

Papéis Avulsos de Zoologia

Museu de Zoologia da Universidade de São Paulo

Volume 47(26):359-368, 2007

www.scielo.br/paz

ISSN impresso: 0031-1047

ISSN on-line: 1807-0205

SYNOPSIS OF THE BOLIVIAN SPECIES OF *MIMASYNGENES* BREUNING, 1950 (COLEOPTERA, CERAMBYCIDAE, DESMIPHORINI) WITH TWO NEW SPECIES

ROBIN O.S. CLARKE¹

ABSTRACT

Synopsis of the Bolivian species of Mimasyngenes Breuning, 1950 (Coleoptera, Cerambycidae, Desmiphorini) with two new species. M. multisetosus sp. nov. and M. lepidotus sp. nov. are described, and M. lineatipennis Breuning, 1950, M. venezuelensis Breuning, 1956, M. quiuira Galileo & Martins, 1996, and M. ytu Galileo & Martins, 1996 are redescribed; and these species illustrated. A key to species of Mimasyngenes is provided.

KEYWORDS: Lamiinae. Taxonomy, new species, *Mimasyngenes*. Bolivia.

INTRODUCTION

Breuning (1950:265-274) described the genus *Mimasyngenes* to accommodate one species, *M. lineatipennis* from Pernambuco, Brazil. Breuning (1956a:357) added *M. inlineatus* from Colombia and (1956b:694) *M. venezuelensis* from Caracas, Venezuela. Galileo & Martins (1996:878-880) described three further species: *M. icuapara* from São Paulo, Brazil and Misiones, Argentina, and from Brazil *M. quiuira* (São Paulo), and *M. ytu* (São Paulo and Minas Gerais); adding the following characters to the definition of the genus: “lados de cabeça, abaixo dos lobos oculares nitidamente intumescidos. Distância entre os lobos oculares superiores variável; espinho lateral do protórax curto, cônico, situado ao nível do meio ou manifesto, algo recurvo para trás, situado ao nível do terço posterior; metafêmures dos machos nitidamente intumescidos, metatíbias (macho) engrossadas.” Following descriptions of *M. lineatipennis* and *M. quiuira* they described one extra character: “Metafêmures... com pubescência diferenciada (50x) numa área subcircular situada no

lado dorsal da clava.” For the sake of brevity this will be referred to as the apical patch. Galileo & Martins (2003:478) described *M. lucianae* from Sergipe, Brazil and Martins & Galileo (2006:459) *M. murutinga* from Ecuador, increasing the number of species in the genus to eight.

Now, with two new species of *Mimasyngenes* from Bolivia, it may be necessary to modify the definition of this genus again when a complete revision is undertaken; and aware of the growing difficulty of separating some of the species detailed descriptions of the six Bolivian ones are provided, with emphasis on the importance of antennal structure. Analysis of the antennal formula of all the species of the genus indicates a division into two groups:

Group 1: Antennomere IV (0,75-0,80 mm) longer than III (0,50-0,55 mm) which is relatively short, the rest subequal (0,50-0,40 mm). Species which fall into this group are: *M. lepidotus* sp. nov., *M. quiuira*, *M. lineatipennis*, *M. inlineatus* (Martins, pers. comm.) and, from examination of a photograph, *M. lucianae*.

1. Hotel Flora and Fauna, Casilla 2097, Santa Cruz de la Sierra, Bolivia. E-mail: hotelfandf@hotmail.com

Other character states associated with group 1 species are: punctures of moderate size; long setae; head manifestly tumescent below inferior lobes; superior lobes with fewer ommatidia (4-5/row, less often 6); a common ratio between: length of scape/antennomere III of about 6:5, length of III/V of 1:1, and length of metatibia (mean 1,0 mm) and metatarsus (mean 0.8 mm) of 5:4; increased sexual dimorphism (all femora enlarged, male metafemora with apical patch, and metatibia enlarged and with specialised pubescence). Since these characters are exemplified by *M. lineatipennis*, the genotype, they also represent *Mimasyngenes* "sensu stricto" and, indeed, the species included appear to be more homogenous than those of group 2.

Group 2: Antennomeres IV (0,75-1,1 mm) and III (0,75-1,1 mm) long, the rest increasingly shorter (0,70-0,20 mm). Species which fall into this group are: *M. multisetosus* sp. nov., *M. venezuelensis*, *M. ytu* and, from examination of photographs, *M. icuapara* and *M. murutinga*.

Other character states associated with group 2 species are: general puncturation denser and larger, or scabrous (as prothorax of *M. venezuelensis*); reduction in length of setae (except *M. multisetosus*); head not manifestly tumescent below inferior lobes (except *M. venezuelensis*); increase of ommatidia (5-6/row, less often 4) across superior lobes; reduced sexual dimorphism (femora, except profemur of *M. multisetosus*, and metatibia not enlarged and lacking specialised pubescence); and increase (10-20%) in length of metatibia (mean 1,15 mm) without a corresponding increase (-6,3 to +12,5%) of metatarsal length (mean 0,82 mm). The ratios between length of scape/antennomere III (3:5, 7:9, 1:1), as well as the ratio between III/V (1:1, 3:2, 3:1) are variable, but, unlike the character states mentioned above, not independent of antennal formula, in this case increased length of antennomere III.

Some important character states which appear to be independent of antennal formula are: arrangement and type of elytral pubescence; size and convexity of eye, and distance between superior lobes; length of antenna; shape of prothorax, form of tooth/spine surmounting lateral tubercles; shape of prosternal process (in all species very similar, narrow between coxae, triangular at apex); and length and surface features of urosternite V.

Measurements (mm): Total length = front margin of eyes (as seen from above) to apex of elytra. Width of pronotum excludes spines. Tarsal length (as

viewed from above) from tip of metatibia to tip of onychium.

The acronyms used in the text are as follows: Florida State Collection of Arthropods, Gainesville, Florida, USA (FSCA); Museu de Ciências Naturais, Fundação Zoobotânica do Rio Grande do Sul, Porto Alegre, Brasil (MCNZ); Museo Noel Kempff Mercado, Universidad Autónoma Gabriel René Moreno, Santa Cruz de la Sierrra, Bolivia (MNKM); Museo Nacional, Universidade Federal do Rio de Janeiro, Rio de Janeiro, Brasil (MNRJ); Museu de Zoologia, Universidade de São Paulo, São Paulo, Brasil (MZSP); Robin Clarke/Sonia Zamalloa private collection, Hotel Flora and Fauna, Buena Vista, Santa Cruz, Bolivia (RCSZ).

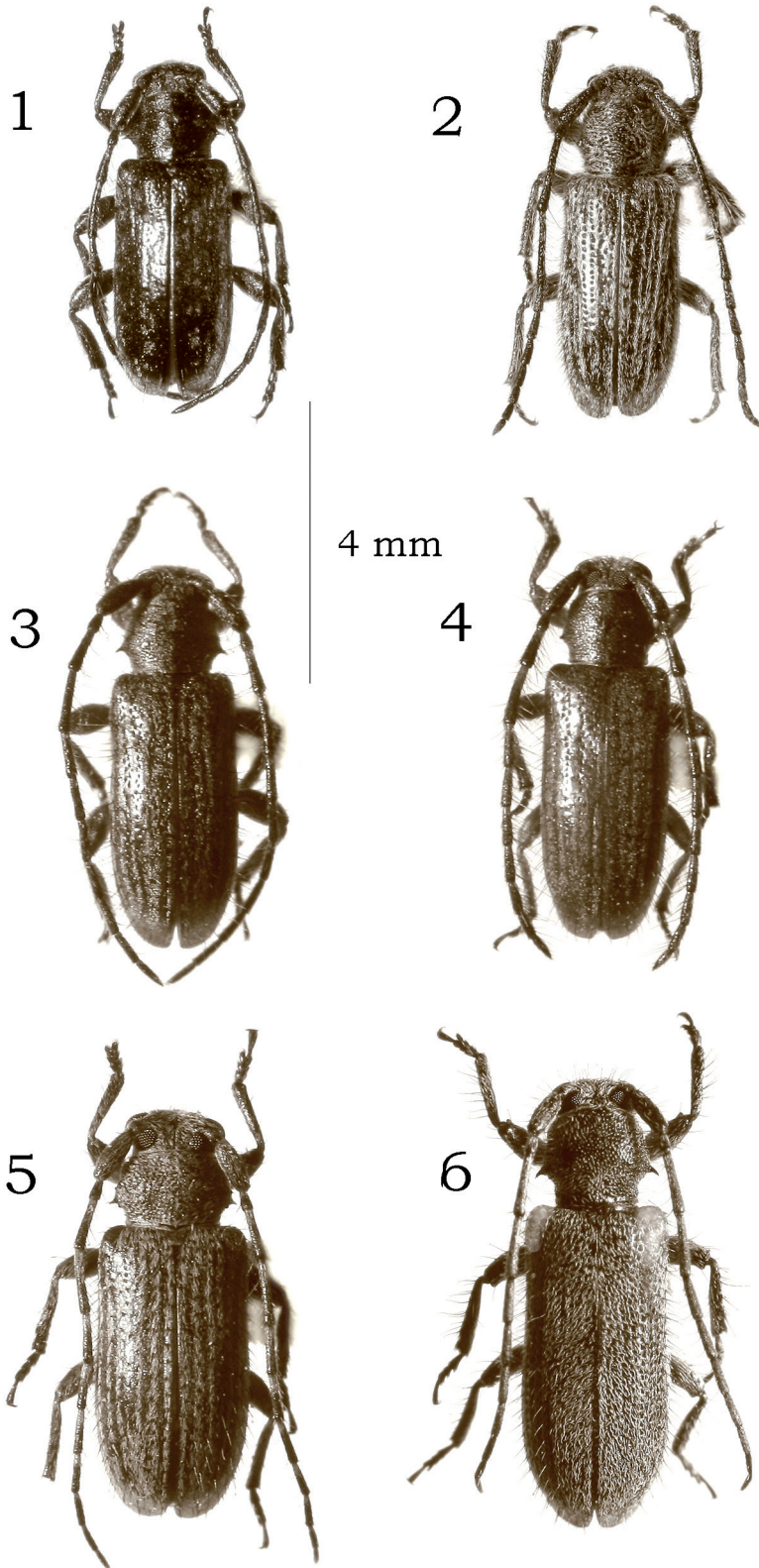
Mimasyngenes lepidotus new species

(Fig. 1)

Male: General colour dark chestnut, with bronzy reflection on head and scape; underside, elytra and base of tibiae paler, procoxae palest. General pubescence very short, recumbent, whitish on pronotum and underside; longer on legs, especially femora, and urosternites; elytral pubescence characteristic, the rows of normal pubescence replaced by patches of squamous glistening hairs. Ratio of longest setae to scape 5:6. General puncturation dense and small, contiguous on pronotum; elytra with irregular rows of medium sized punctures, interstices finely reticulate (40x); underside, including metasternum and urosternites with fine reticulate punctures (40x).

Head below and behind inferior lobes distinctly tumescent; frons with mixture of large (20x) and very small (40x) punctures; eyes convex; superior lobes with 4-5 ommatidia/row, relatively wide and separated by 1,5 times their own width. Antennae reach apex of elytra at base of antennomere X; scape (0,65 mm) broad and cylindrical, III (0,55 mm) distinctly shorter than IV (0,80 mm) and protibia (1,0 mm), V-VIII (0,55-0,5 mm) subequal, IX-XI (0,45 mm) slightly shorter.

Prothorax slightly transverse; front wider than hind margin; sides straight, almost parallel from lateral tubercle to front margin, strongly constricted behind, with setose micro-tubercle just behind lateral tubercle; the latter prominent, occupying middle third, surmounted by long, straight, backwardly directed spine situated just in front of basal third. Pronotum: disc occupied by rounded, raised area; surface reticulate with short, indistinct, recumbent pubescence and small, dense punctures, these rounded or transverse.



FIGURAS 1-6: *Mimasyngenes* species.: 1, *M. lepidotus* sp. nov., holotype ♂; 2, *M. multisetosus* sp. nov., holotype ♂; 3, *M. quiuira* Galileo & Martins, 1996, ♂; 4, *M. lineatipennis* Breuning, 1950, ♂; 5, *M. venezuelensis* Breuning, 1956, ♀; 6, *M. ytu* Galileo & Martins, 1996, ♀.

Elytra parallel sided, somewhat depressed for basal half, with broad, raised, almost glabrous area around scutellum, and apical half convex; a large patch of squamous hairs running from behind humeri obliquely towards suture and more than twenty smaller patches scattered as far as apex of each elytron; elytral puncturation confused with about ten indefinite rows of punctures interspersed with short rows of intermediate punctures, the punctures becoming smaller, and those of innermost rows evanescent, on apical third.

Legs projecting, femora strongly pedunculate and clavate, claws long, peduncles 1/4 length of femur, those of metafemora slightly longer, metafemora with conspicuous apical patch dorso-laterally; metatibia enlarged, almost parallel sided, slightly widened to apex, the lateral surface with an elliptical patch of white pubescence delimited, as on metafemur, by a fine sulcus; metatarsus 1/4 shorter than metatibia (1,1 mm).

Urosternite V as long as IV, slightly convex and without depressions.

Sexual dimorphism: Female: strongly tumescent on vertex; superior lobes slightly narrower and wider apart, separated by about twice their own width; antennae reach apex of elytra at base of antennomere XI; elytra may be widened posteriorly; femora distinctly less tumid, and metafemoral patch less developed; metatibia not enlarged, and patch of white pubescence reduced; urosternite V long, slightly shorter than II-IV, with rounded depression from basal third to near apex, where it is deepest.

Variation: elytra may have ill-defined, oblique, rufous fascia running from humeri to apex; prothorax may be slightly constricted just behind front margin, disc may be strongly convex, and lateral spines distinctly curved, and shorter.

Measurements (mm): 4 males/7 females respectively: total length 3,9-4,8/4,0-4,9; width of pronotum 1,0-1,3/1,1-1,3; length of pronotum 0,8-1,0/0,8-1,0; length of elytra 2,8-3,3/2,8-3,5; width at humeri 1,4-1,7/1,4-1,8.

Holotype: male, BOLIVIA, Chuquisaca, 20°36'S/63°17'W, c. 500 m, 21 km N Machereti, 11.I.2005, R. Clarke/P. Koch col., beaten from semi-dry *Acacia* branches (MNKM). Paratypes with same data as holotype: 1 male and 1 female (FSCA); 1 female (MCNZ). Paratypes from other localities: BOLIVIA, Santa Cruz, 21°18'S/63°30'W, c. 600 m, 7 km WSW Villamontes, 1 female, 19.I.2006

(MNRJ). BOLIVIA, Santa Cruz, 18°09'S/63°48'W, c.1300 m, Achira, 25.XI.2004, R. Clarke/S. Zamalloa col., beaten from dry trees: 1 male (MNRJ); 1 male and 2 females (MZSP); 1 male and 1 female (RCSZ).

Discussion: Group 1 species. The patches of glistening squamous pubescence on the elytra will readily separate *M. lepidotus* from other species of the genus.

Etymology: Greek, lepis = scale, referring to the squamous hairs on elytra.

Mimasyngenes multisetosus new species

(Fig. 2)

Male: General colour shining dark chestnut, with reduced microsculpture and without metallic reflection, femora slightly rufous at base. Antennae black. General pubescence, long and of two types: 1. semi-recumbent, ashy hairs clothing most of dorsad and ventral surfaces, disorderly on frons, dense at sides of prothorax, on elytra arranged in distinct rows, sparser and shorter on antennae, tibiae and tarsi, and, 2. erect, white hairs at sides of elytra, centre of prosternum, metasternum, notably dense and semi-erect at base of urosternites III-V, and very long on legs. Dorsad, legs and antennae with long, chestnut setae, longest on antennomeres III and IV, at sides of elytra and femora; elytral setae finer and denser than related species of the genus; ratio of longest setae to scape 5:6. General puncturation dense, deep, and large, especially on frons, vertex, pronotum, elytra, and sides of metasternum; metepisterna, antennae, urosternites and legs punctato-reticulate, finest on femora; only mentum and gula smooth and glabrous.

Head below inferior lobes slightly tumescent, moderately tumescent behind lobes; eyes small, slightly convex, almost divided, interlobal connection reduced to a narrow line of six individual ommatidia; superior lobes with 5-6 ommatidia/row, relatively narrow and separated by more than twice their own width. Antenna relatively slender, reaching apex of elytra at apex of antennomere X; scape (0,65 mm) slightly widening to apex; antennomeres III (1,1 mm) and IV (1,05 mm) very long and slender, and equal in length to protibia; V-X (0,4-0,25 mm) gradually reducing in length, XI (0,30 mm) fusiform.

Prothorax almost quadrate, slightly wider than long, front and basal margins subequal; sides from tubercle to anterior margin slightly emarginate and convergent, from tubercle to hind margin straight and

convergent; lateral tubercle and its very short, blunt tooth almost completely hidden by dense pubescence; tubercle occupying middle third of side. Pronotum closely and heavily punctured, interstices shining, not reticulate; partially covered by long, untidy, recumbent pubescence directed towards centre line.

Elytra subparallel, slightly wider behind middle, somewhat flattened for basal half, with broad, raised area around scutellum; surface smooth and shining, without microsculpture; with nine conspicuous rows of brownish pubescence formed by numerous conical groups of long, semi-erect hair (like stooked sheaves of drying grain); and with nine rows of large punctures, outermost rows forming one broad band of semi-alveolate punctures, innermost rows traceable to apex. Elytral setae on disc about 12/mm of row, and every puncture is setose (the resulting density twice that of other species of the genus in which the setose punctures are situated within the rows of pubescence).

Profemora enlarged, mesofemora not so enlarged, metafemora not enlarged, peduncles short, metafemora without apical patch; metatibia long (1,15 mm) and slender, not enlarged, slightly curved dorso-ventrally, with dense layer of black spines laterally, but lacking specialised patches of pubescence; metatarsus (0,75 mm) 1/3 shorter than metatibia.

Urosternites with slightly paler pubescence, especially long and thick on III-V; V slightly longer than IV, feebly convex, apex broadly emarginate.

Sexual dimorphism: Female: superior lobes narrower and separated by almost three times their own width; antenna shorter, reaching basal margin of urosternite V; scape (0,6 mm) shorter than antennomere III (0,8 mm) which is equal to IV, V-XI (0,30-0,20 mm) unusually short, and gradually decreasing; femora distinctly narrower; urosternites (rubbed?) with short, disperse pubescence, only longer and denser at sides; V as long as III+IV, feebly convex, black, glabrous at centre, slightly declivous at middle of apex, apical margin feebly emarginate.

Variation: Underside may be paler chestnut, superior lobes in one male with 4-6 ommatidia/row, and interlobal connection with four individual ommatidia.

Measurements (mm): 2 males/1 female respectively: total length 4,9-5,1/4,7; width of pronotum 1,3/1,2; length of pronotum 1,0-1,1/1,0; length of elytra 3,4-3,5/3,4; width at humeri 1,6-1,7/1,6.

Holotype: male, BOLIVIA, Tarija, 21°15'S/63°30'W, c. 600 m, Hotel "Las Tres Marias", Quebrada "Los

Monos", 6 km W Villamontes, 12.I.2005, R. Clarke/P. Koch col., beaten from dry stick tangles. Paratypes with same data as holotype: 1 male (MZSP); 1 female (RCSZ).

Discussion: Group 2 species. Readily separated from both *M. venezuelensis* and *M. ytu* by the dense pubescence on the pronotum, especially at sides where it hides the lateral tubercle and its very short tooth. *M. multisetosus* is the only species of the genus in which the interlobal connection is reduced to a line of 4-6 single ommatidia.

Etymology: Latin, multus = many, seta = bristle, with many bristles or setae, as on the elytra of this species.

Mimasyngenes quiuira Galileo & Martins, 1996

(Fig. 3)

Redescription: Male. General colour chestnut without metallic reflection, head and pronotum darker, protibia and protarsus usually paler; some examples with pale femora, which may be rufous at base. General pubescence uniform, short, grey and recumbent, longer on urosternites, arranged in rows on elytra. Ratio of longest setae to scape 1:1, but both relatively short. General puncturation dense and small, especially on pronotum, elytra with rows of medium-sized punctures, interstices finely reticulate (40x); underside (40x), including metasternum and urosternites finely and densely punctato-reticulate.

Head below and behind inferior lobes distinctly tumescent; frons with short recumbent pubescence, moderately densely punctured with larger (20x) and very small (40x) punctures; eyes small, convex; superior lobes with 4-5 ommatidia/row, narrow and separated by slightly more than twice their own width. Antenna reaches apex of elytra at apex of antennomere IX; scape (0,6 mm) parallel sided, antennomere III (0,5 mm) one third shorter than IV (0,75 mm) and slightly more than half length of protibia (0,85 mm), V-XI (0,5-0,4) subequal.

Prothorax transverse; front margin wider than hind margin; sides almost straight from lateral tubercle to front margin, deeply excised from tubercle to hind margin; lateral tubercles small but prominent, the spine slightly upcurved and directed backwards, situated just before basal third. Pronotum: surface partially hidden by short, recumbent pubescence; reticulate with small, dense punctures, these rounded or transverse.

Elytra slightly wider behind middle, convex, broad area around scutellum slightly more so; with

seven well defined rows of pubescence, the pubescence short, almost squamous; and seven regular rows of punctures, those of innermost rows becoming smaller and evanescent on apical third.

Femora equally enlarged, peduncles short, one third length of femur, metafemora with apical patch; metatibia enlarged, widest before middle, the lateral surface with elliptical patch of brownish, dense pubescence; metatarsus (0,85 mm) slightly shorter than metatibia (1,0 mm), whole of dorsal surface occupied by equivalent of metafemoral patch.

Male urosternite V as long as IV, feebly convex, apex truncate.

Sexual dimorphism: Female: head below inferior lobes strongly tumescent; superior lobes wider, separated by twice their own width; antenna reaches apex of elytra at apex of X; urosternite V slightly longer than III+IV, centre of apical half with transverse depression.

Variation: Bolivian specimens show little variation, but the type material from Itapira, São Paulo have pale chestnut elytra, and other minor differences.

Measurements (mm): 2 males/3 females respectively: total length 4,2-4,4/3,9-5,2; width of pronotum 1,0-1,1/1,1-1,3; length of pronotum 0,9/0.8-1,0; length of elytra 3,0/2,8-3,8; width at humeri 1,4-1,5/1,4-1,7.

Specimens examined: BOLIVIA, Chuquisaca, 20°36'S/63°17'W, c. 500 m, 21 km N Machereti, 11.I.2005, R. Clarke/P. Koch col., beaten from semi-dry *Acacia* branches, 1 male, 1 female (MZSP); 1 male and 2 females (RCSZ).

Discussion: Group 1 species. *M. quiuira* is readily separated from *M. lineatipennis* by the prominent spine of the lateral tubercle, and from *M. lepidotus* by the regular rows of pubescence on the elytra. The presence of *M. quiuira* in Bolivia represents a considerable range extension for this species.

Mimasyngenes lineatipennis Breuning, 1950

(Fig. 4)

Redescription: Male. General colour chestnut, head and pronotum with slight coppery reflection, antennae and hind edge of urosternites darker, elytra, legs and underside palest. General pubescence uniform, very short, almost squamous, grey and recumbent, transverse on pronotum, brownish and arranged in

rows on elytra, longer and denser at sides of urosternites. Setae very long, ratio of longest ones to scape 1:1. General puncturation small and dense, especially on pronotum; elytra with rows of medium-sized punctures, interstices finely reticulate (40x); metasternum impunctate but with dense transverse rows of microsculpture (40x); urosternites finely punctato-reticulate (40x).

Head below and behind inferior lobes moderately tumescent; frons with short, recumbent, brownish pubescence, moderately closely punctured with larger (20x) and very small (40x) punctures; eyes large, convex, superior lobes with 4-5 ommatidia/row, relatively narrow and close together, separated by about their own width. Antennae robust, reaching apex of elytra at apex of antennomere IX; scape (0,6 mm) parallel sided; antennomere III (0,5 mm) much shorter than IV and protibia (both 0,8 mm), V-IX (0,50-0,45 mm) subequal, X+XI (both 0,4 mm).

Prothorax convex, slightly transverse, front margin slightly wider than hind margin; sides almost straight from lateral tubercle to front margin, strongly constricted behind tubercle; lateral tubercle small, represented by a backwardly directed, very short, blunt spine situated just behind middle of side. Pronotum: surface very finely reticulate (40x) punctures rounded or transverse, disc with smooth, glabrous line; elsewhere with sparse, fine, brownish pubescence, the hairs lying transversely.

Elytra, parallel sided, slightly wider at humeri, convex, with broad, slightly raised area around scutellum; with seven rows of very small, almost squamous hairs; and seven more or less regular rows of punctures, those of humeral row (4th) larger, those of innermost rows becoming smaller and evanescent towards apex.

Femora equally enlarged, peduncles short, one third length of femora, those of metafemora slightly longer, metafemora with apical patch; metatibia enlarged, parallel sided, the lateral surface with differentiated pubescence; metatarsus (0,7 mm) shorter than metatibia (0,9 mm).

Urosternite V slightly longer than IV, with small notch at centre of hind margin.

Sexual dimorphism: Female: superior lobes slightly wider apart, separated by slightly more than their own width; antenna reach apex of elytra at middle of X; urosternite V slightly longer than III+IV, with broad transverse depression before apex.

Variation: Base of antennomeres III-VIII, apex of elytra and legs may be pale chestnut; spine surmount-

ting lateral tubercle may be almost perpendicular to side of prothorax.

Measurements (mm): 2 males/2 females respectively: total length 4,1-4,4/4,7-5,4; width of pronotum 1,1/1,3; length of pronotum 1,0/1,0-1,1; length of elytra 2,9-3,0/3,8; width at humeri 1,4-1,5/1,7-1,8.

Specimens examined: BOLIVIA, Santa Cruz, Hotel "Flora & Fauna", 5 km SSE Buena Vista, 17°29'96"S/63°39'13"W, 440 m, R. Clarke/S. Zamalloa col., at white light, 3 males 20.X.2004, 1.XI.2004, 3.II.2006 and 1 female 2.XI.2004 (RCSZ).

Discussion: Group 1 species. *M. lineatipennis* is readily separated from the other two species of group 2 by the proximity of the superior lobes and the short tooth surmounting lateral tubercles.

Galileo & Martins (1996:877) state that the photograph they examined of the holotype of *M. lineatipennis* (from Pernambuco) showed that it differed from their Goiás examples (1 male/2 females) by its discretely longer spine on the lateral tubercles. Brief comparison of Bolivian examples with those from Goiás appeared to present minor differences of colour and, maybe, significant differences of puncturation. The pronotal punctures are said by Galileo & Martins (1996:877) to be "pontos alongados e transversais, alguns anastomosados", those of Bolivian specimens are contiguous, at least on the upper surface; and in their key, "to take on the appearance of fine transverse wrinkles", which is true, but the important word is "appearance", because the punctures do not constitute transverse wrinkles, but the transverse pubescence overlying them gives this impression. A closer look at this species may indicate the presence of more than one.

This species was recently recorded for Bolivia (Wappes, *et al.*, 2006).

Mimasyngenes venezuelensis Breuning, 1956

(Fig. 5)

Redescription: Female. General colour dark chestnut to blackish without metallic reflection, underside chestnut; antennomeres narrowly rufous at base; femora chestnut with dusky claws. General pubescence uniform, sparse, short, grey and recumbent, arranged in rows on elytra; below denser and longer, the hairs straight and white on urosternites; base of antennomeres with ring of white hairs. Setae short, ratio of longest ones to scape 1:2. General puncturation dense

and relatively small, larger and strongly sculptured on pronotum and extreme sides of pronotum; sparse on elytra. Elytra strongly reticulate (40x); underside with fine, dense, reticulate punctures, shagreened on urosternites.

Head below and behind inferior lobes strongly tumescent; frons with long, grey, disorderly pubescence, the puncturation rugose, dense and reticulate; eyes large and convex; superior lobes with 5-6 ommatidia/row, separated by more than twice their own width. Antennae long, reaching apex of elytra at middle of antennomere IX; scape (0,80 mm) large and parallel sided; antennomere III (0,75 mm) distinctly shorter than IV (0,90 mm) and protibia (1,1 mm), V-X (0,70-0,45 mm) steadily decreasing, XI (0,45 mm).

Prothorax strongly transverse, 1,5 times broader than long; front margin wider than basal margin; sides from lateral tubercle to front margin straight and convergent, moderately constricted from tubercle to hind margin; lateral tubercles large and prominent, occupying middle half of sides, outer edge rounded, but notched by three setose, tuberculate punctures, tooth moderately long and straight, almost perpendicular to sides of prothorax, situated just in front of basal third. Pronotum somewhat depressed, sides adjacent to front margin slightly tumid; surface detail almost hidden by dense pubescence but appears to be scabrous or densely micro-tuberculate; pubescence disorderly, with patches of hairs lying in one direction, others another, even crossing each other.

Elytra wide, parallel sided, convex, especially area around scutellum; with nine well defined rows of long pubescence, even the half row is almost entire; and eight rows (including half row) of punctures, the six innermost rows evanescent on apical half, the outer two rows barely traceable to apex.

Femora not enlarged, not strongly pedunculate-clavate, peduncles short, 1/5 length of femur, metafemora without apical patch; metatibia not enlarged and without differentiated pubescence; metatarsus about 1/4 shorter than metatibia (1,2 mm).

Urosternite V very long, as long as II-IV, truncate at apex, with a deep transverse depression occupying apical half.

Measurements (mm): 1 female: total length 5,7; width of pronotum 1,6; length of pronotum 1,1; length of elytra 4,1; width at humeri 2,1.

Specimens examined: BOLIVIA, Santa Cruz, Hotel "Flora & Fauna", 5 km SSE Buena Vista, 17°29'96"S/63° 39'13"W, 440 m, 28.X.2004, 1

female, R. Clarke/S. Zamalloa col., at white light (RCSZ).

A male identified as *M. venezuelensis* by Drs. Martins and Galileo from Brazil (Goiás, Serra do Colinas) in the MZSP collection was compared with the Bolivian female by Dr. Martins and the author, and considered conspecific, even though it shows the following differences from the Bolivian female: general colour pale chestnut, uniform on underside and femora; superior lobes distinctly closer together and separated by 1,5 times their own width; antenna reach apex of elytra at apex of antennomere VIII, antennal formula as female, except X (0,45 mm) is shorter than XI (0,55 mm); prothorax distinctly less transverse, lateral spine much shorter, represented by a triangular tooth; urosternite V as long as IV, truncate at apex, slightly convex and without depressions. The measurements of this male are: total length 5,3; width of pronotum 1,5; length of pronotum 1,2; length of elytra 4,2; width at humeri 1,9.

Discussion: Group 2 species, but shares some characters with group 1. *M. venezuelensis* (maybe, *sensu lato* as discussed below) is readily separated from *M. multisetosus* and *M. ytu* by the transverse prothorax and its characteristic puncturation, and the weak puncturation of the elytra.

Galileo & Martins (1996:878) state that they had not examined the holotype of *M. venezuelensis* and referred to Breuning's description of the species, which can be paraphrased as follows: similar to *M. lineatipennis* by the rows of pubescence on the elytra; differing by antennomere III slightly shorter than IV, pronotal puncturation sparser, base of femora without contrasting chestnut colour.

The Bolivian female differs from this short description in three respects: the femora are bicoloured, antennomeres III is distinctly shorter than IV, and the pronotum is covered by scabrous puncturation very different to that of *M. lineatipennis*, and certainly not sparse. Since the pronotal puncturation of the Goiás male is the same as the Bolivian female, the inference is that the Goiás and Bolivian specimens may not be conspecific with *M. venezuelensis* Breuning.

The presence of *M. venezuelensis* in Bolivia represents a considerable range extension for this species.

Mimasyngenes ytu Galileo & Martins, 1996

(Fig. 6)

Redescription: Male. General colour: head, pronotum, antennae, legs and underside black, head, antennae,

and pronotum in some examples, with blue reflection; elytra black with elongate fulvous patch covering humeri to adjacent epipleur. General pubescence uniform, recumbent, moderately long and grey above, longer on underside; elytra without rows of dense hair. Setae relatively short, ratio of longest ones to length of scape 2:3. General puncturation dense and large, especially on elytra, underside finely punctato-reticulate, metasternum more densely and heavily punctured.

Head below and behind inferior lobes slightly to moderately tumescent; frons with short, disorderly, contrasting white hair and medium sized punctures, interstices shining without microsculpture; eyes large and convex; superior lobes with 5-6 ommatidia/row, separated by 1,7 times their own width. Antenna relatively slender, reaching apex of elytra at about middle of antennomere X; scape (0,7 mm), moderately large and excised at base; antennomeres III (0,85 mm) and IV (0,8 mm) long, slightly shorter than protibia (1,0 mm), V-X (0,60-0,35 mm) steadily decreasing, XI (0,4 mm).

Prothorax distinctly convex, quadrate, front margin slightly wider than hind margin; sides from lateral tubercle to front margin straight and convergent, behind tubercle very strongly constricted; lateral tubercle small, situated just behind middle, surmounted by long, straight or curved spine, spine directed backwards and slightly upturned. Pronotum: puncturation dense and deep, interstices shining and smooth (20x).

Elytra parallel sided, area around scutellum slightly raised, otherwise somewhat depressed; with twelve regular rows of heavy, deep, almost contiguous punctures (especially outermost), the rows almost complete to apex of elytra; interstices not reticulate, smooth and shining.

Femora not noticeably enlarged, weakly pedunculate, apices prominent and slightly flared, giving them a very characteristic appearance; metafemora lacking apical patch; metatibia slightly enlarged and lacking differentiated pubescence; metatarsus (0,8 mm) shorter than metatibia (1,1 mm).

Urosternite V slightly convex, as long as III+IV.

Sexual dimorphism: Female: superior lobes slightly wider apart, separated by twice their own width; antenna falling just short of elytral apex, III and IV of equal length (0,75-0,82 mm); metatibia slightly narrower than male; urosternite V distinctly convex, longer than III+IV, apex emarginate, centre of apical third occupied by distinct depression which reaches hind margin.

Variation: The Bolivian examples of *M. ytu* present little variation, even the fulvous coloured patch on the shoulders is always present and varies little in size; and all the specimens examined have setae with a distinctive clipped appearance, the apices not at all mucronate, most noticeably on frons, elytra and legs.

Measurements (mm): 3 males/6 females respectively: total length 5,2-5,5/4,8-6,4; width of pronotum 1,4/1,1-1,3; length of pronotum 1,3/1,1-1,3; length of elytra 3,6-3,8/3,3-4,6, humeri 1,7-1,8/1,6-2,0.

Specimens examined: BOLIVIA, Santa Cruz: 17°29'96"S/63°39'13"W, 440 m, 5 km SSE Buena

Vista, Hotel "Flora & Fauna", R. Clarke/S. Zamalloa col.: 2 females 10.X.2005 at MV/UV light, 21.X.2005 at white light (MNRJ); 1 male and 1 female 21.X.2005 at UV light (MZSP); 2 females 9.X.2005 at white light and MV/UV light, 2 males 22.X.2005, 11.X.2005 at white light, 1 female 21.X.2005 at MV/UV light (RCSZ).

Discussion: Group 2 species. Readily identified by the fulvous patch at humerus. Originally described from SE Brazil, *M. ytu* is one of the growing number of Cerambycidae recently recorded for Bolivia (Wappes, et al., 2006) which, with our present day knowledge, would appear to have a disjunct distribution.

Key to the known species of *Mimasyngenes* Breuning

1. Antennomere III relatively short (0,50-0,55 mm), distinctly shorter than IV (0,75-0,80 mm), the rest subequal (0,50-0,40 mm).....2
Both antennomeres III and IV relatively long (0,75-1,1 mm), III sometimes longer than IV, the rest increasingly shorter (0,70-0,20 mm)6
2. Elytra without regular rows of dense pubescence.....3
Elytra with regular rows of dense pubescence5
3. Elytra pubescence fine and uniformly distributed. Colombia..... *M. inlineatus* Breuning 1956
Elytral pubescence variegated or represented by patches of glistening hair.....4
4. Lateral tubercle with long spine. Elytral pubescence represented by many patches of glistening, sericeous hair. (Fig. 1). Bolivia *M. lepidotus* sp. nov.
Lateral tubercle with moderately short spine. Elytral pubescence variegated by fusion of the rows of pubescence and chestnut fasciae. e Brazil..... *M. lucianae* Galileo & Martins, 2003
5. Lateral tubercle with long, curved spine. (Fig. 3). se Brazil, Bolivia.. *M. quiuira* Galileo & Martins, 1996
Lateral tubercle simple, with short, blunt tooth. (Fig. 4). e Brazil, Bolivia.....
..... *M. lineatipennis* Breuning, 1950
6. Lateral tubercle toothed, the tooth may be triangular or blunt, short or long, but not spine-like.....7
Lateral tubercle spine-like8
7. Lateral tubercle with setiferous tubercle to each side, and surmounted by a triangular tooth, or a moderately long, straight tooth. Superior lobes separated by twice their own width. (Fig. 5). Venezuela, c Brazil, Bolivia *M. venezuelensis* Breuning, 1956
Lateral tubercle almost hidden by long, untidy pubescence and surmounted by a short, blunt tooth. (Fig. 2). Bolivia *M. multisetosus* sp. nov.
8. Elytra with fulvous patch at humerus. (Fig. 6). se Brazil, Bolivia..... *M. ytu* Galileo & Martins, 1996
Elytra without fulvous patch at humerus.....9
9. Lateral tubercle with long curved spine. Elytra with well-defined rows of dense pubescence. se Brazil, Argentina..... *M. icuapara* Galileo & Martins, 1996
Lateral tubercle with relatively short straight spine. Elytra without clearly defined rows of pubescence. Ecuador *M. murutinga* Martins & Galileo, 2006

RESUMO

Sinopse das espécies bolivianas do gênero Mimasyngenes Breuning, 1950 (Coleoptera, Cerambycidae, Desmiphorini) com a descrição de duas espécies novas. M. multisetosus

sp. nov. e M. lepidotus sp. nov. e redescricao de M. lineatipennis Breuning, 1950, M. venezuelensis Breuning, 1956, M. quiuira Galileo & Martins, 1996, e M. ytu Galileo & Martins, 1996. Chave para as espécies de Mimasyngenes e ilustrações são fornecidas.

PALAVRAS-CHAVE: Lamiinae Taxonomia, novas espécies, *Mimasyngenes* Bolivia.

ACKNOWLEDGEMENTS

Dr. Ubirajara Martins for the loan of specimens and his steady advice and encouragement. Both, he and Dr Maria Helena Galileo, for their careful revision of the manuscript. Paul Koch and my wife, Sonia, for their help with fieldwork.

REFERENCES

BREUNING, S. 1950. Quelques nouveaux Lamières (Coleoptera, Cerambycidae) du Riksmuseum. *Arkiv für Zoologie*, (2)1:265-274.

- BREUNING, S. 1956a. Nouveaux Lamières du Riksmuseum (Col., Cerambycidae). *Arkiv für Zoologie*, N.S, 9:355-361.
- BREUNING, S. 1956b. Lamières nouveaux de la collection Lepesme (2e. note). *Longicornia*, 3:665-702.
- GALILEO, M.H.M. & MARTINS, U.R. 1996. Notas e Descrições em Desmiphorini (Coleoptera, Cerambycidae, Lamiinae), com uma revisão do gênero *Mimasyngenes* Breuning. *Revista Brasileira de Zoologia*, 13(4):867-882.
- GALILEO, M.H.M. & MARTINS, U.R. 2003. Novas espécies e notas sobre Cerambycidae (Coleoptera) do Pará e do nordeste do Brasil. *Revista Brasileira de Zoologia*, 20(3):475-478.
- MARTINS, U.R. & GALILEO, M.H.M. 2006. Novos táxons de Desmiphorini (Coleoptera, Cerambycidae) do Equador e Bolívia e redescrição de *Estola medionigra* Breuning. *Revista Brasileira de Entomologia*, 50(4):458-462.
- WAPPES, J.E.; MORRIS, R.F.; NEARNS, E.H. & THOMAS, M.C. 2006. Preliminary checklist of Bolivian Cerambycidae (Coleoptera). *Insecta Mundi*, 20(1-2):1-46.

Recebido em: 22.08.2007

Aceito em: 31.10.2007

Impresso em: 21.12.2007

