New species and new records of the genus *Sphallomorpha* Westwood from Australia and New Guinea.  
3rd Supplement to the  
“Revision of the Pseudomorphinae of the Australian Region 1.”

(Insecta, Coleoptera, Carabidae)

By Martin Baehr


In a third supplement to the “Revision of the Pseudomorphinae of the Australian Region 1.” following new species of the genus *Sphallomorpha* Westwood are being described: *S. suturata*, spec. nov., *S. kurandae*, spec. nov., both from northeastern Queensland, and *S. latiplagiata*, spec. nov. from Papua New Guinea. They belong to the *lata*-group (*S.suturata*) and the *guttigera*-group, respectively. Additional records of several known species are presented, some of which considerably enlarge the recorded range of the respective species.

Due to newly received material the following taxonomic changes and additions have been made: On the basis of the discovery of males of this species, *S. guttigera* (Castelnau) that had been synonymized in the revision with *S. thouzeti* (Castelnau) is reestablished as a valid species and the ♀ genitalia are for the first time figured.

Additional female specimens of *S. tropicalis* Baehr reveal the presence of the dorsal ensiform seta on the stylomere 2 in this species. Hence *S. tropicalis* cannot be included longer in the *grandis*-group of the revision, but a new *tropicalis*-group has to be erected for this species.

The female genitalia of *S. tozeria* Baehr are described for the first time.

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Introduction

While both, the 1st and 2nd supplements (Baehr 1993a, b) to my “Revision of the Pseudomorphinae of the Australian Region 1.” (Baehr 1992) were already printed or in press, I received new, very interesting material of the genus *Sphallomorpha* from the following institutions: Walford-Huggins Collection that was recently sold to the Carnegie Museum, Pittsburgh (CMP-WHC), Department of Primary Industries, Mareeba (DPIM), California Academy of Sciences, San Francisco (CAS), University of Vermont Collection, Burlington (UVB), Naturhistorisches Museum, Wien (NHMW), and from my own recent collections in North Queensland (CBM). All my own material and that from DPIM, but also a large part of the material from CMP-WHC was collected in the Cape York Peninsula, from where thus far surprisingly poor material was available. The holotype of the new species from my own collection is deposited in the Queensland Museum, Brisbane (QMB).
All abbreviations, chiffres, measurements, and used characters are the same as in the revision (Baehr 1992).

Acknowledgements

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New and reestablished species

lata-group

Sphallomorpha suturata, spec. nov.
Figs 1, 7, 12


Diagnosis. Fairly large, wide, depressed, dark piceous species, with distinct, narrow, reddish sutural stripe, ill defined reddish borders to pronotum and elytra, almost impunctate, faintly impressed elytral striae, and finely punctate intervals. Further distinguished from most similar S. lozeria Baehr by narrow elytral spot, 4-setose labrum, shallow excision of δ sternum VII, not sinuate apex of aedeagus, and elongate and markedly sinuate apex of left paramere.

Description

Measurements. Length: 10.3 mm. Ratios. Width pronotum/head: 1.67; width elytra/pronotum: 1.09; width/length of pronotum: 2.52; length/width of elytra: 1.16; length elytra/pronotum: 3.22.

Colour (Fig. 7). Dark piceous, anterior border of head, lateral and posterior borders of pronotum, lateral margin of elytra, and a narrow sutural stripe reddish. Light margins of pronotum and elytra ill defined, sutural stripe fairly well delimited, occupying sutural interval and median third of 2nd interval, rather parallel. Labrum and mouth parts reddish, tips of palpi lighter, antenna light reddish. Ventral surface reddish-piceous, head darker, margins of abdomen reddish. Legs reddish-piceous, femora reddish.

Chetotaxy (Figs 1a,f, 7). Supraorb: 1; preorb: 1; clyp: 1; labr: 4; ment.med: 2; ment.lat: 4-5 short; gloss: 4; gul: 2; postorb: 3; suborb: 5-6; pron.ant: 1; pron.post: 1; proeps: 1-2 + 5-6; marg: 25-26; st VI: 2; δ st VII: 3; ? st VII: ?.

Head (Figs 1a-d). Wide, depressed, with indistinct, very shallow frontal impressions. Eyes large, convex. Clypeus gently concave, clypeal sutures distinct, fairly impressed, in middle interrupted. Lateral border of head anteriorly very oblique, almost transverse, then markedly, obtusely bent, posteriorly feebly convex, fairly incurred in front of eyes. Labrum wide, short, laterally convex, anteriorly barely excised, 4-setose. Wings of mentum short, very wide, apex wide, evenly convex, subapically straight to feebly concave, medially obliquely convex. Glossa faintly excised, border obtuse, lateral setae longest. Dorsal part barely or moderately surpassing ventral, medially slightly excised, without bristles or hairs. Terminal segment of labial palpus rather elongate, with very oblique apex, rather securiform, of maxillary palpus moderately elongate, faintly securiform. Median segments of antenna c. 4.5 × as long as wide. Microreticulation very dense and fine, though distinct, punctuation fine, moderately dense, visible only at high magnification, surface with several transverse strioles laterally of clypeal sutures, medially of eyes and on frons and vertex, apparently without pilosity, moderately dull, though faintly iridescent. Palpi with short, sparse pilosity. Galea with few extremely fine hairs along anterior border and at apex. Ventral surface almost impolose.

Pronotum (Fig. 7). Wide, depressed, laterally rather explanate. Apex with shallow, medially distinctly convex excision. Anterior angles short, wide, apex obtuse. Sides evenly convex, widest slightly in
Figs. 1a-I. *Sphallomorpha suturata*, spec. nov. Details of head, prosternum, and genitalia. 

- a. Dorsal surface of head.
- b. Terminal segment of labial palpus.
- c. Terminal segment of maxillary palpus.
- d. 5th and 6th segments of antenna.
- e. Prosternal process.
- f. δ sternum VII.
- g. δ genital ring.
- h. Lateral view of aedeagus.
- i. Lower surface of aedeagus.
- k. Right paramere.
- l. Left paramere. Mouth parts to same scale.

Front of posterior marginal seta. Base faintly bisinuate. Lateral margins with extremely fine border line. Discal impressions very shallow, circular. Microreticulation fine, dense, distinct, punctuation very fine, dense, visible only at high magnification, surface with moderately distinct network of fine, irregular strioles and with fairly sparse, extremely short pilosity, rather dull.

Elytra (Fig. 7). Wide, short, depressed, laterally but faintly convex, rather explanate. Apex wide, slightly oblique, feebly convex. Striae distinct, slightly impressed, almost impunctate. Intervals thus slightly raised. Series of marginal pores uninterrupted, pores numerous, at shoulder irregular, not in a straight line. Microreticulation fine, dense, slightly transverse, less fine, than on fore body, intervals with fairly dense, very fine punctures, also with fine, longitudinal strioles, with extremely sparse and short pilosity, moderately glossy.

Ventral surface (Fig. 1e). Prosternal process moderately elongate, anteriorly wide, markedly attenuate, apex feebly convex, ventral surface convex, almost straight, with an elongate seta at apex and some short hairs. Metepisternum c. 2 x as long as wide.

Legs. Elongate. Metatarsus as long as metatibia. Upper surface of tarsi sparsely pilose. 1st segment of metatarsus as long as 2nd and 3rd segments together.

δ genitalia (Figs 1f-I). Sternum VII rather wide, with wide, shallow, at bottom straight excision. Genital ring rather wide, basal border almost straight, lateral angles marked, basal plate fairly elongate, quadrate, anteriorly moderately excised, both arms convex. Aedeagus short, thick, rather depressed, not sinuate, lower border feebly concave, apex wide, obtusely triangular, faintly pointed down. Orifice moderately short. Internal sac inconspicuously microtrichiate, for pattern see figs 1h,i. Right paramere
with very elongate, attenuate, markedly sinuate apex. Left paramere large; sinuate on upper and lower border, apex wide, slightly pointed down, transverse.

♀ genitalia. Unknown.
Variation. Unknown.

Distribution (Fig. 12). Northeastern Queensland, known only from type locality.

Material examined (1). Only the holotype.

Habits. Little specified. The holotype collected in June under bark of a river gum near a large, water bearing river.

Etymology. The name refers to the narrow sutural stripe.

Recognition

For identification of S. suturata, the key to the species in my revision (Baehr 1992 - B92 in following text) must be changed as following:

   - Elytra unicolourous, at most vaguely lighter in middle .................................. 10.

9. Larger species (12.5-12.8 mm). Elytra with wide, rather triangular sutural spot (Fig. B92 244). Labrum 6-setose. Aedeagus not sinuate in front of apex. Northern Qld ..................... tozeria Baehr
   - Smaller species (9.7-11.6 mm). Elytra with narrow to moderately wide sutural band (Fig. B92 243; fig. 7). Labrum variable, but when 6-setose, then species from northern NT ..................... 9a.

9a. Elytra with fairly wide sutural band (Fig. B92 243). Punctuation of striae and intervals rather coarse. Labrum 6-setose. Aedeagus sinuate in front of apex. Apex of right paramere moderately elongate, not upturned (Figs B92 60k,l). Northern NT ....................................................... darwini Baehr
   - Elytra with narrow sutural band (Fig. 7). Punctuation of striae and intervals fine, inconspicuous. Labrum 4-setose. Aedeagus not sinuate in front of apex. Apex of right paramere very elongate and remarkably upturned (Figs 4i,k). Northern Qld ................................................................. suturata, spec. nov.

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guttigera-group

_Sphallomorpha guttifera_ (Castelnau, 1867), stat. restit.
Figs 2, 8, 9, 12

_Silphonomorpha guttifera_ Castelnau, 1867, p. 27; 1868, p. 113.
_Sphallomorpha guttifera_, Notman 1925, p. 25, 33; Csiki 1933, P. 1642; Moore et al. 1987, p. 59; Baehr 1992, p. 216.
_Silphonomorpha thouzeti_ Castelnau, 1867, p. 27.
_Sphallomorpha thouzeti_, Baehr 1992, p. 216 (syn. nov.).

This species that was known only from the ♀ lectotype had been synonymized in my revision with _S. thouzeti_ (Castelnau), because there were some specimens intermediary between thouzeti-like and guttifera-like shaped and coloured specimens, and no ♀ ♀ of guttifera were available. Because two ♀ ♀ specimens became now available that are fairly similar in most respects to the lectotype of _S. guttifera_ though differ somewhat in the elytral pattern, and that reveal rather distinct differences in the ♀ genitalia to those of the ♀ lectotype of _S. thouzeti_, I think that this synonymization is incorrect. Therefore _S. guttifera_ (Castelnau) is herewith reestablished as a valid species.


Type locality: "Port Denison", Queensland.

Diagnosis. Small, convex, dark piceous to black species, without yellow border, with elliptical to almost circular, yellow sutural spot. Further distinguished by small size; absence of supraorbital seta; apex of aedeagus suddenly narrowed, somewhat spatulate, distinctly turned down; left ♀ paramere only strongly bent up; and stylomere 2 short, with 3 elongate ves.
Fig. 2a-n. *Sphallomorpha guttifera* (Castelnau). Details of head, prosternum, and genitalia. For legends see fig. 1. m. ♀ sternum VII. n. Stylomere 2.

Description

Measurements. Length: 5.9-6.4 mm. Ratios. Width pronotum/head: 1.60-1.72; width elytra/pronotum: 1.09-1.14; width/length of pronotum: 2.27-2.39; length/width of elytra: 1.16-1.21; length elytra/pronotum: 2.96-3.14.

Colour (Fig. 8, 9). Black, with common, elliptical to almost circular, yellow sutural spot in centre of elytra. Spot laterally attaining 3rd or 4th stria, ending slightly in front of apex and behind base. Lateral borders of pronotum and elytra in some specimens very narrowly reddish translucent. Labrum and mouth parts reddish to reddish-piceous, antenna yellow. Lower surface of head almost black, contrasting, prothorax light piceous, rest of lower surface reddish. Legs reddish, femora yellow.

Chetotaxy (Figs 2a,f,m, 8, 9). Supraorb: -; preorb: 1; clyp: 1; labr: 4; ment.med: 2; ment.lat: c. 6-7; gloss: 5; gul: 2 long + 1 short; postorb: 2; suborb: c. 6-7; pron.ant: 1-2 short; pron.post: -(-1 short); proeps: 1 + 1-2; marg: 17-18; st VI: 2; ♂ st VII: 3; ♀ st VII: 4-6.

Head (Figs 2a-d). Moderately wide, convex, frontal impressions almost invisible. Eyes depressed, but slightly interrupting outline of head. Clypeus almost straight, just feebly prominent at clypeal seta. Clypeal sutures well impressed, conspicuous, elongate. Lateral border of head oblique, barely convex, though not incurved, faintly sinuate at clypeal suture. Labrum moderately transverse, anteriorly irregularly sinuate, highly asymmetrical, right part more produced than left. Gular suture obtusely angu-


Elytra (Figs 8, 9). Rather elongate, moderately convex, laterally rounded, evenly convex, widest about in middle. Apex fairly narrow, obliquely convex. Striae invisible, intervals absolutely flat. Series of marginal pores almost uninterrupted. Micoreticulation distinct, regular, though less conspicuous than on forebody. Punctuation very fine, slightly irregular, moderately dense. Surface finely and sparsely pilose, rather dull.

Lower surface (Fig. 2e). Prosternal process elongate, basally rather wide, regularly attenuate to the obliquely transverse apex. Ventral surface depressed, almost straight, with few long setae near apex and some short hairs. Metepisternum c. 1.5-1.6 x as long as wide.

Legs. Moderately elongate. Metatarsus slightly shorter than metatibia. Tarsi impolose. Ist segment of metatarsus almost as long as 2nd and 3rd segments together.

♂ genitalia (Figs 2f-l). Sternum VII short and wide, with very shallow, wide excision. Margin laterally of excision completely rounded. Genital ring rather wide, basal border little convex, lateral angles marked, basal plate fairly short, anteriorly moderately excised, rather symmetric. Aedeagus moderately elongate, markedly sinuate, apex wide, suddenly narrowed and rather spatulate, at tip almost straight, markedly turned down. Orifice rather short. Internal sac moderately microtrichiate, for pattern see figs 2h,i. Apex of right paramere rather short, wide. Left paramere rather elongate, strongly bent upwards, laterally feebly hollowed, but less so than in S. guttigera.

♀ genitalia (Figs 2m,n). Sternum VII very wide and short, border almost straight, with many short hairs near and along margin. Styломere 2 short, wide, apex rather acute, distinctly bent laterally, with 3 long ves that occupy the whole space between base and apex.

Variation. Little variation noted with regard to size, shape, and body proportions. The lectotype, however, has a wider, rather circular elytral spot and apparently lacks any pilosity on head, pronotum, and elytra (that may have been rubbed off), whereas the three other, more recently collected specimens are very similar and possess an elliptic elytral spot and distinct pilosity. Hence they are assigned to S. guttigera only provisionally and with some reservation.

Distribution (Fig. 12). Northeastern Queensland from about Mackay to Cooktown.


Habits. Not specified. One specimen collected by myself under bark of gum-type eucalypt. Dated specimens captured in November.

Recognition

For identification of S. guttigera see below under S. latiplagiat.a.
Sphallomorpha kurandae, spec. nov.

Types. Holotype: ♂, Kuranda May. 69, 3964; Collr. A & M Walford-Huggins; Sphallomorpha castelnaii (Reiche) [Series det. by A. Walford-Huggins] (CMP-WHC).

Diagnosis. Very small, highly convex, piceous species, without yellow border, with large, elliptic, yellow sutural spot. Further distinguished by small size; absence of supraorbital seta; glossy elytra with very superficial microreticulation; elongate aedeagus with suddenly hooked apex; and very narrow and elongate parameres.

Description

Measurements. Length: 4.75 mm. Ratios. Width pronotum/head: 1.62; width elytra/pronotum: 1.13; width/length of pronotum: 2.28; length/width of elytra: 1.20; length elytra/pronotum: 2.98.

Colour (Fig. 10). Piceous, with wide, common, elliptical, yellow sutural spot in centre of elytra. Spot widest in posterior third, laterally surpassing position of 4th stria, ending slightly in front of apex and well behind base. Lateral borders of pronotum and elytra narrowly reddish translucent. Labrum and mouth parts reddish to reddish-piceous, antenna yellow. Lower surface of head piceous, little contrasting, prothorax light piceous, rest of lower surface reddish. Legs reddish, femora yellow.

Chetotaxy (Figs 3a,f, 10). Supraorb: -; preorb: 1; clyp: 1; labr: 4; ment.med: 2; ment.lat: c. 5-6; gloss: 5; gul: 2 long + 1 short; postorb: 2; suborb: c. 4-6; pron.ant: -; pron.post: -; proeps: 1 + 1-2; marg: c. 17; st VI: 2; ♂ st VII: 2; ♀ st VII: ?.

Head (Figs 3a,d). Moderately wide, convex, frontal impressions almost invisible. Eyes depressed, but slightly interrupting outline of head. Clypeus almost straight, just feebly prominent at clypeal seta. Clypeal sutures well impressed, conspicuous, elongate. Lateral border of head moderately convex, especially near eyes, though not incurved, slightly sinuate at clypeal suture. Labrum moderately transverse, anteriorly irregularly sinuate, slightly asymmetrical, right part slightly more produced than left. Mentum with fairly convex prominence feebly incised in middle. Wings of mentum wide, short, apex...

Pronotum (Fig. 10). Rather narrow, highly convex. Apex wide, deeply excised. Anterior angles rather projecting, obtuse at tip. Sides little convex, in posterior half almost straight, widest immediately at posterior angles. Base almost straight, laterally convex. Posterior angles open, at apex obtuse. Lateral margins anteriorly with fine border line. Discal impressions shallow, rather linear, oblique, removed from base. Microreticulation superficial, rather dense, punctuation moderately dense, very fine, surface impilose, glossy.

Elytra (Fig. 10). Rather short and wide, highly convex, laterally rounded, widest a short distance behind base, then evenly convex. Apex fairly narrow, obliquely convex. Striae virtually absent, intervals absolutely flat. Series of marginal pores almost uninterrupted. Microreticulation highly superficial, only traces visible. Punctuation very fine, rather sparse. Surface impilose, highly glossy.

Lower surface (Fig. 3e). Prosternal process elongate, basally rather wide, regularly attenuate to the obliquely transverse apex. Ventral surface depressed, almost straight, with few long setae near apex and some short hairs. Metepisternum c. 1.5 x as long as wide.

Legs. Moderately elongate. Metatarsus slightly shorter than metatibia. Tarsi impilose. 1st segment of metatarsus almost as long as 2nd and 3rd segments together.


♀ genitalia Unknown.

Variation. Unknown.

Distribution (Fig. 12). Northeastern Queensland, known only from type locality.

Material examined (1). Only the holotype.

Habits. Unknown. Holotype collected in May.

Etymology. The name refers to the type locality.

Recognition

For identification of S. kurandae see below under S. latiplagiata.

Sphallomorpha latiplagiata, spec. nov.

Figs 4, 11, 12

Types. Holotype: ♂, TERR. PAPUA & NEW GUINEA, 2350 m. Mt. Kaindi 71° 25. B. S. Cheary Collr.; Sphallomorpha ? n. sp. 7/0/1 KW Cooper; Sphallomorpha cordifer Blackb. ? det. R. T. Bell; Cheary Colln; Sphallomorpha cordifer ? (UVB).

Diagnosis. Medium-sized, fairly depressed, piceous-black species with narrow yellow border, with large, very well delimited, rather drop-shaped, yellow sutural spot that is prolonged anteriorly along suture. Further distinguished by large size; wide pronotum; absence of supraorbital and preorbital setae; barely sinuate aedeagus with apex barely turned down; and elongate left paramere with apex markedly bent down.

Description

Measurements. Length: 8.05 mm. Ratios. Width pronotum/head: 1.84; width elytra/pronotum: 1.07; width/length of pronotum: 2.50; length/width of elytra: 1.28; length elytra/pronotum: 3.42.
Fig. 4a-l. *Sphallomorpha latiplagiata*, spec. nov. Details of head, prosternum, and genitalia. For legends see fig. 1.

Colour (Fig. 11). Piceous to black, head darker, pronotum slightly lighter. Pronotum and elytra with narrow reddish margin, elytra with large, common, slightly drop-shaped, yellow sutural spot in centre of elytra. Spot well delimited, widest in anterior third, laterally surpassing 5th stria, almost attaining base and apex. Borders of spot in anterior third concave, posteriorly gently convex. Labrum and mouth parts reddish, contrasting to head, antenna yellow. Lower surface of head reddish-piceous, rest of lower surface light reddish. Legs dark reddish, femora yellow.

Chetotaxy (Figs 4a,f, 11). Supraorb: -; preorb: -; clyp: 1; labr: 4; ment.med: 2; ment.lat: c. 5 short; gloss: 5; gul: 2 long + 1 short; postorb: 2; suburb: c. 5-6; pron.ant: -; pron.post: -; proeps: 1 + 1-2; marg: 17-18; st VI: 2; st VII: 2; st VII: ?.

Head (Figs 4a-d). Rather wide, fairly depressed, frontal impressions very shallow. Eyes depressed, not interrupting the outline of head. Clypeus almost straight, just feebly prominent at clypeal seta. Clypeal sutures well impressed, conspicuous, elongate. Lateral border of head moderately convex, especially near eyes, though not incurved, slightly sinuate at clypeal suture, markedly upturned laterally. Labrum moderately transverse, anteriorly irregularly sinuate, highly asymmetrical, right part more produced than left. Mentum with fairly convex prominence feebly incised in middle. Wings of mentum wide, short, apex rounded, subapically convex, medially rather oblique. Glossa slightly triangularly excised, border moderately sharp. Dorsal part much surpassing ventral, medially excised, without hairs. Terminal segment of labial palpus rather narrow, elongate, with very oblique apex, barely securing, of maxillary palpus rather elongate, not attenuate. Galea little attenuate. Median segments of antenna c. 2.7-2.8 x as long as wide. Microreticulation dense, rather superficial, isodiametric, punctuation dense, very fine, though well visible, surface with feeble striae laterally of clypeal sutures, impilose, moderately glossy. Palpi with comparatively sparse and short pilosity. Galea with few markedly elongate hairs along anterior border and at apex. Ventral surface with very sparse pilosity.
Pronotum (Fig. 11). Rather wide, fairly depressed. Apex wide, deeply excised. Anterior angles projecting, obtuse at tip. Sides strongly and evenly rounded, widest in posterior third. Base medially feebly convex, laterally oblique. Posterior angles very open, obtuse, almost rounded off. Lateral margins anteriorly with fine border line. Discal impressions shallow, rather linear, removed from base. Microreticulation almost suppressed, punctuation dense, extremely fine, surface with some irregular striales, implose, glossy.

Elytra (Figs 11). Fairly elongate, rather depressed, laterally almost parallel, in posterior half evenly rounded, widest a short distance behind base. Apex fairly narrow, obliquely convex. Striae virtually absent, intervals absolutely flat. Series of marginal pores almost uninterrupted. Microreticulation almost absent, only posteriorly slightly more distinct. Punctuation extremely fine and dense, slightly irregular. Surface implose, glossy.

Lower surface (Fig. 4e). Prosternal process elongate, basally rather wide, regularly attenuate to the obliquely transverse apex. Ventral surface depressed, almost straight, apparently without setae and hairs. Metepisternum c. 1.6 x as long as wide.

Legs. Moderately elongate. Metatarsus slightly shorter than metatibia. Tarsi sparsely pilose on upper surface. 1st segment of metatarsus slightly shorter than 2nd and 3rd segments together.

♀ genitalia (Figs 4f-n). Sternum VII rather short and wide, with shallow, wide, gently triangular excision. Margin laterally of excision rounded. Genital ring wide, almost regularly triangular, basal border almost straight, lateral angles rounded off, basal plate fairly elongate, quadrate, anteriorly moderately excised. Aedeagus moderately elongate, fairly stout, rather depressed, not sinuate, lower border convex, near apex feebly concave, apex wide, evenly rounded, faintly pointed down. Orifice elongate. Internal sac moderately microtrichiate, for pattern see figs 4h,i. Right paramere large, short, triangular. Left paramere large, strongly sinuate, apex wide, transverse, remarkably turned down. Both parameres at apex with few extremely short hairs.

♂ genitalia. Unknown.

Variation. Unknown.

Distribution (Fig. 12). Central eastern Papua New Guinea, known only from type locality.

Material examined (1). Only the holotype.

Habits. Unknown. Holotype collected at an altitude of 2350 m.

Etymology. The name refers to the large elytral spot.

Note. In the guttigera-group the three species known from New Guinea apparently lack the preorbital seta that is present in all Australian species. Although the New Guinean species do not seem to be very closely related, the absence of this seta may be a special character of the New Guinean species. It remains to await, whether this opinion is true.

Recognition

Because three new species mentioned in the present paper must be introduced into the part of the key in my revision (Baehr 1992 - B92 in following text) that covers the guttigera-group, and an additional species of this group had been described in a former supplement (Baehr 1993a - B93 in following text), this part of the key has been completely revised - except for the unpatterned species S. inornata Baehr that keys out at another place in the key:

152. Labrum asymmetrically excised, right part advanced (Figs B92 122a, 128a-137a). Elongate, more or less canoe-shaped, convex, glossy species (Figs B92 284, 287-295). Lateral borders very rarely light coloured (in a New Guinean and a very small Australian species only). Supraorbital setae absent. Apex of aedeagus (so far known) bent or pointed down (Figs B92 128i-136i) ............ 153.

- Labrum not asymmetrically excised, even convex, or straight, or medially advanced (Figs B92 120a 124a, 144a, 181a). Usually less convex, not canoe-shaped species. Lateral borders usually with wide, more or less distinct light margin. Supraorbital seta usually present, absent only in a rather large species (7.9 mm) with remarkably short head and without median mental setae. Apex of aedeagus (so far known) not bent down. ........................................ 161.


- Preorbital seta present. Australia ................................................... 155.
154. Smaller species, length <6.5 mm. Antenna shorter, median segments <2 x as long as wide. Elytral spot rather narrow or elongately cordiform (Figs B92 293, 295) ...................................... 154a.

- Larger species, length >8 mm. Antenna longer, median segments c. 2.7 x as long as wide. Elytral spot large, rather drop-shaped (Fig. 11). Central Papua New Guinea ...... latiplagiata, spec. nov.

154a. Smaller (5.1 mm), narrower, markedly egg-shaped species. Anterior angles of pronotum remarkably acute. Elytral spot elongately cordiform, widest near base (Fig. B92 293). Antenna shorter (median segments c. 1.6 x as long as wide) (Fig. B92 135e). \( \delta \) genitalia as in figs B92 135g-m. \( \delta \) unknown. Central Papua New Guinea ........................................... unita (Darlington)

- Larger (6.3 mm), wider, more regularly rounded species. Anterior angles of pronotum less acute. Elytral spot narrow, slightly rhomboidal (Fig. B92 295). Antenna longer (median segments c. 2 x as long as wide) (Fig. B92 137e). \( \delta \) unknown. Northern Irian Jaya (New Guinea) .................................. cheesmanucae Baehr

155. Elytra with sutural stripe (Figs B92 284, 290, 292; fig. B93 7; fig. 9) (doubtful or variable species under both couplets) ................................................................. 156.

- Elytra with sutural spot (Figs B92 287, 288, 291, 294; figs 8, 10) .................................................. 158.

156. Pronotum not lighter coloured than rest of body. Posterior pronotal seta variable. 17-19 elytral marginal pores present. Elytral spot either parallel and broadly attaining base of elytra (Fig. B92 284), or elliptical (Fig. 9), in latter case length >5.9 mm, aedeagus with spatulate apex, left paramere strongly bent up, and right paramere without widened lower border (Figs 2i-l) ........ 156a.

- Pronotum distinctly lighter coloured than head and elytra. Posterior pronotal seta always absent. Only 15-16 elytral marginal pores present. Elytral spot either elongately triangular (Fig. B92 290), or narrow elliptical (Fig. B92 292; fig. B93 7), in latter case length <5.4 mm, aedeagus at apex not spatulate, left paramere not strongly bent up, and right paramere with widened lower border (Figs B92 134k-m; figs B93 2k-m) ................................................................. 157.

156a. Elytral spot parallel and broadly attaining base of elytra (Fig. B92 284). Two elongate gular setae only present. \( \delta \) unknown. Northern Qld .................................................... centroplagiata Baehr

- Elytral spot elliptical or rather circular, not attaining base of elytra (Figs 8, 9). An additional short median gular seta present. Aedeagus with spatulate apex, left paramere markedly bent up (Figs 2i,l). Northeastern Qld ..................................................... guttiffra (Castelnau)

157. Larger (5.6-7 mm), longer (ratio l/w of elytra 1.26-1.28) species. Sutural spot usually wider (Fig. B92 290). Right paramere straight, apex wide, not suddenly attenuate (Fig. B92 132i). Vic, ACT, NSW .......................................................................................................................... discoidalis (Castelnau)

- Smaller (<5.5 mm), shorter (ratio l/w of elytra <1.22) species. Sutural spot narrower (Fig. B92 292; fig. B93 7). Right paramere elongate, sinuate, apex suddenly attenuate (Fig. B92 134l; fig. B93 2l) ............................................ 157a.

157a. Sutural spot wider, attaining base and almost apex. Pronotum wider and shorter (ratio l/w of pronotum 2.52, length ratio elytra/pronotum 3.22-3.26). Micoreticulation of elytra distinct, puncturation sparse. Left paramere markedly sinuate near apex, apex distinctly attenuate (Fig. B92 134m). Northeastern Qld ......................................................... thouzetoidis Baehr

- Sutural spot narrower, neither attaining base nor apex (Fig. B92 7). Pronotum narrower and longer (ratio l/w of pronotum 2.28, length ratio elytra/pronotum 3.07). Micoreticulation of elytra absent, puncturation distinct, rather dense. Left paramere barely sinuate near apex, apex not markedly attenuate (Fig. B93 2m). Central Qld ......................................................... carruona Baehr

158. Very small species (<4 mm). Posterior pronotal seta present. Only 13-14 elytral marginal pores present. Antenna very short (median segments c. 1.2 x as long as wide (Fig. B92 136e). Aedeagus short, compact. Left paramere elongate, almost straight (Figs B92 136i,k,m). \( \delta \) unknown. Northern Qld ......................................................... minima Baehr

- Larger species (>4.75 mm). Posterior pronotal seta usually absent. >16 marginal elytral pores present. Antennae longer (median segments >1.5 x as long as wide) (Figs B92 128e, 129e, 133e;
159. Anterior pronotal seta absent. Left paramere less distinctly bent (Fig. B92 133m; fig. 3l) ............

159a. Larger (length >5 mm), wider species (ratio w/1 of pronotum >2.35). Pronotum and elytra with distinct microreticulation. Elytral spot drop-shaped with concave anterior-lateral margin (Fig. B92 291). Aedeagus and parameres shorter, especially apex of right paramere short (Figs B92 133k-m). Northern NSW, eastern Qld .......................................................... thouzeti (Castelnau)

160. More elongate species (ratio 1/w of elytra 1.25-1.34, length ratio elytra/pronotum 3.28-3.56). Pronotum commonly lighter coloured than rest of body. Elytral puncturation dense and distinct (Fig. B92 423). Elytral spot elongate, drop-shaped (Fig. B92 287). Apex of aedeagus distinctly bent down. Left paramere markedly hollowed and bent up (Figs B92 128k,m). Eastern SA, Vic, ACT, NSW .......................................................... guttigera (Newman)

160a. Elytral spot very large, anteriorly serrate, leaving but narrow borders black (Fig. B92 288). Apex of aedeagus not spatulate (Fig. B92 129k). ? unknown. Northern Qld ...................... latiflava Baehr

New records

For the benefit of the reader the page number in the revision (Baehr 1992) is added. For species not described in the revision the quotation of the original description may be found there.

_Sphallomorpha viridis_ Baehr

Baehr, 1992, p. 54.


Today a rare species. Apart from the two mentioned specimens not recollected within the last 70 years.
Fig. 5. *Sphallomorpha tropicalis* Baehr. ♀ stylomere 2.
Fig. 6m,n. *Sphallomorpha tozeria* Baehr. m. ♀ sternum VII. n. ♀ stylomere 2.

*Sphallomorpha froggatti* (Macleay)


1♂, 11 km wsw of Petford, Qld, 18.X.-15.XI.1992, P. Scammel, F.I.T. (DPIM); 1♀, Escott Lodge, Burketown, NQ, 5.XII.82, Walford-Huggins (CMP-WHC).

A widespread species throughout northern Australia. One of the recorded specimens was caught in a flight intercept trap.

*Sphallomorpha tropicalis* Baehr

Fig. 5


A rather rare species from northern Queensland. Exact examination of the completely preserved ♀ stylomeres in both ♀ ♀ revealed the presence of a small dorsal ensiform seta on stylomere 2 not seen in the single examined ♀ of the revision that has somewhat damaged ♀ genitalia. The presence of the dorsal ensiform seta therefore excludes *S. tropicalis* from the *grandis*-group and compels me to erect an own *tropicalis*-group for this species the diagnosis of which is given below.

*tropicalis*-group

Medium-sized, fairly convex, unicolourous species with evenly rounded, explanate posterior pronotal angles; labrum wide, anteriorly moderately excised, not raised, 4-setose; tooth of mentum prominent, though wide, unidentate, at apex convex, mentum 2-setose, gular sutures rectangular; 2 gular setae present; glossa not excavate, 4 gossal setae present; galea large, widened to apex, apex transverse; antenna elongate, rather thin; eyes large, convex, laterally markedly protruding; 18-20 marginal elytral setae present; prosternal process setose; ♀ sternum VII deeply excised; apex of aedeagus slightly turned down; right paramere straight and rather elongate; left paramere sinuose; stylomere 2 large, acute, with 2 ns; des present; ves present, far removed from apex; base of stylomere 2 not concealed.

A single rather characteristic species distributed in northeastern Queensland.

Systematic position. Were the dorsal ensiform seta not present, this group could be easily included in the *grandis*-group, with which it is certainly most closely related. In the presence of the des, however, it is slightly more plesiomorphic than the latter group.
For including the new tropicalis-group in the key to the species-groups in my revision (Baehr 1992-B92 in following text) this key should be altered as following:

3. Labrum with shallow excision, 4- or 6-setose (Figs B92 56a-62a). Lateral pores of elytra numerous (21-40), irregularly arranged at base (Fig. B92 56p). Aedeagus short, sinuate; right paramere usually very elongate, apex markedly attenuate (Figs B92 58k,m-62k,m). Stylomere 2 short, with 1 ns only; des and ves close to apex of stylomere (Figs B92 56o-62o). Elytra bicoloured or concolourous lata-group

- Labrum deeply excised, 4-setose (Figs B92 33a-54a). Lateral pores of elytra usually <21, arranged in a rather straight line at base. Aedeagus variously shaped, though not short and sinuate; usually apex of right paramere not attenuate (Figs B92 33k,m-54k,m). Stylomere 2 elongate, with 2 or more ns; des present or absent; ves absent or far removed from apex of stylomere (Figs B92 33o-52o). Elytra concolourous .......................................................... 3a.

3a. Des present .......................................................... tropicalis-group
- Des absent ......................................................................... 4.

4. Dorsal surface markedly shagreened, punctuation on elytra difficult to see. Aedeagus laterally markedly laminate, ventrally very convex (Fig. B92 45k). Stylomere 2 with 2 ns; ves present (Fig. B92 45o) ................................................................. fallax-group

- Dorsal surface not or feebly shagreened, punctuation on elytra distinct or reduced. Aedeagus varied, though not markedly laminate and ventrally convex (Figs B92 33i,k-42i,k, 47i,k-52i,k). Stylomere 2 with 2 or 3-7 ns; ves present or not (Figs B92 33o-43o, 47o-54o) ................................................ 5.

Identification. ♂ ♀ of S. tropicalis can be still identified by use of the key in the revision. For identification of ♀♂ the key must be altered as following:

32. Stylomere 2 short, with 1 ns only, des and ves present and close to apex of stylomere (Figs 56o-59o, 62o). Labrum at most with shallow excision, commonly 6-setose (Figs 56a-59a, 62a) Marginal pores of elytra numerous (21-39, rarely <25), usually irregularly arranged behind shoulders (Fig. 56p) .......................................................... 33.

- Stylomere 2 elongate, with 2 or more ns, des present or absent, ves absent or far removed from apex of stylomere (Figs 34o, 47o). Labrum with deep excision, usually 4-setose (Fig. 34a). Marginal pores of elytra <22, not irregularly arranged at shoulders ........................................ 37.

37. Stylomere 2 with des. Northeastern Queensland .................................................. tropicalis Baehr
- Stylomere 2 without des ............................................................................... 37a.

37a. Stylomere 2 with 3-7 ns, ves absent (Figs 47o-54o). Usually fairly wide species with distinct elytral striation and punctuation .................................................. 38.

- Stylomere 2 with 2 ns only, or very rarely, ns absent, ves present (Figs 34o-43o). Usually elongate species with reduced elytral striation and fine punctuation ........................................ 45.

Sphallomorpha boops (Blackburn)

Baehr 1992, p. 87.


A widespread species throughout northern Australia. One specimen was caught in a flight intercept trap.
**Sphallomorpha striatopunctata** Baehr

Baehr, 1992, p. 92.


A rare species from eastern and northeastern Queensland. The recorded specimen is doubtfully assigned to this species, because striation and punctuation of the elytra is much less distinct than in the type series. The \(\delta\) genitalia, however, are rather similar.

**Sphallomorpha lata** Baehr

Baehr, 1992, p. 100.

1\(\delta\), 7 m NE. Yungaburra, N. Qld., 21.IX.1972, A. & M. Walford-Hugins 7513 (CMP-WHC).

A rare species from northeastern Queensland.

**Sphallomorpha tozeria** Baehr

Figs 6, 13

Baehr, 1992, p. 112.

2\(\varphi\)\, Australian Qld 93/61, Einasleigh River, 33 km w. Mt. Surprise, 10.-11.6.1993, M. Baehr (CBM).

This rare species was so far known only from Mt. Tozer in the Iron Range, mid Cape York Peninsula. The two \(\varphi\) are only tentatively assigned to this species, because they differ somewhat in the shape of the light elytral spot that is narrower, in distinctness of the elytral striae that are more impressed, and in the punctuation of the elytra that is more distinct. For any final decision \(\delta\) of similar shape and structure should be discovered. Should these specimens actually belong to *S. tozeria*, then the new record enlarges the known range considerably to the south and inland. Because so far only the \(\delta\) of *S. tozeria* was known, the \(\varphi\) genitalia are described below.

Description of \(\varphi\)

Measurements. Length: 12.6-12.7 mm.

Chetotaxy. \(\varphi\) st VII: 5-6.

\(\varphi\) genitalia (Figs 6m,n). Sternum VII very wide and short, apical border almost straight, with some short hairs near and along margin. Stylomere 2 rather short and stout, with rather elongate, acute apex, with 2 large ves that occupy the whole space between base and apex. Pilosity sparse.

Variation. With regard to the two newly captured \(\varphi\) the variation of this species becomes rather considerable, because in both specimens the elytra are less wide and explanate, the striae are more distinct, and in one specimen even distinctly though finely impressed and marked by distinct punctures. In that specimen also the intervals are perceptibly punctate.

Habits. Both \(\varphi\) have been caught under bark of river gums near a large, water bearing river.

**Sphallomorpha coriacea** Baehr

Baehr, 1992, p. 121.


This species was hitherto only known from the \(\varphi\) holotype, also from the vicinity of Millstream. Unfortunately, the \(\delta\) is still unknown.
Sphallomorpha difficilis (Blackburn)

A fairly common species from eastern Queensland.

Sphallomorpha dubia (Castelnau)

A common species from southeastern Queensland and northeastern new South Wales.

Sphallomorpha laevis (Castelnau)

1♀, Escott Lodge, Burketown, NQ. 5.XII.82, Walford-Huggins (CMP-WHC); 1♀, Goose Lagoon W. of Georgetown NQ. 11.XI.1981, Sphallomorpha sp. det. B. P. Moore ’83; 1♀, Australia, Qld 93/25, Kennedy R., 15 km nw. Fairview, 30.5.1993, M. Baehr (CBM); 1♀, Australia, Qld 93/37, 5 km w. Annan R., 35 km sw. Cooktown, 3.6.1993, M. Baehr (CBM); 1♀, Isabella Falls, Cooktown, Nn. Qld 18.1.1994 P. Zborowski (DPIM); 3♂♂, 1♀, Hann R., via Laura, n. Qld. 14.1.1994 P. Zborowski (DPIM); 1♀, 6 km NNE Coen, Qld 13.1.1994 P. Zborowski (DPIM); 1♀, Mt. White, via Coen, n. Qld 12.1.1994 P. Zborowski (DPIM).
A widespread species throughout northern Australia.

Sphallomorpha queenslandica Baehr

Of this northeastern species, few specimens have been collected in recent years.

Sphallomorpha torresia Baehr

Fig. 13

1♂, 83 km W of Heathlands, Q. 8.III.1993, P. Zborowski, at light (DPIM); 1♂, Australien, Qld 93/1, 5 km s. Cape York, 19.-20.5.1993, M. Baehr (CBM).
This species was hitherto kown from islands in the Torres Strait only. The new records demonstrate its occurrence in the northern part of the Cape York Peninsula.

Sphallomorpha bivittata (Gestro)

Fig. 13

Today a rare species, of which most recorded specimens had been caught at the beginning of our century by the Dodd’s in Townsville. Since then, very few specimen were collected. The present records enlarge the known distribution considerably inland.
Sphallomorpha barbarae Baehr

Fig. 13

Baehr, 1992, p. 249.

This rare species was hitherto known only from far Northern Territory and northwestern Australia. The present records confirm its presence also in the Cape York Peninsula.

Sphallomorpha macleayi (Masters)

Baehr, 1992, p. 255.

This rare species is distributed in the northern part of the Northern Territory and in the adjacent northern part of Western Australia.

Sphallomorpha maculigera (Macleay)

Baehr, 1992, p. 274.
2♂♂, 2♀♀, Glenlyon, Richmond N.Q., F. M. 26.1.1918, N. Queensland Richmond 1917/1918 (NHMW); 1♂, Richmond, N. Queensl. F. M. 16.II1918, N. Queensland Richmond 1917/1918 (NHMW); 2♂♂, 1♀, Australia: N. Queensland Richmond 1917/1918 (NHMW).

A common species of southeastern Australia.

Sphallomorpha suturalis Germar

Baehr, 1992, p. 278.
1♂, 2♀♀, S.W. Hattah, N.W. Vic., 14.I.171, G. W. Anderson, Sphallomorpha suturalis Germar [Series det. by A. Walford-Huggins] (CMP-WHC); 1♀, 1♀, Australia, N.T., Mc Donald Downs, 400 m, 30.X.1962, E. S. Ross & D. Q. Cavagnaro (CAS).

A common species in interior Australia.

Sphallomorpha unicolor Baehr


A widespread species throughout northern Australia. Some of the recorded specimens were caught in flight intercept trap and at light.

Sphallomorpha pernigra Baehr

1♂, 15.11S 143.52E Hann River QLD 18 Nov 1993 at light P. Zborowski & M. Horak (DPIM).

A rare species of eastern Queensland including the Cape York Peninsula. The specimen was captured at light.
Sphallomorpha rockhamptonensis (Castelnau)


1 ♂, 11.58S 142.55E, Harner Ck. OLD, 23.V.1993, P. Zborowski, at light (DPIM); 1 ♂, Australia, Qld 93/71, 30 km sw. Mt. Garnet, 14.6.1993, M. Baehr (CBM).

A rather rare species, so far known from northeastern Queensland up to mid of Cape York Peninsula. The specimen collected by myself was caught under bark of a large gum-type eucalypt in open forest.

Sphallomorpha tropica Baehr


1 ♂, Mt. Molloy, N. Qld., 14.III.1979, Walford-Huggins, Sphallomorpha rockhamptonensis Cast. det. B. P. Moore '87 (CMP-WHC); 1 ♀, Australia, Qld 93/49, Walsh River, 8 km e. Dimbulah, 7.6.1993, M. Baehr (CBM); 3 ♂♂, 2 ♀♀, Australia, Qld 93/52, 2 km w. Petford, 8.6.1993, M. Baehr (CBM); 1 ♂, 1 ♀, Australia, Qld 93/56, 15 km s. Almaden, 9.6.1993, M. Baehr (CBM); 1 ♂, 2 ♀♀, Australia, Qld 93/60, 20 km w. Mt. Surprise, 10.6.1993, M. Baehr (CBM); 2 ♂♂, 1 ♀, Australia, Qld 93/61, Einasleigh River, 33 km w. Mt. Surprise, 10.-11.6.1993, M. Baehr (CBM); 8 ♂♂, 1 ♀, Australia, Qld 93/64, Einasleigh River, 2 km e. Einasleigh, 11.-12.6.1993, M. Baehr (CBM, ZSM); 3 ♂♂, 1 ♀, Australia, Qld 93/67, Einasleigh River b. Carpentaria Downs, 12.-13.6.1993, M. Baehr (CBM, ZSM); 1 ♂, Australia, Qld 93/69, Mc Kinnons Ck., 9 km sww. The Lynd Jct., 13.6.1993, M. Baehr (CBM).

This species is apparently restricted to the Atherton Tableland and adjacent areas to the west, where it now appears to be quite common. Almost all species collected by myself were observed under bark of river gums in the vicinity of rivers and creeks.

Sphallomorpha incerta Baehr

Baehr, 1992, p. 300.

1 ♂, 1 ♀, Woodstock, 1/49, Sphallomorpha rockhamptonensis (Castelnau) [Series det. by A. Walford-Huggins] (CMP-WHC).

This rare species occurs in central eastern to northeastern Queensland.

Sphallomorpha centralis (Macleay)


A rare species of the interior of the Northern Territory and of northwestern Australia.

Sphallomorpha signata Baehr

Baehr, 1992, p. 316.

1 ♀, Australia, Qld 93/24, Morehead R. 35 km se. Musgrave, 29.5.1993, M. Baehr (CBM).

A very rare species known only from two specimens found at Cooktown and in the vicinity of Musgrave. The present ♀ has 6-7 setae at the sternum VII instead of 5 counted in the single known ♀ and was collected in the same area.
Sphallomorpha ruficollis Baehr, 1992, p. 322.

1♂, 1♀, Australia: Lyneham A. C. T., 8.II.76, B. P. Moore, Sphallomorpha colymbetoides (West.) [Series det. by A. Walford-Huggins] (CMP-WHC).

A common species in southeastern Australia.

Sphallomorpha rhomboidalis Baehr


2♂♂, Australia: Klages Colln C M. Acc. 2275 (CMP).

A species from southeastern Australia that is apparently rare at present.

Sphallomorpha biplagiata (Castelnau)

Baehr, 1992, p. 327.

1♀, Archers Ck. NQ, 1.963, J. G. Brooks, Sphallomorpha binaculata (Cast.) [Series det. by A. Walford-Huggins] (CMP-WHC).

A rather common species in eastern Queensland.

Sphallomorpha nitiduloides Guérin


A common species in southeastern Australia.

Sphallomorpha amabilis (Castelnau)


A fairly common species in northern Australia.

Sphallomorpha flavicollis (Macleay)


1♂, Escott Lodge, Burketown, NQ, 5.XII.82, Walford-Huggins, Silphomorpha flavicollis MACL. det. B. P. Moore’83 (CMP-WHC).

A moderately common species in northern Australia.
Figs 7-11. Habitus. 7. *Sphallomorpha saturata*, spec. nov. 8. *S. guttifera* (Castelnau), lectotype. 9. *S. guttifera* (Castelnau), ♂ from Cooktown. 10. *S. kirandae*, spec. nov. 11. *S. latiplagiata*, spec. nov. Lengths: 10.3 mm; 6.4 mm; 6.1 mm; 4.75 mm; 8.05 mm.

References


--- 1993a. New species and new records of the genus *Sphallomorpha* Westwood from Australia. Supplement to the “Revision of the Pseudomorphinae of the Australian Region 1.” (Insecta, Coleoptera, Carabidae). - Spixiana 16: 25-42
Fig. 12. Distributions. *Sphallomorpha suturata*, spec. nov.: ▼; *S. guttifera* (Castelnau): ○; *S. kurandae*, spec. nov.: ◆; *S. latiplagiata*, spec. nov.: ■.

Fig. 13. Distributions. *Sphallomorpha tozeria* Baehr: ○; *S. torresia* Baehr: ■; *S. bivittata* (Gestro): ▼; *S. barbarae* Baehr: ◆.


Castelnau, F. L. de. 1867. Notes on Australian Coleoptera. - R. Soc. Victoria, 139 pp

--- 1868. Notes on Australian Coleoptera. - Trans. R. Soc. Victoria 8: 95-225
