Three new species of *Glyptoglossa* Brenske
(Coleoptera: Scarabaeidae: Melolonthinae)

by

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*Glyptoglossa acta*, sp. nov., *G. alia*, sp. nov., and *G. capensis*, sp. nov., are described. Lectotype and paralectotypes are designated for *G. dispar* Peringuey. All previously described species are redescribed and all known species in the genus are placed in a key.

INTRODUCTION

The genus *Glyptoglossa* was erected by Brenske (1895) to include the single species *Schizonycha lurida* Burmeister. Later, Brenske (1898) described *G. burmeisteri*. Peringuey (1904) described two species and provided a key to all four of the known species. The seven species recognized in this work are restricted to the western portion of southern Africa.

*Glyptoglossa* is currently placed in the subtribe Schizonycha of the tribe Melolonthini. Approximately 33 African genera have been placed in this subtribe, many of which are in need of revision. Until such a time when these revisions are completed, any detailed discussion of the affinities of *Glyptoglossa* would be premature. Nevertheless, this genus forms a distinct element of the southern African schizonychine fauna and is distinguished below.

Brackets [ ] enclosing map co-ordinates in the “Material Examined” sections indicate that the co-ordinates were not included in the original label data. Localities without map co-ordinates were not traced.

The following abbreviations are used to denote the location of study material:

AVEC – A. V. Evans, University of Pretoria.
BMNH – British Museum (Natural History), London.
NMBH – National Museum, Bloemfontein.
SANC – National Collection of Insects, Pretoria.
SMWN – State Museum, Windhoek.
TMSA – Transvaal Museum, Pretoria.

Genus *Glyptoglossa* Brenske

*Glyptoglossa* Brenske, 1895: 223; Peringuey 1904: 186.

Type-species: *Schizonycha lurida* Burmeister, by monotypy.

Description: 16.0–20.0 mm long. Colour pale to dark testaceous. Head with labrum transverse, broadly emarginate, not fused to clypeus; antennae 10-segmented,
funicular segments subequal, club 3-segmented, subequal or longer than segments 2–7 combined; mandibles well developed; maxillae strongly bidentate distally, tridentate proximally, palpi 4-segmented; labial palpi 3-segmented, inserted laterally on prementum; mentum broad, transverse, acute apically; suture between mentum and prementum distinct; lateral and anterior clypeal margins entire, arcuate, shallowly reflexed; clypeal suture distinct, bisinuate; medial frontal transverse carina present; frons transversely impressed behind carina; vertex impunctate. Pronotum with anterior margin membranous medially and setose laterally; anterior angles slightly produced, narrowly obtuse; lateral margins rounded; broadest at middle; posterior angles broadly rounded. Elytra long, broadly rounded, widest at middle; suture with broad, nearly impunctate band, limited laterally by a line of punctures. Propygidium mostly covered by elytra; not fused to fifth visible abdominal sternite. Venter with thoracic sterna pilose. Abdomen with visible sternites fused, sutures nearly obliterated medially; fifth and sixth visible sternites separated by a narrow membrane. Legs with protibiae tridentate, spurs present; meso- and metatibiae with oblique setigerous carinae; metatibial carinae produced at interior margin; metatibial apices strongly expanded apically; metatibial apical spurs spatulate; metalemora swollen; all claws with medial and subbasal teeth.

Females may be distinguished by the following characters: antennal club shorter, abdomen convex ventrally, metatibiae broadly angulate at carinae, never spinose, and the metatibial spurs are broader.

Species in the Glyptoglossa Brenske may be distinguished from all other southern African Melolonthinae by their large size (18.0–22.0 mm in length), pale colouration, 3-segmented antennal club, membranous anterior pronotal margin, toothed claws, and the distinct suture between the propygidium and the fifth visible sternite. It may be distinguished from Schizonycha Dejean, by the broader mesepisterna, toothed claws and the lack of fusion between the fifth abdominal sternite and the propygidium. Superficially, Glyptoglossa most resembles a less hirsute Sparrmannia Laporte, but is readily distinguished by its 3-segmented antennal club, frontal carina, and the lack of fusion between the propygidium and sternite.

**BIOLOGY**

The larvae of Glyptoglossa are unknown. The adults are nocturnal and are readily attracted to light. They have been collected in the root systems of a number of unidentified herbaceous plants in sandy soils. I collected a short series of *G. namaquensis* Péringuey in this manner at Jakkalsputs. All of the plants showed signs of feeding damage, but I was not able to locate any feeding or copulating individuals.

At Green River Mouth I found four species of Glyptoglossa (*G. namaquensis*, *G. dispar* Péringuey, *G. acta* sp. nov., *G. capensis* sp. nov.) active simultaneously. All species were either collected at UV light, on the ground, or feeding on the flowers of an undetermined aster. The habitat is sand veld, with a number of species of Asteraceae and Mesembryanthemaceae.

Several localities throughout Namaqualand yielded numerous remains of Glyptoglossa spp. trapped in the nests of social spiders (Arachnida: Eresidae).

**Key to the species of Glyptoglossa Brenske**

1. Tarsal segments long, slender (Fig. 3) ................................................................. 2
2. — Tarsal segments short, thick (Fig. 2) ................................................................. *G. namaquensis* Péringuey
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Glyptoglossa namaquaensis Péringuey, Figs 2, 7, 8

Glyptoglossa namaquaensis Péringuey, 1904: 188.

Redescription: 16.0–18.5 mm long. Colour testaceous to dark testaceous. Head with clypeus shallowly punctate; clypeal suture broadly arcuate medially; frontal carina straight, entire or briefly interrupted medially, obsolete laterally; frontal area between carina and clypeal suture nearly impunctate medially; frons narrowly impressed behind carina; impunctate or not; antennal club of male subequal in length to segments 2–7...; antennal club of male distinctly longer than segments 2–7...

Male genitalia as in Figs 11–13; frontal area between clypeal suture and carina glabrous; antennal club of male subequal in length to segments 2–7...

Male genitalia as in Figs 14, 15; frontal area between clypeal suture and carina with a few scattered setae; antennal club of male distinctly longer than segments 2–7...

Ventral margin of male metatibiae angulate, never spinose (Figs 5, 6); elytra deeply or shallowly punctured...

Ventral margin of male metatibiae spinose (Fig. 4); elytra deeply punctured...

Ventral margin of male metatibiae weakly angulate (Fig. 5); male genitalia as in Figs 18, 19; elytra deeply punctured...

Ventral margin of male metatibiae strongly angulate (Fig. 6); male genitalia as in Figs 20, 21; elytra shallowly punctured...

Material Examined: Holotype male, Port Nolloth [29° 15' S, 16° 52' E] (SAMC).

Other material examined: 95 (AVEC, BMNH, NMBH, SAMC, SMWN, TMSA): SOUTH AFRICA: CAPE PROVINCE: Buffels river, 29° 55' S, 17° 39' E; Buffels Riv. Valley, 29° 36' S, 17° 14' E; Farquarson, 29° 15' S, 17° 15' E; Gemsbok vlakte; Green River Mouth, 30° 51' S, 17° 34' E, 10 m; Jakkalsputs, 28° 42' S, 16° 54' E, 350 m; Jakkalsputs, 28° 38' S, 18° 54' E; Klein Klipheuvel, 32° 14' S, 18° 26' E; Koekenaap, 31° 32' S, 18° 14' E; Oograbies [29° 16' S, 17° 05' E]; Papendorp dunes, 31° 38' S, 18° 12' E; Port Nolloth, 29° 14' S, 16° 57' E; Quaggafontein, 30° 13' S, 17° 33' E; Rooidam; Wallekraal [30° 24' S, 17° 31' E].

Months collected: August through October.

Remarks: Intraspecific variation was observed with regards to the cephalic
and male genitalic characters. The specimens collected at Quaggafontein and Green River Mouth have densely punctate vertices, just posterior of the frontal carina, while the Jakkalsputs material is nearly impunctate. In addition, the parameres of the males from the former locality are slightly thicker than those of the latter.

**Glyptoglossa burmeisteri** Brenske, Figs 9, 10

**Glyptoglossa burmeisteri** Brenske, 1898: 382; Peringuey 1904: 190.

Type: Male, Cap, Zoll. Mus. Humboldt (not examined).

Redescription: 18.0–19.0 mm long. Colour pale to dark rufotestaceous. **Head** with clypeus deeply punctate laterally, with a few deep punctures medially; clypeal suture broadly arcuate medially; frontal carina arcuate medially, nearly transverse; frontal area between carina and clypeal suture nearly impunctate, with a few scattered deep punctures; frons narrowly impressed behind carina, deeply punctured; antennal club of male subequal to the combined length of segments 2–7; segment 7 laminate, 1/3 the length of segment 8 female club slightly shorter. **Pronotum** with setigerous punctures along anterior and posterior margins only; disc deeply, uniformly punctate. **Elytra** with scattered setae at base; remaining surface shallowly confusedly and punctate; glabrous. **Pygidium** with short, scattered, fine, pale setae. **Legs** with tarsal segments long, slender; ventral margin of male metatibiae angulate at setigerous oblique carina. **Male genitalia** as in Figs 9, 10.

**Material examined:** 6 (SAMC, SANC, TMSA): SOUTH AFRICA: CAPE PROVINCE: Darling [33° 23′ S, 18° 23′ E]; Springbokfontein; Vredendal [31° 48′ S, 18° 30′ E].

**Glyptoglossa dispar** Peringuey, Figs 11, 12, 13

**Glyptoglossa dispar** Peringuey, 1904: 188.

Redescription: 16.5–20.0 mm long. Colour testaceous to dark testaceous. **Head** with clypeus finely, shallowly punctate; clypeal suture usually broadly arcuate medially, sometimes narrowly arcuate; frontal carina straight, entire or briefly interrupted medially, obliterated laterally; frontal area between carina and clypeal suture with scattered deep punctures, more so laterally; frons vaguely impressed behind carina; deeply punctured; antennal club of male subequal to the combined length of segments 2–7; segment 7 not laminate; female club slightly shorter. **Pronotum** finely, setigerously punctate throughout; setae long, erect. **Elytra** with scattered setae at base; remaining surface shallowly confusedly and punctate; glabrous. **Pygidium** with scattered, short, erect setae. **Legs** with tarsal segments long, slender; ventral margin of male metatibiae spinose at setigerous oblique carina. **Male genitalia** as in Figs 11–13.

**Material examined:** Lectotype male, Namaqua Ld., Port Nolloth [29° 15′ S, 16° 52′ E], Lightfoot [printed]; Glyptoglossa dispar, type Py [handwritten]; Type SAM/Ent. 3308b [printed red label]: Lectotype, Glyptoglossa dispar Peringuey, A. V. Evans [red label] (SAMC). 1 paralectotype female, Darling [33° 23′ S, 18° 23′ E], C.C., J. M. Baico, 05 [handwritten]; Glyptoglossa dispar, type Py [handwritten]; Type SAM/Ent. 3308a [printed red label]: Paralectotype, Glyptoglossa dispar Peringuey, A. V. Evans
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Fig. 1. *Glyptoglossa lurida* (Burmeister), dorsal habitus. Actual size = 18.0 mm.
Glyptoglossa acta, sp. nov., Figs 14, 15

Redescription: 18.5–19.0 mm long. Colour testaceous to dark testaceous. Head with clypeus finely, shallowly punctate; clypeal suture broadly arcuate medially; frontal carina straight or nearly so, briefly interrupted medially, obsolete laterally; frontal area between carina and clypeal suture with scattered, setigerous punctures; frons narrowly impressed behind carina, deeply punctured; antennal club of males distinctly longer than the combined length of segments 2–7; segment 7 not laminate. Pronotum setigerously punctate throughout; setae long, erect. Elytra with setose at base; remaining surface shallowly, confusedly punctate; glabrous. Pygidium with scattered, short appressed setae. Legs with tarsal segments long, slender; ventral margin of male metatibiae spinose at oblique setigerous carina. Male genitalia as in Figs 14, 15.


Remarks: G. acta is the only known species of the genus with setigerous punctures on the frons between the carina and clypeal suture. In addition, the pronotum is setigerously punctate throughout, as in G. dispar, but may be distinguished from this species by the distinctive male genitalia.

Glyptoglossa alia, sp. nov., Figs 4, 16, 17

Description: 17.5–19.0 mm long. Colour testaceous to dark testaceous. Head

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with clypeus deeply punctate; clypeal suture broadly arcuate medially; frontal carina straight or nearly so, briefly interrupted medially, obsolete laterally; frontal area between carina and suture with scattered deep punctures; frons behind carina broadly impressed, deeply and coarsely punctured; antennal club of male slightly longer than segments 2–7, segment 7 not lamellate. Pronotum with scattered setigerous punctures, disc uniformly punctate. Elytra with scattered long setae at basal 1/3; surface confusedly and deeply punctate. Pygidium glabrous. Legs with tarsal segments long, slender; ventral margin of male metatibiae spinose at setigerous oblique carinae (Fig. 4). Male genitalia as in Figs 16, 17.

Material examined: Holotype male, SOUTH AFRICA: CAPE PROVINCE: Numies/Sendelingdrif at 28.15 S–16.58 E, x–1978, H. Scheitler, H37095 (SMWN No. T 1171); 4 para types (2 males, 2 females), same data as holotype (SMWN).

Remarks: Glyptoglossa alia may be distinguished from all other species in the genus by the short first metatarsal segment. The males of G. alia are most similar to the males of G. lundia (Burmeister) and G. capensis sp. nov., but is readily distinguished by the spinose male metatibiae and the male genitalia.

Glyptoglossa lurida (Burmeister), Figs 1, 3, 5, 18, 19

Schizonycha lurida Burmeister, 1855: 274
Glyptoglossa lurida (Burmeister), Brenske 1895: 223; Péringuey 1904: 189.

Type: Male, Süd-Afrika, Univ. of Halle, DDR (not examined).

Redescription: 17.0–19.0 mm long. Colour pale to dark rufotestaceous. Head with clypeus deeply punctate; clypeal suture broadly arcuate medially; frontal carina straight or nearly so, briefly interrupted medially, obsolete laterally; frontal area between carina and suture with scattered, deep punctures; frons behind carina broadly impressed, deeply and coarsely punctured; antennal club of male subequal to the combined lengths of segments 2–7, segment 7 not laminate; female club slightly shorter. Pronotum with scattered setigerous punctures; disc uniformly punctate. Elytra with scattered, long setae at basal third; surface confusedly, deeply punctate. Pygidium glabrous. Legs with tarsal segments long, slender (Fig. 3); ventral margin of male metatibiae slightly angulate at setigerous oblique carina (Fig. 5). Male genitalia as in Figs 18, 19.

Material examined: 12 (NMBH, SANC, SAMC): SOUTH AFRICA: CAPE PROVINCE: De Hoop, 32°08’ S, 22°44’ E. Péringuey (1904) records ‘Cape Colony (Carnavon; Hope Town)’.

Glyptoglossa capensis, sp. nov., Figs 20, 21

Description: 17.0–19.0 mm long. Colour testaceous to dark testaceous. Head with clypeus deeply punctate; clypeal suture broadly arcuate medially; frontal carina straight, interrupted medially, nearly transverse; frontal area between carina and clypeal suture with a few scattered, deep punctures; frons narrowly impressed behind carinae, deeply punctured; antennal club of male subequal to the combined length of segments 2–7, segment 7 not laminate; female club slightly shorter. Pronotum with setigerous punctures along anterior and posterior margins, remainder glabrous; disc with scattered, deep punctures. Elytra with scattered setae on basal third, mostly along suture;
remaining surface shallowly and confusedly punctate, glabrous. *Pygidium* glabrous. *Legs* with tarsal segments long, slender; ventral margin of male metatibiae angulate at setigerous oblique carina. *Male genitalia* as in Figs 20, 21.


Remarks: *Clyptoglossa capensis* is most similar to *C. alia* and *C. lurida*, but may be readily distinguished by the shallowly punctate elytra. It may be distinguished from the former by the longer first metatarsal segment, the strongly angulate male metatibiae, and the male genitalia. The males may be distinguished from males of the latter by the strongly angulate male metatibiae and genitalia.

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**References**


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