director of the MSNG.

VERIFIED DISTRIBUTION: Somalia, Kenya.

NOTE. I examined two ♀♀ specimens from Mali (I.R.C.T. - Mt Pesoba, 6.VIII.1970 and 6.VIII.1970, MRAC) which closely resemble *P. poggii* n. sp.: they differ in having strial punctures on the elytral discus without setae, antennomeres 3-6 more elongated and a more strongly projecting tooth at the base of the mesotibial emargination.

### **Pachnephorus (Pachnephorus) regalini** n. sp.

TYPE LOCALITY: Zambia: Lusaka: Kafue City: Kafue River.

TYPE DEPOSITORY: SZcoll.

HOLOTYPE LABELS: Zambia - Lusaka, Kafue City - Kafue River, m 1200, 22.XI/2.XII.1987, R. Mourglia leg. [printed white label]; Holotypus, Pachnephorus (Pachnephorus) regalini n. sp., S. Zoia det. 2007 [printed red label] (♂).

PARATYPI. Zambia, Lusaka, Kafue City, Kafue River, m 1200, 22.XI/2.XII.1987, R. Mourglia leg. (4 ♂♂, 4 ♀♀, SZcoll); Zambia, 26-31.12.1994, Livingstone, Victoria Falls, Lgt. Šnizek (1 ♀, SZcoll); Namibia bor. or., Okavango riv., Bagani, Popa Falls, 25.1.-4.2.1995, lgt. M. Šnizek (1 ♀, SZcoll); Namibia, Mahango Game Res., 18°17'S/21°43'E, 1-4.III.1994, leg. U. Göllner (1 ♀, MNHU); Namibia, Kavango. Mahango Game Reserve, Seeufer, 18°17'S/21°43'E, 28.II.92, leg. M. Uhlig (1 ♂, MNHU).

DESCRIPTION. Body length of the holotypus 2.7 mm (length range in the examined specimens: 2.5-3.0 mm).

Habitus as in figs 65-66. Body dark brown, shiny, not metallic; palpi, basal antennal segments, legs and elytra reddish-brown, paler than the body.

Head: frons evenly convex, distally flat, not or feebly transversely raised between the antennal fossae at the beginning of the clypeus; the clypeus weakly inclined, shiny, punctured, sometimes with a few, distally bifid, white scales and setae; the frons with small, separate, oblong scales, 4 times longer than wide, split for 1/3-1/2 of their length; scales white, usually with two ill-defined spots of light brown scales at sides of the median line; surface of frons punctate, shiny between the punctures, at sides and on the vertex with fine microreticulation; eyes moderately large and convex in ♂, less so in ♀ (in frontal view the distance between the eyes is about 3 times the width of a single eye in ♂, about 3.6 times in ♀) with a thin sulcus above. Antennae reddish brown, with darker club: 2<sup>nd</sup> antennal segment as long as first and half as wide, 3<sup>rd</sup> subequal to 4<sup>th</sup> or a little longer, 1.5 times longer than wide, 5<sup>th</sup> longer than 6<sup>th</sup>, 7<sup>th</sup> a little longer than wide, 8<sup>th</sup> to 10<sup>th</sup> as long as wide, 11<sup>th</sup> 1.6 times the 10<sup>th</sup> in length.

Pronotum as long as wide, as wide at distal border as at base; sides widening from base to the distal third, constricted distally; pronotal surface shiny between the punctures, proximally with very fine microreticulation; punctures strong and close, more superficial or absent near the pronotal distal border; lateral borders well marked to the distal corners; the distal process of the prothorax sides, covering the eyes, not extending dorsally beyond the line the lateral borders; pronotum at sides with a band of wide, white scales, less than 2 times longer than wide, flat, shortly split; on the pronotal discus, scales thinner, 3-4 times longer than wide, curved, mostly dark brown, with a thin median line of white scales. Prothoracic epimera strongly punctate, bare; the distal process with white bifid setae.

Mesothoracic episterna bare.

Metathoracic epimera narrow, with a single row of punctures, each puncture with a single white seta. Metasternum covered at sides with white, widened, bifid setae, in the middle with white hairs.

Legs: moderately long, with oblong, distally bifid, white scales; the two claws of the protarsus in ♂ with different structures: the inner claw bifid, with the inner tooth clearly shorter than the outer one, the split being at the distal third of the claw's length; the outer claw appendiculate with a well developed basal tooth; dorsal sides of both

claws regularly curved to the apex; all the other claws in ♂ and all claws in ♀ appendiculate, with a strong tooth near the base; tooth at the base of the mesotibial emargination small, obtuse, shortly projecting, its height less than 1/4 of the mesotibial width at that point. Elytra elongate (length/width at humeral level = 1.5) with a feeble impression on the basal third; sides feebly curved to the distal third, then evenly curved to the apical corners; interstriae of the elytra with light brown, dark brown and white scales; the latter wide, 2-3 times longer than wide, the brown scales are thinner, split for 1/3 or less of their length; scales arranged mostly in a single row on each interstria; punctures of the striae large, each with a widened, usually non-bifid, seta; this seta resembles the scales of the nearest interstriae in size and colour; interstriae convex, narrower than the diameter of the striae punctures; epipleura wide, bare.

Aedeagus (figs 206-207).

Spermatheca (fig. 208).

DERIVATIO NOMINIS. The species is named after Renato Regalin, a good friend and a well known specialist in Chrysomelidae Clytrinae.

VERIFIED DISTRIBUTION: Zambia.

### **Pachnephorus (Pachnephorus) rigatoi** n. sp.

(*Pachnephorus setosulus* Fairmaire in litt.)

TYPE LOCALITY: Kenya: Magadi.

TYPE DEPOSITORY: MSNM.

HOLOTYPE LABELS: Kenya - S Magadi lake: Magadi env., 6.XII.1997, M. Šnizek leg. [printed white label]; Holotypus, *Pachnephorus (Pachnephorus) rigatoi* n. sp., S. Zoiá det. 2007 [printed red label] (♂).

PARATYPI: Kenya - S Magadi lake: Magadi env., 6.XII.1997, M. Šnizek leg. (21 ex., SZcoll); Kenya - S, Magadi lake, 6.xii.1997, Magadi env., M. Šnizek leg. (1 ex., SZcoll); Kenya S, Voi, 13-17.xii.1997, M. Šnizek lgt. (3 ex., SZcoll); Somalis, collection Léon Fairmaire, 1906; Holotypus; *Pachnephor. setosulus* (Fairm) Auct. det., Somalis [i.l.] (1 ex., MNHN); [Ethiopia] Da Dimè al Bass Narok [Turkana lake], VIII-IX.[18]96, Bottego (1 ex., MSNG; 1 ex., BMNH); Ethiopia, R. O. S. Clarke, Harer Prov.: Callafo, on the



Wabi Shebell, 21/22.VI.1972 (1 ex., MRAC); Somalie: Afgoi, VIII.1977, Leg. Olmi (3 exx., MRAC; 1 ex., SZcoll).

DESCRIPTION. Body length of the holotypus 2.9 mm (length range in the examined specimens: 2.5-3.4 mm).

Habitus as in figs 67-68. Body dark brown to black, shiny; palpi, antennae and legs partly brown, paler than the body.

Head: frons evenly convex, distally flat, not raised between the antennal fossae at the beginning of the clypeus; the surface strongly punctate, shiny between the punctures, in places with feeble microreticulation; the clypeus inclined, shiny, with a few setae; the frons with regularly arranged, oblong, white and very light brown scales; scales moderately long, more than 4-5 times as long as wide, split for 1/3-1/2 of their length and highly curved; surface of the frons between the eyes with white, thinner, bifid scales; eyes large and strongly convex, a little less so in ♀ (in frontal view the distance between the eyes is about 1.9 times the width of a single eye in ♂, 2.5 times in ♀), without any sulcus above. Antennae reddish-brown, with last five segments darker: 2<sup>nd</sup> antennal segment as long as first and half as wide, 3<sup>rd</sup> a little longer than 4<sup>th</sup>, elongate, 3 times longer than wide, 5<sup>th</sup> clearly longer than 6<sup>th</sup>, 7<sup>th</sup> 1.5 times longer than wide, 8<sup>th</sup> to 10<sup>th</sup> longer than wide, 11<sup>th</sup> 1.5 times the 10<sup>th</sup> in length.

Pronotum wider than long, a little wider at distal border than at base; sides widened from base to a little beyond middle, constricted distally; lateral borders well marked, not quite reaching the distal edge of the prothorax for the distal process of the epimera spreading a little beyond the level of the lateral border; scales on the pronotal sides oblong, more than 4 times as long as wide, split for 1/3-1/2 of their length; scales thinner on the pronotal discus; scales are mixed light brown and white, being mostly light brown on the discus and white on the pronotal sides. Prothoracic epimera bare, strongly punctate; distal process with white, bifid setae.

Mesothoracic episterna bare.

Metathoracic epimera narrow, with a single row of punctures which is partially double, at least at the proximal end, each puncture bearing a white seta. Metasternum covered at sides by white bifid setae, in the middle by white hairs.

Legs: long, with oblong, distally bifid, white scales; all the claws appendiculate, both in ♂ and ♀, with a small tooth near the base; the

tooth at the base of the mesotibial emargination acute, strongly projecting, its height more than 1/3 the mesotibial width at that point.

Elytra elongate (length/width at humeral level = 1.7) with a feeble transverse impression on the basal third; sides feebly curved to middle, then evenly curved to the apical corners; scales on the interstriae oblong, 5 times longer than wide, a little wider on the elytral sides, split for 1/3 or a little more of their length; scales whitish to light brown, with 2-3 small and ill-defined spots of white scales on each elytron; scales arranged in a single row on each interstria, only the outermost interstria and sometimes a part of the penultimate with a double row of scales; punctures of the striae large, each with a thin seta which is very small in the punctures of the elytral discus, more evident in the outer striae; interstriae flat on the discus, more convex at elytral sides, narrower than the diameter of the strial punctures; epipleura moderately wide, with a row of small white hairs along the fold of the inner margin.

Aedeagus (figs 209-210).

Spermatheca (fig. 211).

DERIVATIO NOMINIS. The species is named after Fabrizio Rigato, a friend and a well-known specialist in Formicidae who helped me with facilities at the MSNM and with suggestions.

VERIFIED DISTRIBUTION: Ethiopia, Somalia, Kenya.

NOTE. A specimen from Fairmaire's collection is labelled with the name *P. setosulus*, yet by my knowledge this name was never published and used (i. l.); the specimen belongs to the type series of *P. rigatoi* n. sp.

### **Pachnephorus (Pachnephorus) s a s s i i** n. sp.

TYPE LOCALITY: Guinea Bissau: Regiao Cacheu, 10 km W Sao Domingosl.

TYPE DEPOSITORY: MZLU.

HOLOTYPUS LABELS: Guinea Bissau: Regiao Cacheu, 10 km W of Sao Domingosl,

31.X.1992, leg. M. Söderlund [white printed label]; Holotypus, *Pachnephorus* (*Pachnephorus*) *sassii* n. sp., S. Zoia det. 2007 [printed red label] (♀).

EXAMINED MATERIAL. Only the holotypus.

DESCRIPTION. Body length 3.02 mm.

Habitus as in figs 69-70. Body dark brown, feebly shiny; palpi, antennae, legs and elytra brown, slightly paler than the body.

Head: frons evenly convex, distally flat, not raised between the antennae at the beginning of the clypeus; the surface punctured, between the eyes also; the clypeus feebly inclined, shiny, impunctate, bare in the middle; the frons with short, regularly arranged scales, which are about twice as long as wide on average, split for somewhat less than half length and strongly curved; scales whitish, with two spots of brown scales at sides of the median line; surface of the frons between the eyes with thin bifid setae; eyes relatively small and convex (in frontal view the distance between the eyes is about 3 times the width of a single eye), without any sulcus above. Antennae reddish-brown, unicolour: 2<sup>nd</sup> antennal segment as long as first and half as wide, 3<sup>rd</sup> and 4<sup>th</sup> subequal, three times longer than wide, 5<sup>th</sup> longer than 6<sup>th</sup>, 7<sup>th</sup> longer than wide, 8<sup>th</sup> to 10<sup>th</sup> as long as wide, 11<sup>th</sup> 1.5 times the 10<sup>th</sup> in length.

Pronotum a little wider than long, as wide at base as at distal border; sides widening from base to a little more than middle, then constricted distally; lateral borders well marked, not reaching the distal edge of the prothorax because of the presence of the distal process of the epimera extending dorsally a little beyond the line of the lateral border; scales on the pronotal sides short and wide, 2-2.5 times longer than wide, split for half of their length or less; scales a little thinner on the discus and smaller along the pronotal base; most scales brown on the pronotum discus with a band of whitish ones along the median line, light brown or whitish at sides. Prothoracic epimera mainly bare, strongly punctate, with a few small, whitish scales near the distal corners; the distal process with whitish, enlarged, bifid setae.

Mesothoracic episterna bare.

Metathoracic epimera narrow, with a row of punctures doubled at both ends, each puncture bearing a white seta. Metasternum covered at sides with wide white bifid setae, in the middle with white hairs.

Legs: long, with oblong, distally bifid, white scales; tarsal claws

appendiculate (♀) with a well-developed basal tooth; tooth at the base of the mesotibial emargination shortly projecting, acute, its height a little less than 1/3 of the mesotibial width at that point.

Elytra elongate (length/width at humeral level = 1.5), with a very weak transverse impression on the basal third; sides feebly curved and widening to middle, then evenly curved to the apical corners; scales on the interstriae resemble the ones on the pronotum, the white ones diffuse over the whole elytra, partially mixed with light and dark brown ones; white scales arranged in two ill-defined transverse bands before and beyond the elytral middle, and grouped at the elytral base, along the suture, at sides and on the declivity; scales arranged mostly in double or triple rows on each interstria, including the sutural interstria, in a single row only in the impression on the basal third of the elytron; punctures of the striae large, in most cases each with a very thin and small seta inside; interstriae convex, narrow, on the elytral discus their width equal to or narrower than the diameter of the striae punctures; epipleura moderately wide, with a row of whitish hairs along the fold of the inner margin.

Spermatheca (fig. 212).

DERIVATIO NOMINIS. The species is named after Davide Sassi, a friend and well-known specialist in Chrysomelidae Cryptocephalinae.

VERIFIED DISTRIBUTION: Guinea Bissau.

### **Pachnephorus (Pachnephorus) senegalensis** Achard, 1914

*Pachnephorus senegalensis* Achard, 1914: 229.

TYPE LOCALITY: Sénégal: environs de Dakar.

TYPE DEPOSITORY: NMPC

LECTOTYPUS (here designated): Env. de Dakar, Chissadon 1911 [handwritten white label]; Typus [printed red label]; *Pachnephorus senegalensis* n. sp., J. Achard det., Types [handwritten white label]; LECTOTYPUS, *Pachnephorus senegalensis* Achard, 1914, S. Zoia des., 2007 [printed red label] (♂, aedeagus extracted, the first specimen in a pin with three).

PARALECTOTYPI: Env. de Dakar, Chissadon 1911; Typus; *Pachnephorus senegalensis*

n. sp., J. Achard det., Types; PARALECTOTYPUS, *Pachnephorus senegalensis* Achard, 1914, S. Zoia des., 2007 (2 ♂♂, 2 ♀♀, 1 ex. unidentified sex, NMPC [4 other not examined specimens are preserved in NMPC])

EXAMINED MATERIAL. SENEGAL: Sangalkam, VIII-1971, A. Villiers (1 ♀, MNHN); Somone, VIII.1971, A. Villiers (7 ♂♂, 33 ♀♀, MNHN; 2 ♂♂, 2 ♀♀, SZcoll); Ngazobil, VIII.1971, A. Villiers (1 ♂, MNHN); Sangalkam, VIII.1971, A. Villiers (2 ♂♂, 6 ♀♀, MNHN); idem, IX.1971 (1 ♂, 1 ♀, MNHN); Sebikotane, VIII.1971, A. Villiers (2 ♂♂, 3 ♀♀, MNHN; 1 ♂, 1 ♀, SZcoll); Forêt de Bandia, VIII.1971, A. Villiers (2 ♂♂, 4 ♀♀, MNHN); Dakar, Waterlot 1907 (2 ♂♂, MNHN); Sinthiou-Maleme, 28.viii.1939, J. Risbek, on Sun-flower (2 ♀♀, BMNH); Bambey, 1944, J. Risbek (1 ♂, BMNH); Thies, 1912, F. Silvestri [leg.] (1 ♀, MSNG). GAMBIA: Bakau, 6-26.IX.1984, leg. T. Palm (3 ♂♂, 3 ♀♀, MZLU; 1 ♂, 1 ♀, SZcoll); Keneba, 5.X.1975, M. Speight, at light (1 ♀, BMNH). GUINEA BISSAU: Oio, 2 km E Banar, 21.VII.1992, leg. Sven Persson (1 ♂, MZLU); MALI: I.R.C.T., M'Pesoba, 24.VII.1970, G. Pierrard (1 ♂, MRAC). TOGO: Sokodé, Kpangalam, 3.6.1988, leg. F.-T. Krell (2 ♂♂, 1 ♀, SMNS; 1 ♂, SZcoll). BENIN: Haut-Dahomey, Cercle de Ojougou-Kouandé, Kika, Lieut<sup>t</sup> Brot, Juin 1908 (1 ♀, MNHN). NIGERIA: Azare, X.1928, Dr. Ll Lloyd (2 ♀♀, BMNH); NC.St., Zaria, 2-3.8.1973, R. Linnavuori (1 ♀, ZMUH); Yola, 25.8.1973, R. Linnavuori (6 ♂♂, 6 ♀♀, ZMUH; 2 ♂♂, 2 ♀♀, SZcoll); Kaduna, IX-1971, R. Frieser ded. (1 ♀, MRAC). CAMEROON: Bas-Chari, N'Goum, 40 km sud du Lac Tchad, 11.8.1963, J. Péricart, coll. (1 ♀, MNHN). CHAD: N'Gouri, distr. de Kanem, VIII-1958, P. Renaud (8 ♂♂, 8 ♀♀, MRAC; 2 ♂♂, 3 ♀♀, SZcoll); N'Gouri, distr. de Kanem, IX-1958, P. Renaud (1 ♂, 4 ♀♀, MRAC); N'Gouri, distr. de Kanem, X/XI-[19]58, P. Renaud (3 ♀♀, MRAC). SUDAN: Senaar a. Bl. Nil, lux, 21.10.1979, leg. Hieke (1 ♂, MNHU); Wad Medani a. Bl. Nil, 8.10.1979, lux, leg. Hieke (1 ♀, MNHU); idem, 15.10.1979 (1 ♀, MDcoll). ETHIOPIA: Shoa Prov., Gibbie Gorge, VII-1971, G. De Rougemont (1 ♂, MRAC); Eritrea: Setit Humera, 14-X-[19]73, R. O. S. Clarke (1 ♂, MRAC). REP. POP. CONGO: P. N. G., Iso II/3, 12-VI-1952, H. De Saeger, 3622 (1 ♀, MRAC); P. N. G., I/o/I, 30-VI-1950, Réc. G. Demoulin, 656 (1 ex., BMNH). TANZANIA: Tanganyika Terr.: Longido, Masai Distr., 1500 m, 17/20-IV-1957 (1♂, 1 ♀, MRAC; 1 ♀, SZcoll); Arusha distr., Mto Wa Mbu env., 15.-20.April 1997, J. Stolarczyk leg. (1 ♂, UAcoll); idem, Milan Kubon leg. (1 ♀, SZcoll); Arusha Distr., Mto Wa Mbu env., 16.-20.April 1997, Stolarczyk leg. (1 ♂, 5 ♀♀, AUcoll; 1 ♂, 3 ♀♀, SZcoll). ZAMBIA: 23.iii.1993, 13°06'03"S/31°47'32"E, South Luangwa NP, Mfuwe Crocodile Farm, 450 m, lux, leg. M. Uhlig (1 ♀, MNHU); idem, 24.iii.1993 (1 ♂, SZcoll.).

DESCRIPTION. Body length of the lectotypus 3.0 mm, of the paralectotypi 3.0-3.4 mm (length range in the examined specimens: 2.7-3.5 mm).

Habitus as in figs 71-72. Body dark brown, as a rule with slightly paler elytra, not metallic, darker above; labrum, palpi, antennae and legs reddish.

Head: frons evenly convex, distally flat, not raised in the region between the antennal fossae (fig. 106); frons surface with scales which are three times longer than wide and split for 1/3 of their length; scales of two colours, white on the general surface with two more or less wide spots of brown scales at sides of the median line of the frons; setae finer and smaller between the eyes; eyes large, the horizontal di-

ameter as long as the 2<sup>nd</sup> and 3<sup>rd</sup> antennal segments together (in frontal view the distance between the eyes is about 2.5 times the width of a single eye in ♂, 2.7 times in ♀), with a very thin and parallel-sided sulcus above (fig. 106). Antennae: 2<sup>nd</sup> antennal segment as long as first and half as wide, 3<sup>rd</sup> and 4<sup>th</sup> subequal, less than twice as long as wide, 5<sup>th</sup> a little more than twice as long as wide and a little longer than 6<sup>th</sup>, 7<sup>th</sup> to 10<sup>th</sup> trasverse, 11<sup>th</sup> less than twice the 10<sup>th</sup> in length.

Pronotum a little wider than long, as wide at base as at distal border; sides slightly curved and widening from the base and shortly constricted distally, the widest point at the distal third; anterior angles not protruding; pronotal surface shiny between the punctures; punctures moderately strong, not confluent, smaller and more superficial only near the distal border; lateral borders thin, well marked, not reaching the distal edge of the prothorax; the distal process of the prothorax sides, covering the eyes, extends dorsally a little beyond the lateral border; scales twice as large as those on the head, of two colour; on the pronotal sides they are split for 1/2 length; scales mostly white near the pronotal corners, mixed with brown scales at sides, mostly brown on the discus. Prothoracic epimera bare, strongly punctate; the distal process with fine, both bifid and entire, setae.

Mesothoracic episterna bare.

Metathoracic epimera narrow, with a single row of punctures, each with a very short seta. Metasternum covered with white bifid setae.

Legs: moderately long, robust, with oblong white scales, finer than the ones on the elytra; protarsi in ♂ weakly enlarged, with bifid claws: the inner tooth of each claw a little shorter than the outer, starting the division a little beyond the middle of the claw; dorsal side of the claws evenly curved to the apex (fig. 111); tooth at the base of the mesotibial emargination short, its height not more than 1/3 of the mesotibial width at that point.

Elytra moderately long (length/width at humeral level = 1.5), with sides evenly curved to the declivity; scales on the interstriae in a single or double row on each interstria; scales shorter than those on the prothorax, of two colours, brown, similar to the elytral surface in colour, and white, mostly forming spots and bands; punctures of the striae large, without setae on the discus or with a very fine seta; the punctures of the outer striae with a thin white seta; interstriae convex, narrow, their width nearly equal to the diameter of the strial

punctures; epipleura moderately wide, with a few very small setae at humeral level, only at high magnification can other minute setae be sometimes seen along the fold of the inner border.

Aedeagus (figs 213-214).

Spermatheca (fig. 215).

DISTRIBUTION CITED IN LITERATURE. I report the previous citations for *P. senegalensis*, although the correct identification of the species by the authors is not verifiable: Senegal (Clavareau 1914); Senegal or Ivory Coast (unclear) (Bryant 1948); Dahomey: Koussokoingou (Atakora, 600-700 m) (Pic 1952).

NOTES. Specimens from Zambia show no really distinguishing characters from those from Senegal; the sides of the pronotum are slightly sinuate near the base while in the specimens from Senegal they are convex throughout their length; the aedeagus is closely similar, only the shape of the ostium (shorter) and a slightly more robust median lobe can be observed. Nevertheless these distinctions are so fine as to be usually included in the normal variation of each *Pachnephorus* species. The few specimens in my hands as well as the presently scarce knowledge of the true distribution of the species do not allow me to separate the specimens from Zambia at species level, despite the geographic distance.

VERIFIED DISTRIBUTION: Senegal, Gambia, Guinea Bissau, Mali, Togo, Benin, Nigeria, Chad, Ethiopia, Rep. Pop. Congo, Tanzania, Zambia.

NOTE. I refer with doubt to *P. senegalensis* a specimen from Rwanda (Škulina lgt., 1 ♀, NMPC).

### **Pachnephorus (Pachnephorus) s h u t e a e n. sp.**

TYPE LOCALITY: Rep. South Africa: Natal: Estcourt.

TYPE DEPOSITORY: BMNH.

HOLOTYPE LABELS: 4872 [handwritten white label]; S. Africa, Natal, Estcourt, XII.1893, G. A. K. Marshall [printed and handwritten white label]; Pres. by Imp. Inst.

Ent., B. M. 1941-14 [printed white label]; Holotypus, *Pachnephorus* (*Pachnephorus*) *shuteae* n. sp., S. Zoia det. 2007 [printed red label] (♀).

EXAMINED MATERIAL. Only the holotypus.

DESCRIPTION. Body length 2.9 mm.

Habitus as in figs 73-74. Body dark brown to black, feebly shiny, with feeble metallic reflexion; elytra slightly paler; palpi, first antennal segments and legs paler than the elytra.

Head: frons evenly convex, not raised between the antennae at the beginning of the clypeus; the surface showing strong microreticulation between the punctures; the clypeus strongly inclined, shiny, impunctate in the middle, with a few setae at sides; the frons with relatively small, oblong, regularly arranged scales, which are 3-4 times longer than wide on average, split for 1/3-1/2 of their length and curved; scales whitish, with two ill-defined spots of light brown scales at sides of the median line; surface of the frons between the eyes with thinner bifid setae; eyes relatively small and strongly convex (in frontal view the distance between the eyes is about 3.5 times the width of an eye), without any sulcus above. Antennae reddish-brown with last five segments darker: 2<sup>nd</sup> antennal segment as long as first and half as wide, 3<sup>rd</sup> and 4<sup>th</sup> subequal, twice as long as wide, 5<sup>th</sup> a little longer than 6<sup>th</sup>, 7<sup>th</sup> 1.3 times longer than wide, 8<sup>th</sup> and 9<sup>th</sup> a little longer than wide, 10<sup>th</sup> subquadrate, 11<sup>th</sup> 1.4 times the 10<sup>th</sup> in length.

Pronotum a little longer than wide, as wide at distal border as at base; sides widening from base to a little beyond the middle, constricted distally; lateral borders well marked, not reaching the distal edge of the prothorax because of the distal process of the epimera which extends dorsally a little beyond the line of the lateral border; scales on the pronotal sides oblong, 3 times or more longer than wide, split for 1/3-1/2 of their length; scales a little thinner on the pronotal discus; scales mostly light brown on the discus, light brown and whitish at sides. Prothoracic epimera bare, strongly punctate; the distal process with white, bifid setae.

Mesothoracic episterna bare.

Metathoracic epimera narrow, with a row of punctures which is doubled at both sides, each puncture with a single white seta. Metasternum covered at sides with white bifid setae, in the middle by white hairs.

Legs: long, with oblong, distally bifid, white scales; claws (♀) ap-



pendiculate, with a small basal tooth; tooth at the base of the mesotibial emargination shortly projecting, obtuse, its height less than 1/3 of the mesotibial width at that point.

Elytra elongate (length/width at humeral level = 1.5); sides feebly curved and widening to half length, then regularly curved to the apical corners; scales on the interstriae elongate, 4-5 times longer than wide, wider on the elytral sides (3-4 times longer than wide); colour of the scales white and light brown; white scales mostly arranged in an ill-defined spot before the elytral middle, and diffused at sides and on the declivity; scales arranged mostly in a single row on each interstria, only the lateral stria with a double row of scales; punctures of the striae large, each with a very thin and small seta which is absent from the punctures on the elytral discus; interstriae flat on the discus, convex on the elytral sides, narrow, their width equal to or narrower than the diameter of the striae punctures; epipleura wide, with a row of white hairs along the fold of the inner margin.

Spermatheca (fig. 216).

DERIVATIO NOMINIS. The species is named after Sharon Shute, for her help during my stay at the BMNH and for her suggestions and loan of specimens.

VERIFIED DISTRIBUTION: Rep. South Africa: Natal.

### **Pachnephorus (Pachnephorus) torridus** Baly, 1878

*Pachnephorus torridus* Baly, 1878: 256;

*Pachnephorus costatus* Achard, 1914: 230 n. syn. (type locality: Congo, Haut-Chari: Fort Crampel).

TYPE LOCALITY: Banks of the Niger.

TYPE DEPOSITORY: BMNH.

HOLOTYPE LABELS: Niger [white handwritten label]; type [white handwritten round label with red border]; *Pachnephorus torridus*, Niger R. Baly [handwritten white label]; *Pachnephorus torridus* n. sp. banks of Niger [light-blue handwritten label]; Baly Coll. [printed white label] (♀).

EXAMINED MATERIAL. Fort-Crampel, Congo-Français [printed]; Typus [printed red label]; *Pachnephorus costatus* n. sp. J. Achard det. Type [handwritten] (♂, NMPC [1 ad-

ditional specimen, not mentioned in the original description, preserved in NMPC, not examined]).

SENEGAL: Richard-Toll, 30.XI.1960 (1 ♀, MNHN); idem, 2.XII.1960 (1 ♂, 1 ♀, MNHN); Richard-Toll, XI-1967, A. Descarpentries, T. Leye et A. Villiers (1 ♂, 13 ♀♀, MNHN; 2 ♀♀, SZcoll); Linguère (Ndilla), IX-1967, A. Descarpentries, T. Leye et A. Villiers (1 ♂, 3 ♀♀, MNHN); Podor, Maindron 1881 (1 ex., MNHN); Sinthiou-Maleme, 28.viii.1939, J. Risbec, on Sun-flower (1 ♀, BMNH); 3 km SSE Brin, 11 km SW Ziguinchor, 9.XI.1977, UTM 28PCJ53-83--. loc. no. 22, Cederholm, Danielsson, Hammarstedt, Hedqvist, Samuelsson (2 ♂♂, 1 ♀, MZLU); 1 km NW Bignona, 26 km N Ziguinchor, at light 19.15-20.30, 3.iii.1977, loc. no. 14, UTM 28PCK654170, Cederholm, Danielsson, Larsson, Norling, Samuelsson (2 ♂♂, MZLU; 1 ♂, 1 ♀, SZcoll); MPAK, 11 km S Ziguinchor, at light, 19.00-21.00, 8.XI.1977, UTM 28PCJ6479, loc. 28 Cederholm, Danielsson, Hammarstedt, Hedqvist, Samuelsson (3 ♂♂, 7 ♀♀, MZLU; 2 ♂♂, 1 ♀, SZcoll); in forest, 1 km NE Djibelor, about 7.5 km SW Ziguinchor, at light, 19.00-21.00, 9.XI.1977, UTM 28PCJ5687, loc. 29, Cederholm, Danielsson, Hammarstedt, Hedqvist, Samuelsson (2 ♂♂, MZLU); Cap Skiring, at light, 19.30-02.00, 10.XI.1977, UTM 28PCJ6019, loc. 30, Cederholm, Danielsson, Hammarstedt, Hedqvist, Samuelsson (1 ♂, 1 ♀, MZLU). GAMBIA: Keneba, 5.x.1975, M. Speight (1 ♀, SZcoll); Gambia, outside Abuko Nature Reserve at water works, at light, 19.00-21.00, 22.XI.1977, UTM 28PCK215812, loc. 6, Cederholm, Danielsson, Hammarstedt, Hedqvist, Samuelsson (1 ♀, MZLU); Bathurst, jan.68, Palm (2 ♂♂, MZLU); Gambia, river Tanji 3 km SW Brufut, at light, 19.00-21.00, 28.II.1977, loc. no. 9, UTM 28PCK087773, Cederholm, Danielsson, Larsson, Mireström, Norling, Samuelsson (2 ♂♂, 2 ♀♀, MZLU; 1 ♂, 1 ♀, SZcoll); oil palm an mangrove veg, close to the beach about 5 km SSW Gunjur, at light, 18.45-20.30, 13.XI.1977, UTM 28PCK0554, loc. 8, Cederholm, Danielsson, Hammarstedt, Hedqvist, Samuelsson (1 ♂, 2 ♀♀, MZLU; 2 ♀♀, SZcoll); idem, 19.00-22.00, 22.II.1977 (1 ♂, MZLU); Tendebea camp, swept in veg. along river Gambia, 14-15.XI.1977, UTM 28POK1285, loc. 12A, Cederholm, Danielsson, Hammarstedt, Hedqvist, Samuelsson (1 ♀, MZLU); 1 km N Tanji river bridge, at light in dense forest, 18.30-20.00, 19.XI.1977, UTM 28PCK0578, loc. 39, Cederholm, Danielsson, Hammarstedt, Hedqvist, Samuelsson (1 ♂, MZLU). GUINEA BISSAU: Cacheu, 5 km W Bula, 4.VII.1993, leg. S Persson (1 ♀, MZLU); Bafata, Capé, at light, 1.XI.1992, leg. S Persson (1 ♀, SZcoll); Suzana, 7-[19]53, Andreoletti (2 ♀♀, MSNM). MALI: Kogoni, X.1966, G. Schmitz (3 exx., MRAC; 2 exx., SZcoll); Bamako, VII.1971, leg. D. Seiler (1 ♂, 1 ♀, MRAC); I.R.C.T. - M'Pesoba, 6.X.1969, G. Pierrard (1 ♂, MRAC). NIGER: Tombouctou A Say, Mission Hourst, 5-98 (1 ♂, MNHN). IVORY COAST: Elfenbeinküste, Ferkessédougou, 2.V.1988, leg. F.-T. Krell (1 ♂, 2 ♀♀, SMNS; 1 ♂, SZcoll). BURKINA: Haute Volta, Bobo-Dioulasso, X.1964, R. Siffointe (1 ♀, MRAC). IVORY COAST: Ferkessédougou, 10/20.V.1964, J. Decelle (1 ♀, MRAC). GHANA: Accra Airport, 28.-29.V.1988, leg. F.-T. Krell (1 ♀, SMNS). BENIN: bor. occ., 28.vi.2001, Tangueta env., Dept. L'Atakora, leg. F. & L. Kantner (1 ♂, SMNS). NIGERIA: Azare, ii.1929, Dr Lloyd (1 ♂, BMNH); St. Badeggi, rice fields, 8-9.8.1973, R. Linnavuori (1 ♀, ZMUH); St. Malumfashi, 26-30.7.1973, R. Linnavuori (2 ♂♂, ZMUH). CHAD: Bas Chari, Fort Lamy, Dr J. Decorse, 1904 Octobre (1 ♂, MNHN; 1 ♀, SZcoll); Bas-Chari, J. Péricart coll., Env. de Fort-Lamy, Farcha 29.7.1963 (1 ♂, MNHN); Mondou, Bebedjia, 21.I.1978, G. Ruella (1 ex., MRAC); [Chad?] Bas Chari, Mom; Chaom; Kouka, Dr J. Decorse, 1904 (1 ♀, MNHN); [Chad?] Rives du Moyen Chari, Gory-Damraou, Dr J. Decorse, juin 1904 (1 ♂, MNHN). CAMEROON: Bas-Logone, J. Péricart coll., Rés. forestière de Logone-Birni, Kidam, 3.VIII.1963 (1 ♂, 1 ♀, MNHN); Bas-Chari, J. Péricart, N'Goum, 40 km au Sud du Lac Tchad, 11.VIII.1963 (1 ♂, SZcoll); Bas-Chari, J. Péricart coll., env. de Fort-Foureau, zone de bordure du Chari, 27.7.1963 (1 ♂, MNHN); Maroua (lumière), X/XI.1965, G. Schmitz (1 ♀, MRAC); Maroua (lumière), X/XI.1965, G. Schmitz (1 ♂, 2 ♀♀, MRAC; 1 ♂, 1 ♀, SZcoll). CENTRAL AFRICAN REP.: La Maboke, 6-9.6.1973, R. Linnavuori (1 ♀, ZMUH; 1 ♀, SZcoll). REP. POP. CONGO: P.N.U., Mabwe (r. E. lac Upemba), 585 m, 11-

26.I.1949, Miss. G. F. de Witte, 2212a (1 ♀, MRAC); Kisangani, XI.1972, J. Taverniers (1 ♀, MRAC).

**DESCRIPTION.** Body length of the holotypus 3.4 mm (length range in the examined specimens: 2.5-3.9 mm).

Habitus of the holotypus as in figs 75-76. Body dark brown, shiny, usually with a slight metallic reflexion on head and pronotum; palpi, antennae, legs and elytra brown, slightly paler than the body.

Head: frons evenly convex, distally with a median longitudinal thin groove; feebly depressed above the antennal fossae, feebly and transversely raised between the antennal fossae at the beginning of the clypeus; the surface punctured between the eyes; the clypeus moderately inclined, impunctate; the frons with enlarged scales, 2.5-3 times longer than wide on average, split for half length or less; scales white with a spot of light brown scales on either sides of the median line; surface of the frons between the eyes with thin, small, whitish setae, even smaller on the clypeus; eyes moderately large and convex (in frontal view the distance between the eyes is 3 times the width of an eye), without any sulcus above. Antennae: 2<sup>nd</sup> antennal segment shortly longer than first and half as wide, 3<sup>rd</sup> and 4<sup>th</sup> subequal, 5<sup>th</sup> 2.5 times longer than wide, a little longer than 6<sup>th</sup>, 7<sup>th</sup> a little longer than wide, 8<sup>th</sup> to 10<sup>th</sup> as long as wide, 11<sup>th</sup> 1.5 times the 10<sup>th</sup> in length.

Pronotum a little wider than long, a little wider at distal border than at base; sides widening from base to the distal third and clearly constricted distally; lateral borders well marked, not reaching the distal edge of the prothorax; the distal process of the prothorax sides, covering the eyes, shortly extending dorsally beyond the line of the lateral borders; scales 2.5-3 times longer than wide, a little thinner on the median line, split for 1/2 or less of their length; scales white and light-brown, mixed. Prothoracic epimera strongly punctured, proximally bare, with white bifid scales near the distal corners (fig. 100); the distal process with a few, thinner, white scales.

Mesothoracic episterna bare.

Metathoracic epimera narrow, with a single row of punctures, each with a white seta (fig. 100), only at the anterior end this row might be doubled. Metasternum covered at sides by wide white bifid setae, in the middle by white hairs.

Legs: moderately long, with oblong, distally bifid, white scales; both claws of the protarsus in ♂ bifid, the inner tooth a little shorter

than the outer one, the split being a little over half the claw's length; claw's dorsal side evenly curved to the apex; all the other claws in ♂ and all the claws in ♀ appendiculate, with a well developed tooth near the base; tooth at the base of the mesotibial emargination acute, short, its height about 1/3 of the mesotibial width at that point.

Elytra oblong (length/width at humeral level = 1.7), with a very feeble transverse impression on the basal third; sides subparallel or feebly curved to beyond middle, then regularly curved to the apical corners; scales on the interstriae smaller than those on the pronotum, light brown and white, the white ones mostly gathered in five or six ill-defined spots and along the lateral edges; scales arranged mostly in a double or triple series on each interstria; punctures of the striae each with a white seta on the whole elytra; interstriae moderately convex, their width greater than the diameter of the punctures; epipleura moderately wide, with very small, thin and spaced hairs along the fold of the inner margin (fig. 100).

Aedeagus (figs 217-218).

Spermatheca (fig. 221).

NOTE. I here refer to *P. torridus* a possibly large complex of not well defined populations characterized, among other characters, by the transverse elevated ridge between the eyes and bifid claws of the fore tarsi in males. Despite the great differences in the scale coverage of the body in specimens coming from different areas, I found no evidence to justify separating them.

The type specimen of the taxon shows relatively wide interstriae on the elytra discus with bands of white, denser scales and pale brown scales which are two to three in number on the width of each interstria in a large part of the elytral surface; each puncture of the elytral striae bears a white seta which is somewhat flattened also on the elytral discus. The description I give for this taxon refers to the specimens listed in "Examined material" which are the ones better matching with the type; yet different populations here referred to *P. torridus* in "Other examined material" show all stages from the type form to specimens poorly covered with scales, with a single row of dark brown scales on each interstria, bands of closer white scales and punctures on the discus without setae or with simple small setae. The examined specimens from the region south to the Lake Tchad are clearly smaller in body size and have denser scales on the elytra. The

observed variation does not follow a geographic trend, but seems to characterize populations in more or less widely separated areas, possibly in relation to local conditions.

The examined typus of *P. costatus* closely resembles *P. torridus* holotypus, with the following differences: paler integument colouration, darker brown scales on the dorsum, arranged mostly with two on the width of each interstria, narrower interstriae, thin setae in the striae punctures on the elytra discus. These differences can be regarded as minor local variations referring to the situation reported above; this is why I propose the following synonymy: *P. costatus* Achard, 1914 **n. syn.** of *P. torridus* Baly, 1878. Figs 219-220 and fig. 222 show the aedeagus and spermatheca of specimens very alike in their habitus to *P. costatus* typus.

I observed a single ♂ specimen with teratologic claws: the right fore tarsus has both claws appendiculate, the left one has only the inner claw bifid, while the outer is appendiculate.

OTHER EXAMINED MATERIAL (see note above). SENEGAL: Sinthiou-Maleme, 8.viii.1939, J. Risbec, on Sun-flower (1 ♀, BMNH). SIERRA LEONE: Northern Province, tra Yfin e Kondembaia, 22.XI.1984, W. Rossi leg. (1 ♂, SZcoll). TOGO: Bismarckburg, 2.-18.VI.93, L. Conradt S. (1 ♀, MNHU). CAMEROON: Joh.-Albrechtshöhe, 11.IV.-27.V.98, L. Conradt S. (1 ♂, MNHU); N'Kongsamba, Novembre [19]56, J. Cantaloube (2 ♂♂, 1 ♀, MNHN); N'Kongsamba, Octobre 1956, J. Cantaloube (1 ♂, MNHN); Kumba Station, 31.VII.1988, leg. F.-T. Krell (1 ♀, SMNS). EQUATORIAL GUINEA: Nkolentangan, XI.07-V.08, G. Teßmann S.G. (1 ♂, 1 ♀, MNHU). GABON: Lac Zilé, J. De Muizon (1 ♂, 1 ♀, MNHN); Komo, Contreforts des Mts de Cristal, 400 m, 1-15.X.1969, A. Villiers (1 ♀, MNHN). CONGO: Brazzaville, Dr J. Decorse, juillet 1904 (1 ♂, MNHN). REP. POP. CONGO: Voka (Boko) XII.1979, G. Onore (1 ♂, MDcoll; 1 ♀, SZcoll); Kisantu, 1931, R.P. Vanderyst (1 ♂, MRAC); Kivu: Terr. Masisi, 800 m, Mutakato, IX-1953, N. Leleup (1 ♀, MRAC); Mulongo (Mafinge), 10/17-VII-1930 Dr P. Gérard (1 ♂, MRAC); P. N. A., Ndeko (près Rwindi) 1082 m, 27-xi-1934, G. F. de Witte: 829 (1 ♂, MRAC); Coquilhatville, 1959, Rév. P. Hulstaert (2 ♂♂, MRAC); Stanleyville a Kilo, L. Burgeon (1 ♂, MRAC); Lokandu, 1937, Lt. Marée (1 ex., MRAC); Lokandu, III-1939, Capt. Marée (1 ♂, 4 ♀♀, MRAC; 1 ♀, SZcoll); Congo da Lemba, II-III.1913, R. Mayné (1 ♂, 1 ♀, MRAC); Congo da Lemba, V-1912, R. Mayné (1 ex., SZcoll); prov. de Maniéma, Kindu, L. Burgeon 1917 (1 ♀, MNHN); Tshuapa: Bamanya, XI-1986, Rév. P. Hulstaert (1 ♀, MRAC). RWANDA: Kagogo, 1900 m, t. Ruhengeri, 29-I-1953, P. Basilewsky, *Pachnephorus fasciatus* Burg., det. G.E. Bryant (1 ♀, MRAC). SUDAN: Wad Medani a. Bl. Nil, 8.10.1979, lux, leg. Hieke (1 ♀, MNHU); Roseires, Haut Nil Bleu, Ch. Alluaud, 1907, aux lumières (3 ♀♀, MNHN). ETHIOPIA: Wollo Prov.: Worgessa, G. De Rougemont (3 ♂♂, MRAC; 1 ♂, 1 ♀, SZcoll); Harer Prov.: Melca Werer, 760 m, 27-29.XI.1974, R.O.S. Clarke (1 ♂, 1 ♀, MRAC); Harer Prov., Koka Dam Lake, 30.VI.1973, R.O.S. Clarke (1 ♀, MRAC); Shoa Prov.: by Gefarsa Reservoir, 24 km WNW of Addis Abeba, 2540 m, 1.VII.1973, R.O.S. Clarke (1 ♀, MRAC); Shoa Prov.: Awash Nat. Park, 1000 m, 14/15.VIII.1971, R.O.S. Clarke (1 ♀, MRAC); Wollo Prov.: Tiss Abba Lima, 15/20.III.74, G. de Rougemont (1 ♀, MRAC); Ilubabor Prov.: Gambela, 21/23.V.1972, R.O.S. Clarke (1 ♀, MRAC); Abyssinia, 76.36 (1 ♀, BMNH). SOMALIA: Belet Amin (Giuba) April 1923, Patrizi (1 ♀,

MSNG); idem, VII.1934 (1 ♀, MSNG). KENYA: Mombasa, Ch. Alluaud [leg.]1904, juillet, [*Pachnophorus conspersus* Gerst. J. Achard det. 1913] (1 ♂, NMPC); Mulange (1 ♂, NHMB); 1360m, Swam, 25/1-79, leg. T. Palm (1 ♂, MZLU); Kibwézi (Wa-Kamba) Ch. Alluaud, XII-1903 (1 ♂, MNHN); Nairobi, Alluaud & Jeannel, nov. 1911, 1660 m, st. 10 (1 ♀, MNHN); Nairobi, Alluaud & Jeannel, Nov. 1911, 1660 m, St. 10 (3 ♀♀, MNHN). TANZANIA: 1.-9.6.1898, leg. Dr. Fülleborn, Z.M.Berlin, Langenburg, Ineteyanur, Mnya a. Nyassa (1 ex., MNHU); IV.1997, Uluguru Mts., Werner & Lizler leg. (1 ♂, SZcoll); Uluguru mts., IV.1991, leg. Werner (2 ♀♀, MSNM); Kwasangiwa, 1.1906, leg. Chr. Schröder (1 ♀, MNHU); A.d.Sammlung Dr. Chr.-Schröder's Massaistepe (2 ♂♂, 1 ♀, MNHU; 1 ♂, 1 ♀, SZcoll); Mikumi, 17-20.12.1993, lgt Šnizek (1 ♂, 1 ♀, CZcoll); Iringa Distrikt, Ruaha National Park, 9.1.93, leg. Mourglia coll. Mauser (1 ♂, SZcoll); Papyrus-Sumpf, süd-ö. Kilimandjaro, 20.-21.I.06, coll. Dr. Chr. Schröder (1 ♀, MNHU); Pangani Falle, 1.VI.10 (2 ♀♀, MNHU); Kilimandjaro, Tanganjika, E. Haaf, I.1960, Makoa, 1400 m (1 ♀, NHMB). ZAMBIA: 23.iii.1993, 13°06'03"S/31°47'32"E, South Luangwa NP, Mfuwe Crocodile Farm, 450 m, lux, leg. M. Uhlig (1 ♂, SZcoll); Pays des Marotsés, Vict. Ellenberger 1914 (1 ♂, MNHN); Mwengwa, 27°40'E 13°S, 23.VII.1914, H. C. Dollman (2 ♂♂, 2 ♀♀, BMNH). MALAWI: Balaka env., 19-20.xii.2001, J. Bezděk leg. (2 ♀♀, JBColl; 1 ♀, SZcoll); Chikwawa env. (40 km S of Blantyre) 20.-21.xii.2001, J. Bezděk leg. (1 ♀, JBColl); Mulanje Mts env., 22.-26.xii.2001, J. Bezděk leg. (3 ♀♀, JBColl: 1 ♀, SZcoll); Jali env. (30 km SE of Zomba) 26.-27.xii.2001, J. Bezděk leg. (1 ♂, JBColl); Salima env., 5.-6.i.2002, J. Bezděk leg. (1 ♀, JBColl). NAMIBIA: Exp. ZMB 1992, E. Caprivi: Katima Mulilo, 17°29'S/24°17'E, lux, 3.-8.III.1992, leg. M. Uhlig (1 ♂, 2 ♀♀, MNHU; 1 ♂, SZcoll); 24.-26.ii.1994; 17°26'S/14°09'E, Kunene, 9km W Ruacana, leg. U. Göllner (1 ♂, 2 ♀♀, MNHU; 2 ♀♀, CZcoll); 24.xi.1993, 18°13'S/21°45'E, Kavango: Mahango Game Reserve: Pkiknik site, lux, leg. M. Uhlig (1 ♂, MNHU); 17.iv.1993, 18°07'16"S/21°34'51"E, Popa Falls, island, banks of Okavango, sievings: reed + papyrus, leg. M. Uhlig (1 ♀, MNHU); Caprivi Zipfel, Catima Mulilo, 15.-24.I.1995, lgt M. Šnizek (1 ♂, SZcoll); 50 km NW Opuwo, 1300 m, 13.IV.2005, leg. W. Schawaller (1 ♂, SMNS). MOZAMBIQUE: Vila Pery, P. Lesne 1928, Novembre, nid de Mygale (1 ♀, MNHN). Rep. South Africa: 2.ii.1994, 27°36'S/32°13'E, Natal: Mkuze NP: Inhlehlela Pan: sieving: gras, flood débris, leg. Uhlig (1 ♂, SZcoll); Tvl, Kruger Nat. Park, Pafuri, Bobomene Research Camp, 22.26S 31.12E, 250 m 02.ii.1994, E. Grobbelaar (18 ♂♂, 22 ♀♀, PPRI; 3 ♂♂, 2 ♀♀, SZcoll); Venda, Nwanedi Resort, 22.38S 30.24E, 550 m, 05.ii.1994, R. Oberprieler (2 ♀♀, PPRI); Tvl, Ktuger Nat. Park, Pafuri, Bobomene Research Camp, 22.26S 31.12E, 250 m, 02.ii.1994, E. Grobbelaar, light trap (1 ♂, PPRI); Tvl, Vienna Game Farm, near Hoedspruit, 24.17S 30.58E, 500 m, 17-18.i.1991, E. Grobbelaar, collected at light (1 ♂, 2 ♀♀, PPRI); Tvl, Kruger Nat. Park, Satara, 24.23S 31.46E, 350 m, 5.ii.1988, B. Grobbelaar (1 ♀, PPRI); Venda, Nwanedi Resort, 550 m, 22.38S 30.24E, 05-09.ii.1994, B. Grobbelaar, light trap (4 ♂♂, 1 ♀, PPRI; 1 ♂, 1 ♀, SZcoll); (S17), R. Limpopo, Tvl., 23°00'S, 27°57'E, 25-26.iv.1972 (1 ♂, BMNH); Port St. John, Pondoland., Aug.7-13.1923, R. F. Turner (7 ex., BMNH; 1 ex., SZcoll); Zululand, Lr. Umhlatuzi R., 6.vi.1926, R. F. Turner (1 ♀, BMNH); KwaZulu-Natal, Kosi Bay Nature Reserve, 11.-17.XI.2002, leg. W. Schawaller (1 ♂, SMNS); Kwazulu-Natal, Ndumo NR, 23.XI.2001, P. Schüle leg. (1 ♀, SMNS).

DISTRIBUTION CITED IN LITERATURE. In literature, besides the original description and related citations (Lefèvre 1885; Clavareau 1914), *P. torridus* has been reported from the following localities: Congo Belge: Parc National Albert: Ndeko près Rwindi, 1082 m (seen by me and reported above); Katana; Chefferie Ngwese (Burgeon 1942)



(not verified); Nigéria: prov. Munschi: vallée de la rivière Benn: Loko (Papp 1952) (not verified). Material reported by Brivio 1960 (Guinea Portuguese: Suzana) is here reported in a note of the *P. moseykoi* n. sp. description.

VERIFIED DISTRIBUTION: Senegal, Gambia, Guinea Bissau, Sierra Leone, Mali, Ivory Coast, Burkina, Togo, Niger, Nigeria, Chad, Sudan, Cameroon, Central African Republic, Ethiopia, Equatorial Guinea, Gabon, Congo, Rep. Pop. Congo, Kenya, Tanzania, Zambia, Malawi, Namibia, Mozambique, Rep. South Africa.

**Pachnephorus (Pachnephorus) uhligi** n. sp.

TYPUS DEPOSITORY: MNHU.

HOLOTYPE LABELS: Namibia: Okahandja Distr., Otjiamongombe West 44 (Erichsfelde) 43 km N Okahandja, thornbush savannah [printed blue label]; BIOTA 05.072.2001.7.05.584, 21°36'13.3"S/16°56'15.8"E, 10 pitfall traps, 14-19.iv.2001: 16.00-17.00, leg. M. Uhlig [printed blue label]; Holotypus, Pachnephorus (Pachnephorus) uhligi n. sp., S. Zoia det. 2007 [printed red label] (♀).

EXAMINED MATERIAL. Only the holotypus.

DESCRIPTION. Body length of the holotypus 4.1 mm.

Habitus as in figs 77-78. Body dark brown to black, with a slightly metallic reflexion on the pronotum and on the underside; frons between the eyes, labrum, mandibles distally, first joint of antennae (segments 2-11 not available), legs and sides of the elytra reddish brown.

Head: frons evenly convex, distally weakly transversely depressed between the eyes; surface with scales, three times longer than wide and split for less than 1/3 of their length; most scales whitish, with some scales a little darker; the area between the eyes nearly bare, with round regular punctures evanescent in the area between the antennal fossae; eyes relatively small, the horizontal diameter 1.5 times the length of the first antennal segment (the distance between the eyes 4 times the horizontal width of an eye in frontal view), with a sulcus above which is gradually widened outwards. Antennae: first joint oval, 1.5 times longer than wide (antennal segments 2 to 11 missing).

Pronotum weakly transverse, a little wider at base than at distal border; sides regularly curved, slightly constricted distally, widest at middle; lateral borders not reaching the distal border, anterior angles not prominent; scales like the ones on the head, with colour variation from whitish to pale brown; sides and base with wax secretion; discus bare. Prothoracic epimera largely bare, with a few setae distally near the pronotal border, strongly punctate; post-ocular lobe large, with bifid white setae.

Mesothoracic episterna bare.

Metathoracic epimera narrow, with a row of punctures, doubled anteriorly, most of them with a very short seta. Metasternum with white setae, which are bifid and wider at its sides.

Legs: moderately long, robust, with white scales, longer than the ones on the lateral interstriae of the elytra; both claws of the protarsus appendiculate (♀): the inner tooth acute, reaching the distal half of the claw's length, the claw regularly curved to the apex; tooth at the base of the mesotibial emargination long, its height a little less than half the mesotibial width at that point.

Elytra large (length/width at humeral level = 1.7), with sides weakly and regularly curved to the declivity, the widest point beyond middle; there are 3 or more scales on the width of each interstria, a large part of the elytral discus lacks scales; scales are generally a little wider than the ones on the prothorax, brown and whitish, the latter making 4 spots and a lateral band on each elytron; the punctures of the three outermost striae each with a white seta and partially covered by the scales; interstriae convex at sides, flat on the discus, large, their width 3-4 times the diameter of the striae punctures; epipleura large, bare, with only a few very small setae at humeral level.

Spermatheca (fig. 223).

DERIVATIO NOMINIS. I name this taxon in honour of Manfred Uhlig who collected the only known specimen of this species and helped me with facilities in the study of the MNHU collections.

VERIFIED DISTRIBUTION: Namibia



**Pachnephorus (Pachnephorus) willersi** n. sp.

TYPE LOCALITY: Namibia: Kavango: Mahango Game Reserve.

TYPE DEPOSITORY: MNHU.

HOLOTYPE LABELS: Namibia, 24.xi.1993, 18°13'S/21°45'E, Kavango: Mahango Game Reserve: Piknik site, lux, leg. M. Uhlig [printed blue label]; Holotypus, *Pachnephorus (Pachnephorus) willersi* n. sp., S. Zoia det. 2007 [printed red label] (♂).

PARATYPI: Namibia, 24.xi.1993, 18°13'S/21°45'E, Kavango: Mahango Game Reserve: Piknik site, lux, leg. M. Uhlig (4 ♀♀, MNHU; 1 ♂, 1 ♀, SZcoll); Namibia, 1.iii.1994, 18°13'S/21°45'E, Kavango: Mahango Game Reserve: Piknik site, lux, leg. M. Uhlig (1 ♀, MNHU).

DESCRIPTION. Body length of the holotypus 2.7 mm (length range in the examined specimens: 2.7-3.1 mm).

Habitus as in figs 79-80. Body dark brown, feebly shiny, with elytra slightly paler; palpi, first antennal segments and legs paler than the elytra.

Head: frons evenly convex, flat between the eyes, feebly raised between the antennal fossae at the beginning of the clypeus; the surface showing strong microreticulation between the punctures; the clypeus inclined, shiny, punctate, with a few setae; the frons with small, oblong, regularly arranged scales, which are about 4 times longer than wide on average, split somewhat less than half length and curved; scales whitish, with two spots of brown scales at sides of the median line; surface of the frons between the eyes with thinner bifid setae; eyes relatively large and convex (in frontal view the distance between the eyes is about 2.7 times the width of a single eye), without any sulcus above. Antennae reddish-brown with darker club: 2<sup>nd</sup> antennal segment as long as first and half as wide, 3<sup>rd</sup> and 4<sup>th</sup> subequal, three times longer than wide, 5<sup>th</sup> a little longer than 6<sup>th</sup>, 7<sup>th</sup> 1.3 times longer than wide, 8<sup>th</sup> to 10<sup>th</sup> a little longer than wide, 11<sup>th</sup> 1.4 times the 10<sup>th</sup> in length.

Pronotum as long as wide, wider at distal border than at base; sides widening from base to the distal fourth, feebly constricted distally; lateral borders well marked, not reaching the distal edge of the prothorax because of the distal process of the epimera extending shortly beyond the line of the lateral border; scales on the pronotal sides oblong, 4 times or more longer than wide, split for 1/2 or less of

their length; scales thinner on the pronotal discus and even smaller along the base; most scales brown on the discus with a thin band of whitish scales on the pronotal median line, light brown and whitish at sides. Prothoracic epimera bare, strongly punctate, sometimes with a few small, white scales near the distal corners; the distal process with white, bifid setae.

Mesothoracic episterna bare.

Metathoracic epimera narrow, with a row of punctures usually double in a large part, each puncture with a white seta. Metasternum at sides with white bifid setae, in the middle with white hairs.

Legs: long, with oblong, distally bifid, whitish scales; the two claws of the protarsus in ♂ with different structures: the inner claw bifid, with the inner tooth as long as the outer one, the split being over half the claw's length; the outer claw appendiculate, with a small basal tooth; dorsal side of both claws evenly curved to the apex; all the other claws in ♂ and all claws in ♀ appendiculate, with a well developed tooth near the base; tooth at the base of the mesotibial emargination strongly projecting, acute, its height more than half the mesotibia width at that point.

Elytra elongate (length/width at humeral level = 1.5); sides feebly curved and widening to middle, then regularly curved to the apical corners; scales on the interstriae resemble those on the pronotal sides, the white ones partially mixed with light brown ones; white scales arranged in an ill-defined transverse band before the elytral middle, at sides and on the declivity; scales arranged mostly in double or triple rows on each interstria, including a part of the sutural interstria, in single row only in places between the shoulders and near the suture; punctures of the striae large, each with a very thin and small seta which is sometimes absent from the punctures of the elytral discus; interstriae convex, narrow, on the elytral discus as wide as or narrower than the diameter of the strial punctures; epipleura wide, with a row of whitish hairs along the fold of the inner margin.

Aedeagus (figs 224-225).

Spermatheca (fig. 226).

DERIVATIO NOMINIS. The species is named after Joachim Willers, who helped me during my stay at the MNHU.

VERIFIED DISTRIBUTION: Namibia.

## **Pachnephorus (Pachnephorus) yemenicus** Lopatin, 2001

*Pachnephorus yemenicus* Lopatin, 2001: 16.

TYPE LOCALITY: Yemen: Ta'izz.

TYPE DEPOSITORY: SMNS.

HOLOTYPE LABELS: Yemen, Ta'izz, 09.99, in light trap, van Harten & Awad [printed white label]; 4102 [handwritten white label]; Holotypus [printed red label]; *Pachnephorus yemenicus* sp. n., det I. Lopatin, 2001 [handwritten white label] (♀).

PARATYPE. Yemen, Ta'izz, 09.99, in light trap, van Harten & Awad, 4102 (paratype ♀, SMNS).

OTHER EXAMINED MATERIAL. YEMEN: Al Kawd, on light, VII-IX.2001 (2 ♂♂, 1 ♀, SZcoll); Al-Kawd [= Al Kowd], I-III.2003, hans sample, 1305'04"N 4522'E, 20 m (2 ♀♀, SMNS); Al Kowd b. Mabar, Malaise, 15.-28.02.1993 (1 ♀, SZcoll); Ar Rujum (W Sana'a), 16.10.2000-15.01.2001, Malaise trap, 1526'N 4340'E, 1900 m (1 ♂, SMNS); Sokna (Tihama) m 200, 20.VIII.1965, leg. G. Scortecci (1 ♀, MDcoll).

DESCRIPTION. Body length of the holotypus 3.2 mm (length range in the examined specimens: 2.9-4.1 mm).

Habitus as in figs 81-82. Body dark brown, shiny, without metallic reflexion; elytra and legs usually slightly paler than the body; palpi and antennae reddish brown, paler than the body.

Head: frons evenly convex to the region between the eyes which is flat in the middle, not raised between the antennal fossae at the beginning of the clypeus; the clypeus inclined, shiny, punctate or at least with punctures at sides; the frons with oblong, regularly arranged scales: in the middle of the frons the scales are 4-5 times longer than wide, moderately curved, split for 1/3 or less of their length; scales whitish throughout the frons surface; surface between the eyes, to the clypeus, with smaller, whitish, both entire and bifid setae; surface of the frons punctate, shiny, usually with a short, thin and superficial longitudinal sulcus in the middle; eyes large and convex (in frontal view the distance between the eyes is about 2.7 times the width of a single eye in ♂, 3 times in ♀) without any sulcus above. Antennae reddish brown: 2<sup>nd</sup> antennal segment as long as first and half as wide, 3<sup>rd</sup> shortly longer than 4<sup>th</sup>, more than twice as long as wide, 5<sup>th</sup> a little longer than 6<sup>th</sup>, twice as long as wide, 7<sup>th</sup> 1.6 times longer than wide, 8<sup>th</sup> to 10<sup>th</sup> a little longer than wide, 11<sup>th</sup> 1.5 times the 10<sup>th</sup> in length.

Pronotum as wide as long, as wide at distal border as at base; sides somewhat regularly curved, widening from base to the distal third, weakly constricted distally; distal corners weakly projecting; pronotal surface shiny between the punctures; punctures strong, moderately small and separate, not confluent; lateral borders thin, reaching the distal edge of the prothorax; the distal process of the prothorax sides, covering the eyes, shortly extending dorsally beyond the line of the lateral borders; pronotum at sides with a band of whitish bifid scales, moderately widened, 3-4 times longer than wide and split for 1/4-1/3 of their length; on the discus scales are mostly golden, thin, split for 1/3 of their length. Prothoracic epimera with strong, regularly spaced punctures, not confluent, bare; the distal process with white bifid setae.

Mesothoracic episterna bare.

Metathoracic epimera narrow, on the whole or in a large part with a double row of punctures, each puncture with a white seta. Metasternum at sides with white, bifid setae, in the middle with white hairs.

Legs: relatively long, with thin, apically bifid, whitish setae; claws of the protarsus in ♂ with bifid claws, the inner tooth of the claw a little shorter than the outer one, the split clearly beyond the claw's middle; dorsal side of both claws evenly curved to the apex; all the other claws in ♂ and all the claws in ♀ simple, with a small and obtuse tooth near the base; tooth at the base of the mesotibial emargination acute, projecting, its height more than 1/3 of the mesotibial width at that point in ♂, a little shorter in ♀.

Elytra moderately elongate (length/width at humeral level = 1.5) not impressed on the basal third; sides feebly curved to the distal third, then evenly curved to the apical corners; interstriae of the elytra with oblong, whitish and light brown scales, 3-4 times longer than wide on the first 3-4 interstriae, a little wider on the other interstriae, split for 1/4 of their length; scale colour light and almost uniform throughout the elytra; scales arranged mostly in a single row on each interstria, with the exception of the 4<sup>th</sup> and the 6<sup>th</sup> to 9<sup>th</sup> interstriae which have a double series of scales in a part or in the whole of their length; punctures of the striae large, without setae; interstriae almost flat on the discus, convex at sides, clearly narrower than the diameter of the striae punctures; epipleura moderately wide, bare.

Aedeagus (figs 227-228).

Spermatheca (fig. 229).

VERIFIED DISTRIBUTION: Yemen.

NOTE. Specimens of *P. yemenicus*, examined by me, were previously reported under the name "*conspersus*" both by Daccordi 1983 and by Medvedev 1996.

SPECIES FROM MADAGASCAR

**Pachnephorus (Pachnephorus) bertiae** n. sp.

*Pachnephorus testaceipes* Fairmaire, 1880a: 316 (pars);

*Pachnephorus testaceipes*, Fairmaire 1880b: 338 (pars).

TYPE LOCALITY: Madagascar: Ambovombe.

TYPE DEPOSITORY: MNHN.

HOLOTYPE LABELS: Museum Paris, Madagascar, Region de l'Androy, Ambovombe, Dr. J. Decorse 1901 [printed white label]; fév. & mars 1901 [printed white label]; Holotypus, *Pachnephorus (Pachnephorus) bertiae* n. sp., S. Zoia det. 2007 [printed red label] (♂).

PARATYPI. Nossi Bé; *Pachnephorus testaceipes* Fairm, Madag; Type; Museum Paris, Madagascar, col. Perrier de la Bathie, 1906 (1 ♂, MNHN); Maroantsetra (1 ♀, NHMB); Arkavandra, VII.49, RP (1 ♀, NHMB); Tanandava (lumière) 1963/1964 G. Schmitz (1 ♀, MRAC); Madagascar, Mahajamba, Forêt d'Ankarafantsiky, Dr. J. Decorse 1901; déc. 1899 (1 ♂, MNHN); Madagascar, Boeni, Maevatanana, Dr. J. Decorse 1901; 5 déc. 99 (1 ♂, SZcoll); idem, Janv. & fév. 1900 (1 ♀, MNHN); Madagascar Nord, dct Diégo-Suarez, Analamerana 80m, 50 km SE Diégo, I-59 Andria R. (1 ♂, MNHN); Madagascar Sud-Ouest, dct. Morombe, Antanimiheva, XI.59 Randriamasy (1 ♀, MNHN); Madagascar, Baie d'Antongil, A. Mocquerys 1898 (1 ♀, MNHN); Madagascar, Région d'Ambovombe, Plaine d'Etsaramonto, Mares d'Antaly, Dr. J. Decorse 1901 (2 ♀♀, MNHN); Madagascar, Androy, Bas Mandrare, Riv. Otrokotroky, Dr. J. Decorse 1901, 24 mai 1900 (1 ♀, SZcoll); Madagascar, Boeni Moyen: Ambato, confluent du Kamoro et de la Betsiboka, Dr J. Decorse 1901 (1 ♂, MNHN); Madagascar, Mandritsara, III.36 Michel! (2 ex, MNHN; 1 ex, SZcoll); Madagascar, R<sup>on</sup> Maroantsetra, XI.38 Vadon!; Sahantaha (1 ♂, MNHN); Madagascar, R<sup>on</sup> Maroantsetra, IV.38 Vadon!; Antakotako (1 ex, MNHN; 1 ex, SZcoll); Madagascar, R<sup>on</sup> Maroantsetra, III.38 Vadon!; Andranafotsy (1 ex, MNHN); Madagascar, R<sup>on</sup> Maroantsetra, IV.38 Vadon!; Andranafotsy (1 ex, MNHN); Madagascar, R<sup>on</sup> Maroantsetra, II.36 Vadon!, Andran. (1 ex, MNHN); Belombe, Madag. Ouest, H. Perrier; Museum Paris, Madagascar, Perrier de la Bathie, coll. Léon Fairmaire 1906 (3 ex, MNHN); Soalala, Madag. Ouest, H. Perrier; Museum Paris, Madagascar, Perrier de la Bathie, coll. Léon Fairmaire 1906 (1 ♂, MNHN); Madagascar, Androy Sep<sup>al</sup>, Imanombo, Dr. J. Decorse 1901; 28 au 31 mai 1900 (7 ex., MNHN; 1 ♂, SZcoll); Madagascar Centre-Sud, Alluaud 1901 (1 ♂, NHMB); Madagascar: Tanandava (lumière) 1963/1964, G. Schmitz (5 ex., MRAC; 2 ex. SZcoll); Madagascar 1996, Mahajanga Distr., Mahajanga env., Dec.1-10, I. Janiš leg. (1 ♂, 2 ♀♀, UAcoll; 1 ♂, 1 ♀, SZcoll);

Madagascar, Goudot 1834 (4 exx., MNHN); Madagascar (1 ex., NMPC); Madagascar, Perrie de la Bathie (3 exx., MNHN); Madagascar (1 ex. MNHN); Madagascar, Mahajanga prov., Mahajamba riv., Ampatika env., 10.-12.XII.1996, Ivo Jeniš leg. (1 ♂, 3 ♀♀, SZcoll); Madagascar, Mahajanga Distr., Mahajanga env., Dec. 1-10, Jeniš leg. (1 ♀, UAcoll); I. Madagascar, Toliara prov., Saint Augustin env., 13.-18.2.1995, Ivo Jeniš leg. (1 ♂, 6 ♀♀, SZcoll).

**DESCRIPTION.** Body length of the holotypus 2.5 mm (length range in the examined specimens: 2.4-3.6 mm).

Habitus as in figs 83-84 and 85-86. Body dark brown, not metallic, shiny; palpi, antennae and legs brown, slightly paler than the body.

Head: frons distally evenly convex, with a median longitudinal thin groove; the surface strongly punctured between the eyes; the clypeus inclined, not punctate; the frons with thin oblong scales, deeply split in the distal half; most scales white with two spots of very light brownish ones at sides of the median line; surface of the frons between the eyes with thinner, small, whitish setae; clypeus with a few thin hairs; eyes moderately large and convex (in frontal view the distance between the eyes is 2.9 times the width of a single eye), with a thin and bare sulcus above. Antennae: 2<sup>nd</sup> antennal segment a little longer than first and half as wide, 3<sup>rd</sup> and 4<sup>th</sup> subequal, 1.5 times longer than wide, 5<sup>th</sup> and 6<sup>th</sup> subequal, twice as long as wide, 7<sup>th</sup> a little longer than wide, 8<sup>th</sup> to 10<sup>th</sup> weakly transverse, 11<sup>th</sup> 1.4 times the 10<sup>th</sup> in length.

Pronotum a little wider at distal border than at base; sides weakly sinuate near the base, widening from the base to the distal third and constricted distally; lateral borders well marked to the anterior corners which are not prominent, not reaching the distal edge of the prothorax; scales 3-4 times longer than wide, thinner on the discus, larger at sides, split for 1/3 or more of their length; scales white on pronotum sides and at the base of the median line, mostly light brown at sides of the median line on the discus. Prothoracic epimera bare, strongly punctate; the distal process with thin, deeply bifid setae.

Mesothoracic episterna bare.

Metathoracic epimera narrow, with a single row of punctures each with a white seta. Metasternum at sides with wide white bifid setae, in the middle with white hairs.

Legs: moderately long, relatively robust, with oblong, distally bifid, white scales; both claws of the protarsus in ♂ bifid, the inner

tooth a little shorter than the outer one, the split being at half of the claw's length; the dorsal side of the claw evenly curved to the apex; all the other claws in ♂ and all the claws in ♀ appendiculate, with a little tooth near the base; tooth at the base of the mesotibial emargination relatively small, its height less than 1/3 of the mesotibial width at that point.

Elytra moderately long (length/width at humeral level = 1.5), with a feeble transverse impression on the basal third; sides feebly curved, enlarged to half length, then evenly curved to the apical corners; scales on the interstriae resemble the ones on the pronotum, the white ones mainly gathered in 4-5 ill-defined spots and on the elytral sides; scales arranged mostly in double rows on each interstria; punctures of the striae large, each with a white seta, more developed in the outer striae; interstriae convex, narrow, their width narrower than the diameter of the punctures; epipleura moderately wide, usually bare, sometimes with very small hairs along the fold of the inner margin, visible only at high magnification.

Aedeagus (figs 230-231, 233-234).

Spermatheca (figs 232, 235).

DERIVATIO NOMINIS. The species is named after Nicole Berti, specialist in Chrysomelidae, who kindly helped me during my visit at the MNHN.

VERIFIED DISTRIBUTION: Madagascar.

NOTE. Type series of *P. testaceipes* included three specimens belonging to two different species; one of these specimens belongs to *P. bertiae* n. sp. and is listed between the paratypes.

### **Pachnephorus (Pachnephorus) episternalis** n. sp.

TYPE LOCALITY: Madagascar.

TYPE DEPOSITORY: MNHU.

HOLOTYPE LABELS: Madagaskar [handwritten blue label]; Holotypus, Pachnephorus (Pachnephorus) episternalis n. sp., S. Zoia det. 2007 [printed red label] (♀).

PARATYPUS. Madagascar (1 ♀, SZcoll).

DESCRIPTION. Body length of the holotypus 2.7 mm (length of the paratypus: 2.6 mm).

Habitus as in figs 87-88. Body dark brown, not metallic, shiny; palpi, antennae, elytra and legs brown, slightly paler than the body.

Head: frons distally evenly convex, superficially punctured between the eyes; the clypeus slightly inclined; frons densely covered with small wide scales, which are a little longer than wide and split at the tip; scales whitish and light brown, mixed, with mostly brown scales on the frontal sides; surface of the frons between the eyes with thinner, separate and whitish setae, split at the end; clypeus with a few thin hairs; eyes moderately large and convex (in frontal view the distance between the eyes is 3.1 times the width of a single eye), without any sulcus above. Antennae: 2<sup>nd</sup> antennal segment as long as first and half as wide, 3<sup>rd</sup> and 4<sup>th</sup> subequal, twice as long as wide, 5<sup>th</sup> and 6<sup>th</sup> subequal in length, wider than 4<sup>th</sup>, 7<sup>th</sup> a little longer and wider than 6<sup>th</sup>, 8<sup>th</sup> to 10<sup>th</sup> a little longer than wide, 11<sup>th</sup> 1.3 times the 10<sup>th</sup> in length.

Pronotum as wide at base as at distal border; sides widening from base to a little more than middle and constricted distally; lateral borders well marked to the anterior corners which are not prominent and on the distal edge of the prothorax; scales on the whole surface, on average, as wide as long, split for 1/3 of their length; most scales white on pronotal sides, mostly light brown on the discus. Prothoracic epimera bare, strongly punctate; the distal process with thin, deeply bifid setae.

Mesothoracic episterna with thin bifid scales.

Metathoracic epimera narrow, with a single or partially double row of punctures, each with a white seta. Metasternum covered with wide white bifid setae.

Legs: moderately long, relatively slender, with oblong, distally bifid, white scales; claws of all the tarsi (♀) appendiculate, with a short tooth at the base; the dorsal side of the claws evenly curved to the apex; tooth at the base of the mesotibial emargination relatively large, its height a little more than 1/3 of the mesotibial width at that point.

Elytra moderately long (length/width at humeral level = 1.5), with sides subparallel for half their length, then evenly curved to the apical corners; scales on the interstriae resemble those on the pronotum,



arranged mostly in double series on each interstria; scales brown and whitish mixed all-over the surface, without evident spots of scales of the same colour; punctures of the striae large, without setae or with a very fine whitish seta; interstriae convex, narrow, narrower than the diameter of the strial punctures; epipleura relatively narrow, with a series of small hairs along the fold of the inner margin.

Spermatheca (fig. 236).

DERIVATIO NOMINIS. The species name refers to the pubescent mesothoracic episterna which are characteristic of this species.

VERIFIED DISTRIBUTION: Madagascar.

### **Pachnephorus (Pachnephorus) hajeki** n. sp.

TYPE LOCALITY: Madagascar: Mandritsara.

TYPE DEPOSITORY: MNHN.

HOLOTYPE LABELS: Madagascar, Mandritsara, III.36 Michel! [printed white label]; Museum Paris, Madagascar, Coll. J. Vadon [printed white label]; Holotypus, Pachnephorus (*Pachnephorus*) hajeki n. sp., S. Zoia det. 2007 [printed red label] (♂).

PARATYPI. Madagascar, Mandritsara, III.36 Michel (1 ♂, 1 ♀, SZcoll); Madagascar, Mandritsara, XII.36 Vadon (2 ♀♀, MNHN); 54962, Cowan, Madagascar, Fry Coll.1905.100 (1 ♀, BMNH); Region Androna, Nord Madagaskar, 1935-1939 (1 ♀, NHMB); Madagascar, Voahemmar (1 ♂, NMPC); Madagascar: Antakotako, 8.IV-1938, J. Vadon (1 ♂, MRAC; 1 ♂, SZcoll).

DESCRIPTION. Body length of the holotypus 3.4 mm (length range in the examined specimens: 3.1-3.8 mm).

Habitus as in figs 89-90. Body dark brown, not metallic, shiny; palpi, antennae and distal part of legs slightly paler than the body.

Head: frons evenly convex, somewhat transversely impressed between the eyes, transversely strongly projecting between the antennal fossae; frons surface deeply punctured, with fine microreticulation; the clypeus inclined; frons with oblong scales, 2-3 times longer than wide and distally split for 1/2 of their length; scales light brown at sides of the median line, whitish in the middle and at sides of the frons; surface of the frons between the eyes with small, thin, bifid

setae; eyes large and strongly convex (in frontal view the distance between the eyes is 3.3 times the width of a single eye), with a relatively deep sulcus above. Antennae: 2<sup>nd</sup> antennal segment a little longer than first and half as wide, 3<sup>rd</sup> and 4<sup>th</sup> subequal, twice as long as wide, 5<sup>th</sup> a little longer than 6<sup>th</sup>, both twice as long as wide, 7<sup>th</sup> a little longer than 8<sup>th</sup> and a little longer than wide, 8<sup>th</sup> to 10<sup>th</sup> as long as wide, 11<sup>th</sup> 1.5 times the 10<sup>th</sup> in length.

Pronotum slightly wider at base than at distal border; sides briefly sinuate near the base, widening from base to the distal third, constricted distally; lateral borders well marked, to the anterior angles which are not prominent and separate from the distal edge of the prothorax; scales wide, relatively short, particularly on the pronotal sides where they are twice as long as wide and cover a great part of the integuments; scales split for 1/3 or less of their length; scales are light brown to whitish, mixed, mainly whitish on the pronotum sides. Prothoracic epimera bare, strongly punctate; the distal process with a few thin, bifid setae and hairs.

Mesothoracic episterna bare.

Metathoracic epimera narrow, with a single row of punctures, each with a white seta. Metasternum at sides with white bifid widened setae, in the middle with white hairs.

Legs: relatively long and slender, with oblong, distally bifid, white scales; both claws of the protarsus in ♂ bifid, the inner tooth of each claw a little shorter than the outer one, the split being at half the claw's length; dorsal side of claw regularly curved to the apex; all the other claws in ♂ and all the claws in ♀ appendiculate, with a well developed tooth near the base; tooth at the base of the mesotibial emargination of medium size, its height about 1/3 of the mesotibial width at that point.

Elytra relatively long (length/width at humeral level = 1.6), with a feeble transverse impression on the basal third; sides slightly and evenly curved, widening to 1/3 of their length, then evenly curved to the apical corners; scales on the interstriae resemble those on the pronotal base; white scales gathered in 4-5 very small ill-defined spots, the other scales brown and arranged mostly in a single row along the suture (except at the beginning of the declivity where the line of scales is partially doubled), mostly in double rows on the interstriae; punctures of the striae large, each with a white seta, these setae larger and widened on the outermost striae; interstriae convex, narrower than

the diameter of the strial punctures; epipleura wide, nearly horizontal, with a row of very small hairs along the fold of the inner margin, visible only at high magnification.

Aedeagus (figs 237-238).

Spermatheca (fig. 239).

DERIVATIO NOMINIS. The species is named after Jiri Hajek, who gave me the opportunity to examine the specimens preserved in the NMPC.

VERIFIED DISTRIBUTION: Madagascar.

### **Pachnephorus (Pachnephorus) latior** Pic, 1921

*Pachnephorus latior* Pic, 1921: 2.

TYPE LOCALITY: Madagascar.

TYPE DEPOSITORY: MNHN.

LECTOTYPUS (here designated): Madagascar, Tananarive, collection Le Moulton [white printed label]; collection Chulliat [printed pink label]; type [red printed label]; type [handwritten white label]; Museum Paris, coll. M. Pic [blue printed label]; *P. latior* n sp [hand written white label]; LECTOTYPUS, *Pachnephorus latior* Pic, 1921, S. Zoia des., 2007 [printed red label] (1 ♀).

PARALECTOTYPUS: Madagascar, Tananarive, collection Le Moulton; collection Chulliat; type; type; Museum Paris, coll. M. Pic; *P. latior* n sp; PARALECTOTYPUS, *Pachnephorus latior* Pic, 1921, S. Zoia des., 2007 (1 ♀).

EXAMINED MATERIAL. MADAGASCAR: Tananarive, Lamberton (1 ♂, MNHN); Madagascar (1 ♂, NMPC); Tananarive (2 exx. NMPC; 1 ex SZcoll).

DESCRIPTION. Body length of the lectotypus 3.1, of the paralectotypus 3.0 mm (length range in the examined specimens: 2.6-3.1 mm).

Habitus as in figs 91-92. Body dark brown to blackish, not metallic; palpi, basal antennal segments and tarsi paler than the body.

Head: frons distally flat, strongly punctured throughout to the clypeus which is inclined; scales oblong, 3-4 times longer than wide, split for 1/2 of their length; scales whitish on the vertex, pale brown in the middle, whitish and thinner between the eyes; eyes of medium size (in frontal view the distance between the eyes is 3 times the width

of a single eye) with a thin and superficial sulcus above. Antennae: 2<sup>nd</sup> antennal segment a little longer than first and half as wide 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> subequal, short, a little longer than wide, 5<sup>th</sup> twice as long as wide and longer than 6<sup>th</sup>, 7<sup>th</sup> to 10<sup>th</sup> transverse, the 7<sup>th</sup> a little longer than the others, 11<sup>th</sup> a little longer than wide and 1.4 times the 10<sup>th</sup> in length. Pronotum wider at base than at distal border; sides widening from base to shortly beyond middle, constricted distally; lateral borders well marked to the anterior angles which are not prominent and on the distal edge of the prothorax; discus distally with golden hairs, base and sides of pronotum with thin golden scales, deeply split, leaving the integument visible. Prothoracic epimera bare, strongly punctate; the distal process with thin bifid setae.

Mesothoracic episterna bare.

Metathoracic epimera narrow, with a single row of punctures, each of them with a white seta. Metasternum covered with white bifid widened setae on the sides and with hairs in the middle.

Legs: moderately long, robust, with oblong, thin, distally bifid, white scales; the two claws of the protarsus in ♂ with different structures: the inner claw bifid with the inner tooth a little shorter than the outer one, starting the split at middle of claw's length; the outer claw simple, weakly enlarged at base; dorsal side of the claws evenly curved to the apex (fig. 108); claws of protarsi in ♀ simple; claws of meso- and metatarsi simple in both sexes. Tooth at the base of the mesotibial emargination short, its height not more than 1/3 of the mesotibial width at that point.

Elytra moderately long (length/width at humeral level = 1.5), with sides widened to middle, then evenly curved to the distal corners; scales on the interstriae thin, smaller on the discus, larger from the fourth interstria to the outermost and on the declivity; most scales arranged in a single row on each interstria; scales golden throughout, with a small spot beyond middle of the elytron composed of a few whitish and more adpressed scales; punctures of the striae large, without setae; interstriae convex, narrow, their width narrower than the diameter of the strial punctures; epipleura moderately narrow, bearing very thin and small hairs along the fold of the inner margin.

Aedeagus (figs 240-241).

Spermatheca (fig. 242).

VERIFIED DISTRIBUTION: Madagascar.

**Pachnephorus (Pachnephorus) maroantsetranus** n. sp.

TYPE LOCALITY: Madagascar: Maroantsetra.

TYPE DEPOSITORY: NHMB.

HOLOTYPE LABELS: Madagascar, Maroantsetra [printed white label]; Holotypus, Pachnephorus (Pachnephorus) maroantsetranus n. sp., S. Zoia det. 2007 [printed red label] (♀).

EXAMINED MATERIAL. Only the holotypus.

DESCRIPTION. Body length 3.4 mm.

Habitus as in figs 93-94. Body dark brown, not metallic, shiny; elytra, palpi, segments 1<sup>st</sup> to 6<sup>th</sup> of the antennae and legs slightly paler than the body.

Head: frons evenly convex, distally weakly transversely depressed between the eyes, transversely raised between the antennal fossae at the beginning of the clypeus; strongly punctured throughout to the clypeus which is inclined; frons with whitish scales in the middle and near the eyes, with brown scales elsewhere; scales close, moderately long, covering the integument, split for 1/3 or more of their length; surface between the eyes with smaller whitish setae; eyes relatively large and evenly convex (in frontal view the distance between the eyes is 3.3 times the width of an eye), with a thin sulcus above, covered with scales. Antennae: 2<sup>nd</sup> antennal segment as long as first and half as wide, 3<sup>rd</sup> and 4<sup>th</sup> subequal, less than twice as long as wide, 5<sup>th</sup> 2.5 times longer than wide and little longer than 6<sup>th</sup>, 7<sup>th</sup> as long as wide, 8<sup>th</sup> to 10<sup>th</sup> transverse, 11<sup>th</sup> 1.4 times the 10<sup>th</sup> in length.

Pronotum transverse, a little wider at base than at distal border; sides widening evenly from base, the widest point at the distal third, shortly constricted distally; lateral borders evanescent distally, the anterior angles not evident, the related seta on the prothorax distal edge; scales light brown to whitish, moderately wide, more so on the pronotal sides which are almost completely covered. Prothoracic epimera bare, except for a few small setae in the distal portion, strongly punctate; the distal process with bifid setae.

Mesothoracic episterna bare.

Metathoracic epimera narrow, with a single row of punctures, each of them with a white seta. Metasternum with white bifid widened setae on the sides, with hairs in the middle.

Legs: moderately long, robust, with oblong, distally bifid, white scales; inner side of the tibiae with whitish hairs; all claws appendiculate, with a well marked tooth near the base (♀); tooth at the base of the mesotibial emargination short, its height about 1/3 of the mesotibial width at that point.

Elytra moderately long, broad (length/width at humera level = 1.5), strongly convex, clearly transversely impressed on the basal third; the proximal third of the suture distinctly raised; elytral sides widened to middle, then evenly curved to the declivity; scales on the interstriae smaller than those on the pronotum, arranged in series of 3-4 scales on the width of each interstria; scales light golden throughout, with a small spot of whitish ones on the the discal sides before the declivity; punctures of the striae small, each with a white seta which is absent from many punctures on the discus; interstriae flat, wide, their width on the discus about 3 times the diameter of the strial punctures on average; epipleura large, with a series of very small hairs along the fold of the inner margin.

Spermatheca (fig. 243).

DERIVATIO NOMINIS. The species name refers to the only known locality for this species.

VERIFIED DISTRIBUTION: Madagascar.

### **Pachnephorus (Pachnephorus) sprecherae** n. sp.

TYPE LOCALITY: Madagascar: Antsianaka.

TYPE DEPOSITORY: NHMB.

HOLOTYPE LABELS: Antsianaka, Madag. [handwritten white label]; Holotypus, Pachnephorus (Pachnephorus) sprecherae n. sp., S. Zoia det. 2007 [printed red label] (1 ♂).

EXAMINED MATERIAL. Only the holotypus.

DESCRIPTION. Body length 2.6 mm.

Habitus as in figs 95-96. Specimen damaged: antennae from the 3<sup>th</sup> joint to the end, palpi, left fore leg, right median leg, left metatar-

sus and last joint of the right metatarsus missing. Body dark brown, not metallic, shiny; elytra, first two segments of antennae, distal parts of legs and tarsi paler.

Head: frons evenly convex, strongly punctured throughout to the clypeus which is a little inclined and impunctate; each puncture on the frons with a thin clear scale, shortly split at the tip; scales smaller and simple on the surface between the eyes; eyes moderately large (in frontal view the distance between the eyes is 2.8 times the width of an eye), without any sulcus above. Antennae: 2<sup>nd</sup> antennal segment as long as first and half as wide (other joints missing).

Pronotum wider at distal border than at base, the distal corners a little prominent; both corners and lateral margins, throughout their length, visible at the same time in dorsal view; sides sinuate near the rear angles, evenly widening to the distal third, shortly constricted distally; lateral edges well marked, complete, the anterior angles on the distal edge of the prothorax; pronotal surface with thin pale golden hairs, split, leaving the integument visible. Prothoracic epimera bare, strongly punctate; the distal process with a few very thin setae.

Mesothoracic episterna bare.

Metathoracic epimera narrow, with a few punctures, mostly without setae (fig. 99). Metasternum strongly punctate, mostly without setae or with very small, not evident, setae. Abdominal sternites mostly bare.

Legs: relatively long and slender, with few, small setae; outer claw of the protarsus in ♂ simple, evenly curved and widening from the apex to the base (the inner claw, which is broken, seems to be of the same kind) (fig. 107); claws of mesotarsi simple. Tooth at the base of the mesotibial emargination relatively large, its height a little less than half the mesotibial width at that point.

Elytra moderately long (length/width at humeral level = 1.5), with sides widening to middle, then regularly curved to the distal corners; scales on the interstriae very thin, almost defective on the discus, arranged mostly in single series on each interstria; scales light golden throughout; punctures of the striae large, without setae; interstriae convex, narrow, narrower than the diameter of the strial punctures; epipleura moderately narrow, bare (fig. 99).

Aedeagus (figs 244-245).

DERIVATIO NOMINIS. The species is named after Eva Sprecher-

Uebersax, a friend and a specialist in Chrysomelidae, who helped me during my visits to the NHMB.

VERIFIED DISTRIBUTION: Madagascar.

NOTE. This species is the only one between the Afrotropical species of *Pachnephorus* with so few scales on the dorsum, an almost complete absence of setae ventrally and all the tarsi with simple claws. These characters must be regarded as primitive in *Pachnephorus*.

### ***Pachnephorus (Pachnephorus) testaceipes* Fairmaire, 1880**

*Pachnephorus testaceipes* Fairmaire, 1880a: 316 (pars);

*Pachnephorus testaceipes*, Fairmaire 1880b: 338 (pars).

TYPE LOCALITY: Madagascar.

TYPE DEPOSITORY: MNHN.

LECTOTYPUS (here designated): *Pachnephorus testaceipes* Fairm. Nossi Bé [handwritten white label]; ex Musaeo L. Fairmaire 1893 [printed white label]; Paris, Coll. Oberthur ex Lefèvre [printed blue label]; TYPE [printed red label]; LECTOTYPUS, *Pachnephorus testaceipes* Fairmaire, 1880, S. Zoia des., 2007 [printed red label] (1 ♀, MNHN).

PARALECTOTYPUS: Madagas [printed white label]; type de Fairmaire [printed white label]; ex Musaeo Lefèvre 1894 [printed white label]; Muséum Paris, Coll. Oberthur ex Lefèvre [printed blue label]; TYPE [printed red label]; *testaceipes* Fairm. [handwritten white label]; PARALECTOTYPUS, *Pachnephorus testaceipes* Fairmaire, 1880, S. Zoia des., 2007 (1 ♀, MNHN).

EXAMINED MATERIAL. Museum Paris, Madagascar, Boeni, Maevatanana, Dr. J. Decorse 1901, nov. 1899 (2 exx. MNHN); idem, Oct à Nov 1899 (2 exx. MNHN); idem, 5 déc. [18]99 (1 ex. MNHN); idem, 12 déc. [18]99 (1 ex. MNHN); idem, Janv. & fév. 1900 (28 exx. MNHN; 3 exx. SZcoll); Madagascar, Boeni, Kelimahery, Maevatanana, Dr. J. Decorse 1901; 11 déc. [18]99 (1 ex. MNHN); Madagascar, Nossi-Bé, H. Pierron 1885 (4 exx. MNHN); Soalala, Madag. Ouest, H. Perrier (14 exx. MNHN; 2 exx. SZcoll); Belombe, Madag. Ouest, H. Perrier (10 exx. MNHN; 2 exx. SZcoll); Madagascar, Port-Bergé, XII.36 Vadon! (2 exx. MNHN); Madag.<sup>r</sup> Suberb.<sup>le</sup>, H. Perrier (2 exx. MNHN); Madagascar: Ambivy, 1964, R. Delattre (5 exx. MRAC; 2 exx. SZcoll); Madagascar: Tanandava (lumière) 1963/1964, G. Schmitz (9 exx. MRAC; 3 exx. SZcoll); Madagascar, Diego Suarez (2 ♂♂, NHMB); Madagascar, Parc d'Ambre, 16.09-21.09.1987, P. u. H. Schüle (9 ♂♂, 2 ♀♀, SMNS; 3 ♂♂, SZcoll); Madagascar, coll. Perrier de la Bathie 1906(4 exx., MNHN).



DESCRIPTION. Body length of the lectotypus 3.2 mm, of the paralectotypus 3.5 mm (length range in the examined specimens: 2.5-3.6 mm).

Habitus as in figs 97-98. Body dark brown, not metallic, shiny; palpi and basal antennal segments slightly paler than the body.

Head: frons evenly convex, somewhat flattened between the eyes; the surface regularly but not deeply punctured, with fine microreticulation between the punctures; the clypeus inclined, not punctate, bearing a few small hairs; the frons with small, oblong scales, split to middle, regularly arranged; scales pale yellow at sides of the median line, whitish in the middle and at sides of the frons; surface of the frons between the eyes with scales only a little thinner than the others; eyes large and strongly convex (in frontal view the distance between the eyes is 2.5 times the width of a single eye), with a very thin sulcus above bearing a few scales. Antennae: 2<sup>nd</sup> antennal segment a little longer than first and half as wide, 3<sup>rd</sup> and 4<sup>th</sup> subequal, 1.5 times as long as wide, 5<sup>th</sup> and 6<sup>th</sup> subequal, twice longer than wide, 7<sup>th</sup> to 10<sup>th</sup> subequal in length and a little longer than wide, 11<sup>th</sup> 1.4 times the 10<sup>th</sup> in length.

Pronotum as wide at distal border as at base; sides straight and widening from base to the distal third and constricted distally; lateral borders well marked to the anterior corners which are not prominent and on the distal edge of the prothorax; scales three to four times longer than wide, thinner on the discus, somewhat wider at sides, split for 1/3 or more of their length; scales brown to pale yellow on the discus, mostly whitish near the corners. Prothoracic epimera bare, strongly punctate; the distal process with a few thin, bifid setae and hairs.

Mesothoracic episterna bare.

Metathoracic epimera narrow, with a single row of punctures, each bearing a white seta. Metasternum at sides with wide white bifid setae, in the middle with white hairs.

Legs: relatively long and slender, with oblong, distally bifid, white scales; the two claws of the protarsus in ♂ with different structures: the inner claw bifid, the inner tooth a little shorter than the outer, the split being at half the claw's length; outer claw appendiculate, with a short tooth near the base; claw's dorsal side evenly curved to the apex; all the other claws in ♂ and all the claws in ♀ appendiculate, with a very small tooth near the base; tooth at the base of the mesotibial

emargination of medium size, its height about 1/3 of the mesotibial width at that point.

Elytra moderately long (length/width at humeral level = 1.5), with a very feeble transverse impression on the basal third; sides slightly and evenly curved, widening to 1/3 of their length, then regularly curved to the apical corners; scales on the interstriae resemble those on the pronotum, smaller on the discus, wider at sides; white scales mainly gathered in 4-5 ill-defined spots and on sides, the other scales are brown, partially confused in colour with the integument; scales arranged mostly in a single row along the suture, mostly in double series on the interstriae; punctures of the striae large, without setae; interstriae convex, narrow, narrower than the diameter of the punctures; epipleura moderately wide, with small hairs along the fold of the inner margin.

Aedeagus (figs 246-247, 248).

Spermatheca (fig. 249).

VERIFIED DISTRIBUTION: Madagascar.

NOTE. Type series includes three specimens belonging to two different species (*P. testaceipes* and *P. bertiae* n. sp.), their locality labels look different, so possibly they do not belong to the same collecting series. I believe that both descriptions given by Fairmaire (1880, 1880a) refer to these combined taxa; the same for the data reported later in Lefèvre's (1885) and Clavareau's (1914) catalogues.

The material cited in Bechyné 1964 (Madagascar: Rég. d'Ankazoabo; Forêt Loukoubé, Nosy-bé; Pays Androy, Sud; Antsianaka) may belong to these or other taxa; material in Frey Collection (NHMB) was erroneously identified by him.

SPECIES ERRONEOUSLY REPORTED FOR AFRICA OR ERRONEOUSLY PLACED IN  
*PACHNEPHORUS*

### ***Pachnephorus (Pachnephorus) bistriatus* Mulsant, 1852**

This is a Palearctic species that probably does not occur in Africa south of the Sahara. Many authors have reported this taxon from Africa, often following literature data: Ashante (Weise 1893, sub *P. impressus*); Africa (Jacoby 1908, sub *P. impressus*); Madagascar

(Weise 1910, sub *P. impressus*); Afrika, Madagaskar (Clavareau 1914); Afrique, Madagascar (Jolivet 1953); Central Africa, Madagascar (Warchalowski 2003). *P. impressus* Rosenhauer, 1856 is at present considered a synonym of *P. bistriatus* (Sainte-Claire Deville 1910; Kocher 1953).

In the whole material from Africa I have had the opportunity to examine I never found this species.

### **Mecistes flavipes** (Gerstaecker, 1855)

*Pachnephorus flavipes* Gerstaecker, 1855: 637;  
*Pachnephorus flavipes*, Gerstaecker 1862;  
*Mecistes flavipes*, Zoia 2007: 70.

LECTOTYPUS (here designated): 50153; flavipes Gerst.\*, Tete, Peters [handwritten blue label]; Syntypus *Pachnephorus flavipes* Gerstaecker, 1855, labelled by MNHUB 2005 [printed red label]; LECTOTYPUS, *Pachnephorus flavipes* Gerstaecker, 1855, S. Zoia des., 2007 [printed red label]; *Mecistes flavipes* (Gerstaecker, 1855) n. comb., S. Zoia det., 2007 [printed white label] (MNHU)

TYPE LOCALITY: Mossambique.

NOTE. Species described in *Pachnephorus*, recently transferred in *Mecistes*.

### **Mecistes lineatus** (Pic, 1921) n. comb.

*Pachnephorus lineatus* Pic, 1921: 2.

TYPE LOCALITY: Afrique Or.

TYPE DEPOSITORY: MNHN.

LECTOTYPUS LABELS (here designated): Africa or., Katona [printed white label]; Shirati, 1909.IV [printed and handwritten white label]; type [handwritten white label]; TYPE [printed red label]; Museum Paris, Coll. M. Pic [printed blue label]; *Pachnephorus lineatus* n. sp [handwritten white label]; LECTOTYUPS *Pachnephorus lineatus* Pic, 1921 S. Zoia des. 2007 [printed red label].

PARALECTOTYPI: Africa or. Katona; Shirati 1909.IV.; type; *Pachnephorus lineatus* n.sp. (1 ♂, 1 ♀, MNHN)

NOTE. I here propose a new combination for this species, known

from Tanzania, after syntypi examination. A revision of the genus *Mecistes* will be the object of a future study.

### **Eryxia holosericea** (Klug, 1835)

*Pachnephorus holosericeus* Klug, 1835;  
*Pachnephorus holosericeus*, Karsch 1882: 397;  
*Pachnephorus holosericeus*, Dejean 1836: 414;  
*Eryxia holosericea*, Lefèvre 1885: 82;  
*Pachnephorus holosericeus*, Lefèvre 1885: 123;  
*Eryxia holosericea*, Kuntzen 1912: 52.

TYPE LOCALITY: Senegal.

TYPE DEPOSITORY: MNHU.

SYNTYPI LABELS: 50152; *Eumolpus holosericeus* Seneg. Buq. [handwritten blue label]; *holosericeus* Karsch [handwritten blue label]; Type [printed red label]; Hist. Coll. (Coleoptera) Nr. 50152 *Eryxia holosericea* Senegal, Buquet, Zool. Mus. Berlin [printed blue label]; Syntypus *Eumolpus holosericeus* Klug. 1835 labelled by MNHU 2006 [printed red label]

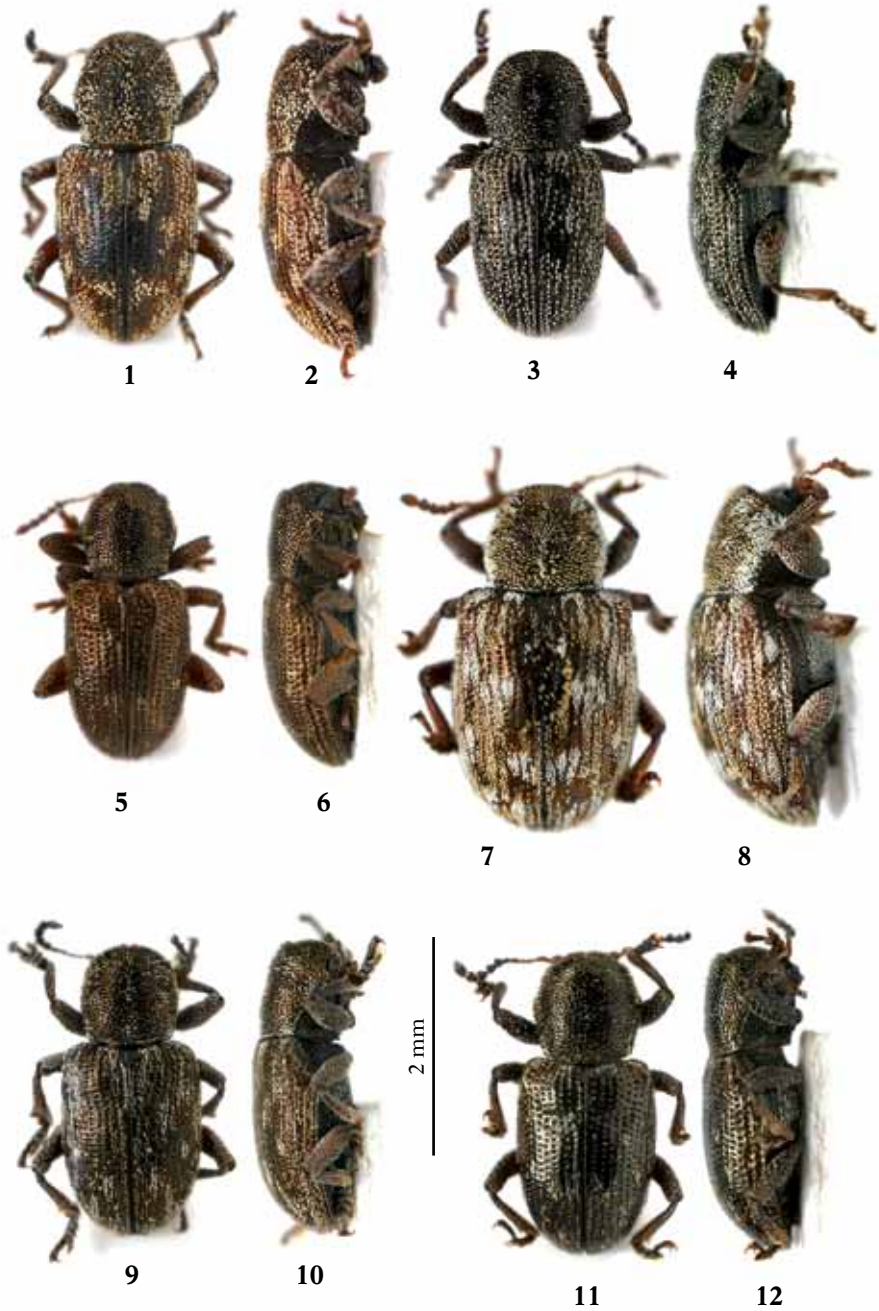
second specimen: Type [printed red label]; Hist. Coll. (Coleoptera) Nr. 50152 *Eryxia holosericea* Senegal, Buquet, Zool. Mus. Berlin [printed blue label]; Syntypus *Eumolpus holosericeus* Klug. 1835 labelled by MNHU 2006 [printed red label]

third specimen: Type [printed red label]; Hist. Coll. (Coleoptera) Nr. 50152 *Eryxia holosericea* Senegal, Buquet, Zool. Mus. Berlin [printed blue label]; Syntypus *Eumolpus holosericeus* Klug. 1835 labelled by MNHU 2006 [printed red label]

fourth specimen: Type [printed red label]; Hist. Coll. (Coleoptera) Nr. 50152 *Eryxia holosericea* Senegal, Buquet, Zool. Mus. Berlin [printed blue label]; Syntypus *Eumolpus holosericeus* Klug. 1835 labelled by MNHU 2006 [printed red label]

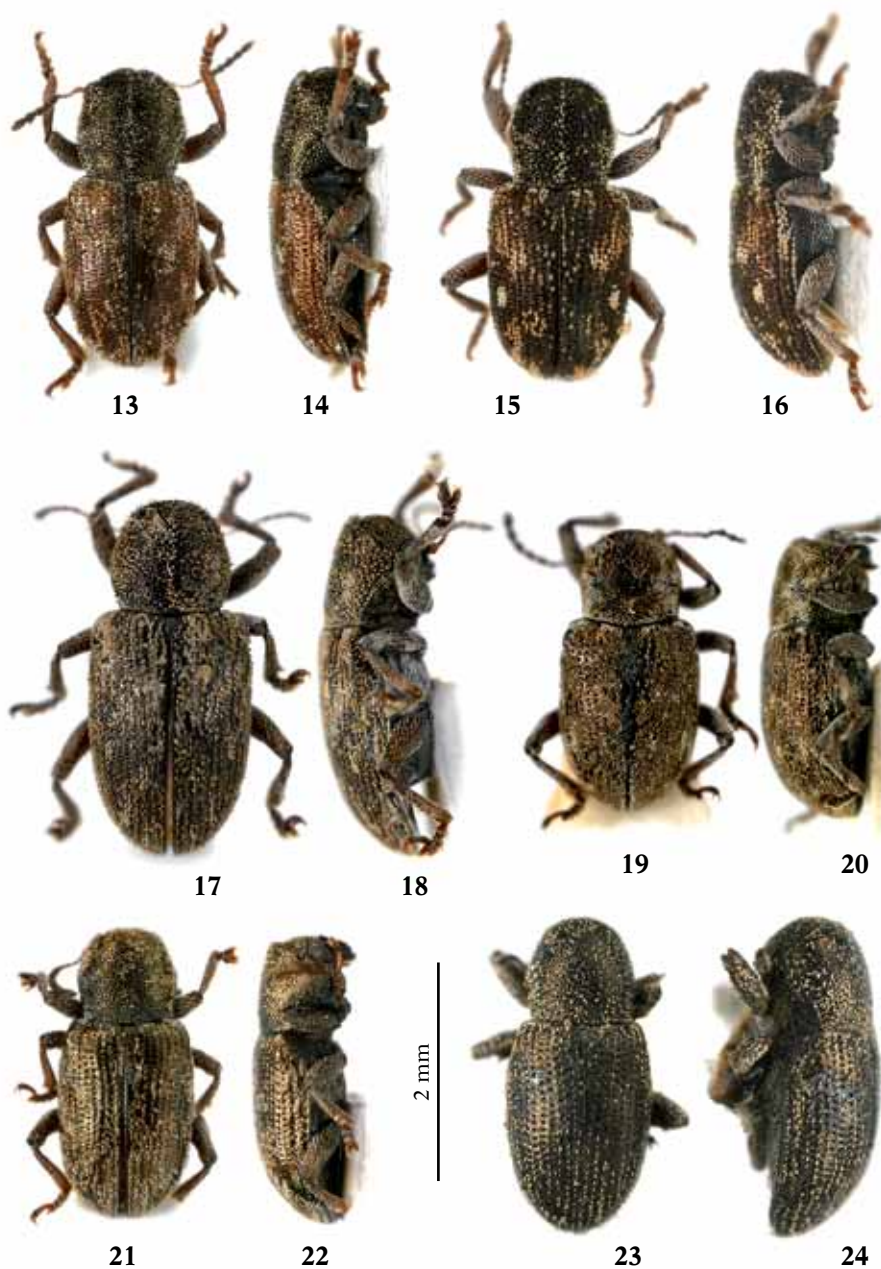
NOTE. As stated by Kuntzen 1912, confusion was caused in this species due to the second description given by Karsch (1882); this author gave the same name "*holosericeus*", used by Klug (1835), in a description of two specimens preserved in the MNHU and collected in Senegal. This was done in a study concerning material from Chinchoxo (Angola). Lefèvre (1885) correctly transferred Klug's species to the genus *Eryxia*, but erroneously included the same taxon in *Pachnephorus* following Karsch's description and giving an erroneous locality data.

DISTRIBUTION CITED IN LITERATURE. Senegal (Klug, 1842); Chinchoxo [erroneous] (Lefèvre 1885); Portug. Congo: Chinchoxo [erroneous] (Clavareau 1914).

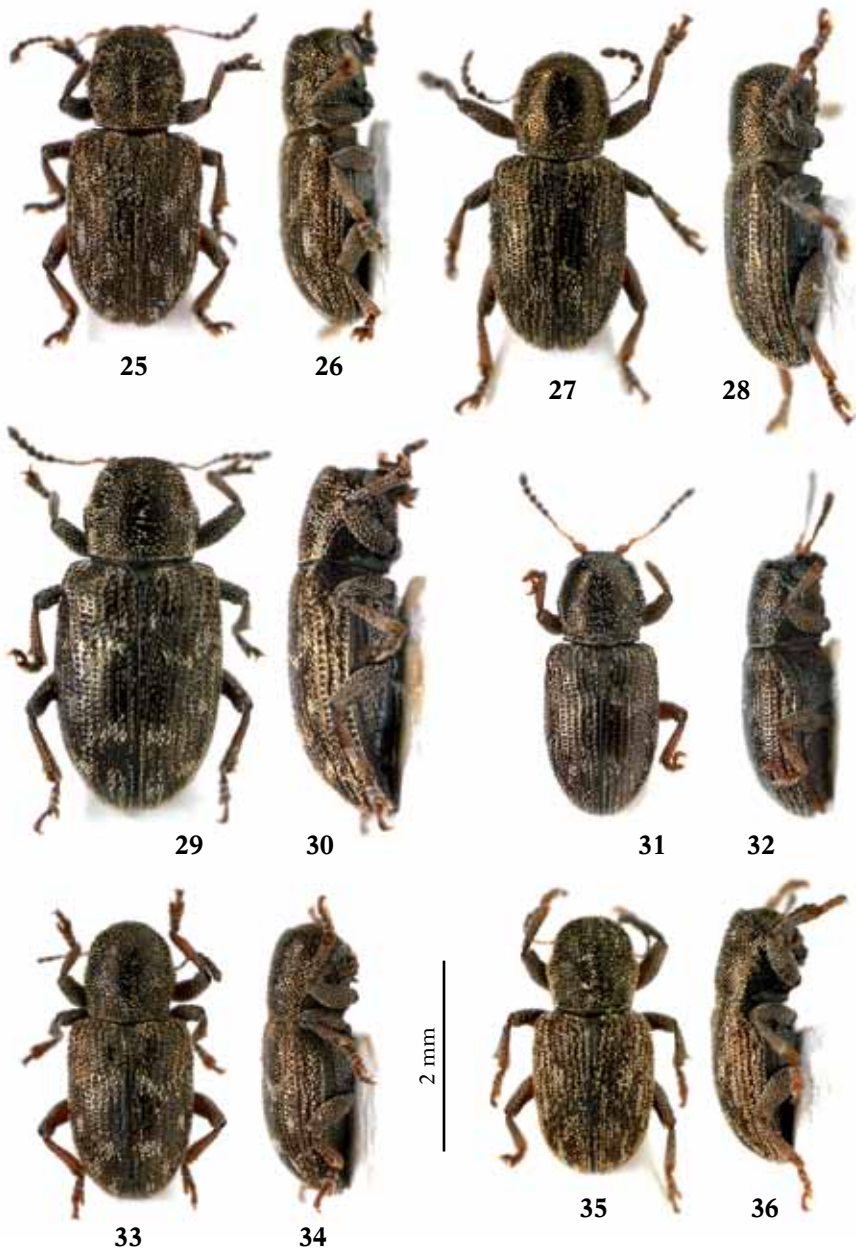


Figs 1-12 – Habitus of: *Pachnephorus achardi* n. sp., holotypus (1-2); *P. aequatorianus* n. sp., holotypus (3-4); *P. aethiopicus* n. sp., holotypus (5-6); *P. baehri* n. sp., holotypus (7-8); *P. balyi* n. sp., holotypus (9-10); *P. beharui* n. sp., holotypus (11-12).

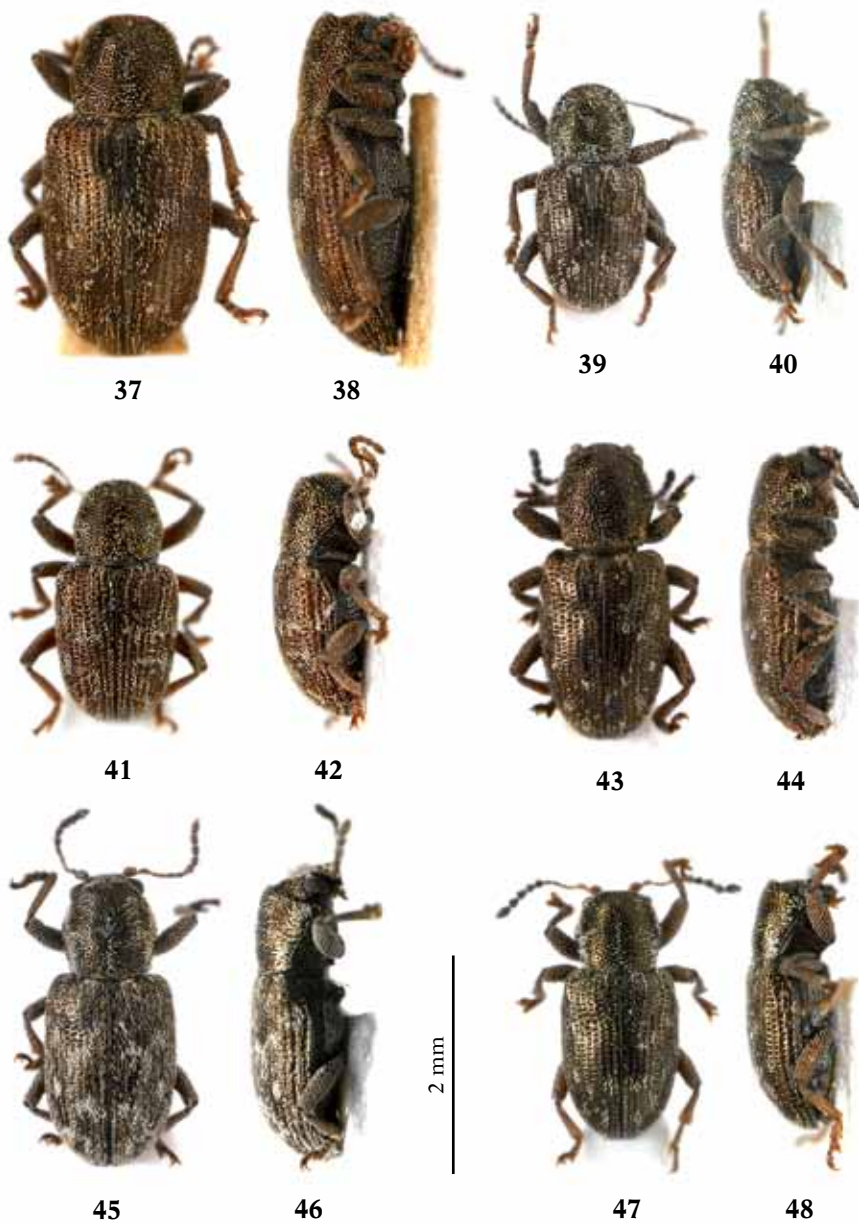




Figs 13-24 – Habitus of: *Pachnephorus bezdeki* n. sp., holotypus (13-14); *P. bracarum-vestitus* n. sp., holotypus (15-16); *P. bryanti* n. sp., holotypus (17-18); *P. burgeoni* n. sp., holotypus (19-20); *P. camerunensis* n. sp., holotypus (21-22); *P. conspersus* Gerstaecker, lectotypus (23-24).



Figs 25-36 – Habitus of: *Pachnephorus cristiani* n. sp., holotypus (25-26); *P. crocodilinus* n. sp., holotypus (27-28); *P. daccordii* n. sp., holotypus (29-30); *P. danielssoni danielssoni* n. sp., holotypus (31-32); *P. danielssoni congoanus* n. ssp., holotypus (33-34); *P. demeyeri* n. sp., holotypus (35-36).

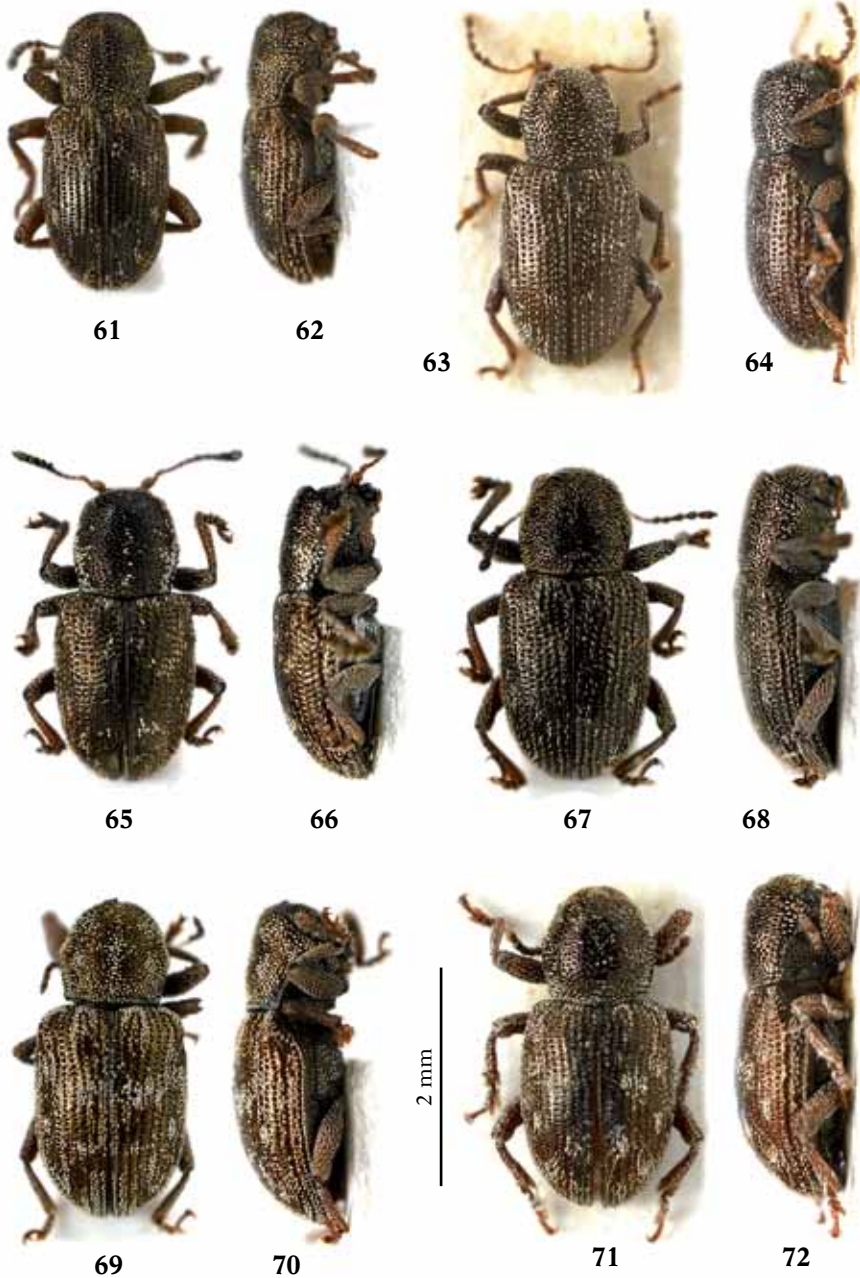


Figs 37-48 – Habitus of: *Pachnephorus fabianae* n. sp., holotypus (37-38); *P. fasciatus* Burgeon, holotypus (39-40); *P. fasciatus occidentalis* n. ssp., holotypus (41-42); *P. gardinii* n. sp., holotypus (43-44); *P. gerstaeckeri* n. sp., holotypus (45-46); *P. grobbelaarae* n. sp., holotypus (47-48).





Figs 49-60 – Habitus of: *Pachnephorus lopatini* n. sp., holotypus (49-50); *P. malicus* n. sp.; holotypus (51-52); *P. medvedevi* n. sp., holotypus (53-54); *P. metallicus* Bryant, holotypus (55-56); *P. moseykoi* n. sp., holotypus (57-58); *P. pacificus* n. sp., holotypus (59-60).

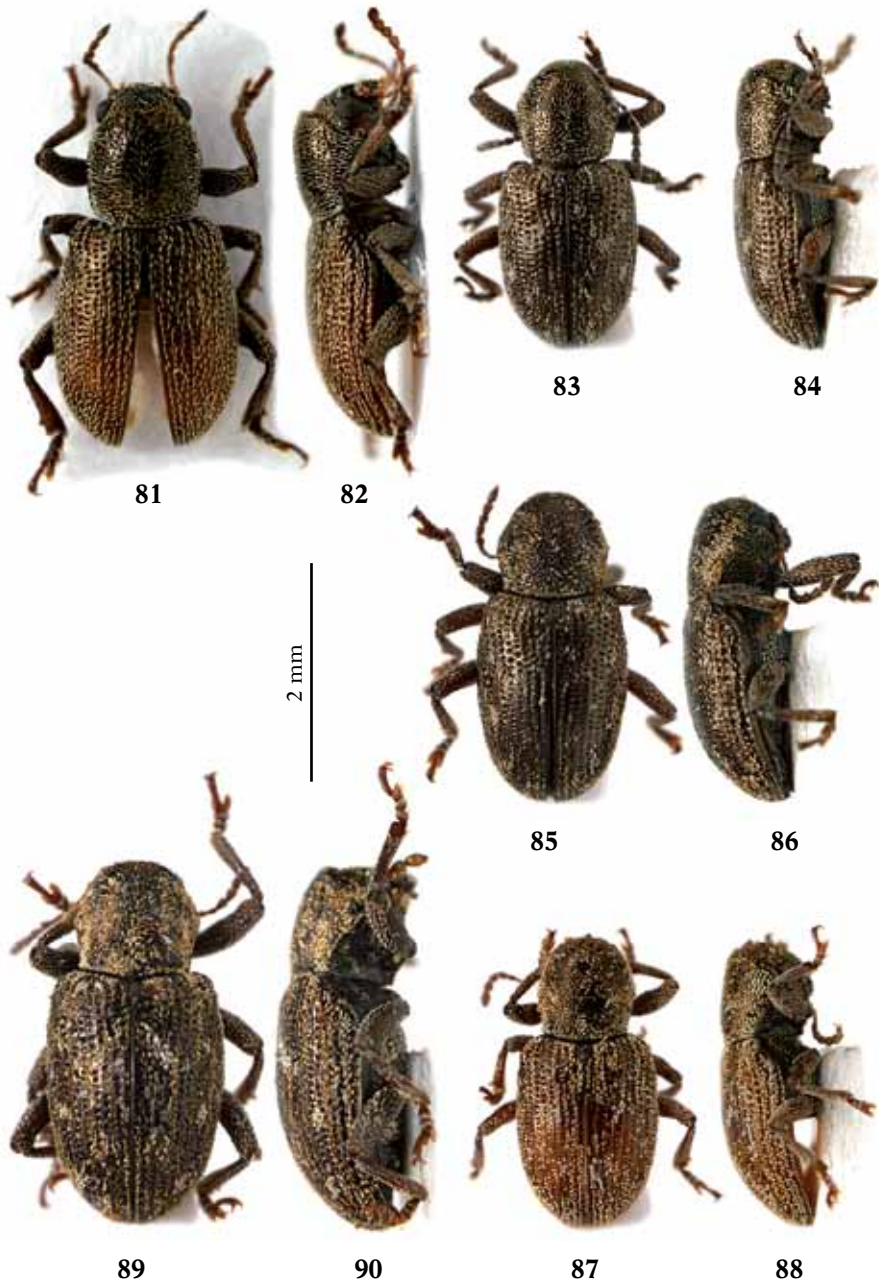


Figs 61-72 – Habitus of: *Pachnephorus parentorum* n. sp., holotypus (61-62); *P. poggii* n. sp., holotypus (63-64); *P. regalini* n. sp., holotypus (65-66); *P. rigatoi* n. sp., holotypus (67-68); *P. sassii* n. sp., holotypus (69-70); *P. senegalensis* Achard, lectotypus (71-72).

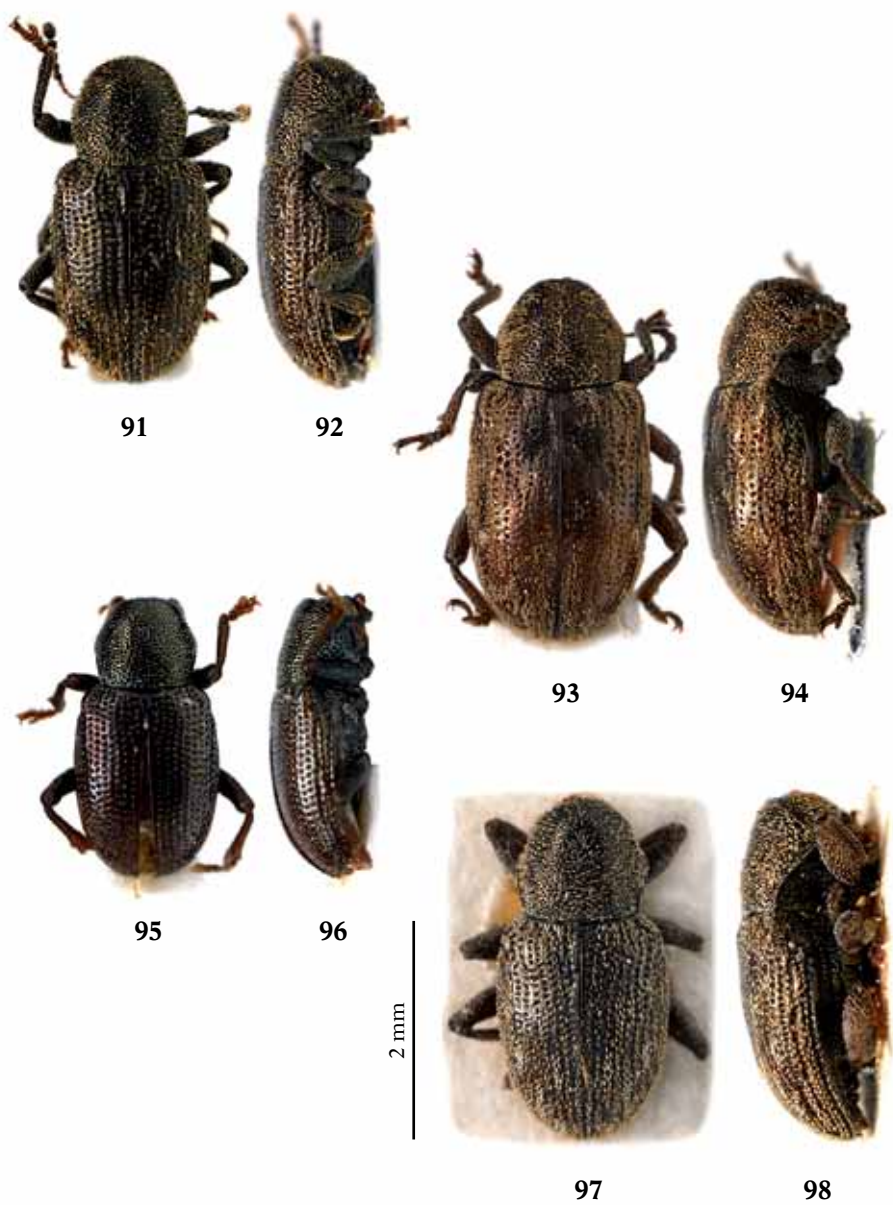


Figs 73-80 – Habitus of: *Pachnephorus shuteae* n. sp., holotypus (73-74); *P. torridus* Baly, holotypus (75-76); *P. uhligi* n. sp., holotypus (77-78); *P. willersi* n. sp., holotypus (79-80).

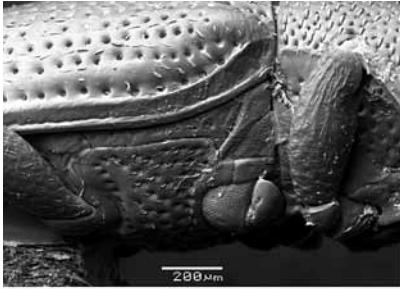




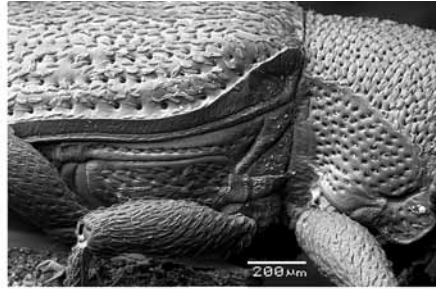
Figs 81-90 – Habitus of: *Pachnephorus yemenicus* Lopatin, holotypus (81-82); *P. bertiae* n. sp., holotypus (83-84); idem, paratypus (85-86); *P. episternalis* n. sp., holotypus (87-88); *P. hajeki* n. sp., holotypus (89-90).



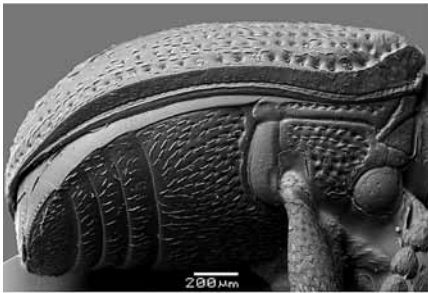
Figs 91-98 – Habitus of: *Pachnephorus latior* Pic, lectotypus (91-92); *P. maroantse-tranus* n. sp., holotypus (93-94); *P. sprecherae* n. sp., holotypus (95-96); *P. testaceipes* Fairmaire, lectotypus (97-98).



99



100



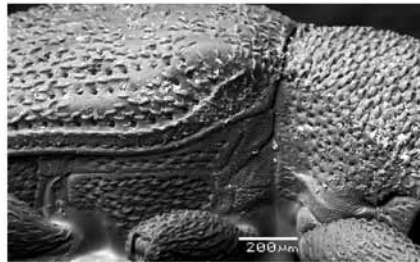
101



102

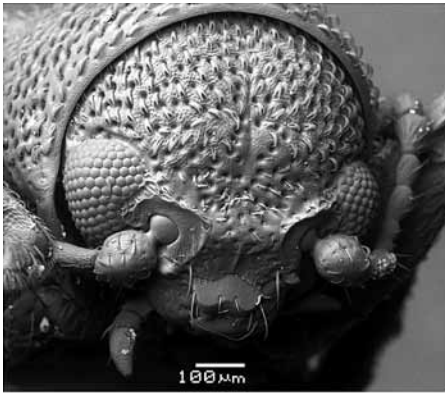


103

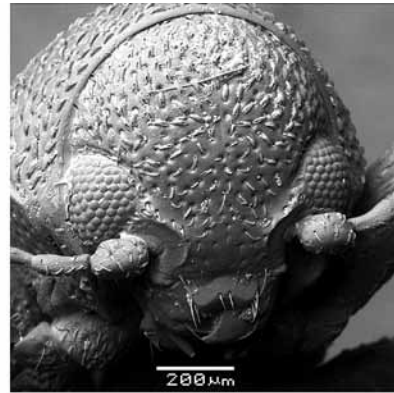


104

Figs 99-104 – *P. sprecheri* n. sp.: epipleuron, and metathoracic epimeron (99); *P. torridus* Baly: epipleuron, mesothoracic episternon, metathoracic epimeron and prothoracic epimeron (100); *P. metallicus* Bryant: epipleuron, abdomen, metathoracic epimeron and episternon, mesothoracic episternon (101); *P. metallicus*: prothoracic epimeron (102); *P. cristiani* n. sp.: epipleuron, mesothoracic episternon, metathoracic epimeron and prothoracic epimeron (103); *P. crocodilinus* n. sp.: epipleuron, mesothoracic episternon, metathoracic epimeron and prothoracic epimeron (104) (photos by Michele Zilioli, Museo Civico di Storia Naturale, Milan).



105



106



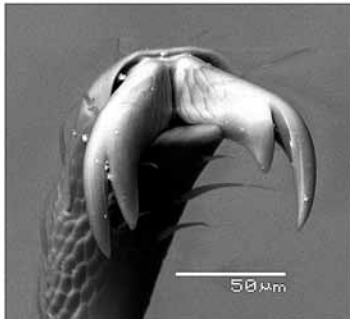
107



108



109

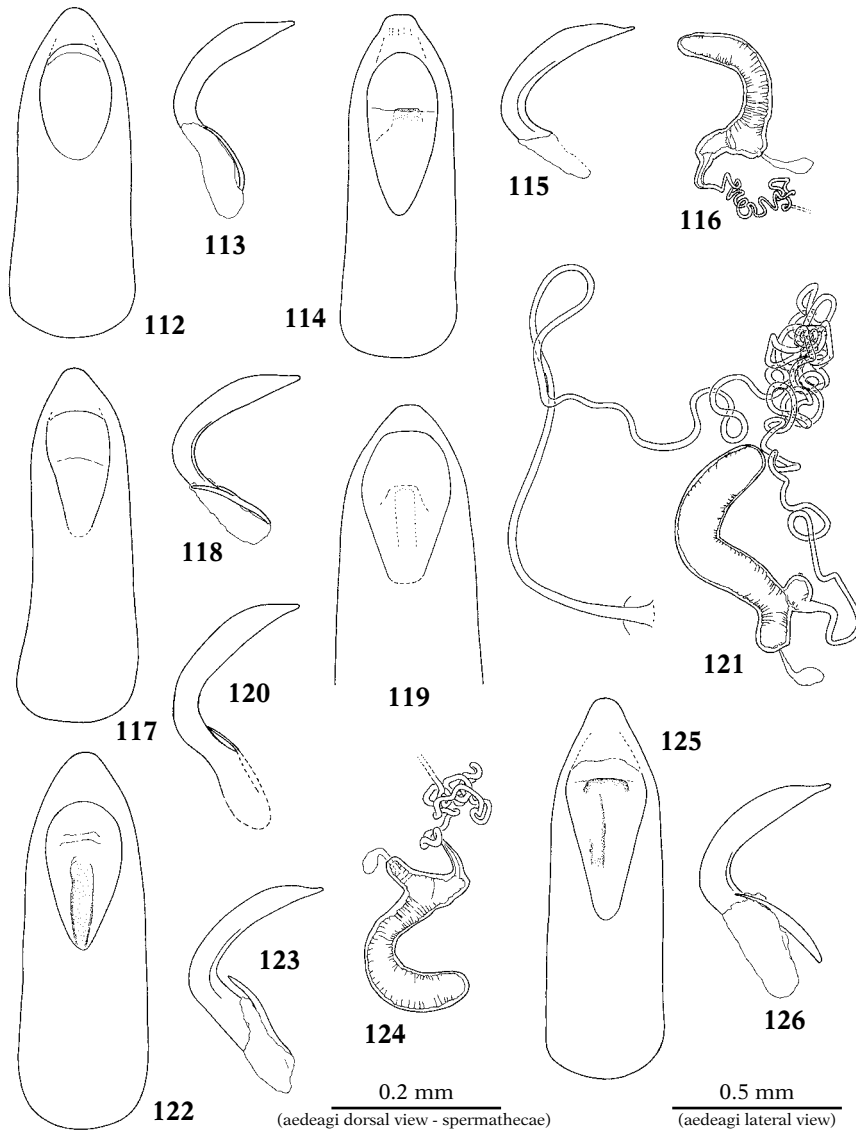


110



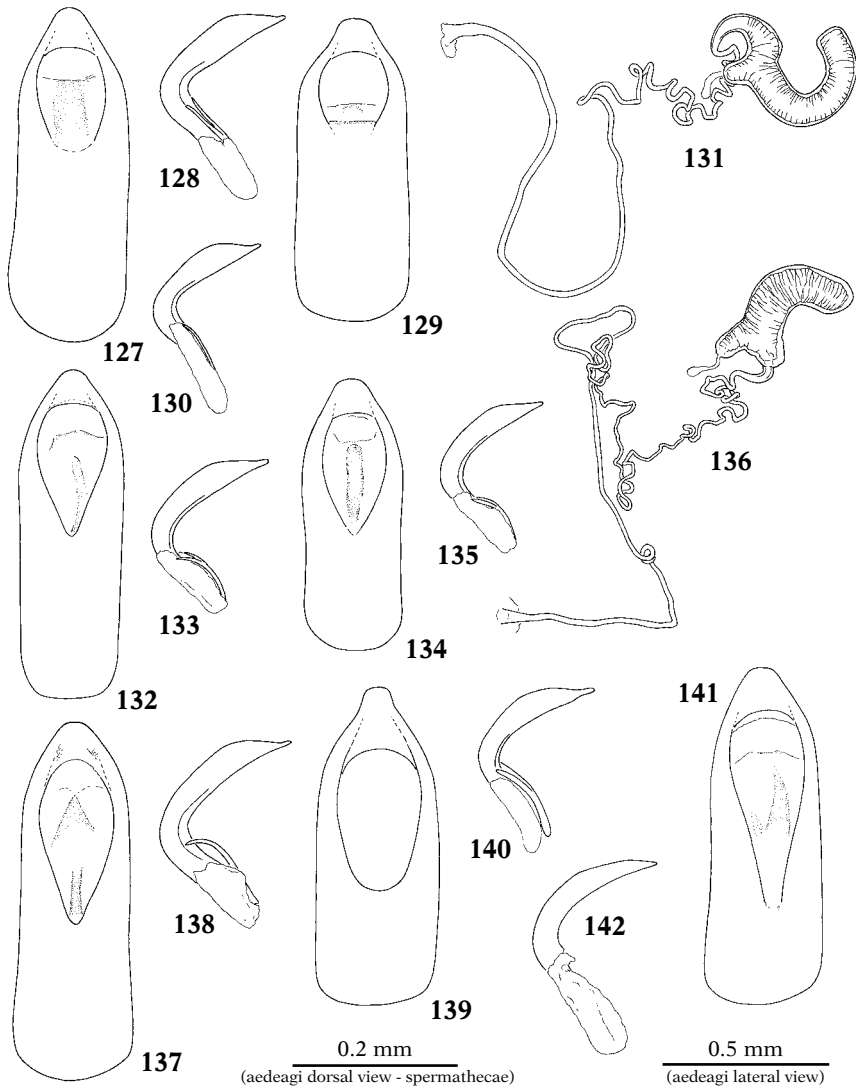
111

Figs 105-111 – *P. gardinii* n. sp.: head (105); *P. senegalensis* Achard: head (106); *P. sprecherae* n. sp.: claws of the ♂ protarsus (107); *P. lator* Pic: claws of the ♂ protarsus (108); *P. demeyeri* n. sp.: claws of the ♀ protarsus (109); *P. gardinii* n. sp.: claws of the ♂ protarsus (110); *P. senegalensis*: claws of the ♂ protarsus (111) (photos by Michele Zilioli, Museo Civico di Storia Naturale, Milan).

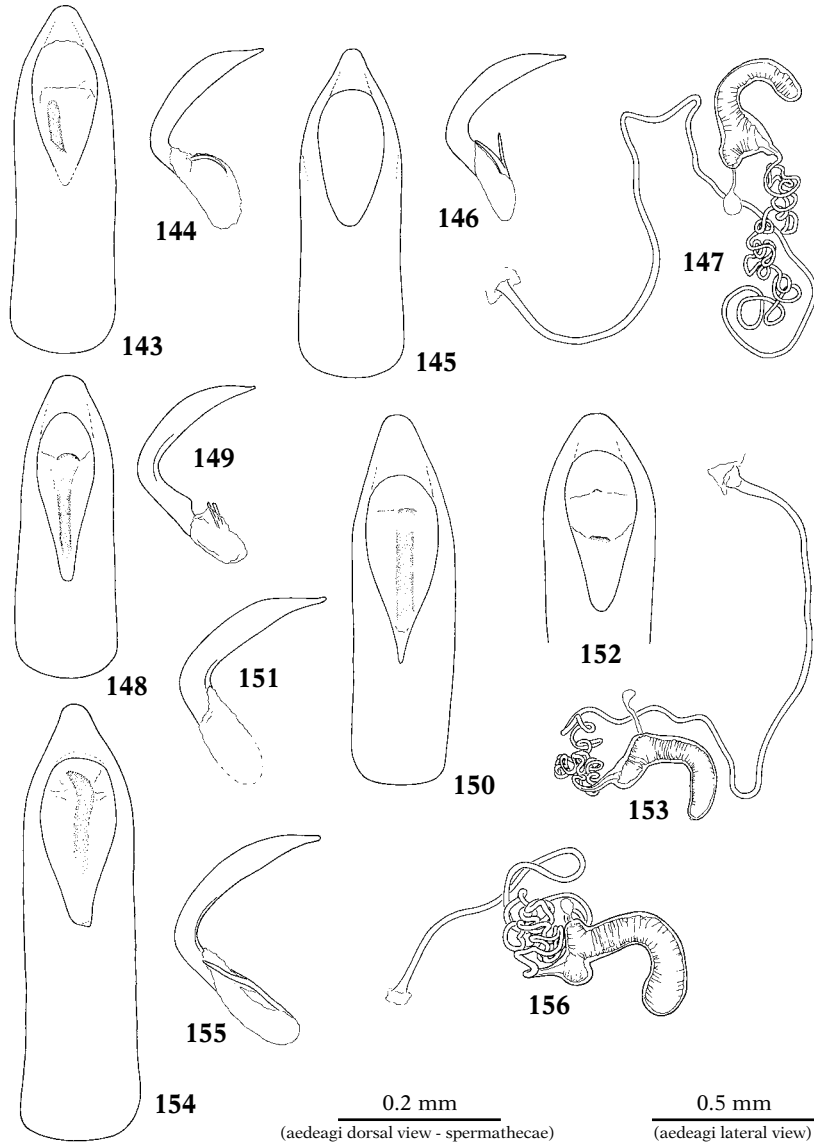


Figs 112-126 – *Pachnephorus achardi* n. sp. (holotypus ♂: Mali, Koulikoro), aedeagus (112-113); *P. aequatorianus* n. sp. (holotypus ♂: Rep. Pop. Congo, May ya Moto), aedeagus (114-115); idem (paratypus ♀: Rep. Pop. Congo, Kivu, Runingo) (116); *P. aethiopicus* n. sp. (holotypus ♂: Ethiopia, Kaffa, Bonga), aedeagus (117-118); *P. baehri* n. sp. (holotypus ♂: Namibia, Popa Falls), aedeagus (119-120); idem (paratypus ♀: Namibia, Popa Falls), spermatheca (121); *P. balyi* n. sp. (holotypus ♂: Angola, Rocadas), aedeagus (122-123); idem (paratypus ♀: Angola, Rocadas), spermatheca (124); *P. beharui* n. sp. (holotypus ♂: Ethiopia, Asella), aedeagus (125-126) (scale bar 0.2 mm: aedeagi dorsal view, spermathecae; scale bar 0.5 mm: aedeagi lateral view).

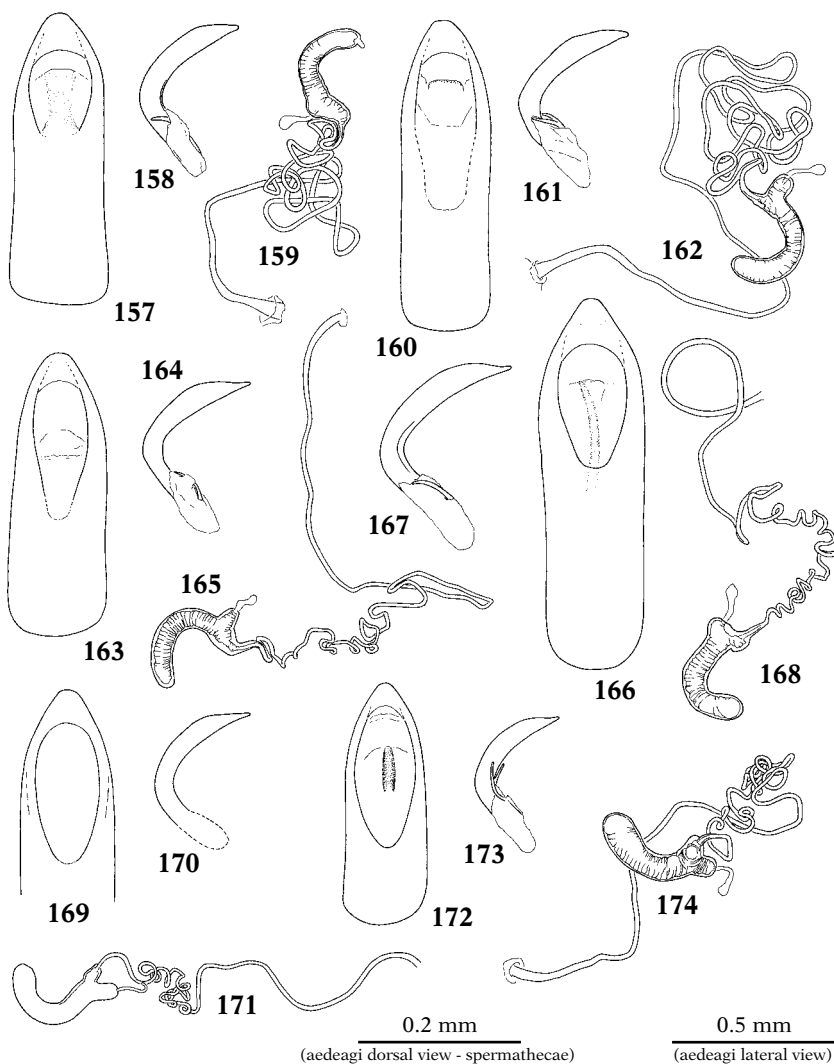




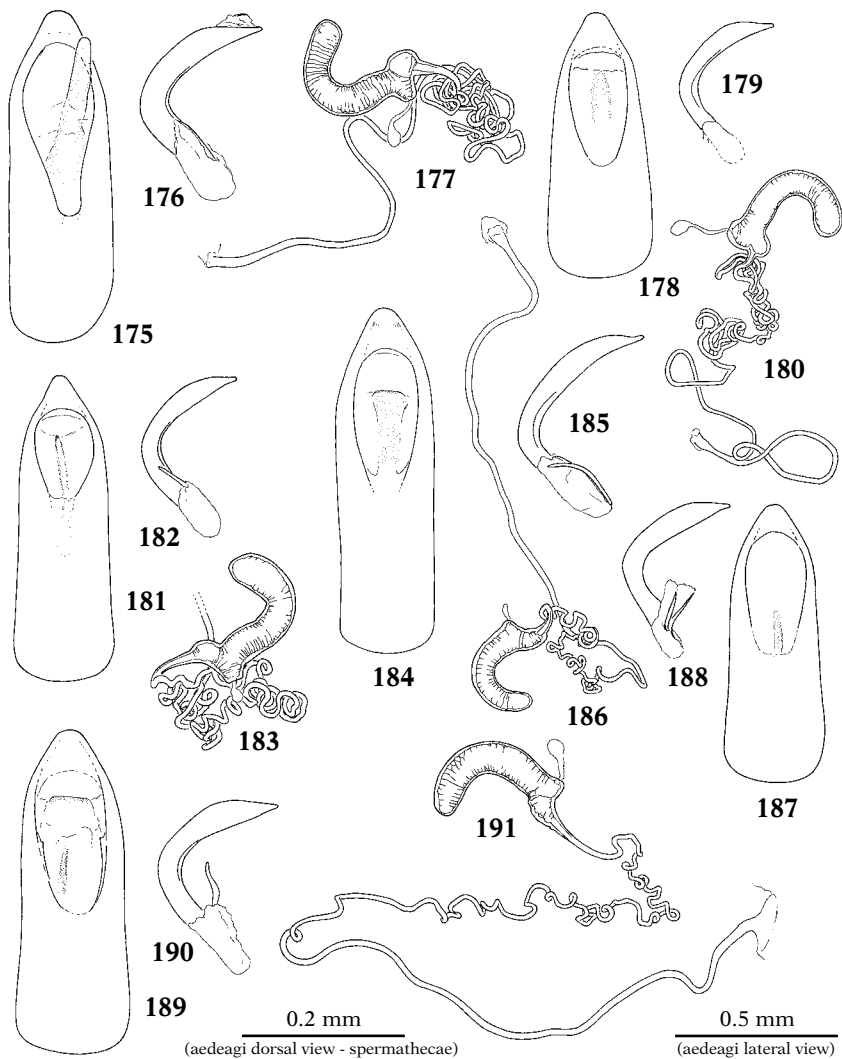
Figs 127-142 – *Pachnephorus bezdeki* n. sp. (holotypus ♂: Rep. Pop. Congo, P. N. Garamba), aedeagus (127-128); idem (paratypus ♂: Rep. Pop. Congo, P. N. Garamba), aedeagus (129-130); idem (paratypus ♀: Rep. Pop. Congo, P. N. Garamba), spermatheca (131); *P. bracarumvestitus* n. sp. (holotypus ♂: Rep. Pop. Congo, P. N. Garamba, Mabanga), aedeagus (132-133); idem (♂: Zambia, South Luangwa N. P., Mfuwe Crocodile Farm), aedeagus (134-135); idem (paratypus ♀: Rep. Pop. Congo, P. N. Garamba, Mabanga), spermatheca (136); *P. bryanti* n. sp. (holotypus ♂: Mali, K. Macina), aedeagus (137-138); *P. burgeoni* n. sp. (holotypus ♂: Natal, Idaleni), aedeagus (139-140); *P. camerunensis* n. sp. (holotypus ♂: N Camerun, Lagona), aedeagus (141-142) (scale bar 0.2 mm: aedeagi dorsal view - spermathecae; scale bar 0.5 mm: aedeagi lateral view).



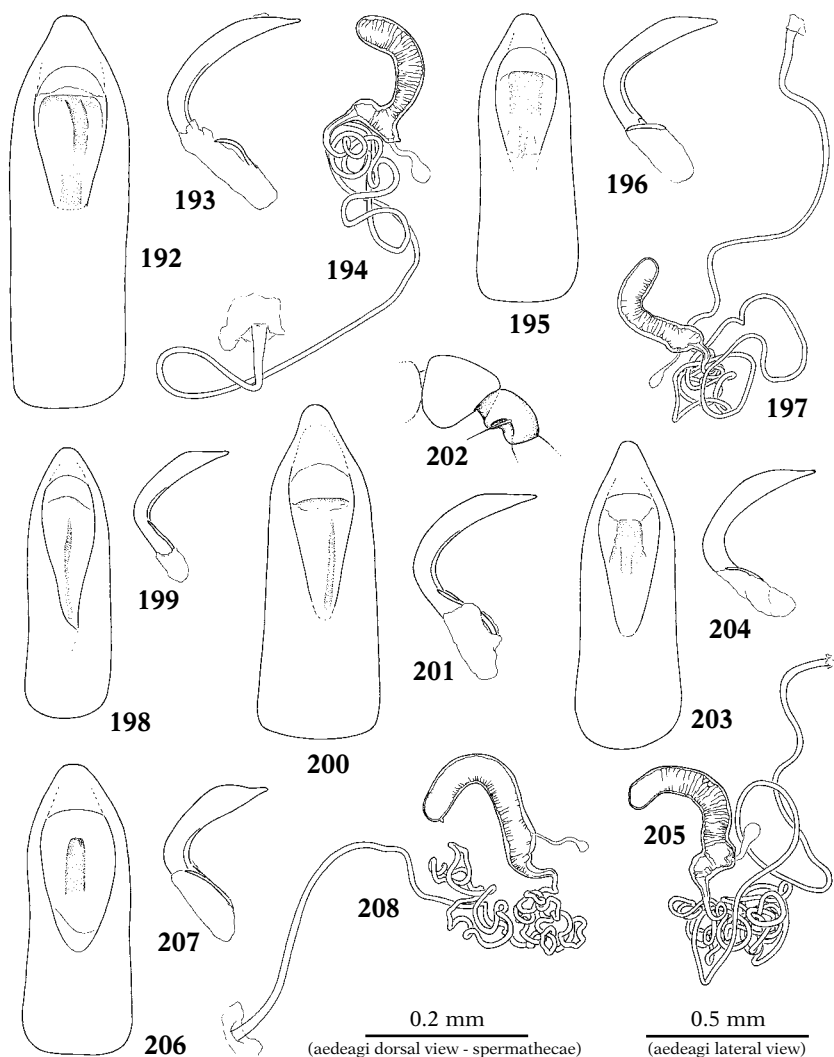
Figs 143-156 – *Pachnephorus conspersus* Gerstaecker ( $\delta$ : Tanzania, Kilona, Kivinje), aedeagus (143-144); *P. cristiani* n. sp. (holotypus  $\delta$ : Namibia, Kavango, Mahango G. R.), aedeagus (145-146); idem (paratypus  $\delta$ : Namibia, Kavango, Mahango G. R.), spermatheca (147); *P. crocodilinus* n. sp. (holotypus  $\delta$ : Zambia, South Luangwa N. P., Mfuwe Crocodile Farm), aedeagus (148-149); idem ( $\delta$ : Sudan, Wad Medani, Blue Nile), aedeagus (150-151); idem ( $\delta$ : Rep. Pop. Congo, P. N. Garamba), aedeagus (152); idem (paratypus  $\delta$ : Zambia, South Luangwa N. P., Mfuwe Crocodile Farm), spermatheca (153); *P. daccordii* n. sp. (paratypus  $\delta$ : Yemen, Mafhak), aedeagus (154-155); idem (paratypus  $\delta$ : Yemen, Al-Kawd), spermatheca (156) (scale bar 0.2 mm: aedeagi dorsal view, spermathecae; scale bar 0.5 mm: aedeagi lateral view).



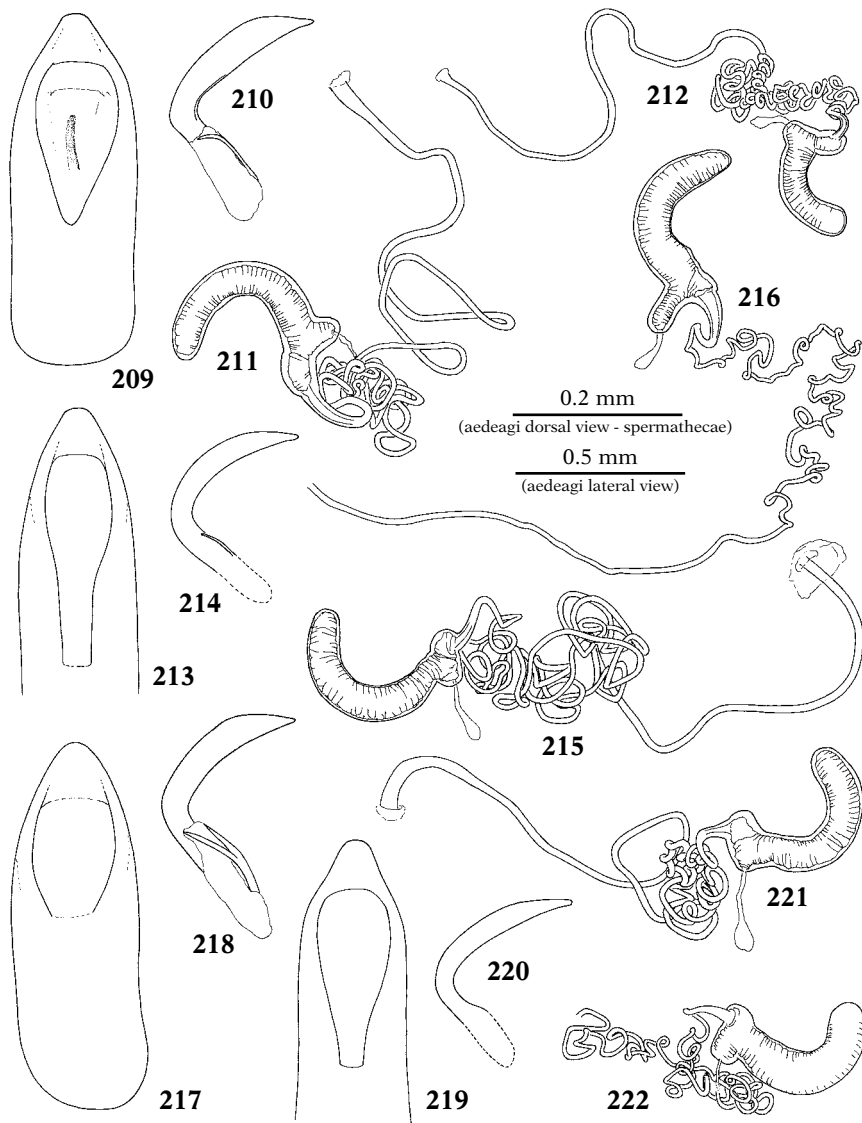
Figs 157-174 – *Pachnephorus danielssoni danielssoni* n. sp. (paratypus ♂: Senegal, Saré Sara), aedeagus (157-158); idem (holotypus ♀: Sierra Leone, Makeni), spermatheca (159); *P. danielssoni congoanus* n. ssp. (holotypus ♂: Rep. Pop. Congo, P. N. Garamba), aedeagus (160-161); idem (paratypus ♀: Rep. Pop. Congo, P. N. Garamba), spermatheca (162); *P. demeyeri* n. sp. (holotypus ♂: Rep. Pop. Congo, P. N. Garamba), aedeagus (163-164); idem (paratypus ♀: Rep. Pop. Congo, P. N. Garamba), spermatheca (165); *P. fabianae* n. sp. (paratypus ♂: Congo, Brazzaville), aedeagus (166-167); idem (paratypus ♀: Congo, Brazzaville), spermatheca (168); *P. fasciatus fasciatus* Burgeon (♂: Rep. Pop. Congo, Mayidi), aedeagus (169-170); idem (♀: Rep. Pop. Congo, Eala), spermatheca (171); *P. fasciatus occidentalis* n. ssp. (holotypus ♂: Nigeria SE St., Opobo), aedeagus (172-173); idem (paratypus ♀: Nigeria SE St., Opobo), spermatheca (174) (scale bar 0.2 mm: aedeagi dorsal view, spermathecae; scale bar 0.5 mm: aedeagi lateral view).



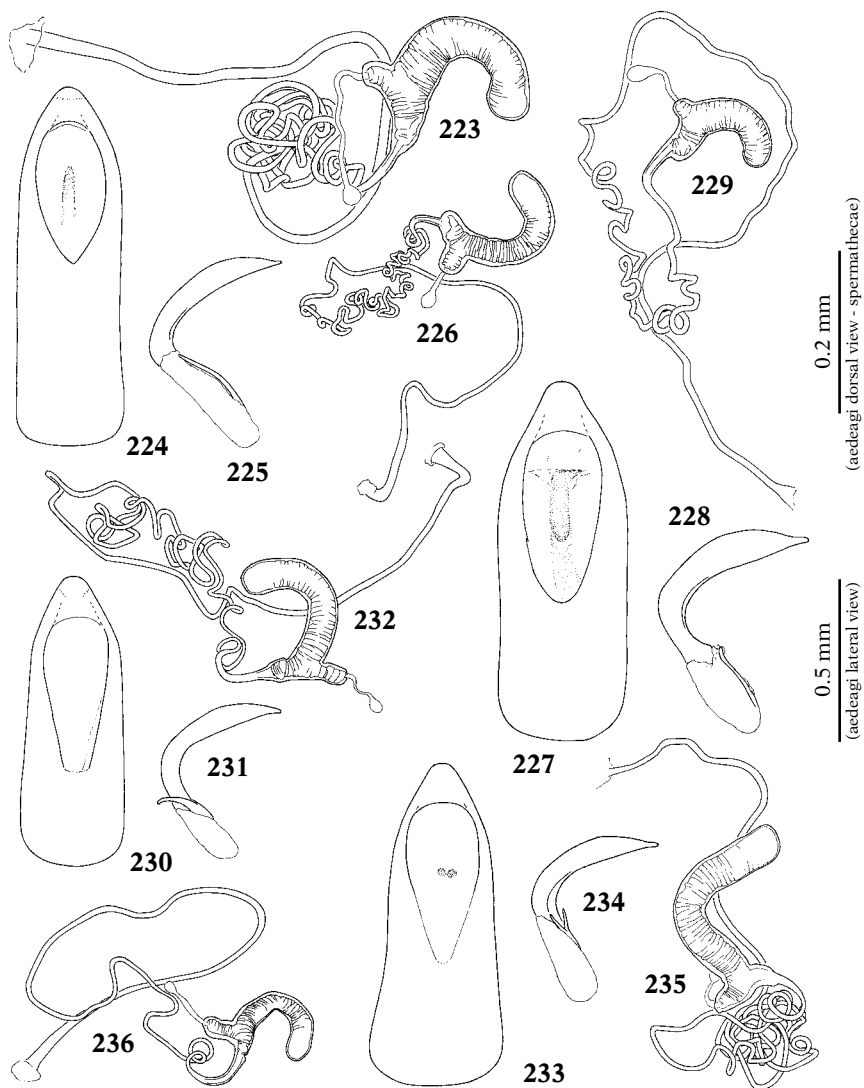
Figs 175-191 – *Pachnephorus gardinii* n. sp. (holotypus ♂: Etiopia, Kaffa, Anderaccia), aedeagus (175-176); idem (paratypus ♀: Etiopia, Kaffa, Anderaccia), spermatheca (177); *P. gerstaeckeri* n. sp. (holotypus ♂: Namibia, Caprivi Zipfel, Katima Mulilo), aedeagus (178-179); idem (paratypus ♀: Namibia, Caprivi Zipfel, Katima Mulilo), spermatheca (180); *P. grobbelaarae* n. sp. (holotypus ♂: Rep. South Africa, Kruger N. P., Pafuri), aedeagus (181-182); idem (paratypus ♀: Rep. South Africa, Kruger N. P., Pafuri), spermatheca (183); *P. lopatini* n. sp. (holotypus ♂: Senegal, Bignona), aedeagus (184-185); idem (paratypus ♀: Senegal, Bignona), spermatheca (186); *P. malicus* n. sp. (holotypus ♂: Mali, Koulikoro), aedeagus (187-188); *P. medvedevi* n. sp. (holotypus ♂: Zambia, Livingstone), aedeagus (189-190); idem (paratypus ♀: Zambia, Livingstone), spermatheca (191) (scale bar 0.2 mm: aedeagi dorsal view, spermathecae; scale bar 0.5 mm: aedeagi lateral view).



Figs 192-208 – *Pachnephorus metallicus* Bryant (holotypus ♂: Rep. South Africa, Cape Point N. R.), aedeagus (192-193); idem (♀: Rep. South Africa, Cape of Good Hope), spermatheca (194); *P. moseykoi* n. sp. (holotypus ♂: Moyen Chari, Fort Archambault), aedeagus (195-196); idem (paratypus ♀: Moyen Chari, Fort Archambault), spermatheca (197); *P. pacificus* n. sp. (holotypus ♂: Central African Rep., La Naboke), aedeagus (198-199); *P. parentorum* n. sp. (holotypus ♂: Ghana, Abora I Takoradi), aedeagus (200-201); idem, 6<sup>th</sup> (with a furrow on the inner side) and 7<sup>th</sup> antennomeres (202); *P. poggii* n. sp. (holotypus ♂: Somalia, Belet Amin), aedeagus (203-204); idem (paratypus ♀: Somalia, Belet Amin), spermatheca (205); *P. regalini* n. sp. (holotypus ♂: Zambia, Lusaka, Kafue City, Kafue River), aedeagus (206-207); idem (paratypus ♀: Zambia, Lusaka, Kafue City, Kafue River), spermatheca (208) (scale bar 0.2 mm: aedeagi dorsal view, spermathecae; scale bar 0.5 mm: aedeagi lateral view).

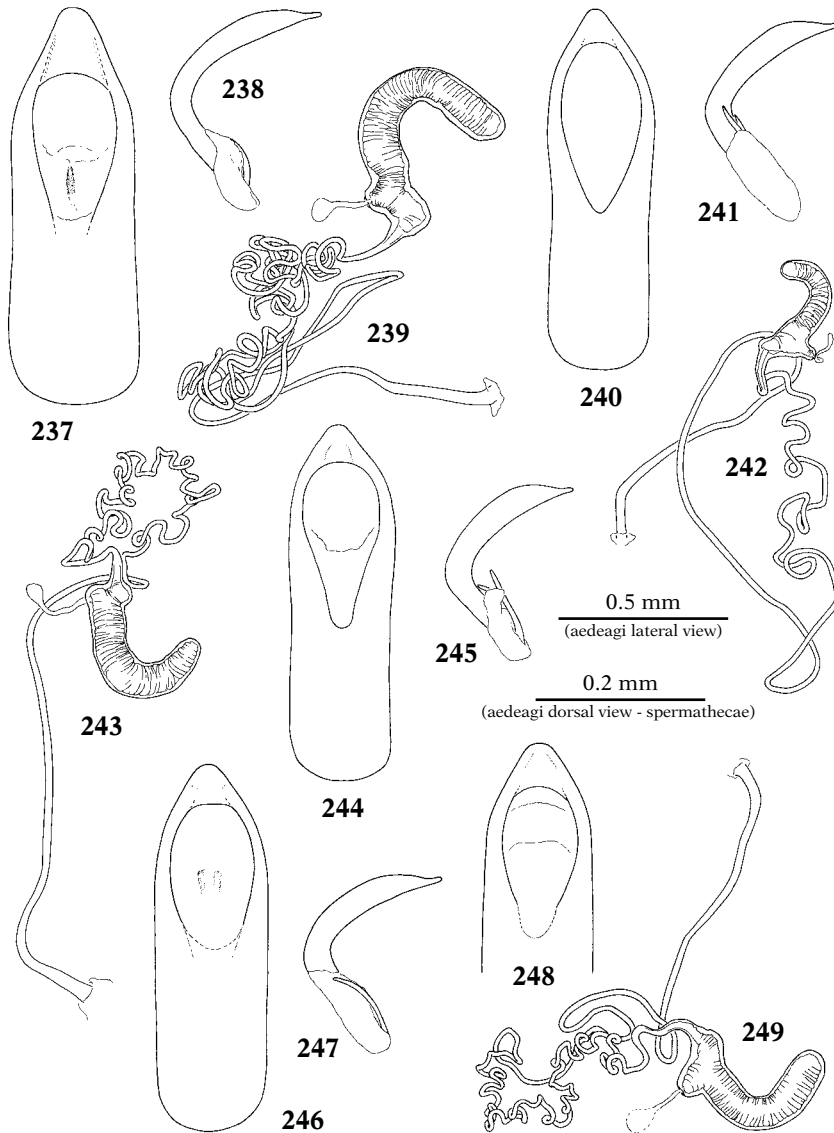


Figs 209-222 – *Pachnephorus rigatoi* n. sp. (holotypus ♂: Kenya, Magadi), aedeagus (209-210); idem (paratypus ♀: Kenya, Magadi), spermatheca (211); *P. sassii* n. sp. (holotypus ♀: Guinea Bissau, Sao Domingosi), spermatheca (212); *P. senegalensis* Achard (Lectotypus ♂: Senegal, Dakar), aedeagus (213-214); idem (♀: Senegal, Somone), spermatheca (215); *P. shuteae* n. sp. (holotypus ♀: Rep. South Africa, Natal, Estcourt), spermatheca (216); *P. torridus* Baly (♂: N Nigeria, Azare), aedeagus (217-218); idem (♂: Rep. Pop. Congo, Voka, Boko), aedeagus (219-220); idem (♀: Gambia, Keneba), spermatheca (221); idem (Rep. Pop. Congo, Kagogo), spermatheca (222) (scale bar 0.2 mm: aedeagi dorsal view, spermathecae; scale bar 0.5 mm: aedeagi lateral view).



Figs 223-236 – *Pachnephorus uhligi* n. sp. (holotypus ♀: Namibia, Okahandja Distr., Otjiamongombe), spermatheca (223); *P. willersi* n. sp. (holotypus ♂: Namibia, Kavango, Mahango G. R.), aedeagus (224-225); idem (paratypus ♀: Namibia, Kavango, Mahango G. R.), spermatheca (226); *P. yemenicus* Lopatin (holotypus ♂: Yemen, Ta'izz), aedeagus (227-228); idem (♀: S Yemen, Al Kawd), spermatheca (229); *P. bertiae* n. sp. (holotypus ♂: Madagascar, Region de l'Androy, Ambovombe), aedeagus (230-231); idem (paratypus ♀: Madagascar, Androy, Bas Mandrare, Riv. Otrokotroky), spermatheca (232); idem (paratypus ♂: Madagascar, Nossi Bé), aedeagus (233-234); idem (paratypus ♀: Madagascar, Ankavandra), spermatheca (235); *P. episternalis* (holotypus ♀: Madagascar), spermatheca (236) (scale bar 0.2 mm: aedeagi dorsal view, spermathecae; scale bar 0.5 mm: aedeagi lateral view).





Figs 237-249 – *Pachnephorus hajeki* n. sp. (holotypus ♂: Madagascar, Mandritsara), aedeagus (237-238); idem (paratypus ♀: Madagascar, Mandritsara), spermatheca (239); *P. lator* Pic (♂: Madagascar, Tananarive), aedeagus (240-241); idem (paralectotypus ♀: Madagascar, Tananarive), spermatheca (242); *P. maroantsetranus* n. sp. (holotypus ♀: Madagascar, Maroantsetra), spermatheca (243); *P. sprecheri* n. sp. (holotypus ♂: Madagascar, Antsianaka), aedeagus (244-245); *P. testaceipes* Fairmaire (♂: Madagascar, Boeni Maevatanana), aedeagus (246-247); idem (♂: Madagascar, Diego Suarez), aedeagus (248); idem (♀: Madagascar, Boeni, Maevatanana), spermatheca (249) (scale bar 0.2 mm: aedeagi dorsal view, spermathecae; scale bar 0.5 mm: aedeagi lateral view).

ACKNOWLEDGEMENTS. The present study could not be accomplished without the cooperation of many friends and colleagues who have helped me with loans of specimens, suggestions and information; to all of them I express my gratitude: Ulf Arnold (Schöneiche - Berlin, Germany), Martin Baehr (MNHU, Berlin, Germany), Nicole Berti (MNHN, Paris, France), Jan Bezděk (Brno, Czech Republic), Margie Cochrane (ISAM, Cape Town, South Africa), Mauro Daccordi (Verona, Italy), Roy Danielsson (MZLU, Lund, Sweden), Marc De Meyer (MRAC, Tervuren, Belgium), Giulio Gardini (Genova, Italy); Elizabeth Grobbelaar (PPRI, Pretoria, South Africa), Jiri Hajek (NMPC, Praha, Czech Republic), Alexey G. Moseyko (Zoological Institute of RAS, St Petersburg, Russia), Roberto Poggi (MSNG, Genoa, Italy), Fabrizio Rigato (MSNM, Milan, Italy), Wolfgang Schawaller (Stuttgart, Germany), Sharon Shute (BMNH, London, England), Eva Sprecher-Uebersax (NHMB, Basel, Switzerland), Manfred Uhlig (MNHU, Berlin, Germany), Joachim Willers (MNHU, Berlin, Germany). Special thanks to Michele Zilioli (MSNM), who has produced with great skill the S.E.M. pictures to illustrate some aspects of *Pachnephorus* morphology, and to Richard Thompson (London) for the linguistic review of the text and his precious suggestions.

#### SUMMARY

A revision of the genus *Pachnephorus* Chevrolat, 1837 from the Afrotropical Region is given and a key to the species is provided. Types of all the previously known taxa have been studied and redescribed; 40 new taxa are described and illustrated: *P. acharidi* n. sp. (Mali), *P. aequatorianus* n. sp. (Rep. Pop. Congo), *P. aethiopicus* n. sp. (Ethiopia), *P. baehri* n. sp. (Namibia), *P. balyi* n. sp. (Angola), *P. beharui* n. sp. (Ethiopia), *P. bertiae* n. sp. (Madagascar), *P. bezdeki* n. sp. (Rep. Pop. Congo), *P. bracarumvestitus* n. sp. (Rep. Pop. Congo), *P. bryanti* n. sp. (Mali), *P. burgeoni* n. sp. (Natal), *P. camerunensis* n. sp. (Camerun), *P. cristiani* n. sp. (Namibia), *P. crocodilinus* n. sp. (Zambia), *P. daccordii* n. sp. (Yemen), *P. danielssoni* n. sp. (Sierra Leone), *P. danielssoni congoanus* n. ssp. (Rep. Pop. Congo), *P. demeyeri* n. sp. (Rep. Pop. Congo), *P. episternalis* n. sp. (Madagascar), *P. fabiana* n. sp. (Congo), *P. fasciatus occidentalis* n. ssp. (Nigeria), *P. gardinii* n. sp. (Ethiopia), *P. gerstaeckeri* n. sp. (Namibia), *P. grobbelarae* n. sp. (South Africa), *P. hajeki* n. sp. (Madagascar), *P. lopatini* n. sp. (Senegal), *P. malicus* n. sp. (Mali), *P. maroantsetranus* n. sp. (Madagascar), *P. medvedevi* n. sp. (Zambia), *P. moseyko* n. sp. (Chad), *P. pacificus* n. sp. (Central Afr. Rep.), *P. parentorum* n. sp. (Ghana), *P. poggii* n. sp. (Somalia), *P. regalini* n. sp. (Zambia), *P. rigatoi* n. sp. (Kenya), *P. sassii* n. sp. (Guinea Bissau), *P. shuteae* n. sp. (Rep. South Africa), *P. sprecheriae* n. sp. (Madagascar), *P. uhligi* n. sp. (Namibia), *P. willersi* n. sp. (Namibia). The lectotypes of *P. conspersus* Gerstaecker, 1871, *P. senegalensis* Achard, 1914, *P. latior* Pic, 1921 and *P. testaceipes* Fairmaire, 1880 are designated. A new synonymy (*P. costatus* Achard, 1914 **n. syn.** of *P. torridus* Baly, 1878) and a nomenclatural change (*Mecistes lineatus* (Pic, 1921) **n. comb.** for *Pachnephorus lineatus* Pic, 1921) are proposed; the Lectotypes of *M. lineatus* and of *M. flavipes* (Gerstaecker, 1855) are designated.

#### RIASSUNTO

*Revisione dei Pachnephorus della Regione Afrotropicale (Coleoptera, Chrysomelidae).*

Viene proposta la revisione dei *Pachnephorus* Chevrolat, 1837 della Regione Afrotropicale e viene fornita una chiave dicotomica per il riconoscimento delle specie. I tipi dei taxa già noti sono stati esaminati e vengono ridescritti e illustrati; sono descritti

inoltre 40 nuovi taxa: *P. acharidi* n. sp. (Mali), *P. aequatorianus* n. sp. (Rep. Pop. Congo), *P. aethiopicus* n. sp. (Etiopia), *P. baehri* n. sp. (Namibia), *P. balyi* n. sp. (Angola), *P. beharui* n. sp. (Etiopia), *P. bertiae* n. sp. (Madagascar), *P. bezdeki* n. sp. (Rep. Pop. Congo), *P. bracarumvestitus* n. sp. (Rep. Pop. Congo), *P. bryanti* n. sp. (Mali), *P. burgeoni* n. sp. (Natal), *P. camerunensis* n. sp. (Camerun), *P. cristiani* n. sp. (Namibia), *P. crocodilinus* n. sp. (Zambia), *P. daccordii* n. sp. (Yemen), *P. danielssoni* n. sp. (Sierra Leone), *P. danielssoni congoanus* n. ssp. (Rep. Pop. Congo), *P. demeyeri* n. sp. (Rep. Pop. Congo), *P. episternalis* n. sp. (Madagascar), *P. fabianae* n. sp. (Congo), *P. fasciatus occidentalis* n. ssp. (Nigeria), *P. gardinii* n. sp. (Etiopia), *P. gerstaeckeri* n. sp. (Namibia), *P. grobbelaarae* n. sp. (South Africa), *P. hajeki* n. sp. (Madagascar), *P. lopatini* n. sp. (Senegal), *P. malicus* n. sp. (Mali), *P. maroantsetranus* n. sp. (Madagascar), *P. medvedevi* n. sp. (Zambia), *P. moseykoi* n. sp. (Chad), *P. pacificus* n. sp. (Central Afr. Rep.), *P. parentorum* n. sp. (Ghana), *P. poggii* n. sp. (Somalia), *P. regalini* n. sp. (Zambia), *P. rigatoi* n. sp. (Kenya), *P. sassii* n. sp. (Guinea Bissau), *P. shuteae* n. sp. (Rep. South Africa), *P. sprecheriae* n. sp. (Madagascar), *P. uhligi* n. sp. (Namibia), *P. willersi* n. sp. (Namibia). Sono designati i lectotipi di *P. conspersus* Gerstaecker, 1871, *P. senegalensis* Achard, 1914, *P. latior* Pic, 1921 and *P. testaceipes* Fairmaire, 1880. Viene proposta una nuova sinonimia (*P. costatus* Achard, 1914 **n. syn.** of *P. torridus* Baly, 1878) e un cambiamento nomenclatoriale (*Mecistes lineatus* (Pic, 1921) **n. comb.** for *Pachnephorus lineatus* Pic, 1921); di quest'ultima specie e di *M. flavipes* (Gerstaecker, 1855) vengono designati i lectotipi.

#### REFERENCES

- ACHARD, J. 1914. Eumolpides nouveaux d'Afrique tropicale. Bulletin de la société entomologique de France, pp. 227-231
- BALY, J. S. 1878. Description of New Species and Genera of Eumolpidae. The Journal of the Linnean Society, Zoology, 14(1879): 246-265.
- BECHYNÉ, J. 1964. Notizen zu den madagassischen Chrysomeloidea (Col. Phytophaga). Mitteilungen der münchener entomologischen Gesellschaft, 54: 68-161.
- BIONDI, M. & P. D'ALESSANDRO. 2006. Biogeographical analysis of the flea beetle genus *Chaetocnema* in the Afrotropical Region: distribution patterns and areas ofendemism. Journal of Biogeography, 33: 720-730.
- BRIVIO, C. 1960. Contributo alla conoscenza della Fauna coleotterologica della Guinea Portoghese. IV - Chrysomelidae, Curculionidae, Scarabaeidae. Atti della Società italiana di Scienze naturali e del Museo civico di Storia naturale di Milano, 99 (3): 265-275.
- BRYANT, G. E. 1948. New species of Chrysomelidae from Senegal and the Ivory Coast. Annals and Magazine of Natural History, London, 12 (1): 58-65.
- BRYANT, G. E. 1956. Contributions à l'étude de la faune entomologique du Ruanda-Urundi (Mission P. Basilewsky 1953). XCVII. Coleoptera Chrysomelidae Donaciinae, Criocerinae, Megalopodinae, Clytrinae, Cryptocephalinae (part.), Eumolpinae and Gallerucinae. Annales du Musée du Congo Belge, Tervuren (Sér. 8°), Sciences zoologiques, 51: 395-421.
- BRYANT, G. E. 1957. Coleoptera: Chrysomelidae of south-west Arabia. Annals and Magazines of Natural History, series 12, 10: 356-363.
- BRYANT, G. E. 1959. Coleoptera: Chrysomelidae I. In: Hanström, Brink & Rudebeck, South African Animal Life, 6: 194-226
- BRYANT, G. E. 1960. Coleoptera Chrysomelidae. Mission zoologique de l'I.R.S.A.C. en Afrique orientale (P. Basilewsky et N. Leleup, 1957). XXI. Coleoptera Chrysomelidae. Annales du Musée du Congo Belge, Tervuren (Sér. 8°), Sciences zoologiques, 81: 342-368.

- BURGEON, L. 1941. Eumolpides (Col. Chrysom.) des collections du Musée du Congo Belge. *Revue de Zoologie et de Botanique Africaine*, 34: 268-296.
- BURGEON, L. 1942. Chrysomelidae. S. Fam. Eumolpinae. Expl. Parc nat. Albert, Miss. de Witte (1933-1935), Brussels, 37: 1-31.
- CHAPUIS, F. 1874. Tome dixième. Famille des Phytophages. Pp. I-IV, 1-455 in: Lacordaire T. & Chapuis F., *Histoire naturelle des Insectes. Genera des Coléoptères*. Paris.
- CHEVROLAT, L. A. A. 1837. pp. 385-503 in: Dejean. *Catalogue des coléoptères de la collection de M. le comte Dejean*. Troisième édition, revue et augmentée, livr. 5, Paris.
- CLAVAREAU, H. 1914. Chrysomelidae: 11. Eumolpinae. Pars 59: 215 pp. In: W. Junk & S. Schenkling - *Coleopterorum Catalogus*, 's-Gravenhage, Berlin (1911-1940).
- DACCORDI, M. 1983. Missioni del Professor Giuseppe Scortecchi nell'Arabia meridionale. *Coleoptera Chrysomelidae: Eumolpinae*. *Atti della Società italiana di Scienze naturali e Museo civico di Storia naturale di Milano*, 124 (3-4): 224-228.
- DE SAEGER, H. 1956. Exploration du Parc National de la Garamba. Fascicule 5. Entomologie. Renseignements éco-biologiques. Institut des Parcs Nationaux du Congo Belge, Bruxelles, 555 pp., 3 maps.
- FAIRMAIRE, L. 1880a. Diagnoses de Coléoptères de Madagascar. *Le Naturaliste*, 2: 316.
- FAIRMAIRE, L. 1880b. Descriptions de quelques Coléoptères de Nossi-Bé. *Annales de la Société Entomologique de France*, (5)10: 321-340.
- GERSTAECKER, K. E. A. 1855. Diagnosen der von Peters Mossambique gesammelten Käfer V. Hymenoptera. *Monatsberichte der Königlich Preußischen Akademie der Wissenschaften zu Berlin*: 636-639.
- GERSTAECKER, K. E. A. 1862. Pp. 267-348. In: W. Peters. *Naturwissenschaftliche Reise nach Mossambique*. *Monatsberichte der Königlich Preußischen Akademie der Wissenschaften zu Berlin*: 267-348.
- GERSTAECKER, K. E. A. 1871. Beitrag zur Insektenfauna von Zanzibar. III. Coleoptera. *Archiv für Naturgeschichte*, 37: 42-86.
- GERSTAECKER, K. E. A. 1873. 3. Abth. 2. Die Gliederthier-Fauna des Sansibar-Gebietes. Nach dem von Dr. O. Kersten während der v. d. Decken'schen Ost-Afrikanischen Expedition im Jahre 1862 und von C. Cooke auf der Insel Sansibar im Jahre 1864 gesammelten Material. pp. XVI+542+2(unn.), 18 Farbtaf., in: [Herausberger] Baron C. C. von der Decken's Reisen in Ost Afrika in 1859-61. Bearb. von O. Kersten, 4 Bde., 4<sup>e</sup>, Leipzig & Heidelberg, C. F. Winter, 1869-79.
- JACOBY, M. 1908. The Fauna of British India, including Ceylon and Burma. Coleoptera Chrysomelidae. Vol. I. Taylor and Francis, London, 534 pp., 2 pl.
- JOLIVET, P. 1953. Les Chrysomeloidea (Coleoptera) des Iles Baléares. *Mémoires de l'Institut Royal des Sciences naturelles de Belgique*, 2<sup>e</sup> série, 50: 1-87, 3 tavv.
- JOLIVET, P. & T. J. HAWKESWOOD. 1995. Host-plants of Chrysomelidae of the World. An essay about the relationships between the Leaf-beetles and their food-plants. Backhuys Publishers, Leiden, 281 pp.
- KARSCH, F. 1882. Verzeichniss der von Herrn Stabsarzt Dr. Falkenstein in Westafrika (Chinchozo) gesammelten Chrysomeliden, Endomychiden, Coccinelliden und Anthribiden. *Berliner Entomologische Zeitschrift*, 26: 395-403, 1 tav. f.t.
- KOCHER, L. 1953. Localisations nouvelles ou intéressantes de Coléoptères marocains. *Travaux de l'Institut Scientifique Chérifien*, Tanger, 7: 1-137.
- KUNTZEN, H. 1912. Bemerkungen über einige Eumolpinen des Zoolog. Museums zu Berlin. *Entomologische Rundschau*, 29 (7): 52.
- LEFÈVRE, E. 1885. Eumolpidarum hucusque cognitarum catalogus, sectionum conspectu systematico, generum sicut et specierum nonnullarum novarum descriptionibus adjunctis. *Mémoires de la Société royale des sciences de Liège*, 2<sup>e</sup> série, 11: 172 pp.

- LOPATIN, I. 1976. New and little known leaf-beetles (Coleoptera, Chrysomelidae) from the USSR. *Entomologiceskoe Obozrenie*, 55(1): 105-116.
- LOPATIN, I. 2001. Beitrag zur kenntnis der Chrysomeliden des Jemen (Coleoptera: Chrysomelidae). *Mitteilungen des Internationaler Entomologischer Verein*, 26(1-2): 13-19.
- MEDVEDEV, L. N. 1996. The Chrysomelidae of Arabia. *Fauna of Saudi Arabia*, 15: 211-263.
- MONRÓS, F. & J. BECHYNÉ. 1956. Über einige verkannte Chrysomeliden-Namen. *Entomologische Arbeiten der Museum G. Frey*, 7(3): 1118-1137.
- MULSANT, E. 1852. Première série de Coléoptères nouveaux, ou peu connus. *Mémoires de l'Academie des Sciences de Lyon*, (2) 2: 1-17.
- PAPP, C. S. 1952. Petite contribution à l'étude des Chrysomélides de la faune africaine (Contribution à l'étude des Chrysomélides n° 40). *Bulletin de l'Institut français d'Afrique noire*, 14 (1): 120-125.
- PIC, M. 1921. *Mélanges exotico-entomologiques*, 34: 1-33
- PIC, M. 1952. Mission A. Villiers au Togo et au Dahomey (1950). XIV. - Coléoptères Chrysomélides. *Bulletin de l'Institut française d'Afrique Noire*, Paris, Dakar, 14: 495-512.
- ROSENHAUER, W. G. 1856. Die Käfer Andalusiens nach dem Resultate einer Reise. Erlangen, pp.1-429, 3 tavv.
- SAINTE-CLAIRE DEVILLE, J. 1910. Catalogue critique des Coléoptères de la Corse. *Revue d'Entomologie*, Caen, 28: 273-400.
- SELMAN, B. J. 1972. Eumolpinae (Coleoptera: Chrysomelidae). Exploration Parc national de la Garamba. Mission H. de Saeger, 55: 1-95.
- SELMAN, B. J. 1973a. Coleoptera from North-East Africa. Chrysomelidae: Eumolpinae. (Zoological contribution from the Finnish expeditions to the Sudan No. 34). *Notulae Entomologicae*, 53(4): 159-166.
- SELMAN, B. J. 1973b. Contribution à la connaissance de la faune entomologique de la Côte-d'Ivoire (J. Decelle, 1961-1964). 49. Coleoptera Chrysomelidae Eumolpinae. *Revue de Zoologie et de Botanique Africaine*, 87(2): 311-329.
- WARCHALOWSKI, A. 2003. Chrysomelidae. The leaf-beetles of Europe and the Mediterranean area. *Natura opima dux Foundation*, Warszawa, 600 pp., 56 tavv.
- WEISE, J. 1893. *Naturgeschichte der Insecten Deutschlands*. Verlag, Berlin, 6: I-XIV, 1-1161.
- WEISE, J. 1910. Chrysomelidae von Madagascar, den Comoren und den Inseln Ostafrikas. pp. 417-506 in: A. Voeltzkow. *Reise in Ostafrika in den Jahren 1903-1905 mit Mitteln der Hermann und Elise geb. Heckmann Wentzel-Stiftung ausgeführt*, 2, Stuttgart (E. Schweizerbart).
- ZOIA, S. 2007. New data on African Eumolpinae from the collection of the Museum für Naturkunde in Berlin (Coleoptera, Chrysomelidae). *Deutsche Entomologische Zeitschrift*, 54 (1): 69-74.