

Stefano ZOIA

## A revision of the genus *Mecistes* (Coleoptera Chrysomelidae)<sup>1</sup>

**Abstract** - A revision of the Afrotropical genus *Mecistes* Chapuis, 1874 is provided and its relations to the Oriental genus *Apolepis* is pointed out. Five new taxa are described: *M. audisioi* **n. sp.** (Rep. South Africa), *M. grobbelaarae* **n. sp.** (Rep. South Africa), *M. thompsoni* **n. sp.** (Malawi, Zimbabwe, Botswana, Rep. South Africa), *M. ziliolii* **n. sp.** (Rep. South Africa), *M. zimbabweensis* **n. sp.** (Zimbabwe); a lectotypus is designated for *M. chapuisi* Jacoby, 1900 and a neotypus is designated for *M. tarsalis* Chapuis, 1874. The following synonymies are established: *M. saudica* Medvedev, 1997 **n. syn.** of *M. seriatus* Lefèvre, 1885, *M. indigaceus* Jacoby, 1898 **n. syn.** of *M. tarsalis* Chapuis, 1874. A key to species is given.

**Riassunto** - *Revisione del genere Mecistes (Coleoptera Chrysomelidae).*

Viene proposta una revisione del genere Afrotropicale *Mecistes* e ne viene sottolineata l'affinità con il genere orientale *Apolepis*. Sono descritti cinque nuovi taxa: *M. audisioi* **n. sp.** (Rep. South Africa), *M. grobbelaarae* **n. sp.** (Rep. South Africa), *M. thompsoni* **n. sp.** (Malawi, Zimbabwe, Botswana, Rep. South Africa), *M. ziliolii* **n. sp.** (Rep. South Africa), *M. zimbabweensis* **n. sp.** (Zimbabwe); sono fissati il lectotypus di *M. chapuisi* Jacoby, 1900 e il neotypus di *M. tarsalis* Chapuis, 1874. Sono formalizzate le seguenti sinonimie: *M. saudica* Medvedev, 1997 **n. syn.** di *M. seriatus* Lefèvre, 1885, *M. indigaceus* Jacoby, 1898 **n. syn.** di *M. tarsalis* Chapuis, 1874. È fornita una chiave dicotomica delle specie del genere.

**Key words:** *Mecistes*, revision, new species, neotype designation, lectotype designation, Afrotropical Region.

### INTRODUCTION

In the present study, ten species are ascribed to the genus *Mecistes*: of these, two were originally described in the genus *Pachnephorus* - they were recently transferred to their present combination (Zoia, 2007a and 2007b) - and five are here described as new to science.

The body length of the specimens is here measured from the pronotal frontal edge to the elytral apex, excluding the head the position of which varies considerably, being more or less deep-set in the prothorax in dried specimens.

Localities within each State are arranged, whenever possible, in north-south and, secondarily, west-east order.

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## DEPOSITORIES:

- BMNH (British Museum of Natural History, London - England);  
 IRSN (Institut Royal des Sciences Naturelles de Belgique, Bruxelles - Belgium);  
 JBColl (Jan Bezdek coll., Brno - Czech Republic);  
 LMcoll (Lev Medvedev coll., Moscow - Russia);  
 MCZH (Museum of Comparative Zoology, Harvard University, Boston - U.S.A.);  
 MDcoll (Mauro Daccordi coll., Verona - Italy);  
 MSNG (Museo civico di Storia naturale di Genova - Italy);  
 MSNM (Museo civico di Storia naturale di Milano - Italy);  
 MNHN (Museum National d'Histoire Naturelle, Paris - France);  
 NMPC (National Museum, Museum of Natural History, Praha - Czech Republic);  
 MNHU (Museum für Naturkunde an der Humboldt Universität zu Berlin - Germany);  
 MRAC (Musée Royal de l'Afrique Central, Tervuren - Belgium);  
 MZLU (Zoological Museum Lund University - Sweden);  
 NHMB (Naturhistorisches Museum Basel - Switzerland);  
 PPRI (Plant Protection Research Institute, Pretoria - Rep. South Africa);  
 SMNS (Staatliches Museum für Naturkunde Stuttgart - Germany);  
 UAcoll (Ulf Arnold coll., Schöneheiche, Berlin - Germany);  
 SZcoll (Stefano Zoia coll., Milan - Italy).

*Mecistes* Chapuis, 1874

- Lefèvre, 1885: 122;  
 Selman, 1972: 6.

TYPE SPECIES: *Mecistes tarsalis* Chapuis, 1874 (monotypy).

DIAGNOSIS. A genus of the tribus Adoxini Jacoby, 1908 characterized by the oblong and convex body, with the prothorax narrower than the elytra, the latter oblong, usually subparallel from base to middle, with humeri well developed, protruding. Head hypognathous, partially retracted into the prothorax; eyes partially covered by the distal process of the prothoracic sides; frons punctured, more or less covered by moderately broad setae; labrum with distal margin concave or straight; mandibles short, robust; palpi with the last joint less than twice the 2<sup>nd</sup> in length. First antennal segment large, subovoidal, flat on the outer side, 2<sup>nd</sup> antennal segment short, subglobose, 3<sup>rd</sup> to 6<sup>th</sup> slender, 7<sup>th</sup> to 11<sup>th</sup> moderately enlarged. Pronotum with the base usually wider than, or as wide as the distal border, sides more or less curved; lateral border reaching or not the distal edge of the prothorax, usually evident at least proximally; the distal edge of the prothoracic episterna shortly produced as a post-ocular lobe which sometimes shortly extends dorsally above the level of the lateral border; surface more or less covered by moderately broad setae; prothoracic episterna more or less pubescent, with moderately broad setae; prosternum with lateral sulci, at least on its distal portion, to receive the antennae in a defensive attitude. Mesothoracic episterna triangular; metathoracic epimera oblong, moderately wide (3.5-5 times longer than wide), densely punctured and pubescent. Abdomen dorsally sclerotized, sternites pubescent. Pygidium without a median groove, covered by the elytra. Elytra either striate or irregularly punctured, either with short hairs or with more or less broad setae, arranged

or not in longitudinal rows; epipleura wide at base, gradually narrowed to mid-length, evanescent to rear. Metathoracic wings fully developed. Legs relatively robust, with setae; femora either with a small tooth or unarmed, usually with a wide individual variability within a single species; protarsi in males either simple or weakly widened (usually this character shows a certain individual variability in both sexes); tarsal claws bifid; tibiae not emarginate distally. Aedeagus tube-like, strongly flexed dorso-ventrally; apex wide and robust, with distal margin more or less rounded, sometimes impressed in the middle; tegmen open dorsally, the two arms hardly reaching the sides of the median lobe; basal hood longer than the median lobe; ostium dorsal, ovate; the inner sac with a moderately wide sclerotization near the ostium. Spermatheca c-shaped; spermathecal duct thin, not sclerotized, usually relatively short; spermathecal gland tubular, thin, very long, frequently greatly exceeding the ductus in length; vagina without inner sclerotized plates.

**DISTRIBUTION.** *Mecistes* is an Afrotropical genus, diffused in central and eastern Africa, from the Uele region and Kenya to Namibia, Botswana and the Eastern provinces of the Republic of South Africa, and in Saudi Arabia.

**COMPARATIVE NOTES.** Among the African genera, *Mecistes* is easily recognizable by its distinctive aspect (figs 1-20), although the smaller species resemble *Pachnephorus* at first sight; in spite of this, these two genera differ under many important characteristics, including the morphology of the aedeagus and spermatheca. *Mecistes* seems not to show any clear relationship with other African genera, although the aedeagal morphology recalls that of some *Macrocoma* species.

Selman's keys to the genera of the Eumolpinae of Africa (Selman, 1965 and 1972) cannot be used to identify the genus *Mecistes*, as the characters he uses do not apply to any of the known species. The group of the characters given above can better divide *Mecistes* from the other African genera.

In many ways, *Mecistes* is close to the genus *Apolepis*, from the Oriental Region (Sumatra, Borneo, Philippines), in general aspect of the body, the bifid claws, the prosternal morphology, the prothoracic episterna shortly produced as a post-ocular lobe, and the elytral pubescence. In both genera the aedeagi have a short and robust median lobe, which is strongly flexed, with the apex at a right angle with the basal portion; the apex is always wide, but in *Apolepis* it is flat and ends in a triangle, while in *Mecistes* it is more robust, and with the distal edge more or less rounded. Also, the spermathecae show common characteristics, particularly in the relatively short ductus and the very long and thin accessory gland. In *Apolepis*, the spermathecal duct is inserted in the middle of a large sclerotized plate, occupying the innermost portion of the vagina<sup>2</sup>; this sclerotized plate lacks in *Mecistes*. An other relevant difference between these genera is the presence in *Apolepis* of a deep groove dividing the clypeus from the frons; this groove is totally absent in *Mecistes*.

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<sup>2</sup>) A sclerotized plate in the innermost part of the vagina has been already observed in other Eumolpinae species, having also in common with *Apolepis* the short spermathecal ductus and the relatively long accessory gland (*Mesocolaspis spinulosum* Medvedev & Zoia, 1996, *Lipesthes regalis* Medvedev & Zoia, 1996). In *Apolepis* this inner vaginal plate is wide, well sclerotized, and shows species-specific features; the species of *Apolepis* have no sclerotized gonapophysis. Further studies on this topic must be carried out in other genera.

KEY TO THE SPECIES OF *MECISTES*

- 1 - Legs black, often with metallic reflections; as a rule, antennae black entirely or in a large part; species larger on average (length > 3.4 mm); dorsum black or with green-blue metallic reflections.....2
- 1' - At least the tibiae reddish brown, without metallic reflections; at least the antennal articles 1 to 5 reddish; species smaller on average (length < 3.8 mm); dorsum usually black, without metallic reflections .....4
- 2 - The main elytral punctures arranged in 10 more or less regular rows, separated by longitudinal thin rows of curved widened setae; pronotum with wide punctures, flat in the bottom, each puncture with a seta .....3
- 2' - The main elytral punctures irregular, not or poorly arranged in longitudinal rows, in places separated by smooth longitudinal costae; each elytron with a longitudinal costa, starting from the humerus and almost reaching the elytral apex; dorsum and legs metallic blue, sometimes with bronze or greenish reflections; ventral side black; antennae black with articles 2 to 6 partially reddish.....*M. tarsalis* Chapuis, 1874
- 3 - Larger species (4.1-4.7 mm), metallic green, sometimes with light purple reflections; pronotum wide, hood-like, with sides as a rule serrate; antennal segments 2 to 6 reddish at base; elytra regularly striate throughout, the interstriae with a row of golden setae .....*M. audisioi* n. sp.
- 3' - Smaller species (3.4-4.5 mm), black or with metallic blue reflections; pronotal sides feebly curved to straight, with border smooth or feebly serrate in the basal part; antennal segments 2 to 6 black, partially reddish or reddish; elytra regularly striate throughout, each interstria with a row of whitish to yellowish setae, more rarely with golden setae .....*M. seriatus* Lefèvre, 1885
- 4 - Legs light brown to reddish .....6
- 4' - Femora dark brown to black, tibiae reddish.....5
- 5 - Larger (2.9-3.8 mm) and broader species; pronotal sides feebly curved, subparallel proximally, gradually tapering from their middle to the apex, the widest point near the base; elytral interstitial setae arranged in 11 longitudinal rows composed of 2-3 setae on the width of each interstria; scutellum pentagonal, the distal edge clearly angled .....*M. grobbelaarae* n. sp.
- 5' - Smaller (2.4-3 mm) and slenderer species; pronotal sides more strongly curved, the widest point at middle; elytral interstitial setae arranged in 11 rows composed of 1-2 setae on the width of each interstria; scutellum quadrangular, the distal edge curved or straight .....*M. lineatus* (Pic, 1921)
- 6 - Elytral setae irregularly arranged, covering more or less the whole elytral surface; the uncovered space of the striae, if present, always very narrow .....8
- 6' - Elytral setae arranged in 11 longitudinal rows composed by 1 to 3 setae in the width of each interstria .....7
- 7 - Main elytral punctures arranged in nearly regular longitudinal rows, the interstriae with rows of setae; pronotum large, as wide at base as at distal border, with sides evenly curved throughout; pronotal sides with border wider, clearly serrate and evident from base to the distal fourth, then evanescing; antennal segments 7 to 11 darkened; larger species (2.5-3.5 mm) .....*M. chapuisi* Jacoby, 1900
- 7' - Main elytral punctures confused, not arranged in longitudinal rows, the punctures smaller under the pubescence which is arranged in longitudinal rows; pronotal base a little wider than, or as wide as the distal edge; pronotal sides either straight from base to middle or evenly curved throughout; pronotal sides with border narrower, not serrate, usually evanescing in middle or distal third; smaller species (2.3-3.5 mm) .....*M. thompsoni* n. sp.
- 8 - Antennae slender, articles 4 and 5 more than twice (2.5 on average) as long as wide, 8 to 10 as long as wide or weakly transverse; pronotum weakly constricted in the distal fourth by two weak, transverse, lateral impressions (fig. 23) (body length 2.7-3.3 mm).....*M. ziliolii* n. sp.

- 8'- Antennae robust, articles 4 and 5 less than twice (1.5 on average) as long as wide, 8 to 10 transverse .....9
- 9 - Setae on dorsum thinner, whitish and sparse; elytral surface with sparse and confluent punctures, the aspect feebly rugose; femora unarmed; antennae with distal part of segment 7 and segments 8 to 11 dark brown to blackish .....*M. zimbabweensis* n. sp.
- 9'- Setae on dorsum clearly widened, golden; the main elytral punctures arranged in 10 bare longitudinal striae; inner side of the femora with a small acute tooth in the middle, rarely absent; antennal segments 7 to 11 reddish or somewhat darkened (body length 2.6-3.6 mm) .....*M. flavipes* (Gerstaecker, 1855)

***Mecistes audisioi* n. sp.**

TYPE LOCALITY: Rep. South Africa: Eastern Transvaal: 10 km south of Carolina.

TYPE DEPOSITORY: MSNM

HOLOTYPUS LABELS: South Africa, Eastern Transvaal, 10 km S Carolina, m 1600 [printed white label]; 26°09'S 30°08'E, road side, 14.XII.1995, P. Audisio leg. [printed white label]; Holotypus *Mecistes audisioi* n. sp., S. Zoia det. 2009 [printed red label] (♂).

## PARATYPI

SOUTH AFRICA: Eastern Transvaal, 10 km S Carolina, m 1600, 26°09'S 30°08'E, road side, 14.XII.1995, P. Audisio leg. (1 ♂, 3 ♀ ♀, SZcoll.).

DESCRIPTION. Body length of the holotypus 4.5 mm (length range of the examined specimens: 4.1-4.7 mm).

Habitus as in figs 1-2. Body black, without metallic reflection; pronotum black with feeble bluish metallic reflection; elytra metallic dark bluish; femora, tibiae and tarsi black; mandibles and palpi reddish brown, labrum black; 2<sup>nd</sup> to 7<sup>th</sup> antennal segments partially reddish brown, 1<sup>st</sup> and 8<sup>th</sup> to 11<sup>th</sup> black.

Head: frons evenly moderately convex, the region between the eyes flat; the clypeus inclined, with a fine punctuation; the frons with small, oblong, weakly widened, regularly arranged, whitish to light yellow setae: in the middle of the frons the setae are 3-4 times longer than wide, moderately curved; surface of the frons with wide punctures, round, flat at their bottom; frons with a thin and superficial longitudinal sulcus in the middle; eyes moderately large and convex (in frontal view the distance between the eyes is about 3.4-3.5 times the width of a single eye) with a very narrow sulcus above. Antennae with 8<sup>th</sup> to 11<sup>th</sup> segments darkened: 1<sup>st</sup> antennal segment globose, 1.5 times as long as wide, 2<sup>nd</sup> shorter, 1/2 the first in length and 2/3 as wide, 3<sup>rd</sup> 1.5 times longer than 4<sup>th</sup>, twice as long as wide, 4<sup>th</sup> to 6<sup>th</sup> short, subequal in length, 6<sup>th</sup> a little wider than the 5<sup>th</sup>, 7<sup>th</sup> to 10<sup>th</sup> transverse, 11<sup>th</sup> 1.2 times as long as wide and 1.4 times the 10<sup>th</sup> in length.

Pronotum 1.3 times wider than long, wider at base than at distal border; sides widening from base to the basal third, curved throughout their length and constricted distally; distal corners not evident; pronotal punctures wide, superficial, flat on bottom, not confluent, the surface between the punctures with a feeble microreticulation on the discus, with stronger microreticulation near the pronotal base; lateral borders wide, weakly serrate at base, evanescent near the distal edge of the prothorax; the post ocular process

slightly extending dorsally beyond the anterior pronotal corner, reaching the level of the upper border of the eye, its distal edge straight; pronotal setae light yellow, poorly widened, regularly arranged, longer than the setae on the frons. Prothoracic epimera densely punctured, subrugose, and with setae smaller than those on the pronotum.

Mesothoracic episterna with small light yellow setae. Scutellum pentagonal, shiny, with a few punctures bearing small yellowish setae.

Metathoracic epimera 5 times as long as wide, finely punctured and with small, curved, light yellow setae. Metasternum with yellowish hairs.

Legs: long, with light yellowish setae; the femora with a small obtuse tooth beneath, black, moderately swollen, more so the fore ones; tibiae weakly curved, gradually widened to the tip, black; tarsi black, moderately robust; in ♂ the fore tarsi a little wider than in ♀; claws bifid, with the inner tooth of each claw about 1/3 shorter than the outer one, the division starting near the claw's base.

Elytra moderately elongate (length/width at humeral level = 1.2); sides subparallel to beyond midlength, then evenly curved to the apices, which form a right angle; humeri prominent, covering the elytral sides in dorsal view; elytral main punctures bare, arranged in 10 regular rows; each interstria as wide or slightly wider than the stria punctures and with a median row of yellow to light yellow, curved setae, which are like the ones on the pronotum; as a rule, each row of setae is composed of single setae in its width, except the penultimate row which has 2 setae in its width; also the sutural interstria has a line of setae; interstriae flat, the outermost weakly convex; epipleura wide at base, gradually tapering to the end of the metathoracic epimera, very narrow from this point and evanescent at level of the distal border of the 2<sup>nd</sup> sternite.

Aedeagus (figs 31-32).

Spermatheca (fig. 33): the spermathecal duct is short, scarcely exceeding half spermathecal length and weakly sclerotized; the spermathecal gland is very slender and long, exceeding more than five times the spermathecal length.

DERIVATIO NOMINIS. The species is named after Paolo Audisio, a friend and a well-known specialist in Coleoptera Nitidulidae, who personally collected the specimens here described.

VERIFIED DISTRIBUTION: Rep. South Africa: Transvaal.

*Mecistes chapuisi* Jacoby, 1900

*Mecistes chapuisi*, Jacoby, 1900: 226;

*Mecistes chapuisi*, Clavareau, 1914: 130.

TYPE LOCALITY: Rep. Pop. Congo, Kamozi.

LECTOTYPE DEPOSITORY: IRSN

LECTOTYPUS (here designated): Kamozi (Congo) [handwritten white label], Coll. R. I. Sc. N. B., Congo Belge, Ex Coll. Duvivier [printed and, partially, handwritten blue label]; Déterminat Jacoby 1898 [printed white label]; *Mecistes chapuisi* Jac [handwritten blue label]; Lectotypus *Mecistes chapuisi* Jacoby, 1900, S. Zoia des. 2009.

PARALECTOTYPI: Kamozi, J. Duvivier (10 exx., ISNB; 2 exx. BMNH; 1 ex.; MCZH); Sumbu, J.

Duvivier (6 exx., IRSN). (the locality "Sumbu" is erroneously reported as "Tumbu" both in the original description by Jacoby, 1900 and in Clavareau, 1914)

OTHER EXAMINED MATERIAL:

REP. POP. CONGO: Musée du Congo, Kamozi, coll Clavareau (1 ♀, MDcoll); Riv. Kimvoua [?], J. Duvivier (2 exx., IRSN)

KENYA: Emali Range, Sultan Hamud, 4900-5900 ft. 3-40 (2 ♀ ♀, BMNH); (Tsavo), 19-21.xi.1996, Taita Hills, Wundanyi, M. Snizek leg. (1 ♂, SZcoll)

TANZANIA: Mombo or., 9-11.I.1996, lgt. Ing. M. Snizek (2 ♀ ♀, SZcoll).

ZIMBABWE: Mangesi R., S. E. Mashonaland, G. A. K. Marshall 1908-212 (1 ♀, BMNH);

DESCRIPTION. Body length of the lectotypus 2.8 mm (length range of the examined specimens: 2.5-3.5 mm).

Habitus as in figs 3-4. Body uniformly black, without metallic reflections; pronotum and elytra black, moderately bright; femora, tibiae and tarsi reddish; labrum, mandibles and palpi reddish; antennal segments light reddish, usually the 7<sup>th</sup> segment, only distally, and the 8<sup>th</sup> to 11<sup>th</sup> more or less darkened.

Head: frons feebly convex or almost flat between the eyes; clypeus feebly inclined, with relatively strong punctures and a few small hairs; the frons with feebly widened, moderately long, yellowish setae: in the middle of the frons the setae are like the ones on the pronotum; surface of the frons with wide punctures, flat at their bottom, most of them polygonal, separated by thin ridges; sometimes the frons with a very thin longitudinal median sulcus; eyes convex and moderately wide (in frontal view the distance between the eyes is about 3.4 times the width of a single eye) with a narrow sulcus above. Antennae: 1<sup>st</sup> segment globose, 1.3 times as long as wide, 2<sup>nd</sup> smaller, 0.7 times the first in length and 2/3 as wide, 3<sup>rd</sup> 1.5 times longer than the 4<sup>th</sup>, 2.5 times as long as wide, 4<sup>th</sup> to 5<sup>th</sup> subequal in length, a little longer than wide, 6<sup>th</sup> and 7<sup>th</sup> as long as wide, 8<sup>th</sup> to 10<sup>th</sup> transverse, 11<sup>th</sup> 1.4 times as long as wide and 1.6 times the 10<sup>th</sup> in length.

Pronotum 1.2 times wider than long, a little wider at base than at distal border; sides clearly curved throughout, widened from the base to mid-length, tapering distally; basal corners obtuse, distal corners not evident; pronotal punctures wide, superficial, flat on bottom, polygonal, separated by thin ridges, the pronotal surface reticulated; lateral borders thin, well marked, serrate from the base to the distal third, evanescent only distally; the post ocular process ending at the level of the anterior pronotal corner, its distal edge almost straight near the pronotal corner, feebly protruding anteriorly; pronotal setae whitish to light yellowish (in the type specimens) or golden, feebly widened, rising from the middle of each pronotal puncture. Prothoracic epimera densely punctured, with setae smaller than the pronotal ones.

Mesothoracic episterna with thin, yellowish to whitish setae. Scutellum pentagonal, with the median angle of the distal edge more or less evident; the surface with relatively strong punctures, pubescent.

Metathoracic epimera 4 times as long as wide, finely punctured, with small, curved, whitish to yellow, feebly widened setae. Metasternum with whitish to yellowish hairs.

Legs: moderately long, slender, with thin, light yellowish setae; femora with a median acute tooth, sometimes very small; femora weakly swollen, with lightly roughened surface;

tibiae weakly curved, frequently the hind tibiae almost straight; tibiae gradually and moderately widened to the tip, reddish, with weak longitudinal costae and rows of hairs; tarsi reddish, robust, the fore tarsi in ♂ feebly wider than in ♀; claws bifid, with the inner tooth of each claw shorter than the outer one, the division starting at 1/3 of the claw's length.

Elytra elongate (length/width at humeral level = 1.3); sides feebly widened to beyond midlength, then regularly curved to the apices, which form a right angle; humeri prominent, covering the elytral sides in dorsal view; elytral setae arranged in 11 rows (including the row on the elytral lateral border), each row is 2-3 setae wide; setae from whitish to golden in colour, curved, like the ones on the pronotum; elytral main punctures more or less confused, more regularly arranged in longitudinal rows on the declivity and on the elytral sides, the elytral surface under the rows of setae always smooth; punctures strong, close, partially confluent (fig. 24); epipleura wide at base, smooth, with whitish to yellowish setae, gradually tapering posteriorly and evanescent near the midlength of the first abdominal sternite.

Aedeagus (figs 34-35) angularly constricted backwards near the base of the ostium; the apex almost straight, feebly indented in the middle.

Spermatheca (figs 36-37).

NOTE. In the specimens from the type locality, the elytra have a short and low longitudinal costa, starting from the humeri, which is not present in the Kenyan and Tanzanian specimens.

VERIFIED DISTRIBUTION: Rep. Pop. Congo, Kenya, Tanzania, Zimbabwe.

*Mecistes flavipes* (Gerstaecker, 1855)

*Pachnephorus flavipes*, Gerstaecker 1855: 637;

*Pachnephorus flavipes*, Gerstaecker 1862: 337;

*Pachnephorus flavipes*, Lefèvre, 1885: 123;

*Mecistes flavipes*, Zoia, 2007a: 70;

*Mecistes flavipes*, Zoia, 2007b: 131.

TYPE LOCALITY: Mozambique: Tete.

TYPE DEPOSITORY: MNHU.

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

OTHER EXAMINED MATERIAL

ZIMBABWE: C. Zimbabwe, Chivhu, The Range env., 30.xi.1998, M. Snizek leg. (1 ♂, 1 SZcoll); C. Zimbabwe, Mvuma, route Gutu-Chatsworth, 24.ii.1998, M. Snizek leg. (2 ♂♂, 5 ♀♀ SZcoll); SE Zimbabwe, N of Chisunbanje, Rupisi, Niauxa riv., 28.xi.1998, M. Snizek leg. (2 ♀♀ SZcoll); SE Zimbabwe, Chiredzi, Nandi env., 28.xi.1998, M. Snizek leg. (12 exx., SZcoll; 2 exx., MDcoll)

BOTSWANA: Botswana bor., Kasane env., 19.12.1996-7.1.1997, leg. M. Snizek (1 ♂, 1 ♀ SZcoll); MOZAMBIQUE: Mozamb[ique] Nyassa, 48594 Simons (1 ex., BMNH).

DESCRIPTION. A redescription is in Zoia, 2007a: 70-74.

Habitus as in figs 5-6.

Aedeagus (figs 38-41).

Spermatheca (fig. 42).

VERIFIED DISTRIBUTION: Mozambique, Zimbabwe, Botswana.

***Mecistes grobbelaarae* n. sp.**

TYPE LOCALITY: Rep. South Africa: Transvaal: Rhenosterpoort.

TYPE DEPOSITORY: PPRI

HOLOTYPE LABELS: South Africa, Tvl, Rhenosterpoort, 25.45 S 28.55 E; 27.xi.1987, B. Grobbelaar [printed white label]; Collected on flowers of *Ozoroa* sp. (Anacardiaceae) [printed white label]; Holotypus *Mecistes grobbelaarae* n. sp., S. Zoia det. 2009 [printed red label] (♂).

PARATYPI:

SOUTH AFRICA: Limpopo, D’Nyala Nature Reserve, Ellisras District, c. 850 m, 23°45’S 27°49’E, 10-14.xi.1986, E. Grobbelaar - Adults collected from *Combretum apiculatum* subsp. *apiculatum* (Combretaceae) (4 exx., PPRI); Limpopo, D’Nyala Nature Reserve, Ellisras District, c. 850 m, 23°45’S 27°49’E, 18-20.xii.1987, E. Grobbelaar (2 exx., PPRI); idem - Collected by sweeping (1 ex., PPRI); TVL, Lapalala Nat. Res., 23.51S 28.17E, 15-16.xi.1986, R. Oberprieler (1 ex., PPRI); N. W. Tvl., Mogol Nature Reserve, Ellisras Dist., 23.58S 27.45E, 19-23.xi.1979, S. J. van Tonder (18 exx., PPRI; 6 exx., SZcoll); idem, S. J. van Tonder, C. Kok, G. L. Prinsloo, M. W. Mansell - Collected at light (3 exx., PPRI); TVL, Nylsvley Nature Reserve, 24.39S 28.42E, 20.X.1982, R. G. Oberprieler (1 ex., PPRI); Middelfontein, TP (Nylstroom) 16-12-1953, D. W. Rorke (1 ex., PPRI); Saartjiesnek, SE 25 27 Db, XII-1983, E. Holm (2 exx., PPRI); Saartjiesnek, R. S. A., S.25°14’ E.27°54’, 18.X.1983, C. L. Bellamy (1 ex., PPRI); TVL, O. T. K. Reserve nr Loskopdam, 25.27S 29.24E, 09-11.xii.1985, C. Moolman (2 exx., PPRI); Pretoria, TP., 21-2-1958, A. L. Capener, SN 4328 (1 ex., PPRI); NW, Saartjiesnek Farm near Hartbeespoort, 25.45,5S 27.56E, 03.xii.1995, R. Stals - On flower head of unidentified Asteraceae (1 ex., PPRI); idem - Ex flower head of *Protea caffra* (Proteaceae) (1 ex., PPRI); TVL, Rhenosterpoort nr Bronkhorstspuit, 25.45S 28.55E, 26.xi.1986, B. Grobbelaar (1 ex., PPRI); idem, 29.xi.1984, R. Oberprieler (2 exx., PPRI; 1 ex., SZcoll); Tvl, Rhenosterpoort, 25.45S 28.55E, 27.xi.1987, B. Grobbelaar - Collected on flowers of *Ozoroa* sp. (Anacardiaceae) (10 exx., PPRI; 5 exx., SZcoll); GAU, Pretoria, Klapperkop, 25°47’S 28°12’E, 15.i.2006, A. J. Urban - On flowers of *Xerophyta retinervis* (Velloziaceae) (4 exx., PPRI; 2 exx., SZcoll); Tvl, Rhenosterpoort, near Bronkhorstspuit, 27.45S 28.55E, 27.xi.1987, I. M. Millar (2 exx., PPRI).

DESCRIPTION. Body length of the holotypus 3.1 mm (length range of the examined specimens: 2.9-3.8 mm).

Habitus as in figs 7-8. Body uniformly black, without metallic reflection; elytra black; femora black, tibiae and tarsi reddish, with the tarsal articles usually darkened distally; labrum, mandibles and palpi reddish; 1<sup>st</sup> antennal segment reddish, usually with a dorsal blackish spot, 2<sup>nd</sup> to 7<sup>th</sup> reddish, 8<sup>th</sup> to 11<sup>th</sup> black.

Head: frons moderately convex, the region between the eyes flat; clypeus inclined, with strong punctuation only at base, not punctate distally; the frons with oblong, slen-

der, regularly arranged, light yellow setae: in the middle of the frons the setae are 6-8 times longer than wide, moderately curved; surface of the frons with wide punctures, round, flat at their bottom; frons with a superficial longitudinal sulcus in the middle; eyes moderately large and convex (in frontal view the distance between the eyes is about 3.3 times the width of a single eye) with a very narrow and superficial sulcus above. Antennae: 1<sup>st</sup> segment globose, 1.5 times as long as wide, 2<sup>nd</sup> shorter, 1/2 the first in length and 2/3 as wide, 3<sup>rd</sup> 1.5 times longer than 4<sup>th</sup>, twice as long as wide, 4<sup>th</sup> to 6<sup>th</sup> short, subequal in length, nearly as long as wide, 7<sup>th</sup> to 10<sup>th</sup> transverse, the 7<sup>th</sup> a little longer, 11<sup>th</sup> 1.5 times as long as wide and 1.7 times the 10<sup>th</sup> in length.

Pronotum 1.1 times wider than long, wider at base than at distal border; sides subparallel from base to middle, weakly curved and tapering distally; distal corners not evident; pronotal punctures wide, superficial, flat on bottom, separated by a thin ridge, with a geometrical aspect making the pronotal surface reticulated (fig. 21); lateral borders very thin, evanescing at the thorax mid-length; the post ocular process slightly extending dorsally beyond the anterior pronotal corner, reaching the level of the upper border of the eye, its distal edge evenly curved and not protruding anteriorly; pronotal setae light yellow, weakly widened, each of them arising from the middle of a pronotal puncture, and as long as the setae on the frons. Prothoracic epimera densely punctured, with setae smaller than those on the pronotum and usually partially covered by waxy secretion.

Mesothoracic episterna with small, light yellowish setae. Scutellum pentagonal, punctured, with very small, widened, yellowish setae.

Metathoracic epimera 3.5 times as long as wide, finely punctured, with small, curved, light yellow, moderately widened setae, usually with waxy secretion. Metasternum with light yellowish hairs.

Legs: long and slender, with light yellowish setae; the femora unarmed, black, weakly swollen, the surface with close punctures; tibiae weakly curved, the hind tibiae almost straight, gradually widened to the tip, reddish, costate, impunctate, with rows of very small hairs; tarsi reddish, moderately robust, the articles darkened distally; in ♂ the fore tarsi a little wider than in the ♀; claws bifid, with the inner tooth of each claw shorter than the outer one, the division starting near middle of claw's length (fore tarsus) or in the basal third of the claw (middle and hind tarsi).

Elytra elongate (length/width at humeral level = 1.4-1.5); sides evenly curved, moderately widening to beyond midlength, then evenly curved to the apices, which form a right angle; humeri prominent, covering the elytral sides in dorsal view; elytral main punctures bare, arranged in 10 regular rows; each interstria nearly as wide as the striae punctures and with a median row of light yellowish, curved setae, which are like those on the pronotum; as a rule, each row of setae is 2-3 setae wide; also the sutural interstria has a double row of setae; interstriae flat, the outermost weakly convex; epipleura moderately wide at base, with a double series of yellowish setae, gradually tapering to the end of the metathoracic epimera, very narrow from this point and evanescing near the end of the 1<sup>st</sup> sternite.

Aedeagus (figs 43-44).

Spermatheca (fig. 45): the spermathecal duct is moderately short, scarcely exceeding

the spermathecal length and poorly sclerotized.

DERIVATIO NOMINIS. The species is named after Elizabeth (Beth) Grobbelaar, who personally collected the specimens here described.

VERIFIED DISTRIBUTION: Rep. South Africa: Transvaal.

*Mecistes lineatus* (Pic, 1921)

*Pachnephorus lineatus*, Pic 1921: 2;

*Mecistes lineatus*, Zoia 2007b: 131.

TYPE LOCALITY: Africa or., Katona.

TYPE DEPOSITORY: MNHN.

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

PARALECTOTYPI. Same data as Lectotypus (1 ♂, 1 ♀, MNHN).

OTHER EXAMINED MATERIAL:

TANZANIA: D.-O. Afrika, Tabora, Runsenie, IV.09, Wintgens S. G. (1 ♀, MNHU).

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

Habitus as in figs 9-10. Body black, without metallic reflections; femora dark brown to black, tibiae and tarsi reddish brown; mouthparts reddish brown; antennae reddish brown, usually with segments 7 to 11 darkened.

Head: frons evenly moderately convex, the region between the eyes flat; the clypeus inclined, punctate; the frons with oblong, widened, regularly arranged whitish to light yellow setae: in the middle of the frons the setae are 3-4 times longer than wide, moderately curved; surface of the frons with wide pentagonal punctures, close to each other, flat at their bottom; frons with a narrow and superficial longitudinal sulcus in the middle; eyes large and moderately convex (in frontal view the distance between the eyes is about 2.7 times the width of a single eye) with a very narrow and superficial sulcus above. Antennae reddish brown, usually with last segments darkened: 1<sup>st</sup> segment globose, 1.3 times as long as wide, 2<sup>nd</sup> 2/3 the first in length and half as wide, 3<sup>rd</sup> slightly longer than 4<sup>th</sup>, more than twice as long as wide, 4<sup>th</sup> and 5<sup>th</sup> subequal, less than twice as long as wide, 6<sup>th</sup> as long as the 5<sup>th</sup> but a little wider, 7<sup>th</sup> as long as wide, clearly wider than the 6<sup>th</sup>, 8<sup>th</sup> to 10<sup>th</sup> as long as wide, 11<sup>th</sup> 1.4 times as long as wide and 1.4 times the 10<sup>th</sup> in length.

Pronotum 1.1 times wider than long, as wide as or lightly wider at base than at distal border; sides widening from base to beyond the basal third, weakly curved and constricted distally; distal corners not evident, widely separated from the prothoracic edge by the post-ocular process; pronotal punctures wide, superficial, flat, not confluent, the pronotal surface reticulated; lateral borders hardly visible from base to middle, then totally absent to the distal edge of the prothorax; the post-ocular process clearly

extending dorsally beyond the anterior pronotal corner and a little beyond the upper border of the eye, its distal edge weakly convex; pronotal setae whitish to light yellow, moderately widened, regularly arranged, slightly larger than the setae on the frons. Sculpture of the prothoracic epimera like that of the pronotum but more superficial, and with setae somewhat thinner than the pronotal ones.

Mesothoracic episterna with very small whitish to light yellow setae.

Metathoracic epimera 4.2 times as long as wide, finely punctured and with small curved whitish to light yellow setae. Metasternum with white hairs.

Legs: long, with whitish setae; all the femora unarmed, dark brown to black, weakly swollen, more so the fore ones; tibiae straight, gradually widened to the apex, reddish brown; tarsi reddish brown, moderately robust; claws bifid, with the inner tooth of each claw a little shorter than the outer one, the division starting at half the claw's length.

Elytra elongate (length/width at humeral level = 1.4); sides moderately widened to the distal third, then evenly curved to the apical corners, which form a right angle; elytral main punctures arranged in 10 regular rows; each interstria wider than the stria punctures and with a median row of whitish to light yellow, curved setae, which resemble those on the pronotum; each row of setae is 1-2 setae wide; also the sutural interstria with a row of setae; interstriae flat, the outermost weakly convex; epipleura relatively narrow, clearly tapering near the end of the metathoracic epimera, very slender from the basal third to the declivity.

Aedeagus (figs 46-47).

Spermatheca (fig. 48).

VERIFIED DISTRIBUTION: central and northern Tanzania.

*Mecistes seriatus* Lefèvre, 1885

*Mecistes seriatus* Lefèvre, 1885: 122;

*Mecistes seriatus*, Clavareau, 1914: 130;

*Mecistes seriatus*, Medvedev, 1997: 321.

*Mecistes saudica* Medvedev, 1997: 321 **n. syn.**

TYPE LOCALITY: Natal.

HOLOTYPE DEPOSITORY: MNHN

HOLOTYPE: Natal (printed white label).

OTHER EXAMINED MATERIAL:

SAUDI ARABIA: *Mecistes saudica* Medvedev, 1997 holotype: 20 km SW Riyadh, 11.X.1988; Saudi Arabien, L. Curtis; Holotypus, *Mecistes saudica* m., L. Medvedev det. 1996. (♂, NHMB); idem, Paratypus (♀, NHMB).

MOZAMBICO: 22.XI.1996, Namaacha, 25.58S 32.01E, Gianfranco Curletti leg. (1 ex., MDcoll);

SWAZILAND: Malolotje NR, 20.I.2000, P. Schüle (1 ex., SMNS);

REP. SOUTH AFRICA: Limpopo Prov., Soutpansberg, 15 km N Makhado (Louis Trichardt), 1400-1500 m, 2-5.XII.2008, leg. W. Schawaller (3 exx., SMNS; 2 exx., SZcoll); Transvaal, Louis Trichardt, 17.-19.I.1999, leg. P. Schüle (1 ex., SMNS); Transvaal, Walterbergreserve, 15.-16.I.1999, leg. P. Schüle (6 exx. SMNS; 1 ex., SZcoll); Tvl, 7 km S Houtbosdorp, 23.56S 29.57E, 15.i.1987,

C.D. Eardley (2 ex., PPRI); Transvaal, Kruger National Park, Letaba, 18.XI.1981, klapperich leg. (1 ♀, SZcoll); LIMP, Wolkberg Nat. Res., Serala Forestry fire tower, 24°00'S 29°59'E, 17.xi.2005, 2029 m, W. Breytenbach - Collected on *Passerina montana* (Thymelaeaceae) (2 ex., PPRI); Transvaal, Blydepoort, 20.XI.1981, Klapperich leg. (1 ♀, SZcoll); Tvl, between Nylstroom & Die Oog, 24.26S 28.35E, 18.i.1991, V. M. Uys (1 ex., PPRI); Abel Erasmus Pass., T. P., S. Afr., Jan.1963, H. K. Munro (2 ex., PPRI); Mpumalanga Prov., Mariepskop Forest Reserve, 1900 m, 24.XI.2008, leg. W. Schawaller (4 ex., SMNS; 1 ex., SZcoll); Tvl, between Nylstroom & Warmbaths, 24.43S 28.18E, 18.i.1991, V. M. Uys (1 ex., PPRI); Eastern Transvaal, 7 km NE Graskop, God's Window, m 1700, 24°52'S, 30°54'E, gorge edge, 18.XII.1995, P. Audisio leg. (2 ex., SZcoll); idem, A. De Biase leg. (2 ex., SZcoll); Pilgrims Rest, Tvl. 2-11-1950, H. K. Munro, SN 4328 (17 ex., PPRI); Graskop, T. P., S. Afr., Jan.1963, H. K. Munro (1 ex., PPRI); TVL, God's Window near Graskop, 24.58S 30.49E, 02.x.1983, R. Oberprieler (1 ex., PPRI); Mpumalanga Prov., Didingwe Lodge near Maartenshoop, 23.XI.2002, leg. P. Schüle (1 ex., SMNS); Tvl, Bergvliet Forest Res. Sabie, 25.05S 30.54E, 26-28.ii.1986, E. Grobbelaar (2 ex., PPRI); Kafervoetpad, 15 km S of Lydenburg, 25.14S 30.29E, 1700 m, 9-10.xii.1995, R. Stals - montane grassland, yellow pan trap (1 ex., PPRI); MPU, 15 km S of Lydenburg, 25.14S 30.29E, 1700 m, 09-10.xii.1995, R. Stals - Habitat: montane grassland. Collected by sweeping through grass, etc. (8 ex., PPRI; 2 ex., SZcoll); idem - Ex flower head of *Haplocarpha scaposa* (Asteraceae) (1 ex., PPRI); Tonquani Kloof nr Helkpoort, Tvl, 25.15S 27.30E, 17.iv.1988, S. Nesar - Adult feeding in flowerhead of *Berkheya* sp. (1 ex., PPRI); MPU, Houtenbeck Farm, NW Dullstroom: Macabelel Lodge, 25°18'S 30°03'E, 1980 m, 02-03.xii.200, E. Grobbelaar - collected by sweeping (20 ex., PPRI; 4 ex. SZcoll); Witriever, 9.7.63, Paliatseas (1 ex., PPRI); MPU, Houtenbek Farm, NW of Dullstroom, 25°20'S 30°02'E, 03.xii.2002, I.M. Millar (3 ex., PPRI); Mpu, Houtenbek Farm, NW of Dullstroom: Boskrans Dam, 25°21'S 30°01'E, 1940 m, 01.xii.2002, E. Grobbelaar - collected by sweeping (17 ex., PPRI; 2 ex. SZcoll); idem, R. Stals - Collected in grassland by sweeping vegetation close to water (1 ex., PPRI); idem, 05.xii.2002, E. Grobbelaar - collected by beating (1 ex., PPRI); TVL, 20 km SE Loskopdam, 25.22S 29.35E, 9-13.ii.1981, S. J. van Tonder, C. Kok (6 ex., PPRI); Tvl, O.T.K. Reserve nr Loskopdam, 25.27S 29.24E, 9-11.xii.1985, V. M. Swain (1 ex., PPRI); Trasvaal, Nelspruit, 2.5.1968, D. L. Milne - found on *Olea europaea* (4 ex., PPRI); Tvl, Berlin State Forest, 25.33S 30.45E, 23-25.xi.1987, E. v.d. Linde (8 ex., PPRI); idem, 25.xi.1987, E. van der Linde (2 ex., PPRI); TVL, Weltevreden Farm nr Nelspruit, 25.34S 31.10E, i.1990, V. M. Uys (12 ex., PPRI; 2 ex., SZcoll); idem, 800 m, 21-24.i.1990, R. G. Oberprieler (2 ex., PPRI); Vaalipot, 16.1.63, Paliatseas (1 ex., PPRI); TVL, Rustenburg Nature Res., 25.40S 27.12E, 17-20.iii.1980, C. D. Eardley (7 ex., PPRI); idem, W. A. Harrop (2 ex., PPRI); idem, C. G. E. Moolman (5 ex., PPRI); idem, 23-26.ii.1981, R. G. Oberprieler (10 ex., PPRI); Hornsnek Pta., Tvl, S.A., 27/X/1971, E. Holm (1 ex., PPRI); Nr Belfast, Tvl, 14 Jan. 1963, A. L. Capener (4 ex., PPRI); TVL, Machadodorp, 25.41S 30.15E, xii.1978, G. L. Prinsloo (1 ex., PPRI); Transvaal, Pretoria, G. Botto '40 (1 ex., MSNG); Pretoria, T, 21-2-1958, A. L. Capener, SN 4328 (3 ex., PPRI); Botaniëse Tuine (Pretoria, Tvl.) Jan.1961, A. L. Capener (1 ex., PPRI); TVL, Pretoria, 25.45S 28.12E, 1975, E. K. Hartwig (21 ex., PPRI; 2 ex., SZcoll); idem, H. de Lange (4 ex., PPRI); Transvaal, near Barberton, 24.I.1999, leg. P. Schüle (2 ex., SMNS; 1 ex., SZcoll); Mpumalanga, 20 km NE Barberton, 3-4.I.2004, J. Halada leg. (1 ex., UAcoll); Easter Kloof Magaliesberg, Tvl, 25.50S 27.31E, 4.ii.1990, S. Nesar - Adults on inflorescences of *Berkheya carlinopsis* (Asteraceae) (2 ex., PPRI); MPU, Agnes Mine, SW Baberton, 25°50'S 30°57'E, c. 1262 m, 31.i.1999, J. Mesjasz-Przybylowicz - feeding on flower heads of *Berkheya coddii* (Asteraceae) (1 ex., PPRI); Transvaal, Badplaas-Carolina, 25.I.1999, P. Schüle leg. (1 ex., SMNS); MPU, Diepgezet, 26°00'S 31°05'E, c. 1132 m (nr Songimvelo Game Res.) 31.i.1999, J. Mesjasz-Przybylowicz - feeding on flower heads of *Berkheya coddii* (Asteraceae) (1 ex., PPRI); (Gauteng)

Ezemvelo NR, 1400 m, 11.-12.XII.2007, leg. W. Schawaller (11 exx., SMNS, 2 exx., SZcoll); Mpu, Goedehoop Farm (The Brook Hiking Trail), 15 km W of Lochiel, 26°10'S 30°38'E, 1400 m, 28-29.xi.2002, E. Grobbelaar - Feeding on flowers (Asteraceae) (10 exx., PPRI); Johannesburg., Zumpt V.1949 (24 exx., NHMB; 1 ex., MDcoll); idem, XI.50, leg. Zumpt (15 exx., NHMB; 2 exx., SZcoll); Jhbg [Johannesburg], J. Hyde 07 (7 exx., PPRI); MPU, Denedal Farm, 5 km SW of Warburton, 26°16'S 30°26'E, 1700 m, 26.xi.2002, E. Grobbelaar - Collected by sweeping (2 exx., PPRI); Nkualini, SE 28 31 Do, 12.v.1980, R. Oberprieler (1 ex., PPRI); Free State, Drakensberg, Sentinel, 2380-2580 m, 28.43S 28.53E, 5.iii.1998, P. Audisio, M. Zapparoli leg. (1 ex., SZcoll); Natal, Drakensberg, Bergville Div., Roy. Natal Nat. Park, Sentinel Gorge, 9,000 ft, 1.xii.1951, on flowers of *Osteospermum jucundum* (1 ex., BMNH); Ntl, Ngoye Forest, 28.50S 31.40E, 11.1.1983, P. Reavell (1 ex., PPRI); idem, 20.xi.1984, P. Reavell (1 ex., PPRI); NTL, Arendsig Mt, Cathedral Peak, 28.53S 29.05E, 19.xii.1986, P. Reavell (1 ex., PPRI); Lost Valley, 2100 m, Giants Castle Nat. Res., SE 29 29 Ab, 8.X.1983, C. H. Scholtz (1 ex., PPRI); Bannerman Pass, 2700 m, Giants Castle Nat. Res., SE 29 29 Ab, 10-X-1983, C. H. Scholts (1 ex., PPRI); KwaZulu-Natal, Cathedral Peak Park, 1500 m, 24.-27.XI.2003, leg. W. Schawaller (4 exx., SMNS); Natal, Drakensberg, Cathedral Peak area, 19-23.III.1955, coll. G. Rudebeck, Alpine meadows, altitude 8500-9700 ft (4 exx., MZLU); idem, On flowering plants on alpine meadows, altitude 7200-8200 ft (5 exx., MZLU; 2 exx. SZcoll); Natal, Champagne Castle, Monk's Cowl, m 1400-1700, 29°03'S, 29°23'E, trail, 11.XII.1995, P. Audisio leg. (4 exx., SZcoll); idem, M. Biondi leg. (1 ex., SZcoll); Natal, Mdedelelo Forestry Area, 29.07S 29.26E, 13-14.xi.1981, S. J. van Tonder & C. Kok (12 exx., PPRI; 2 exx., SZcoll); KZN, Vernon Crookes Nature Reserve, 30°16.5'S 30°35'E, 18.ii.2007, P. D. Wragg - feeding on pollen of *Cyperus obtusiflorus* var. *obtusiflorus* (Cyperaceae) bag 2 (4 exx., PPRI); idem - visiting flowers of *Cephalaria oblongifolia* (Dipsaceae) (1 ex., PPRI); Natal, Vernon Crookes Nat. Res., Umzinto, 30.17S 30.37E, 443 m, 25-26.iii.1985, M. W. Mansell (4 exx., PPRI); idem, 25-26.iii.1985, G. L. Prinsloo (1 ex., PPRI); Natal mer., Scottburg, 25.11.91, Richter leg. (1 ex., SZcoll); Natal, Weza, Ngele Forest, m 1200-1550, 30°31'S, 29°41'E, indig. forest, 7/8.XII.1995, A. De biase leg. (14 exx., SZcoll); idem, P. Audisio leg. (8 exx., SZcoll); idem, M. Biondi leg. (2 exx., SZcoll); Bloomburg, 9.I.1955, leg. G. Rudebeck, 5800-6000 ft (7 exx., MZLU; 3 exx., SZcoll); Natal mer., Oribi Gorges, 21.11.1991, lgt. Tichter (1 ex., SZcoll); Natal mer., Margate, 22.11.91, Richter leg. (2 ex., SZcoll); Port Edward, SE 31 30 Ab, XII.1981, I. Piccione (4 exx., PPRI); Sentinel, Ntl, i.1978, C. D. Eardley (5 exx., PPRI); Natal (1 ex., NHMB); Transvaal, ex coll. Fruhstorfer (3 exx., IRSN).

DESCRIPTION. Body length of the holotypus 4.2 mm (length range of the examined specimens: 3.4-4.5 mm).

Habitus as in figs 11-12. Body uniformly black, without or with very light metallic reflections; pronotum black, usually without metallic reflection, sometimes lightly metallic; elytra black, usually with dark bluish metallic reflection; femora and tibiae black, frequently with bluish reflections; tarsi black; labrum and palpi black, mandibles black with paler apices; antennae black, sometimes the segments 1 to 6 partially reddish or reddish.

Head: frons convex, with a median longitudinal impression, almost flat between the eyes; the clypeus not or feebly inclined, with close round punctures, each with a seta; the frons with short, weakly widened, yellowish setae, which resemble those on the pronotum; surface of the frons with round, large and close punctures, flat at their bottom, separated by thin ridges; eyes moderately convex, oblong, their inner borders distant (in frontal view the distance between the eyes is about 3.0-3.4 times the width of a sin-

gle eye) with a very narrow sulcus above. Antennae: 1<sup>st</sup> segment globose, 1.5 times as long as wide, 2<sup>nd</sup> 0.5 times the first in length and 3/5 as wide, 3<sup>rd</sup> 1.3 times longer than the 4<sup>th</sup>, more than twice as long as wide, 4<sup>th</sup> to 6<sup>th</sup> subequal in length, subquadrate or a little longer than wide, the 6<sup>th</sup> wider than the 5<sup>th</sup>, 7<sup>th</sup> as long as wide, 8<sup>th</sup> and 9<sup>th</sup> transverse, 10<sup>th</sup> as long as wide, 11<sup>th</sup> 1.3 times as long as wide and 1.4 times the 10<sup>th</sup> in length.

Pronotum 1.2 times wider than long, clearly wider at base than at distal border; base bisinuate, shortly produced backwards in the middle; sides curved throughout, shortly widened from the base to 1/5 of its length, gradually tapering distally; basal corners obtuse, distal corners not evident; pronotal punctures like those on the frons, round, large, flat at their bottom, sparse and close; the distance between two punctures less than half the diameter of each puncture, with surface usually smooth, in some specimens with a fine microreticulation; pronotal lateral borders thin, well marked, sometimes feebly serrate, evanescing only near the setal insertion at the distal pronotal corners; the post-ocular process ending at the level of the anterior pronotal corner, its distal edge almost straight, feebly protruding anteriorly; pronotal setae light yellowish (more rarely golden), short, feebly widened. Prothoracic epimera closely and strongly punctured, with setae thinner and denser than on the pronotum.

Mesothoracic episterna closely and finely punctured, with dense, small, yellowish to whitish setae. Scutellum pentagonal, its surface with a fine microreticulation, with relatively strong punctures and small setae.

Metathoracic epimera 3.8 times as long as wide, finely and densely punctured, with small, curved, yellowish or whitish, feebly widened setae. Metasternum with yellowish or whitish hairs (rarely golden).

Legs: moderately long, robust, with feebly widened, light yellowish or whitish setae; femora either unarmed or with a small obtuse or acute tooth; femora weakly swollen, with strong punctuation and usually a fine microreticulation of the surface; fore and middle tibiae feebly curved, hind tibiae usually straight; tibiae gradually and moderately widened to the tip, with weak longitudinal costae and rows of hairs; tarsi dark, robust; claws bifid, with the inner tooth of each claw somewhat shorter than the outer one, the division starting at about 1/3 the claw's length.

Elytra elongate (length/width at humeral level = 1.3-1.4); sides feebly curved or subparallel to beyond mid-length, then regularly curved to the apical corners, which form a right angle; humeri prominent, covering the elytral sides in dorsal view; elytral setae arranged in 11 longitudinal rows (sometimes the row along the lateral elytral border incomplete), each row 1 to 3 setae wide; setae yellowish or whitish (rarely golden), curved, like those on the pronotum; elytral main punctures arranged in longitudinal rows (fig. 25); interstriae flat on the discus, convex on the elytral sides and declivity, with fine punctures for setal insertions or almost impunctate; epipleura moderately wide at base, with punctures and small setae, gradually tapering posteriorly and evanescing at the level of the second abdominal sternite.

Aedeagus (figs 49-50).

Spermatheca (fig. 51)

NOTE. Medvedev (1997) described *Mecistes saudica* from Saudi Arabia (a third paraty-

pus - not examined - in LMcoll). The specimen labelled “Holotype” (NHMB) is a ♂, while in the original description it is reported as being a female; the paratype in the same collection is a ♀. I examined these specimens and I cannot separate them morphologically from *M. tarsalis* from South Africa. I here propose the new synonymy: *Mecistes saudica* Medvedev, 1997 = *Mecistes seriatus* Lefèvre, 1885. Further researches could better define the distribution of this species, yet other species of Chrysomelidae show the same or similar distribution, at least in Alticinae (Maurizio Biondi, pers. comm.).

All the examined specimens from Bloomberg (South Africa) differ from the other examined material in having golden setae (instead of light yellow setae) both on dorsal and ventral part of the body.

VERIFIED DISTRIBUTION: Saudi Arabia, Mozambique, Swaziland, Rep. South Africa.

*Mecistes tarsalis* Chapuis, 1874

*Mecistes tarsalis* Chapuis, 1874: 323, pl. 122 fig. 3;

*Macetes carinatus* Chapuis, i. l.

*Macetes proximus* Chapuis, i. l.

*Mecistes tarsalis*, Lefèvre, 1885: 122;

*Mecistes indigaceus* Jacoby, 1898: 235 **n. syn.**;

*Mecistes tarsalis*, Jacoby, 1898: 236;

*Mecistes indigaceus*, Clavareau, 1914: 130;

*Mecistes tarsalis*, Clavareau, 1914: 130;

*Mecistes indigaceus*, Clavareau, 1914: 130;

*Mecistes indigaceus*, Bryant, 1959: 206;

*Mecistes tarsalis*, Medvedev, 1997: 321;

*Mecistes indigaceus*, Medvedev, 1997: 321

TYPE LOCALITY: Cafrerie.

NEOTYPUS DEPOSITORY: IRSN

NEOTYPUS (here designated): Cafrerie [handwritten white label]; Restit. 1885 [printed white label]; Neotypus *Mecistes tarsalis* Chapuis, 1874, S. Zoia des. 2009 [printed red label]

NOTE. I here designate the only available specimen from Chapuis's coll. (IRSN) to be the Neotypus of this species. The specimen does not bear any original indication to show it is the original Chapuis's type, yet the locality label might be written by Chapuis himself, after handwriting examination. This specimen agrees well with the original description.

OTHER EXAMINED MATERIAL. *Mecistes indigaceus* Jacoby, 1898 holotype: HT; Ulundi, Natal, Marshall; Jacoby Coll., 1909-28a; *Mecistes indigaceus* type Jac. (BMNH);

Afrique, Coll. Clavareau, Holotypus, *Macetes proximus* Chp, (1 ex., MRAC);

REP. POP. CONGO: Leopoldville, Belg. Kongo, G. Frey, 1.1952 (1 ex., MDcoll);

NAMIBIA (?): Nubib, SE 24 16 Cc, 1.1980, Univ. van Pretoria (1 ex., PPRI);

BOTSWANA: Gaborone, 24.40S 25.54E, 11.i.1984, R. Hartland-Rowe (2 ex., PPRI);

REP. SOUTH AFRICA: Vaalhock, 17.1.63, Paliatseas (1 ex., PPRI); Sabie, N.O. Trans. S.A., leg. Frey, 1.1952 (26 ex., NHMB; 4 ex. SZcoll); MPU, Houtenbek Farm, NW of Dullstroom: Macabelel

Lodge, 25°18'S 30°03'E, 1980 m, 02-03.xii.2002, E. Grobbelaar - collected by sweeping (2 exx., PPRI); MPU, Houtenbek Farm, NW of Dullstroom: Macabele Lodge, 25°18'S 30°03'E, 1980 m, 02-03.xii.2002, R. Stals - habitat: grassland. Collected with yellow pan traps in moist grassy area (5 exx., PPRI); MPU, Houtenbek Farm, NW of Dullstroom: Boskrans Dam, 25°21'S 30°01'E, 1940 m, 01.xii.2002, E. Grobbelaar - collected by sweeping (7 exx., PPRI; 4 exx. SZcoll); idem, 05.xii.2002, E. Grobbelaar - collected by beating (1 ex., PPRI); Pretoria, TP, 21-2-1958, A. L. Capener, SN 4328 (3 exx., PPRI); Hennopsrivier, TP, Dec., 1951, A. L. Capener, SN. 4063 (2 exx., PPRI); MPU, Ermelo, 33 km E, 26°34'S 30°20'E, 19.i.1989, N. Verheijn - collected by sweeping (2 exx., PPRI); Impamar. E. Tvl. (nr. Sheepmoor) Jan. 1960, H. K. Munro (2 exx., PPRI); Utrecht, Natal, 21-1-1963, HAD. van Schakwyk (1 ex., PPRI); New Castle, Natal (Milton) 21/1/1963, HAD. van Schalkwyk (5 exx., PPRI); KwaZulu-Natal, Vryheid, 29/31.12.2008, P. Schüle leg. (5 exx., SMNS); KwaZulu-Natal, 25 km E Vryheid, 1000 m, 1.1.2009, P. Schüle leg. (6 exx., SMNS; 2 exx., SZcoll); OFS, 7.2.2001, Bethlehem, N of Kestell, leg. M. Snizek (1 ex., UAcoll); OFS, 2.2.2001, Bethlehem, Golden Gate NP, leg. M. Snizek (1 ex., SZcoll); O. F. S., Adullam Farm near Clarens, 28.32S 28.28E, 20-26.ii.1980, S. J. van Tonder, C. Kok (1 ex., PPRI); O. F. S., Fouriesburg, 28.37S 28.13E, 20-26.ii.1980, W. A. Harrop (2 exx., PPRI); NTL, Arendsig Mt, Cathedral Peak, 28.53S 29.05E, 19.xii.1986, P. Reavell (2 exx., PPRI); NTL, Ukahlamba nr Cathedral Peak, 28.57S 29.12E, 19.xii.1986, P. E. Reavell (17 exx., PPRI); Natal, Cathedral Peak area above Mike's Pass, 28.59S 29.14E, 1973 m, 19-23.i.1986, B. Grobbelaar (1 ex., PPRI); Natal, Champagne Castle, Monk's Cowl, m 1400-1700, 29°03'S, 29°23'E, trail, 11.XII.1995, M. Biondi leg. (9 exx., SZcoll); Giants Castle SE 29 29Ad, XII-1979, C. H. Scholtz (1 ex., PPRI); Natal, Karkloofarea, m 1350-1500, 29°17'S 30°21'E, forest edge, 10.XII.1995, P. Audisio leg. (1 ex., SZcoll); KZN, Kamberg Nature Reserve, 29°29'S 29°40'E, 30.xi.2007, P. D. Wragg - visiting flowers of *Cyperus obtusiflorus* var. *flavissimus* (Cyperaceae) (1 ex., PPRI); idem, 29°29'S 29°40'E, 1.xii.2007, P. D. Wragg - visiting flowers of *Cyperus obtusiflorus* var. *flavissimus* (Cyperaceae) (2 exx., PPRI); idem, 29°29'S 29°40'E, 15.xii.2007, P. D. Wragg - visiting flowers of *Cyperus obtusiflorus* var. *flavissimus* (Cyperaceae) (1 ex., PPRI); idem, 28.xii.2007, P. D. Wragg - visiting flowers of *Cyperus obtusiflorus* var. *flavissimus* (Cyperaceae) (1 ex., PPRI); Natal, 1600 m, Drakensberg Central Berg, 11.II.1995, 20 km S Kamberg N. R., leg. M. Zapparoli (1 ex., SZcoll); Natal: Dumisa (Junod) Coll. Clavareau (2 exx., MRAC); Kwazulu-Natal, Ost-Kap, 8 km N Elliot, 29.XI.2001, P. Schüle leg. (1 ex., SMNS; 1 ex., SZcoll); Eastern Cape, 20 km SE Quiba, m 1300, 31°35'S 27°56'E, forest edge, 4.XII.1995, P. Audisio leg. (4 exx., SZcoll); idem, A. De Biase leg. (15 exx., SZcoll); Umtata, Transkei, 18.ii-18.iii.1923, S. Africa, R. E. Turner, Brit. Mus. 1923-189 (1 ex., BMNH); Komga KP., 21/1/1963, HAD. van Schalkwyk (1 ex., PPRI); Grah. Tow (Grahamstown) (1 ex., PPRI); Ladysmith 22 km, Colenso, Natal S. Afr. 8.2.72 D. Wessels (1 ex., PPRI); idem, 8.2.72 A. Prinsloo (1 ex., PPRI); 24 km New Castle Ladysmith, Natal S. Afr., 8/2/72, D. Wessels (1 ex., PPRI); Cape Colony, Coll. Clavareau (1 ex., MRAC); Sentinel, Ntl., i.1978, C. D. Eardley (3 exx., PPRI).

DATA FROM LITERATURE (not verified). Cape Prov.: 15 miles N Matatiele; Border, 20 miles N Matatiele (distr.gen.: Cape Prov., Natal) (Bryant, 1959, sub *Megistes* (sic!))

DESCRIPTION. Body length of the neotypus 3.9 mm (length range of the examined specimens: 3.5-5.7 mm).

Habitus as in figs 13-14. Body uniformly black, without or with light metallic reflections; pronotum black, dark green or dark bluish, sometimes with some purple reflections, usually slightly metallic; elytra dark blue or dark green, with metallic reflections; femora and tibiae black, usually with some bluish reflections; tarsi dark brown

to black; labrum black, mandibles and palpi dark brown; 1<sup>st</sup> and 7<sup>th</sup> to 11<sup>th</sup> antennal segments largely dark brown or black, segments 2 to 6 reddish.

Head: frons convex, with a median longitudinal impression, almost flat or feebly depressed between the eyes; the clypeus inclined, almost impunctate and glabrous; the frons with short, slender, yellowish setae, like those on the pronotum; surface of the frons with moderately strong, round punctures, the surface between the punctures flat, on the average as wide as the diameter of each puncture and with a fine microreticulation; eyes convex, their inner borders distant (in frontal view the distance between the eyes is about 2.9-3.3 times the width of a single eye) with a narrow and relatively deep sulcus above. Antennae: 1<sup>st</sup> antennal segment globose, 1.6 times as long as wide, 2<sup>nd</sup> 0.6 times the first in length and 3/5 as wide, 3<sup>rd</sup> 1.5 times longer than the 4<sup>th</sup>, twice as long as wide, 4<sup>th</sup> to 6<sup>th</sup> subequal in length, subquadrate or a little longer than wide, 7<sup>th</sup> a little longer than wide, 8<sup>th</sup> to 10<sup>th</sup> as long as wide or a little longer than wide, 11<sup>th</sup> 1.5 times as long as wide and 1.5 times the 10<sup>th</sup> in length.

Pronotum 1.4 times wider than long, clearly wider at base than at distal border; base bisinuate; sides curved throughout, shortly widened from the base for 1/5 of its length, narrowed distally; basal corners obtuse, distal corners not evident; pronotal punctures like those on the frons, round, sparse, the surface between the punctures flat, on average as wide as the diameter of each puncture, near the pronotal base with very fine microreticulation; lateral borders thin, well marked, sometimes feebly serrate, evanescent only near the insertion of the setae at the distal pronotal corners; the post-ocular process ending at the level of the anterior pronotal corner, its distal edge almost straight near the pronotal corner, feebly protruding anteriorly; pronotal setae light yellowish, short, slender. Prothoracic epimera densely punctured, with setae closer to each other than on the pronotum.

Mesothoracic episterna densely and finely punctured, with small, yellowish setae. Scutellum pentagonal, its surface shiny, with relatively strong punctures and small setae.

Metathoracic epimera 3.4 times as long as wide, finely and densely punctured, with small, curved, yellowish or whitish, slender setae. Metasternum with yellowish or whitish hairs.

Legs: moderately long, robust, with thin, light yellowish or whitish setae; femora unarmed, weakly swollen, with relatively strong punctuation and distinct microreticulation on the surface; tibiae feebly curved, usually more so the fore and middle ones; tibiae gradually and moderately widened to the tip, with thin longitudinal costae and rows of hairs; tarsi dark, robust, usually the fore tarsi in ♂ slightly wider than in ♀; claws bifid, with the inner tooth of each claw reaching half the claw's length, the division starting near the claw's base.

Elytra moderately elongate (length/width at humeral level = 1.2); sides weakly curved or subparallel to beyond mid-length, then regularly curved to the apical corners, which form a right angle; humeri prominent, covering the elytral sides in dorsal view; elytral setae sparse, yellowish or whitish in colour, curved, like those on the pronotum; elytral punctures sparse on the discus, usually more regularly arranged in longitudinal rows on the declivity and on the elytral sides; punctures moderately strong, close to each other (fig. 27); each elytron with three longitudinal, impunctate stripes, and a distinct

costa starting from the humeral callus (figs 14 and 30) and reaching the apical corner; epipleura moderately wide at base, smooth, almost impunctate, gradually tapering backwards and evanescent at the level of the second abdominal sternite.

Aedeagus (figs 52-53).

Spermatheca (fig. 54)

NOTE. Jacoby (1898) separated his *M. indigaceus* from Chapuis's *M. tarsalis* by the different colour of the dorsal and ventral parts of the body: these differences are inconsistent and not exceeding the species variability; the holotype of *M. indigaceus* perfectly matches in all its morphological characters *M. tarsalis* and I propose the following synonymy: *Mecistes indigaceus* Jacoby, 1898 = *Mecistes tarsalis* Chapuis, 1874.

I examined a single specimen of this species from Kinshasa (Rep. Pop. Congo): this record needs confirmation.

VERIFIED DISTRIBUTION: Rep. Pop. Congo, Namibia (?), Botswana, Rep. South Africa.

***Mecistes thompsoni* n. sp.**

TYPE LOCALITY: Zimbabwe or.: Birchenough bridge.

TYPE DEPOSITORY: BMNH

HOLOTYPE LABELS: Zimbabwe or, Birchenough bridge 10-12 km S, 24.12.1998, Snizek lgt. [printed white label]; Holotypus, *Mecistes thompsoni* n. sp., S. Zoia det. 2009 [printed red label] (♂).

PARATYPI:

MALAWI: Malawi centr., Salima env., 5-6.1.2002, J. Bezdek leg. (1 ♂, JBcoll); Nyassa, 77-50 (2 exx., BMNH); [Zimbabwe] S. Rhodesia, Victoria Falls, xii.1950, Sir G.A.K. Marshall (3 exx., BMNH)

ZIMBABWE: Zimbabwe or, Birchenough bridge 10-12 km S, 24.12.1998, Snizek lgt. (2 exx. MSNM; 2 exx., MDcoll; 32 exx. SZcoll.); W Zimbabwe, Hwange, 4.xii.1998. M. Snizek leg. (2 exx., SZcoll.); SE Zimbabwe, Chiredzi, Nandi env., 28.xi.1998, M. Snizek leg. (1 ex., SZcoll.); Mangesi R., S.E. Mashonaland, G.A.K. Marshall, 1908-212 (2 exx., BMNH); S. Rhodesia, Umfuli R., IX.1895, G.A.K. Marshall (1 ex., BMNH)

BOTSWANA: Botswana bor., Kasane env., 29.12.1996-7.1.1997, Lgt. M. Snizek (2 exx., SZcoll.)

SOUTH AFRICA: Mkuzi, Zululand, Dec. 1947, Light-Trap. DDT No. 619 (1 ex., PPRI); Linokana, Holub, Coll. Nickerl Mus. Pragense (7 exx., NMPC; 1 ex., SZcoll.)

DESCRIPTION. Body length of the holotypus 2.6 mm (length range of the examined specimens: 2.3-3.5 mm).

Habitus as in figs 15-16. Body uniformly black, without metallic reflections; pronotum and elytra black, moderately bright; femora, tibiae and tarsi reddish, with the distal tarsal segment usually darkened distally; labrum, mandibles and palpi reddish; 1<sup>st</sup> to 7<sup>th</sup> antennal segments reddish, 8<sup>th</sup> to 11<sup>th</sup> reddish, more or less darkened on the outer and the distal portion.

Head: frons almost flat between the eyes; clypeus feebly inclined, strongly punctate proximally, with a few very small setae, impunctate distally; the frons with oblong,

weakly widened, regularly arranged light yellow setae: in the middle of the frons the setae resemble those on the pronotum; surface of the frons with wide punctures, flat at their bottom, separated by thin ridges; frons with a shallow longitudinal sulcus in the middle; eyes moderately large and convex (in frontal view the distance between the eyes is about 3.2 times the width of a single eye) with a very thin and superficial sulcus above. Antennae: 1<sup>st</sup> segment globose, 1.5 times as long as wide, 2<sup>nd</sup> 3/5 the first in length and 2/3 as wide, 3<sup>rd</sup> 1.5 times longer than the 4<sup>th</sup>, twice as long as wide, 4<sup>th</sup> to 6<sup>th</sup> short, subequal in length, a little longer than wide, 7<sup>th</sup> as long as wide, 8<sup>th</sup> and 9<sup>th</sup> weakly transverse, 10<sup>th</sup> as long as wide, 11<sup>th</sup> 1.5 times as long as wide and 1.5 times the 10<sup>th</sup> in length.

Pronotum 1.2-1.3 times wider than long, a little wider at base than at distal border; sides evenly curved throughout; distal corners not evident; pronotal punctures wide, superficial, flat on bottom, separated by narrow interspaces, with a geometrical aspect making the pronotal surface reticulated (fig. 22); lateral borders very thin, evanescent at the distal third; the post-ocular process weakly extending dorsally beyond the anterior pronotal angle, reaching the level of the upper border of the eye, its distal edge evenly curved and scarcely protruding anteriorly; pronotal setae light yellow, slender, each of them arising from the middle of a pronotal puncture, and as long as the setae on the frons. Prothoracic epimera densely punctured, with setae resembling those on the pronotum and usually partially covered by waxy secretion.

Mesothoracic episterna with small, light yellowish setae. Scutellum pentagonal, with wide distal angle; surface punctured, bearing moderately broad yellowish setae.

Metathoracic epimera 4.5 times as long as wide, finely punctured, with small, curved, light yellow, moderately widened setae, usually with waxy secretion. Metasternum with light yellowish hairs.

Legs: long and relatively slender, with thin, light yellowish setae; all the femora with a small acute tooth beneath, weakly swollen, especially the fore femora, the punctation very fine; tibiae almost straight, gradually widening to the tip, reddish, with thin longitudinal costae, almost impunctate, with rows of very small hairs; tarsi reddish, moderately robust, the last article darkened distally; in ♂ the fore tarsi a little wider than in ♀; claws bifid, with the inner tooth of each claw shorter than the outer one, the division starting near the claw's base.

Elytra elongate (length/width at humeral level = 1.2-1.4); sides subparallel to midlength, then evenly curved to the apical corners, which form a right angle; humeri prominent, covering the elytral sides in dorsal view; each elytron with 11 longitudinal rows (including the row on the elytral border) of light yellowish, curved setae, which resemble those on the pronotum, each row 1-2 setae wide; the interspaces between these rows with irregular, relatively large, bare punctures (fig. 26); epipleura moderately wide at base, with yellowish setae, gradually tapering to the end of the metathoracic epimera, very thin from this point and evanescent near the distal border of the 1<sup>st</sup> sternite.

Aedeagus (figs 55-56).

Spermatheca (fig. 57): spermathecal duct more than twice as long as the spermathecal length.

DERIVATIO NOMINIS. The species is named after Richard Thompson, a well-known spe-

cialist in Coleoptera Curculionidae, who helped me with suggestions and discussions on beetle morphology and anatomy and with his experience in taxonomy.

VERIFIED DISTRIBUTION: Malawi, Zimbabwe, Botswana, Rep. South Africa.

***Mecistes ziliolii* n. sp.**

TYPE LOCALITY: Rep. South Africa: Transvaal: Ellisras District: D’Nyala Nat. Res.

TYPE DEPOSITORY: PPRI.

HOLOTYPE LABELS: South Africa, D’Nyala Nat. Res., Ellisras District, 23.45S 27.49E; 18-20.xii.1987, B. Grobbelaar [printed white label]; Collected by beating [printed white label]; National Coll. of Insects, Pretoria, S. Afr. [printed white label]; Holotypus *Mecistes ziliolii* n. sp., S. Zoia det. 2008 [printed red label] (♀).

PARATYPE:

NAMIBIA: Brakwater Pot 36, 22°24’38,2’’S/17°03’30,4’’E, leg. U. Göllner, 6.iii.2001 (1 ♀, MN-HU).

BOTSWANA: Botswana bor., Kasane env., 29.12.1996-7.1.1997, Lgt. M. Snizek (1 ♀, SZcoll);

REP. SOUTH AFRICA: NProv, nr Punda Maria (KNP), 22.41,5S 31.01,2E, c. 450 m, 28.xi.1996, S. Nesar & R. Stals - Collected (by beating) from *Acacia nilotica* (Mimosoideae) (6 exx., PPRI); NProv, near Luvhalani, 22.54,1S 29.57,6E, 850 m, 27.xi.1996, S. Nesar & R. Stals - Collected (by beating) from *Acacia nilotica* (Mimosoideae) (6 exx., PPRI; 2 SZcoll); NProv, 2 km NW of Ingwe Motel, near Louis Trichardt, 22.57,1S 29.55,4E, c. 1000 m, 27.xi.1996, S. Nesar & R. Stals - Collected (by beating) from *Acacia nilotica* (Mimosoideae) (13 exx., PPRI; 2 exx., SZcoll); NProv, Louis Trichardt, S town, 23.03,5S 29.54,9E, 950 m, 26.xi.1996, S. Nesar & R. Stals - Collected (by beating) from *Acacia nilotica* (Mimosoideae) (1 ex., PPRI); NProv, near GaHlako, 23.29,3[S] 28.31,9E, c. 900 m, 24.xi.1996, S. Nesar & R. Stals - Collected (by beating) from *Acacia nilotica* (Fabaceae) (6 exx., PPRI); NProv, Gouda (farm), nr Marken, 23.33,8S 28.24,8E, c. 1000 m, 24.xi.1996, S. Nesar & R. Stals - Collected (by beating) from *Acacia nilotica* (Fabaceae) (10 exx., PPRI); NProv, 8 km E of Steenbokpan, 23.41,1S 27.21,7E, c. 900 m, 23.xi.1996, S. Nesar & R. Stals (1 ex., PPRI); idem - Collected (by beating) from *Acacia nilotica* (Fabaceae) (7 exx., PPRI; 3 exx., SZcoll); D’Nyala Nat. Res., Ellisras District, 23.45S 27.49E, 18-20.xii.1987, B. Grobbelaar; Collected by beating (2 ♀ ♀, PPRI; 1 ♀ SZcoll.); idem, 18.xii.1989, Collected at light (1 ♀, PPRI; 1 ♀, MSNM); Limpopo, D’Nyala Nature Reserve, Ellisras District, c. 850 m, 23°45’S 27°49’E, 18.xii.1989, E. Grobbelaar - Collected at light trap (30 exx., PPRI; 8 exx., SZcoll); NProv., 10 km NE of Murchison, 23.51,5S 30.46,5E, c. 500 m, 14.i.1997, Grobbelaar / Millar / Stals - Collected (by beating) from *Acacia nilotica* (Mimosoideae) (3 exx., PPRI); NProv, 36 km S of Marken, 23.54,1S 26.27,2E, 1300 m, 24.xi.1996, S. Nesar & R. Stals - Collected (by beating) from *Acacia nilotica* (Fabaceae) (6 exx., PPRI); N. W. TVL, Mogol Nature Reserve, Ellisras Dist., 23.58S 27.45E, 19-23.xi.1979, S. J. van Tonder, C. Kok, G. L. Prinsloo, M. W. Mansell (1 ex., PPRI); NProv, ( km SW of Phalaborwa, 23.58,5S 31.04,4E, c. 400 m, 01.xii.1996, S. Nesar & R. Stals - Collected (by beating) from *Acacia nilotica* (Mimosoideae) (4 exx., PPRI); NProv, 12 km N of Vaalwater, 24.11S 28.06,5E, c. 1150 m, 23.xi.1996, S. Nesar & R. Stals - Collected (by beating) from *Acacia nilotica* (Fabaceae) (5 exx., PPRI); NProv, Blydepark, nr Hoedspruit, 24.24,0S 30.48,1E, c. 500 m, 19.i.1997, Grobbelaar / Millar / Stals - Collected (by beating) from *Acacia nilotica* (Mimosoideae) (3 exx., PPRI); NProv, Guernsey (farm central), near Klaserie, 24.28,8S

31.05.4E, c. 550 m, 18.i.1997, Grobbelaar / Millar / Stals - Collected (by beating) from *Acacia nilotica* (Mimosoideae) (8 exx., PPRI); NProv, 8 km NE of Swadini, 24.29,0S 30.52,0E, c. 650 m, 17.i.1997, Grobbelaar / Millar / Stals - Collected (by beating) from *Acacia nilotica* (Mimosoideae) (4 exx., PPRI); NProv, Kampersrus, 24.30,5N 30.53,5E, 760 m, 18.i.1997, Grobbelaar / Millar / Stals - Collected (by beating) from *Acacia nilotica* (Mimosoideae) (5 exx., PPRI); NProv, SA Wildlife College, 10 km from Orpen Gate of KNP, 24.30S 31.19E, 18.x.2000, W. Breytenbach - Collected by beating *Acacia gerrardii* (Fabaceae) with new leaf growth after controlled burn in September 2000 (6 exx., PPRI); MPU, Swadini, Blyde River Canyon Nature Reserve, 24°32'S 30°47'E, c. 600 m, 26-29.i.1987, E. Grobbelaar - Collected by beating (1 ex., PPRI); Tvl., Swadini, Blydepoort Nat. Res., 24.32S 30.54E, 26-29.i.1987, B. Grobbelaar; Collected by beating (3 exx., PPRI; 1 ex., SZcoll.); Middelfontein, TP. (Nylstroom) 17-12-1953, D. W. Rorke (1 ex., PPRI); NW, 20 km W of Nietverdiend, 24.59,9S 25.58,2E, c. 1100 m, 22.xi.1996, S. Nesar & R. Stals - Collected (by beating) from *Acacia nilotica* (Fabaceae) (6 exx., PPRI); GAU, 8 km S of Rust de Winter, 25.17,1S 28.35,8E, c. 1100 m, 18.xii.1996, Grobbelaar / Stals / Stiller - Collected by D-Vac from *Acacia nilotica* (Fabaceae) (2 exx., PPRI); idem - Collected (by beating) from *Acacia nilotica* (Mimosoideae) (6 exx., PPRI); NW, NW of Dinokana, 25.24,2S 25.48E, c. 1300 m, 22.xi.1996, S. Nesar & R. Stals - Collected (by beating) from *Acacia nilotica* (Fabaceae) (9 exx., PPRI; 3 exx., SZcoll exx., PPRI); Tvl, Loskopdam Nat Res, 25.25S 29.20E, 12-13.xii.1985, V. M. Swain - collected at light (1 ex., PPRI); NW, Klarstroom (farm) 8 km W of Zeerust, 25.33,1S 26.00E, c. 1300 m, 22.xi.1996, S. Nesar & R. Stals - Collected (by beating) from *Acacia nilotica* (Fabaceae) (6 exx., PPRI); GAU, Roodeplaat: PPRI, grounds, near Pretoria, 25.36,7S 28.21,5E, 1220 m, 12.xi.1996, Grobbelaar / Miller / Stals - Collected (by beating) from *Acacia nilotica* (Mimosoideae) (4 exx., PPRI); idem, 18.xii.1996, Grobbelaar / Stals / Stiller - Collected by D-Vac from *Acacia nilotica* (Fabaceae) (1 ex., PPRI); idem, 04.ii.1997, E. Grobbelaar & M. Stiller - Collected (by beating) from *Acacia nilotica* (Mimosoideae) (1 ex., PPRI); GAU, Roodeplaat: PPRI, grounds, near Pretoria, 25.36,8S 28.21,7E, 1220 m, 18.xii.1996, Grobbelaar / Stals / Stiller - Collected (by beating) from *Acacia nilotica* (Mimosoideae) (3 exx., PPRI); MPU, near Bosfontein, 25.46,8S 31.37,6E, c. 400 m, 25.iii.1997, I. M. Miller & R. Stals - Collected (by beating) from *Acacia nilotica* (Mimosoideae) (1 ex., PPRI); MPU, 8 km NE of Pongola, 27.20,1S 31.41,1E, 300 m, 19.xi.1996, E. Grobbelaar & I. M. Miller - Collected (by beating) from *Acacia nilotica* (Mimosoideae) (1 ex., PPRI); MPU, 4.5 km SW of Golela, 27.20,3S 31.50,9E, c. 150 m, 20.xi.1996, E. Grobbelaar & I. M. Millar - Collected (by beating) from *Acacia nilotica* (Mimosoideae) (3 exx., PPRI); MPU, Mhlali, ENE of Pongola, 27.21,8S 31.47,7E, c. 200 m, 19.xi.1996, E. Grobbelaar & I. M. Millar - Collected (by beating) from *Acacia nilotica* (Mimosoideae) (9 exx., PPRI; 2 exx., SZcoll); KZN, 2.5 km W of Candover, 27.28,4S 31.55,3E, c. 200 m, 20.xi.1996, E. Grobbelaar & I. M. Millar - Collected (by beating) from *Acacia nilotica* (Mimosoideae) (1 ex., PPRI); KZN, Cloete Farm, nr Hluhluwe, 27.52,6S 32.23,2E, c. 50 m, 23.xi.1996, E. Grobbelaar & I. M. Millar - Collected (by beating) from *Acacia nilotica* (Mimosoideae) (8 exx., PPRI; 2 exx., BMNH; 2 exx., SZcoll); KZN, Kuleni Farm, nr Hluhluwe, 27.55,7S 32.21,8E, c. 50 m, 21.xi.1996, E. Grobbelaar & I. M. Miller - Collected (by beating) from *Acacia nilotica* (Mimosoideae) (3 exx., PPRI); idem, 22.xi.1996, E. Grobbelaar & I. M. Miller - Collected (by beating) from *Acacia nilotica* (Mimosoideae) (6 exx., PPRI); KwaZulu Natal, Hluhluwe, 28°00'11"S; 32°17'39"E, 122 m, 26/ii/99, A. Witt, Adair & E. Steenkamp - Collected (beating) from *Acacia nilotica kraussiana* (Mimosoideae) (1 ex., PPRI); KwaZulu Natal, Hluhluwe, 28°01'23"S; 32°16'24"E, 37 m, 26/ii/99, A. Witt, Adair & E. Steenkamp - Collected (beating) from *Acacia nilotica kraussiana* (Mimosoideae) (1 ex., PPRI).

DESCRIPTION. Body length of the holotype 3.3 mm ( $\sigma^7$  paratype 2.3 mm, length range of the examined  $\sigma^7$  specimens: 2.7-3.3 mm).

Habitus as in figs 17-18. Body uniformly black, without metallic reflections; pronotum and elytra black, moderately bright; femora, tibiae and tarsi reddish brown with the tarsi usually darker; labrum, mandibles and palpi reddish; 1<sup>st</sup> to 7<sup>th</sup> antennal segments yellowish to light reddish, 8<sup>th</sup> to 11<sup>th</sup> more or less dark brown.

Head: frons almost flat between the eyes, weakly concave between the antennal insertions; the clypeus feebly inclined, strongly punctate throughout, with a few very small setae; the frons with relatively short, moderately broad, adpressed, golden to light yellow (aged specimens?) setae: in the middle of the frons the setae are shorter than those on the pronotum; surface of the frons with wide punctures, flat at their bottom, separated by a narrow interspaces; frons with a distinct longitudinal sulcus in the middle; eyes convex, moderately large (in frontal view the distance between the eyes is about 4.8 times the width of a single eye), with a narrow sulcus above. Antennae: 1<sup>st</sup> segment globose, 1.7 times as long as wide, 2<sup>nd</sup> 1/2 the first in length and 2/3 as wide, 3<sup>rd</sup> 1.2 times longer than the 4<sup>th</sup>, 3 times as long as wide, 4<sup>th</sup> and 5<sup>th</sup> oblong, subequal in length, twice as long as wide, 6<sup>th</sup> shorter, 7<sup>th</sup> 1.5 times longer than wide, 8<sup>th</sup> subquadrate, 9<sup>th</sup> and 10<sup>th</sup> 1.2 times longer than wide, 11<sup>th</sup> 1.6 times as long as wide and 1.6 times the 10<sup>th</sup> in length.

Pronotum 1.1-1.2 times wider than long, a little wider at base than at distal border, weakly constricted in the distal fourth by two weak, transverse, lateral impressions (fig. 23); sides subparallel at base, gradually tapering distally; distal corners not evident; pronotal punctures wide, superficial, flat on bottom, separated by narrow interspaces, with a geometrical aspect making the pronotal surface reticulated; pronotal lateral borders very thin, evanescent in middle; the post-ocular process ending at the level of the anterior pronotal angle, its distal edge almost straight, not protruding anteriorly; pronotal setae golden to light yellowish, slender, arising from the middle of each pronotal puncture, and longer than the setae on the frons. Prothoracic epimera densely punctured, with setae thinner than those on the pronotum.

Mesothoracic episterna with small, light yellowish setae. Scutellum either subpentagonal, with the distal angle very wide, or subquadrate, with the distal edge weakly curved; the surface almost impunctate or with a scanty punctuation, with small, yellowish setae.

Metathoracic epimera 4.5 times as long as wide, finely punctured, with small, curved, light yellow, moderately widened setae, often with waxy secretion. Metasternum with light yellowish hairs.

Legs: relatively long and slender, with thin, light yellowish setae; femora either with a small acute tooth beneath, usually larger on the fore femora, or unarmed, weakly swollen, especially the fore femora; punctuation large, moderately deep; tibiae weakly curved, especially the middle tibiae, gradually and moderately widened to the tip, reddish, with thin longitudinal costae and rows of hairs; tarsi dark reddish, moderately robust; in  $\sigma^7$  the fore tarsi as wide as in  $\sigma^7$ ; claws bifid, with the inner tooth of each claw shorter than the outer one, the division starting at 1/3 the claw's length.

Elytra elongate (length/width at humeral level = 1.3); sides subparallel to midlength

in ♂, clearly widened to beyond midlength in ♀, then evenly curved to the apical corners, which form a right angle; humeri prominent, covering the elytral sides in dorsal view; elytral setae irregularly arranged, in places with traces of rows; setae golden to light yellow in colour, curved, like those on the pronotum; elytral main punctures arranged in more or less regular longitudinal rows; the interspaces between the rows flat on the discus, moderately convex on the elytral sides, with fine microreticulation (fig. 28); epipleura moderately wide at base, with yellowish setae, gradually tapering and evanescent at the end of the 3<sup>rd</sup> abdominal sternite.

Aedeagus (figs 58-59) with a short dorsal impression before the ostium, the apex ending with a small obtuse tooth.

Spermatheca (figs 60-61) relatively broad; spermathecal duct relatively long, more than twice the spermathecal length.

DERIVATIO NOMINIS. The species is named after Michele Zilioli, a friend and an experienced entomologist and photographer.

VERIFIED DISTRIBUTION: Namibia, Botswana, Rep. South Africa.

*Mecistes zimbabweensis* n. sp.

TYPE LOCALITY: E Zimbabwe: Chimanimani N. P.

TYPE DEPOSITORY: NMPC.

HOLOTYPE LABELS: E Zimbabwe, Chimanimani N. P., E of Base Camp, 25.xii.1998, M. Snizek leg. [printed white label]; Holotypus, *Mecistes zimbabweensis* n. sp., S. Zoia det. 2009 [printed red label] (♂).

DESCRIPTION. Body length of the holotypus 3.0 mm.

Habitus as in figs 19-20. Body uniformly black, without metallic reflections; pronotum and elytra black, moderately bright; femora, tibiae and tarsi reddish; labrum, mandibles and palpi reddish; 1<sup>st</sup> to 6<sup>th</sup> antennal segments light reddish, 7<sup>th</sup> reddish at base, dark brown distally, 8<sup>th</sup> to 11<sup>th</sup> dark brown.

Head: frons flat between the eyes; clypeus feebly inclined, strongly punctate throughout, with a few small setae; the frons with thin, moderately long, light yellow setae: in the middle of the frons the setae resemble those on the pronotum; surface of the frons with wide punctures, flat at their bottom, most of them polygonal, separated by a narrow interspaces; frons with a weak longitudinal sulcus in the middle; eyes convex and moderately wide (in frontal view the distance between the eyes is about 4.2 times the width of a single eye) without any sulcus above. Antennae: 1<sup>st</sup> segment globose, 1.3 times as long as wide, 2<sup>nd</sup> 0.7 times the first in length and 3/5 as wide, 3<sup>rd</sup> 1.4 times longer than the 4<sup>th</sup>, 2.3 times as long as wide, 4<sup>th</sup> to 5<sup>th</sup> oblong, subequal in length, a little longer than wide, 6<sup>th</sup> as long as wide, 7<sup>th</sup> 1.2 times longer than wide, 8<sup>th</sup> to 10<sup>th</sup> a little longer than wide, 11<sup>th</sup> 1.5 times as long as wide and 1.6 times the 10<sup>th</sup> in length.

Pronotum 1.1 times wider than long, a little wider at base than at distal border; sides weakly curved at base, shortly tapering to rear (the maximum width at the basal third), almost straight and gradually tapering distally; basal corners shortly protruding,

distal corners not evident; pronotal punctures wide, superficial, flat on bottom, polygonal, separated by narrow interspaces, the pronotal surface reticulated; lateral borders hardly present near the prothorax base, totally absent distally; the post-ocular process ending at level of the anterior pronotal angle, its distal edge weakly curved, shortly protruding; pronotal setae light yellowish, slender, arising from the middle of each pronotal puncture. Prothoracic epimera densely punctured, reticulated, with setae smaller than those on pronotum.

Mesothoracic episterna with thin, light yellowish setae. Scutellum quadrangular, with the distal edge almost straight; the surface punctate-rugose.

Metathoracic epimera 3.6 times as long as wide, finely punctured, with small, curved, light yellow, moderately widened setae. Metasternum with light yellowish hairs.

Legs: long and slender, with thin, light yellowish setae; femora unarmed, weakly swollen, almost impunctate; tibiae almost straight on the outer side, the inner side weakly curved; tibiae gradually and moderately widened to the tip, reddish, with thin longitudinal costae and rows of hairs; tarsi reddish, moderately robust; claws bifid, with the inner tooth of each claw shorter than the outer one, the division starting at 1/3 the claw's length.

Elytra elongate (length/width at humeral level = 1.3); sides curved throughout, weakly widening to middle then evenly curved to the apices, which form a right angle; humeri prominent, covering the elytral sides in dorsal view; elytral setae irregularly arranged, showing traces of rows only at sides of the elytral declivity; setae light yellowish, curved, on average longer than those on the pronotum; elytral punctures irregular, strong, close, partially confluent (fig. 29); epipleura wide at base, smooth, with yellowish setae, gradually tapering backwards and evanescent near the distal border of the first abdominal sternite.

Aedeagus (figs 62-63) with the apex shortly bifid.

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

VERIFIED DISTRIBUTION: Zimbabwe.

#### ACKNOWLEDGEMENTS

I wish to thank for their help: Jan Bezdek (Brno), Maurizio Biondi (University of L'Aquila), Michel Brancucci (NHMB), Mauro Daccordi (Verona), Roy Danielsson (MZLU), Marc De Meyer (MRAC), Elizabeth Grobbelaar (PPRI), Jiri Hajek (NMPC), Pol Limbourg (IRSN), Philip D. Perkins (MCZH), Hélène Perrin (MNHN), Roberto Poggi (MSNG), Wolfgang Schawaller (SMNS), Sharon Shute (BMNH), Eva Sprecher-Uebersax (NHMB), Richard Thompson (BMNH), Manfred Uhlig (MNHU).

A solemn thought for the late Nicole Berti, remembering her usual friendly help in facilitating my past requests for specimen examination at the MNHN in Paris.

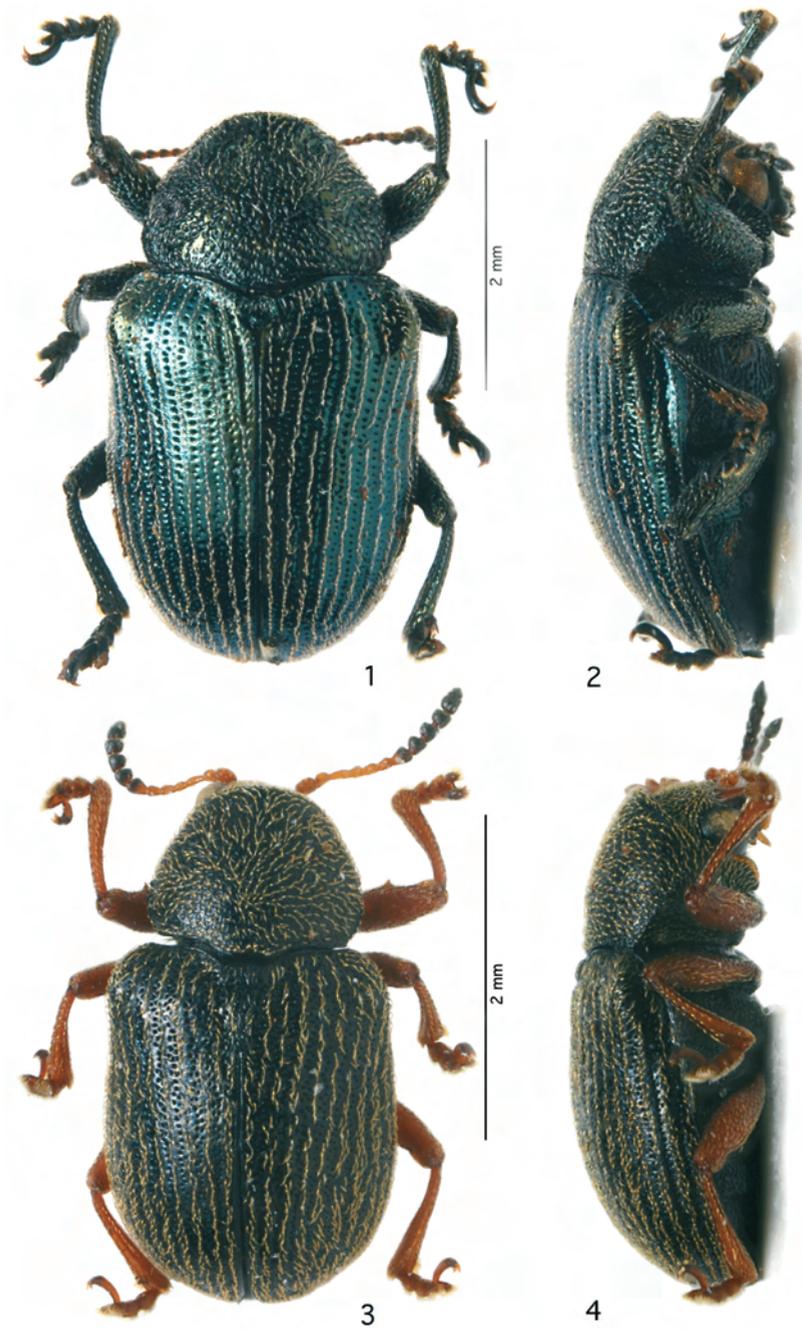
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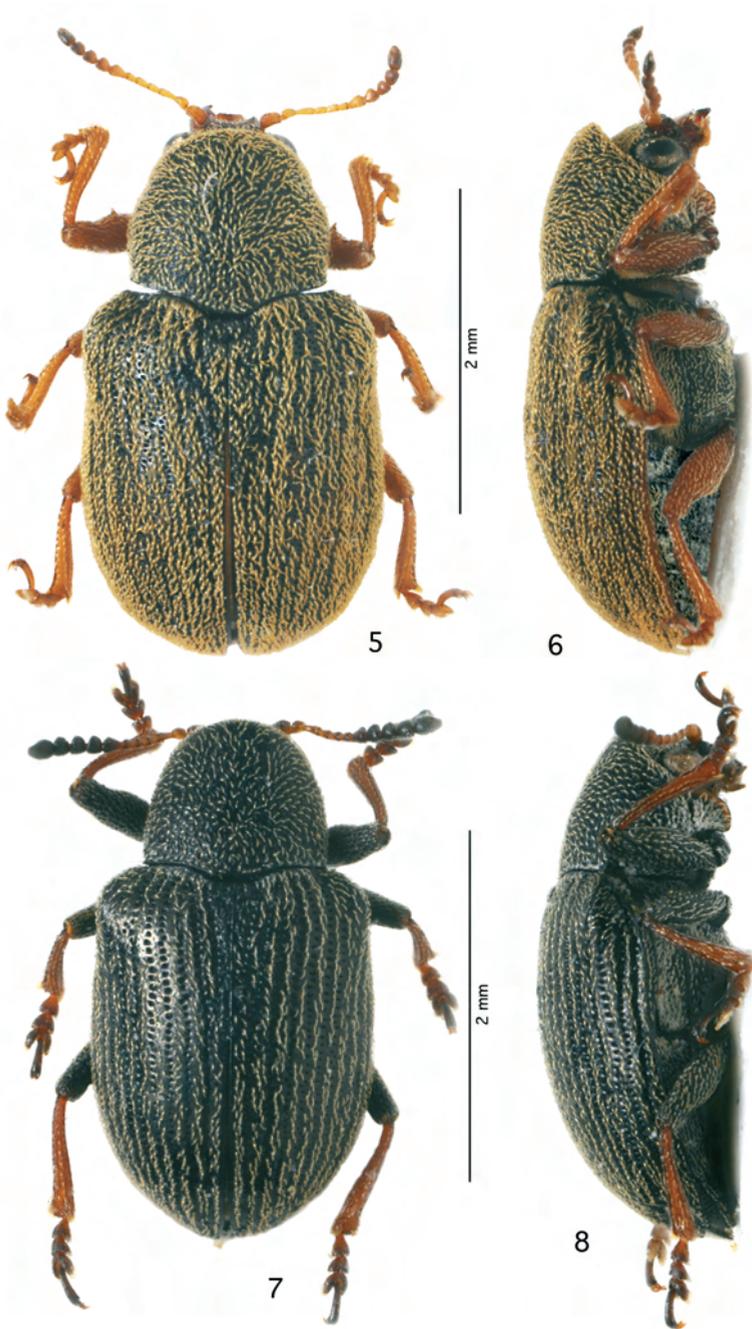
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Author's address:

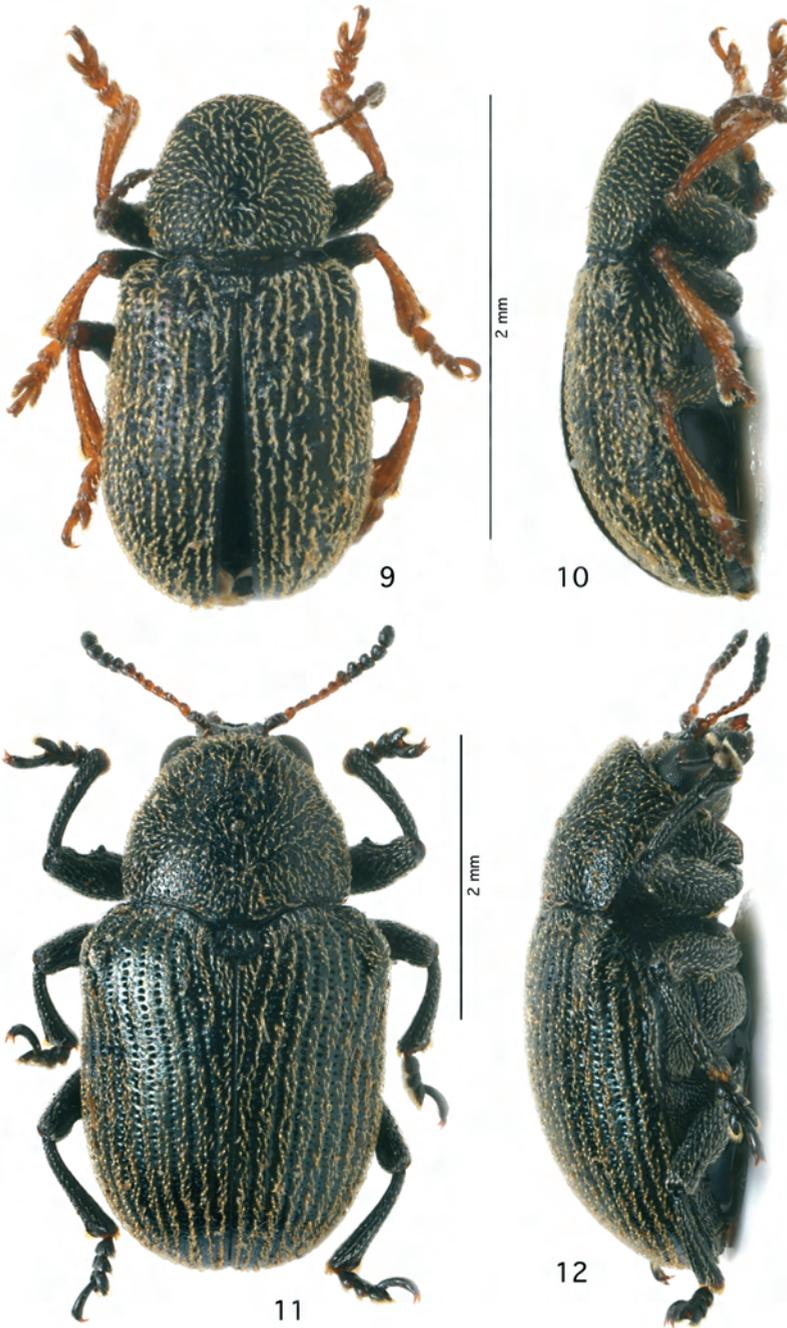
S. Zoia, via Ponte Nuovo 109/4, I-20128 Milan, Italy. E.mail: stefano.zoia@unimi.it



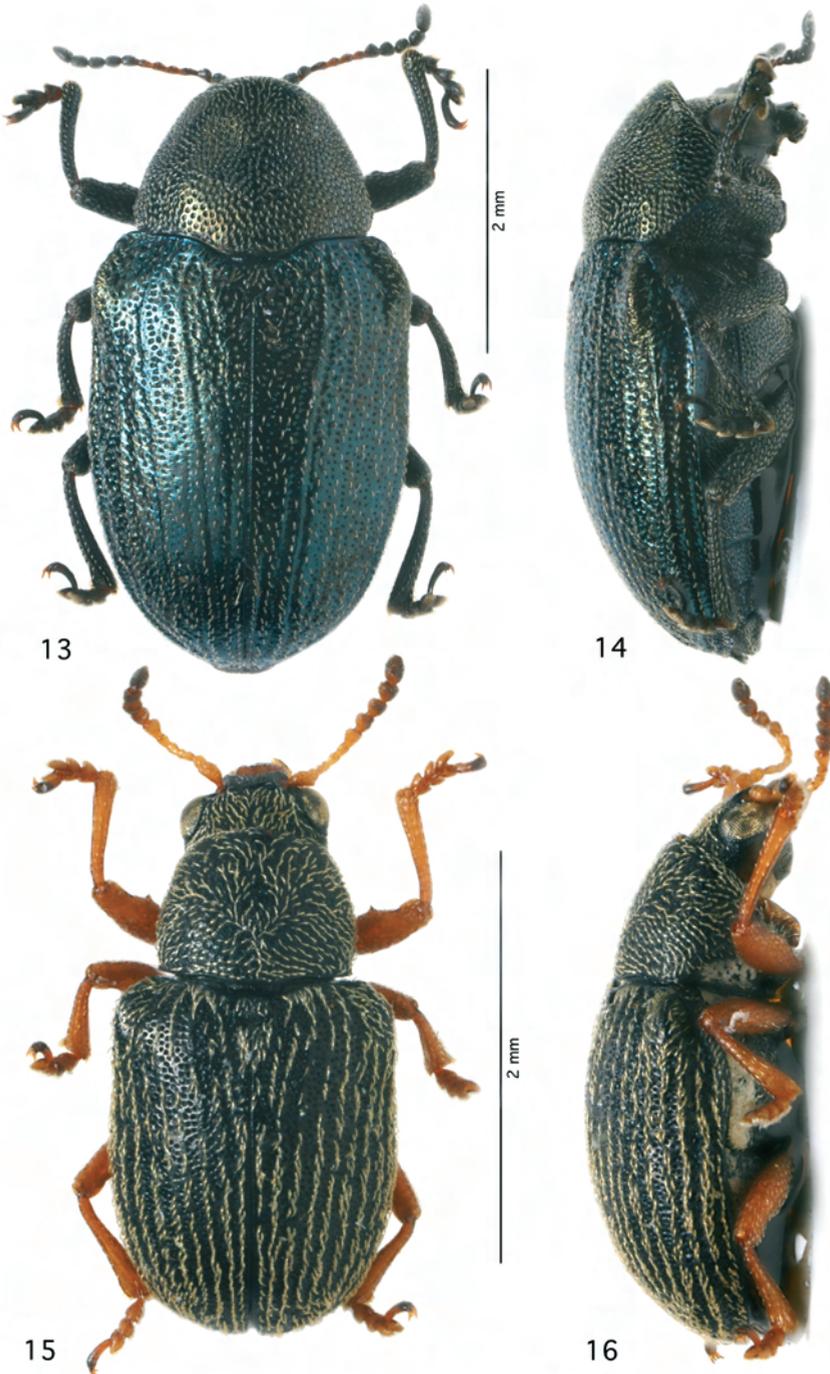
Figs 1-4. Habitus, dorsal and lateral view, of: 1-2 - *Mecistes audisioi* n. sp. (holotypus); 3-4 - *M. chapuisi* Jacoby, 1900 (Kenya, Tsavo, Taita Hills, Wundanyi).



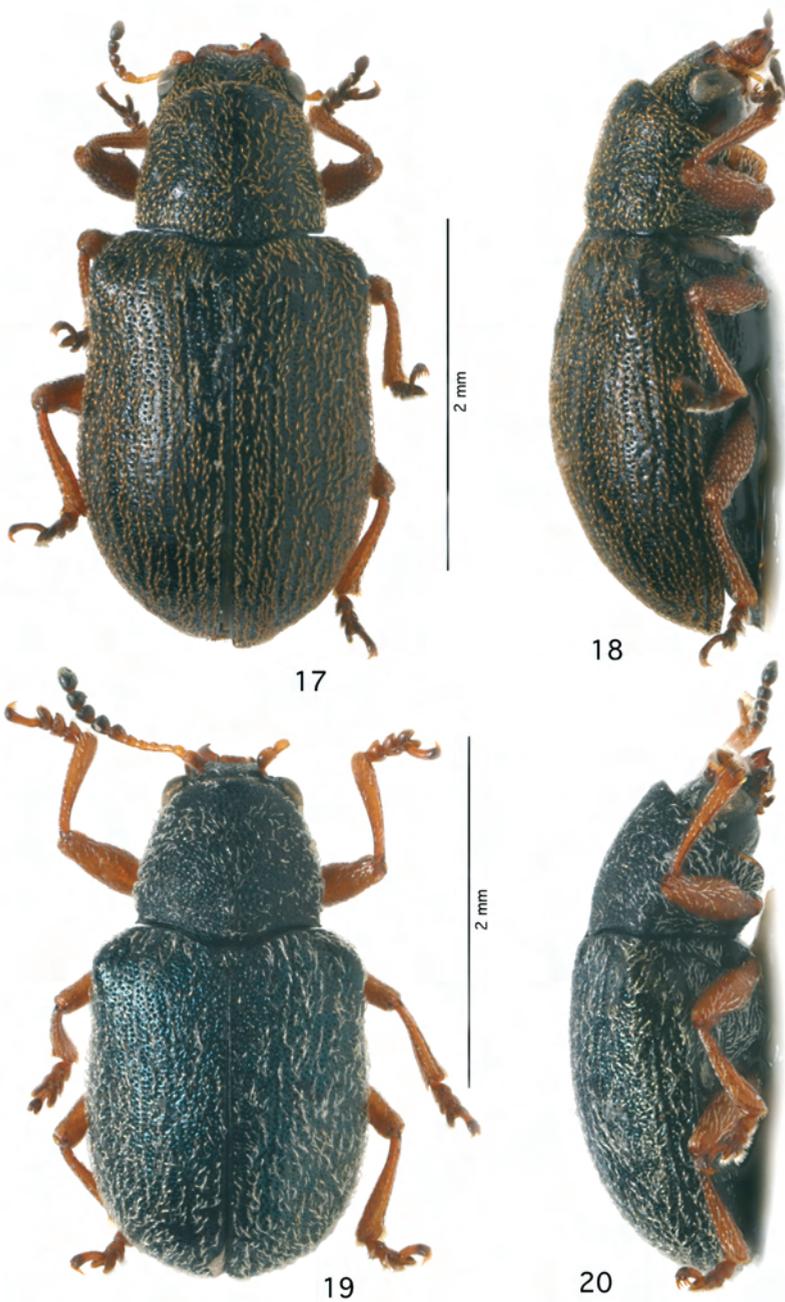
Figs 5-8. Habitus, dorsal and lateral view, of: 5-6 - *Mecistes flavipes* (Gerstaecker, 1855) (SE Zimbabwe, Chiredzi, Nandi env.); 7-8 - *M. grobbelaarae* n. sp. (holotypus).



Figs 9-12. Habitus, dorsal and lateral view, of: 9-10 - *Mecistes lineatus* (Pic, 1921) (Lectotypus); 11-12 - *M. seriatus* Lefèvre, 1885 (Johannesburg, S. Afr.).



Figs 13-16. Habitus, dorsal and lateral view, of: 13-14 - *Mecistes tarsalis* Chapuis, 1874 (South Africa, Natal, Champagne Castle, Monk's Cowl); 15-16 - *M. thompsoni* n. sp. (holotypus).



Figs 17-20. Habitus, dorsal and lateral view, of: 17-18 - *Mecistes ziliolii* n. sp. (holotypus); 19-20 - *Mecistes zimbabweensis* n. sp. (holotypus).



21



22

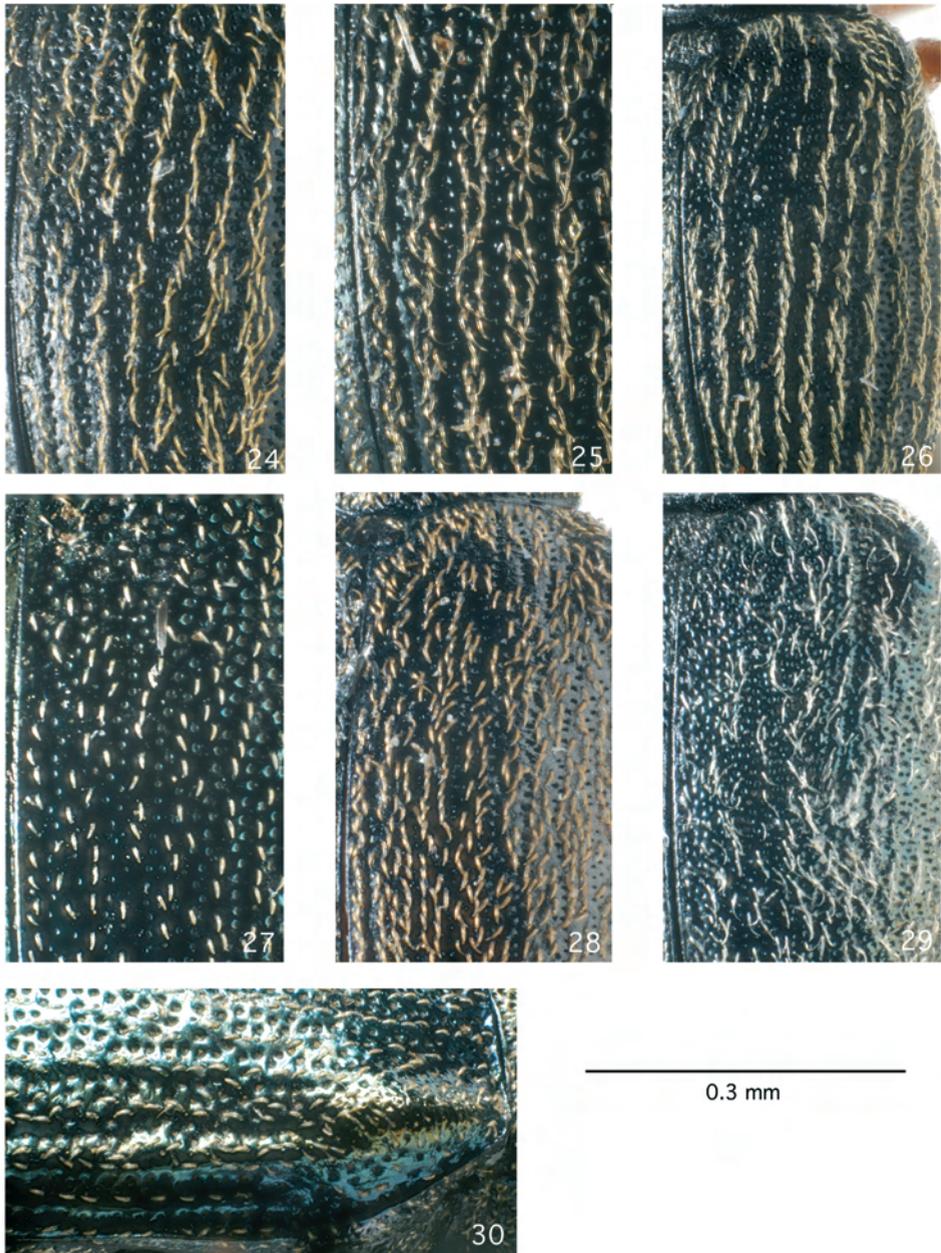


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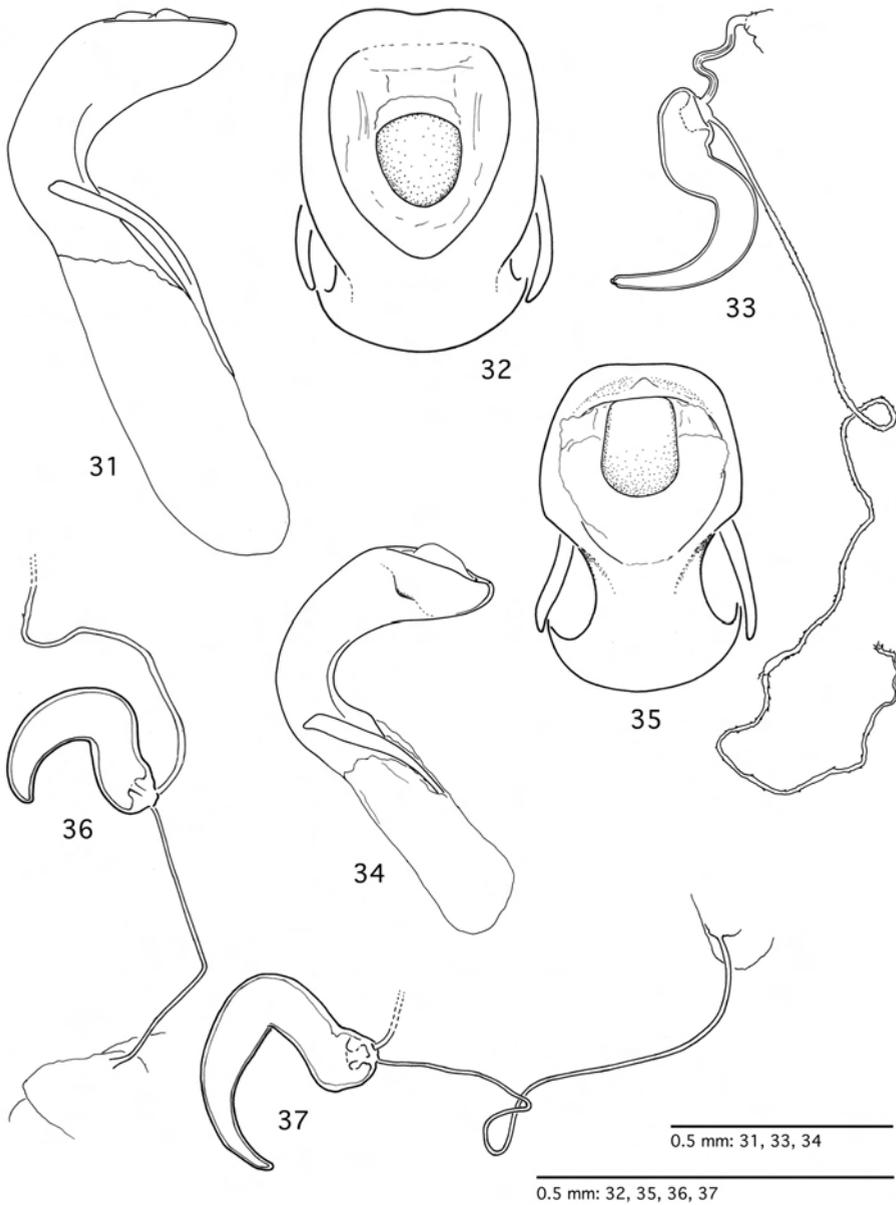
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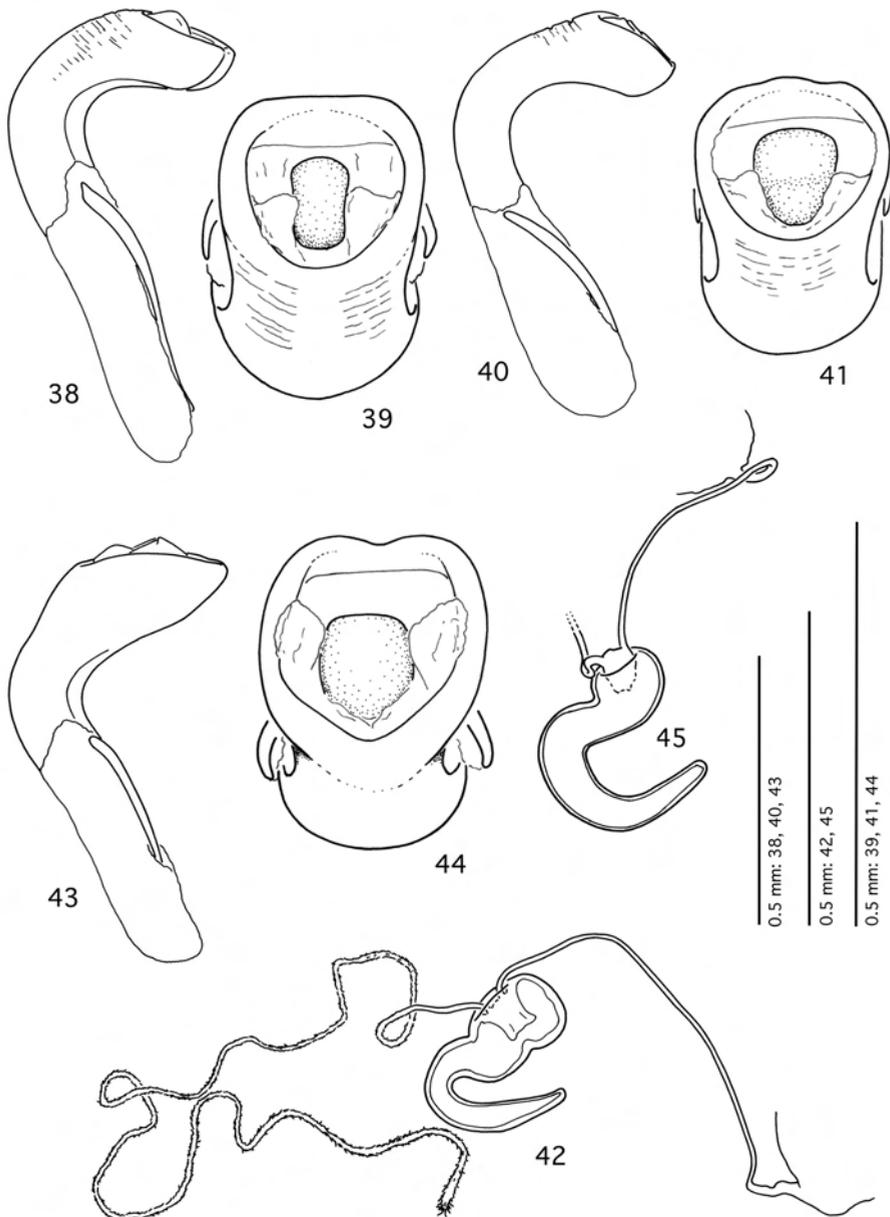
Figs 21-23. Pronotum of: 21 - *Mecistes grobbelaarae* n. sp. (holotypus); 22 - *M. thompsoni* n. sp. (holotypus); 23 - *M. ziliolii* n. sp. (holotypus).



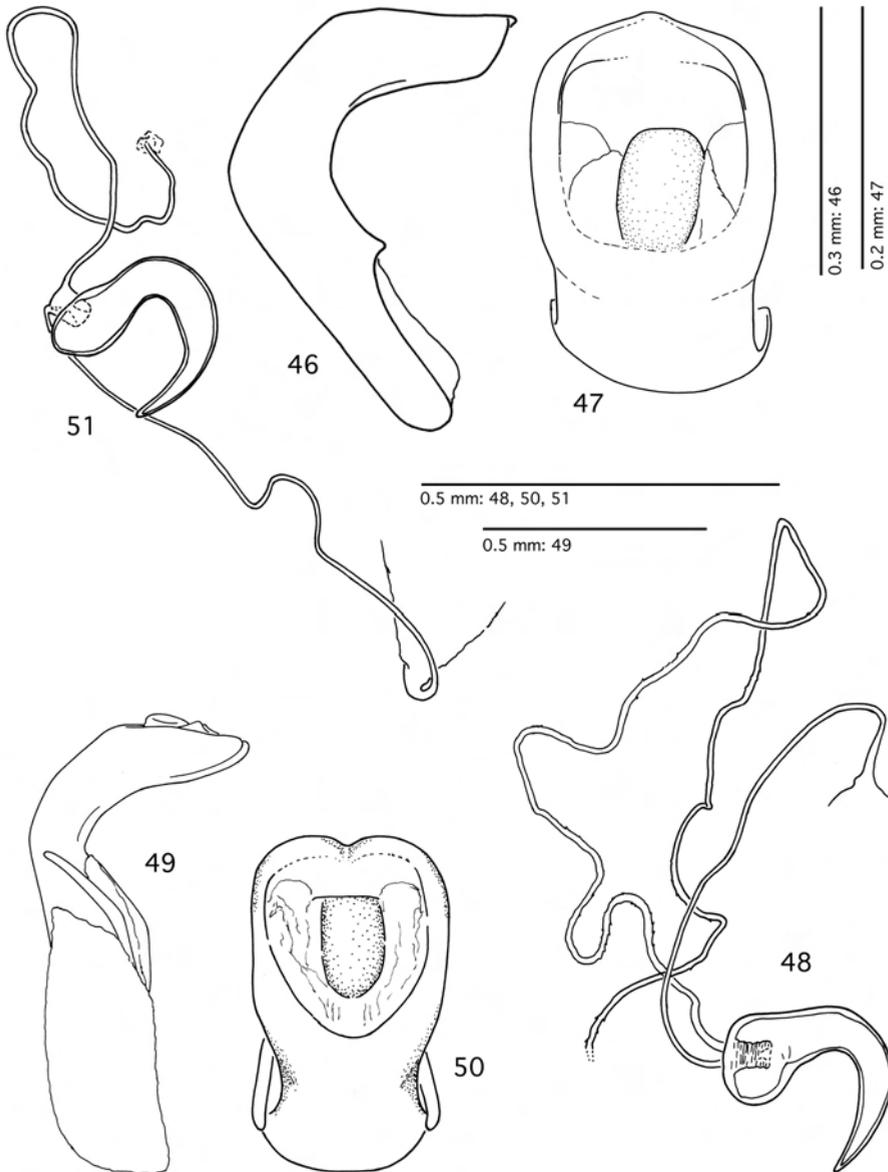
Figs 24-30. Elytral punctation and pubescence of: 24 - *Mecistes chapuisi* Jacoby, 1900 (Kenya, Tsavo, Taita Hills, Wundanyi); 25 - *M. seriatus* Lefèvre, 1885 (Johannesburg, S. Afr.); 26 - *M. thompsoni* n. sp. (holotypus); 27 - *M. tarsalis* Chapuis, 1874 (South Africa, Natal, Champagne Castle, Monk's Cowl); 28 - *M. ziliolii* n. sp. (holotypus); 29 - *M. zimbabweensis* n. sp. (holotypus); 30 - *M. chapuisi* Jacoby, 1900 (Kenya, Tsavo, Taita Hills, Wundanyi), humeral region.



Figs 31-33. *Mecistes audisioi* n. sp.: 31 - aedeagus, lateral view (holotypus); 32 - idem, apex in dorsal view; 33 - spermatheca (paratypus, South Africa, Eastern Transvaal, 10 km S Carolina). Figs 34-37. *M. chapuisi* Jacoby, 1900: 34 - aedeagus, lateral view (Kenya, Tsavo, Taita Hills, Wundanyi); 35 - idem, apex in dorsal view; 36 - spermatheca (Congo, Kamozi); 37 - spermatheca (Tanzania, Mombo or.).

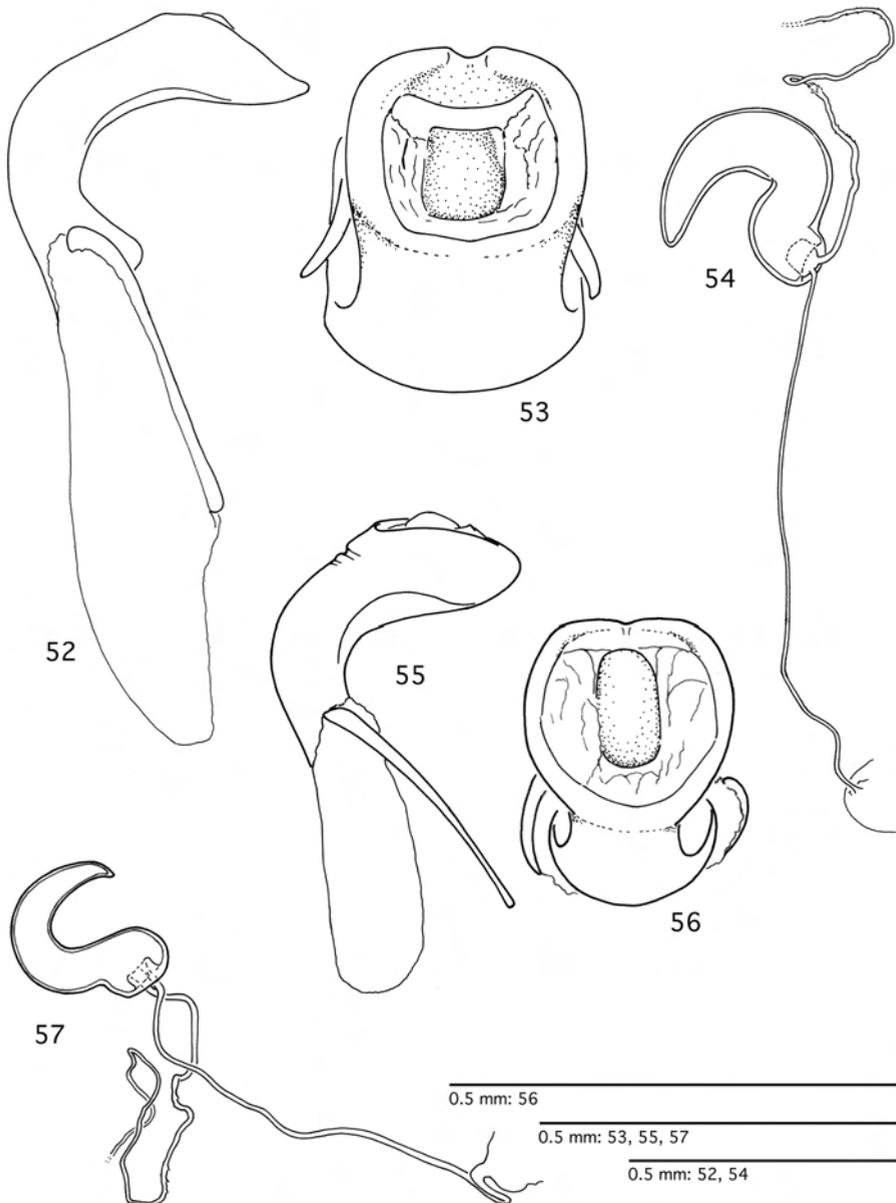


Figs 38-42. *Mecistes flavipes* (Gerstaecker, 1855): 38 - aedeagus, lateral view (Botswana, Kasane); 39 - idem, apex in dorsal view; 40 - aedeagus, lateral view (C. Zimbabwe, Mvuma, route Gutu-Chatsworth); 41 - idem, apex in dorsal view; 42 - spermatheca (SE Zimbabwe, Chiredzi).  
 Figs 43-45. *M. grobbelaarae* n. sp.: 43 - aedeagus, lateral view (holotypus); 44 - idem, apex in dorsal view; 45 - spermatheca (paratypus, South Africa, Transvaal, Rhenosterpoort).



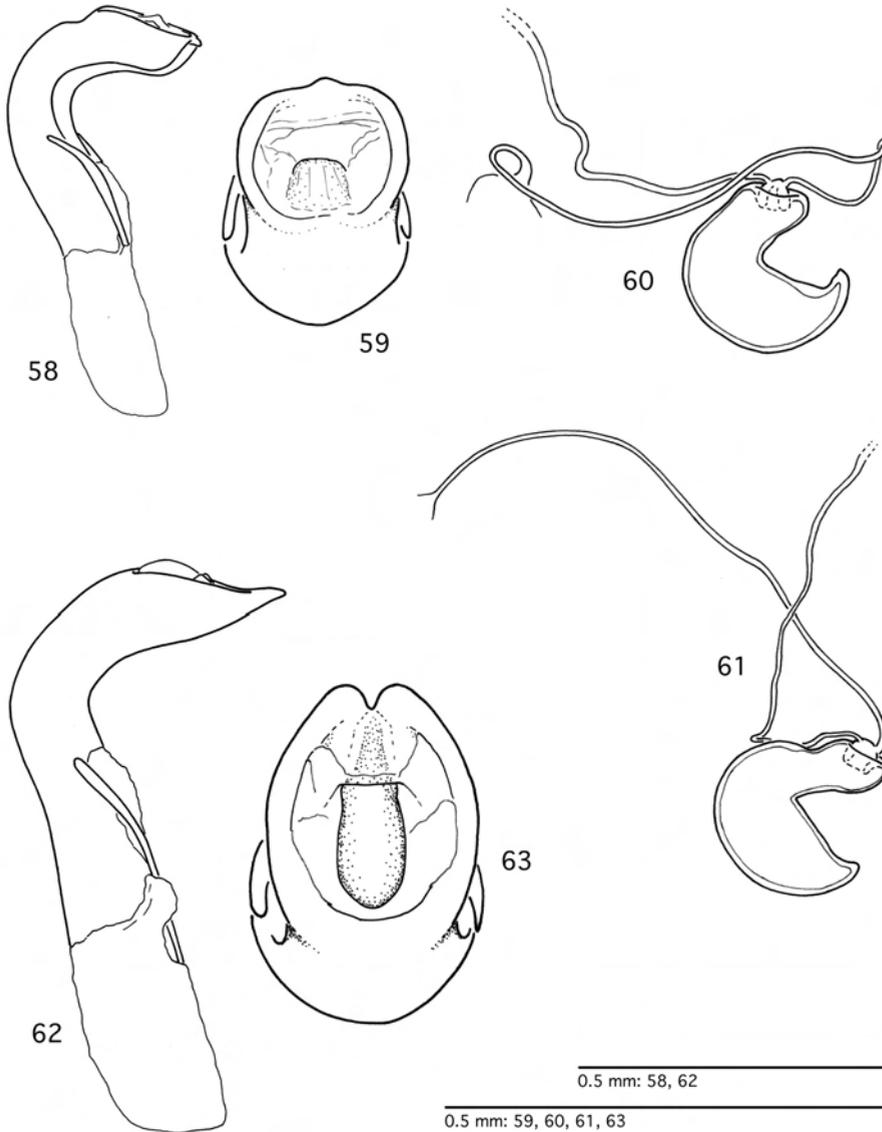
Figs 46-48. *Mecistes lineatus* (Pic, 1921): 46 - aedeagus, lateral view (paralectotypus); 47 - idem, apex in dorsal view; 48 - spermatheca (Tanzania, Tabora, Runsenie).

Figs 49-51. *M. seriatus* Lefèvre, 1885: 49 - aedeagus, lateral view (South Africa, Natal, Weza, Ngele Forest); 50 - idem, apex in dorsal view; 51 - spermatheca (South Africa, Natal, Weza, Ngele Forest).



Figs 52-54. *Mecistes tarsalis* Chapuis, 1874: 52 - aedeagus, lateral view (South Africa, Eastern Cape, 20 km SE Quiba); 53 - idem, apex in dorsal view; 54 - spermatheca (South Africa, Eastern Cape, 20 km SE Quiba).

Figs 55-57. *M. thompsoni* n. sp.: 55 - aedeagus, lateral view (holotypus); 56 - idem, apex in dorsal view; 57 - spermatheca (paratypus, Zimbabwe or, Birchenough bridge 10-12 km S).



Figs 58-61. *Mecistes ziliolii* n. sp.: 58 - aedeagus, lateral view (paratypus, South Africa: KZN, Cloete Farm, nr Hluhluwe); 59 - idem, apex in dorsal view; 60 - spermatheca (South Africa, D'Nyala Nat. Res., Ellisras District); 61 - spermatheca (Botswana bor., Kasane env.).

Figs 62-63. *M. zimbabweensis* n. sp.: 62 - aedeagus, lateral view (holotypus); 63 - idem, apex in dorsal view.