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Revision of the trigonopoid *Platynotina* from South Africa. Part VII. Genera *Bantodemus* KOCH, 1955 and *Parabantodemus* gen. nov. (*Coleoptera*: *Tenebrionidae*: *Platynotini*)

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ABSTRACT. The genus *Bantodemus* KOCH, 1955 of the trigonopoid *Platynotina* is revised and illustrated (type species: *Trigonopus lethaeus* MULSANT et REY, 1853). Ten new species are described: *B. drakensbergensis*, *B. goldengatensis*, *B. hluhluwensis*, *B. milleri*, *B. natalensis*, *B. parvulus*, *B. similis*, *B. striatus*, *B. trojani* and *B. zimbabwensis*. The following synonymy is proposed: *Bantodemus caffer* (FÄHRAEUS, 1870) (=*Trigonopus lugubris* FÄHRAEUS, 1870). Key for species determination is provided. *Parabantodemus* gen. nov. (type species: *Trigonopus spinipes* MULSANT et REY, 1853) of the trigonopoid *Platynotina* is described and illustrated.

Key words: entomoogy, taxonomy, revision, *Coleoptera*, *Tenebrionidae*, *Platynotini*, *Bantodemus*, *Parabantodemus*, South Africa.

In 1955 KOCH described *Bantodemus*, a new platynotine genus, and provided a key with diagnoses and descriptions of 28 species: *Trigonopus armatus* MULSANT et REY, 1853, *T. lethaeus* MULSANT et REY, 1853 (type species), *T. typhon* MULSANT et REY, 1853, *T. moerens* FÄHRAEUS, 1870, *T. caffer* FÄHRAEUS, 1870, *T. lugubris* FÄHRAEUS, 1870, *T. dentipes* FÄHRAEUS, 1870 and 21 new species: *bevisi*, *calcaratus*, *funduzilis*, *furcatus*, *imitator*, *kaszabi*, *lawrencei*, *lucidus*, *mariepsus*, *marietzensis*, *melancholicus*, *mocambiqueus*, *pubipes*, *rectimanus*, *rhodesianus*, *swazi*, *transvaalensis*, *tristis*, *vescus*, *zoutpansbergianus*, *zulu.*

A year later (1956), the same author presented in detail his division of the tribe *Platynotini* into subtribes and generic groups, one of them being the trigonopoid *Platynotina*. The genus *Bantodemus* is currently placed in the above group.

In 1853 MULSANT and REY described *Trigonopus spinipes*, a species included by KOCH (1956) in the *Melanopterus* (the genus re-interpreted by IWAN in 1997). At present this species belongs to the monotypic genus *Parabantodemus* gen. nov.

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METHODS AND ABBREVIATIONS

Means and ratios are based on all specimens listed under "Material examined" (8 males and 8 females when there were more specimens; measurements of the genitalia - 1 or 2 specimens). The measurements were taken as follows: width of lateral pronotal border - in the middle of lateral pronotal margin; width of anterior elytral margin - from humeral angle to scutellum; body length - from anterior margin of labrum to elytral apex; body width - maximum elytral width. The following abbreviations have been used in the descriptions:

pl/pb - pronotal length/breadth ratio;
el/eb - elytral length/breadth ratio;
el/pl - length ratio elytra/pronotum;
eb/pb - breadth ratio elytra/pronotum;
lbp - length of basal part of aedeagal tegmen;
lap - length of apical part of aedeagal tegmen;

c1/c2/c3/c4/c4-c3 - length ratios coxites1/coxites2/coxites3/coxites4/coxites4-coxites3;
bc1/lc1 - coxites1 breadth/length ratio;
lp/lc1 - length ratio paraproct/coxites 1;
dod - length of long (inner) spur of hind tibia;
dok - length of short (outer) spur of hind tibia;
dtk - length of posterior margin of hind tibia;
pkp - width of anterior margin of elytra;
st - width of scutellum;
lmb/la - length ratio male body/aedeagus;
lfb/lo - length ratio female body/ovipositor.

PHYLOGENETIC ANALYSIS

Members of the genus *Bantodemus* were subject to cladistic analysis. The monophyly of the genus is supported by the following characters: disapearance of the border of the last abdominal ventrite, pronotal lateral border widened anteriorly, presence of the deep concavity on inner side of the male fore tibiae. Thirteen characters were included in the analysis (fig. 13); initially, more than 30 characters were analysed, but autapomorphies and uninformative characters were later excluded. Plesiomorphies are listed first (0), followed by putative apomorphies (1-5); characters 6, 8 and 10 coded as nonadditive. The characters were polarized by out-group comparison, the out-groups being genera of the trigonopoid *Platynotina*: mainly *Parabantodemus*, *Crypticanus*, *Atrocrates*, *Atrocrypticanus*. Female characters (5-7) could not be scored in the following taxa: *clcaratus*, *funduzilis*, *marietzensis*, *mocambiqueus*, *moerens*, *rectimanus* and *rhodesianus*. Females of the above-mentioned species are unknown.

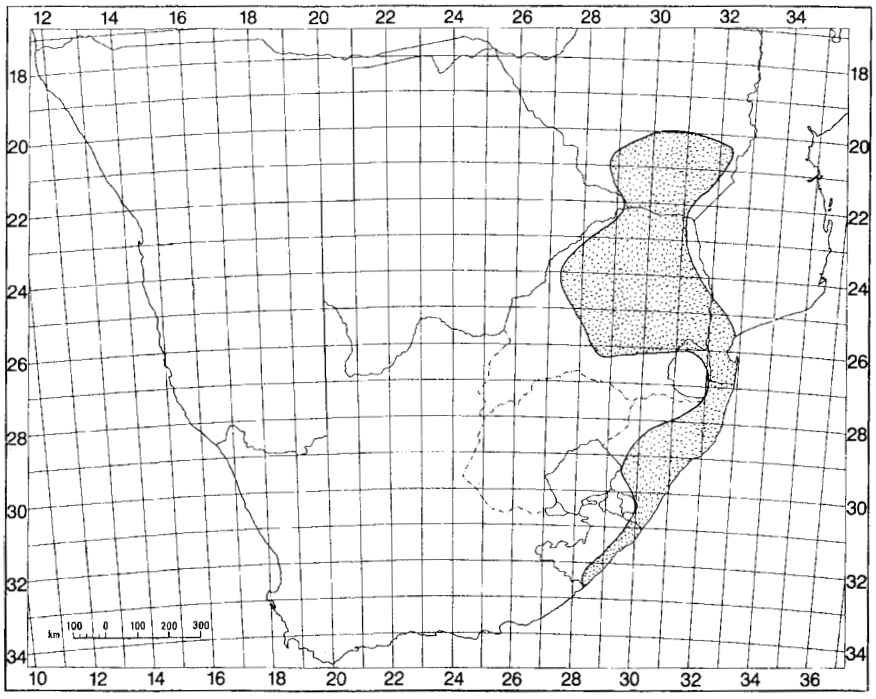
0. 8th elytral row: 0 - complete, reaching anterior elytral margin; 1 - slightly shortened; 2 - distinctly shortened.
1. Prosternal process: 0 - protruding towards mesosternum; 1 - saddle-like concave.
2. Anterior concavity of 9th elytral row: 0 - narrow and shallow; 1 - wide and deep.
3. Anterior elytral margin: 0 - arcuately convex; 1 - forming gradual slope.
4. Upper edge of anterior elytral margin: 0 - unbordered; 1- bordered.
5. Shape of additional sac in bursa copulatrix: 0 - moderately long and wide; 1 - thin and long.
6. Sclerite in bursa copulatrix: 0 - absent; 1 - tube-like; 2 - spines; 3 - ring- and fold-like.
7. Anterior margin of paraproct: 0 - rounded; 1 - elongated.
8. Inner side of fore tibia: 0 - simple; 1 - with obtuse dilatation; 2 - with denticle.
9. Inner margin of mid male tibia: 0 - straight; 1 - S-like bent.
10. Mid male tibia: 0 - without denticle; 1 - with apical denticle; 2 - with apical denticle and convexity.

11. Trochanter of hind male femur: 0 - simple; 1 - with denticle.
12. Elytra: 0 - shiny; 1 - greasy shiny.

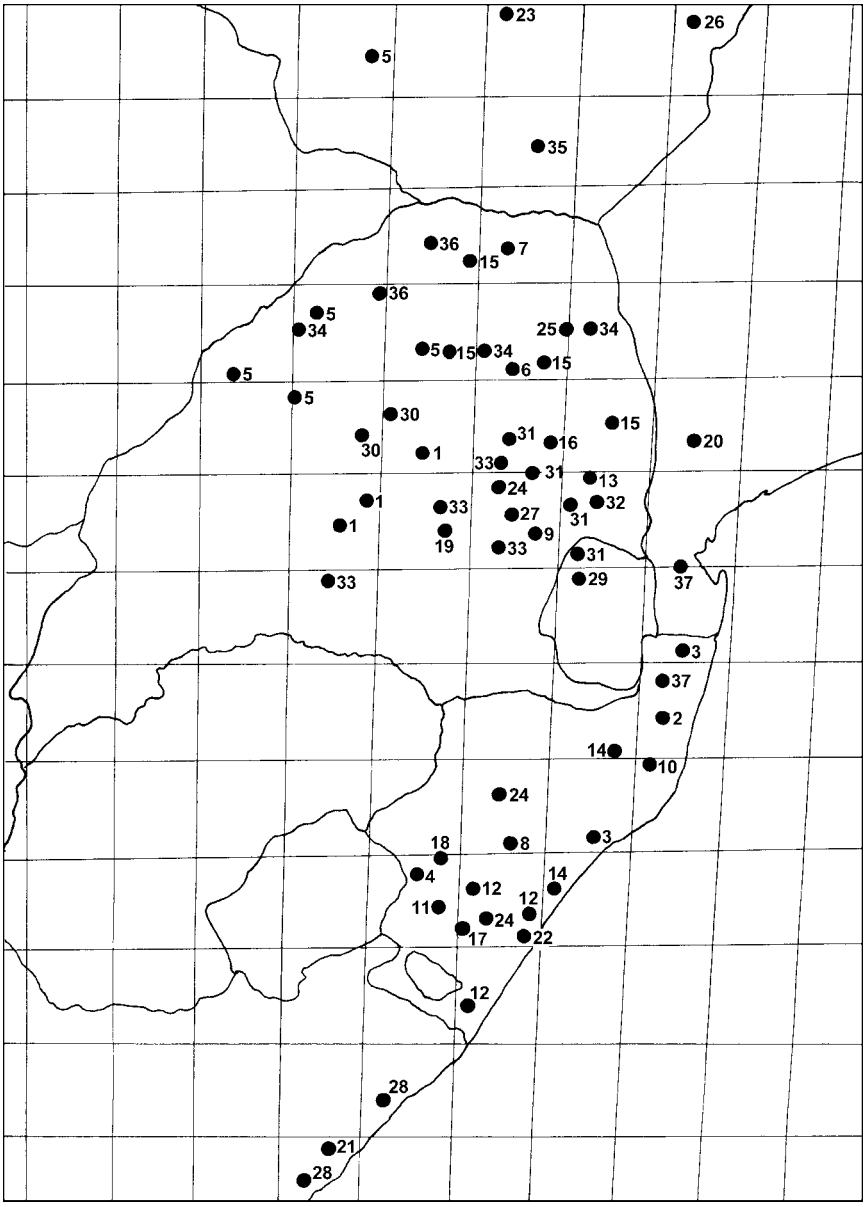
The character matrix (fig. 13) was produced with the program DADA (NIXON 1992), and analysed with Hennig86 (FARRIS 1988), applying the mh* and bb, and nelsen options. Mapping of character states and final cladograms generated with Hennig86 were produced using CLADOS (NIXON 1992).

RESULTS

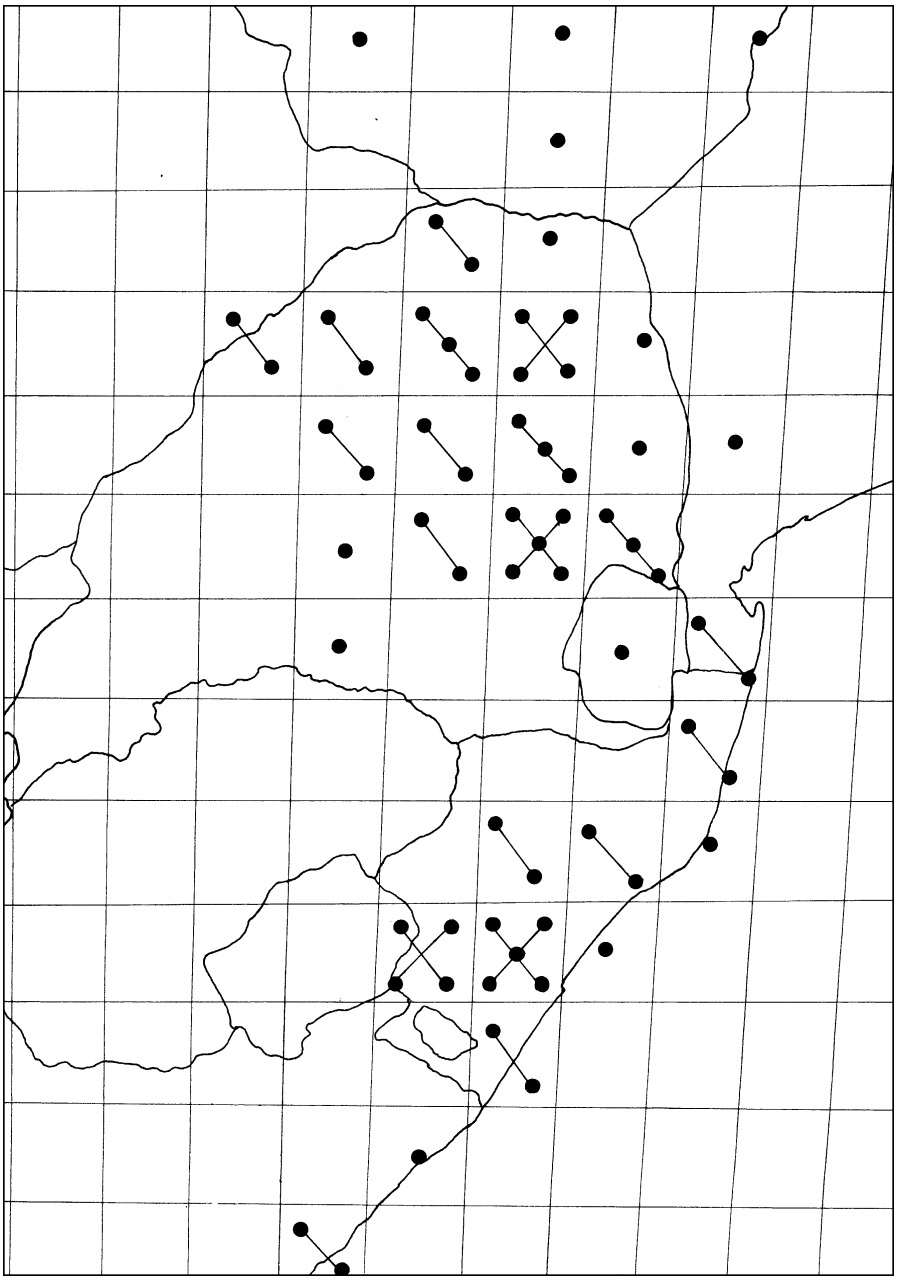
The analysis using equal weights yielded 2452 trees (overflow), each 58 steps long, CI = 37 and RI = 75 (by mh* and bb option). When successive weighting was applied, 2451 minimum-length cladograms (6 by mh* option) resulted after the second round of weighting, with length 146, CI = 80, RI = 94, and 2449 trees (8 trees by mh* option) after the third (final) round weighting, with L = 149, CI = 79, RI= 94. Values for the weight in the discussed trees (resulted after second round weighting) are as follows: **0** - characters 0, 8; **1** - 4, 9, 10; **2** - 12; **4** - 1, 5, 7; **10 -** 2, 3, 6, 11. The strict consensus tree (by nelsen option) for these cladograms is shown in fig. 10 (L = 220, CI = 53, RI = 80).



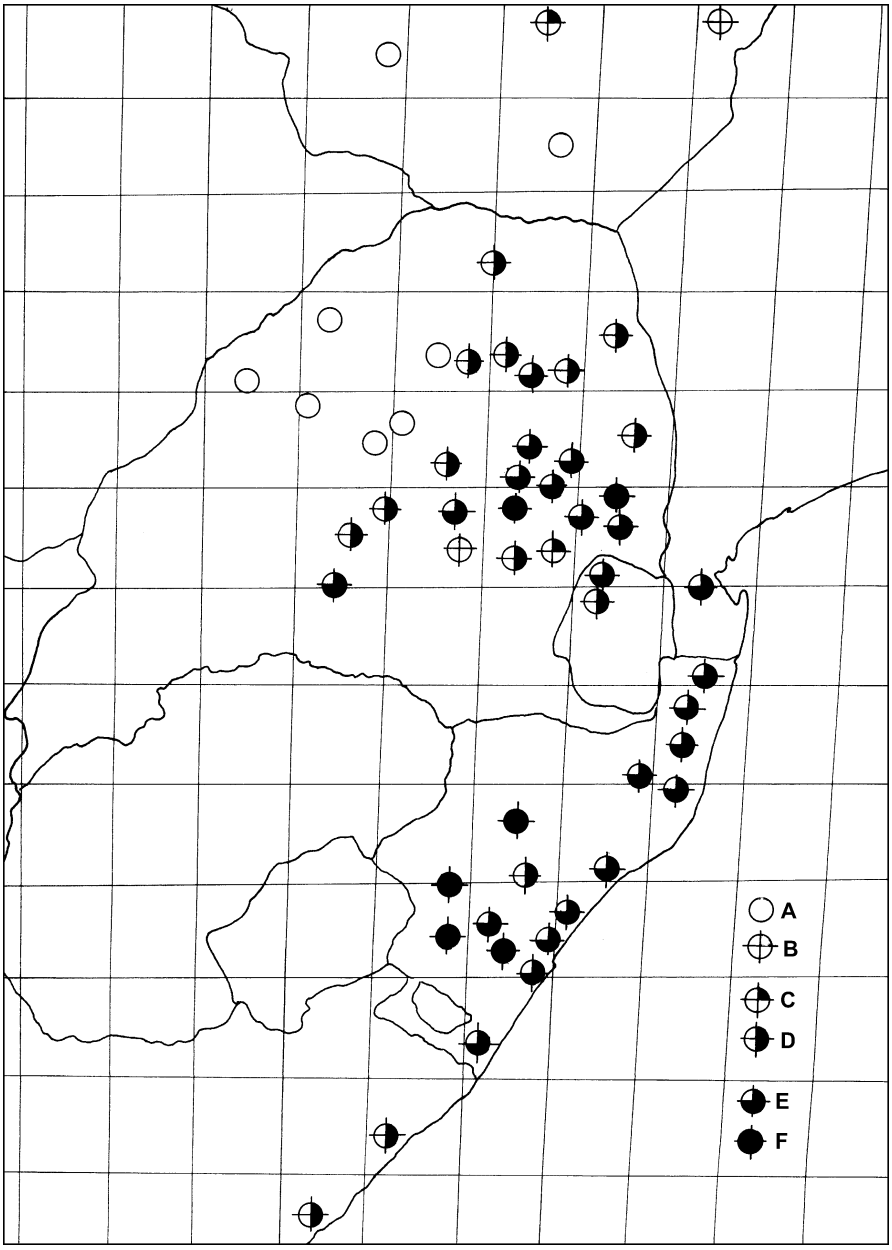
1. Distribution of the genus *Bantodemus*



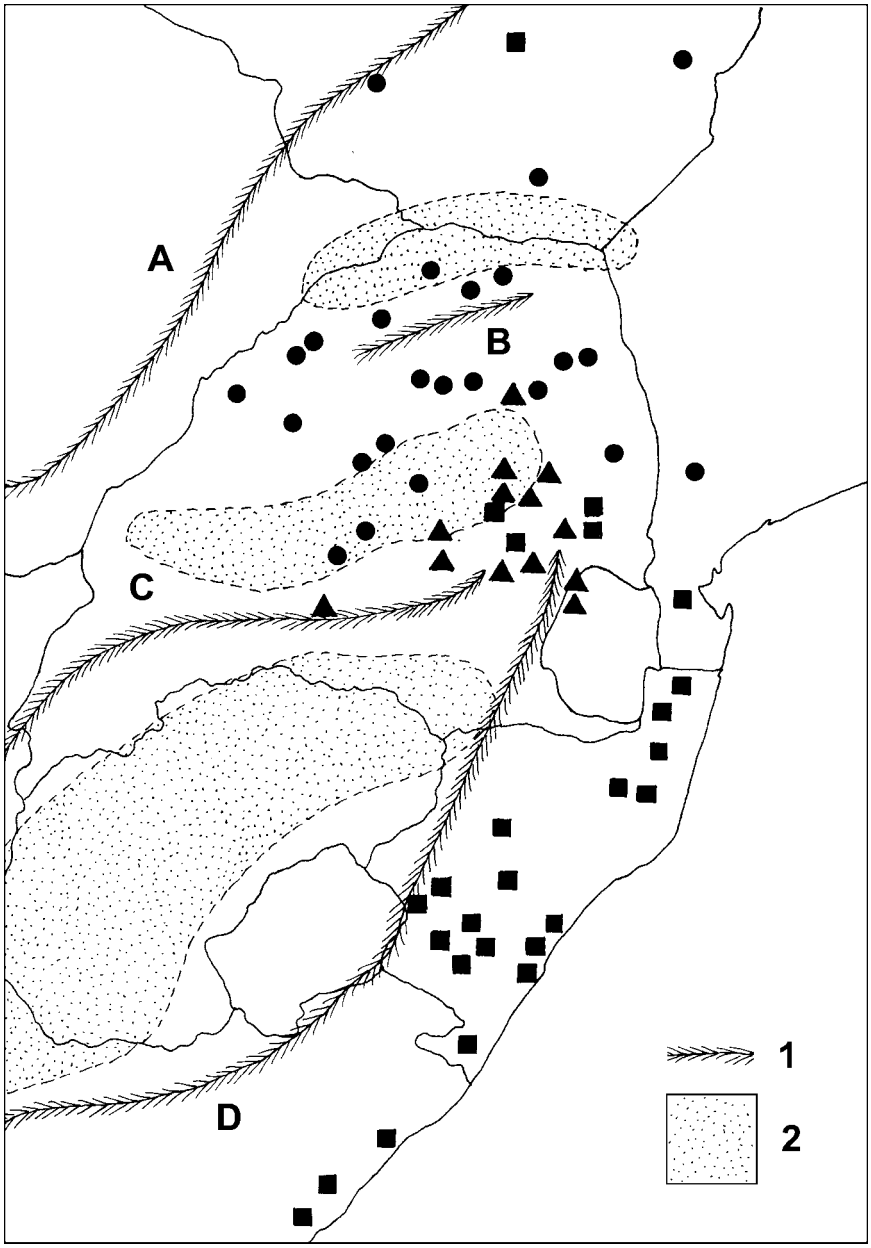
2. Distribution of the species belong to the genus *Bantodemus*: 1. *armatus*; 2. *bevisi*; 3. *caffer*; 4. *calcaratus*; 5. *dentipes*; 6. *drakensbergensis*; 7. *funduzilis*; 8. *furcatus*; 9. *goldengatensis*; 10. *hluhluwensis*; 11. *imitator*; 12. *kaszabi*; 13. *lawrencei*; 14. *lethaeus*; 15. *lucidus*; 16. *mariepsus*; 17. *marietzensis*; 18. *melancholicus*; 19. *milleri*; 20. *mocambiqueus*; 21. *moerens*; 22. *natalensis*; 23. *parvulus*; 24. *pubipes*; 25. *rectimanus*; 26. *rhodesianus*; 27. *similis*; 28. *striatus*; 29. *swazi*; 30. *transvaalensis*; 31. *tristis*; 32. *trojani*; 33. *typhon*; 34. *vescus*; 35. *zimbabwensis*; 36. *zoutpansbergianus*; 37. *zulu*



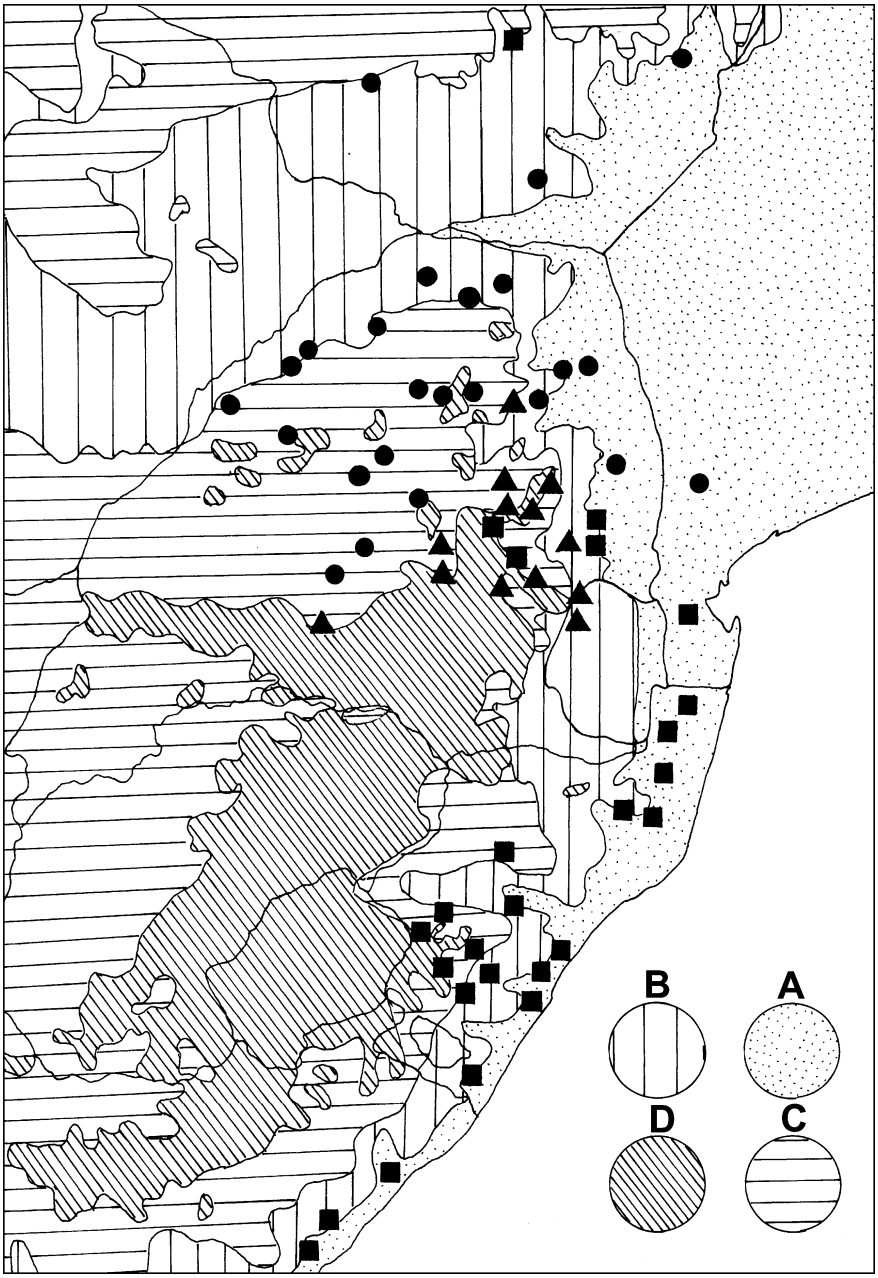
3. Geographical distribution of species diversity in *Bantodemus* (number of black dots indicates number of species)



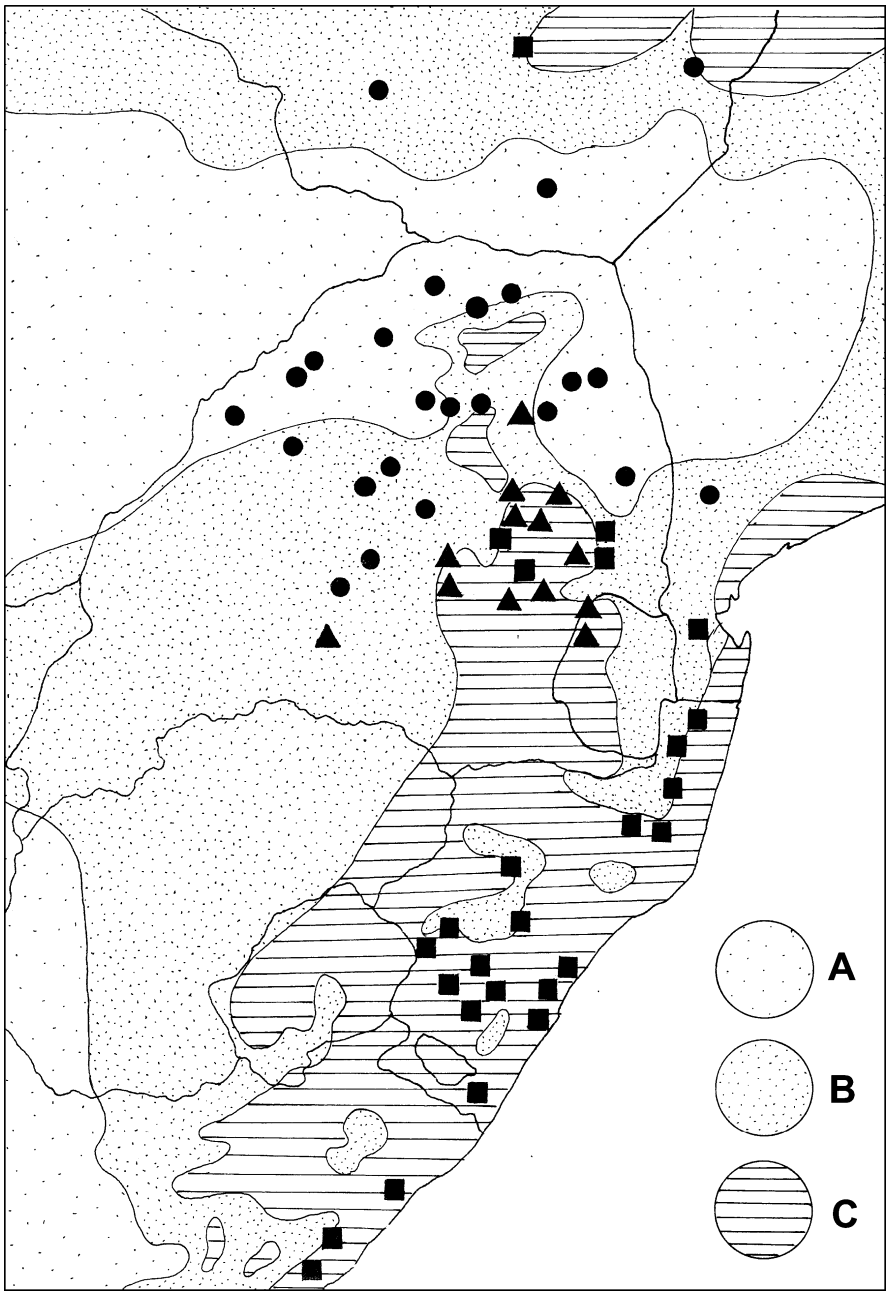
4. Distribution of the species (numbers of apomorphic states of characters according to following circles: A – 3, B – 4, C – 5, D – 6, E – 7, F – 8)



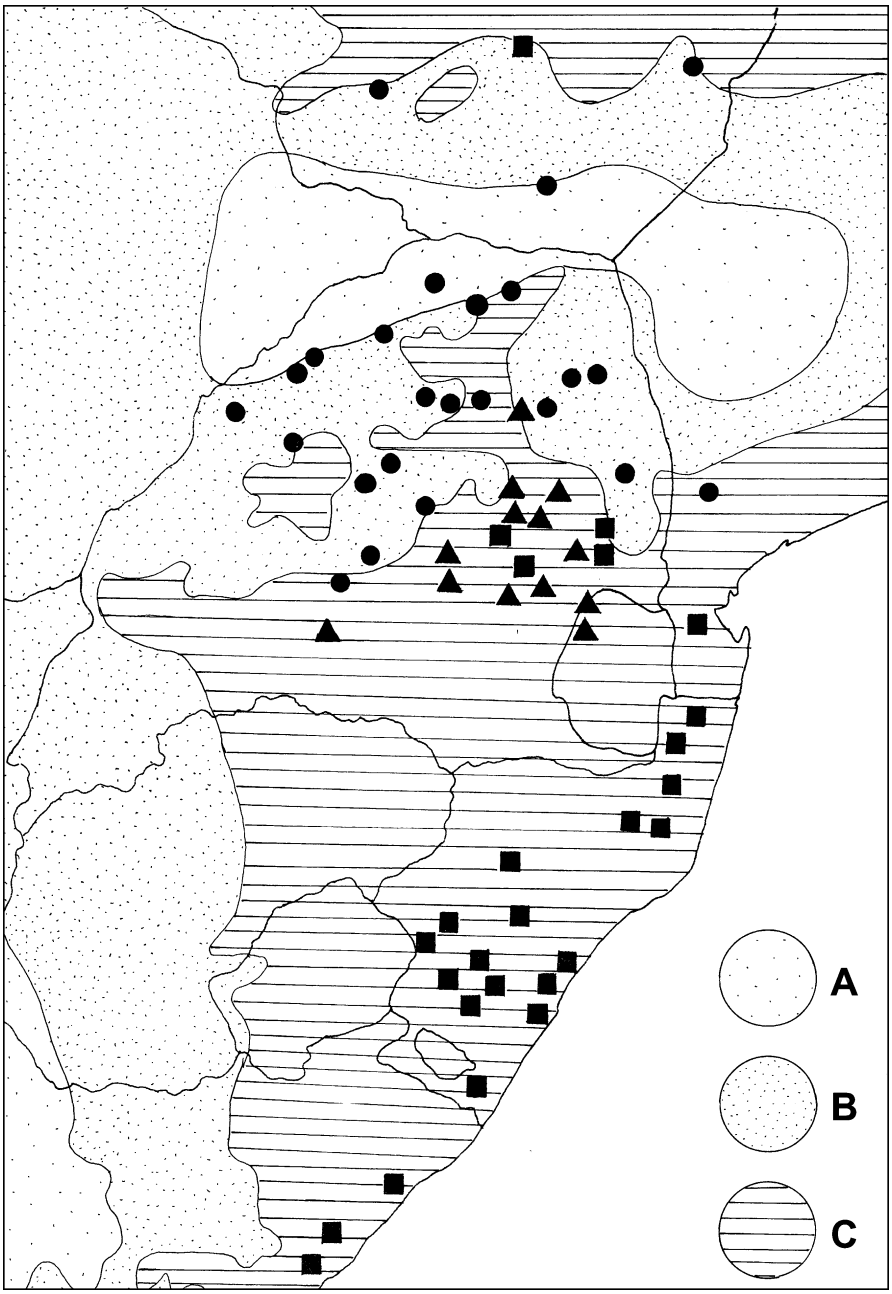
5. Upwarped axes and basins of depression resulting from Plio-Pleistocene deformation in southern Africa (after KING 1963, in AXELROD and RAVEN 1978) (1 – Axes: A – Kalahari-Rhodesia, B – Zoutpansberg, C – Transvaal, D – Escarpment; 2 – Basins). Species groups of *Bantodemus*: circle – *lucidus*, square – *caffer* and triangle – *tristis*



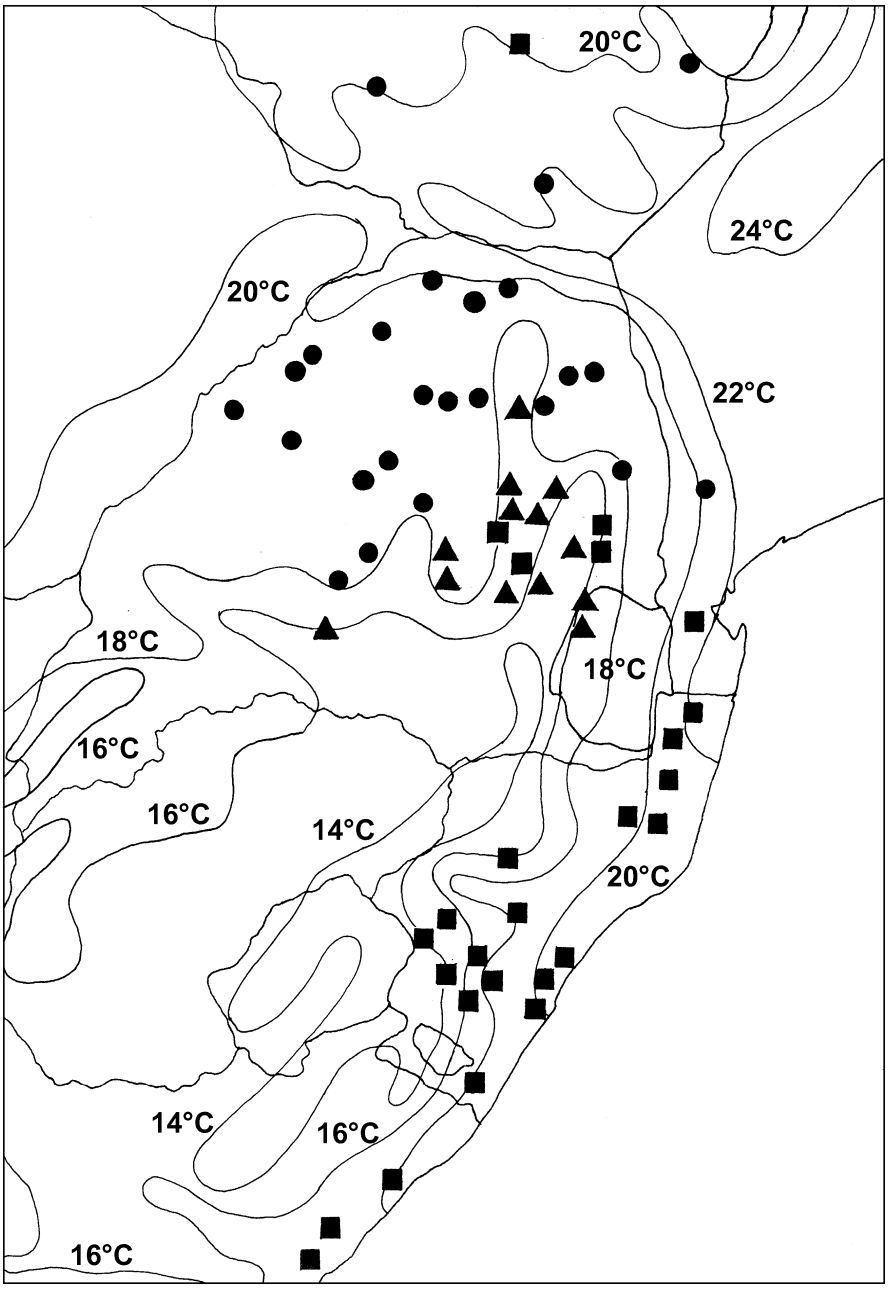
6. Altitudinal map of southern Africa (after Cooke 1964) (A – 0-500 metres above sea level, B – 500-1000 m, C – 1000-1500 m, D - >1500 m). Species groups of *Bantodemus*: circle – *lucidus*, square – *caffer* and triangle – *tristis*



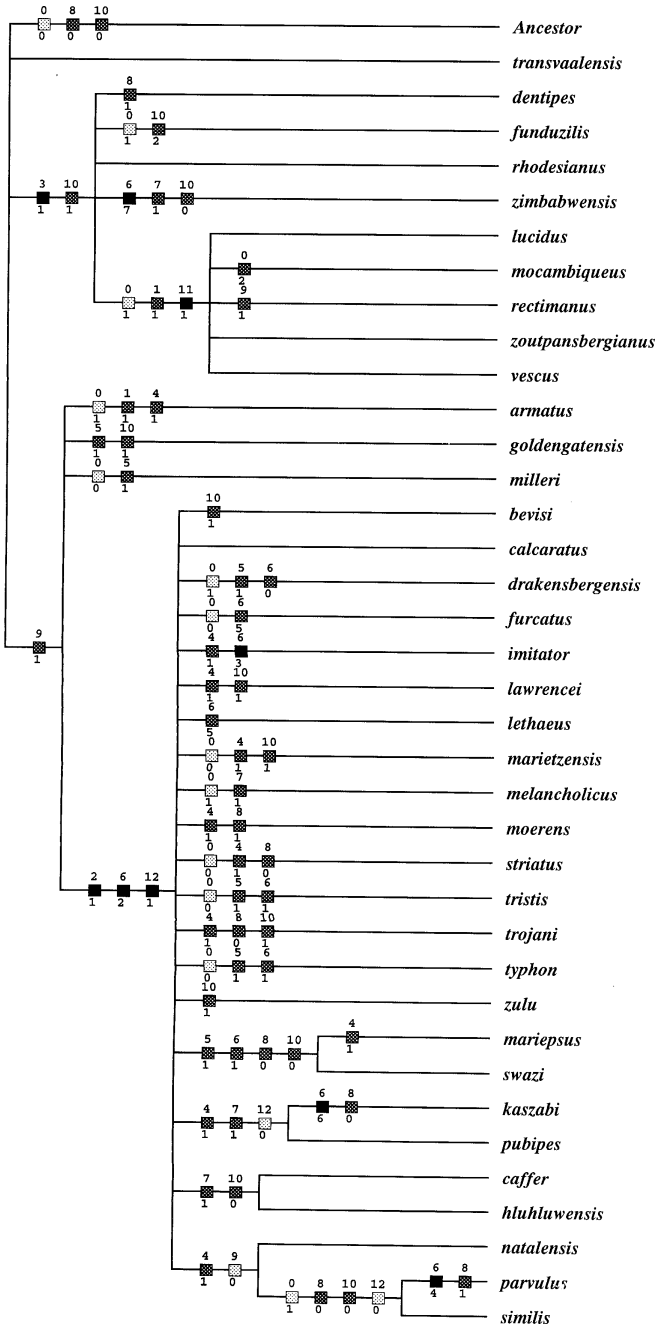
7. Annual rainfall (after Cooke 1964) (A – 250-500 mm, B – 500-750 mm, C - >750 mm). Species groups of *Bantodemus*: circle – *lucidus*, square – *caffer* and triangle – *tristis*



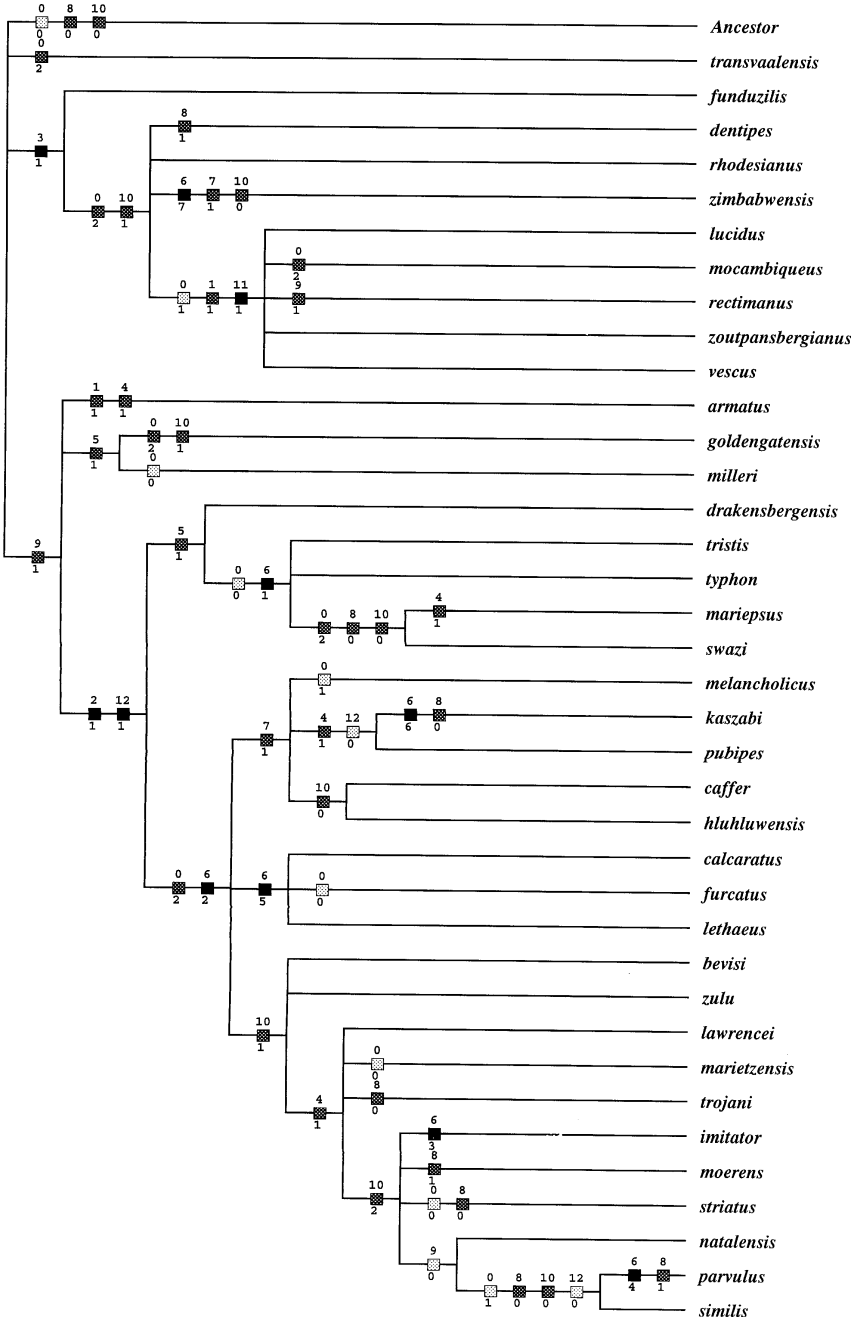
8. Mean annual precipitation (after JACKSON 1961, in SCHULZE and MCGEE 1978) (A – 200-400 mm, B – 400-600 mm, C – 600-800 mm). Species groups of *Bantodemus*: circle – *lucidus*, square – *caffer* and triangle – *tristis*



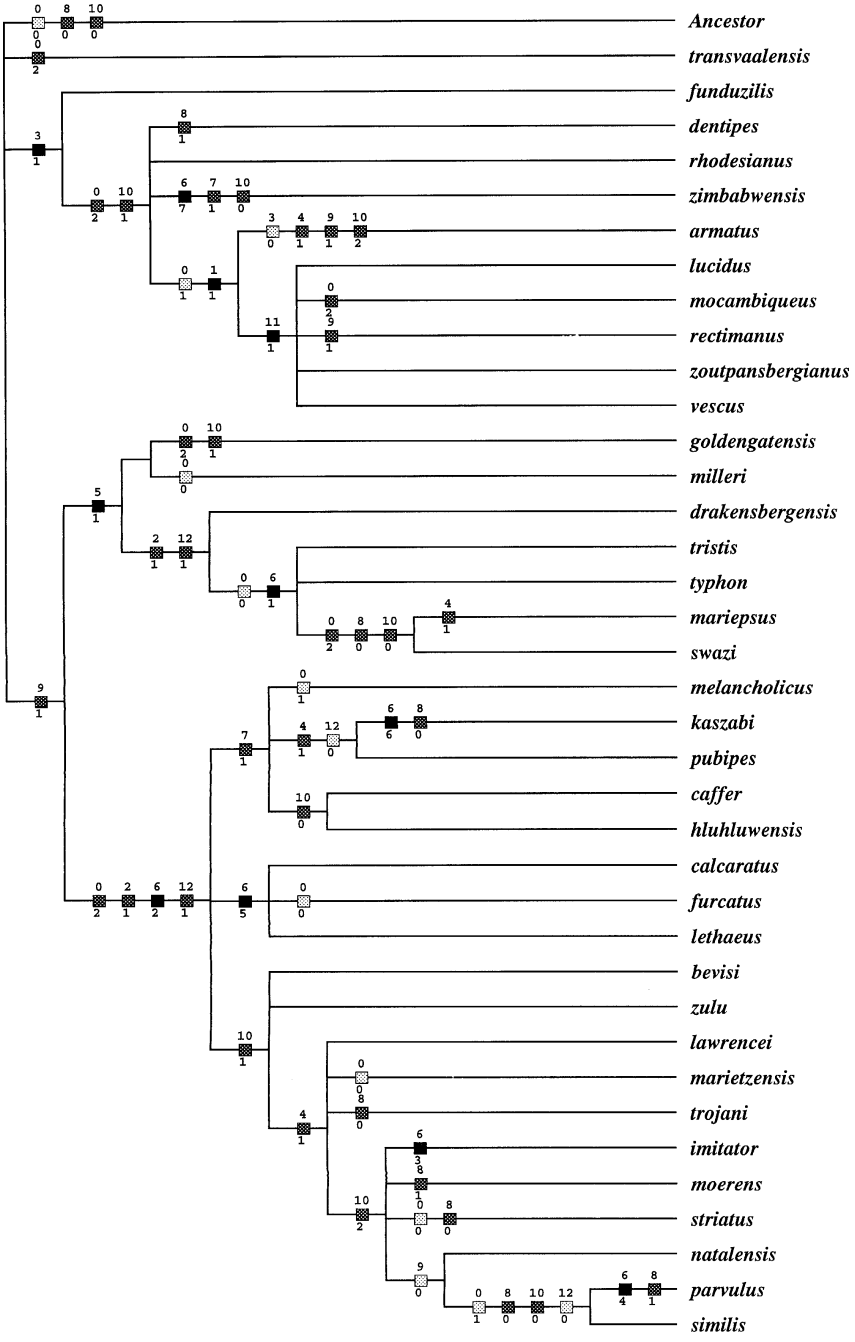
9. Mean annual temperature (after KNOCH and SCHULZE 1957, in SCHULZE and MCGEE, 1978). Species groups of *Bantodemus*: circle – *lucidus*, square – *caffer* and triangle – *tristis*



10. The strict consensus tree (by nelsen option)



11. Cladogram resulted after the second round weighting



12. Cladogram resulted after the second round weighting with modification

One of the six cladograms obtained with mh* option (after the second round weighting) was selected (fig. 11) (L = 146, CI = 80, RI = 94) and performed (fig. 12) (L = 162, CI = 72, RI = 91). There were two steps of the above performance:

- *armatus* was moved to the clade composed of *lucidus*, *mocambiqueus*, *rectimanus*, *zoutpansbergianus* and *vescus*; a new clade resulted, with character 1 as synapomorphy;

- the *goldengatensis* and *milleri* clade was moved to the clade composed of *drakensbergensis*, *tristis*, *typhon*, *mariepsus* and *swazi*; a new clade resulted, with character 5 as synapomorphy; now, characters 2 and 12 are homoplasies (before the modification they were synapomorphies for clade composed of *tristis* and *caffer* groups).

Based on the above cladogram (fig. 12), a phylogenetic classification and biogeographic analysis for the members of *Bantodemus* is proposed. The following 3 groups are distinguished: *lucidus*, *striatus* and *caffer*.

SYSTEMATICS

Based on pronotum structure, KOCH (1955) distinguished 2 species groups (m - only males known in 1955):

1. *armatus*-group ("straightly truncate lateral portion of base") - *dentipes* (m), *transvaalensis* (m), *funduzilis* (m), *rhodesianus* (m), *armatus* (m), *mocambiqueus* (m), *zoutpansbergianus* (m), *vescus*, *lucidus*, *rectimanus* (m);

2. *lethaeus*-group ("emarginated lateral portion of base"): *moerens*, *kaszabi*, *mariepsus*, *swazi*, *lawrencei*, *lethaeus*, *lugubris*, *tristis*, *imitator*, *furcatus* (m), *calcaratus* (m), *typhon* (m), *caffer* (m), *pubipes*, *marietzensis* (m), *zulu*, *melancholicus*, *bevisi*.

The identification key and diagnoses of particular species have been constructed based on general characters (pertaining to both sexes) and tertiary sexual characters of males (structure of femora and tibiae). Out of 28 species examined females were uknown in nearly half (13 species), which was of no significance since the author disregarded in his studies the female characters.

My interpretation of interspecific relationships within the genus partly agrees with KOCH's (1955) division. I have included in the analysis those female characters which in my opinion are of significance when distinguishing natural monophyletic groups. It should be added that it is difficult to treat the structure of pronotum base as a clearly two-state character, since there exist intermediate forms. Even assuming an existence of a discontinuity, the state described by KOCH as "straightly truncate lateral portion of base" should be regarded as an apomorphy (synapomorphy of the *armatus*-group), while "emarginated lateral portion of base" is plesiomorphic.

According to my interpretation species included in *Bantodemus* can be divided in 3 groups *sensu stricto* (differences between my own and KOCH's intepretations, pertaining to *typhon*, *lugubris* and *caffer* should be taken into

species	character 111 0123456789012
armatus	1100100021200
bevisi	2010002021101
caffer	2010002121001
calcaratus	20100???21201
dentipes	2001000010100
drakensbergensis	1010010021201
funduzilis	10010???20200
furcatus	0010005021201
goldengatensis	2000010021100
hluhluwensis	2010002121001
imitator	2010103021201
kaszabi	2010106101200
lawrencei	2010102021101
lethaeus	2010005021201
lucidus	1101000020110
mariepsus	2010111001001
marietzensis	00101???21101
melancholicus	1010002121201
milleri	0000010021200
mocambiqueus	21010???20110
moerens	20101???11201
natalensis	2010102020201
parvulus	1010104010000
pubipes	2010102121200
rectimanus	11010???21110
rhodesianus	20010???20100
similis	1010102000000
striatus	0010102001201
swazi	2010011001001
transvaalensis	2000000020200
tristis	0010011021201
trojani	2010102001101
typhon	0010011021201
zimbabwensis	2001007120000
zoutpansbergianus	1101000020110
zulu	2010002021101
vescus	1101000020110

13. Data matrix used in phylogenetic analysis

account): *lucidus*, *caffer* and *tristis*, as well as species purportedly related with them (additional characters, not presented in the analysis, may testify to their relationship, but unfortunately they are often plesiomorphies).

1. *lucidus*-group - characterized by the presence of the saddle-like prosternal process, male mid tibia with a depression on outer side, denticle on the hind male leg; it includes: *lucidus*, *vescus*, *zoutpansbergianus*, *mocambiqueus*, *rectima-nus*, *armatus*.

The following species are closely related to this group: *dentipes*, *transvaalensis*, *funduzilis*, *rhodesianus*, *zimbabwensis* (they have been included in the *lucidus*-group *sensu lato* and together with it correspond to the *armatus*-group sensu KOCH 1955). They share such characters as: slightly arcuate pronotal base and narrow, shallow anterior concavity of 9th row, as well as the structure of the upper edge of anterior elytral margin (forming gradual slope, unbordered; absent in *transvaalensis*). The structure of female genitalia in *zimbabwensis* indicates that the species is intermediate (shape of bursa copulatrix like in the *tristis*-group, very delicately sclerified walls of bursa copulatrix, and elongate anterior margin of paraproct like in the *caffer*-group). *B. transvaalensis* has the most numerous plesiomorphic characters. There are no data on the structure of female genitalia (females unknown) in *funduzilis* and *rhodesianus* makes it difficult to infer relationships of these species.

2. *caffer*-group - bursa copulatrix with tube-like sclerite situated at posterior part of additional sac. The group

includes *caffer*, *hluhluwensis*, *bevisi*, *zulu*, *pubipes*, *natalensis*, *melancholicus*, *lawrencei*, *similis*, *striatus*, *trojani*.

Closely related species are *kaszabi* and *parvulus* (bursa copulatrix with structures resembling tubes) as well as *furcatus*, *lethaeus* and *imitator* (ring- or fold-shaped sclerites).

Some members of the group have additionally a modified paraproct - elongated anterior margin (*melancholicus*, *caffer*, *hluhluwensis*, *kaszabi*), or it is reduced like in *parvulus*.

There are no data on the structure of female genitalia (females unknown) in *marietzensis*, *calcaratus* and *moerens* which precludes their correct assignment to any of the groups just named. However, because of the general similarity and geographic distribution, they probably belong to this group.

3. *tristis*-group - bursa copulatrix with additional longitudinal funnel-like sac. The group comprises *drakensbergensis*, *goldengatensis* and *milleri* as well as *mariepsus*, *swazi*, *typhon*, *tristis*, which additionally have numerous small spines in bursa copulatrix.

BIOGEOGRAPHIC ANALYSIS

Considering the distribution of the group of genera of trigonopoid *Platynotina* (figs 1-2), and their preferences regarding climatic factors (see below, figs 7-9), they should be regarded as relicts of the southern African subcontinent. This results from adopting the interpretation of ENDRÖDY-YOUNGA (1978), in whose opinion "... It has to be assumed that at the time of continental isolation of Africa during the Cretaceous the extent of the temperature zone was much wider than at present. Only during the Tertiary, when the African continent drifted northwards, did the desert belt shift to the south. The cool-temperate humid belt became restricted to the area of the true Cape. Where the climatic changes, due to the northward drifting, were too drastic in terms of increasingly dry and continental conditions, the Antarctic, the temperate fauna dissappeared. On the coastal belts and eastern mountain ranges, however, many taxa could survive and adapt to the moderate climatic changes. It is likely that many of the coastal and mountain occurrences of Cape taxa represent such relict rather than pioneers of northward migrations...".

The above reasoning agrees with my opinion that the intense migration must have proceeded from the south to the north, and must have taken place several times independently prior to the Pleistocene. That the dispersals were sucessful is evident from the existence in two large transitional zones (The Trans-Botswana transitional belt and The Transvaal Highveld transitional area) of the genera *Bantodemus*, *Eviropodus*, *Zophodes*, *Selinopodus*, *Trigonopus* of trigonopoid *Platynotina* and *Anomalipus* of *Anomalipina* (*Platynotini*). The main characteristics of biomes in these regions is their complex mixture of faunal elements of different origins. The Transvaal Highveld has a character of faunal refuge. The

comparatively young age of its refuge function my be deducted from the low proportion of endemic genera compared to the resonably high number of endemic species in its biome (ENDRÖDY-YOUNGA (1978) - e. g. *Anomalipus* (51 species) and *Bantodemus* - 37 species).

A high species diversity (interpreted as a high rate of evolution) in both *Bantodemus* and its related genera results most of all from the mode of speciation i.e. allopatric speciation (vicariance) and repeated action of a factor causing fragmentation of an ancestral area into numerous, isolated areas, with simultaneous preservation of favourable conditions in refuges which, consequently become areas of origin of the extant species. Fragmentation-causing factors in the area occupied by ancestors of the extant members of Bantodemus were the Pleistocene climatic fluctuations: e. g. rainfall changes (COOK 1964, BRAIN & MEESTER 1964) - 3 pluvial and 2 interpluvial periods, with the full range of rainfall variation lying between 60% and 140% of the present annual mean; temperature changes (BRAIN 1985) - six cold episodes (minimum winter temperatures were depressed by between 5 °C and 10 °C on each occasion); changes in sea level (reached 130 to 170 meters higher than at present) (TAYLOR 1978) with an existence of the Drakensberg barrier (Escarpment Axis) in the west (INNES 1964) (KING 1963) (fig. 5).

The description of geophysical, botanical and climatic conditions in the area of occurrence of members of *Bantodemus* was based on analysis of distribution of particular species and on maps with the following data:

a. Vegetation types (WHITE 1978):

- Transitional Afromontane/Zambezian, Afromontane/Highveld (often entering Afromontane),
- Zambezian,
- Tongoland-Pondoland forest (only *caffer*-group), with southern border constituted by Tongoland-Pondoland bushland and thicket.

b. The Holdridge life Zones in southern Africa (SCHULZE & MCGEE 1978):

Moist forest and Dry forest (Latitudinal regions - Subtropical and Tropical, Altitudinal belts - Premontane and Lower Montane, Humidity provinces - Subhumid and Humid).

c. Precipitation (JACKSON 1961):

- mean January precipitation: *lucidus*-group - 50-150 mm, *caffer*- and *striatus*-groups - 100-200 mm;
- mean July precipitation: *lucidus*-group - 0-50 mm, *caffer*- and *striatus*-groups - 10-100 mm;
- mean annual precipitation (fig. 8): *lucidus*-group - 200-800 mm, *caffer*- and *striatus*-groups - 600-1400 mm.

d. Annual rainfall (COOKE 1964) (fig. 7): *lucidus*-group - 250-750 mm; *caffer*- and *striatus*- groups - 500-1500 mm.

e. Mean surface temperature (COOKE 1964): 15-24 °C.

f. Mean annual temperature (KNOCH & SCHULZE 1957)(fig. 9): 14-22 °C.

g. Altitude (COOKE 1964) (fig. 6): 0-1500 m (4920 feet), sporadically up to 2000 m (6560 feet).

Data on the bionomics or habitats of the beetles given on the labels were very scarce, but they confirm the above statements: indigenous bush; Alt. 4000 feet, Ericetum degrade; high alt. grassveld; from under stones; fungous pine logs; 2000 ft; groundtrap with banana bait, faeces.

Based on the analysis of environmantal data and geographical distribution of species diversity in *Bantodemus*, two distinct hypothetical centres of species origin could be distinguished (fig. 3): (A) - area extending between the NW border of Swaziland-Pretoria-Soutpansberg Mountain, and (B) - area extending between the NE border of Lesotho-Durban-the S border of MoHambique. Area (A) is inhabited by members of the groups *lucidus* and *striatus*, and partly *caffer*. (B) area is inhabited only by species of the *caffer*-group (*pubipes* found also in area A). The distribution pattern of the studied species (very small ranges) makes the two areas the most important centres of endemism. The largest set of plesiomorphic characters is found in area (A) and involves groups *lucidus* and *striatus* (fig. 4). This suggests that the area may be regarded as ancestral, while area (B) is secondary, its origin being preceded by a southward migration of an ancestor. The dispersal probably took place during the Pliocene/Pleistocene, when the Escarpment Axis had already been formed, and must have proceeded along the belt between the coastal line and the Drakensberg system. During the Pleistocene probably climatic fluctuations and/or increase in sea level resulted in formation of numerous refuges in the foothills and in valleys of the Drakensberge Mountain, thus creating conditions for rapid and multiple speciation. The process could be enhanced by sexual selection, as indirectly indicated by very diverse tertiary (epigamic) sexual characters in males, manifest in the structure of legs. The genus *Bantodemus* provides also examples of groups of 2-3 species where no diagnostic characters could be found in males, while there were very clear differences in the structure of female genitalia; in *lawrencei-trojani* and *bevisi-melancholicus-zulu* tertiary male characters are poorly pronounced, while in *caffer-hluhluwensis* and *drakensbergensis-tristis* they are much developed. Additional relationships may be revealed; for example in *lawrencei-trojani* males are very similar, but the species differ clearly in the structure of their female genitalia which are practically identical in *lawrencei* and *similis* (these species differ considerably in their tertiary male characters).

The decision to distinguish the *lucidus*-group *sensu lato*, in spite of incomplete evidence resulting from cladistic analysis (position of *armatus* and *transvaalensis*) has been based on the results of biogeographic analysis. In all likelihood, during the Pleistocene climatic fluctuations the ancestor(s) (this could happen several times independently - see cladogram fig. 12) of the extant members of the *lucidus*-group acquired adaptations to living in very dry conditions (or are still acquiring them, since the dry period is still continuing) (ENDRÖDY-YOUNGA 1978), hence the clear climatic preferences of the species of this group (figs 7-9).

TAXONOMY

Bantodemus Koch, 1955

Bantodemus KOCH, 1955: 428; - *Bantodemus* KOCH: KOCH 1956: 78. Type species: *Trigonopus lethaeus* MULSANT et REY, 1853 (designated by KOCH 1955: 430).

DIAGNOSIS

Like *Atrocrates*, *Crypticanus*, *Atrocrypticanus* and *Parabantodemus*, the genus has a delicate, barely visible puncturation of pronotum and elytral intervals and strongly transformed inner side of male fore tibiae.

The mentum structure (mid part narrow, with pillow-like median keel) places *Bantodemus* close to *Parabantodemus*, and distinguishes it from other genera (narrow, with distinct median keel in *Atrocrates*; very wide, flat or slightly convex in *Crypticanus* and *Atrocrypticanus*).

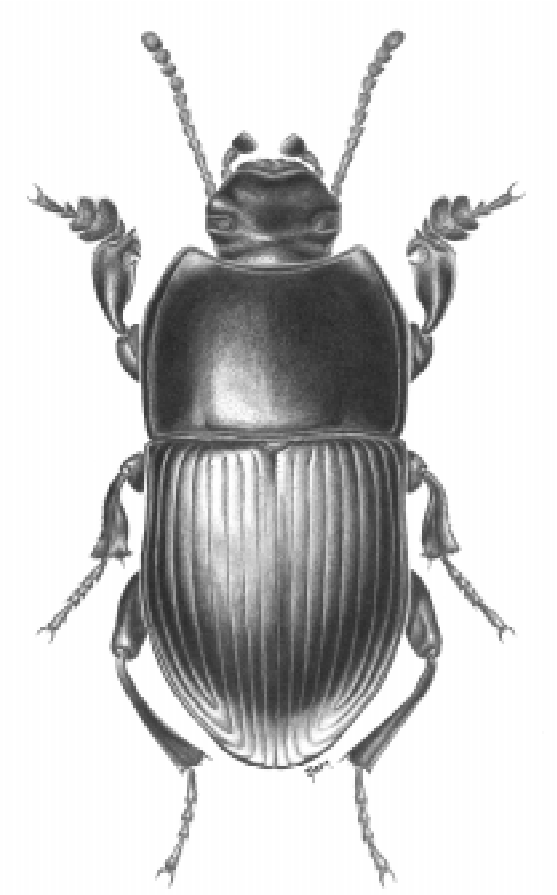
DESCRIPTION

Medium and large species (7.1-16.6 mm) (fig. 14). Body colour from dark brown to black; upperside shiny or with a greasy sheen, puncturation delicate, often invisible; underside shiny, puncturation most often distinct, moderately coarse. Body oval, moderately convex, sometimes elytra slightly tucked in posteriorly (small part of interval IX visible from underside). Head widest anterior to eyes or at eye level. Mid part of mentum narrowed apically; median keel very wide and flat, reaching anterior margin; lateral margins (wings) moderately wide, well visible. Eyes laterally narrowed, between gena and tempus 3-6 facets visible. Antenna similar to that in *Trigonopus*. Frontoclypeal suture extremely weak, practically invisible. Pronotum elongated, with sides slightly rounded, narrowing anteriad, nearly parallel for 4/5 length from base; base emarginate or slightly arcuate (posterior angles produced posteriad), basal border extremely narrow; lateral border very wide, always wider than antennal segment 3, considerably expanded at 2/3 length from base, narrowing into basal border; border of anterior margin most often disappearing in middle; pronotal disc slightly convex, with longitudinal concavity along lateral borders (lateral border seems strongly convex). Upper edge of anterior elytral margin weakly convex and rounded (forming gradual slope, with no keel) or arcuately convex (sometimes bordered); lower edge often strongly, sharply arched, passing into widely rounded humeral angle. Elytral intervals most often poorly or moderately convex; punctures in striae small, sometimes disappearing; then striae of sulcate type. Elytral epipleura smooth, at humeral angle slightly bent; upper edge in apical part well visible, epipleura strongly convex, but located dorsally; anterior part of 9th row forming longitudinal concavity, wide at elytral humerus and narrowing backwards. Prosternal process protruding towards mesosternum or saddle-like concave, only apex protruding towards mesosternum; with border disappearing at apex. Body apterous, metasternum shortened. Abdominal ven-

trites delicately punctate, anterior margins with longitudinal, fine wrinkles; last ventrite unbordered, but short incisions well visible at base. Male fore tarsus widened, mid and hind tarsi and all female tarsi narrow, with bare shiny gutters on underside of all segments. Male fore tibia always with concavity or inner margin, and additionally with denticles and sharp ridges. Legs of both sexes have fore tibiae distinctly widened anteriorly (length/breadth ratio = 2.32-2.66), and covered with thorns on underside; outer margin of mid tibiae with 2 longitudinal ridges. General structure of aedeagus and female reproductive system as in other members of the trigonopoid *Platynotina*.

DISTRIBUTION (figs 1-2)

Republic of South Africa (E Cape Province, Natal, Transvaal), Mozambique, Swaziland, Zimbabwe.



14. *Bantodemus goldengatensis*, male (by J. ŚWIĘTOJAŃSKA).

KEY FOR SPECIES DETERMINATION

1. Prosternal process saddle-like concave, only apex protruding towards mesosternum (fig. 25); male mid tibia with a concavity on outer side; male hind leg with a denticle on femur or trochanter 2
-. Prosternal process protruding towards mesosternum (fig. 59); male mid tibia flat on outerside; male hind leg simple, without denticle 7
2. Upper edge of elytral anterior margin distinctly convex and bordered (fig. 19); male hind femur with a denticle, trochanter simple (fig. 24) ... *armatus*
-. Upper edge of elytral anterior margin slightly convex and unbordered (fig. 167); male hind femur simple, trochanter distinctly elongated forming a denticle (figs 157-158) 3
3. Male hind tibia straight (fig. 166); elytral intervals moderately convex 4
-. Male hind tibia widened at 2/5 from base, and slightly bent inwards (figs 378 and 396); elytral intervals flat 5
4. Male fore tibia as in figs 161-162; inner margin of male mid tibia weakly S-like bent (figs 164-165); male hind femur setose on inside ..... *lucidus*
-. Male fore tibia as in figs 255-256; inner margin of male mid tibia distinctly S-like bent (figs 257-258); male hind femur bare on inside ..... *rectimanus*
5. Pronotal base straight in the middle 6
-. Pronotal base distinctly emarginate medially (fig. 202) ..... *mocambiqueus*
6. Male fore tibia with a single large denticle at 2/3 from base (figs 392-393) .... *vescus*
-. Male fore tibia with an additional minute denticle at base of large one (figs 374-375) ..... *zoutpansbergianus*
7. Posterior part of elytron with an additional 10th row ..... *striatus*
-. Elytron with nine rows 8
8. Upper edge of anterior elytral margin forming gradual slope (figs 56, 369) 9
-. Upper edge of anterior elytral margin arcuately convex (fig. 39) 12
9. Male fore tibia with a sharp denticle at base of internal concavity (figs 60-62, 261-262, 367-368) 10
-. Male fore tibia without denticle, only widened at base of internal concavity (figs 57-58) ..... *dentipes*
10. Body length 8.0-8.8 mm; male fore tibia weakly emarginate before apex (figs 261-262, 367-368); apical denticle of male mid tibia very small or absent 11
-. Body length 9.3 mm; male fore tibia deeply emarginate before apex (figs 60-62); apical denticle of male mid tibia distinct ..... *funduzilis*
11. Male mid tibia without apical denticle, inner margin straight (figs 367-368) ..... *zimbabwensis*
-. Male mid tibia with a minute apical denticle, inner margin strongly widened at 1/5 from base (figs 261-262) ..... *rhodesianus*

12. Male mid tibia without apical denticle (figs 171-172) 13
-. Male mid tibia with an apical denticle (figs 125-126, 135-137) 18
13. Inner margin of male mid tibia straight (figs 236, 266-267) 14
-. Inner margin of male mid tibia S-like bent (figs 38, 104-105, 171-172) 15
14. Body length 7.1-7.2 mm; fore and hind femora setose on inside; ovipositor - paraproct shorter than total length of coxites (fig. 240); bursa copulatrix as in fig. 241 ..... *parvulus*
-. Body length 12.9-14.4 mm; fore and hind femora bare; ovipositor - paraproct longer than total length of coxites (fig. 270); bursa copulatrix as in fig. 271-272 ..... *similis*
15. Male fore tibia with large denticle at base of internal concavity (figs 36-37, 102-103); additional sac of bursa copulatrix with a distinct tube-like sclerite (figs 43-44, 110-111) 16
-. Male fore tibia without denticle, only widened at base of internal concavity (figs 285-286); additional sac of bursa copulatrix with numerous small spines (figs 176-177, 290-291) 17
16. Male fore and mid tibia slender (figs 36-38); sclerite in bursa copulatrix as in figs 43-44 ..... *caffer*
-. Male fore and mid tibia robust (figs 102-105); sclerite in bursa copulatrix as in figs 110-111 ..... *hluhluwensis*
17. Upper edge of anterior elytral margin bordered; male mid tibia as in figs 171-172 ..... *mariepsus*
-. Upper edge of anterior elytral margin unbordered; male mid tibia as in figs 287-288 ..... *swazi*
18. Male fore tibia widened at base of inner emargination, with a minute denticle (figs123-124, 131-133) 19
-. Male fore tibia with a distinct denticle near inner emargination (figs 222-223, 242-243) 23
19. Anterior elytral margin smooth (fig. 299) ..... *transvaalensis*
-. Anterior elytral margin bordered (figs 122, 134, 330) 20
20. Male mid tibia with a small apical denticle (figs 135-137, 328-329) 21
-. Male mid tibia with a large apical denticle and convexity inside (figs 125-126, 216-217) 22
21. Sclerite in the additional sac of bursa copulatrix as in fig. 140 ..... *lawrencei*
-. Sclerite in the additional sac of bursa copulatrix as in fig. 337 ..... *trojani*
22. Male fore and mid tibia as in figs 123-126; aedeagal lacinia with an emargination on inside ..... *kaszabi*
-. Male fore and mid tibia as in figs 214-217; aedeagal lacinia straight .... *moerens*
23. Anterior elytral margin bordered (figs 228, 247) 24
-. Anterior elytral margin smooth or with shallow incisions near rows (figs 86, 91, 147) 27

24. Male fore tibia with a denticle located at base of inner emargination (figs 242-243); male mid tibia strongly S-like bent (figs 244-245) ..... *pubipes*
-. Male fore tibia with a denticle located medially of inner emargination (figs 222-223); male mid tibia weakly S-like bent (figs 224-225) 25
25. Male fore tibia with a large apical denticle on inside (figs 222-223) .... *natalensis*
-. Male fore tibia without apical denticle (figs 112-114, 178-179) 26
26. 8th elytral row complete, reaching anterior elytral margin; male fore tibia as in figs 178-179 ..... *marietzensis*
-. 8th elytral row shortened, not reaching anterior elytral margin; male fore tibia as in figs 112-114 ..... *imitator*
27. Male fore tibia with a denticle located apically or medially to inner emargination (figs 49-50, 142-144) 28
-. Male fore tibia with a denticle located at base of inner emargination (figs 28-30, 192-195, 338-343) 31
28. Anterior concavity of 9th row moderately narrow and shallow (fig. 91); inner margin of male fore tibia with 2 denticles: apical and median (figs 96-98); aedeagal lacinia slightly bent inwards (fig. 93) ..... *goldengatensis*
-. Anterior concavity of 9th elytral row wide and deep (fig. 86); inner margin of male fore tibia with single median denticle (figs 80-82); aedeagal lacinia straight (fig. 93) 29
29. 8th elytral row complete, reaching anterior elytral margin (fig. 86); male hind tibia bent inwards ..... *furcatus*
-. 8th elytral row shortened, not reaching anterior elytral margin (fig. 147); male hind tibia straight 30
30. Male fore tibia as in figs 49-50; male mid tibia with 2 apical denticles on inside (figs 46-47) ..... *calcaratus*
-. Male fore tibia as in figs 142-144; male mid tibia with one apical denticle and convexity on inside (figs 152-153) ..... *lethaeus*
31. Male fore tibia with a large and straight denticle (figs 192-195, 338-343) 32
-. Male fore tibia with a moderately long to small, curved denticle (figs 28-30, 301-309) 33
32. Anterior concavity of 9th row moderately narrow and shallow (fig. 198); male fore tibia with an apical denticle (figs 192-195) ..... *milleri*
-. Anterior concavity of 9th elytral row wide and deep (fig. 349); male fore tibia without apical denticle (figs 338-343) ..... *typhon*
33. Male mid tibia with an apical denticle, inner margin strongly S-like bent (figs 31-32, 186-187) ..... *bevisi, melancholicus*, *zulu*
(see bursa copulatrix in female, cf. figs 33-34 and 190-191 and 390-391)
-. Male mid tibia with an apical denticle and an additional convexity on inside, inner margin weakly S-like bent (figs 70-71) ..... *drakensbergensis, tristis*
(see bursa copulatrix in female, cf. figs 75-76 and 324-325)

Bantodemus armatus (MULSANT et REY, 1853)

(figs 2, 15-27)

Trigonopus armatus MULSANT et REY, 1853: 48. - GEMMINGER et HAROLD 1870: 1911; GEBIEN 1910: 272; 1938: 292.
Bantodemus armatus (MULSANT et REY, 1853): KOCH 1955: 444; 1956: 78.

LOCUS TYPICUS

"le port Natal" [Republic of South Africa, Natal].

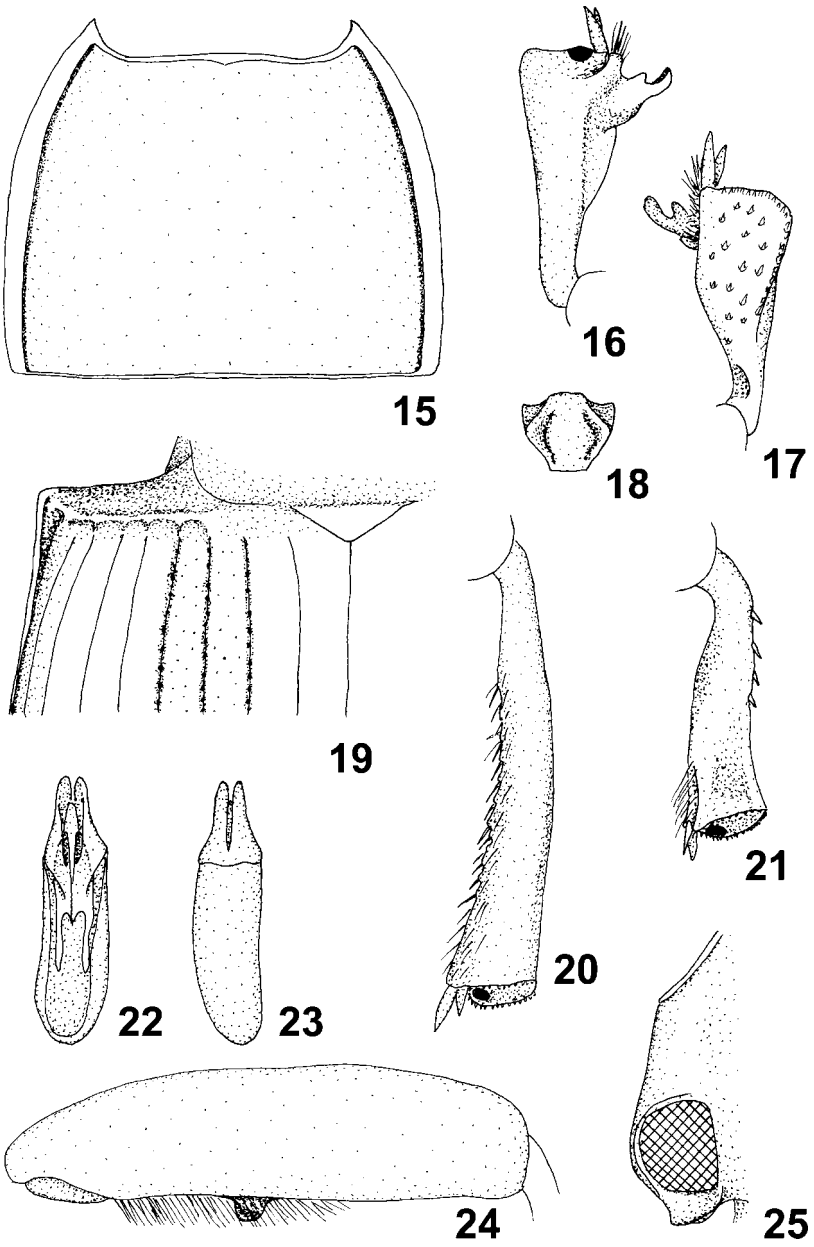
DIAGNOSIS

B. armatus belongs to the *lucidus*-group which has a saddle-like prosternal process (fig. 25), male mid tibia with a concavity on outer side, a denticle on the male hind leg and widened bursa copulatrix; the above characters distinguish these species from their congeners.

B. armatus is easily separated from the other species of the *lucidus*-group by anterior margin of elytra (upper edge distinctly convex and bordered in *armatus,* as in fig. 19; slightly convex and smooth in the remaining species of the *lucidus*-group) and the presence of the denticle on male hind femur (fig. 24) (on the trochanter in the remaining species of the *lucidus*-group).

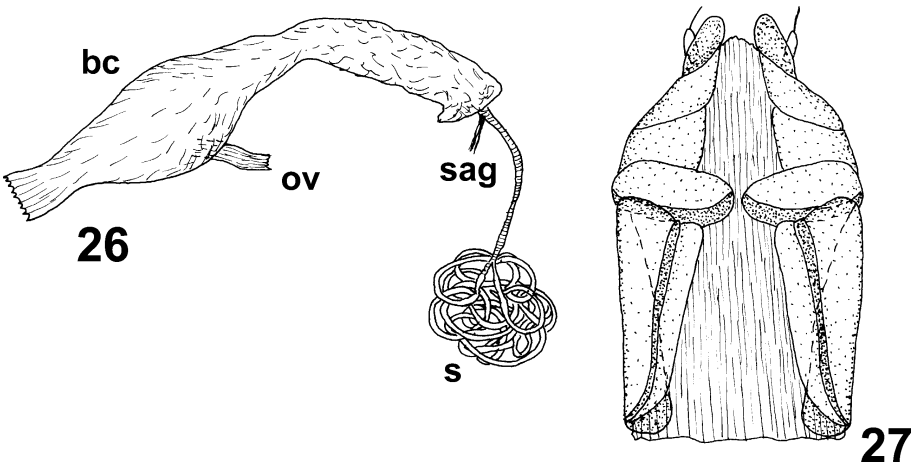
DESCRIPTION

Body length 9.4-10.4 mm, pl/pb = 0.76-0.91, el/eb = 1.26-1.29, el/pl = 1.66 - 1.82, eb/pb = 1.06-1.18 (elytra much wider than pronotum). Surface of body shiny, very sparsely and delicately punctate, elytral intervals and episternum smooth; puncturation of head, meso- and metasternum distinct; abdominal ventrites I-III with numerous longitudinal, delicate wrinkles. Mentum as in fig. 18; between gena and tempus 3-4 eye facets visible; antennal segment 3 ca. 1.8-2.1 x longer than segment 2. Pronotum distinctly convex, widest at base (female) or just before it (male), 11-12 x as wide as lateral border; sides for 2/3 length from base subparallel; anterior angles acute, distinctly produced anteriad; lateral border 1.61-1.93 x as wide as antennal segment 3; base straight, slightly arcuate (fig. 15). Scutellum of medium width, pkp/st ratio ca. 2.6-3.0 (fig. 19). Elytra strongly convex; upper edge of anterior elytral margin arcuately convex, its border extending from humeral angle to 3rd row; elytral intervals moderately convex, row 9th distinctly wider than the remaining ones; striae sharply incised, regular, punctures small, round; 8th row complete, reaching anterior elytral margin; anterior concavity of 9th row moderately narrow and shallow. Prosternal process saddle-like concave, only apex protruding towards mesosternum, a delicate border visible (fig. 25). Male legs: ratio of segments 1/2 of hind tarsi ca. 3.1-3.3; inner side of fore tibia with a sharp, strongly protruding bifid denticle (figs 16-17); mid tibia with a well visible apical denticle and median convexity on inside, outer side with a concavity (fig. 21); hind tibia slightly bent inwards (fig. 20), dtk/dod ratio ca. 1.5-1.7, dod/dok ratio ca. 1.3-1.5; fore femur widened, hind



15-25. *Bantodemus armatus*: 15 – pronotum, 16 – dorsal and 17 – ventral view of male fore tibia, 18 – mentum, 19 – anterior part of elytron, 20 – male hind tibia, 21 – male mid tibia, 22 – ventral and 23 – dorsal view of aedeagus, 24 – male hind femur, 25 – lateral view of prosternal process

femur with obtuse denticle in the middle on inner side (fig. 24); all tibiae and femora setose on inside. Aedeagus as in figs 22-23, lbp/lap ca. 2.3, lmb/la ca. 6.5. Female genitalia: ovipositor as in fig. 27, paraproct longer than total length of coxites, lp/lc1 ca. 4.4, bc1/lc1 ca. 2.3, c1/c2/c3/c4/c4-c3 = 1.0/1.3/0.9/1.7/0.4, lfb/lo ca. 5.2, bursa copulatrix simple (without sclerite), with enlarged additional sac (fig. 26).



26-27. *Bantodemus armatus*: 26 – internal female genitalia (bc – bursa copulatrix, ov – oviduct, s – spermatheca, sag – spermathecal accessory gland), 27 – ovipositor

NOTES

In their 1853 paper MULSANT and REY included 3 plates. Figure 7 in plate 3 presents characteristic bifid spines of fore tibia of *Trigonopus armatus* described on page 48, but the figure caption reads "Tibia et tarse antérieurs du *Trigonopus arcuatus*". Species under the name *Trigonopus arcuatus* has never been described, either in the 1853 or in any earlier paper. I think that it was a mistake and the name *arcuatus* should not be treated as a synonym of *armatus* as suggested by the note in KOCH's 1955 paper. My interpretation agrees with that contained in the catalogues of GEMMINGER and HAROLD (1870) and GEBIEN (1910, 1938).

TYPE

Holotype (male), HNHM: "*Trigonopus armatus*, type, Mtop. Ent. 4 p, *funebris* Bhm., 132 12, Africs Aust. Natal, D. BOHEMANN; *Trigonopus armatus*" (examined).

MATERIAL EXAMINED

Marble Hall, V. 1962, TV., Rorke, (TMNH) 2 m, 5 f; Piena ars riv. Dam, Tvl. (16 mi NE Pretoria) 25.IX.71, BORNEMISSZA & INSLEY; 434, (TMNH) 1 m; Pretoria, 19, G. VAN SON, *Bantodemus armatus,* det. C. KOCH (TMNH) 1 m.

DISTRIBUTION (fig. 2)

Republic of South Africa (Natal, Transvaal).

***Bantodemus bevisi* KOCH, 1955**

(figs 2, 28-35)

Bantodemus bevisi KOCH, 1955: 443.

LOCUS TYPICUS

Ngxwala Hill [Republic of South Africa].

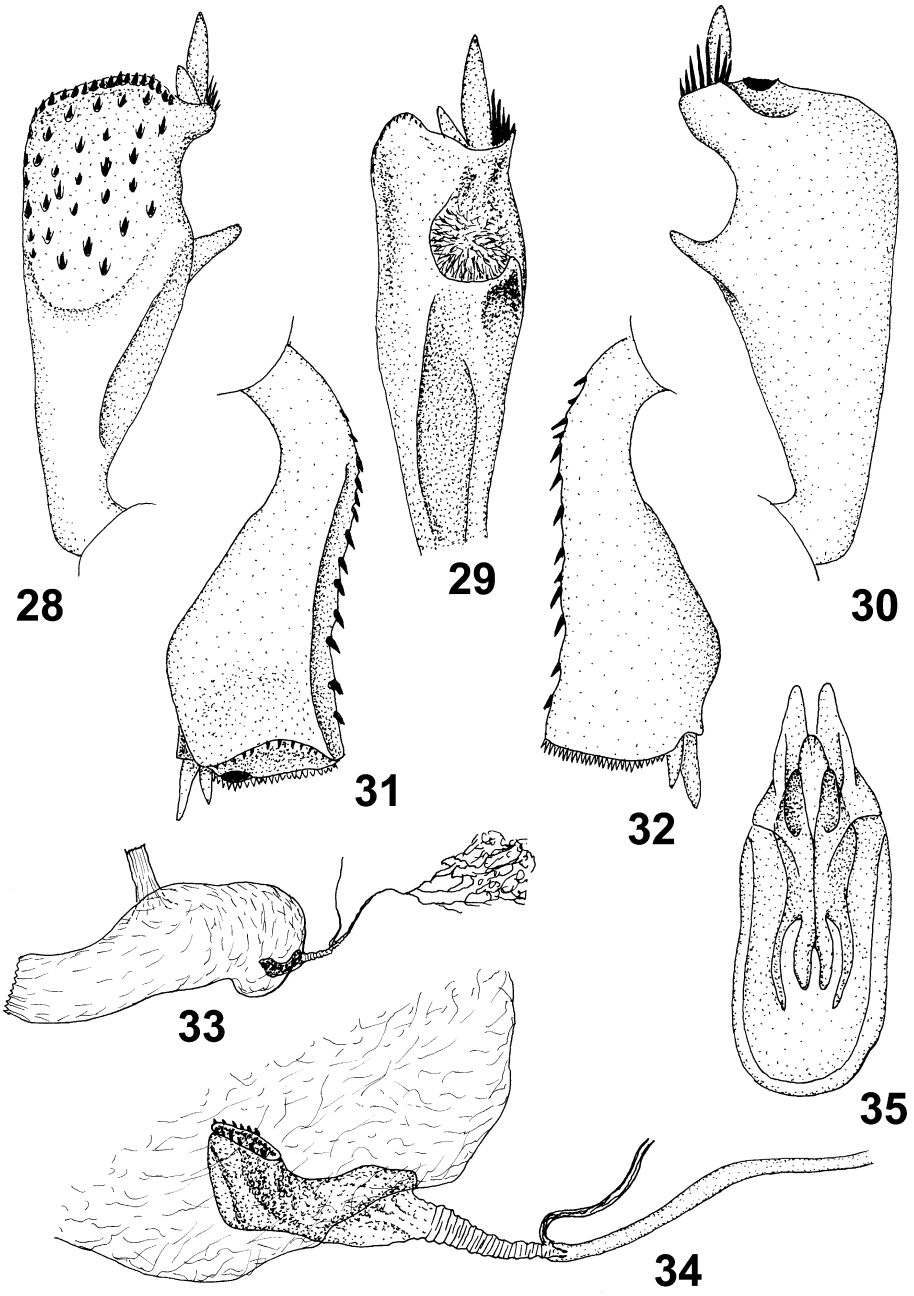
DIAGNOSIS

B. bevisi has the additional sac of the bursa copulatrix with a tube-like sclerite (fig. 34) - it belongs to the *caffer*-group. The species is similar to *zulu* and *natalensis* in the structure of the male fore tibia (with distinct denticle on inner side) (figs 28-30).

The structure of anterior elytral margin (slightly convex and smooth) and male mid tibia (with apical denticle) (figs 31-32) place *bevisi* close to *zulu* and separate it from *natalensis*. The shape of the sclerite in the bursa copulatrix distinguishes *bevisi* from *zulu* (cf figs 33-34 and 390-391).

DESCRIPTION

Body length 14.3-14.5 mm, pl/pb = 0.67-0.69, el/eb = 1.32-1.34, el/pl = 1.98-2.00, eb/pb = 1.01 (elytra slightly wider than pronotum). Surface of body greasy shiny, puncturation as in *caffer*. Between gena and tempus 4-5 eye facets visible; antennal segment 3 ca. 2.0 x longer than segment 2. Pronotum widest at 2/3 from base, ca. 21-23 x as wide as lateral border, sides subparallel; anterior angles obtuse, slightly produced anteriad; lateral border ca. 1.30 x as wide as antennal segment 3; base shallowly bisinuate. Scutellum of medium width, pkp/st ratio ca. 2.8-3.0. Elytra moderately convex, slightly tucked in posteriorly, but not at apex (part of interval 9th visible from underside); upper edge of anterior margin slightly convex, unbordered; elytral intervals moderately convex, interval 9th distinctly wider than the remaining ones; striae sharply incised, punctures small; 8th row incomplete, does not reach anterior margin; anterior concavity of 9th row wide and deep. Prosternal process as in *caffer*. Male legs: ratio of segments 1/2 of hind tarsi ca. 2.8; fore tibia widest at 2/3 from base, with a medium-sized denticle (figs 28-30); mid tibia with an apical denticle and median convexity on inside,



28-35. *Bantodemus bevisi*: 28 – ventral, 29 – lateral and 30 – dorsal view of male fore tibia, 31 – dorsal and 32 – ventral view of male mid tibia, 33 – internal female genitalia, 34 – part of bursa copulatrix with sclerite, 35 – aedeagus

inner margin strongly S-like bent (figs 31-32); hind tibia straight, dtk/dod ratio ca. 2.0, dod/dok ratio ca. 7; fore femur moderately wide, with a row of hairs anteriorly; hind femur simple, setose on inside. Aedeagus as in fig. 35, lbp/lap ca. 2.5, lmb/la ca. 6.4. Female genitalia: paraproct longer than total length of coxites, lp/lc1 ca. 4.1, bc1/lc1 ca. 1.5, c1/c2/c3/c4/c4-c3 = 1.0/0.7/0.7/1.3/0.3, lfb/lo ca. 4.6, bursa copulatrix with a tube-like sclerite situated at posterior part of additional sac (figs 33-34).

TYPES

Holotype. In his 1955 papaer, KOCH noted that the holotype was a specimen from Ngxwala Hill (data as in allotype), and thus I suspect that the label "Holotype No: 1285, *Bantodemus bevisi* KOCH" was later pinned under a specimen which is actually a paratype.

Allotype: Ngxwala Hill, Sept 1915, L. BEVIS; Allotype No: 1286, *Bantodemus bevisi* KOCH, (TMNH) 1 f (examined).

Paratype: Ubombo, Zululand, June 1909, HWBM, Durban Museum; Holotype No: 1285, *Bantodemus bevisi* KOCH, (TMNH) 1 m (examined).

DISTRIBUTION (fig. 2)

Republic of South Africa (Natal).

Bantodemus caffer (FÄHRAEUS, 1870)

(figs 2, 36-44)

Trigonopus caffer FÄHRAEUS, 1870: 284. - GEBIEN 1910: 272; 1938: 292.
Bantodemus caffer (FÄHRAEUS): KOCH 1955: 441; 1956: 78.
Trigonopus lugubris FÄHRAEUS, 1870: 283. - GEBIEN 1910: 272; 1938: 292. **syn. nov.**
Bantodemus lugubris (FÄHRAEUS): KOCH 1955: 436; 1956: 78.

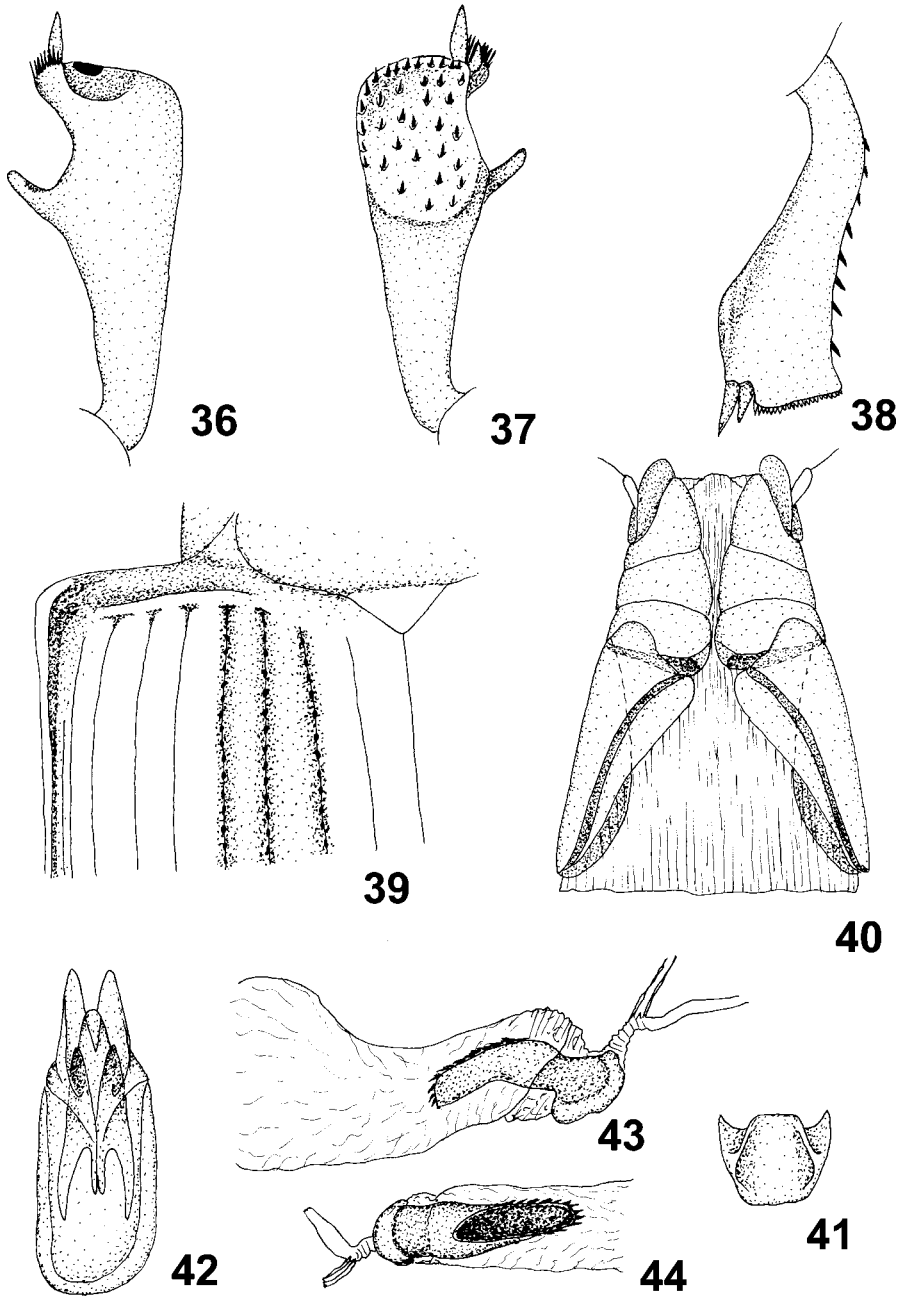
TERRA TYPICA

"Caffraria" [Republic of South Africa].

DIAGNOSIS

The species belongs to the *caffer*-group which a has tube-like sclerite in the additional sac of bursa copulatrix (figs 43-44). *B. caffer* is close to *hluhluwensis*, *melancholicus*, *pubipes*, *kaszabi*, *zimbabwensis* due to its elongated anterior part of the paraproct (fig. 40).

The presence of a distinct denticle on the inner side of the male fore tibia (figs 36-37) and the S-like inner margin of the male mid tibia (fig. 38) place *caffer* close to *hluhluwensis*, *melancholicus* and *pubipes*, and distinguish it from *zimbabwensis* and *kaszabi*. *B. caffer* and *hluhluwensis* differ from *melancholicus* and *pubipes* in the absence of apical denticle on the male mid tibia. *B. caffer* is easily separated from *hluhluwensis* by its more slender body shape and male tibia, and the details of genitalia structure (cf. figs 43-44 and 110-111).



36-44. *Bantodemus caffer*: 36 – dorsal and 37 – ventral view of male fore tibia, 38 – male mid tibia, 39 – anterior part of elytron, 40 – ovipositor, 41 – mentum, 42 – aedeagus, 43-44 – part of bursa copulatrix with sclerite

DESCRIPTION

Body length 10.5-14.5 mm, pl/pb = 0.70-0.78, el/eb = 1.30-1.34, el/pl = 1.92-2.09, eb/pb = 1.00-1.05 (elytra wider than pronotum). Surface of body greasy shiny, very sparsely and delicately punctate, elytral intervals and episternum smooth; puncturation of head, meso- and metasternum delicate, but well visible; abdominal ventrites I-III with numerous longitudinal, delicate wrinkles. Mentum as in fig. 41, median part slightly convex; between gena and tempus 4-5 eye facets visible; antennal segment 3 ca. 2.2-2.5 x longer than segment 2. Pronotum moderately convex, widest at 2/3 from base, 18-20 x as wide as lateral border; sides for 2/3 length from base subparallel; anterior angles obtuse, slightly produced anteriad; lateral border 1.40-1.55 x as wide as antennal segment 3; base shallowly bisinuate. Scutellum of narrow, pkp/st ratio ca. 3.0-3.5. Elytra moderately convex, slightly tucked in posteriorly, but not at apex (part of interval 9 visible from underside); upper edge of anterior elytral margin arcuately convex, without border (sometimes elytral rows 3-7 distinctly incised nearly before margin, forming a weak border) (fig. 39); elytral intervals weakly convex, interval 9 distinctly wider than the remaining ones; striae sharply incised, regular, punctures small, round; 8th row incomplete, does not reach anterior elytral margin; anterior concavity of 9th row wide and deep. Prosternal process protruding towards mesosternum, border interrupted on apex. Male legs: ratio of segments 1/2 of hind tarsi ca. 2.3-2.5; inner side of fore tibia with a sharp denticle bent inwards (figs 36-37); mid tibia simple (without denticle), inner margin S-like bent (fig. 38); hind tibia straight, dtk/dod ratio ca. 1.5-1.8, dod/dok ratio ca. 1.3-1.5; fore femur moderately wide with a row of hairs anteriorly; hind femur simple, bare on inside. Aedeagus as in fig. 42, lbp/lap ca. 2.1-2.2, lmb/la ca. 5.8-6.1. Female genitalia: ovipositor as in fig. 40, paraproct longer than total length of coxites, lp/lc1 ca. 3.9, bc1/lc1 ca. 1.5, c1/c2/c3/c4/c4-c3 = 1.0/0.9/0.8/1.4/0.2, lfb/lo ca. 5.1, bursa copulatrix with a tube-like sclerite situated at posterior part of additional sac (figs 43-44).

TYPES

Trigonopus caffer FÄHRAEUS, 1870

Holotype, male (ZMS): "Caffraria; J. WAHL.; Typus; *Trigonopus caffer*" (examined).

Trigonopus lugubris FÄHRAEUS, 1870

Holotype, male (ZMS): "Caffraria; J. WAHL.; Typus; *Trigonopus lugubris*" (examined).

MATERIAL EXAMINED

Zulu; *Trigonopus typhon*; SAM-COL-AO 11807, (SAM) 1 m; S. Afr., Zululand, Empangeni Univ., leg. P. E. REAVEL; II-III.1975, (TM) 2 m, 2 f; S. Afr., Natal, Umbombo Mt., VIII.1975, leg. P. E. REAVEL, (TMNH) 2 m, 4 f; S. Afr., N. Zululand, Ndumu Store, 26.55 S - 32.18 E; 1.12.1992; E-Y: 2871, at flood light, leg. ENDRÖDY-YOUNGA, (TMNH) 1 m.

DISTRIBUTION (fig. 2)
Republic of South Africa (Natal).

Bantodemus calcaratus KOCH, 1955
(figs 2, 45-51)

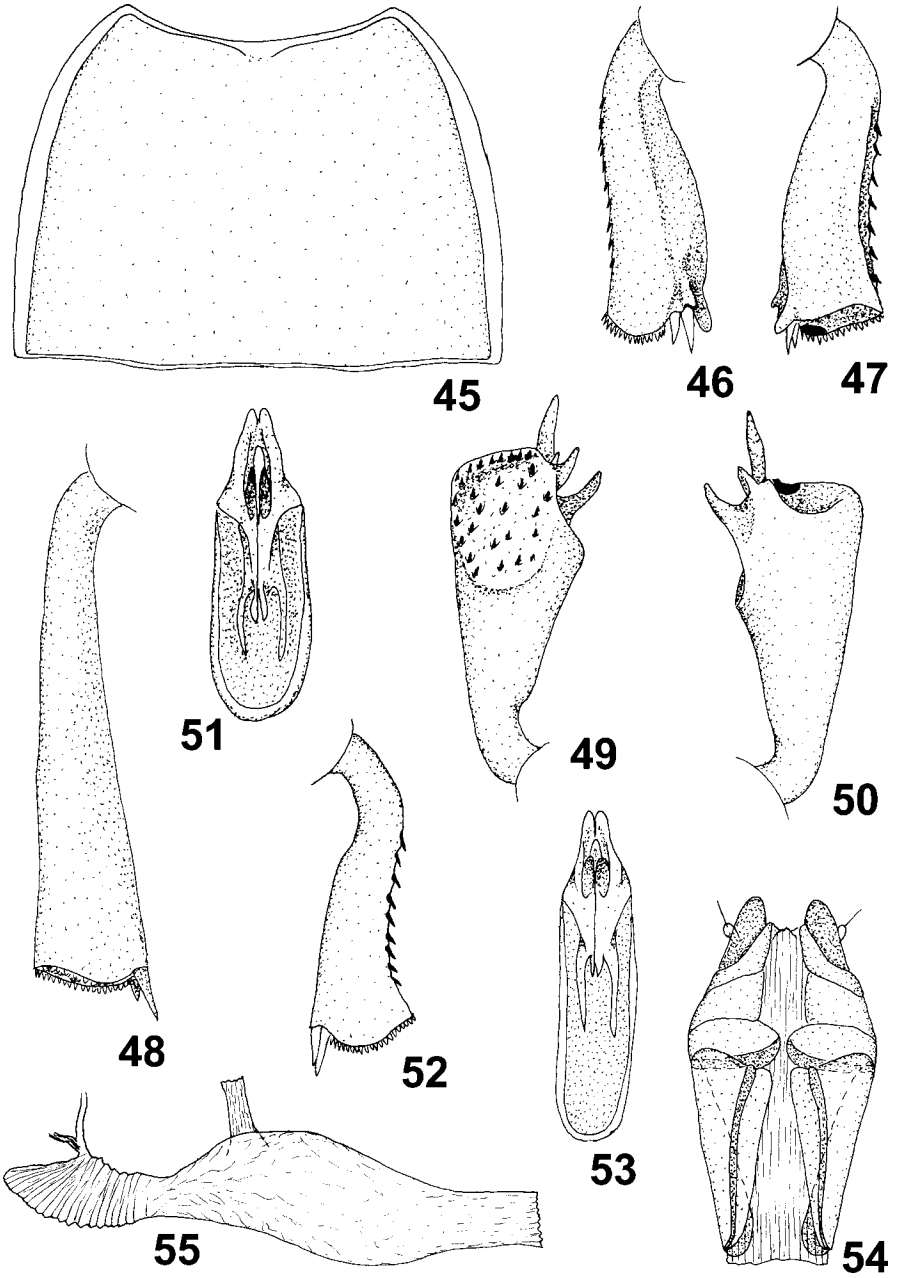
Bantodemus calcaratus KOCH, 1955: 438.

LOCUS TYPICUS
Estcourt [Republic of South Africa, Natal, Estcourt District].

DIAGNOSIS
B. calcaratus resembles *lethaeus*, *imitator* and *furcatus* in the general structure of the male fore tibia (inner denticle located between concavity and apex) (figs 49-50). The species clearly differs from the above-mentioned species in the shape and size of the denticles on the male fore and mid tibiae (figs 46-47, 49-50).

B. calcaratus is distinguished from *imitator* by the structure of the anterior elytral margin (unbordered in *calcaratus*), and from *furcatus* by the length of the 8th elytral row (shortened in *calcaratus*).

DESCRIPTION
Body length 10.5 mm, pl/pb = 0.70, el/eb = 1.33, el/pl = 2.03, eb/pb = 1.08. Surface of body greasy shiny, very sparsely and delicately punctate, elytral intervals and episternum smooth; puncturation of head, pronotum, meso- and metasternum delicate, but well visible; abdominal ventrites I-III with numerous longitudinal, delicate wrinkles. Between gena and tempus 3 eye facets visible. Pronotum slightly convex (fig. 45), widest at base, ca. 18 x as wide as lateral border; sides subparallel for 3/5 length from base; anterior angles obtuse, slightly produced anteriad; base shallowly bisinuate. Scutellum narrow, pkp/st ratio ca. 3.1. Elytra: all intervals visible on upper side; upper edge of anterior elytral margin arcuately convex, unbordered; elytral intervals weakly convex, interval 9 distinctly wider than the remaining ones; striae sharply incised, punctures small; 8th row incomplete, does not reach anterior margin; anterior concavity of 9th row moderately wide and deep. Prosternal process as in *caffer*. Male legs: ratio of segments 1/2 of hind tarsi ca. 2.5; fore tibia widest at 2/3 from base, with denticle near apex (figs 49-50); mid tibia with 2 apical denticles, inner margin weakly S-like bent (figs 46-47); hind tibia straight (fig. 48), dtk/dod ratio ca. 1.7, dod/dok ratio ca. 1.3; inner edge of fore femur with a row of dense hairs, hind femur setose on inside. Aedeagus as in fig. 51, lbp/lap ca. 2.2, lmb/la ca. 6.1. Female unknown.



45-51. *Bantodemus calcaratus*: 45 – pronotum, 46 – ventral and 47 – dorsal view of male mid tibia, 48 – male hind tibia, 49 – ventral and 50 – dorsal view of male fore tibia, 51 – aedeagus. 52-55. *B. dentipes*: 52 – male mid tibia, 53 – aedeagus, 54 – ovipositor, 55 – internal female genitalia

TYPES

Holotype (male) TMNH: "Estcourt, Natal, Oct. 1937, R. F. LAWRENCE" (examined).

DISTRIBUTION (fig. 2)

Republic of South Africa (Natal).

Bantodemus dentipes (FÄHRAEUS, 1870)

(figs 2, 52-58)

Trigonopus dentipes FÄHRAEUS, 1870: 285 - GEBIEN 1910: 272; 1938: 292.
Bantodemus dentipes (FÄHRAEUS): KOCH 1955: 433.

TERRA TYPICA

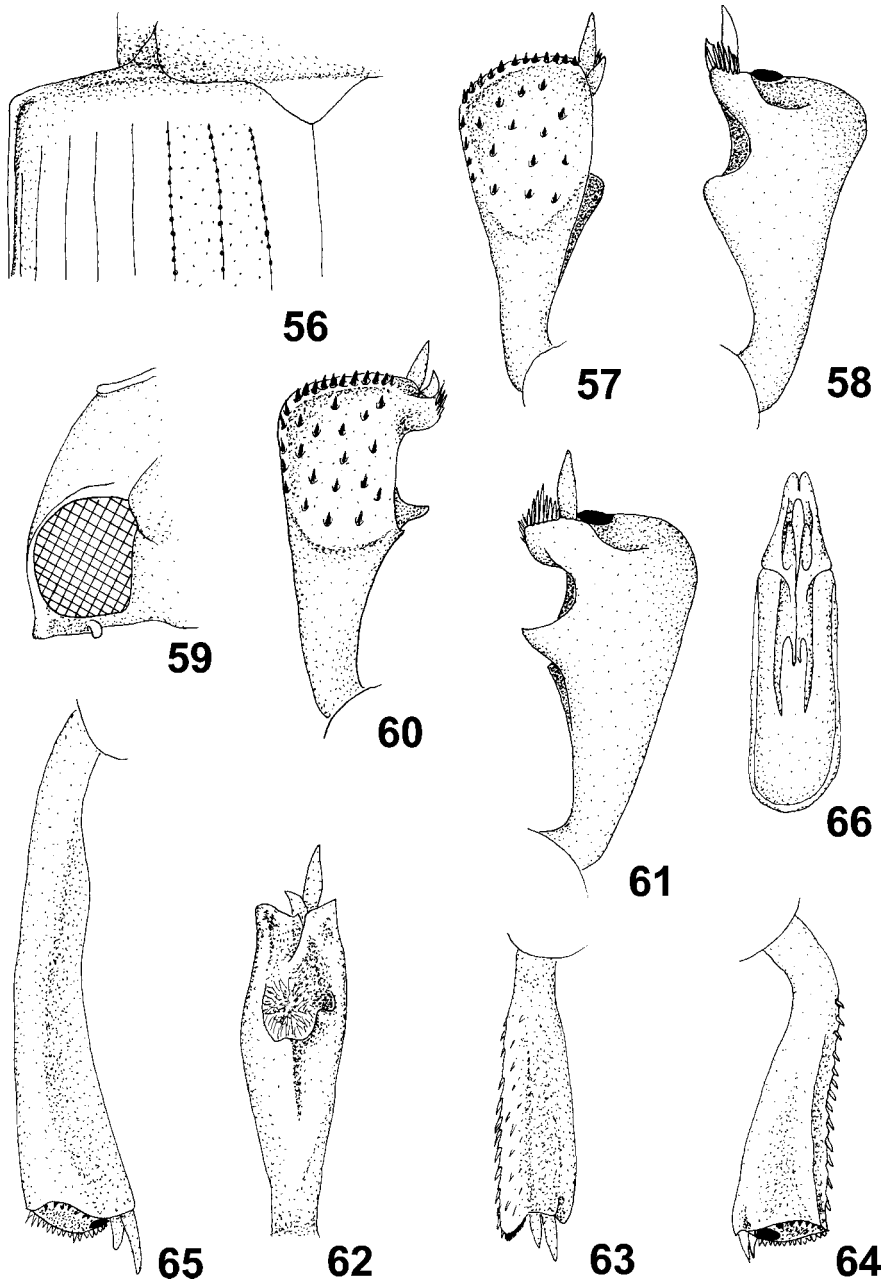
"Caffraria" [Republic of South Africa].

DIAGNOSIS

See diagnosis of *B. funduzilis*.

DESCRIPTION

Body length 8.0-10.0 mm, pl/pb = 0.71-0.72, el/eb = 1.33-1.34, el/pl = 1.93-1.94, eb/pb = 1.03-1.04 (elytra much wider than pronotum). Surface of body shiny, puncturation as in *dentipes*. Between gena and tempus 3-4 eye facets visible; antennal segment 3 ca. 1.8-2.0 x longer than segment 2. Pronotum weakly convex, widest at 2/3 length from base, 11-15 x as wide as lateral border; anterior angles moderately produced anteriad; lateral border 1.66-1.86 x as wide as antennal segment 3; sides subparallel for 2/3 length from base; base straight, slightly arcuate. Scutellum of medium width, pkp/st ratio ca. 2.6-3.0. Elytra moderately convex, slightly tucked in posteriorly, but not at apex (part of interval 9 visible from underside); humeral angle not protruding outwards; upper edge of anterior elytral margin forming gradual slope, unbordered (fig. 56); elytral intervals flat, interval 9 wider than the remaining ones; striae sharply incised, regular, punctures small, round; 8th row shortened, disappearing just before anterior elytral margin; anterior concavity of 9th row moderately narrow and shallow. Prosternal process as in *funduzilis*, border evanescent. Male legs: ratio of segments 1/2 of hind tarsi ca. 1.8-2.7; fore tibia distinctly widened at 2/3 from base, inner side without denticle (figs 57-58); apical denticle of mid tibia very small (fig. 52); hind tibia straight, dtk/dod ratio ca. 1.5, dod/dok ratio ca. 1.3; hind femur setose inside. Aedeagus (fig. 53): lbp/lap ca. 2.6-2.8, lmb/la ca. 5.7-6.1. Female genitalia: ovipositor as in fig. 54, paraproct longer than total length of coxites, lp/lc1 ca. 4.3, bc1/lc1 ca. 2.2, c1/c2/c3/c4/c4-c3 = 1.0/0.9/1.1/1.8/0.6 (plate c4 distinctly elongated), lfb/lo ca. 4.9, bursa copulatrix simple (without sclerite), with enlarged additional sac (fig. 55).



56-58. *Bantodemus dentipes*: 56 – anterior part of elytron, 57 – ventral and 58 – dorsal view of male fore tibia. 59-66. *B. funduzilis*: 59 – lateral view of prosternal process, 60 – ventral, 61 – dorsal and 62 - lateral view of male fore tibia, 63 – lateral and 64 – dorsal view of male mid tibia, 65 – male hind tibia, 66 – aedeagus

TYPES

Holotype, male (ZMS): "J. WAHLB.; 105, 51; Caffraria; Typus; *Trigonopus dentipes* FAHR." (examined).

MATERIAL EXAMINED

Matopos, S. Rh; X.59, P. DE MOOR, (TMNH) 1 m; S. Afr. Tvl. Waterbg, Lapalala Wilderness, 23.49 S - 20.17 E; 16.8.75; E-Y: 829, from under stone, leg. ENDRÖDY-YOUNGA, (TMNH) 2 m, 2 f; S. Afr. Transvaal, Sandspruit nara, Pietersburg, 13.II.54, leg. G. RUDEBECK, (MZLU) 1 m; S. Afr., N. Transvaal, Nylsvley, hill base, 24.40 S - 28.42 E; 1.5.1975; E-Y: 782, groundtrap: 8 days, leg. ENDRÖDY-YOUNGA, groundtrap with banana bait, (TMNH) 1 m; 1.12.1975; E-Y: 942, groundtraps, 12 day, leg. ENDRÖDY-YOUNGA, ground traps unbaited replication 2, (TMNH) 1 f; S. Afr., N. Transv. Farm 223, 24.11S - 27.50E; 11.2 1976; E-Y: 1031, singled, leg. STRYDOM, (TMNH) 1 m; Farm new York 490, 25 km NE Ellisras, N/Tvl, 28.3.74, O.+L. PROZESKY, (TMNH) 1 m.

DISTRIBUTION (fig. 2)

Republic of South Africa (N Transvaal), Zimbabwe.

***Bantodemus drakensbergensis* sp. nov.**

(figs 2, 67-76)

NAME DERIVATION

The species is named after its terra typica.

TERRA TYPICA

Drakensberge [Republic of South, Africa, Transvaal].

DIAGNOSIS

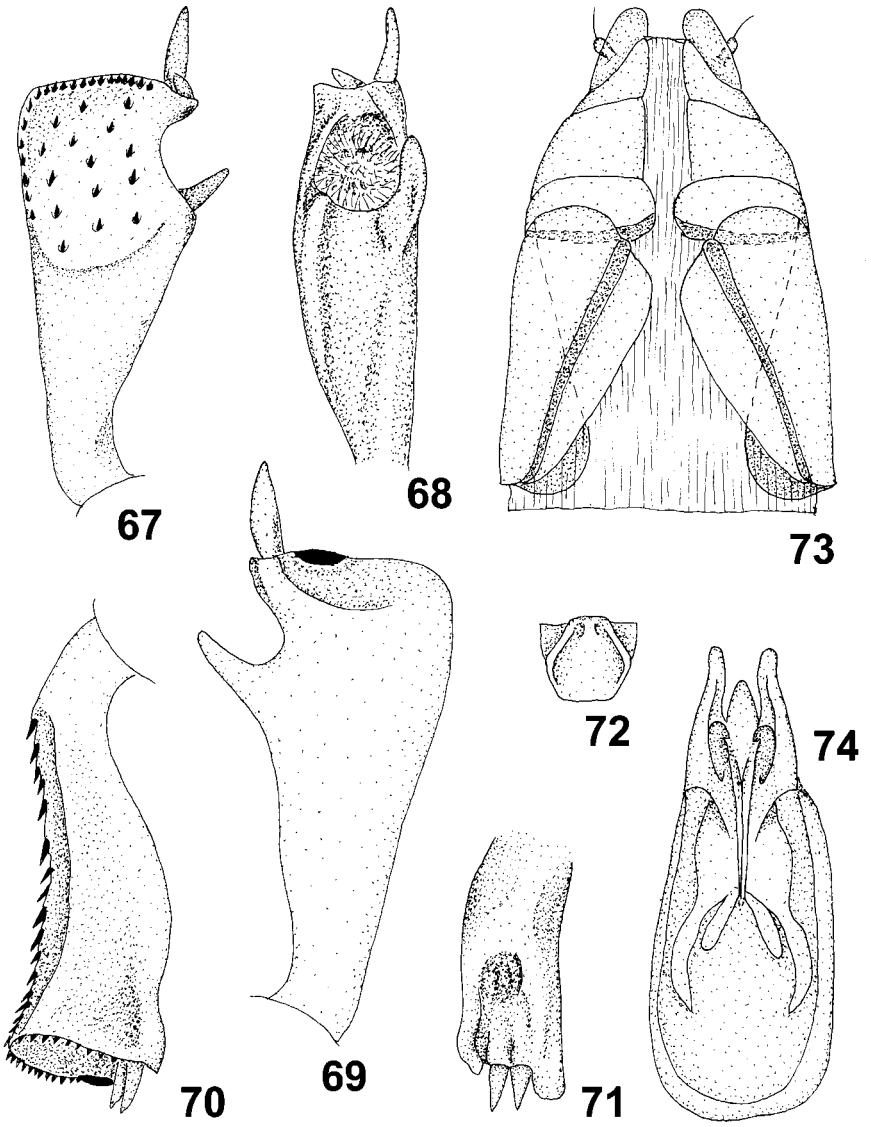
B. drakensbergensis is close to *milleri* and *goldengatensis* in the shape of the bursa copulatrix (longitudinal additional sac, without sclerite) (figs 75-76).

It differs from the above-mentioned species in the structure of male tibia (figs 67-71, 77-82) which resemble those of *tristis*. *B. drakensbergensis* is more robust than *tristis* and has elytral intervals with transverse impressions (smooth in *tristis*).

DESCRIPTION

Body length 14.0-16.3 mm, pl/pb = 0.70-0.74, el/eb = 1.26-1.31, el/pl =1.86-2.02, eb/pb = 1.07-1.10 (elytra much wider than pronotum). Body puncturation as in *tristis*. Mentum as in fig. 72. Between gena and tempus 4-5 eye facets visible; antennal segment 3 ca. 1.84-2.14 x longer than segment 2. Pronotum slightly convex, widest at base, 23-26 x as wide as lateral border; sides for 2/3 length from

base subparallel (trapezial in female); anterior angles obtuse, slightly produced anteriad; lateral border 1.36-1.43 x as wide as antennal segment 3; base shallowly bisinuate. Scutellum of medium width, pkp/st ratio ca. 2.4-2.6. Elytra moderately convex, all intervals visible on upper side; humeral angle not protruding out-



67-74. *Bantodemus drakensbergensis*: 67 – ventral, 68 – lateral and 69 – dorsal view of male fore tibia, 70 – dorsal and 71 – lateral view of male mid tibia, 72 – mentum, 73 – ovipositor, 74 – aedeagus

wards; upper edge of anterior elytral margin arcuately convex, bordered medially; elytral intervals slightly convex, with transverse impressions near rows, 9th interval somewhat wider than the remaining ones; striae sharply incised, regular, punctures small, round; 8th row incomplete, disappearing just before anterior elytral margin; anterior concavity of 9th row wide and deep. Prosternal process as in *tristis*. Male legs: ratio of segments 1/2 of hind tarsi ca. 2.5-2.8; inner side of fore tibia with a sharp denticle bent inwards (figs 67-69); mid tibia with a well visible apical denticle and median convexity on inside, inner margin S-like bent (figs 70-71); hind tibia slightly bent inwards, dtk/dod ratio ca. 1.4-1.5, dod/dok ratio ca. 1.5-1.6; fore femur moderately wide, with a row of hairs anteriorly; hind femur simple, setose on inside. Aedeagus as in fig. 74 (lacinia with a denticle on apex), lbp/lap ca. 2.4, lmb/la ca. 7.0. Female genitalia: ovipositor as in fig. 73, paraproct longer than total length of coxites, lp/lc1 ca. 4.4, bc1/lc1 ca. 1.9, c1/c2/c3/c4/c4-c3 = 1.0/1.2/0.9/1.4/0.5, lfb/lo ca. 5.0, bursa copulatrix with additional longitudinal funnel-like sac (figs 75-76).

TYPES

Holotype (male), TMNH: "S. Afr., E. Transvaal, Drakensberge 2000 ft, W of Gravelotte; 12.5.1975; E-Y: 780, singled on ground, leg. J. VILJOEN; from insectarium no. 1446".

Paratypes: S. Afr., E. Transvaal, Drakensberge 2000 ft, W of Gravelotte; 12.5.1975; E-Y: 780, singled on ground, leg. J. VILJOEN; from insectarium no. 1446, (TMNH) 1 m, 2 f.

DISTRIBUTION (fig. 2)

Republic of South Africa (E Transvaal).

***Bantodemus funduzilis* KOCH, 1955**

(figs 2, 58-66)

Bantodemus funduzilis KOCH, 1955: 443.

LOCUS TYPICUS

Lake Funduzi [Republic of South Africa, Transvaal, Zoutpansberg District].

DIAGNOSIS

Due to its pronotal base (slightly arcuate), the structure of the upper edge of anterior elytral margin (forming gradual slope, unbordered), and anterior concavity of the 9th row (narrow and shallow), the species resembles the *lucidus*-group and *dentipes*.

B. funduzilis and *dentipes* differ from the *lucidus*-group in the structure of the hind male tibia (the absence of denticle on the trochanter) and the shape of

prosternal process (cf. figs 59 and 25). The two species differ in the structure of their male tibia (cf. figs 60-61, 63-64 and 52, 57-58).

DESCRIPTION

Body length 9.3 mm, pl/pb = 0.73, el/eb = 1.34, el/pl = 1.86, eb/pb = 1.01 (elytra wider than pronotum). Surface of body shiny, sparsely and delicately punctate, episternum and prosternum smooth; puncturation of head distinct; abdominal ventrites I-III with numerous longitudinal, delicate wrinkles. Between gena and tempus 4 eye facets visible; antennal segment 3 ca. 1.8 x longer than segment 2. Pronotum weakly convex, widest at 1/3 length from base, 13 x as wide as lateral border; anterior angles moderately produced anteriad; lateral border 1.83 x as wide as antennal segment 3; sides subparallel for 4/5 length from base; base straight, slightly arcuate. Scutellum of medium width, pkp/st ratio ca. 2.4. Elytra moderately convex, slightly tucked in posteriorly, but not at apex (part of interval 9 visible from underside); humeral angle protruding outwards; upper edge of anterior elytral margin forming gradual slope, unbordered; elytral intervals flat, interval 9 wider than the remaining ones; striae sharply incised, regular, punctures small, round; 8th row shortened, disappearing just before anterior elytral margin; anterior concavity of 9th row moderately narrow and shallow. Prosternal process as in fig. 59. Male legs: ratio of segments 1/2 of hind tarsi ca. 3.2; fore tibia distinctly widened, inner side with a sharp, slightly protruding denticle (figs 60-62); mid tibia with an apical denticle inside, outer side with a concavity (figs 63-64); hind tibia widened, and bent inwards (fig. 65), dtk/dod ratio ca. 1.5, dod/dok ratio ca. 1.4; fore femur widened, inner edge with a row of hairs, hind femur setose on inside. Aedeagus (fig. 66): lbp/lap ca. 2.6, lmb/la ca. 5.2. Female unknown.

TYPES

Holotype (male) TMNH: "Lake Funduzi, Jan. 1931, G. VAN SON; Holotype No 1287, *Bantodemus funduzilis*"

DISTRIBUTION (fig. 2)

Republic of South Africa (N Transvaal).

***Bantodemus furcatus* KOCH, 1955**

(figs 2, 77-88)

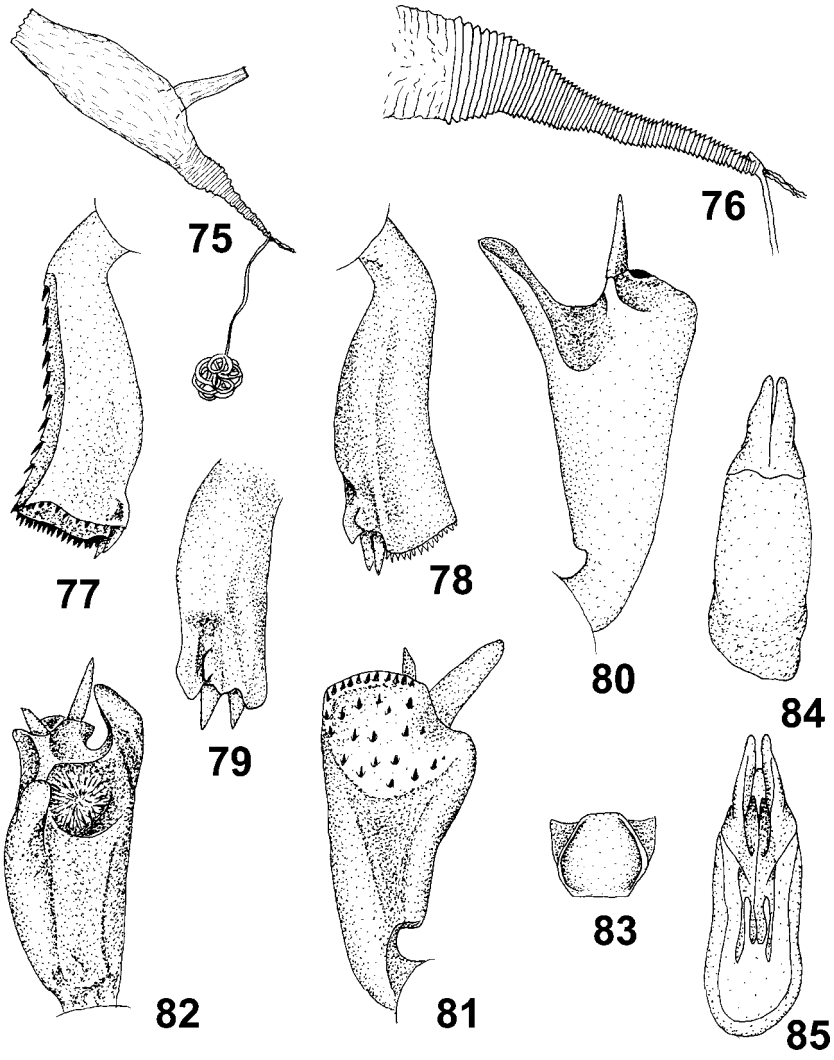
Bantodemus furcatus KOCH, 1955: 438.

LOCUS TYPICS

Kranskop [Republic of South Africa, Natal, Kranskop District].

DIAGNOSIS

B. furcatus resembles *lethaeus* and *imitator* in its female genitalia (ring-like sclerites in bursa copulatrix) (fig. 88), and in the general structure of the male fore tibia (inner denticle located between concavity and apex) (fig. 82).



75-76. *Bantodemus drakensbergensis*: 75 – internal female genitalia, 76 – part of bursa copulatrix. 77-85. *Bantodemus furcatus*: 77 – dorsal, 78 – ventral and 79 – lateral view of male mid tibia, 80 – dorsal, 81 – ventral and 82 – lateral view of male fore tibia, 83 – mentum, 84 – dorsal and 85 – ventral view of aedeagus

The species is easily separated from the species just named by the shape and size of the denticles on the male fore and mid tibia, hind tibia (widened in *furcatus*), and the length of the 8th elytral row (shortened in *lethaeus* and *imitator*). *B. furcatus* differs from *imitator* in the structure of the anterior elytral margin (bordered in *imitator*, unbordered in *furcatus* - as in fig. 86).

DESCRIPTION

Body length 11.1-11.6 mm, pl/pb = 0.70-0.73, el/eb = 1.28-1.35, el/pl = 1.79-1.99, eb/pb = 1.01-1.03. Surface of body greasy shiny, puncturation as in *calcaratus*. Between gena and tempus 4-5 eye facets visible; antennal segment 3 ca. 1.3-1.7 x longer than segment 2; mid part of mentum wide and flat (fig. 83). Pronotum slightly convex, widest at base, ca. 23-26 x as wide as lateral border; sides subparallel for 3/5 length from base; anterior angles obtuse, slightly produced anteriad; lateral border 1.20-1.25 x as wide as antennal segment 3; base shallowly bisinuate. Scutellum narrow, pkp/st ratio ca. 3.4. Elytra: all intervals visible on upper side; upper edge of anterior elytral margin arcuately convex, unbordered (fig. 86); elytral intervals moderately convex, interval 9 wider than the remaining ones; striae sharply incised, punctures small; 8th row complete; anterior concavity of 9th row very wide and deep. Prosternal process as in *caffer*. Male legs: ratio of segments 1/2 of hind tarsi ca. 3.0; fore tibia widest at 4/5 from base, with a large denticle at apex (figs 80-82); mid tibia with 2 apical denticles, inner margin S-like bent (figs 77-79); hind tibia widened medially, dtk/dod ratio ca. 1.5, dod/dok ratio ca. 1.7; inner edge of fore femur with a row of dense hairs, hind femur setose on inside. Aedeagus as in figs 84-85 , lbp/lap ca. 2.1, lmb/la ca. 6.3. Female genitalia: ovipositor as in fig. 87, paraproct longer than total length of coxites, lp/lc1 ca. 3.8, bc1/lc1 ca. 1.9, c1/c2/c3/c4/c4-c3 = 1.0/1.0/0.9/1.5/0.5 (plate c4 distinctly elongated), lfb/lo ca. 4.6, bursa copulatrix with a ring-like sclerites situated at posterior part of additional sac (fig. 88).

TYPES

Paratypes: Kranizkop, Natal, K. H. BERNARD, Nov. 1917, Paratype No 1278, *Bantodemus furcatus* C. KOCH, (TMNH) 1 m; Kranizkop, Natal, K. H. BERNARD, Nov. 1917, (TMNH) 1 m, (examined).

MATERIAL EXAMINED

Kranizkop, Natal, K. H. BERNARD, Nov. 1917; SAM-COL-AO, (SAM) 3 m, 2 f; S. Afr., Natal, Giants Castle, 10.IV.1905, Ivar TRÅGARDH, (JFC) 1 m.

DISTRIBUTION (fig. 2)

Republic of South Africa (Natal).

Bantodemus goldengatensis sp. nov.
(figs 2, 14, 89-101)

NAME DERIVATION
The species is named after its locus typicus.

LOCUS TYPICUS
Golden Gate [Republic of South Africa, Transvaal].

DIAGNOSIS
B. goldengatensis resembles *milleri* and *drakensbergensis* in the structure of the bursa copulatrix cf. figs 101 and 199 and 75, and *parvulus* in the shortened paraproct of the ovipositor (fig. 94).

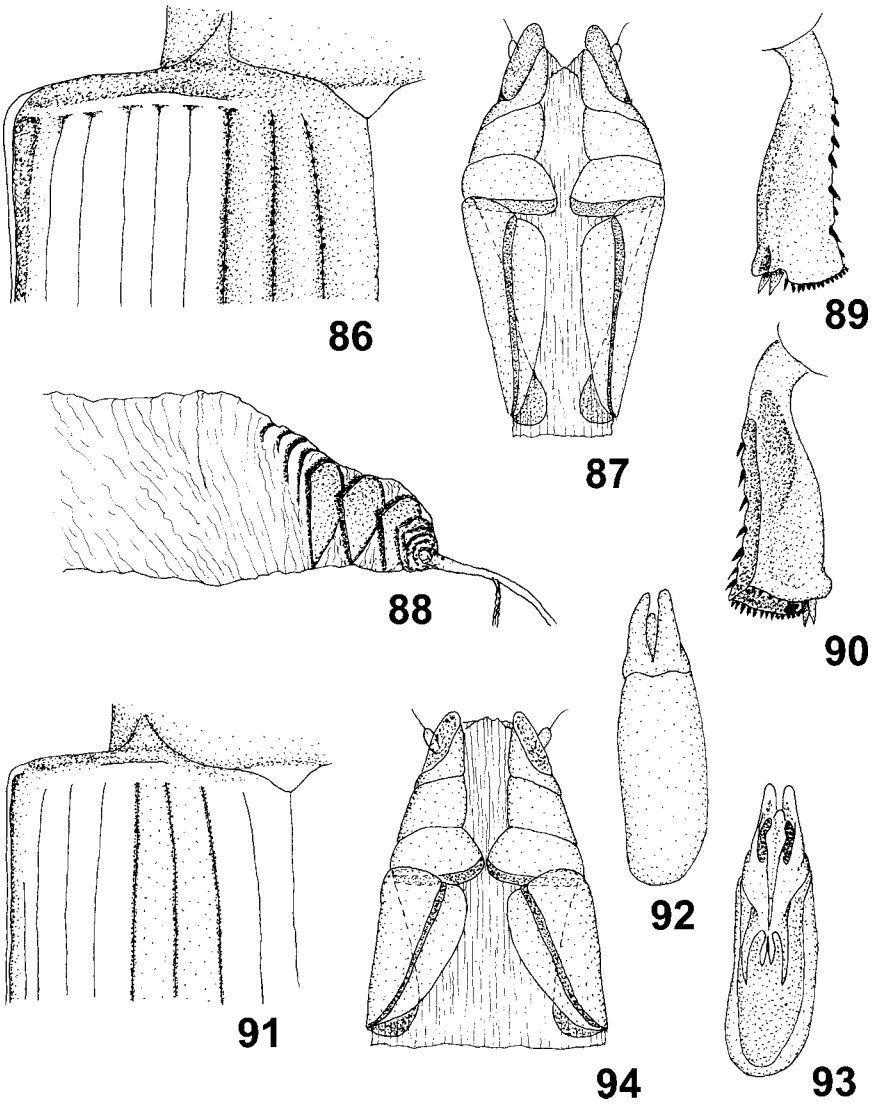
The species differs in the structure of male tibia (cf. figs 89-90, 96-100 and 192-197 and 67-71) and anterior part of 9th elytral row (shallow and narrow in *goldengatensis*, deep and wide in the other mentioned species).

Description
Body length 8.5-10.5 mm, pl/pb = 0.65-0.68, el/eb = 1.21-1.26, el/pl = 1.88-2.05, eb/pb = 1.05-1.10 (elytra much wider than pronotum) (fig. 14). Body puncturation as in *tristis*, practically smooth. Between gena and tempus 4-5 eye facets visible; antennal segment 3 ca. 2.0-2.3 x longer than segment 2. Pronotum distinctly convex, widest at base (fig. 95), 22-24 x as wide as lateral border; sides slightly rounded; anterior angles moderately produced anteriad; lateral border 1.22-1.25 x as wide as antennal segment 3; base shallowly bisinuate. Scutellum of medium width, pkp/st ratio ca. 2.6-3.0. Elytra moderately convex, slightly tucked in posteriorly, but not at apex (part of interval 9 visible from underside); humeral angle not protruding outwards; upper edge of anterior elytral margin slightly convex, without border (fig. 91); elytral intervals flat, interval 9 distinctly wider than the remaining ones (lateral view); striae sharply incised, regular, punctures very small; 8th row incomplete, does not reach anterior elytral margin; anterior concavity of 9th row narrow and shallow. Prosternal process as in *tristis*. Male legs: ratio of segments 1/2 of hind tarsi ca. 2.1-2.9; inner side of fore tibia widened, with longitudinal excavation, and 2 sharp denticles (small median and large apical) (figs 96-98); inner margin of male mid tibia S-like bent (figs 89-90); hind tibia distinctly bent inwards (figs 99-100), dtk/dod ratio ca. 1.6-1.8, dod/dok ratio ca. 1.4-1.6; all tibiae and femora bare. Aedeagus as in figs 92-93, lbp/lap ca. 3.1, lmb/la ca. 5.2, lacinia emarginated on inside. Female genitalia: ovipositor as in fig. 94, paraproct shorter than total length of coxites, lp/lc1 ca. 2.9, bc1/lc1 ca. 1.7, c1/c2/c3/c4/c4-c3 = 1.0/1.0/0.8/1.2/0.3, lfb/lo ca. 5.1, bursa copulatrix simple (without sclerite), and with an additional, strongly elongated sac (fig. 101).

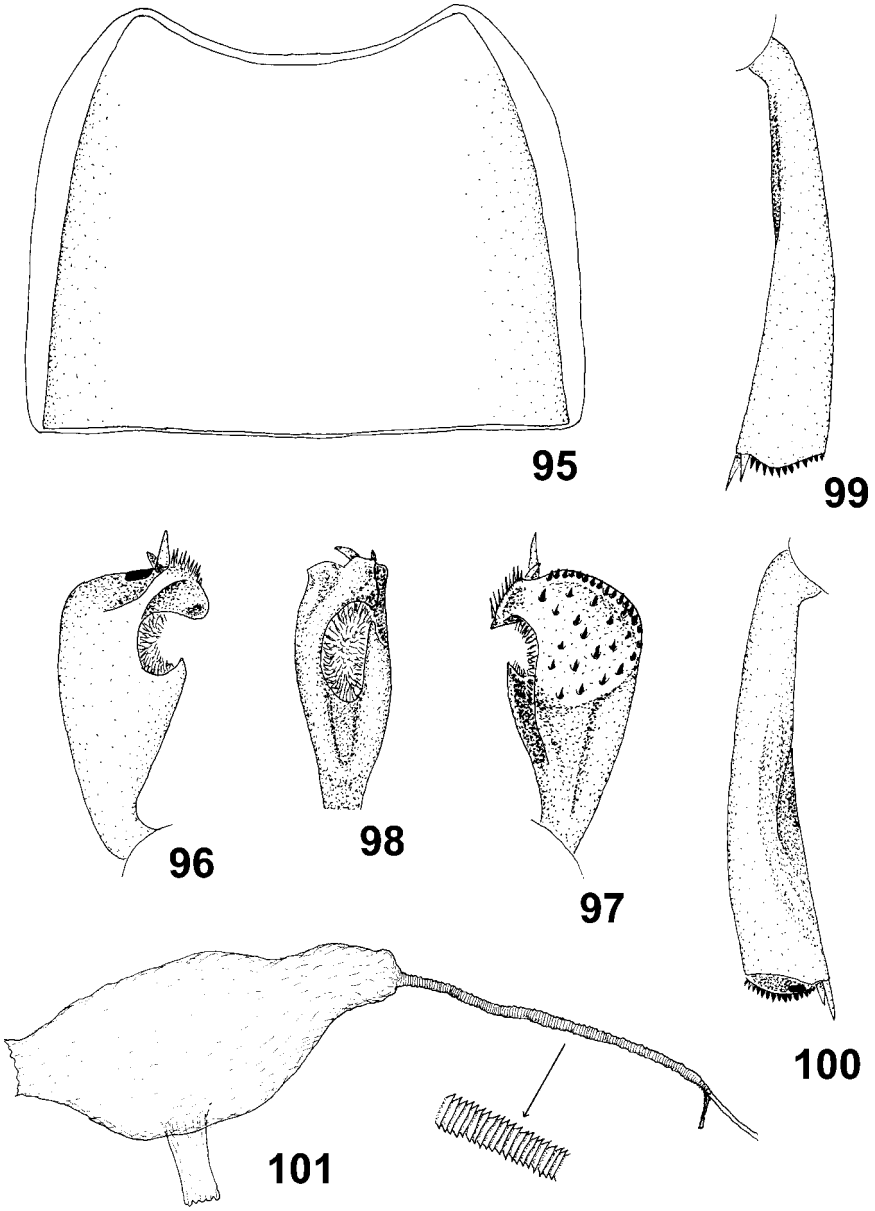
TYPES

Holotype (male), TMNH: "Golden Gate, Southern O.F.S., 1.3.67, L. SCHULZE".

Paratypes: Golden Gate, Southern O.F.S., 1.3.67, L. SCHULZE, (TMNH) 1 f; S. Afr; Tv. Nelshoogte, Knuckles rocks for., 25.47 S - 30.50 E; groundtrap with



86-88. *Bantodemus furcatus*: 86 – anterior part of elytron, 87 – ovipositor, 88 – part of bursa copulatrix with sclerites. 89-94. *Bantodemus goldengatensis*: 89 – ventral and 90 – dorsal view of male mid tibia, 91 – anterior part of elytron, 92 – dorsal and 93 – ventral view of aedeagus, 94 – ovipositor



95-101. *Bantodemus goldengatensis*: 95 – pronotum, 96 – dorsal, 97 – ventral and 98 – lateral view of male fore tibia, 99 – ventral and 100 – dorsal view of male hind tibia, 101 – internal female genitalia

faeces bait; 24.10.1986; E-Y: 2310, groundtraps, 41 days, leg. ENDRÖDY-YOUNGA; (TMNH) 3 m, 6 f; groundtrap with banana bait; 11.2.1987; E-Y: 2443, groundtraps, 56 days, leg. ENDRÖDY-YOUNGA; (TMNH) 5 m, 5 f; groundtrap with meat bait; 25.9.1986; E-Y: 2292, groundtraps, 30 days, leg. ENDRÖDY-YOUNGA; (TMNH) 2 f; S. Afr.; E. Transvaal, Mariepskop, 24.35 S - 30.50 E; Z. A. 90, 27.II.1962, leg. N. LELEUP, (TMNH) 2 m, 6 f; Z. A. 3, Soutpansberg D., Hanglipbos; Humus VIII-1960; N. LELEUP leg., (TMNH) 2 m; S. Afr., E. Transvaal, Nelspruit, bot. gard., 25.31 S - 30.32 E; 24.1.1981; E-Y: 1789, groundtraps, 44 days, leg. J. KULI, (TMNH) 1 m, 7 f; S. Afr., Drakensberg, Mount Aux Sources, 6.2.79, F. DE MOOR, (TMNH) 1 m; S. Afr. Transvaal, Lake Chrissie, 13-14.III.1954, G. RUDEBECK, (MZLU) 2 m.

DISTRIBUTION (fig. 2)
Republic of South Africa (N Transvaal).

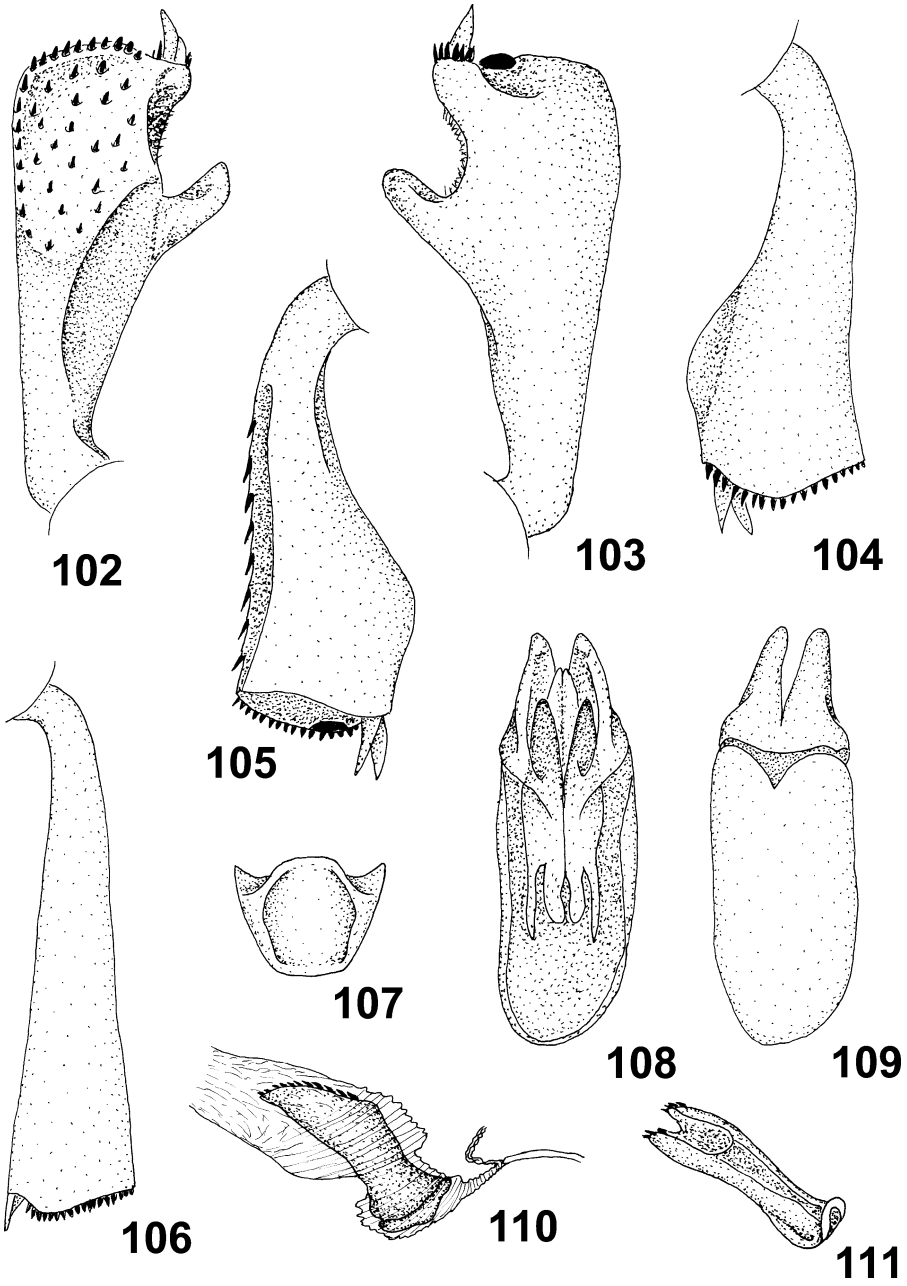
***Bantodemus hluhluwensis* sp. nov.**
(figs 2, 102-111)

NAME DERIVATION
The species is named after its locus typicus.

LOCUS TYPICUS
Hluhluwe Game Reserve [Republic of South Africa, Natal].

DIAGNOSIS
B. hluhluwensis is the closest to *caffer*.
The species differ in the structure of their male tibiae, the shape of the sclerite in the bursa copulatrix (cf. figs 110-111 and 43-44), and the aedeagus (cf. figs 108-109 and 42).

DESCRIPTION
Body length 14.0-14.7 mm, pl/pb = 0.68-0.70, el/eb = 1.30-1.32, el/pl = 2.00-2.05, eb/pb = 1.05-1.09 (elytra wider than pronotum). Surface of body greasy shiny, puncturation as in *caffer*. Mentum as in fig. 107; between gena and tempus 4 eye facets visible; antennal segment 3 ca. 2.2 x longer than segment 2. Pronotum weakly convex, widest at 2/3 from base (at base in female), ca. 22 x as wide as lateral border; sides for 2/3 length from base subparallel; anterior angles obtuse, slightly produced anteriad; lateral border ca. 1.45 x as wide as antennal segment 3; base shallowly bisinuate. Scutellum of medium width, pkp/st ratio ca. 3.0. Elytra and prosternal process as in *caffer*. Male legs: ratio of segments 1/2 of hind tarsi ca. 2.5; inner side of fore tibia with a large denticle bent inwards (figs 102-103); mid tibia simple (without denticle), inner margin distinctly S-like bent



102-111. *Bantodemus hluhluwensis*: 102 – ventral and 103 – dorsal view of male fore tibia, 104 – ventral and 105 – dorsal view of male mid tibia, 106 – male hind tibia, 107 – mentum, 108 – ventral and 109 – dorsal view of aedeagus, 110 – part of bursa copulatrix, 111 – sclerite from bursa copulatrix

(figs 104-105); hind tibia straight, dtk/dod ratio ca. 1.8, dod/dok ratio ca. 1.5; anterior margin of fore femur with a row of hairs anteriorly; hind femur simple, bare on inside. Aedeagus as in figs 108-109, lbp/lap ca. 2.4, lmb/la ca. 6.6. Female genitalia: ovipositor with elongated anterior part of paraproct, which is longer than total length of coxites, lp/lc1 ca. 5.0, bc1/lc1 ca. 1.8, c1/c2/c3/c4/c4-c3 = 1.0/0.9/1.0/1.5/0.4, lfb/lo ca. 4.6, bursa copulatrix with a tube-like sclerite situated at posterior part of additional sac (figs 110-111).

TYPES

Holotype (male), TMNH: "S. Afr. Zululand, Hluhluwe Game Res. 28.05S - 32.04E; 15 October 1970, leg. O. BOURQUIN".

Paratype: S. Afr. Zululand, Hluhluwe Game Res. 28.05S - 32.04E; 19.11.1992: E-Y: 2834 ground and mushroom, leg. ENDRÖDY-YOUNGA, (TMNH) 1 f.

DISTRIBUTION (fig. 2)

Republic of South Africa (Natal).

Bantodemus imitator KOCH, 1955

(figs 2, 112-120)

Bantodemus imitator KOCH, 1955: 437.

LOCUS TYPICUS

Pietermaritzburg [Republic of South Africa, Natal, Pietermaritzburg District].

DIAGNOSIS

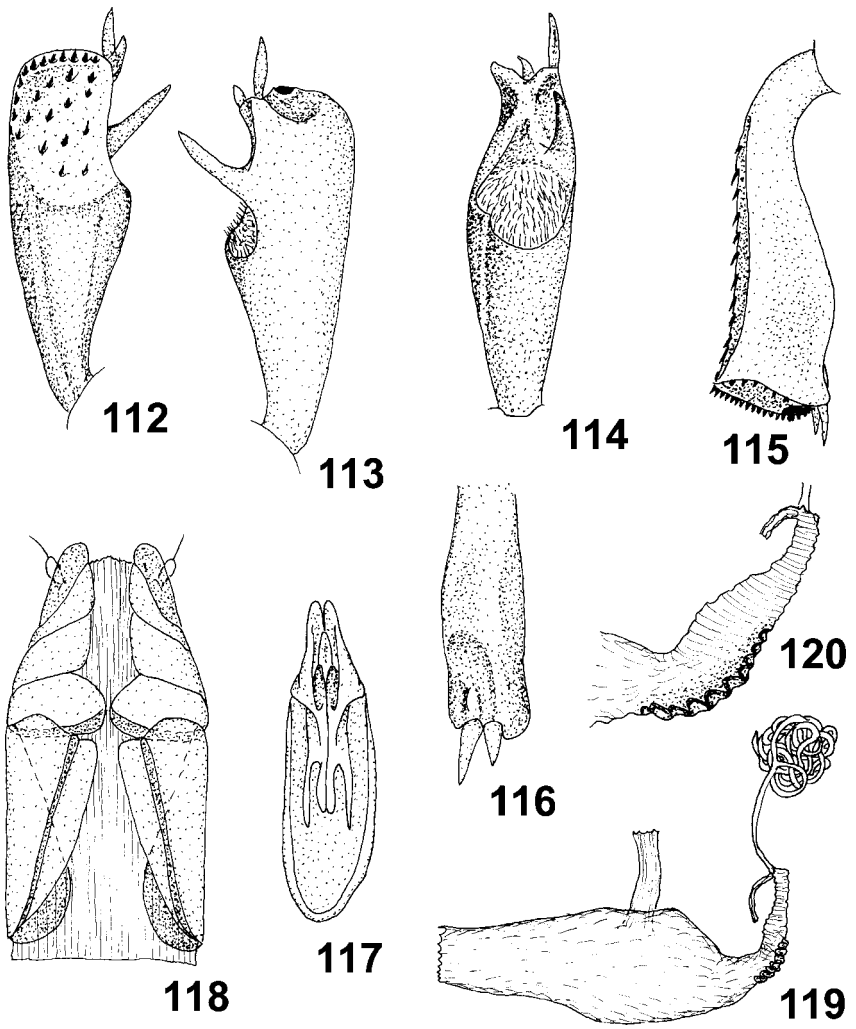
B. imitator is close to *lethaeus* and *furcatus* (see diagnosis of *furcatus*).

The shape and size of the denticles on its male fore and mid tibia, and the structure of the anterior elytral margin (bordered) distinguish it from the remaining species of the group.

DESCRIPTION

Body length 10.7-11.6 mm, pl/pb = 0.72-0.73, el/eb = 1.29-1.35, el/pl = 1.82-1.95, eb/pb = 1.02-1.03. Surface of body greasy shiny, puncturation as in *calcaratus*. Between gena and tempus 4-5 eye facets visible; antennal segment 3 ca. 1.7-2.1 x longer than segment 2. Pronotum slightly convex, widest at base, ca. 18-22 x as wide as lateral border; sides subparallel for 3/5 length from base; anterior angles obtuse, slightly produced anteriad; lateral border 1.25-1.30 x as wide as antennal segment 3; base shallowly bisinuate. Scutellum of medium width, pkp/st ratio ca. 2.5. Elytra: all intervals visible on upper side; upper edge of anterior elytral margin arcuately convex, bordered; elytral intervals distinctly convex, interval 9 wider than the remaining ones; striae sharply incised, punc-

tures small; 8th row incomplete, does not reach anterior margin; anterior concavity of 9th row very wide and deep. Prosternal process as in *caffer*. Male legs: ratio of segments 1/2 of hind tarsi ca. 3.0; fore tibia widest at 2/3 from base, with a sharp denticle between concavity and apex (figs 112-114); mid tibia with an apical denticle and convexity, inner margin S-like bent (figs 115-116); hind tibia weakly bent inwards, dtk/dod ratio ca. 1.4, dod/dok ratio ca. 1.4; all tibiae and femora bare. Aedeagus as in fig. 117, lbp/lap ca. 2.3, lmb/la ca. 6.1. Female



112-120. *Bantodemus imitator*: 112 – ventral and 113 – dorsal and 114 – lateral view of male fore tibia, 115 – dorsal and 116 – lateral view of male mid tibia, 117 – aedeagus, 118 – ovipositor, 119 – internal femlae genitalia, 120 – part of bursa copulatrix with sclerites

genitalia: ovipositor as in fig. 118, paraproct longer than total length of coxites, lp/lc1 ca. 3.4, bc1/lc1 ca. 1.5, c1/c2/c3/c4/c4-c3 = 1.0/0.7/0.7/1.3/0.3, lfb/lo ca. 5, bursa copulatrix with sclerites as in figs 119-120.

TYPES

Holotype (male), TMNH: "Maritzburg, Natal, R. F. LAWRENCE dec. 1936" (examined).

Paratypes: Pietermaritzburg, S. A. Masena, R. F. LAWRENCE, Nov. 1940, (TMNH) 1 f; Natal, Howick, F. C. PURCELL; Paratype No 1277, *Bantodemus imitator* C. KOCH, (TMNH) 1 f , (examined).

ADDITIONAL MATERIAL EXAMINED

Natal, Howick; Museum Paris, (MNHN) 2 m.

DISTRIBUTION (fig. 2)

Republic of South Africa (Natal).

Bantodemus kaszabi KOCH, 1955

(figs 2, 121-129)

Bantodemus kaszabi KOCH, 1955: 431.

TERRA TYPICA

Natal [Republic of South Africa].

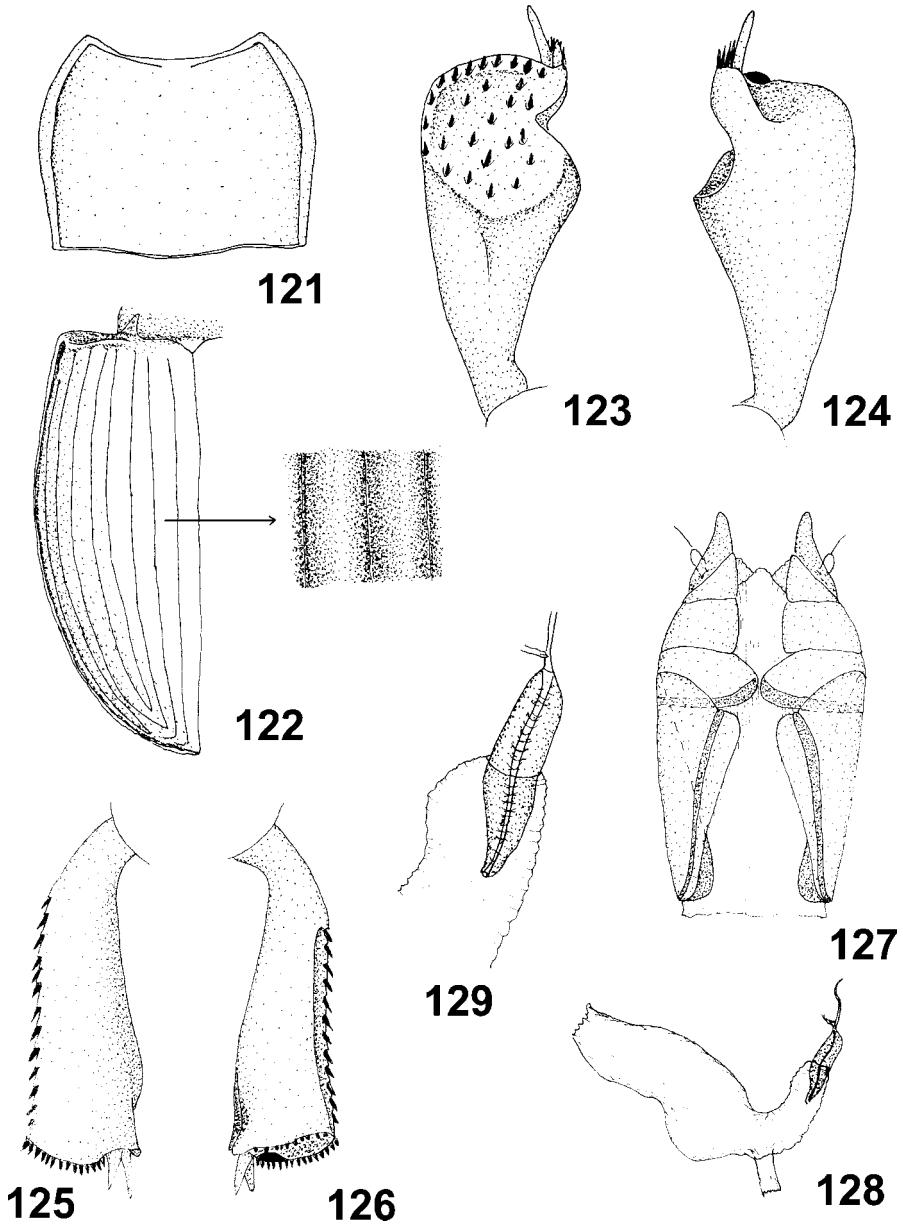
DIAGNOSIS

The species is similar to the *caffer*-group (additional sac of the bursa copulatrix with a tube-like sclerite) (fig. 129), and close to *caffer*, *hluhluwensis*, *melancholicus*, *pubipes*, *kaszabi*, *zimbabwensis* in its elongated anterior part of the paraproct (fig. 127).

B. kaszabi is similar to *zimbabwensis* and *rhodesianus* in the absence of distinct denticle on the inner side of male fore tibia and the shape of the male mid tibia, but differs from them in the structure of the anterior elytral margin (upper edge distinctly convex and bordered in *kaszabi*; slightly convex and smooth in *zimbabwensis* and *rhodesianus*), and the anterior part of the 9th row (deep and wide in *kaszabi*, narrow and shallow in *zimbabwensis* and *rhodesianus*).

DESCRIPTION

Body length 9.2-12.6 mm, pl/pb = 0.70-0.72, el/eb = 1.36-1.38, el/pl = 2.04-2.08, eb/pb = 1.06 (elytra wider than pronotum). Surface of body shiny, puncturation as in *caffer*. Between gena and tempus 4 eye facets visible; antennal segment 3 ca. 1.7-2.0 x longer than segment 2. Pronotum slightly convex, widest



121-129. *Bantodemus kaszabi*: 121 – pronotum, 122 – elytron, 123 – ventral and 124 – dorsal view of male fore tibia, 125 – ventral and 126 dorsal view of male mid tibia, 127 – ovipositor, 128 – internal female genitalia, 129 – part of bursa copulatrix with sclerite

at 2/3 from base (fig. 121), ca. 17-20 x as wide as lateral border; anterior angles obtuse, slightly produced anteriad; lateral border 1.25-1.30 x as wide as antennal segment 3; base shallowly bisinuate. Scutellum of medium width, pkp/st ratio ca. 2.4-2.8. Elytra as in fig. 122; all intervals visible on upper side; upper edge of anterior elytral margin arcuately convex, bordered; elytral intervals strongly convex, interval 9 distinctly wider than the remaining ones; striae sharply incised, punctures small; 8th row incomplete, does not reach anterior margin; anterior concavity of 9th row wide and deep. Prosternal process as in *caffer*. Male legs: ratio of segments 1/2 of hind tarsi ca. 2.5-2.7; fore tibia widest at 2/3 from base, without denticle (figs 123-124); mid tibia with an apical denticle and median convexity on inside, inner margin S-like bent (figs 125-126); hind tibia straight, dtk/dod ratio ca. 1.7, dod/dok ratio ca. 1.3-1.4; fore femur moderately wide, with a row of hairs anteriorly; hind femur simple, setose on inside. Aedeagus: lbp/lap ca. 2.6, lmb/la ca. 5.9; lacinia emarginated inside. Female genitalia: ovipositor as in fig. 127, anterior part of paraproct elongated, plates c1 and c2 with rugosity, paraproct longer than total length of coxites, lp/lc1 ca. 3.6, bc1/lc1 ca. 1.7, c1/c2/c3/c4/c4-c3 = 1.0/0.8/0.7/1.5/0.7 (plate c4 strongly elongated), lfb/lo ca. 4.9, bursa copulatrix with a tube-like sclerite situated at posterior part of additional sac (figs 128-129).

TYPE

Holotype (male), NHNM: "S. Afrika, Natal; *Trigonopus* sp. aff. *dentipes* FAHR., det. dr. KASZAB; T *Bantodemus kaszabi* KOCH, det. C. KOCH, 1954" (examined).

MATERIAL EXAMINED

S. A. Afrika, Durban, Natal; *Trigonopus dentipes* FAHR., det. dr. KASZAB, (NHNM) 2 m; Natal, Mus. Zool. Polonicum, Warszawa, 12/45, (MIZPAN) 1 m; Umgeni River Valley, Bothas Hill distr., Ntl., Dec 196, R. F. LAWRENCE, (TMNH) 2 m, 2 f; Z. A. 79, Alfred Distr., Oribi Gorge; Humus X. 1961; N. LELEUP leg., (TMNH) 3 m, 2 f.

DISTRIBUTION (fig. 2)

Republic of South Africa (Natal).

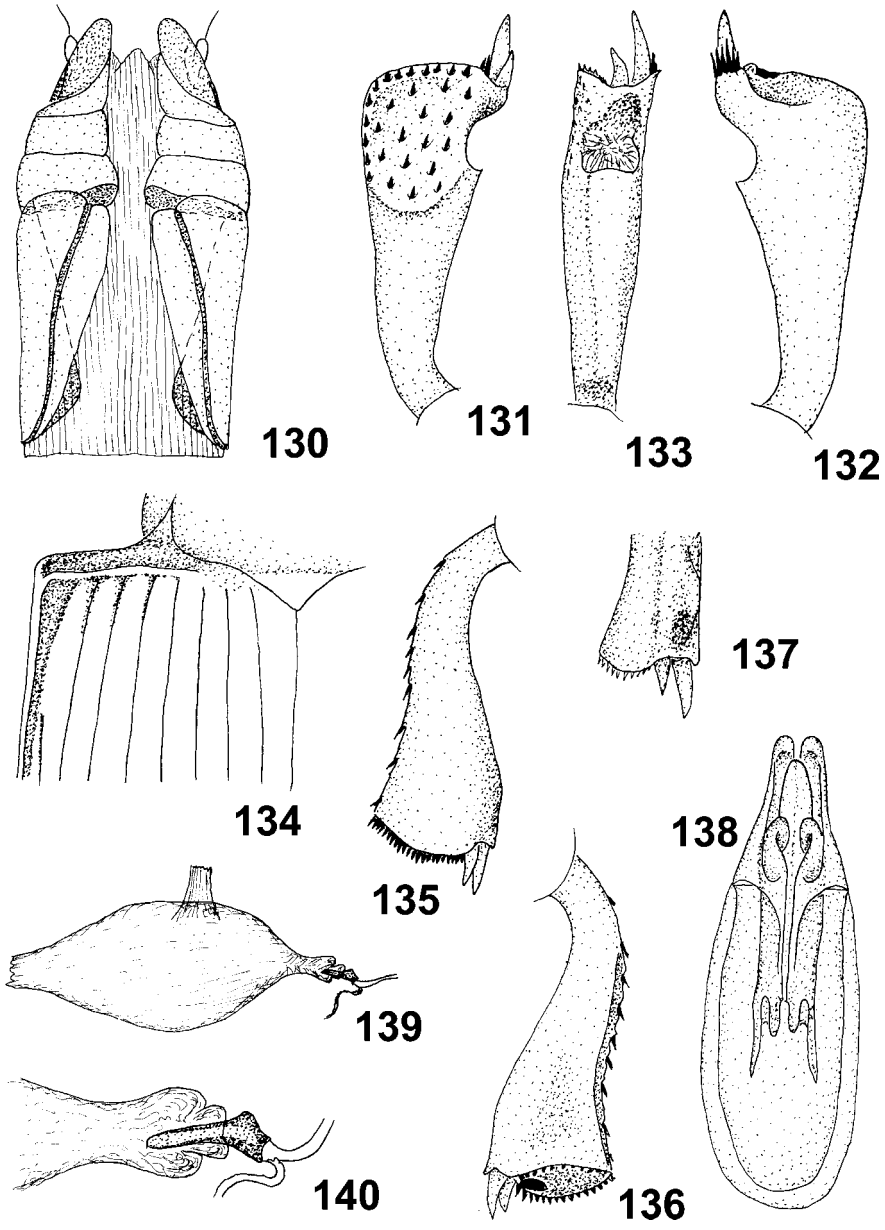
***Bantodemus lawrencei* KOCH, 1955**

(figs 2, 130-140)

Bantodemus lawrencei KOCH, 1955: 433.

TERRA TYPICA

Nelspruit [Republic of South Africa, Transvaal, Nelspruit District].



130-140. *Bantodemus lawrencei*: 130 – ovipositor, 131 – ventral, 132 – dorsal and 133 – lateral view of male fore tibia, 134 – anterior part of elytron, 135 – ventral, 136 – dorsal and 137 – lateral view of male mid tibia, 138 – aedeagus, 139 – internal female genitalia, 140 – part of bursa copulatrix with sclerite

DIAGNOSIS

B. lawrencei belongs to the *caffer*-group. The species is similar to *zulu* and *bevisi* in the structure of the male mid tibia (the presence of an apical denticle and S-like inner margin) (figs 135-137), and to *natalensis* in the structure of anterior elytral margin (upper edge distinctly convex and bordered) (fig. 134). The species is separated from the above-mentioned species by its male fore tibia (figs 131-133).

B. lawrencei is the closest to *trojani*; the two species differ in their female genitalia (cf. figs 139-140 and 337).

DESCRIPTION

Body length 10.5-11.2 mm, pl/pb = 0.68-0.69, el/eb = 1.25-1.27, el/pl = 1.94-2.05, eb/pb = 1.03-1.12. Surface of body greasy shiny, very sparsely and delicately punctate, elytral intervals and episternum smooth; puncturation of head, pronotum, meso- and metasternum delicate, but well visible; abdominal ventrites I-III with numerous longitudinal, delicate wrinkles. Between gena and tempus 3 eye facets visible; antennal segment 3 ca. 1.5-1.9 x longer than segment 2. Pronotum widest at base, ca. 18-19 x as wide as lateral border, sides subparallel for 2/3 length from base; anterior angles obtuse, moderately produced anteriad; lateral border 1.15-1.20 x as wide as antennal segment 3; base shallowly bisinuate. Scutellum narrow, pkp/st ratio ca. 3.2-3.6. Elytra: all intervals visible on upper side; upper edge of anterior margin distinctly convex, bordered (fig. 134); elytral intervals weakly convex, interval 9 wider than the remaining ones; striae sharply incised, punctures small; 8th row incomplete, does not reach anterior margin; anterior concavity of 9th row very wide and deep. Prosternal process as in *caffer*, 5th abdominal ventrite unbordered. Male legs: ratio of segments 1/2 of hind tarsi ca. 2.3-2.6; fore tibia widest at 2/3 from base, with a very short and sharp denticle (figs 131-133); mid tibia with an apical denticle, inner margin weakly S-like bent (figs 135-137); hind tibia straight, dtk/dod ratio ca. 1.7-1.8, dod/dok ratio ca. 1.4-1.5; all tibiae and femora bare. Aedeagus (fig. 138), lbp/lap ca. 1.9, lmb/la ca. 6.6. Female genitalia: ovipositor as in fig. 130, paraproct longer than total length of coxites, lp/lc1 ca. 4.5, bc1/lc1 ca. 1.8, c1/c2/c3/c4/c4-c3 = 1.0/0.7/1.1/1.6/0.5 (plate c4 distinctly elongated), lfb/lo ca. 4.7, bursa copulatrix with a tube-like sclerite situated at posterior part of additional sac (figs 139-140).

TYPES

Holotype (male), TMNH: "Nelspruit nr Barbeton, Transvaal, Jan. 1939, R. LAWRENCE" (examined).

Paratypes: Nelspruit nr Barbeton, Transvaal, Jan. 1939, R. LAWRENCE; *Bantodemus lawrencei* C. KOCH, (TMNH) 2 f (examined).

DISTRIBUTION (fig. 2)

Republic of South Africa (E Transvaal).

Bantodemus lethaeus (MULSANT et REY, 1853)

(figs 2, 141-153)

Trigonopus lethaeus MULSANT et REY, 1853a: 32. - GEMMINGER et HAROLD 1870: 1911; GEBIEN 1910: 272; 1938: 292.
Bantodemus lethaeus (MULSANT et REY): KOCH 1955: 435; KOCH 1956: 78.

TERRA TYPICA

"L'Afrique".

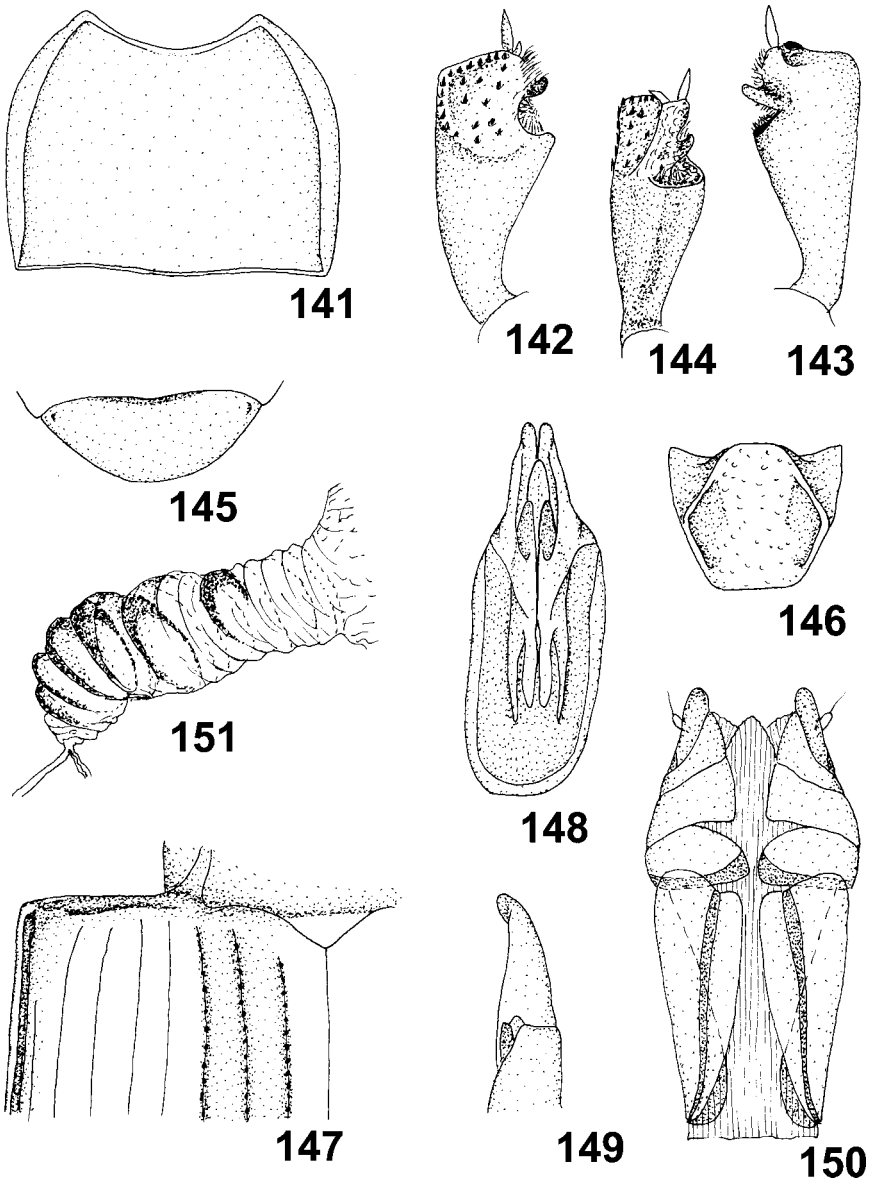
DIAGNOSIS

Together with *furcatus* and *imitator*, *lethaeus* belongs to a species group having similar female genitalia (ring-like sclerites in bursa copulatrix) (fig. 151), and the general structure of the male fore tibia (inner denticle located between concavity and apex) (figs 142-144).

The species differs in the structure of the male tibia (cf. figs 142-144, 152-153 and 77-82 and 112-116), the anterior elytral margin, and the length of the 8th row (cf. figs 147 and 86).

DESCRIPTION

Body length 12.8-14.7 mm, pl/pb = 0.60-0.68, el/eb = 1.33-1.38, el/pl = 2.13-2.35, eb/pb = 1.05-1.06. Surface of body greasy shiny, very sparsely and delicately punctate, elytral intervals smooth; puncturation of head, pronotum, meso- and metasternum delicate, but well visible; prosternum, episternum and abdominal ventrites I-III with numerous longitudinal, delicate wrinkles. Between gena and tempus 3-4 eye facets visible; antennal segment 3 ca. 2.1-2.3 x longer than segment 2; mentum as in fig. 146. Pronotum slightly convex, widest at 2/3 from base, ca. 19-25 x as wide as lateral border (fig. 141); sides subparallel for 2/3 length from base; anterior angles obtuse, slightly produced anteriad; lateral border 1.00-1.10 x as wide as antennal segment 3; base shallowly bisinuate. Scutellum narrow, pkp/st ratio ca. 3.0. Elytra: all intervals visible on upper side; upper edge of anterior elytral margin arcuately convex, unbordered (fig. 147); elytral intervals flat, interval 9 wider than the remaining ones; striae sharply incised, punctures very small, practically invisible; 8th row incomplete, does not reach anterior margin; anterior concavity of 9th row very wide and deep. Prosternal process as in *caffer*. Last abdominal ventrite as in fig. 145. Male legs: ratio of segments 1/2 of hind tarsi ca. 2.9; fore tibia widest at 3/4 from base, with a small denticle between concavity and apex (figs 142-144); mid tibia with an apical denticle and convexity, inner margin S-like bent (figs 152-153); hind tibia slightly widened, straight, dtk/dod ratio ca. 1.6, dod/dok ratio ca. 1.5; inner edge of fore femur with a row of dense hairs, hind femur bare on inside. Aedeagus as in (figs 148-149), lbp/lap ca. 2.1-2.3, lmb/la ca. 6.3-6.5. Female genitalia: ovipositor as in fig. 150, paraproct longer than total length of coxites, lp/lc1 ca. 3.7, bc1/lc1 ca. 1.5, c1/c2/c3/c4/c4-c3 = 1.0/0.9/0.9/1.4/0.3, lfb/lo ca. 4.4, bursa copulatrix with sclerites as in fig. 151.



141-151. *Bantodemus lethaeus*: 141 – pronotum, 142 – ventral, 143 – dorsal and 144 – lateral view of male fore tibia, 145 – last abdominal ventrite, 146 – mentum, 147 – anterior part of elytron, 148 – ventral and 149 – lateral view of aedeagus, 150 – ovipositor, 151 – part of bursa copulatrix with sclerites

TYPE

Holotype (male), MNHN: "*Trigonopus lethaeus* MULS., *marginicollis* BOH., C.B.Esp; Natal, coll. R. OBERTHHR ex coll. DEYROLLE" (examined).

MATERIAL EXAMINED

Trigonopus lethaeus Muls, Natal; *lethaeus*; Museum Paris, coll. DE MARSEUL 1890, (MNHN) 2 m; S. Afr., Zululand, Hluhluwe Game Res., 28.05 S - 32.04 E; 29 October 1970, leg. O. BOURQUIN, (TMNH) 1 m, 1 f; Tonga at. B. Durban, Natal, S. Afr., leg. FREY. I. 1952; *Bantodemus pubipes* KOCH, Dr. Z. KASZAB det., (HNHM) 1 m; Natal, Umhlali, BARNARD, (TMNH) 1 m, 2 f; S. Afrika, Natal; *Trigonopus lethaeus* MULS., det. dr. KASZAB, (TMNH) 2 m; Natal; *Trigonopus lethaeus* Muls., H. GEBIEN det, 1939; Mus. Zool. Polonicum, Warszawa 12/45, (MIZPAN) 1 m, 1 f; Cap. B. Esp.; Ex Musaeo MNISZECH; coll. R. OBERTHHR ex coll. DEYROLLE, (MNHN) 1 m; *Heteroscelis marginic*.?, Natal; Museum Paris, 1906, coll. Léon FAIRMAIRE, (MNHN) 1 m; Caffraria; J. WAHLB.; *lethaeus* MULS., (ZMS) 1 f.

DISTRIBUTION (fig. 2)

Republic of South Africa (Natal).

Bantodemus lucidus KOCH, 1955

(figs 2, 154-170)

Bantodemus lucidus KOCH, 1955: 446.

LOCUS TYPICUS

Shilouvane [Republic of South Africa, Transvaal, Letaba District].

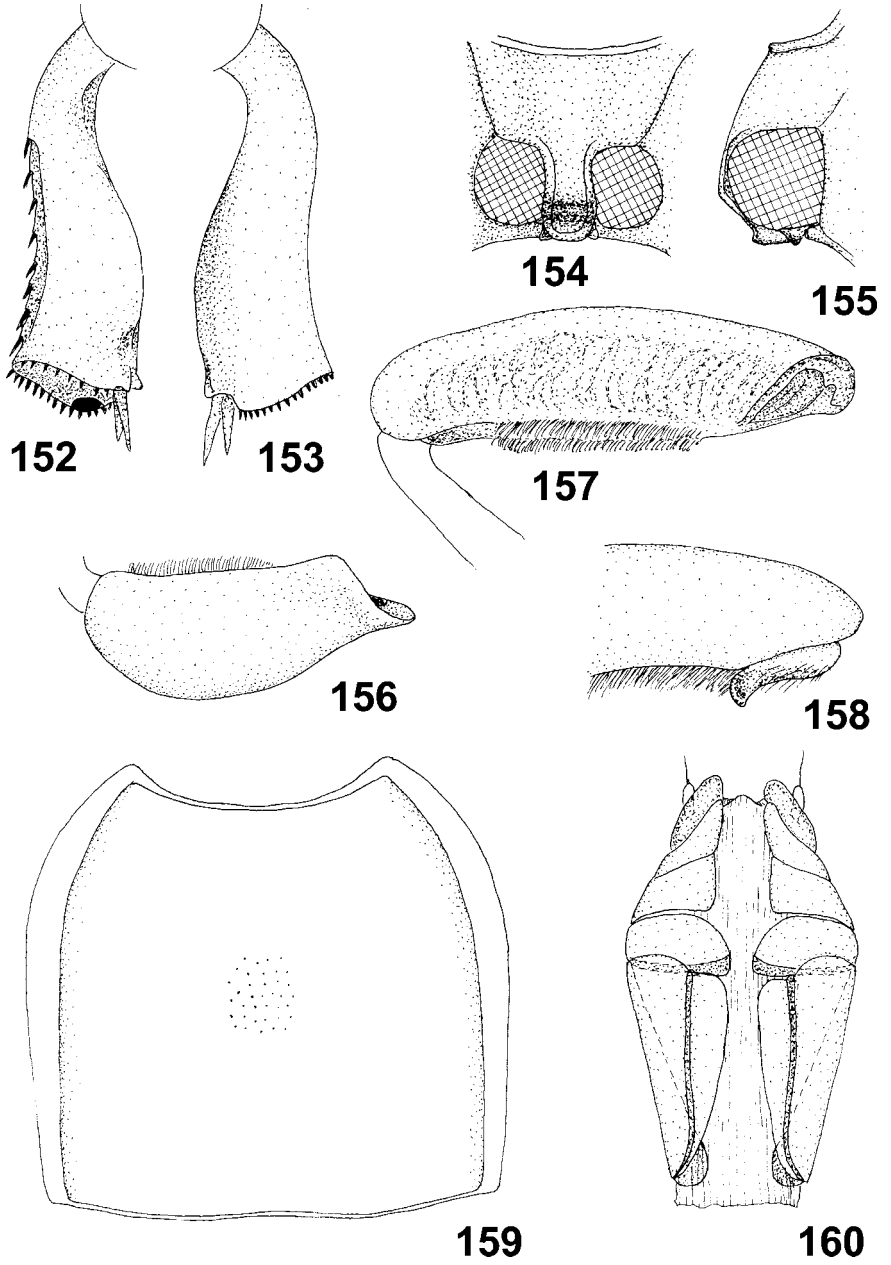
DIAGNOSIS

Bantodemus lucidus is close to *mocambiqueus*, *rectimanus*, *vescus*, *zoutpansbergianus* in the presence of the an obtuse denticle on the trochanter of male hind femur (fig. 158). The above-mentioned group and *armatus* have a saddle-like prosternal process (figs 154-155) and enlarged additional sac of the bursa copulatrix (see diagnosis of *armatus*) (fig. 170).

The species of the *lucidus*-group differ in their pronotum shape, puncturation and convexity of elytral intervals, and the structure of male tibia.

DESCRIPTION

Body length 10.0-12.1 mm, pl/pb = 0.80-0.84, el/eb = 1.31-1.34, el/pl = 1.70-1.74, eb/pb = 1.04-1.18 (elytra much wider than pronotum). Surface of body shiny, sparsely and delicately punctate, episternum practically smooth; puncturation of head, meso- , metasternum and ventrites IV-V distinct; proster-



152-153. *Bantodemus lethaeus*: 152 – dorsal and 153 – ventral view of male mid tibia. 154-160. *Bantodemus lucidus*: 154 – ventral and 155 – lateral view of mid part of prosternum, 156 – male fore femur, 157 – male hind femur, 158 – part of male hind femur and trochanter, 159 – pronotum, 160 – ovipositor

num and abdominal ventrites I-III with numerous longitudinal, delicate wrinkles. Mentum as in fig. 163. Between gena and tempus 3-4 eye facets visible; antennal segment 3 ca. 2.0-2.2 x longer than segment 2. Pronotum moderately convex, widest at 2/3 length from base (fig. 159), 13-16 x as wide as lateral border; anterior angles moderately produced anteriad; lateral border 1.80-2.00 x as wide as antennal segment 3; base straight, slightly arcuate. Scutellum of medium width, pkp/st ratio ca. 2.6-2.8. Elytra moderately convex, slightly tucked in posteriorly, but not at apex (part of interval 9 visible from underside); humeral angle protruding outwards; upper edge of anterior elytral margin forming gradual slope, unbordered (fig. 167); elytral intervals moderately convex, interval 9 wider than the remaining ones; striae sharply incised, regular, punctures small, round; 8th row shortened, disappearing just before anterior elytral margin; anterior concavity of 9th row moderately narrow and shallow. Prosternal process saddle-like concave, only apex protruding towards mesosternum, a delicate border visible (figs 154-155). Male legs: ratio of segments 1/2 of hind tarsi ca. 2.5-3.0; fore tibia distinctly widened, inner side with a sharp, strongly protruding denticle (figs 161-162); mid tibia with a small apical denticle inside, outer side with a concavity (figs 164-165); hind tibia straight (fig. 166), dtk/dod ratio ca. 1.5-1.7, dod/dok ratio ca. 1.4-1.5; fore femur widened, with a row of setae inside (fig. 156), hind femur as in figs 157-158. Aedeagus (figs 168-169): lbp/lap ca. 2.3, lmb/la ca. 5.5. Female genitalia: ovipositor as in fig. 160, paraproct longer than total length of coxites, lp/lc1 ca. 3.3, bc1/lc1 ca. 1.8, c1/c2/c3/c4/c4-c3 = 1.0/0.9/0.9/1.5/0.3, lfb/lo ca. 4.6, bursa copulatrix simple (without sclerite), with enlarged additional sac (fig. 170); egg size ca. 1.5x1.0 mm.

TYPES

Holotype (male), TMNH: "Shilouvane, 2-1906, rev. JUNOD; Holotype No: 1292, *Bantodemus lucidus* KOCH" (examined).

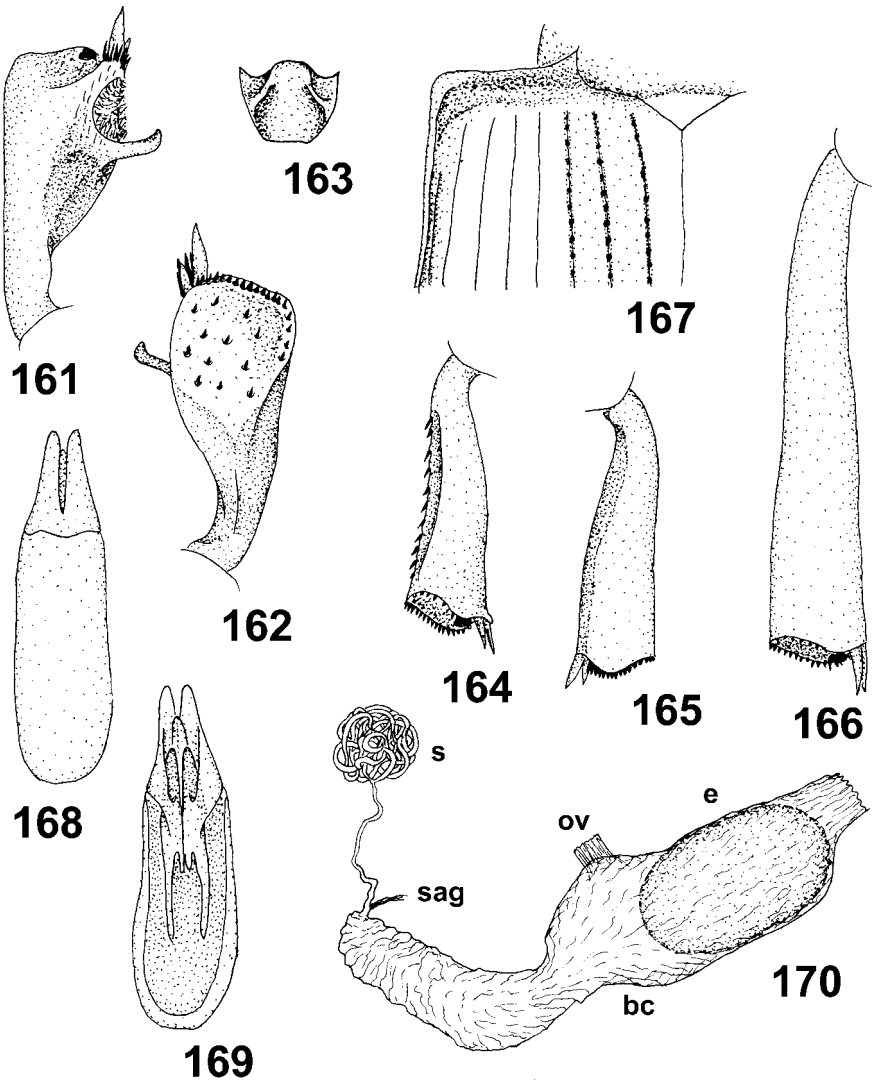
Paratypes: N. Transvaal, Zoutpansberg, Myahôme; *Trigonopus* sp. aff. *spinipes* MULS. R., det. dr. KASZAB; *T lucidus*, C. KOCH det., 195, (HNHM) 1 m; Entabeni, Zpbg, Nov. 1931, G. VAN SON; Paratype No: 1294, *Bantodemus lucidus* KOCH, (TMNH) 1 m; Lemana, 11.08; Paratypus *Bantodemus lucidus* sp. n., C. KOCH (TMNH) 1 m; Louis Trichardt, Tvl, R. F. LAWRENCE, Jan.-Feb. 1928, Paratypus *Bantodemus lucidus* sp. n., C. KOCH (TMNH) 2 m, 1 f (examined).

MATERIAL EXAMINED

Shilouvane près Leydsdorp, H. A. JUNOD; Muséum Paris, (MNHN) 5 m; Transvaal, Shilouvane, H. A. JUNOD, 1906-1907, Muséum Paris, (MNHN) 9 m, 6 f; S. Afr.; E. Transvaal, Nerina Nature Res., 23.42 S - 30.16 E; 21.12.1974; E-Y: 747, singled on ground, leg. W. BREYTENBACH, (TMNH) 1 f; Zimbabwe, Rhod. III.1971, L. SCHULZE, (TMNH) 1 m; Trichardt, E. Transv., SAM-COL-AO 11893, (SAM) 1 m, 1 f; Kaapmuider, Transvaal, SAM-COL-AO 11894, (SAM) 1 m, 1 f; H. JUNOD, SAM-COL-AO 11892, (SAM) 1 f; Haughton, Leysdorp, Transvaal 03,

SAM-COL-AO 11891, (SAM) 1 f; Punda Milia, Kruger Nat. Park, III. 1960, C. K. BRAIN, (TMNH) 1 m, 2 f; Clover Leaf Pan, KNP, IV.1961, D. RORKE, (TMNH) 1 m.

DISTRIBUTION (fig. 2)
Republic of South Africa (N Transvaal), Zimbabwe.



161-170. *Bantodemus lucidus*: 161 – dorsal and 162 – ventral view of male fore tibia, 163 – mentum, 164 – dorsal and 165 – ventral view of male mid tibia, 166 – male hind tibia, 167 – anterior part of elytron, 168 – dorsal and 169 – ventral view od aedeagus, 170 – internal female genitalia (bc – bursa copulatrix, ov – oviduct, sag – spermathecal accessory gland, s – spermatheca, e – egg)

Bantodemus mariepsus Koch, 1955
(figs 2, 171-177)

Bantodemus mariepsus Koch, 1955: 432.

Locus typicus

Marieps Mountain [Republic of South Africa, Transvaal, Pilgrim's Rest District].

Diagnosis

B. mariepsus belongs to the *drakensbergensis*-group based on the presence of numerous small spines in the bursa copulatrix (fig. 177). The structure of 8th row (incomplete, not reaching anterior elytral margin) and male tibiae place *mariepsus* close to *swazi*.

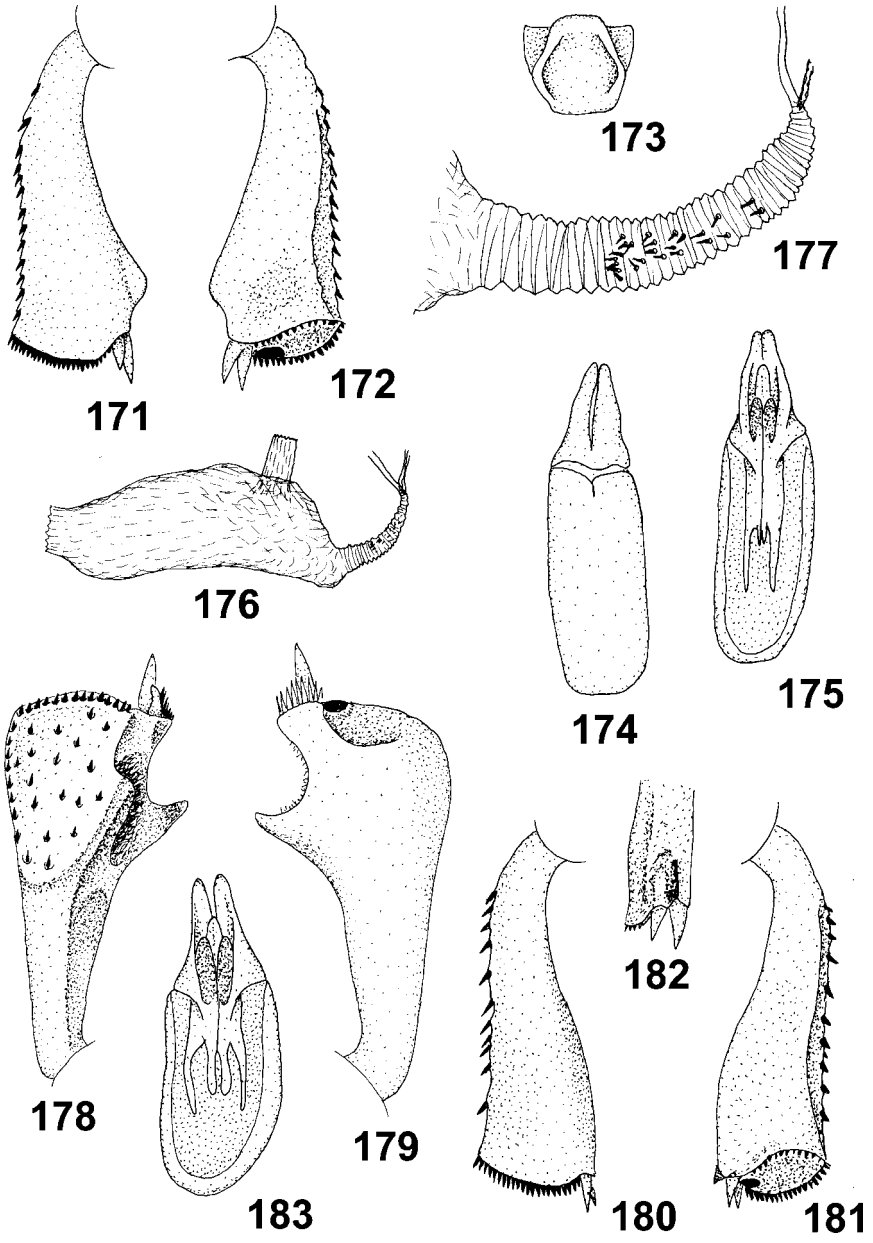
B. mariepsus is easily separated from the above-mentioned species by the anterior margin of elytra (upper edge distinctly convex and bordered).

Description

Body length 11.5-12.7 mm, pl/pb = 0.66-0.69, el/eb = 1.28-1.31, el/pl = 1.83-2.00, eb/pb = 1.05-1.08 (elytra much wider than pronotum). Body puncturation as in *tristis*, prosternum rugose. Mentum with distinct puncturation (fig. 173); between gena and tempus 5 eye facets visible; antennal segment 3 ca. 1.8 x longer than segment 2. Pronotum slightly convex, widest at base, 18-20 x as wide as lateral border; sides for 2/3 length from base subparallel (trapezial in female); anterior angles obtuse, slightly produced anteriad; lateral border 1.33-1.50 x as wide as antennal segment 3; base shallowly bisinuate. Scutellum of medium width, pkp/st ratio ca. 2.5-3.0. Elytra moderately convex, all intervals visible on upper side; humeral angle protruding outwards; upper edge of anterior elytral margin arcuately convex, bordered; elytral intervals distinctly convex, interval 9 slightly wider than the remaining ones; striae sharply incised, regular, punctures small, round; 8th row incomplete, does not reach anterior elytral margin; anterior concavity of 9th row wide and deep. Prosternal process as in *tristis*. Male legs: ratio of segments 1/2 of hind tarsi ca. 2.3-2.8; inner side of fore tibia widened, without a denticle as in *swazi*; inner margin of male mid tibia S-like bent, with distinct preapical convexity (figs 171-172); hind tibia straight, dtk/dod ratio ca. 1.7-1.9, dod/dok ratio ca. 1.3-1.4; all tibiae and femora bare. Aedeagus as in figs 174-175, lbp/lap ca. 2.4, lmb/la ca. 6.6. Female genitalia: ovipositor - paraproct longer than total length of coxites, lp/lc1 ca. 4.1, bc1/lc1 ca. 1.5, c1/c2/c3/c4/c4-c3 = 1.0/1.1/0.8/1.2/0.3, lfb/lo ca. 4.7, bursa copulatrix with additional funnel-like sac, and numerous spines at its base (figs 176-177).

Types

Holotype (male), TMNH: "Marieps Mnt., Dec. 1925, G. van Son; 115; Holotype No: 1249, *Bantodemus mariepsus* Koch".



171-177. *Bantodemus mariepsus*: 171 – ventral and 172 – dorsal view of male mid tibia, 173 – mentum, 174 – dorsal and 175 – ventral view of aedeagus, 176 – internal female genitalia, 177 – part of bursa copulatrix with sclerites. 178-183. *Bantodemus marietzensis*: 178 - ventral and 179 – dorsal view of male fore tibia, 180 – ventral, 181 – dorsal and 182 – lateral view of male mid tibia, 183 – aedeagus

Allotype: Marieps Mnt., Dec. 1925, G. VAN SON; 115; Allotype No: 1250, *Bantodemus mariepsus* KOCH (TMNH) 1 f.

DISTRIBUTION (fig. 2)
Republic of South Africa (E Transvaal).

***Bantodemus marietzensis* KOCH, 1955**
(figs 2, 178-183)

Bantodemus marietzensis KOCH, 1955: 442.

LOCUS TYPICUS
Pietermaritzburg [Republic of South Africa, Natal, Pietermaritzburg District].

DIAGNOSIS
B. marietzensis is close to *natalensis* and *goldengatensis* having similar male tibiae: fore - with a denticle located above the base of concavity (figs 178-179), and mid - with nearly straight inner margin (figs 180-181).

The shape and size of the denticles on the male fore and mid tibiae, the length of the 8th row (shortened in *natalensis* and *goldengatensis*), and the structure of anterior elytral margin (bordered in *marietzensis* and *natalensis*) distinguish *marietzensis* from the above-mentioned species.

DESCRIPTION
Body length 12.0 mm, pl/pb = 0.76, el/eb = 1.31, el/pl = 1.79, eb/pb = 1.04. Surface of body greasy shiny, very sparsely and delicately punctate, elytral intervals smooth; puncturation of head, meso- and metasternum delicate, but well visible; prosternum, episternum and abdominal ventrites I-III with numerous longitudinal, delicate wrinkles. Between gena and tempus 5 eye facets visible; antennal segment 3 ca. 2.0 x longer than segment 2. Pronotum widest at 2/3 from base, ca. 18 x as wide as lateral border, sides slightly rounded; anterior angles obtuse, distinctly produced anteriad; lateral border as wide as antennal segment 3; base shallowly bisinuate. Scutellum of medium width, pkp/st ratio ca. 2.8. Elytra moderately convex, slightly tucked in posteriorly, but not at apex (part of interval 9 visible from underside); upper edge of anterior margin distinctly convex, bordered; elytral intervals weakly convex, interval 9 wider than the remaining ones; striae sharply incised, punctures very small; 8th row complete; anterior concavity of 9th row wide and deep. Prosternal process as in *caffer*. Male legs: fore tibia widest at 3/4 from base, with a denticle above base of concavity (figs 178-179); mid tibia with an apical denticle, inner margin weakly S-like bent (figs 180-182); hind tibia straight, dtk/dod ratio ca. 1.5, dod/dok ratio ca. 1.4;

inner edge of fore femur with a row of dense hairs, hind femur setose on inside. Aedeagus as in fig. 183, lbp/lap ca. 2.1, lmb/la ca. 6.7. Female unknown.

TYPE

Holotype (male), TMNH: "Pietermardzburg, S. A. Masena, R. LAWRENCE, Nov. 1940; *Bantodemus marietzensis* KOCH, det C. KOCH 1954".

DISTRIBUTION (fig. 2)

Republic of South Africa (Natal).

Bantodemus melancholicus KOCH, 1955

(figs 2, 184-191)

Bantodemus melancholicus KOCH, 1955: 443

LOCUS TYPICUS

Weenen [Republic of South Africa, Natal, Estcourt District].

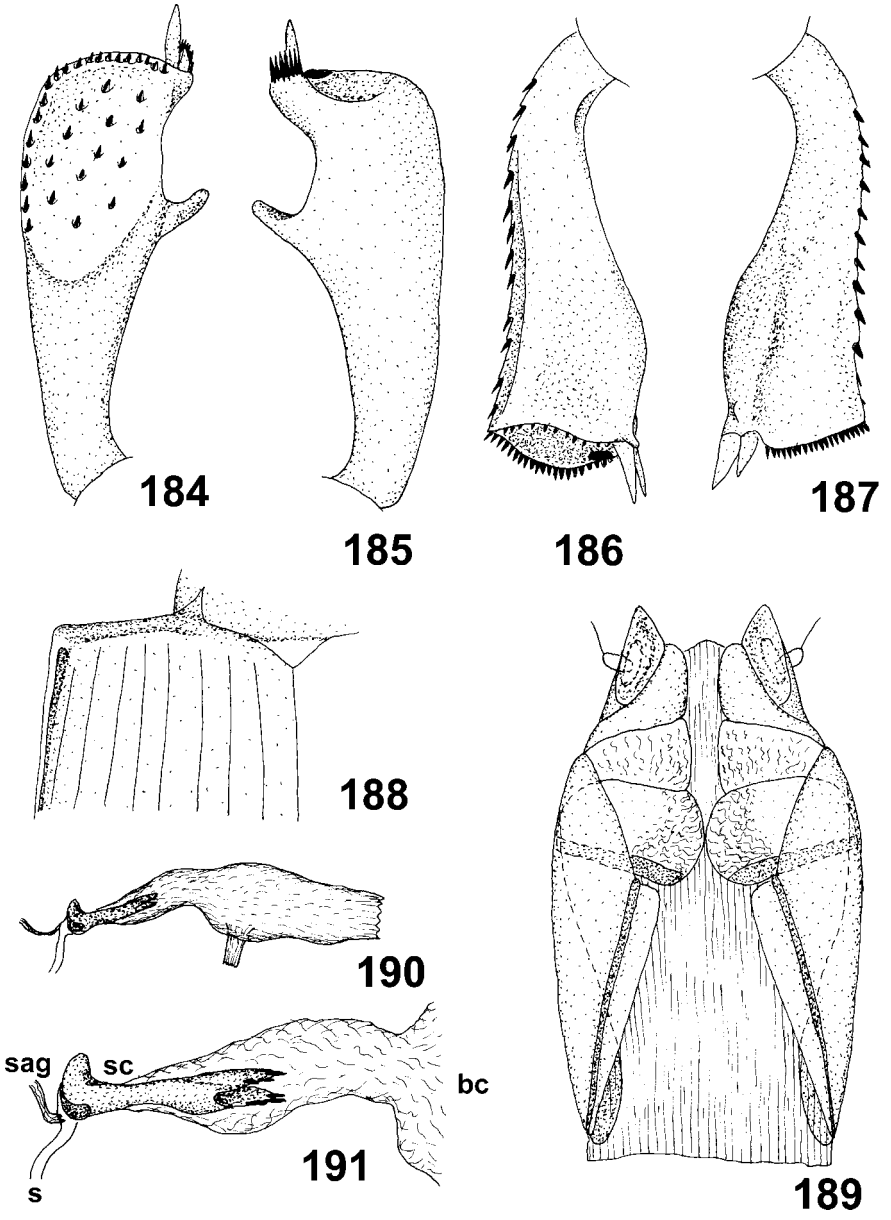
DIAGNOSIS

B. melancholicus belongs to the *caffer*-group, and has elongated anterior part of the paraproct (fig. 189). The species is similar to *pubipes*, *caffer* and *hluhluwensis* in the structure of the male fore tibia (with denticle on inner side) (figs 184-185) and the shape of the mid tibia (inner margin S-like) (figs 186-187).

B. melancholicus is separated from the above-mentioned species by the male tibia and female genitalia (figs 189-191).

DESCRIPTION

Body length 13.2-13.7 mm, pl/pb = 0.66-0.67, el/eb = 1.29-1.30, el/pl = 2.11-2.12, eb/pb = 1.05-1.08 (elytra wider than pronotum). Surface of body greasy shiny, puncturation as in *caffer*. Median part of mentum convex; between gena and tempus 5 eye facets visible; antennal segment 3 ca. 1.9-2.0 x longer than segment 2. Pronotum slightly convex, widest at 2/3 from base (at base in female), ca. 22 x as wide as lateral border; sides for 2/3 length from base subparallel; anterior angles obtuse, slightly produced anteriad; lateral border 1.30-1.40 x as wide as antennal segment 3; base shallowly bisinuate. Scutellum of medium width, pkp/st ratio ca. 2.6-2.9. Elytra slightly tucked in posteriorly, but not at apex (part of interval 9 visible from underside); upper edge of anterior elytral margin arcuately convex, without border; elytral intervals weakly convex, interval 9 distinctly wider than the remaining ones; striae sharply incised, regular, punctures small, round; 8th row incomplete, disappearing just before anterior margin (fig. 188); anterior concavity of 9th row wide and deep. Prosternal process as in *caffer*. Male legs: ratio of segments 1/2 of hind tarsi ca. 2.3; inner side of



184-191. *Bantodemus melancholicus*: 184 – ventral and 185 – dorsal view of male fore tibia, 186 – dorsal and 187 – ventral view of male mid tibia, 188 – anterior part of elytron, 189 – ovipositor, 190 – internal female genitalia, 191 – part of bursa copulatrix with sclerite

fore tibia with a sharp denticle bent inwards (figs 184-185); mid tibia with a well visible apical denticle and median convexity on inside, inner margin S-like bent (figs 186-187); hind tibia straight, dtk/dod ratio ca. 1.5, dod/dok ratio ca. 1.4; fore femur moderately wide, with a row of hairs anteriorly; hind femur simple, bare on inside. Aedeagus: lbp/lap ca. 2.3, lmb/la ca. 6.0. Female genitalia: ovipositor as in fig. 189, anterior part of paraproct strongly elongated, plates c1 and c2 with rugosity, paraproct longer than total length of coxites, lp/lc1 ca. 4.0, bc1/lc1 ca. 1.7, c1/c2/c3/c4/c4-c3 = 1.0/0.8/0.7/1.3/0.4, lfb/lo ca. 4.4, bursa copulatrix with a tube-like sclerite situated at posterior part of additional sac (figs 190-191).

TYPES

Holotype (male), allotype (female), TMNH: "Weenen, Aug. 1941, R. LAWRENCE; *melancholicus* KOCH, HT, AT"

Paratype: Weenen, Aug. 1941, R. LAWRENCE; Paratype No: 1284, *Bantodemus melancholicus* KOCH, (TMNH) 1 f.

DISTRIBUTION (fig. 2)

Republic of South Africa (Natal).

***Bantodemus milleri* sp. nov.**

(figs 2, 192-201)

NAME DERIVATION

In honour of A. MILLER, the collector of the holotype.

LOCUS TYPICUS

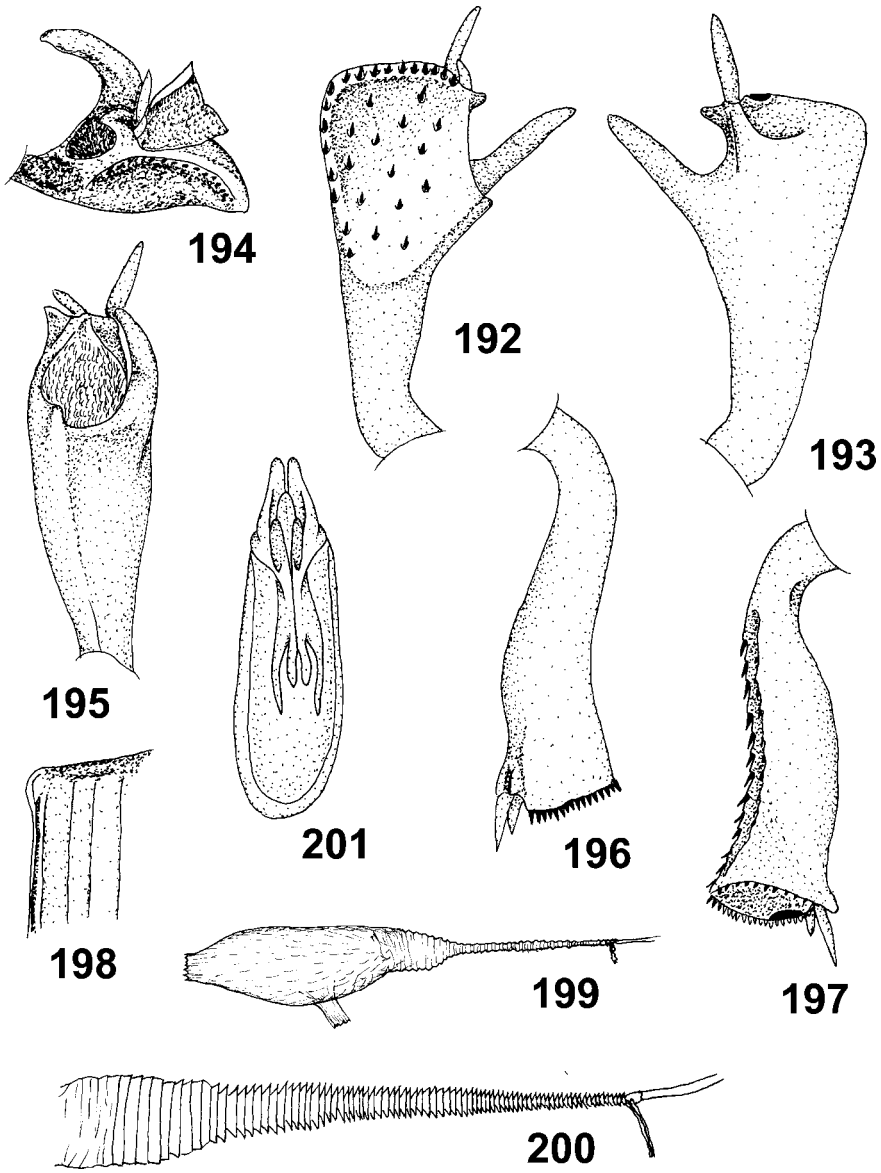
Salisbury [Republic of South Africa, Natal].

DIAGNOSIS

The structure of the bursa copulatrix - with longitudinal additional sac - (figs 199-200) places *milleri* close to *drakensbergensis* and *goldengatensis*. The species differs in the male tibiae which are like those in *typhon* and *furcatus* (figs 192-197).

DESCRIPTION

Body length 11.4-12.2 mm, pl/pb = 0.69-0.71, el/eb = 1.28-1.30, el/pl =1.82-1.88, eb/pb = 1.02-1.04 (elytra wider than pronotum). Body puncturation as in *tristis*. Between gena and tempus 5-6 eye facets visible; antennal segment 3 ca. 2.0-2.3 x longer than segment 2. Pronotum slightly convex, widest at base, 18-20 x as wide as lateral border; sides for 2/3 length from base subparallel; anterior angles obtuse, slightly produced anteriad; lateral border 1.25-1.36 x as wide as



192-201. *Bantodemus milleri*: 192 – ventral, 193 – dorsal and 195 – lateral part of male fore tibia, 194 – anterior part of male fore tibia, 196 – ventral and 197 – dorsal view of male mid tibia, 198 – elytral humerus, 199 – internal female genitalia, 200 – part of bursa copulatrix, 201 – aedeagus

antennal segment 3; base shallowly bisinuate. Scutellum of medium width, pkp/st ratio ca. 2.5-2.8. Elytra moderately convex, slightly tucked in posteriorly, but not at apex (part of interval 9 visible from underside); humeral angle slightly protruding outwards (fig. 198); upper edge of anterior elytral margin strongly convex, without border; elytral intervals moderately convex, interval 9 distinctly wider than the remaining ones; striae sharply incised, regular, punctures small, round; 8th row complete; anterior concavity of 9th row moderately wide and deep. Prosternal process as in *tristis*. Male legs: ratio of segments 1/2 of hind tarsi ca. 2.6-3.0; inner side of fore tibia widened, with a large denticle (figs 192-195); inner margin of male mid tibia S-like bent (figs 196-197); hind tibia slightly bent inwards, dtk/dod ratio ca. 1.4-1.5, dod/dok ratio ca. 1.6-1.8; fore femur moderately wide, with a row of hairs anteriorly; hind femur simple, with dense hairs on inside. Aedeagus as in fig. 201, lbp/lap ca. 2.8, lmb/la ca. 6.2. Female genitalia: ovipositor - paraproct longer than total length of coxites, lp/lc1 ca. 3.7, bc1/lc1 ca. 1.7, c1/c2/c3/c4/c4-c3 = 1.0/0.7/0.8/1.4/0.7 (lobe c4 strongly elongate), lfb/lo ca. 4.9, bursa copulatrix simple (without sclerite), and with an additional longitudinal funnel-like sac (figs 199-200).

TYPES

Holotype (male), SAM: "MILLER, Natal, Salisbury; SAM-COL-AO".

Paratypes: MILLER, Natal, Salisbury; SAM-COL-AO, (SAM) 3 m, 1 f; Middelb, Transv; SAM-COL-AO, (SAM) 1 m; Middelburg, Tvl., XII.1960, L. SCHULZE; 25.47 S - 29.28 E, (TMNH) 1 m.

DISTRIBUTION (fig. 2)

Republic of South Africa (Natal).

***Bantodemus mocambiqueus* KOCH**

(figs 2, 202-213)

Bantodemus mocambiqueus KOCH, 1955: 445.

LOCUS TYPICUS

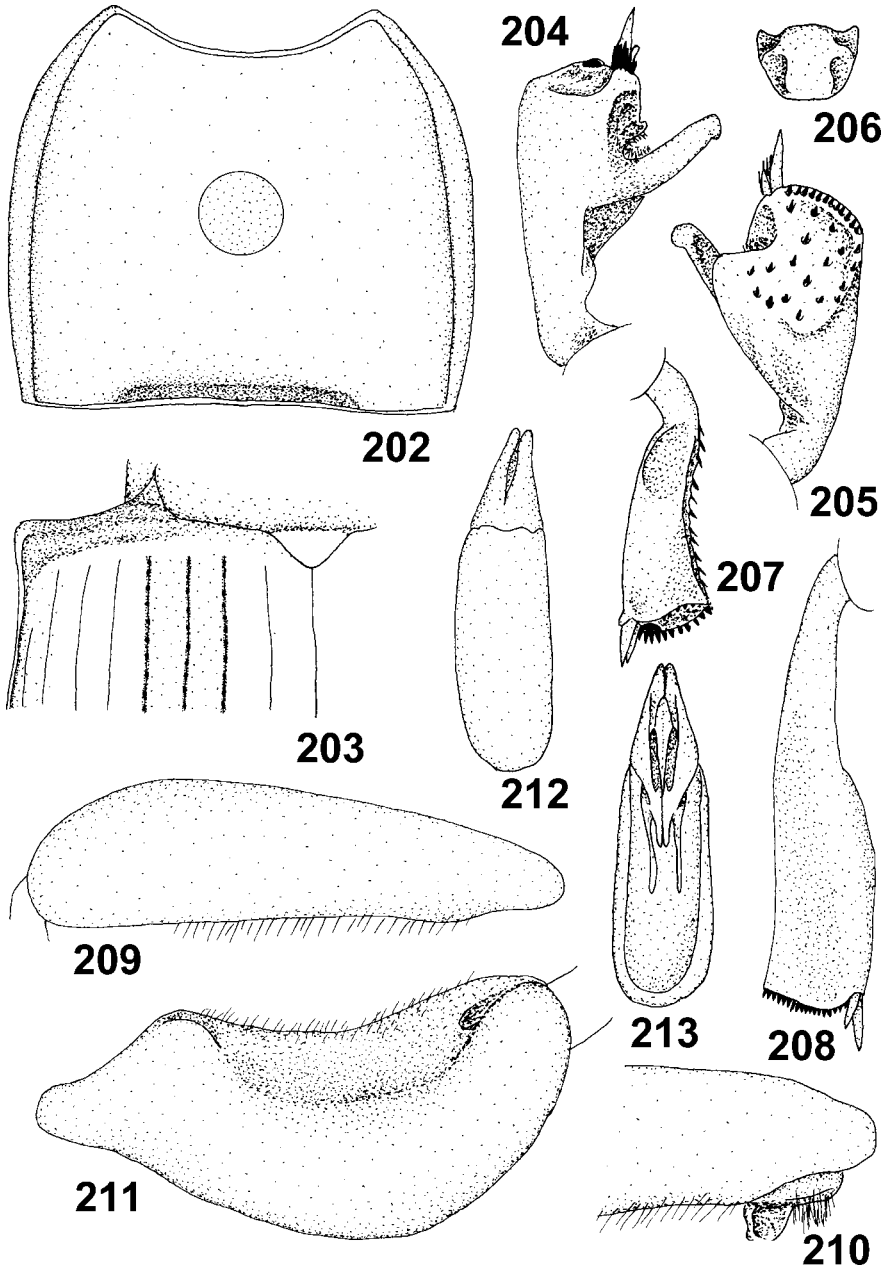
Masiene [Mozambique, Sul do Save Province].

DIAGNOSIS

See diagnosis of *B. lucidus*.

DESCRIPTION

Body length 10.5-11.6 mm, pl/pb = 0.70-0.77, el/eb = 1.27-1.35, el/pl = 1.70-1.72, eb/pb = 0.98-0.99 (elytra narrower than pronotum). Surface of body shiny, very sparsely and delicately punctate. Mentum as in fig. 206; between gena and



202-213. *Bantodemus mocambiqueus*: 202 – pronotum, 203 – anterior part of elytron, 204 – dorsal and 205 – ventral view of male fore tibia, 206 – mentum, 207 – male mid tibia, 208 – male hind tibia, 209 – male hind femur, 210 – part of male hind femur and trochanter, 211 – male fore femur, 212 – dorsal and 213 – ventral view of aedeagus

tempus 4-5 eye facets visible; antennal segment 3 ca. 2.3-2.5 x longer than segment 2. Pronotum moderately convex, widest at 3/5 length from base (fig. 202), 15-18 x as wide as lateral border; anterior angles slightly produced anteriad; lateral border 1.30-1.35 x as wide as antennal segment 3; base deeply emarginate in the middle. Scutellum of medium width, pkp/st ratio ca. 2.7-2.8. Elytra moderately convex, slightly tucked in posteriorly, but not at apex (part of interval 9 visible from underside); humeral angle protruding outwards; upper edge of anterior elytral margin forming gradual slope, unbordered (fig. 203); elytral intervals flat, interval 9 wider than the remaining ones; striae shallowly incised, punctures very small, round; 8th row shortened, disappearing just before anterior elytral margin; anterior concavity of 9th row extremely narrow and shallow. Prosternal process saddle-like concave, only apex protruding towards mesosternum, a delicate border visible. Male legs: ratio of segments 1/2 of hind tarsi ca. 2.5-3.0; fore tibia strongly widened at 2/3 from base, inner side with a long, strongly protruding denticle (figs 204-205); mid tibia with an apical denticle inside, outer side with a concavity (fig. 207); hind tibia widened at ½ length from base to apex, slightly bent inside (fig. 208), dtk/dod ratio ca. 1.2-1.3, dod/dok ratio ca. 1.6-1.7; fore femur widened, with a row of setae inside (fig. 211), hind femur as in figs 209-210. Aedeagus as in figs 212-213, lbp/lap ca. 2.3, lmb/la ca. 5.7. Female unknown.

TYPES

Paratypes: Masiene, P. E. Afr., R. F. LAWRENCE, Dec. 1923; Paratypus *Bantodemus mocambiqueus* sp. n. C. KOCH, (TMNH) 2 m, (examined). The type series consists of 3 males, including holotype. In the materials from TMNH there are 2 males labelled as paratypes, while 2 males (with the same label data as types) from SAM were not labelled in any such way. In do not know if KOCH marked his holotypes (in case of most species described by him he marked holotypes in the text). To avoid confusion I have treated the SAM specimens as a part of the material not examined by KOCH when he described *B. mocambiqueus* (the same pertains to *lucidus*, *furcatus* and *transvaalensis*).

MATERIAL EXAMINED

Masiene, P. E. Afr., R. F. LAWRENCE, Dec. 1923; SAM-COL-AO, (SAM) 2 m.

DISTRIBUTION (fig. 2)

Mozambique (Sul do Save Province).

***Bantodemus moerens* (FÄHRAEUS, 1870)**

(figs 2, 214-221)

Trigonopus moerens FÄHRAEUS, 1870: 284. - GEBIEN 1910: 272; 1938: 292.
Bantodemus moerens (FÄHRAEUS): KOCH 1955: 431; 1956: 78.

Trigonopus micans FÄHRAEUS, 1870: 285. - GEBIEN 1910: 272; 1938: 292; syn. by KOCH 1955: 431; KOCH 1956: 78.

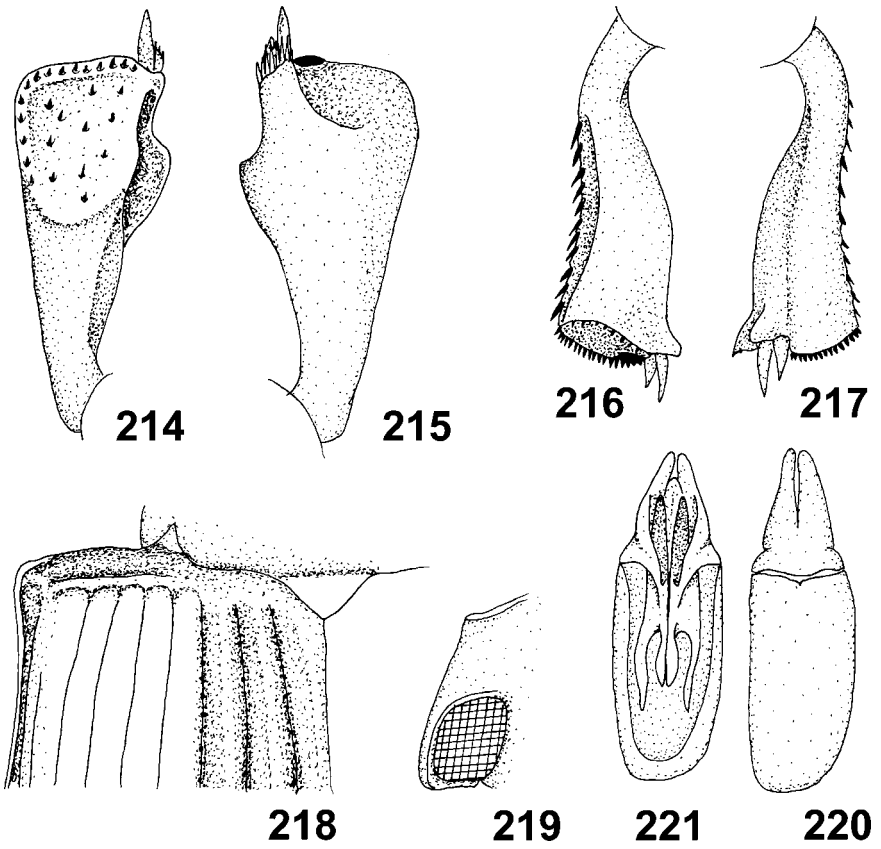
TERRA TYPICA

"Caffraria" [Republic of South Africa].

DIAGNOSIS

B. moerens is close to *parvulus* and *dentipes* having similar male fore tibia (cf. figs 214 and 215).

The structure of the male mid tibia (figs 216-217), anterior elytral margin (fig. 218) distinguish *moerens* from the above-mentioned species.



214-221. *Bantodemus moerens*: 214 – ventral and 215 – dorsal view of male fore tibia, 216 – dorsal and 217 – ventral view of male mid tibia, 218 – anterior part of elytron, 219 – lateral view of prosternal process, 220 – dorsal and 221 – ventral view of aedeagus

DESCRIPTION

Body length 10.3-12.0 mm, pl/pb = 0.76, el/eb = 1.28-1.33, el/pl = 1.78-1.91, eb/pb = 1.06. Surface of body greasy shiny, very sparsely and delicately punctate; head with distinct puncturation; abdominal ventrites I-III with numerous longitudinal, delicate wrinkles. Between gena and tempus 4-5 eye facets visible; antennal segment 3 ca. 2.0 x longer than segment 2. Pronotum widest at 2/3 from base, ca. 16-22 x as wide as lateral border, sides slightly rounded; anterior angles slightly produced anteriad; lateral border 1.00-1.20 x as wide as antennal segment 3; base shallowly bisinuate. Scutellum narrow, pkp/st ratio ca. 3.1. Elytra moderately convex, all intervals visible on upper side; upper edge of anterior margin distinctly convex, bordered (fig. 218); humeral angle slightly protruding outwards; elytral intervals moderately convex, interval 9 wider than the remaining ones; striae sharply incised, with fine puncturation; 8th row incomplete, does not reach anterior margin; anterior concavity of 9th row wide and deep. Prosternal process as in fig. 219. Male legs: ratio of segments 1/2 of hind tarsi ca. 2.1; fore tibia widest at 3/4 from base, without denticle (figs 214-215); mid tibia S-like bent, with 2 distinct apical denticles on inside (figs 216-217); hind tibia straight, dtk/dod ratio ca. 2.2, dod/dok ratio ca. 1.5; inner edge of fore femur with a row of hairs; hind femur simple, setose on inside. Aedeagus as in figs 220-221, lbp/lap ca. 2.0, lmb/la ca. 5.4. Female unknown.

TYPES

Trigonopus micans FÄHRAEUS, 1870

Holotype, male (ZMS): "Typus; 107, 51; 119; *Trigonopus micans*; Caffraria; J. WAHLB.; *Trigonopus micans* FAHR.; *Bantodemus moerens* (FÄHRAEUS) C. KOCH det., *Bantodemus moerens* FAHR. (=*micans* FAHR.) det. C KOCH, 1954".

Trigonopus moerens FÄHRAEUS, 1870

Holotype, male (ZMS): "Typus; 108, 51; *Trigonopus moerens* FAHR.; Caffraria; J. WAHLB."

DISTRIBUTION (fig. 2)

Republic of South Africa.

***Bantodemus natalensis* sp. nov.**

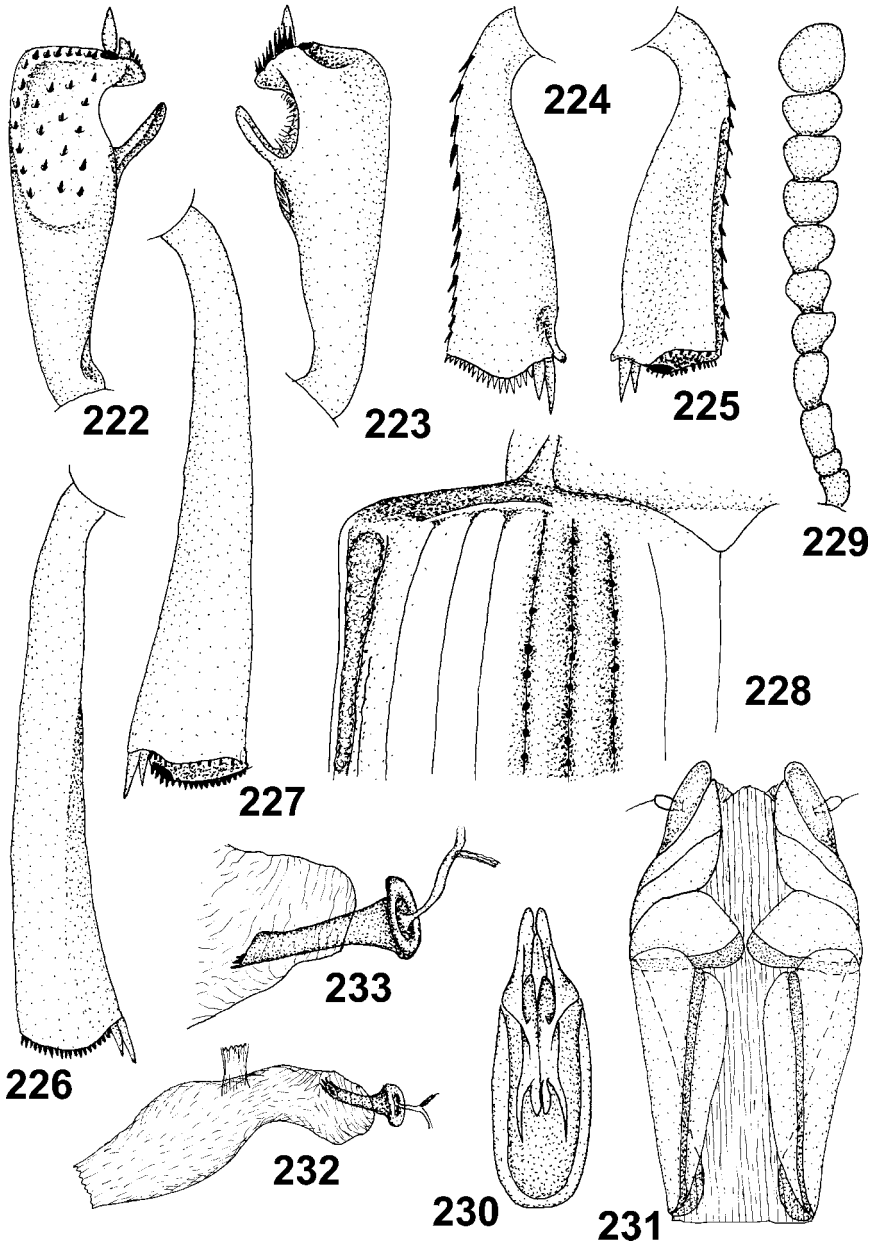
(figs 2, 222-233)

NAME DERIVATION

The species is named after its terra typica.

TERRA TYPICA

Natal [Republic of South Africa].



222-233. *Bantodemus natalensis*: 222 – ventral and 223 dorsal view of male fore tibia, 224 – ventral and 225 – dorsal view of male mid tibia, 226 – dorsal and 227 – ventral view of male hind tibia, 228 – anterior part of elytron, 229 – antenna, 230 – aedeagus, 231 – ovipositor, 232 – internal female genitalia, 233 – part of bursa copulatrix with sclerite

DIAGNOSIS

B. natalensis has the additional sac of the bursa copulatrix with a tube-like sclerite (figs 232-233) - it belongs to the *caffer*-group.

The species is similar to *pubipes* and *striatus* in the structure of male mid tibia (with an apical denticle and median convexity on inside), and to *pubipes*, *lawrencei*, *parvulus*, *trojani*, *similis* and *kaszabi* in the structure of the anterior elytral margin (upper edge distinctly convex and bordered) (fig. 228).

B. natalensis is separated from its congeners by the structure of the male fore tibia (figs 222-223) and female genitalia (figs 231-233).

DESCRIPTION

Body length 10.1-12.5 mm, pl/pb = 0.67-0.69, el/eb = 1.27-1.34, el/pl = 1.89-1.91, eb/pb = 0.98-1.01. Surface of body greasy shiny, very sparsely and delicately punctate, elytral intervals, pronotum and episternum smooth; puncturation of head, meso- and metasternum delicate, but well visible; abdominal ventrites I-III with numerous longitudinal, delicate wrinkles. Between gena and tempus 3-4 eye facets visible; antenna as in fig. 229, antennal segment 3 ca. 2.1-2.2 x longer than segment 2. Pronotum widest at 2/3 from base, ca. 17-20 x as wide as lateral border, sides subparallel or slightly rounded; anterior angles obtuse, moderately produced anteriad; lateral border 1.25-1.35 x as wide as antennal segment 3; base shallowly bisinuate. Scutellum of medium width, pkp/st ratio ca. 2.5-2.7. Elytra: all intervals visible on upper side; upper edge of anterior margin distinctly convex, bordered (fig. 228); humeral angle slightly protruding outwards; elytral intervals weakly convex, interval 9 wider than the remaining ones; striae sharply incised, punctures small; 8th row incomplete, does not reach anterior margin; anterior concavity of 9th row very wide and deep. Prosternal process as in *caffer*, 5th abdominal ventrite unbordered or with interrupted, evanescent border. Male legs: ratio of segments 1/2 of hind tarsi ca. 2.8; fore tibia widest at 2/3 from base, with a long denticle (figs 222-223); mid tibia with an apical denticle and median convexity on inside, inner margin weakly S-like bent (figs 224-225); hind tibia as in figs 226-227, dtk/dod ratio ca. 1.4, dod/dok ratio ca. 1.5; all tibiae and femora bare. Aedeagus as in fig. 230, lbp/lap ca. 2.1, lmb/la ca. 5.6. Female genitalia: ovipositor as in fig. 231, paraproct longer than total length of coxites, lp/lc1 ca. 3.6 (plate c1 distinctly enlarged), bc1/lc1 ca. 1.6, c1/c2/c3/c4/c4-c3 = 1.0/0.8/0.7/1.4/0.2, lfb/lo ca. 4.6, bursa copulatrix with a tube-like sclerite situated at posterior part of additional sac (figs 232-233).

TYPES

Holotype (male), MIZPAN: "Natal; *Trigonopus* n. sp., H. GEBIEN det. 1939; Mus. Zool. Polonicum, Warszawa, 12/45"

Paratypes: Cap. B. Esp.; Ex Musaeo MNISZECH; coll. R. OBERTHÜR ex coll DEYROLLE, (MNHN) 1 m; Natal; *Trigonopus* n. sp., H. GEBIEN det. 1939; Mus. Zool. Polonicum, Warszawa, 12/45, (MIZPAN) 3 m; Natal; SAM-COL-AO-

11841, (SAM) 1 m; A. MILLER, Durban, 1899, SAM-COLL-AO-11842, (SAM) 1 m; *Heteroscelis marginicollis*, Natal, BHM.; *Melanopterus marginicollis* MULS, Cap. *B.* Esp.; Museum Paris 1906, Coll. L. FAIRMAIRE, (MNHN) 1 m; Cap de *B.* Esp.; *Trigonopus* près de *immundus* M.; Museum Paris 1906, Coll. L. FAIRMAIRE, (MNHN) 1 m; Natal; *Trigonopus typhon* MULS. & R., det. dr. KASZAB, (HNHM) 1 m; *Trigonopus typhon*, Natal; Museum Paris 1906, Coll. L. FAIRMAIRE, (MNHN) 1 m; Zululd, Inkomana; *Trigonopus typhon*, (TMNH) 1 f; Natal, D'Urban, *Trigonopus caffer*; *Trigonopus typhon*, (TMNH) 1 m.

DISTRIBUTION (fig. 2)
Republic of South Africa (Natal).

***Bantodemus parvulus* sp. nov.**
(figs 2, 234-241)

NAME DERIVATION
The name is a Latin adjective meaning "very small".

LOCUS TYPCUS
Dorset [Republic of South Africa, Transvaal].

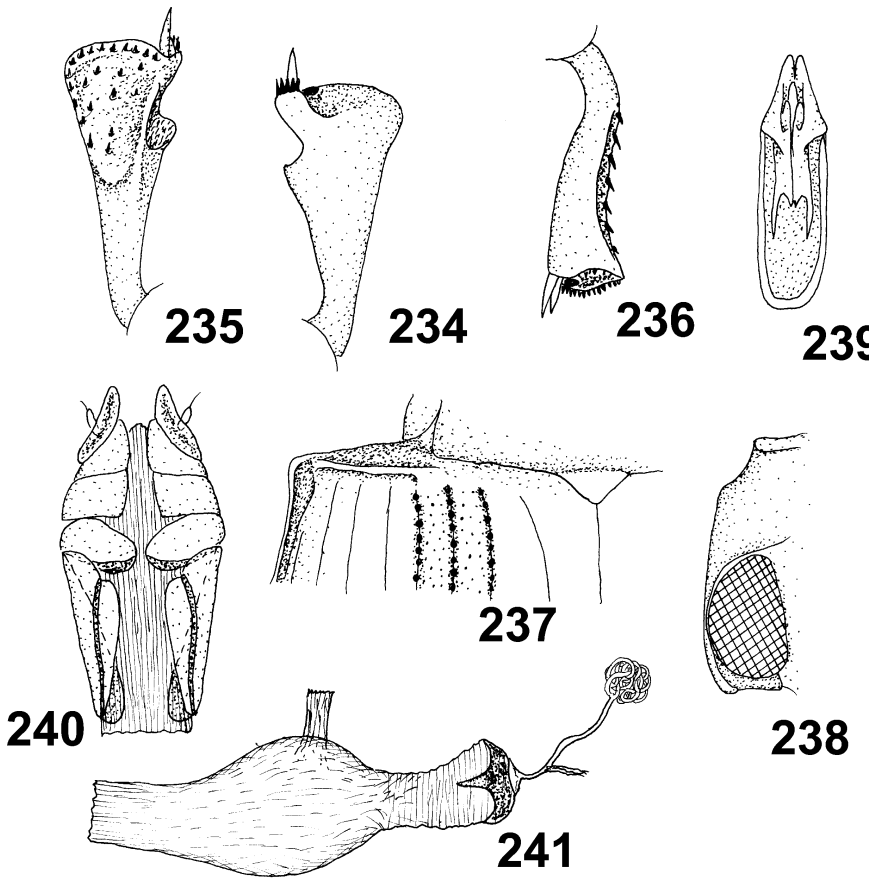
DIAGNOSIS
B. parvulus is the smallest species of the genus *Bantodemus* (7.1-7.2 mm length), and is similar to the *caffer*-group.

It resembles *moerens* in the structure of the male fore tibia (without denticle) (figs 234-235), but differs in the structure of the anterior elytral margin (cf. figs 237 and 218) and male mid tibia (cf. figs 236 and 216-217).

B. parvulus has its paraproct shorter than the total length of coxites (fig. 240), like in *goldengatensis*. The species differ in the structure of the 9th elytral row, anterior elytral margin (cf. figs 237 and 91) and male tibia (cf. figs 234-236 and 89-90, 96-98).

DESCRIPTION
Body length 7.1-7.2 mm, pl/pb = 0.70-1.71, el/eb = 1.29-1.30, el/pl = 1.91-2.00, eb/pb = 1.03-1.06. Surface of body shiny, very sparsely and delicately punctate; head and pronotum with distinct puncturation; episternum and abdominal ventrites I-III with numerous longitudinal, delicate wrinkles. Between gena and tempus 4-5 eye facets visible; antennal segment 3 ca. 1.7-1.8 x longer than segment 2. Mid part of mentum distinctly convex. Pronotum widest at 2/3 from base, ca. 18-21 x as wide as lateral border, sides slightly rounded; anterior angles distinctly produced anteriad; lateral border 1.50-1.62 x as wide as antennal segment 3; base shallowly bisinuate. Scutellum of medium width, pkp/st ratio ca.

2.4-2.6. Elytra moderately convex, slightly tucked in posteriorly, but not at apex (part of interval 9 visible from underside); upper edge of anterior margin distinctly convex, bordered (fig. 237); humeral angle slightly protruding outwards; elytral intervals flat, interval 9 wider than the remaining ones; striae sharply incised, with distinct puncturation; 8th row incomplete, does not reach anterior margin; anterior concavity of 9th row very wide and deep. Prosternal process as in fig. 238. Male legs: ratio of segments 1/2 of hind tarsi ca. 2.3-2.5; fore tibia widest at 2/3 from base, with very short and obtuse denticle (figs 234-235); mid tibia simple (fig. 236); hind tibia straight, dtk/dod ratio ca. 1.2-1.4, dod/dok ratio ca. 1.4-1.5; fore femur with a row of hairs anteriorly; hind femur simple, setose on inside. Aedeagus (fig. 239), lbp/lap ca. 2.3, lmb/la ca. 5.4. Female genitalia: ovipositor as in fig. 240, paraproct shorter than total length of coxites, lp/lc1 ca.

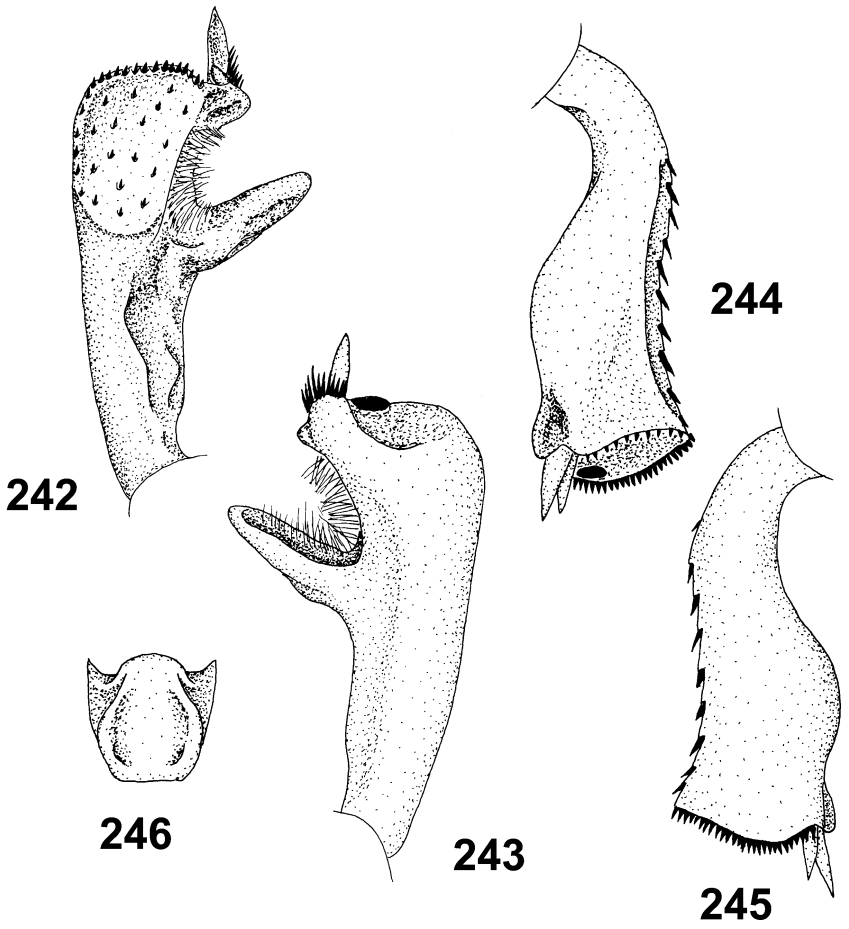


234-241. *Bantodemus parvulus*: 234 – dorsal and 235 – ventral view of male fore tibia, 236 – male mid tibia, 237 – anterior part of elytron, 238 – lateral view of prosternal process, 239 – aedeagus, 240 – ovipositor, 241 – internal female genitalia

3.7, bc1/lc1 ca. 2.0, c1/c2/c3/c4/c4-c3 = 1.0/1.2/1.1/1.7/0.7 (plate c4 distinctly elongated), lfb/lo ca. 4.4, bursa copulatrix with a sclerite situated at posterior part of additional sac (fig. 241).

TYPES
Holotype (male), TMNH: "S Dorset, Tvl., 9.1960, D. W. RORKE".
Paratypes: S Dorset, Tvl., 9.1960, D. W. RORKE, (TMNH) 3 f.

DISTRIBUTION (fig. 2)
Republic of South Africa (Transvaal).



242-246. *Bantodemus pubipes*: 242 – ventral and 243 – dorsal view of male fore tibia, 244 – dorsal and 245 – ventral view of male mid tibia, 246 – mentum

Bantodemus pubipes KOCH, 1955

(figs 2, 242-254)

Bantodemus pubipes KOCH, 1955: 441.

LOCUS TYPICUS

Nqutu [Republic of South Africa, Natal, Nqutu District].

DIAGNOSIS

B. pubipes belongs to the *caffer*-group which has a tube-like sclerite in the bursa copulatrix (figs 253-254) and elongated anterior part of the paraproct (fig. 252).

The species is similar to *caffer*, *hluhluwensis* and *melancholicus* in the general structure of its male tibia (see diagnosis of these species), but differs in the bordered anterior elytral margin (fig. 247), the presence of large denticles on the male tibia (figs 242-245), the shape of the sclerite in the bursa copulatrix (figs 253-254) and plates of the ovipositor (fig. 252).

DESCRIPTION

Body length 13.5-14.5 mm, pl/pb = 0.66-0.71, el/eb = 1.25-1.29, el/pl = 1.82-1.88, eb/pb = 1.01-1.05 (elytra wider than pronotum). Surface of body shiny, puncturation as in *caffer*. Mentum as in fig. 246; between gena and tempus 5-6 eye facets visible; antennal segment 3 ca. 2.0-2.3 x longer than segment 2. Pronotum slightly convex, widest at 2/3 from base (at base in female), ca. 25-29 x as wide as lateral border; sides for 2/3 length from base subparallel; anterior angles obtuse, slightly produced anteriad; lateral border 1.00-1.11 x as wide as antennal segment 3; base shallowly bisinuate. Scutellum of medium width, pkp/st ratio ca. 2.5-3.0. Elytra: all intervals visible on upper side, anterior part as in fig. 247; upper edge of anterior elytral margin arcuately convex, bordered; elytral intervals weakly convex, interval 9 distinctly wider than the remaining ones; striae sharply incised, punctures small; 8th row incomplete, disappearing just before anterior margin; anterior concavity of 9th row wide and deep. Prosternal process as in *caffer*. Last abdominal ventrite as in fig. 248. Male legs: ratio of segments 1/2 of hind tarsi ca. 2.3; inner side of fore tibia with a large denticle (figs 242-243); mid tibia with an apical denticle and median convexity on inside, inner margin S-like bent (figs 244-245); hind tibia straight, dtk/dod ratio ca. 1.5, dod/dok ratio ca. 1.4; fore femur moderately wide, with a row of hairs anteriorly; hind femur simple, setose on inside. Aedeagus as in figs 249-251, lbp/lap ca. 2.3, lmb/la ca. 7.0. Female genitalia: ovipositor as in fig. 252, anterior part of paraproct elongated, paraproct longer than total length of coxites, lp/lc1 ca. 4.5, bc1/lc1 ca. 1.8, c1/c2/c3/c4/c4-c3 = 1.0/0.9/0.8/1.3/0.3, lfb/lo ca. 5.5, bursa copulatrix with a tube-like sclerite situated at posterior part of additional sac (figs 253-254).

TYPES

Holotype (male), allotype (female), TMNH: "Nqutu, Zululd, 11.I.1951, A. H. NEWTON; *Bantodemus pubipes*, det. C. KOCH, 1954" (examined).

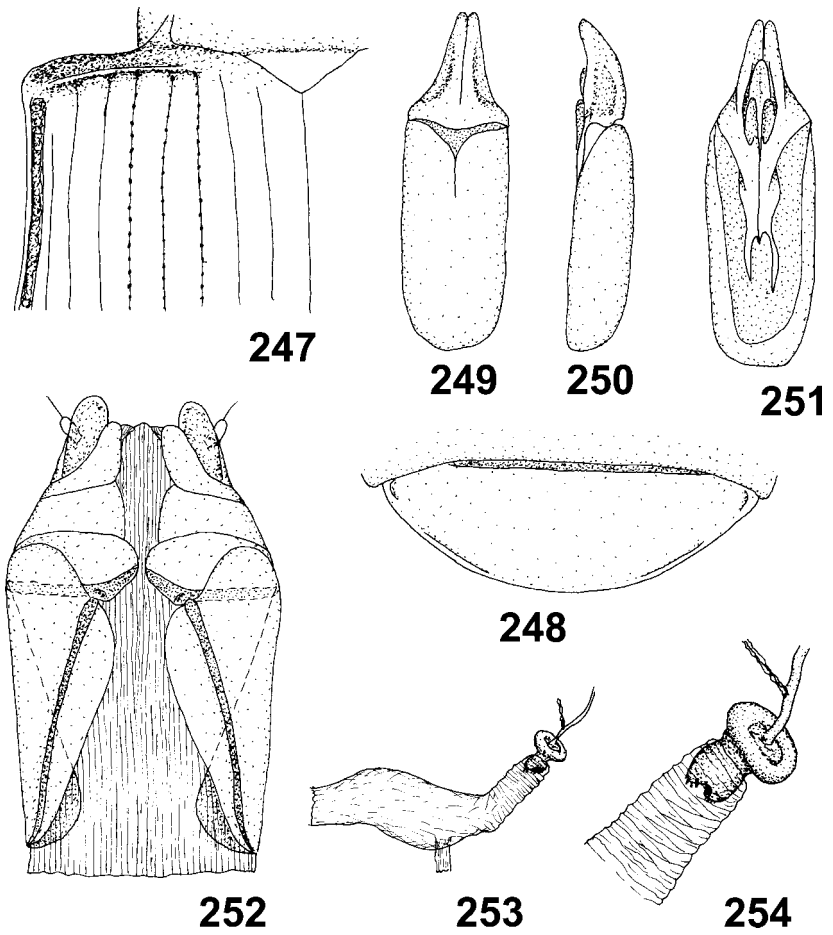
Paratypes: N. Natal, Pietermaritzburg bis Vaalfluss, F. WILMS S. V., (TMNH) 1 m, 1 f (examined).

MATERIAL EXAMINED

Transvaal, Leidenburg; *Trigonopus spinipes* MULS. R., det. dr. KASZAB, (HMNH) 1 m.

DISTRIBUTION (fig. 2)

Republic of South Africa (Natal, Transvaal).



247-254. *Bantodemus pubipes*: 247 – anterior part of elytron, 248 – last abdominal ventrite, 249 – dorsal, 250 – lateral and 251 – ventral view of aedeagus, 252 – ovipositor, 253 – internal female genitalia, 254 – part of bursa copulatrix with sclerite

***Bantodemus rectimanus* KOCH**
(figs 2, 255-260)

Bantodemus rectimanus KOCH, 1955: 447.

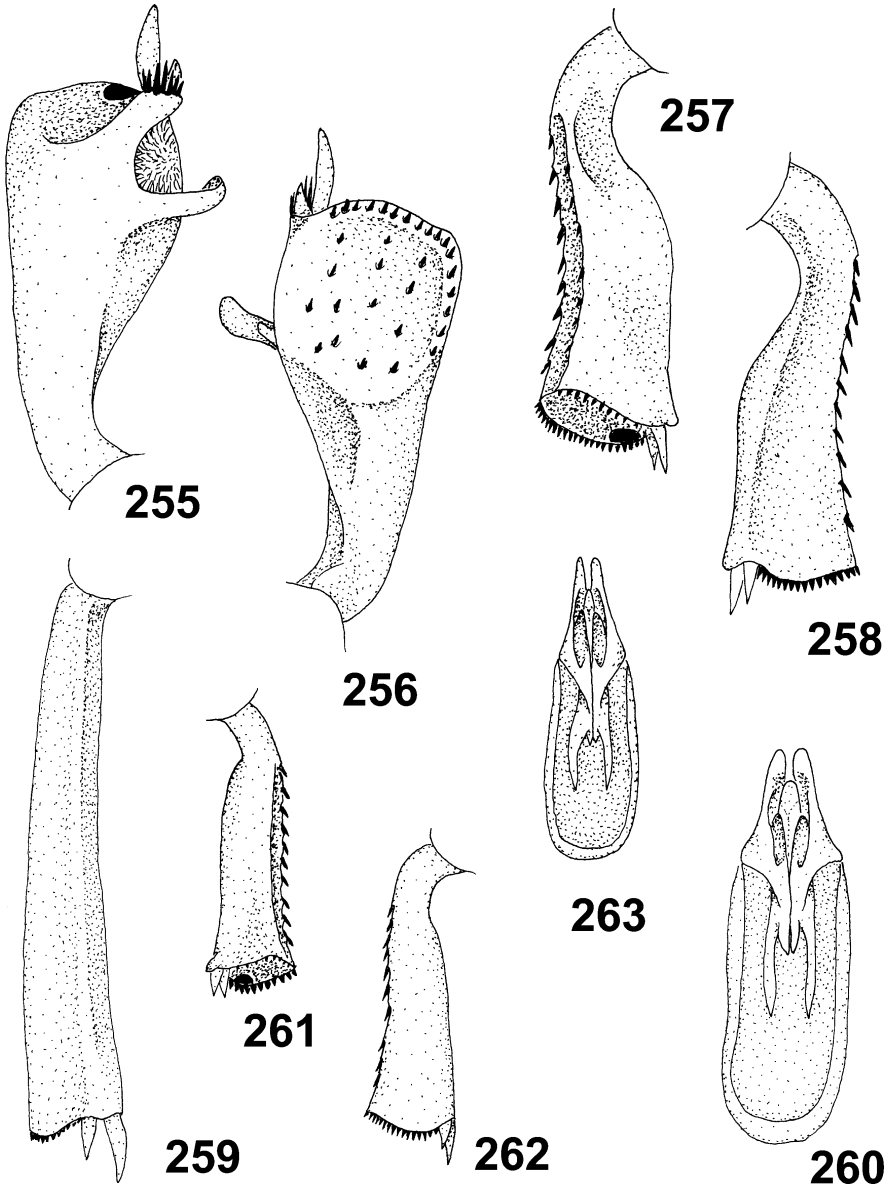
LOCUS TYPICUS
Koedoes [Republic of South Africa, Transvaal, Letaba District].

DIAGNOSIS
See diagnosis of *B. lucidus*.

DESCRIPTION
Body length 13.1 mm, pl/pb = 0.80, el/eb = 1.32, el/pl = 1.70, eb/pb = 1.02 (elytra wider than pronotum). Surface of body shiny, sparsely and delicately punctate, episternum practically smooth; puncturation of head, meso- , metasternum and ventrites IV-V distinct; prosternum and abdominal ventrites I-III with numerous longitudinal, delicate wrinkles. Between gena and tempus 4 eye facets visible; antennal segment 3 ca. 2.0 x longer than segment 2. Pronotum moderately convex, widest at 2/3 length from base, ca. 14 x as wide as lateral border; anterior angles moderately produced anteriad; lateral border 1.6 x as wide as antennal segment 3; base straight, slightly arcuate. Scutellum of medium width, pkp/st ratio ca. 2.8. Elytra moderately convex, slightly tucked in posteriorly, but not at apex (part of interval 9 visible from underside); humeral angle protruding outwards; upper edge of anterior elytral margin forming gradual slope, unbordered; elytral intervals convex, interval 9 wider than the remaining ones; striae sharply incised, regular, punctures small, round; 8th row shortened, disappearing just before anterior elytral margin; anterior concavity of 9th row moderately narrow and shallow. Prosternal process saddle-like concave, only apex protruding towards mesosternum, a delicate border visible. Male legs: ratio of segments 1/2 of hind tarsi ca. 2.3; fore tibia distinctly widened, inner side with a sharp, strongly protruding denticle and additional small one at its base (figs 255-256); mid tibia widened at 1/3 from base, with an apical denticle inside, outer side with a concavity (figs 257-258); hind tibia straight, flattened inside (fig. 259), dtk/dod ratio ca. 2.0, dod/dok ratio ca. 1.4; fore femur widened, with a row of setae inside, trochanter of hind femur with denticle. Aedeagus (fig. 260): lbp/lap ca. 2.5, lmb/la ca. 6.5. Female unknown.

TYPE
Holotype (male), TMNH: " Koedoes-Riv., 12.1902, Dr BREYER; Holotype No: 1295, *Bantodemus rectimanus* KOCH" (examined).

DISTRIBUTION (fig. 2)
Republic of South Africa (N Transvaal).



255-260. *Bantodemus rectimanus*: 255 – dorsal and 256 – ventral view of male fore tibia, 257 – dorsal and 258 – ventral view od male mid tibia, 259 – male hind tibia, 260 – aedeagus. 261-263. *Bantodemus rhodesianus*: 261 – dorsal and 262 – ventral view of male mid tibia, 263 – aedeagus

Bantodemus rhodesianus KOCH, 1955
(figs 2, 261-263)

Bantodemus rhodesianus KOCH, 1955: 444.

LOCUS TYPICUS
Trias Hill [Zimbabwe].

DIAGNOSIS
B. rhodesianus is closest to *zimbabwensis* in the structure of elytra and tibiae (see diagnosis of *B. zimbabwensis*).

DESCRIPTION
Body length 8.8 mm, pl/pb = 0.76, el/eb = 1.34, el/pl =1.87, eb/pb = 1.07 (elytra wider than pronotum). Surface of body shiny, puncturation as in *caffer*. Between gena and tempus 5 eye facets visible; antennal segment 3 ca. 2.0 x longer than segment 2. Pronotum slightly convex, widest at 2/3 from base, ca. 13 x as wide as lateral border; anterior angles obtuse, slightly produced anteriad; lateral border wide ca. 1.50 x as wide as antennal segment 3; base shallowly bisinuate. Scutellum narrow, pkp/st ratio ca. 3.2. Elytra as in *zimbabwensis*. Prosternal process as in *caffer*. Male legs: fore tibia widest at 2/3 from base, with a minute, sharp denticle; mid tibia emarginated basally, with an apical denticle (figs 261-262); hind tibia straight; all femora and tibiae simple, bare. Aedeagus as in fig. 263, lbp/lap ca. 2.0, lmb/la ca. 5.9. Female unknown.

TYPE
Holotype (male), TMNH: "Trias Hill, Manicaland, 2/9/13; *Bantodemus rhodesianus*, det. C. KOCH 1954, HT".

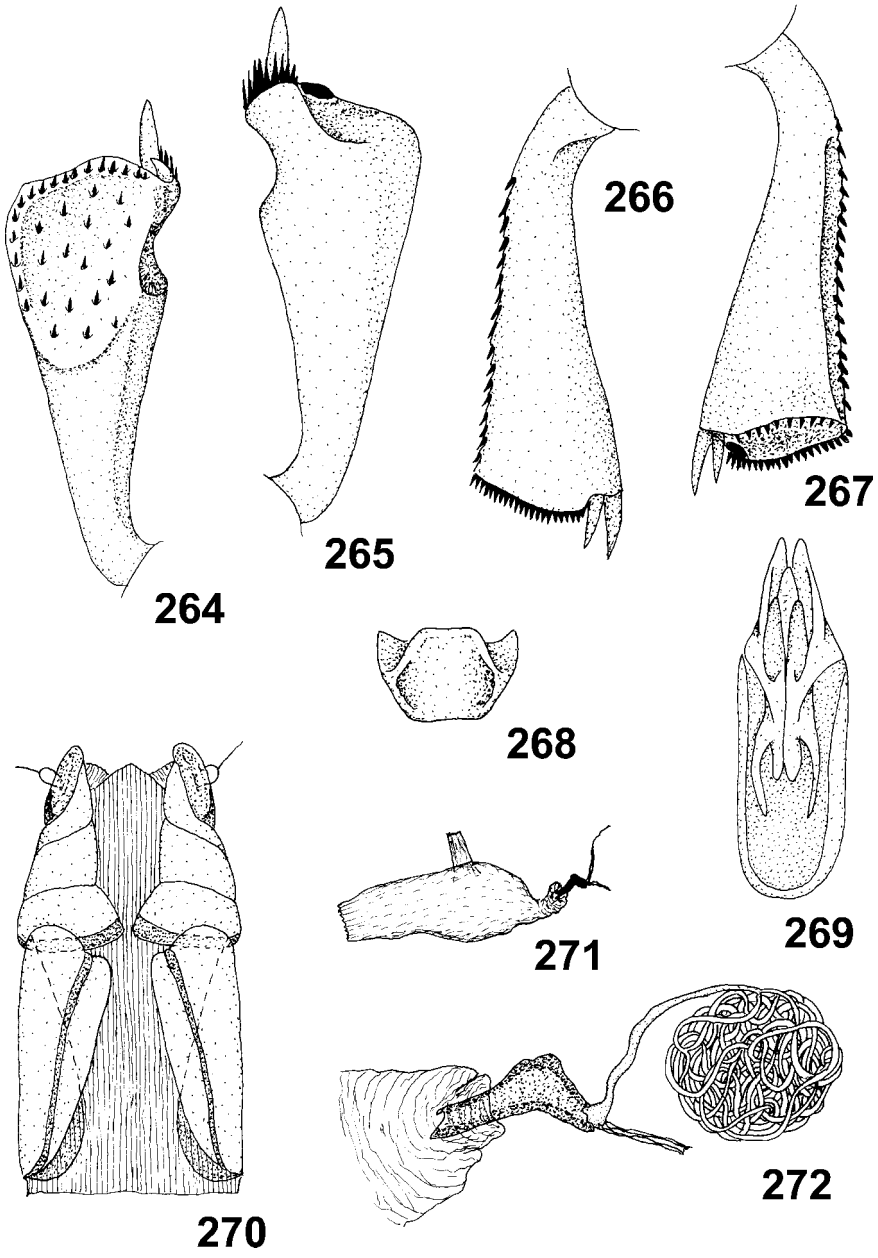
DISTRIBUTION (fig. 2)
Zimbabwe.

Bantodemus similis sp. nov.
(figs 2, 264-272)

NAME DERIVATION
The name is a Latin adjective meaning "similar".

LOCUS TYPICUS
Waterval Bo [Republic of South Africa, Transvaal].

DIAGNOSIS
B. similis resembles *trojani*, *striatus*, *mariepsus*, *swazi* and *kaszabi* in the structure of male fore tibia (without denticle) (figs 264-265).



264-272. *Bantodemus similis*: 264 – ventral and 265 – dorsal view of male fore tibia, 266 – ventral and 267 – dorsal view of male mid tibia, 268 – mentum, 269 – aedeagus, 270 – ovipositor, 271 – internal female genitalia, 272 – spermatheca and part of bursa copulatrix with sclerite

The species belongs to the *caffer*-group (with *striatus* and *trojani*). The structure of its male mid tibia (without denticle, inner margin straight) (figs 266-267) and female genitalia (figs 270-272) (similar to those of *lawrencei*) distinguish *similis* from the above-mentioned species.

DESCRIPTION

Body length 12.9-14.3 mm, pl/pb = 0.66-0.71, el/eb = 1.21-1.23, el/pl = 1.94-2.06, eb/pb = 1.09-1.14 (elytra distinctly wider than pronotum). Surface of body greasy shiny, puncturation as in *caffer*. Mentum as in fig. 268; between gena and tempus 4-5 eye facets visible; antennal segment 3 ca. 1.8-2.2 x longer than segment 2. Pronotum slightly convex, widest at base, ca. 20-24 x as wide as lateral border; sides subparallel for 3/5 length from base; anterior angles obtuse, slightly produced anteriad; lateral border 1.00-1.10 x as wide as antennal segment 3; base shallowly bisinuate, border disappears medially. Scutellum narrow, pkp/st ratio ca. 3.0-3.3. Elytra: all intervals visible on upper side; upper edge of anterior elytral margin arcuately convex, bordered; elytral intervals weakly convex, interval 9 distinctly wider than the remaining ones; striae sharply incised, punctures small; 8th row incomplete, does not reach anterior margin; anterior concavity of 9th row wide and deep. Prosternal process as in *caffer*. Male legs: ratio of segments 1/2 of hind tarsi ca. 2.3-2.5; fore tibia widest at apex, without denticle (figs 264-265); mid tibia simple, inner margin straight (figs 266-267); hind tibia straight, dtk/dod ratio ca. 1.8-1.9, dod/dok ratio ca. 1.7-1.8; all tibiae and femora bare. Aedeagus as in fig. 269, lbp/lap ca. 2.2, lmb/la ca. 6.4. Female genitalia: ovipositor as in fig. 270, paraproct longer than total length of coxites, lp/lc1 ca. 3.9, bc1/lc1 ca. 1.5, c1/c2/c3/c4/c4-c3 = 1.0/1.0/0.9/1.4/0.2, lfb/lo ca. 4.4, bursa copulatrix with a tube-like sclerite situated at posterior part of additional sac (figs 271-272).

TYPES

Holotype (male), TMNH: "S. Afr., E. Transvaal, Waterval Bo, 16.III.1967, D. GOODE; Dr. L. SCHULZE, insectary, no: 684".

Paratypes: S. Afr., E. Transvaal, Waterval Bo, 16.III.1967, D. GOODE; Dr. L. SCHULZE, insectary, no: 684, (TMNH) 5 m, 8 f.

DISTRIBUTION (fig. 2)

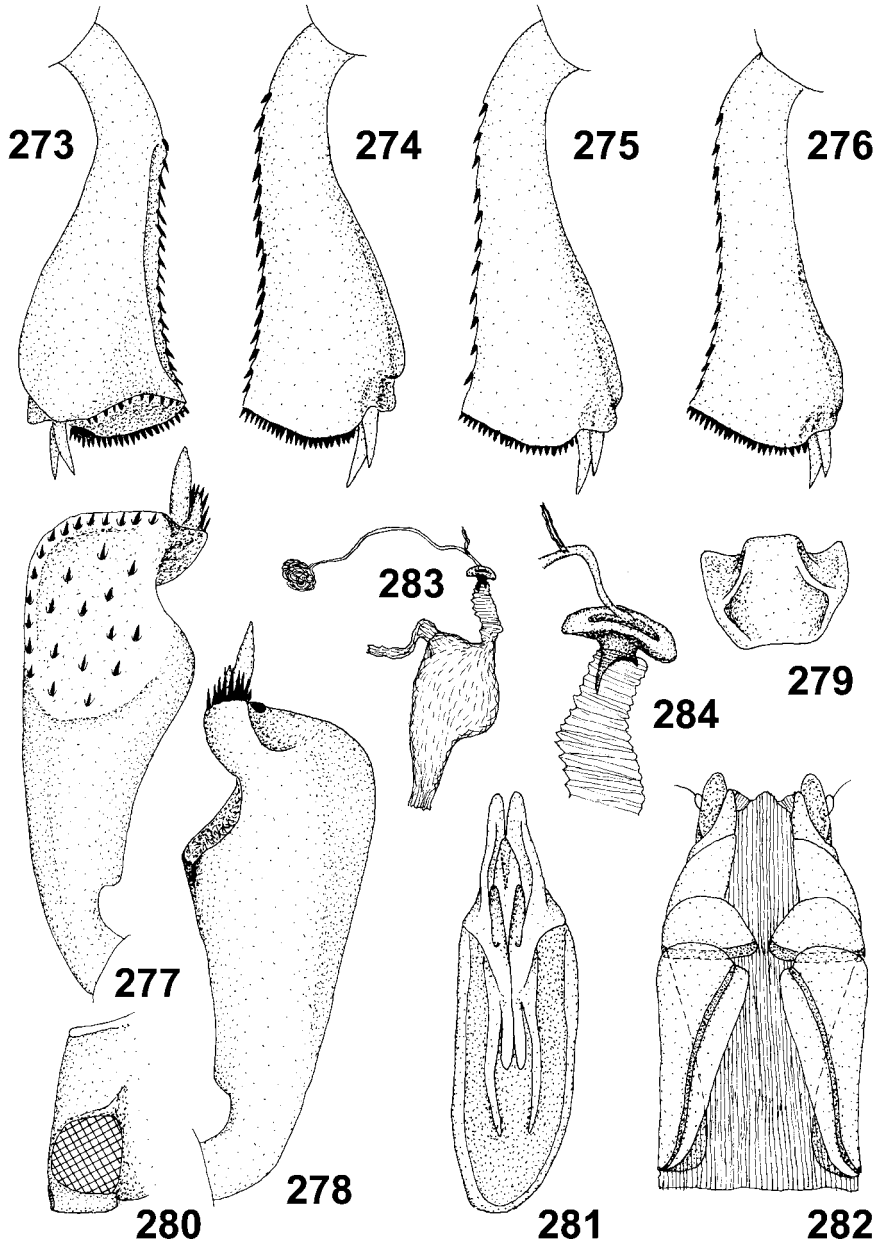
Republic of South Africa (E Transvaal).

***Bantodemus striatus* sp. nov.**

(figs 2, 273-284)

NAME DERIVATION

The Latin "*stria*" means "elytral row".



273-284. *Bantodemus striatus*: 273 – dorsal and 274-276 – ventral view of male mid tibia (273-275 specimens from Transkei; 276 specimen from Port St. John D.), 277 – ventral and 278 – dorsal view of male fore tibia, 279 – mentum, 280 – lateral view of prosternal process, 281 – aedeagus, 282 – ovipositor, 283 – internal female genitalia, 284 – part of bursa copulatrix with sclerite

LOCUS TYPICUS

Ingogo Forest [Republic of South Africa, Cape Province, Port St. John District].

DIAGNOSIS

B. striatus belongs to the *caffer*-group, and is the closest to *similis* (see diagnosis the species).

It differs from its congeners in the presence of an additional, 10th elytral row and in the structure of female genitalia (figs 283-284).

DESCRIPTION

Body length 13.5-16.6 mm, pl/pb = 0.65-0.66, el/eb = 1.32-1.36, el/pl = 2.03-2.11, eb/pb = 1.00-1.05. Surface of body greasy shiny, puncturation as in *caffer*. Mentum as in fig. 279; between gena and tempus 3-4 eye facets visible; antennal segment 3 ca. 1.9-2.1 x longer than segment 2. Pronotum slightly convex, widest at base, ca. 20-23 x as wide as lateral border; sides subparallel for 3/5 length from base; anterior angles obtuse, slightly produced anteriad; lateral border 1.10-1.30 x as wide as antennal segment 3; base shallowly bisinuate, border disappears medially. Scutellum narrow, pkp/st ratio ca. 3.1-3.9. Elytra: all intervals visible on upper side; upper edge of anterior elytral margin arcuately convex, unbordered; elytral intervals weakly convex, interval 9 narrower than the remaining ones; striae sharply incised, punctures small; 8th row incomplete, does not reach anterior margin; anterior concavity of 9th row wide and deep; posterior part of elytron with additional 10th row. Prosternal processes as in fig. 280. Male legs: ratio of segments 1/2 of hind tarsi ca. 2.3-2.5; fore tibia widest at 2/3 from base, without denticle (figs 277-278); mid tibia with an apical denticle (size varied as in figs 273-276), inner margin strongly S-like bent; hind tibia straight, dtk/dod ratio ca. 1.6, dod/dok ratio ca. 1.5-1.6; fore femur with a row of dense hairs on inside. Aedeagus as in fig. 281, lbp/lap ca. 2.2, lmb/la ca. 6.3. Female genitalia: ovipositor as in fig. 282, paraproct longer than total length of coxites, lp/lc1 ca. 4.2, bc1/lc1 ca. 1.5, c1/c2/c3/c4/c4-c3 = 1.0/0.8/1.1/1.5/0.3, lfb/lo ca. 4.9, bursa copulatrix with a tube-like sclerite situated at posterior part of additional sac (figs 283-284).

TYPES

Holotype (male), TMNH: "Z. A. 82, Port St. John D., Ingogo Forest; Humus, XII-1961; N. LELEUP leg.".

Paratypes: Z. A. 82, Port St. John D., Ingogo Forest; Humus, XII-1961; N. LELEUP leg., (TMNH) 3 f; Z. A. 84, Port St. John D., Nxolveni Forest; Humus, XII-1961; N. LELEUP leg., (TMNH) 1 m, 2 f; Palora Riv., mouth Transkei, I. 1962, R. F. LAWRENCE, (TMNH) 1 m; Transkei: coast Dwesa for. res., 32.17S - 28.50E; 26.2.1986; E-Y: 2165, groundtraps, 7 days, leg. ENDRÖDY-YOUNGA; groundtrap with meat bait, (TMNH) 1 m; 27.2.1985; E-Y: 2174, sift. indig. for. litt. leg. ENDRÖDY-YOUNGA,

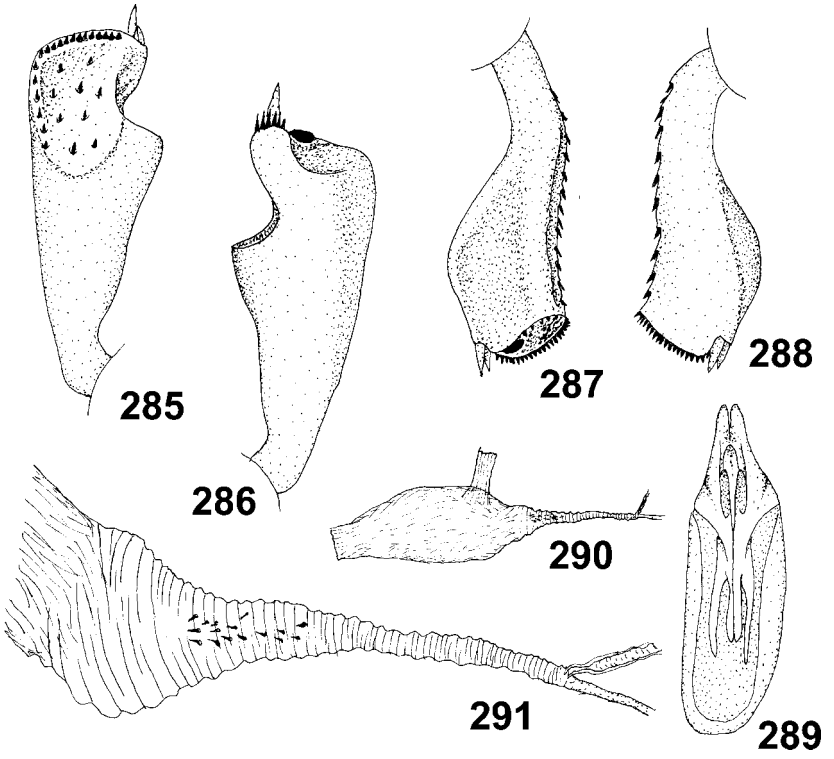
(TMNH) 3 m; 11.12.1979; E-Y: 1697, sifted fores litter, leg. ENDRÖDY-YOUNGA, (TMNH) 1 f; S. Afr., Transkei, Silaka For. Reserve, 31.33S - 29.30E; 24.11.1987; E-Y: 2533, indig. forest litter, leg. ENDRÖDY-YOUNGA, (TMNH) 2 m; S. Afr. Transkei, Ntsubane forest, 31.27S- 29.44E; 26.11.1988; E-Y: 2581, groundtraps, 14 days, leg. ENDRÖDY-YOUNGA; groundtrap with faeces bait, (TMNH) 4 f.

DISTRIBUTION (fig. 2)
Republic of South Africa (Cape Province).

Bantodemus swazi KOCH, 1955
(figs 2, 285-291)

Bantodemus swazi KOCH, 1955: 432.

LOCUS TYPICUS
Mbabane [Swaziland].



285-291. *Bantodemus swazi*: 285 – ventral and 286 – dorsal view of male fore tibia, 287 – dorsal and 288 – ventral view of male mid tibia, 289 – aedeagus, 290 – internal female genitalia, 291 – part of bursa coplatrix with sclerites

DIAGNOSIS

See diagnosis of *B. mariepsus*.

DESCRIPTION

Body length 11.7-12.0 mm, pl/pb = 0.67-0.71, el/eb = 1.22-1.31, el/pl = 1.88-2.05, eb/pb = 1.06-1.09 (elytra much wider than pronotum). Body puncturation as in *tristis*. Between gena and tempus 5 eye facets visible; antennal segment 3 ca. 2.5-2.6 x longer than segment 2. Pronotum slightly convex, widest at base, 16-18 x as wide as lateral border; sides for 2/3 length from base subparallel (trapezial in female); anterior angles obtuse, slightly produced anteriad; lateral border 1.00-25 x as wide as antennal segment 3; base shallowly bisinuate. Scutellum of medium width, pkp/st ratio ca. 2.5-3.0. Elytra moderately convex, all intervals visible on upper side; humeral angle protruding outwards; upper edge of anterior elytral margin arcuately convex, without border; elytral intervals slightly convex, interval 9 slightly wider than the remaining ones; striae sharply incised, regular, punctures small, round; 8th row incomplete, does not reach anterior elytral margin; anterior concavity of 9th row wide and deep. Prosternal process as in *tristis*. Male legs: ratio of segments 1/2 of hind tarsi ca. 2.4-3.0; inner side of fore tibia widened, without a denticle (figs 285-286); inner margin of male mid tibia S-like bent, widened medianly (figs 287-288); hind tibia straight, dtk/dod ratio ca. 1.4-1.5, dod/dok ratio ca. 1.6-1.8; fore femur moderately wide, with a row of hairs anteriorly; hind femur simple, setose on inside. Aedeagus as in fig. 289, lbp/lap ca. 2.5, lmb/la ca. 5.9. Female genitalia: ovipositor - paraproct longer than total length of coxites, lp/lc1 ca. 3.6, bc1/lc1 ca. 1.5, c1/c2/c3/c4/c4-c3 = 1.0/0.9/0.7/1.1/0.3, lfb/lo ca. 5.2, bursa copulatrix with additional funnel-like sac, and numerous spines at its base (figs 290-291).

TYPES

Paratypes: Mbabane, Swaziland, Jan. 1937, R. F. LAWRENCE, (TMNH) 1 m, 1 f.

DISTRIBUTION (fig. 2)

Swaziland.

Bantodemus transvaalensis KOCH, 1955

(figs 2, 292-300)

Bantodemus transvaalensis KOCH, 1955: 433.

LOCUS TYPICUS

Zebediela [Republic of South Africa, Transvaal, Potgietersrust District].

DIAGNOSIS

B. transvaalensis is similar to *zimbabwensis* and *rhodesianus* in its fore (with very short denticle) (figs 296-298) and mid (inner margin straight) (figs 293-294) male tibiae.

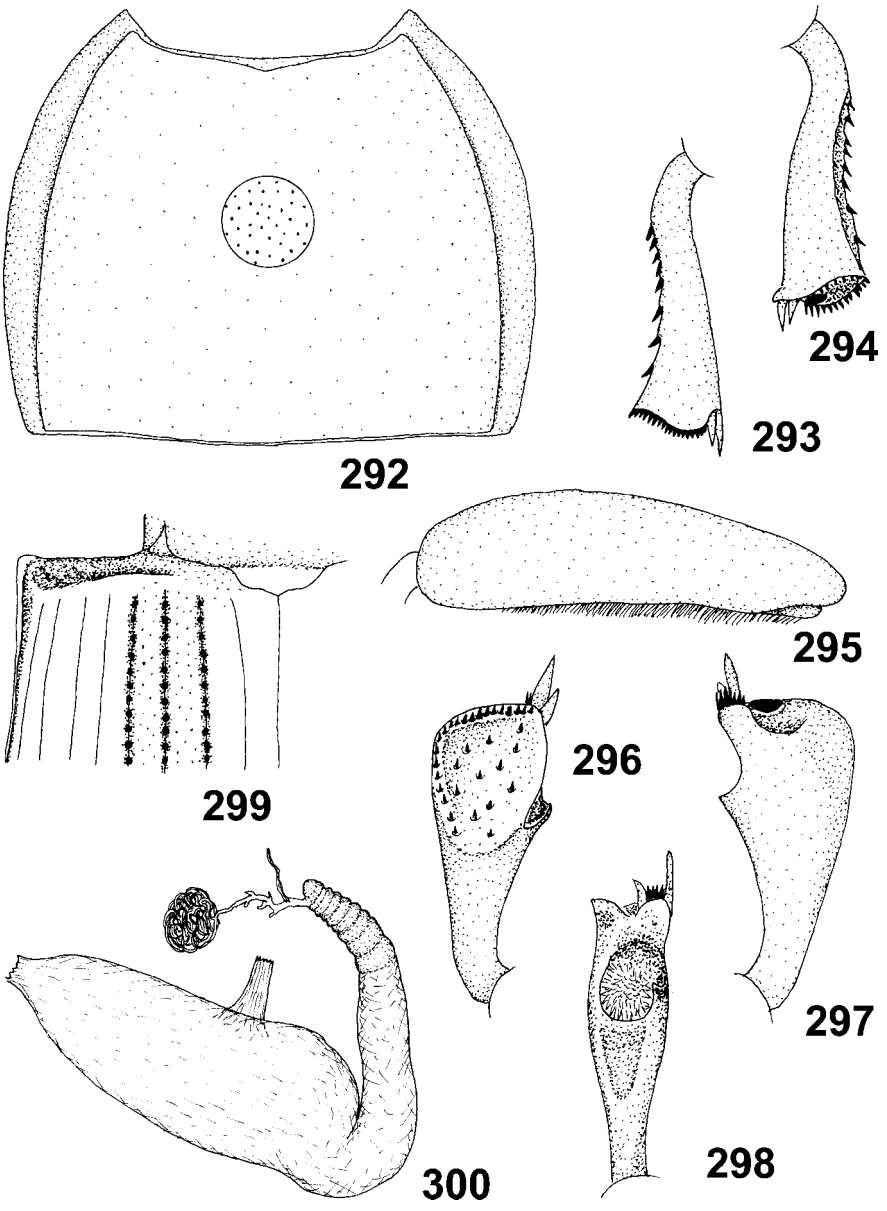
The structure of bursa copulatrix (cf. figs 300 and 373), elytral anterior margin (arcuately convex in *transvaalensis*; obtuse in *zimbabwensis* and *rhodesianus*), and setosity of male fore and hind femora (absent in *zimbabwensis* and *rhodesianus*; present in *transvaalensis*) clearly distinguish *transvaalensis* from the above-mentioned species.

DESCRIPTION

Body length 8.2-9.5 mm, pl/pb = 0.73-0.76, el/eb = 1.28-1.34, el/pl = 1.83-1.96, eb/pb = 1.05-1.09 (elytra wider than pronotum). Surface of body shiny, sparsely and delicately punctate, episternum and prosternum smooth; puncturation of head and pronotum distinct; abdominal ventrites I-III with numerous longitudinal, delicate wrinkles. Eyes distinctly protruding outwards, between gena and tempus 4-6 facets visible; antennal segment 3 ca. 1.4-1.8 x longer than segment 2. Pronotum weakly convex, widest at 2/3 from base (fig. 292), ca. 11-14 x as wide as lateral border; anterior angles sharp, distinctly produced anteriad; lateral border wide, ca. 1.80-2.00 x as wide as antennal segment 3; base shallowly bisinuate. Scutellum of medium width, pkp/st ratio ca. 2.8-2.9. Elytra as in fig. 299; slightly tucked in posteriorly, but not at apex (part of interval 9 visible from underside); humeral angle strongly protruding outwards; upper edge of anterior elytral margin arcuately convex, unbordered; elytral intervals strongly convex, interval 9 distinctly wider than the remaining ones; striae sharply incised, punctures large; 8th row incomplete, does not reach anterior margin; anterior concavity of 9th row narrow and shallow. Prosternal process as in *caffer*. Male legs: ratio of segments 1/2 of hind tarsi ca. 2.7-3.0; fore tibia widest at 2/3 from base, with a minute, sharp denticle (figs 296-298); mid tibia with an apical denticle, inner margin straight (figs 293-294); hind tibia slightly bent inwards, dtk/dod ratio ca. 1.3-1.5, dod/dok ratio ca. 1.6; inner edge of fore femur with a row of hairs (fig. 295), hind femur setose on inside. Aedeagus: lbp/lap ca. 2.3, lmb/la ca. 5.8. Female genitalia: ovipositor - paraproct longer than total length of coxites, lp/lc1 ca. 3.6, bc1/lc1 ca. 1.7, c1/c2/c3/c4/c4-c3 = 1.0/0.7/0.8/1.5/0.4, lfb/lo ca. 4.8, bursa copulatrix without sclerite, additional sac distinctly elongated (fig. 300).

TYPES

Paratypes: Nylstrom Distr., Transv. 06, A. TUCKER; Paratypus, *Bantodemus transvaalensis* sp. n. C. KOCH, (TMNH) 2 m; Nyl., Wast, Blauwb., 20. I. 03, 4609; Paratype No 1255, *Bantodemus transvaalensis* KOCH (TMNH) 1 m; Zoutpansb.Transv.; *Trigonopus parallelus*, type PJ; Paratypus, *Bantodemus transvaalensis* sp. n. C. KOCH, (TMNH) 1 m (examined).



292-300. *Bantodemus transvaalensis*: 292 – pronotum, 293 – ventral and 294 – dorsal view of male mid tibia, 295 – male hind tibia, 296 – ventral, 297 – dorsal and 298 – lateral view of male fore tibia, 299 – anterior part of elytron, 300 – internal female genitalia

MATERIAL EXAMINED

S. Afr.: N. Transvaal, Naboomspruit, 20.10.1992; leg. ENDRÖDY-YOUNGA, (TMNH) 1 m;

Nylstrom Distr., Transv. ob., A. TUCKER; SAM-Col-AO 11899, (SAM) 1 m, 4 f;

DISTRIBUTION (fig. 2)

Republic of South Africa (N Transvaal).

***Bantodemus tristis* KOCH, 1955**

(figs 2, 301-325)

Bantodemus tristis KOCH, 1955: 437.

LOCUS TYPICUS

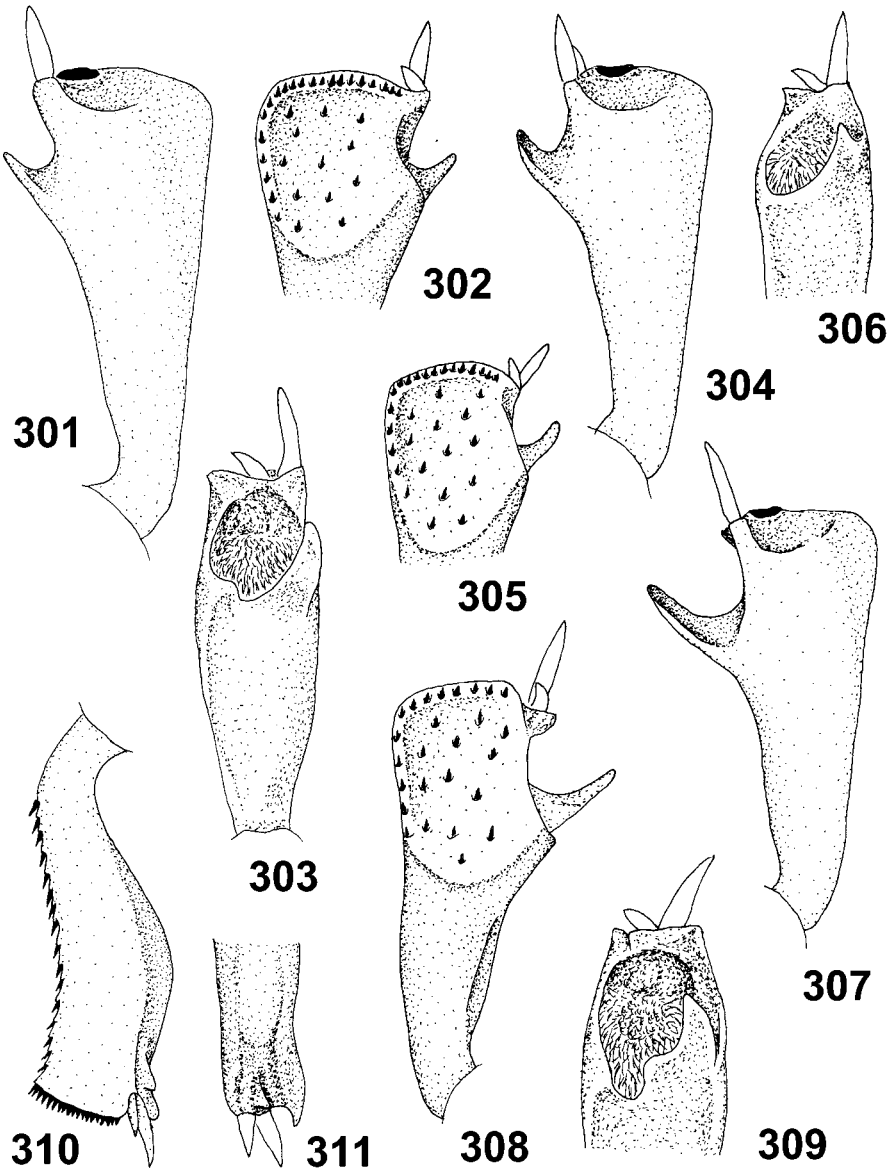
Barbeton [Republic of South Africa, Transvaal, Barbeton District].

DIAGNOSIS

B. tristis is close to *mariepsus*, *swazi* and *typhon* in the presence of numerous small spines in the bursa copulatrix (figs 234-235). The structure of 8th row (complete, reaching to anterior elytral margin) and male tibia place *tristis* close to *typhon*, from which it differs in the shape of the denticle on the male fore tibia (figs 301-309, 312-318).

DESCRIPTION

Body length 10.0-12.5 mm, pl/pb = 0.67-0.71, el/eb = 1.22-1.29, el/pl = 1.86-1.90, eb/pb = 1.00-1.05. Surface of body greasy shiny, very sparsely and delicately punctate, elytral intervals and episternum smooth; puncturation of head, meso- and metasternum distinct; abdominal ventrites I-III with numerous longitudinal, delicate wrinkles. Between gena and tempus 3-4 eye facets visible; antennal segment 3 ca. 2.1-2.2 x longer than segment 2. Pronotum moderately convex, widest at base, 18-20 x as wide as lateral border; sides for 2/3 length from base subparallel; anterior angles obtuse, slightly produced anteriad; lateral border 1.20-1.32 x as wide as antennal segment 3; base shallowly bisinuate. Scutellum of medium width, pkp/st ratio ca. 2.8-3.0. Elytra moderately convex, all intervals visible on upper side; humeral angle protruding outwards; upper edge of anterior elytral margin arcuately convex, without border; elytral intervals moderately convex, interval 9 slightly wider than the remaining ones; striae sharply incised, regular, punctures small, round; 8th row complete, reaching to anterior elytral margin; anterior concavity of 9th row moderately wide and deep. Prosternal process bordered, protruding towards mesosternum. Male legs: ratio of segments 1/2 of hind tarsi ca. 2.0-2.4; inner side of fore tibia with a sharp denticle bent inwards (its length and shape of the ventral excavation are much variable,

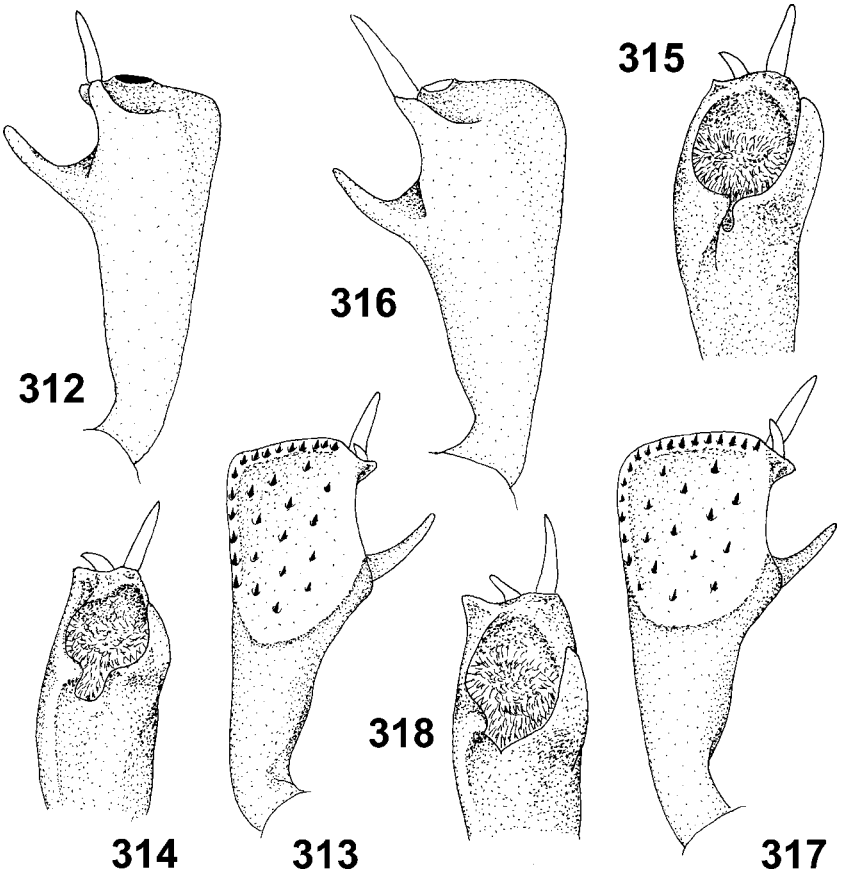


301-311. *Bantodemus tristis*: 301, 304, 307 – dorsal, 302, 305, 308 – ventral and 303, 306, 309 – lateral view of male fore tibia, 310 – dorsal and 311 – lateral view of male mid tibia (specimens from Peegs Peak and Uitsoek 301-303, from Sabie 304-306 and from Orhigstad-Pilgrimar 307-311)

figs 301-309, 312-318); mid tibia with a well visible apical denticle and median convexity on inside, inner margin S-like bent (figs 310-311); hind tibia straight, dtk/dod ratio ca. 1.5-1.8, dod/dok ratio ca. 1.3-1.5; fore femur moderately wide, inner margin with a row of hairs anteriorly; hind femur simple, setose on inside. Aedeagus as in figs 321-323, shape of lacinia variable, lbp/lap ca. 2.4-2.8, lmb/la ca. 5.5-6.5. Female genitalia: ovipositor as in fig. 319-320, paraproct longer than total length of coxites, lp/lc1 ca. 3.8, bc1/lc1 ca. 1.6, c1/c2/c3/c4/c4-c3 = 1.0/1.0/1.0/1.3/0.2, lfb/lo ca. 4.6-5.2, bursa copulatrix with additional funnel-like sac, and 20-30 spines at its base (figs 324-325).

TYPES

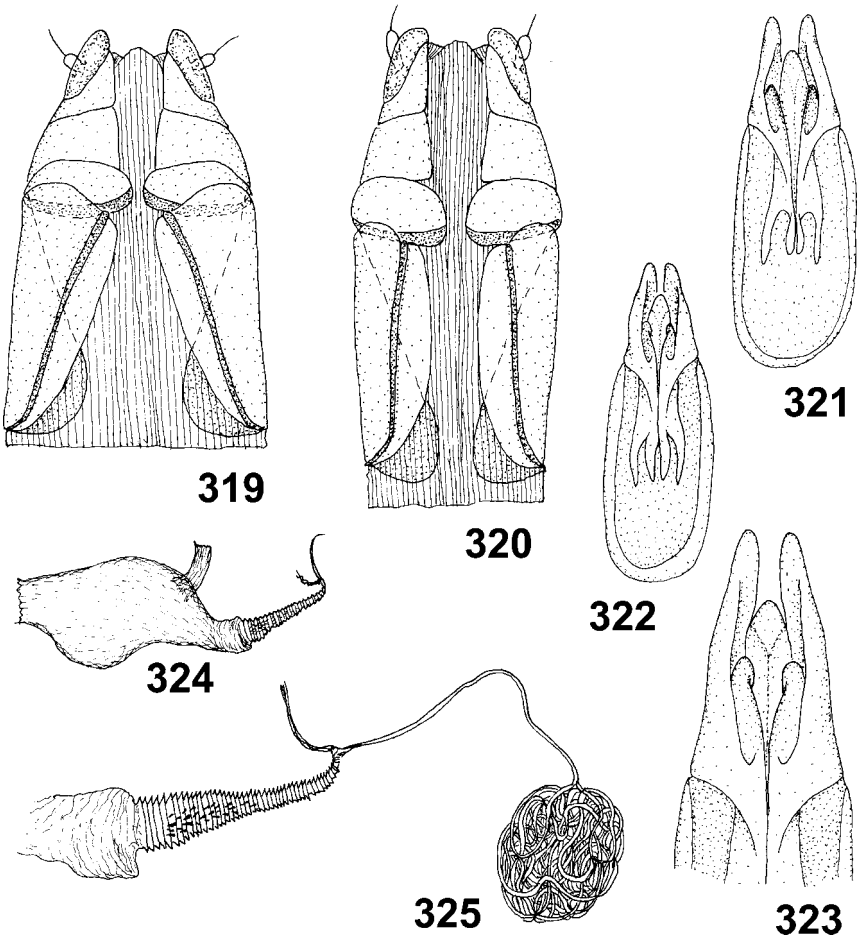
Holotype (male), TMNH: "Barbeton, McAlister; Holotype No: 1256, *Bantodemus tristis* KOCH" (examined).



312-318. *Bantodemus tristis*: 312, 316 – dorsal, 313, 317 – ventral and 314, 315, 318 – lateral view of male fore tibia (specimens from Pilgrims Rest 312-314, from Leydenburg-Orhigstad 315 and from Mariepskop 316-318)

Allotype: Barbeton, McALISTER; Allotype No: 1257, *Bantodemus tristis* KOCH, (TMNH) 1 f.

Paratypes: Barbeton, McALISTER; Paratype No: 1258 (f),1260 (m), 1261 (m), (TMNH); Barbeton, LEVETZOW; Paratype No: 1259 (f) (TMNH); Rosehaugh, E. Transvaal, X. 1952, G. VAN SON; Paratype No: 1262 (f), 1263 (f), 1264 (f), (TMNH); Piet Retief , Transvaal, Dr. BRAUNS, 3.1918, Paratype No: 1269 (m), 1273 (m), (TMNH); Nelspruit nr Barbeton, Transvaal, Jan. 1939, R. F. LAWRENCE; Paratypus, *Bantodemus tristis* sp. n., C. KOCH, (TMNH) 7 m, 1 f (examined).



319-325. *Bantodemus tristis*: 319, 320 – ovipositor, 321-323 – aedeagus, 324 – internal female genitalia, 325 – spermatheca and part of bursa copulatrix with sclerites (specimens from Piggs Peak 320-321, from Pilgrims Rest 319, 322 and from Leydenburg-Orhigstad 323)

MATERIAL EXAMINED

Z. A. 9, Mariepskop, Transvaal; N. LELEUP leg.; Humus, VIII-1960, (TMNH) 1 m; Z. A. 93, Leydenburg D., Orhigstad; N. LELEUP leg.; Humus, III-1962, (TMNH) 2 m, 1 f; S. Afr., Transvaal, Orhigstad-Pilgrimar., 24.50 S - 30.35 E; 28.11.1986; E-Y: 2325, on ground und. bush, leg. ENDRÖDY-YOUNGA, (TMNH) 1 m; SW. 5, Piggs Peak, Swaziland; Alt. 4000 pieds, *Ericetum* degrade, X-1961; N. LELEUP leg., (TMNH) 1 m, 3 f; S. Afr., E. Tvl. Uitsoek, high alt. grassveld, 25.15 S - 30.34 E; 7.2.1987; E-Y: 2429, groundtraps, 61 days, leg. ENDRÖDY-YOUNGA: singled around traps at setting, (TMNH) 4 m, 4 f; E-Y: 2316, from under stones, leg. ENDRÖDY-YOUNGA, (TMNH) 2 m, 11 f; S. Afr., Tvl. Uitsoek, Grootkloof ind. for., 25.15 S - 30.33 E; 15.12.1986; E-Y: 2392, groundtraps, 53 days, leg. ENDRÖDY-YOUNGA; singled around traps at removal, (TMNH) 1 m, 1 f; Pilgrims Rest, E. Tvl. (3 mi W) 3.IX.72, DAVIS R & A KLUGE; 672, (TMNH) 1 m, 4 f; 2.V.1970, Sabie, Transvaal, Cl. BESNARD leg.; Museum Paris, (MNHN) 5 m, 8 f.

DISTRIBUTION (fig. 2)

Republic of South Africa (E Transvaal), Swaziland.

***Bantodemus trojani* sp. nov.**

(figs 2, 326-337)

NAME DERIVATION

The species is named in honour of Professor Dr. Przemysław TROJAN from the Museum and Institute of Zoology, Polish Academy of Sciences, Warsaw.

TERRA TYPICA

Nelspruit [Republic of South Africa, Transvaal, Nelspruit District].

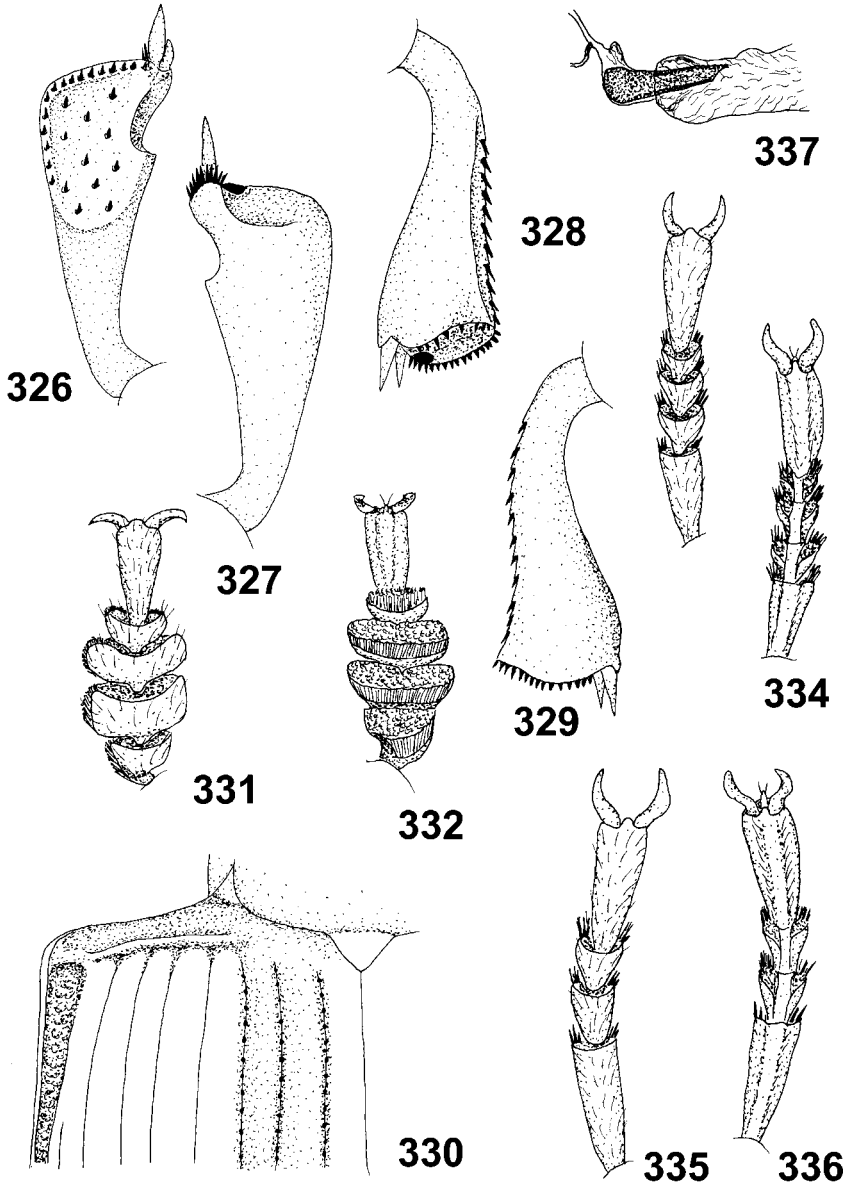
DIAGNOSIS

B. trojani belongs to the *caffer*-group. The species is the closest to *lawrencei* in the structure of the anterior elytral margin (upper edge distinctly convex and bordered) (fig. 330) and mid tibia (the presence of small apical denticle and S-like inner margin).

B. trojani differs from *lawrencei* in the structure of female genitalia (fig. 337).

DESCRIPTION

Body length 10.5-11.0 mm, pl/pb = 0.69-0.71, el/eb = 1.30-1.34, el/pl = 1.94-2.02, eb/pb = 1.04-1.08. Surface of body greasy shiny, puncturation as in *lawrencei*. Between gena and tempus 3-4 eye facets visible; antennal segment 3 ca. 1.7-2.0 x longer than segment 2. Pronotum as in *lawrencei*, ca. 17-21 x as wide as lateral border; lateral border 1.00-1.15 x as wide as antennal segment 3. Scutellum narrow, pkp/st ratio ca. 3.1-3.4. Elytra (anterior part as in fig. 330), prosternal



326-337. *Bantodemus trojani*: 326 – ventral and 327 – dorsal view of male fore tibia, 328 – dorsal and 329 – ventral view of male mid tibia, 330 – anterior part of elytron, 331 – dorsal and 332 – ventral view of male fore tarsus, 333 – dorsal and 334 – ventral view of male mid tarsus, 335 – dorsal and 336 – ventral view of male hind tibia, 337 – part of bursa copulatrix with sclerite

process and abdominal ventrites as in *lawrencei*. Male legs: tarsi as in figs 331-336, ratio of segments 1/2 of hind tarsi ca. 2.5-2.7; fore tibia widest at 2/3 from base, with a very short and sharp denticle (figs 326-327); mid tibia with very small apical denticle, inner margin weakly S-like bent (figs 328-329); hind tibia straight, dtk/dod ratio ca. 1.5-1.7, dod/dok ratio ca. 1.3-1.7; all tibiae and femora bare. Aedeagus: lbp/lap ca. 2.0, lmb/la ca. 6.6. Female genitalia: ovipositor - paraproct longer than total length of coxites, lp/lc1 ca. 4.0, bc1/lc1 ca. 1.6, c1/c2/c3/c4/c4-c3 = 1.0/1.0/1.0/1.3/0.3, lfb/lo ca. 4.1, bursa copulatrix with a tube-like sclerite situated at posterior part of additional sac (fig. 337).

TYPES

Holotype (male), TMNH: "S. Afr; Tvl. Nelspruit, Nat. Res., dry valley, 25.29 S - 30.55 E; 23.9.1986; E-Y: 2286, groundtraps, 33 days, leg. ENDRÖDY-YOUNGA; groundtrap with banana bait".

Paratypes: S. Afr; Tvl. Nelspruit, Nat. Res., dry valley, 25.29 S - 30.55 E; 23.9.1986; E-Y: 2286, groundtraps, 33 days, leg. ENDRÖDY-YOUNGA; groundtrap with banana bait, (TMNH) 1 f; 25.10.1986; E-Y: 2314, groundtraps, 34 days, leg. ENDRÖDY-YOUNGA; groundtrap with banana bait, (TMNH) 1 m, 2 f; 9.2.1986; E-Y: 2435, groundtraps, 58 days, leg. ENDRÖDY-YOUNGA; groundtrap with banana bait, (TMNH) 1 m; 18.12.1986; E-Y: 2399, groundtraps, 53 days, leg. ENDRÖDY-YOUNGA; groundtrap with faeces, (TMNH) 1 m, 1 f;

DISTRIBUTION (fig. 2)

Republic of South Africa (E Transvaal).

Bantodemus typhon (MULSANT et REY, 1853)

(figs 2, 338-365)

Trigonopus typhon MULSANT et REY, 1853a: 40. - GEMMINGER et HAROLD 1870: 1911; GEBIEN 1910: 272; 1938: 292.
Bantodemus typhon (MULSANT et REY): KOCH 1955: 440.

TERRA TYPICA

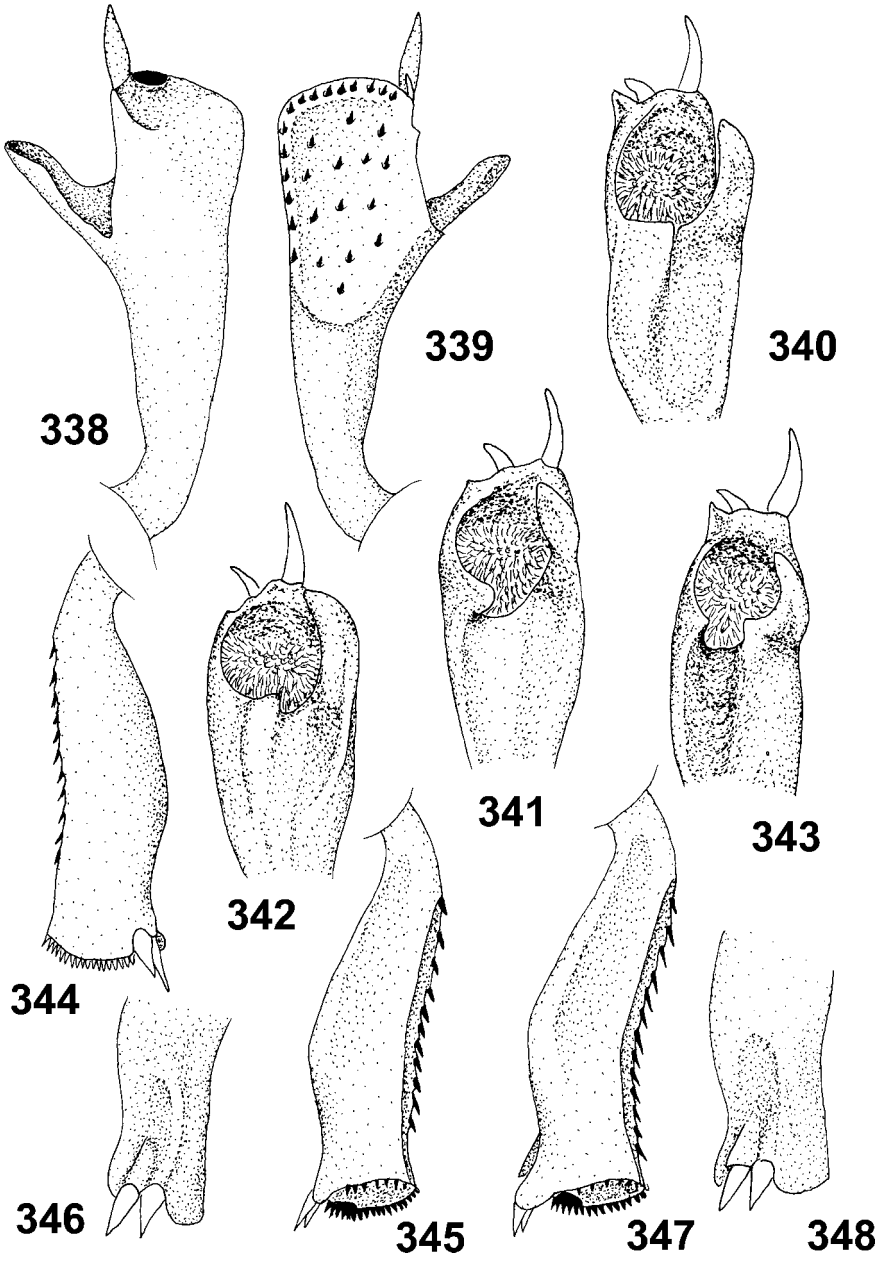
Natal [Republic of South Africa].

DIAGNOSIS

See diagnosis of *B. tristis*.

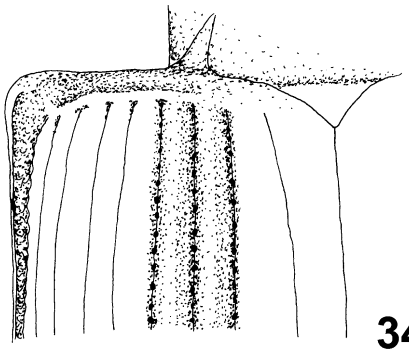
DESCRIPTION

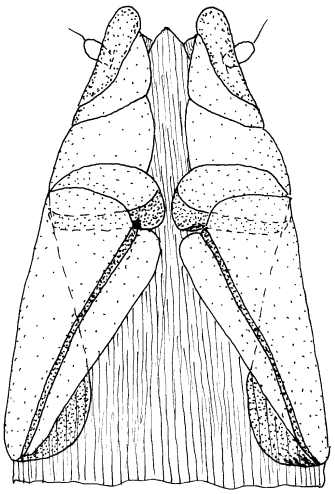
Body length 10.0-13.5 mm, pl/pb = 0.69-0.79, el/eb = 1.26-1.31, el/pl = 1.83-2.00, eb/pb = 1.05-1.08 (elytra much wider than pronotum). Body puncturation as in *tristis*. Mentum as in figs 363-365; between gena and tempus 4-5 eye facets visible; antennal segment 3 ca. 2.0-2.4 x longer than segment 2. Pronotum

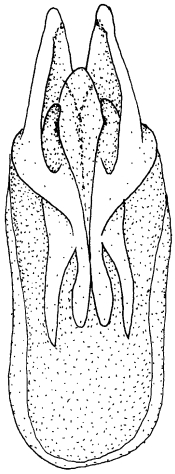


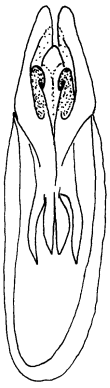
338-348. *Bantodemus typhon*: 338 – dorsal, 339 – ventral and 340-343 - lateral view of male fore tibia, 344 – ventral, 345, 347 – dorsal and 346, 348 – lateral view of male mid tibia (specimens from Berlin 338-340, 344-348, from Johannesburg 341, from Barbeton 342 and from Leydenburg-Orhigstad 343)

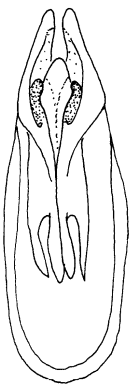
moderately convex, widest at base, 16-20 x as wide as lateral border; sides for 2/3 length from base subparallel; anterior angles obtuse, slightly produced anteriad; lateral border 1.20-1.50 x as wide as antennal segment 3; base shallowly bisinuate. Scutellum of medium width, pkp/st ratio ca. 2.3-2.6. Elytra (anterior part as in fig. 349) and prosternal process as in *tristis*. Male legs: ratio of segments 1/2 of

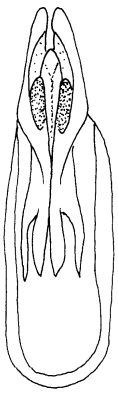




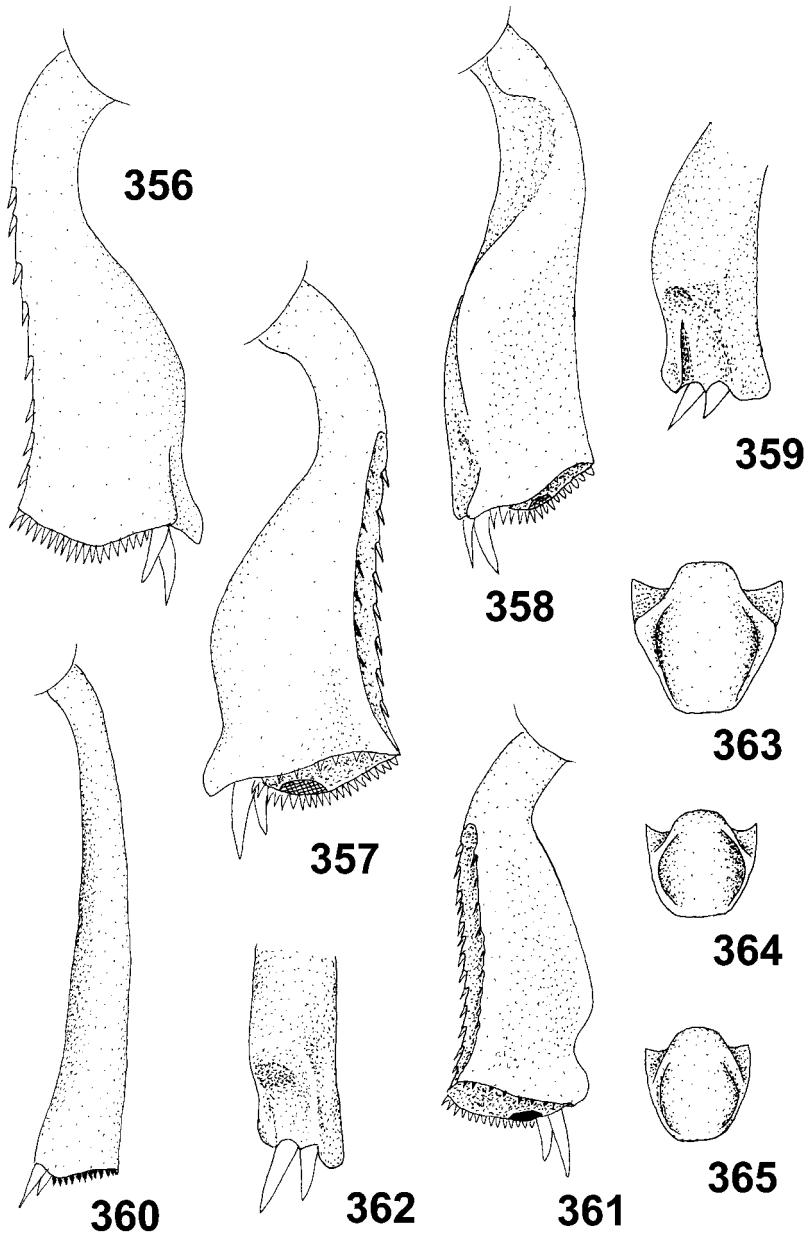








349-355. *Bantodemus typhon*: 349 – anterior part of elytron, 350 – ovipositor, 351 – part of bursa copulatrix with sclerites, 352-355 – aedeagus (specimens from Leydenburg-Orhigstad 352 and from Nelshoogte 353-355)



356-365. *Bantodemus typhon*: 356, 361 – ventral, 357 – dorsal, 358 – latero-dorsal and 359, 362 – lateral view of male mid tibia, 360 – male hind tibia, 363-365 – mentum, (specimens from Lyndenburg 356-359, 363, from Johannesburg 361-362, from Carolina 364 and from Lake chrissie 365)

hind tarsi ca. 2.6-2.9; inner side of fore tibia with a straight denticle (its length and shape of the ventral excavation are much variable, figs 338-343); mid tibia with a well visible apical denticle and median convexity on inside, inner margin S-like bent (figs 345-348, 356-359, 361-362); hind tibia straight (fig. 360), dtk/dod ratio ca. 1.3-1.6, dod/dok ratio ca. 1.4-1.5; fore and hind femora as in *tristis*. Aedeagus as in figs 352-355 (shape of lacinia variable), lbp/lap ca. 2.2-2.8, lmb/la ca. 5.5-6.7. Female genitalia: ovipositor as in fig. 350, paraproct longer than total length of coxites, lp/lc1 ca. 4.3, bc1/lc1 ca. 1.8, c1/c2/c3/c4/c4-c3 = 1.0/1.0/1.0/1.7/0.4, lfb/lo ca. 5.1, bursa copulatrix with additional funnel-like sac, and 20-30 spines at its base (fig. 351).

NOTES

Examination of type specimens of *typhon* and *lugubris* made me verify KOCH's (1955) interpretation of the above-mentioned species (see also *caffer*). An additional confusion is due to the fact that a part of the paratypes of *Bantodemus tristis* described by KOCH in 1955 are actually *B. typhon* (see "Material examined" of *typhon*).

TYPE

Holotype (male), MNHN: "Natal; *Trigonopus typhon*; Museum Paris, 1906, Coll. L. FAIRMAIRE" (examined).

MATERIAL EXAMINED

Paratypes of *Bantodemus tristis* KOCH, 1955: Waterval onder, 9 Nov. 1910, A. J. T. JANSE; *Bantodemus tristis* KOCH, Paratype No: 1265 (m), 1266 (m), 1267 (m), 1268 (m), (TMNH); Waterval onder, 2 Nov. 1910, A. J. T. JANSE, Paratypus, *Bantodemus tristis* sp. n. C. KOCH, (TMNH) 1 m; Waterval onder, 22 Nov. 1910, A. J. T. JANSE, Paratypus , *Bantodemus tristis* sp. n. C. KOCH, (TMNH) 1 f; Waterval Boven, III. 1928, FITZSIMONS; *Bantodemus tristis* KOCH, Paratype No: 1274 (m), 1275 (f), (TMNH); Middelburg, Transvaal, Paratypus, *Bantodemus tristis* sp. n., C. KOCH, (TMNH) 1 m;

S. Afr; Tv. Nelshoogte, Knuckles grassveld, 25.47 S - 30.50 E; groundtrap with meat bait; 11.2.1987; E-Y: 2443, groundtraps, 56 days, leg. ENDRÖDY-YOUNGA; (TMNH) 4 m, 4 f; groundtrap with banana bait; 24.10.1986; E-Y: 2310, groundtraps, 41 days, leg. ENDRÖDY-YOUNGA, (TMNH) 7 m, 2 f; groundtrap with faeces bait; 26.9.1986; E-Y: 2293, groundtraps, 29 days, leg. ENDRÖDY-YOUNGA, (TMNH) 5 f; S. Afr., E. Transvaal, Berlin; Karst plat., 25.31 S - 30.46 E; groundtrap with banana bait; 4.2.1987; E-Y: 2411, groundtraps, 41 days, leg. ENDRÖDY-YOUNGA; (TMNH) 8 m, 6 f; 6.4.1987; E-Y: 2455, fungous pine logs, leg. ENDRÖDY-YOUNGA, (TMNH) 1 f; groundtrap with faeces bait; 23.10.1986; E-Y: 2301, groundtraps, 42 days, leg. ENDRÖDY-YOUNGA, (TMNH) 1 m, 3 f; groundtrap with banana bait; 10.12.1986; E-Y: 2411, groundtraps, 56 days, leg. ENDRÖDY-YOUNGA; (TMNH) 1 f; groundtrap with banana bait; 20.9.1986; E-Y:

2279, groundtrap, 33 days, leg. ENDRÖDY-YOUNGA; (TMNH) 2 f; Z. A. 74, Carolina Distr., Barbeton 52 m; Humus X-1961; N. L. LELEUP leg., (TMNH) 13 m, 4 f; S. Afr., E. Transvaal, Nelspruit, Bot. Gard., 25.31 S - 30.32 E; 9.11.1980; E-Y: 1726, ground & fruits, leg. ENDRÖDY-YOUNGA; (TMNH) 2 f; Carolina , Transv., 12.51, R. PINKURY; Museum Paris, Coll. P. ARDOIN, 1978, (MNHN) 1 m; Transvaal, Machadodorf; *Trigonopus spinipes* MULS. R., det. dr. KASZAB, (HNHM) 1 m; Transvaal, Lyndenburg; *Trigonopus lethaeus* MULS. R., det. dr. KASZAB, (HNHM) 1 m; Johannesburg, Transvaal, G. KOBROW, 2.35, (TMNH) 1 m, 1 f; Carolina, 19.12.31, J. L. SWIERSTRA, *Trigonopus lugubris* FAHR., KOCH det. (TMNH) 2 m; Lake chrissie, Transvaal, nov. 1938, R. F. LAWRENCE, (TMNH) 2 m; Lyndenburg, Distr. 1896, P. A. KRANTZ, (TMNH) 1 m; Lyndenburg, Transvaal, F. WILMS, S. V., (TMNH) 1 m, 2 f.

DISTRIBUTION (fig. 2)
Republic of South Africa (Transvaal, Natal).

Bantodemus vescus KOCH, 1955
(figs 2, 392-400)

Bantodemus vescus KOCH, 1955: 446.

LOCUS TYPICUS
Gr. Letaba [Republic of South Africa, Transvaal, Letaba District].

DIAGNOSIS
See diagnosis of *B. lucidus*.

DESCRIPTION
Body length 10.4-11.8 mm, pl/pb = 0.71-0.76, el/eb = 1.18-1.26, el/pl = 1.70-1.79, eb/pb = 1.02-1.06 (elytra much wider than pronotum). Surface of body shiny, very sparsely and delicately punctate. Mentum as in fig. 397; between gena and tempus 5-6 eye facets visible; antennal segment 3 ca. 2.0-2.3 x longer than segment 2. Pronotum moderately convex, widest at 3/5 length from base, 15-18 x as wide as lateral border; anterior angles slightly produced anteriad; lateral border 1.38-1.55 x as wide as antennal segment 3; base straight, slightly arcuate. Scutellum of medium width, pkp/st ratio ca. 2.4-2.7. Elytra moderately convex, slightly tucked in posteriorly, but not at apex (part of interval 9 visible from underside); humeral angle protruding outwards; upper edge of anterior elytral margin forming gradual slope, unbordered; elytral intervals flat, interval 9 wider than the remaining ones; striae shallowly incised, punctures very small, round; 8th row shortened, disappearing just before anterior elytral margin; anterior concavity of 9th row extremely narrow and shallow. Prosternal process saddle-

like concave, only apex protruding towards mesosternum, a delicate border visible. Male legs: ratio of segments 1/2 of hind tarsi ca. 2.5-3.0; fore tibia widened, inner side with a long, strongly protruding denticle (figs 392-393); mid tibia with an apical denticle inside, outer side with a concavity (fig. 394); hind tibia widened at ½ length from base to apex, slightly bent inside (fig. 396), dtk/dod ratio ca. 1.3-1.5, dod/dok ratio ca. 1.5; fore femur widened, with a row of setae inside, hind femur as in fig. 395. Aedeagus (fig. 398): lbp/lap ca. 2.3, lmb/la ca. 6.1. Female genitalia: ovipositor as in fig. 399, paraproct longer than total length of coxites, lp/lc1 ca. 3.3, bc1/lc1 ca. 1.6, c1/c2/c3/c4/c4-c3 = 1.0/1.0/0.7/1.3/0.4, lfb/lo ca. 5.3, bursa copulatrix simple (without sclerite), with enlarged additional sac (fig. 400); egg size ca. 1.3x0.9 mm.

TYPES

Holotype (male), TMNH: " Gr. Letaba, 30.12.02, Dr BREYER; 3534; *Trigonopus vescus* PER. in lit., det A.IH; Holotype No: 1290, *Bantodemus vescus* KOCH" (examined).

Paratypes: Transvaal, Zoutpansberg, Mphôme; *Trigonopus* sp. aff. *spinipes*, det. dr. KASZAB; Paratype no 1291, *Bantodemus vescus* KOCH, (HNHM) 1 m; Transvaal, Zoutpansberg, MPHÔME, Magd. KNOTHE S.; Paratypus *Bantodemus vescus* sp. n., C. KOCH, (TMNH) 1 m, 1 f, (examined).

MATERIAL EXAMINED

Ironcrown - Wolkberg, nr. Haenertsburg, E. Tvl., 17-26.XI.1970, L. PROZESKY and A. STRYDOM, (TMNH) 2 m, 1 f; S. Afr., E. Transvaal, Iron Crown; 11-13.I.1984, leg. ENDRÖDY-YOUNGA, (TMNH) 1 m; S. Afr.; NW Transvaal, Ellisras, 28 km S., 23.55 S - 27.45 E; 30.3.1974; E-Y: 344, indigenous bush, leg. L. SCHULZE, (TMNH) 1 f.

DISTRIBUTION (fig. 2)

Republic of South Africa (N Transvaal).

***Bantodemus zimbabwensis* sp. nov.**

(figs 2, 366-373)

NAME DERIVATION

The species is named after its terra typica.

TERRA TYPICA

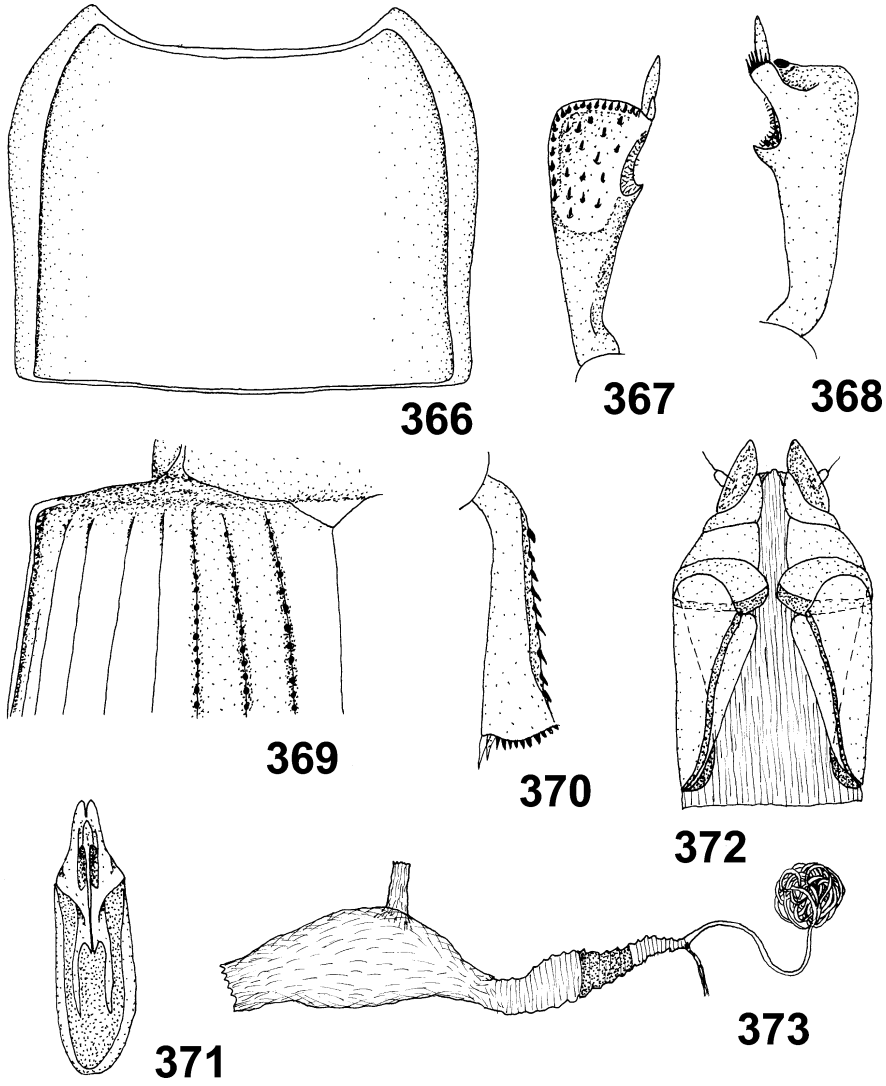
Vumba Montains [Zimbabwe].

DIAGNOSIS

The species resembles the *lucidus*-group, *dentipes*, *funduzilis* and *rhodesianus* in the slightly arcuate pronotal base (fig. 366) and narrow, shallow anterior

concavity of 9th row (fig. 369), as well as in the structure of the upper edge of anterior elytral margin (forming gradual slope, unbordered)

The shape of prosternal process (protruding towards mesosternum) and male hind femur (simple, without denticle) distinguish *zimbabwensis*, *dentipes*, *funduzilis* and *rhodesianus* from the *lucidus*-group.



366-373. *Bantodemus zimbabwensis*: 366 – pronotum, 367 – ventral and 368 – dorsal view of male fore tibia, 369 – anterior part of elytron, 370 – male mid tibia, 371 – aedeagus, 372 – ovipositor, 373 – internal female genitalia

B. zimbabwensis is separated from the above-mentioned species by the structure of the male mid tibia (without denticle) (fig. 370).

DESCRIPTION

Body length 8.0-8.6 mm, pl/pb = 0.73-0.78, el/eb = 1.26-1.30, el/pl = 1.80-2.01, eb/pb = 1.05- 1.14 (elytra wider than pronotum). Surface of body shiny, puncturation as in *caffer*. Between gena and tempus 3 eye facets visible; antennal segment 3 ca. 1.2-1.5 x longer than segment 2. Pronotum moderately convex, widest at 2/3 from base (fig. 366) (at base in female), ca. 14-15 x as wide as lateral border; anterior angles obtuse, slightly produced anteriad; lateral border wide ca. 1.82-2.00 x as wide as antennal segment 3; base shallowly bisinuate. Scutellum narrow, pkp/st ratio ca. 3.0-3.2. Elytra, anterior part as fig. 369; slightly tucked in posteriorly, but not at apex (part of interval 9 visible from underside); humeral angle slightly protruding outwards; upper edge of anterior elytral margin forming gradual slope, unbordered; elytral intervals flat, interval 9 distinctly wider than the remaining ones; striae sharply incised, punctures small; 8th row incomplete, does not reach anterior margin; anterior concavity of 9th row narrow and shallow. Prosternal process as in *caffer*. Male legs: ratio of segments 1/2 of hind tarsi ca. 2.6-2.9; fore tibia widest at 2/3 from base, with minute, sharp denticle (figs 367-368); mid tibia simple, without denticle, inner margin straight (fig. 370); hind tibia straight, dtk/dod ratio ca. 1.4-1.6, dod/dok ratio ca. 1.3-1.4; all femora and tibiae simple, bare. Aedeagus as in fig. 371, lbp/lap ca. 2.4, lmb/la ca. 5.3. Female genitalia: ovipositor as in fig. 372, anterior part of paraproct elongated, paraproct longer than total length of coxites, lp/lc1 ca. 3.2, bc1/lc1 ca. 1.6, c1/c2/c3/c4/c4-c3 = 1.0/0.7/0.6/1.3/0.5 (plate c4 distinctly elongated), lfb/lo ca. 5.0, bursa copulatrix with a tube-like sclerite (fig. 373).

TYPES

Holotype (male), TMNH: "Vumba Mts, S. Rhodesia, 24.2.1956, Nat. Museum S. Rhodesia".

Paratypes: Vumba Mts, S. Rhodesia, 24.2.1956, Nat. Museum S. Rhodesia, (TMNH) 1 m, 1 f, 27.1.1955, (TMNH) 1 f; Kokstad, E. GRIQUALAND, 30.5.1955, Nat. Museum S. Rhodesia (TM) 1 f; STRYDOM Tunnel, 5-8-68; Cl. BESNARD, Transvaal, Afrique du Sud; *Bantodemus* det. KASZAB, (NHNM) 1 m.

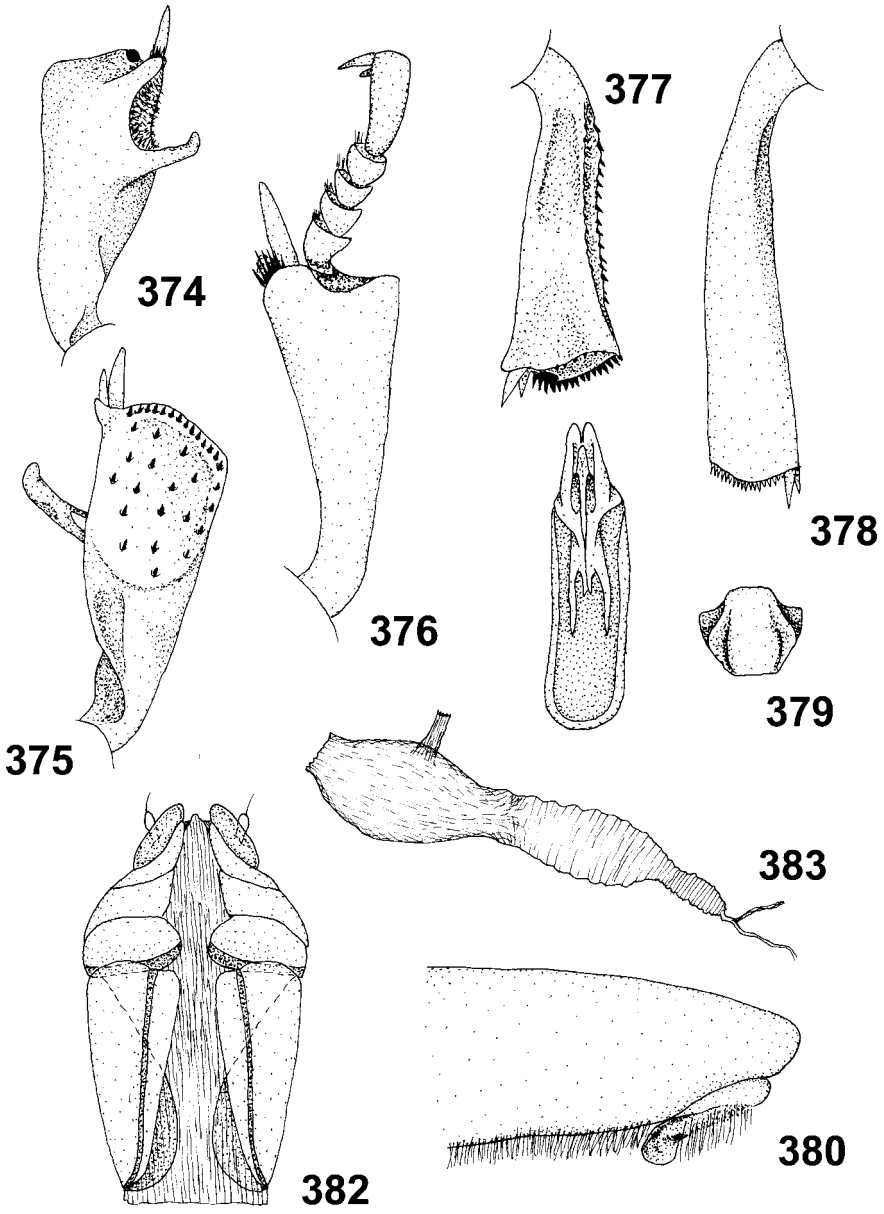
DISTRIBUTION (fig. 2)

Republic of South Africa (N Transvaal), Zimbabwe.

Bantodemus zoutpansbergianus KOCH, 1955

(figs 2, 374-383)

Bantodemus zoutpansbergianus KOCH, 1955: 446.



374-383. *Bantodemus zoutpansbergianus*: 374 – dorsal and 375 – ventral view of male fore tibia, 376 – female fore tarsus and tibia, 377 – male mid tibia, 378 – male hind tibia, 379 – mentum, 380 – part of male hind femur and trochanter, 381 – aedeagus, 382 – ovipositor, 383 – internal female genitalia

LOCUS TYPICUS
Zoutpansberg [Republic of South Africa, Transvaal, Zoutpansberg District].

DIAGNOSIS
See diagnosis of *B. lucidus*.

DESCRIPTION
Body length 11.2-11.7 mm, pl/pb = 0.80-0.85, el/eb = 1.25-1.35, el/pl = 1.58-1.72, eb/pb = 1.01-1.05 (elytra wider than pronotum). Surface of body shiny, sparsely and delicately punctate, episternum practically smooth. Mentum as in fig. 379; between gena and tempus 3-4 eye facets visible; antennal segment 3 ca. 1.9-2.0 x longer than segment 2. Pronotum moderately convex, widest at 3/5 length from base, ca. 13-15 x as wide as lateral border; anterior angles moderately produced anteriad; lateral border 1.6-2.0 x as wide as antennal segment 3; base straight, slightly arcuate. Scutellum moderately large, pkp/st ratio ca. 2.2-2.7. Elytra convex, slightly tucked in posteriorly, but not at apex (part of interval 9 visible from underside); humeral angle protruding outwards; upper edge of anterior elytral margin forming gradual slope, unbordered; elytral intervals flat, interval 9 wider than the remaining ones; striae shallow, punctures small, round; 8th row shortened, disappearing just before anterior elytral margin; anterior concavity of 9th row narrow and shallow. Prosternal process saddle-like concave, only apex protruding towards mesosternum, a delicate border visible. Female fore tibia as in fig. 376. Male legs: ratio of segments 1/2 of hind tarsi ca. 2.5-2.6; fore tibia distinctly widened, inner side with a sharp, strongly protruding denticle and additional small one at its base (figs 374-375); mid tibia with an apical denticle inside, outer side with a concavity (fig. 377); hind tibia widened at 1/3 length from base to apex, slightly bent inside (fig. 378), dtk/dod ratio ca. 1.3-1.4, dod/dok ratio ca. 1.5-1.7; fore femur widened, with a row of setae inside, hind femur as in fig. 380. Aedeagus (fig. 381): lbp/lap ca. 2.7 (shortened apical part), lmb/la ca. 5.9. Female genitalia: ovipositor as in fig. 382, paraproct longer than total length of coxites, lp/lc1 ca. 4.4, bc1/lc1 ca. 2.1, c1/c2/c3/c4/c4-c3 = 1.0/0.8/0.9/1.7/0.5, lfb/lo ca. 5.5, bursa copulatrix simple (without sclerite), with enlarged additional sac (fig. 383).

TYPE
Holotype (male), TMNH: "Zoutpansberg, Nov. 1924, H. J. HESKE; Holotype No: 1289, *Bantodemus zoutpansbergianus* KOCH" (examined).

MATERIAL EXAMINED
4.XII.1951, Zimbabwe, Rhodesie; Museum Paris, coll. P. ARDOIN, 1978, (MNHN) 1 m, 1 f; 25.XII.1970, Zimbabwe, Rhodesie Sud, J. & M. SEDLACEK; Museum Paris, (MNHN) 1 f; Farm Vergesigte, Mariepskop, 16.11.1967, (TMNH) 1 f; S. Afr., Transvaal, Blouberg, 19.V.1982, 23.04 S - 28.59 E; leg. HAACKE, Wessels, (TMNH) 3 m, 2 f.

DISTRIBUTION (fig. 2)
Republic of South Africa (N Transvaal), Zimbabwe.

Bantodemus zulu KOCH, 1955
(figs 2, 384-391)

Bantodemus zulu KOCH, 1955: 442.

TERRA TYPICA
Zululand [Republic of South Africa, Natal].

DIAGNOSIS
B. zulu belongs to the *caffer*-group, and is the closest to *bevisi* (see diagnosis the latter species).

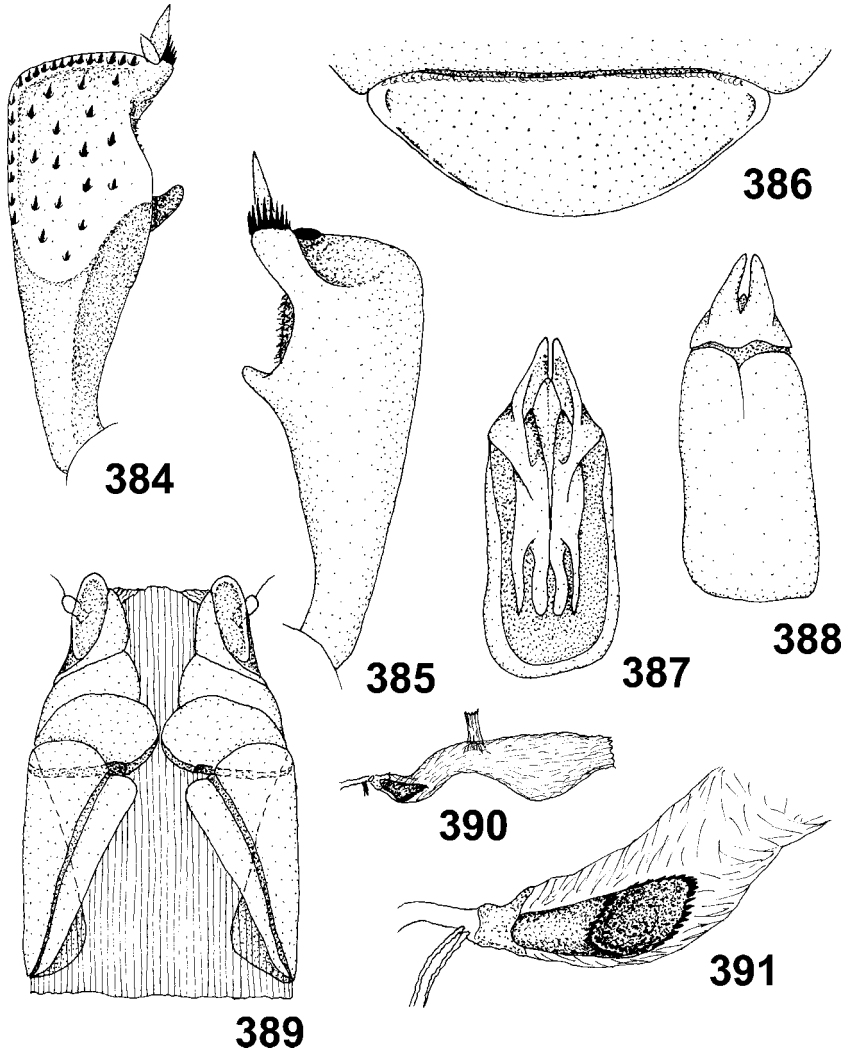
DESCRIPTION
Body length 12.9-15.0 mm, pl/pb = 0.68-0.70, el/eb = 1.26-1.31, el/pl = 1.87-2.04, eb/pb = 1.01-1.06 (elytra wider than pronotum). Surface of body greasy shiny, puncturation as in *caffer*. Between gena and tempus 3 eye facets visible; antennal segment 3 ca. 2.2-2.4 x longer than segment 2. Pronotum widest at 2/3 from base, ca. 18-20 x as wide as lateral border, sides subparallel; anterior angles obtuse, slightly produced anteriad; lateral border 1.15-1.40 x as wide as antennal segment 3; base shallowly bisinuate. Scutellum of medium width, pkp/st ratio ca. 2.4-2.8. Elytra moderately convex, slightly tucked in posteriorly, but not at apex (part of interval 9 visible from underside); upper edge of anterior margin slightly convex, unbordered; elytral intervals distinctly convex, interval 9 wider than the remaining ones; striae sharply incised, punctures small; 8th row incomplete, does not reach anterior margin; anterior concavity of 9th row wide and deep. Prosternal process as in *caffer*, 5th abdominal ventrite unbordered or with interrupted, evanescent border (fig. 386). Male legs: ratio of segments 1/2 of hind tarsi ca. 2.2; fore tibia widest at 2/3 from base, with a medium-size denticle (figs 384-385); mid tibia with an apical denticle and median convexity on inside, inner margin strongly S-like bent; hind tibia straight, dtk/dod ratio ca. 2.0, dod/dok ratio ca. 1.4; fore femur moderately wide, with a row of hairs anteriorly; hind femur simple, setose on inside. Aedeagus as in figs 387-388, lbp/lap ca. 2.3, lmb/la ca. 6.2. Female genitalia: ovipositor as in fig. 389, paraproct longer than total length of coxites, lp/lc1 ca. 3.0 (plate c1 distinctly enlarged), bc1/lc1 ca. 1.6, c1/c2/c3/c4/c4-c3 = 1.0/0.6/0.6/1.4/0.3, lfb/lo ca. 5.9, bursa copulatrix with a tube-like sclerite situated at posterior part of additional sac (figs 390-391).

TYPES
Paratypes: Zululand, July 1938, R. LAWRENCE, S. A. Museum, (TMNH) 4 m; Ingwavuma, July 1938, R. LAWRENCE; Paratype No: 1280, *Bantodemus zulu*

KOCH, (TMNH) 1 m; H. A. JUNOD, Ricatla, Paratype No: 1281, *Bantodemus zulu* KOCH, (TMNH) 1 m; Delagoa, (TMNH) 1 m (examined).

MATERIAL EXAMINED

S. Afr., Zululand, Gwaliweni forest, 10.IV.1961, D. RORKE; Dr. L. SCHULZE, insectary no. 179 (TMNH) 8 m, 6 f; Gwaliweni Forest, N. Zululand, XII. 1960, P. DE MOOR, (TMNH) 3 f; Umbelusi, 18.2.09; in stable; SAM-COL-AO 11809, (SAM) 1 m.

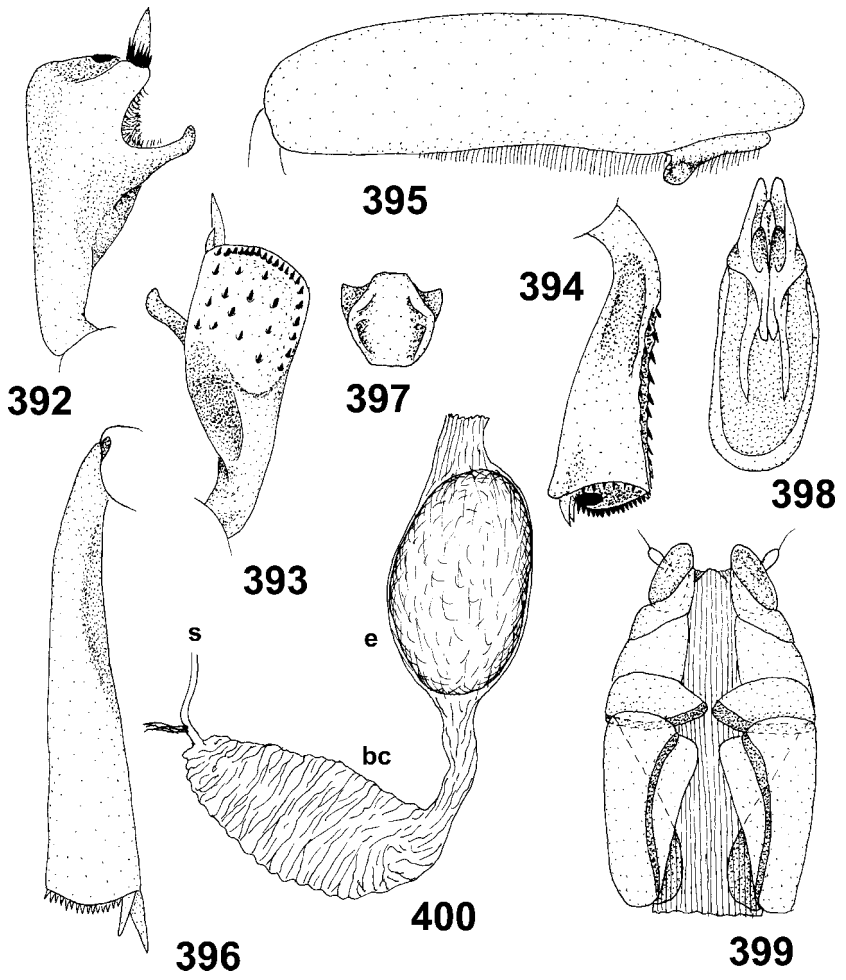


384-391. *Bantodemus zulu*: 384 – ventral and 385 – dorsal view of male fore tibia, 386 – last abdominal ventrite, 387 – ventral and 388 – dorsal view of aedeagus, 389 – ovipositor, 390 – internal female genitalia, 391 – part of bursa copulatrix with sclerite

DISTRIBUTION (fig. 2)
Republic of South Africa (Natal).

Parabantodemus **gen. nov.**

NAME DERIVATION
The name is coined from a Greek prefix, para (=near) and the generic name *Bantodemus*.



392-400. *Bantodemus vescus*: 392 – dorsal and 393 – ventral view of male fore tibia, 394 – male mid tibia, 395 – male hind femur and trochanter, 396 – male hind tibia, 397 – mentum, 398 – aedeagus, 399 – ovipositor, 400 – internal female genitalia (bc – bursa copulatrix, e – egg)

TYPE SPECIES
Trigonopus spinipes MULSANT et REY, 1953; gender masculine.

DIAGNOSIS
The structure of mentum (pillow-like median keel) (fig. 411) and the sculpture of body surface (delicate, barely visible puncturation) place *Parabantodemus* close to *Bantodemus*, from which it differs in the lateral pronotal border (cf. figs 401 and 366) and the border of the last abdominal ventrite (present in *Parabantodemus*, absent in *Bantodemus*).

Parabantodemus resembles *Trigonopus* in its pronotal base (distinctly bisinuately emarginate) (fig. 401), anterior elytral margin (convex and produced anteriorly, fig. 410), and pronotal lateral border (equally narrow); both genera differ in their body surface (smooth in *Parabantodemus*; with distinct puncturation and flat tubercles in *Trigonopus*) and mentum (mid part pillow-like in *Parabantodemus* and a distinct, median keel in *Trigonopus*).

DESCRIPTION
See description of *Parabantodemus spinipes* (MULSANT et REY, 1853).

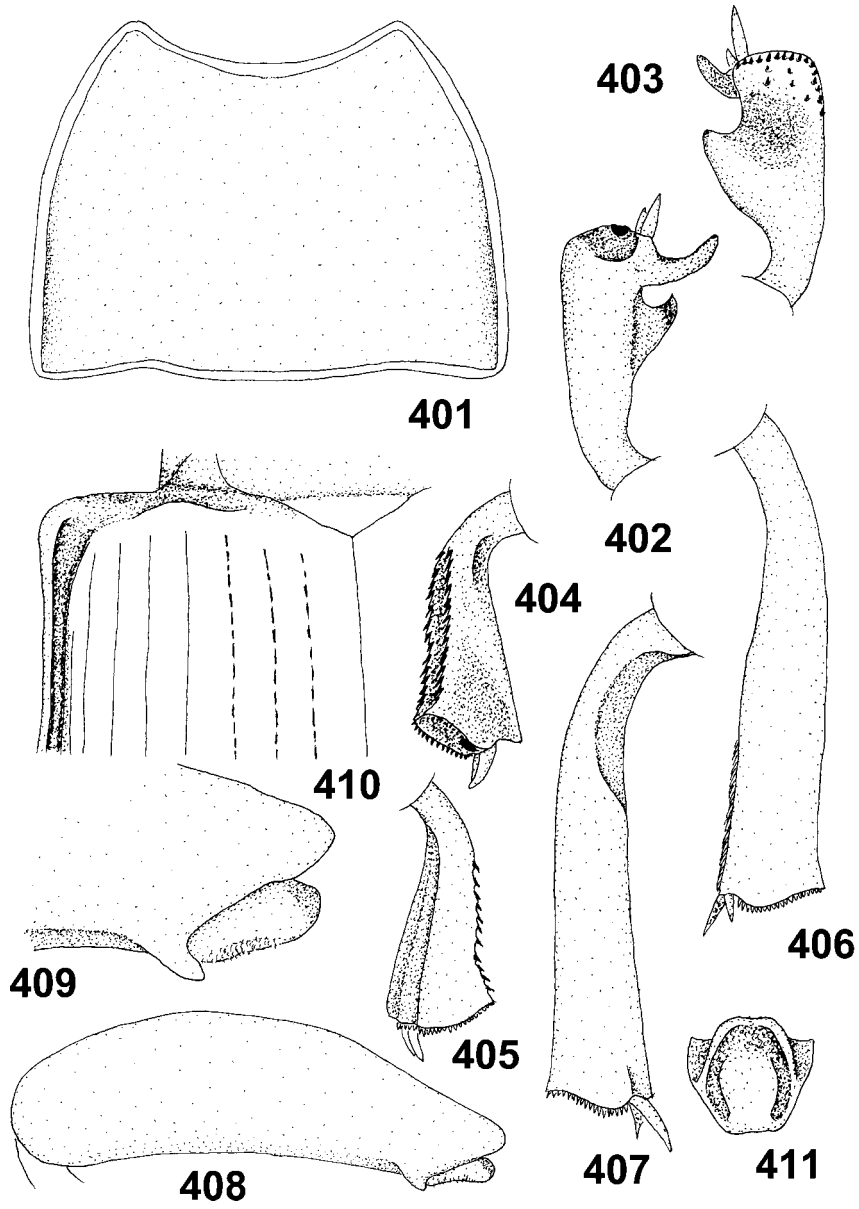
Parabantodemus spinipes (MULSANT et REY, 1853) comb. nov.
(figs 401-411)

Trigonopus spinipes MULSANT et REY 1853: 30.
Melanopterus spinipes (MULSANT et REY): KOCH 1956: 89.

TERRA TYPICA
"L'Afrique".

DIAGNOSIS
See diagnosis of *Parabantodemus* gen. nov.

DESCRIPTION
Body length 16.5 mm, pl/pb = 0.66, el/eb = 1.24, el/pl = 1.94, eb/pb = 1.03. Body oval, moderately convex, elytra not tucked in posteriorly; colour black, upperside mat with a greasy sheen, underside slightly shiny. Head distinctly widest anterior to eyes or at eye level. Mentum as in fig. 411, mid part narrowed apically; median keel very wide and flat (pillow-like), reaching anterior margin; lateral margins (wings) moderately wide, well visible. Eyes strongly narrowed laterally, between gena and tempus only 1 facet visible. Antenna similar to that in *Trigonopus*, antennal segment 3 ca. 2.5 x longer than segment 2. Pronotum subparallel at 2/3 from base, narrowed anteriorly (fig. 401); anterior angles slightly produced anteriad, posterior angles rounded, base distinctly bisinuate; lateral border slightly convex, 0.80 x as wide as antennal segment 3; basal border



401-411. *Parabantodemus spinipes*: 401 – pronotum, 402 – dorsal and 403 – ventral view of male fore tibia, 404 – dorsal and 405 – ventral view of male mid tibia, 406 – ventral and 407 – dorsal view of male hind tibia, 408 – male hind femur and trochanter, 409 – part of male hind femur and trochanter, 410 – anterior part of elytron, 411 – mentum

narrow. Scutellum narrow, pkp/st ratio ca. 2.9. Upper edge of anterior elytral margin arcuately convex and produced anteriad (fig. 410); lower edge often strongly, sharply arched, passing into widely rounded humeral angle. Elytral intervals flat; punctures in striae disappearing, striae of sulcate type. Elytral epipleura smooth, at humeral angle slightly bent; upper edge strongly convex, well visible in apical part. Prosternal process protruding towards mesosternum, with border dissapearing at apex. Body apterous, metasternum shortened. Abdominal ventrites delicately punctate, anterior margins with longitudinal, fine wrinkles; last ventrite bordered. Male legs: fore and mid tibia distinctly widened, and covered with thorns on underside, without bare shiny gutters on underside; ratio of segments 1/2 of hind tarsi ca. 2.0; fore tibia widest at apex, with 2 strongly protruding denticles on inner side (figs 402-403); mid tibia with a sharp ridge on inner margin and an obtuse apical denticle, outer margin with 2 longitudinal ridges (figs 404-405); hind tibia slightly bent inside, outer margin obtuse (figs 406-407), dtk/dod ratio ca. 2.0, dod/dok ratio ca. 1.4; hind femur with a small denticle on base (near trochanter) (figs 408-409). General structure of aedeagus as in other members of the trigonopoid *Platynotina*.

TYPES

Holotype (male), MNHN: "Afrique, Delalande; Museum Paris, Afrique Australe, Delalande; *spinipes*; Museum Paris, 1906, Coll. L. FAIRMAIRE".

LIST OF SPECIES

Genus *Bantodemus* KOCH, 1955:

B. armatus (MULSANT et REY, 1853)
B. bevisi KOCH, 1955
B. caffer (FÄHRAEUS, 1870)
B. calcaratus KOCH, 1955
B. dentipes (FÄHRAEUS, 1870)
B. drakensbergensis **sp. nov.**
B. funduzilis KOCH, 1955
B. furcatus KOCH, 1955
B. goldengatensis **sp. nov.**
B. hluhluwensis **sp. nov.**
B. imitator KOCH, 1955
B. kaszabi KOCH, 1955
B. lawrencei KOCH, 1955
B. lethaeus (MULSANT et REY, 1853)
B. lucidus KOCH, 1955
B. mariepsus KOCH, 1955
B. marietzensis KOCH, 1955
B. melancholicus KOCH, 1955

B. milleri **sp. nov.**
B. mocambiqueus KOCH, 1955
B. moerens (FÄHRAEUS, 1870)
B. natalensis **sp. nov.**
B. parvulus **sp. nov.**
B. pubipes KOCH, 1955
B. rectimanus KOCH, 1955
B. rhodesianus KOCH, 1955
B. similis **sp. nov.**
B. striatus **sp. nov.**
B. swazi KOCH, 1955
B. transvaalensis KOCH, 1955
B. tristis KOCH, 1955
B. trojani **sp. nov.**
B. typhon (MULSANT et REY, 1853)
B. vescus KOCH, 1955
B. zimbabwensis **sp. nov.**
B. zoutpansbergianus KOCH, 1955
B. zulu KOCH, 1955

Genus *Parabantodemus* gen. nov.:

P. spinipes (MULSANT et REY, 1853) **comb. nov.**

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