

## Species of the Genus *Harpalomimetes* (Coleoptera, Carabidae, Harpalini)

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**Abstract** A key to the harpaline carabids of the genus *Harpalomimetes* SCHAUBERGER is given. Three known species are redescribed, and two new species are described from New Guinea and Japan, respectively.

### Introduction

In this paper I am going to redescribe three known species of the harpaline genus *Harpalomimetes*. Also I am going to describe two new species, *Harpalomimetes papua* from New Guinea and *Harpalomimetes orbicollis* from Japan and to provide a key to all the species. The species of *Harpalomimetes* have hitherto been unknown from New Guinea. The latter new species from Japan has been determined as *H. andrewesi* SCHAUBERGER until now, but comparing the species with the holotype of *H. andrewesi* SCHAUBERGER, I have come to the conclusion that it is a new species, because the pronotum is wider and more thickly bordered at the sides and the long seta of the stylus is situated more closely to apex.

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### Key to the Species of the Genus *Harpalomimetes*

1. Elytral apices not produced, widely arcuate, rounded at sutural angles and widely separated from each other. . . . . *H. papua* sp. nov.
- 1'. Elytral apices more or less produced, narrowly arcuate or acute at tips. . . . . 2
2. Basal angles of pronotum angularly rounded. . . . . *H. sjoestedti* (ANDREWES)
- 2'. Basal angles of pronotum widely and clearly rounded. . . . . 3
3. Pronotum more transverse, more than one and a half times as wide as long, almost

- straightly contracted behind at sides; mid tarsi narrower than usual. . . . .
- . . . . . *H. shibatai* (HABU)
- 3'. Pronotum less transverse, less than one and a half times as wide as long, rounded throughout at sides. . . . . 4
4. Pronotum widely bordered, not reflected basally and more strongly rounded at sides, with distinctly coarse punctures in basal foveae; elytral intervals flat on disc; female stylus more weakly arcuate outwards and blunt at tip, with a seta at inner side near the tip. . . . . *H. orbicollis* sp. nov.
- 4'. Pronotum moderately bordered, more or less reflected basally and gently rounded at sides, basal foveae moderately coarsely punctate; elytral intervals gently raised; female stylus clearly curved and acute at tip, with a seta at inner side more or less far apart from the tip. . . . . *H. andrewesi* SCHAUBERGER

*Harpalomimetes sjoestedti* (ANDREWES)

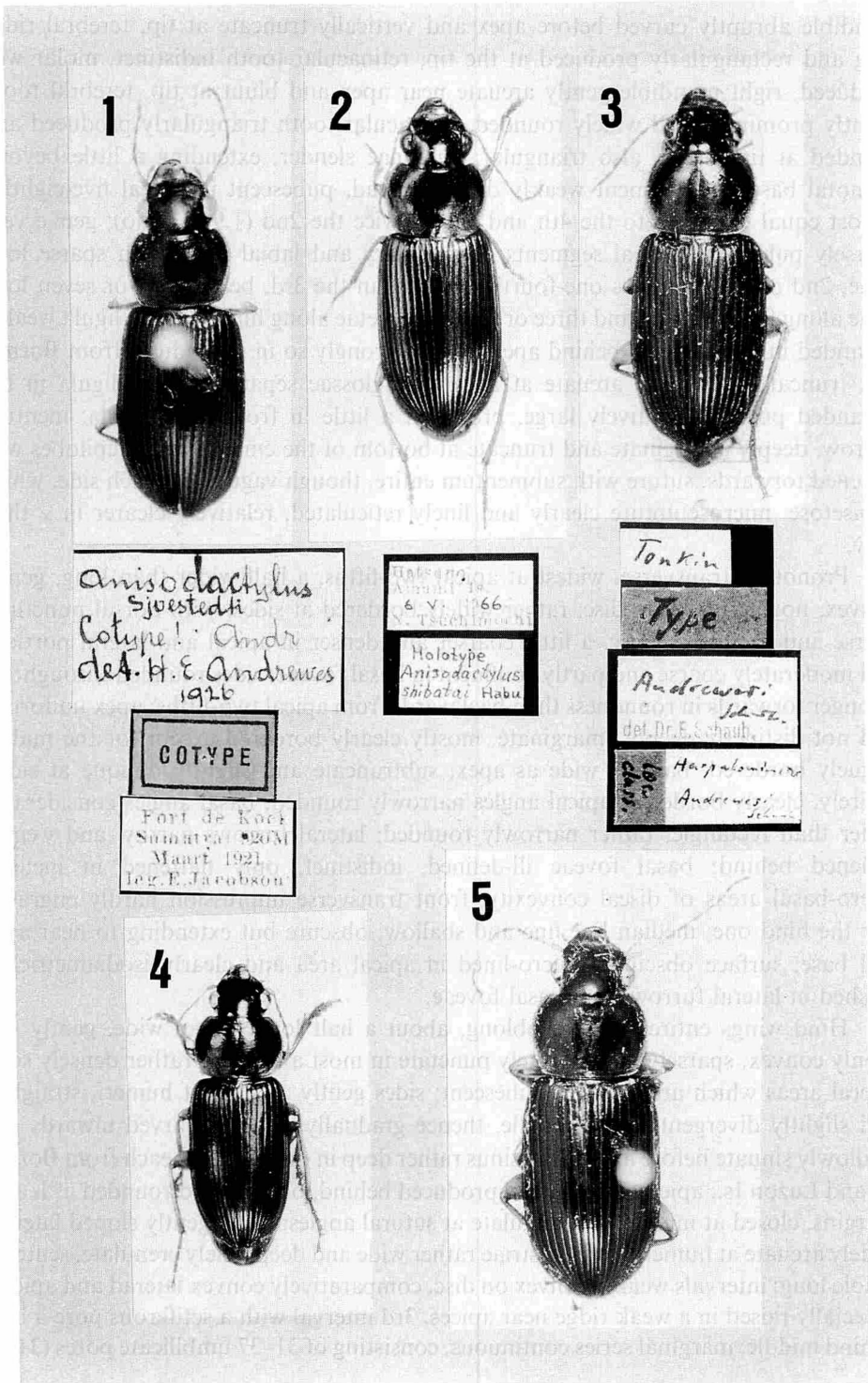
(Figs. 1, 6–9)

*Anisodactylus sjoestedti* ANDREWES, 1926, Ann. Mag. nat. Hist., (9), **18**: 276–277. — HABU, 1968, Kontyû, Tokyo, **36**: 269–272; 1969, Ent. Rev. Japan, **21**: 55.

*Harpalomimetes sjoestedti*: SCHAUBERGER, 1933, Ent. Anz., **13**: 133–134. — TANAKA, 1958, Mushi, Fukuoka, **32**: 84. — NOONAN, 1973, Quaest. ent., **9**: 346.

Body oblong, gently convex, black, shiny, weakly iridescent on pronotum and elytra; palpi, antennae and legs yellowish brown, lateral portions of labrum and lateral margins of pronotum light reddish brown, basal areas of mandibles dark reddish brown, frons with a large obscure dark reddish patch.

Head weakly, uniformly raised in individuals from Sumatra (cotype), Sunda Is. (without further data) and Luzon Is. of the Philippines and flattened on triangular area from vertex to clypeus in those from Borneo Is., large and three-fourths pronotal width, glabrous all over, minutely and rather densely punctate throughout inclusive of mandibles; labrum weakly arcuately convergent at sides, with apex deeply emarginate; clypeus almost even, depressed along apex which is so deeply emarginate that membranous part of labrum is exposed, very obscurely rugose near sides in a cotype (wholly rugose in individuals); clypeal suture finely, shallowly carved and not deepened even near ends in most examples, rather deep in a specimen from Luzon Is.; frontal impressions a little deeper than the suture and reaching eyes, weakly ridged in front of apical parts and widely, shallowly depressed behind themselves; eyes large and rather prominent; interocular space wide, seven-tenths times width of head including eyes; temple straightly oblique, very obtuse and not angulate at angle formed with neck constriction; space between buccal fissure and genuine ventral margin of eye wide and shallowly grooved; mandibles thick and short, widened basad, left



mandible abruptly curved before apex and vertically truncate at tip, terebral ridge long and rectangularly produced at the tip, retinacular tooth indistinct, molar well produced, right mandible gently arcuate near apex and blunt at tip, terebral tooth slightly prominent and widely rounded, retinacular tooth triangularly produced and rounded at tip, molar also triangular; antennae slender, extending a little beyond pronotal base, 3rd segment weakly dilated distad, pubescent in apical five-eighths, almost equal in length to the 4th and about twice the 2nd (1.9 in ratio); genae very sparsely pubescent; apical segments of maxillary and labial palpi with sparse long setae, 2nd of labial palpus one-fourth longer than the 3rd, bearing six or seven long setae along front margin and three or four short setae along hind margin; ligula weakly expanded in front a little behind apex (rather strongly so in individuals from Borneo Is.), truncate or weakly arcuate at apex; paraglossae separated from ligula in the expanded portion, relatively large, produced a little in front from ligula; mentum narrow, deeply emarginate and truncate at bottom of the emargination, epilobes well widened forwards, suture with submentum entire, though vague near each side, which is bisetose; microsculpture clearly and finely reticulated, relatively clearer in ♀ than in ♂.

Pronotum transverse, widest at apical two-fifths, a half wider than long, gently convex, not flattened on disc, rather widely bordered at sides, with dorsal punctures sparse and minute on disc, a little coarser and denser in apical and lateral portions and moderately coarse and partly confluent in basal foveae; sides rounded throughout, stronger forwards in roundness than backwards from apical two-fifths; apex uniformly and not distinctly deeply emarginate, mostly clearly bordered except for the middle vaguely bordered; base as wide as apex, subtruncate and slightly oblique at sides, entirely, clearly bordered; apical angles narrowly rounded; basal angles considerably wider than rectangle, rather narrowly rounded; lateral furrows narrow and weakly widened behind; basal foveae ill-defined, indistinct, only flattened in inclined latero-basal areas of discal convexity; front transverse impression hardly engraved like the hind one; median line fine and shallow, obscure but extending to near apex and base; surface obscurely micro-lined in apical area and clearly isodiametrically meshed in lateral furrows and basal foveae.

Hind wings entire. Elytra oblong, about a half longer than wide, gently and evenly convex, sparsely and minutely punctate in most areas and rather densely so in lateral areas which are sparsely pubescent; sides gently arcuate at humeri, straightly and slightly divergent to the middle, thence gradually strongly curved inwards and shallowly sinuate before apices, the sinus rather deep in one example each from Borneo Is. and Luzon Is.; apices more or less produced behind, oblique and rounded at lateral margins, closed at middle, and angulate at sutural angles; bases gently sloped laterad, widely arcuate at humeral angles; striae rather wide and deep, finely crenulate, scutellar striae long; intervals weakly convex on disc, comparatively convex laterad and apicad, especially raised in a weak ridge near apices, 3rd interval with a setiferous pore a little behind middle; marginal series continuous, consisting of 31–37 umbilicate pores (31–32

pores in cotype); microsculpture invisible under 80 × magnification.

Ventral surface mostly smooth, with several obscure punctures only in lateral areas of metasternum and on metepisterna, sparsely pubescent in pro- and mesosterna and along middle of metasternum and of abdominal segments, whose pubescence is very short on the 5th and 6th, prosternal process with many setae varying in length; metepisternum considerably elongate, three-fifths longer than wide; 6th abdominal segment truncate at apex in ♂, and gently, widely arcuate in ♀, bisetose in both sexes at each side.

Mid coxae plurisetose wholly on ventral side; fore femur uniseriately arranged with seven to ten setae dorsally and with four to six setae ventrally along fore margin, mid femur along front margin with short setae a little more than ten in number and along hind margin with many long setae; fore tibia with eight seriate short setae along middle on dorsal side, armed with two short spines apico-externally, apex truncate, with a small protuberance in middle, terminal spur rather robust and simple; fore and mid tarsi dorsally with several short setae, hind tarsus one-tenth shorter in both sexes than the width of head, 1st segment one-fifth shorter than the 2nd and 3rd together and four-elevenths longer than the 2nd, 4th deeply emarginate at apex and a half as long as the 3rd, claw segment with three to five setae (four setae in a cotype) along each ventral margin.

Aedeagus (Fig. 6) robust, gradually thinned distad; apex not thickened; dorsal side expanded in middle, with wide apical orifice constricted medially; apical lobe spatulate, rounded and ridged at distal margin; ventral side unbordered and more or less raised longitudinally. Stylus (Figs. 7–9) clearly curved outwards, sharpened apicad, with a very short seta in a cotype only on dorso-external margin and in the example from Borneo basally at both dorso- and ventro-external margins, and without the seta in the example from Luzon; valvifer not produced apicad beyond base of stylus, bearing four to seven short spine-like setae near apex.

Length: 10.3–11.5 mm. Width: 3.8–4.5 mm.

*Specimens examined.* 1 ♂ (cotype), 920 m, Sort de Kock, Sumatra, III–1921, E. JAKOBSON leg.; 1 ♂, Sunda Is., G. STIDT leg.; 2 ♀♀, Borneo Is., S. V. MARTIN SCHMIDT leg.; 1 ♀, Sarawak, Semengok, 12 mil., S. Kuching, Borneo Is., 28–XII–1974, A. EARNSHAW leg.; 1 ♀, Paraculi, Luzon Is., Philippines, F. JAGOR leg.

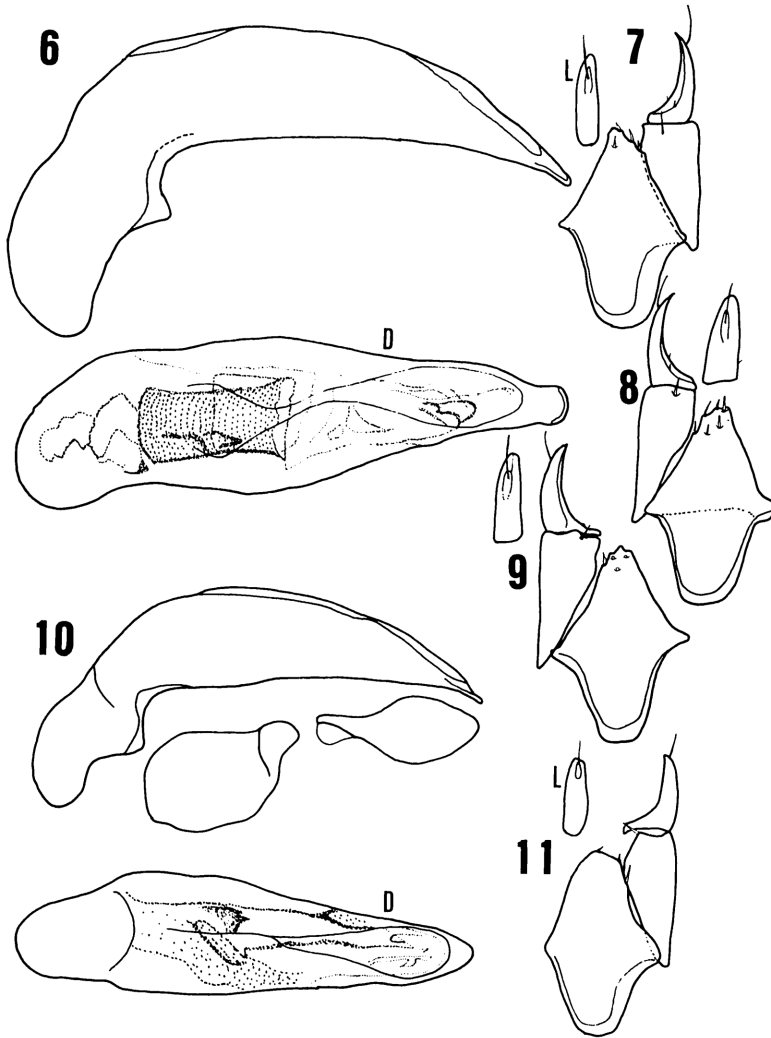
### *Harpalomimetes shibatai* (HABU)

(Figs. 2, 10–11)

*Anisodactylus (Anisodactylus) shibatai* HABU, 1969, Ent. Rev. Japan, 21: 55. — 1972, Fauna Japonica: Carabidae, Harpalini, 21, 46–48. — NOONAN, 1973, Quaest. ent., 9: 346.

Body oblong, a little more convex than in *Harpalomimetes sjoestedti* (ANDREWES), black, shiny, with weakly iridescent lustre on elytra; palpi, antennae and legs light brown, labrum dark brown, lateral margins of pronotum brown.

Head thick and wide, three-fourths the pronotal width, two-thirds the width of



Figs. 6–11 Genitalia of *Harpalomimetes* spp.—6–9, *H. sjoestedti* (ANDREWES); 10 and 11, *H. shibatai* (HABU); 6 and 10, male genitalia; 7–9 and 11, female genitalia; 7, from Sumatra; 8, from Borneo; 9, from Luzon; D, dorsal side; L, lateral view of stylus.

head at interocular space, rather well convex, gently aslant flattened from vertex to clypeus, somewhat coarsely and moderately punctate, with short vague rugosities on vertex and near frontal impressions; labrum subtrapezoidal, deeply emarginate at apex; clypeus slightly swollen in basal half, with apex regularly and more or less deeply emarginate, finely and shallowly sutured with frons; frontal impressions abruptly divergent behind, shallow but not rudimentary even near eyes; eyes large, less prominent than in *H. sjoestedti*; temples a little more steeply convergent behind; genuine ventral margin of eye moderately separated from buccal fissure; mandibles short and stout,

truncate at tips, retinacular tooth of right mandible wide and slightly produced; antennae slender, reaching base of elytra, 3rd segment weakly dilated apicad, densely pubescent in apical two-thirds, as long as the 4th and twice the 2nd; labial palpus slender, 2nd segment bearing six or seven setae on front margin, one-tenth longer than the 3rd; ligula bottle-shaped, truncate at apex, free from paraglossae in basal two-thirds; paraglossae wide, gently rounded at apices, prolonged forwards a little beyond ligula; emargination of mentum relatively divergent in front at sides, truncate at bottom, epilobes narrow, not expanded forwards, with tips sharp and somewhat prominent, suture with submentum obscure and carved only between a pair of setae near sides; surface finely and clearly reticulated on clypeus and frons and obscurely and transversely meshed on the residual portion.

Pronotum more transverse than in *H. sjoestedti*, widest near middle, two-thirds wider than long, rather well convex, with punctures fine and sparse on disc, a little denser in apical area and dense and coarse in lateral furrows and basal foveae where they are especially coarse and partly confluent; sides similar in arc to those in *H. sjoestedti*, but the curvature in apical halves is a little stronger, finely bordered and not reflexed; apex evenly and rather deeply emarginate, unbordered in middle fifth; base one-tenth wider than apex, shallowly bisinuate and weakly arcuate at sides, finely and not clearly bordered; basal angles wider than those of *H. sjoestedti*, fully rounded; lateral furrows narrow, gradually widened behind and linked with basal foveae which are large, transverse and obliquely flattened; front transverse impression slightly visible, hind transverse one unobservable; median line reduced before apex and base in the holotype and reaching them in paratypes; microsculpture composed of obscure transverse lines on disc and of clear isodiametric meshes in lateral furrows and basal foveae.

Hind wings fully developed. Elytra oblong, a little more than one and a half as long as wide (1.53–1.56 in ratio), one-fourth wider than pronotum, same in convexity as in *H. sjoestedti*, densely and rather coarsely punctate, the density increasing in lateral portions which are rather densely pubescent; apices gently arcuate, narrowly separated from each other, angulate at sutural angles; apical sinus somewhat deep; bases very shallowly emarginate, forming very obtuse and angulate angles with sides; striae wide, but a little narrower than in *H. sjoestedti*, deep, finely crenulate, scutellar striole moderately long; intervals flat on disc, becoming swollen near apices, a dorsal pore of 3rd interval situated at apical two-fifths; marginal series composed of 26–29 umbilicate pores; microsculpture mostly invisible, partly observable as obscure transverse meshes in 8th and 9th intervals.

Ventral surface finely and moderately punctate on pro- and metasterna and middle of 2nd to 6th abdominal segments, and somewhat coarsely and sparsely so on pre- and metepisterna and laterally on metasternum, covered with rather dense pubescence on prosternum and 2nd to 4th abdominal segments and with sparse pubescence on metasternum and 5th and 6th segments; metepisternum elongate, about two-thirds longer than wide; anal segment of abdomen bisetose at each side in both sexes, truncate

in ♂ and clearly arcuate at apical margin in ♀.

Numbers of setae in coxae, femora and tibiae similar to those in *H. sjoestedti*; fore tibia trispinous apico-externally, truncate at apex, terminal spur short, expanded in middle; fore and mid tarsi dorsally with long sparse setae and hind tarsi with short ones, 1st segment of mid tarsus in ♂ without adhesive hairs on ventral side, hind tarsus one-eighth in ♂ and one-fifth in ♀ shorter than the width of head, 1st segment four-fifths length of the 2nd and 3rd together and one-third longer than the 2nd, 3rd a half longer than the 4th, claw segment trisetose along each ventral margin.

Aedeagus (Fig. 10) more or less thick, gradually thinned towards apex, with comparatively small basal part; inner sac unarmed with sclerite; apical lobe transverse, twice as wide as long, narrowly arcuate at tip. Stylus (Fig. 11) short, weakly curved outwards, with a long seta situated at blunt apex; valvifer probably quadrisetose near apex (observed by the roots of setae).

Length: 10.0–10.8 mm. Width: 4.0–4.2 mm.

*Specimens examined.* 1 ♂ (holotype), Hatsuno, Amami Is., Kagoshima Pref., Japan, 6–V–1966, N. TSUCHIMUCHI leg.; 1 ♂ (paratype), same locality as the holotype, 4–V–1966, N. TSUCHIMUCHI leg.; 1 ♀ (paratype), Shimmura, Amami Is., Kagoshima Pref., 23–V–1961, T. SHIBATA leg.; 1 ♀ (paratype), Amamiōshima Is. (= Amami Is.), 14–VII–1961, M. YAKAHARA leg.

*Remarks.* NOONAN arranged the species in the genus *Anisodactylus* without examining specimens, but the species actually belongs to *Harpalomimetes* due to the ligula not strongly expanded, the pronotum discoidal at sides and the apex of valvifer not well produced.

### *Harpalomimetes andrewesi* SCHAUBERGER

(Figs. 3, 17–19)

*Harpalomimetes andrewesi* SCHAUBERGER, 1933, Ent. Anz., 13: 134. — NOONAN, 1973, Quaest. ent., 9: 346.

Body rather narrowly oblong, weakly convex, dark brown to brownish black, with weakly iridescent lustre on elytra; palpi, antennae and legs yellowish brown, mandibles dark reddish brown, lateral furrows of pronotum light brown.

Head wide, three-fourths pronotal width, with interocular space narrow and less than two-thirds the width of head, rather raised on vertex, finely and sparsely punctate, the punctures reduced on clypeus; labrum subtrapezoidal, rather deeply emarginate at apex; clypeus almost flat, slightly swollen centrally, obscurely rugose at sides on the swell, with apex narrowly depressed and more or less emarginate, clypeal suture fine and shallow, weakly bisinuate, linked with punctiform frontal foveae, from which shallow and vague lines run obliquely backwards and disappear near eyes; eyes large and well prominent; temples short, one-sixth the length of eyes, gently sloping behind and obtusely meeting with neck constriction; space between genuine ventral margin of eye and buccal fissure more or less wide; mandibles (Fig. 19) thick and short, truncate at tips, retinacular tooth weakly produced and arcuate in left mandible and



comparatively prominent in right one; antennae slender, 3rd segment hardly dilated distad, pubescent in apical half, as long as the 4th (1.15 in ratio) and twice the 2nd; 3rd segment of labial palpus weakly dilated medially, sparsely covered with long pubescence, 2nd slender, as long as the 3rd, bearing eight setae on front margin and three or four setae near hind margin; ligula shallowly and widely constricted, almost truncate at apex; paraglossae prolonged to the level of ligular apex, fused with ligula up to near its apex; mentum truncate and wide at bottom of apical emargination, epilobes hardly widened forwards, suture with submentum engraved only in middle two-fifths; microsculpture more or less clearly impressed, discernible as fine isodiametric meshes.

Pronotum subquadrate, two-fifths wider than long, regularly arcuate and finely bordered at sides, relatively convex, more or less steeply declivous laterally and basally; punctures of surface fine and sparse on disc, becoming a little denser towards apex and sides, dense, rather coarse and partly confluent in basal foveae; apex shallowly emarginate, subtruncate in middle two-thirds, with the border narrowly interrupted centrally; base a little wider than apex (1.17 in ratio), almost straight, hardly oblique at sides, clearly bordered throughout; apical angles somewhat widely rounded; basal angles wider than rectangle, considerably widely rounded; lateral furrows narrow, gradually widened behind, falling into basal foveae, which are wide, flattened at grounds and ill-defined; both front and hind transverse impressions short and obscure; median line fine and shallow, not rudimentary; microsculpture invisible on most parts, observed as isodiametric meshes in lateral furrows and the punctures of basal foveae.

Hind wings entire. Elytra gently sloped laterad and basad, but slightly raised even on disc, subelliptical, about a half longer than wide (1.56 in ratio) and one-seventh wider than pronotum, rather densely and somewhat coarsely punctate, finely pubescent in lateral and basal areas; apices not produced behind, widely arcuate, angulate at sutural angles; apical sinus shallow; bases weakly oblique at sides, very obtusely and angularly meeting with lateral margins; striae wide and deep, clearly crenulate, scutellar striole fairly long; intervals more or less convex on disc, becoming more convex towards surrounding parts, subcarinate especially near apices, 3rd interval with a setiferous pore at apical two-fifths; marginal series uninterrupted, composed of 29–33 umbilicate pores; microsculpture not detected under  $80\times$  magnification.

Ventral surface finely and sparsely punctate medially on pro- and metasterna and on 2nd to 6th abdominal segments, pubescent on the same parts; metepisternum relatively elongate, one and a half as long as wide; 6th abdominal segment of ♀ quadrisetose along apical margin, which is produced and narrowly rounded.

Mid coxa more or less densely setose; fore femur with eight to nine setae uniseriately arranged along dorsal front margin and eight setae near the ventral margin, mid femur with eight short setae near front margin and twelve setae near hind margin, hind femur bisetose ventrally near hind margin; fore tibia weakly expanded distad, almost truncate and with small protuberance at apex, smooth on dorsal side, trispinose apico-externally; fore and mid tarsi with several setae on dorsal sides, hind tarsus equal in length to

the width of head in ♀, 1st segment one-fifth shorter than the 2nd and 3rd combined and one-third longer than the 2rd, 3rd twice as long as the 4th, claw segment quinquesetose along each ventral side.

Stylus (Figs. 17–18) slender, relatively clearly curved outwards, bearing a short seta near base on ventro-external margin and a long seta relatively distant from tip, basal segment unispinose at apico-external corner; valvifer hexaspinose near apex.

Length: 10.0 mm. Width: 3.8 mm.

*Specimens examined.* 1 ♀ (holotype), Tonkin (preserved in Landesmuseum); 1 ♀, Annam.

*Harpalomimetes papua* sp. nov.

(Figs. 5, 12)

Body widely oblong, robuster than in *Harpalomimetes sjoestedti* (ANDREWES), more or less convex, black, shiny, weakly iridescent on elytra, with a transverse reddish patch on frons; palpi, basal three segments of antennae and femora dark yellowish brown, lateral margins of pronotum reddish brown, labrum and basal portions of mandibles dark brown.

Head gently convex, a little more sparsely punctulate than in *H. sjoestedti*, relatively large, three-fourths the frontal width; labrum subquadrate, roundly produced at apical corners; clypeus evenly and rather deeply emarginate at apex, flattened in apical half and weakly, transversely bulgy in the residual portion, obscurely rugose near sides; clypeal suture fine and shallow, weakly bisinuate, obsolete near frontal foveae, which are punctiform and connect with oblique lines prolonged to eyes; interocular space a little more than two-thirds times the width of head; eyes large and considerably prominent; temples small, weakly arcuately, abruptly convergent to neck constriction; genuine ventral margin of eye rather widely separated from buccal fissure; mandibles thick and short, left mandible well curved before apex, blunt and vertically truncate at tip, not produced at retinacular tooth, the tooth of right mandible subtrapezoidal; antennae slender and a little surpassing elytral bases, 3rd segment weakly dilated distad, pubescent in apical five-eighths, almost equal in length to the 4th and twice as long as the 2nd; genae covered with sparse pubescence spread over submentum; labial palpi a little slenderer and longer than those of *H. sjoestedti*, 3rd segment sparsely bearing long pubescence, 2nd septisetose along front margin, as long as the 3rd; ligula shallowly constricted before apex, adnate to paraglossae up to the constriction, truncate at apex; paraglossae wide, weakly rounded at external margin, a little produced beyond ligula; mentum obscurely sutured with submentum, truncate at bottom of apical emargination, epilobes narrow, weakly expanded apically; submentum bisetose laterally; microsculpture consisting of isodiametric meshes, more or less clearly visible behind frons and distinct near frontal impressions and on clypeus.

Pronotum transversely quadrate, widest a little before the middle, a half wider than long, clearly arcuate throughout and thickly bordered at sides, gently convex,

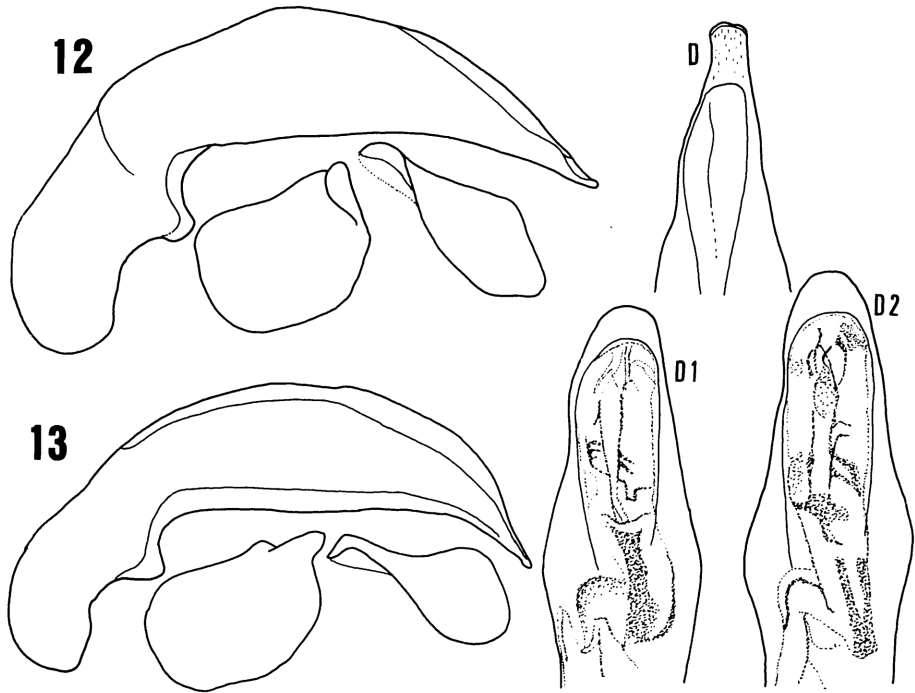
sparsely, minutely punctate on disc, rather densely and coarsely so in middle of apical and basal portions, the punctures in basal foveae especially coarse and partly confluent; apex uniformly, rather deeply emarginate, unbordered medially; base very gently inclined laterad and truncate in middle, firmly bordered like the sides; lateral furrows narrow, weakly widened behind; basal foveae indistinct, very shallowly impressed in inclined areas of discal convexity, linked with the furrows; front transverse impressions obscure but not invisible like the hind one; median line fine and obscure, brokenly engraved, reaching apex and base; surface obscurely, transversely meshed partly on disc and clearly reticulated in lateral furrows and basal foveae.

Hind wings entire. Elytra widely oblong, a little less than a half longer than wide (1.43 in ratio), gently and evenly convex, more or less sparsely covered with minute punctures on disc and densely with rather coarse punctures in basal, lateral and apical parts; sides slightly arcuately widened from humeri to apical two-fifths, thence gradually strongly curved inwards and shallowly sinuate before apices; apices not produced behind, widely, very weakly rounded at tips, widely separated from each other, not angulate at sutural angles; bases gently oblique at sides, humeral angles widely arcuate; striae not so wide as those of *H. sjoestedti*, moderately deep, becoming wider and deeper towards sides and apices, finely and clearly crenulate, scutellar striole long; intervals flat on disc, raised in a keel near apices, 3rd interval with a setiferous pore at apical two-fifths, 8th and 9th sparsely pubescent; marginal series uninterrupted and composed of 29–32 umbilicate pores; microsculpture invisible under 80× magnification.

Ventral surface rather densely pubescent medially on pro- and metasterna and on 2nd to 4th abdominal segments and sparsely on prepisterna, mesosternum, lateral areas of metasternum and 5th abdominal segment, with punctures scattered like the pubescence; metepisternum relatively contracted behind, about a half longer than wide; 6th abdominal segment in ♂ bearing four apical setae, clearly, entirely bordered at apical margin, truncate at tip.

Fore coxae very sparsely pubescent near trochanters, mid coxae covered with many long setae and pubescence mostly on ventral surface; fore femur with 11–12 setae along front dorsal and ventral margins, respectively, ventral surface plurisetose like the front margins, hind margin with short spinous setae, mid femur bearing setae a little less in number than in fore femur; fore tibia considerably dilated distally, truncate at apex, bispinous apico-externally, terminal spur short and simple, relatively, arcuately expanded medially; tarsi sparsely pubescent dorsally, the pubescence very short in hind tarsi, fore and mid tarsi in ♂ each well widened in middle three segments like those in *H. sjoestedti*, spongy hairs of the 1st mid tarsal segment confined to apical third, hind tarsus seven-eighths times the width of head, 1st segment one-fourth shorter than the 2nd and 3rd together, 2nd one-fourth longer than the 3rd and one and four-fifths the 4th, claw segment quinquesetose ventrally along each side.

Aedeagus (Fig. 12) robust, well arcuate and clearly tapered distad on dorsal side; apex thin and slightly thickened above; apical orifice gourd-shaped, opening almost



Figs. 12–13. Male genitalia of *Harpalomimetes* spp. — 12, *H. papua* sp. nov.; 13, *H. orbicollis* sp. nov.; D, dorsal side; D1, from Mt. Iwawaki; D2, from Koga.

lengthwise in apical part, inner sac missing; apical lobe oblong, weakly constricted before tip which is rounded and narrowly ridged, very finely serrate; ventral side unbordered and evenly convex.

♀ Unknown.

Length: 11.2 mm. Width: 4.4 mm.

Holotype: ♂, Pionigerlager, D. N. Guinea (=New Guinea), 18–V–1912, S. G. BRÜGER leg. (Kais. Augstaf. Expedition), (preserved in the Museum of Humboldt Museum).

This new species is similar to *Harpalomimetes sjoestedti* (ANDREWES), but is distinguished from the latter by the pronotum a little more arcuate at the sides and more rounded at the basal angles, the elytral apices not produced and separated from each other, and additionally by the characters mentioned in the description.

The species of the genus have hitherto been unrecorded from New Guinea.

***Harpalomimetes orbicollis* sp. nov.**

(Figs. 4, 13, 14–16, 20)

*Harpalomimetes andrewesi*: TANAKA, 1958, Mushi, Fukuoka, **32**: 85–87.

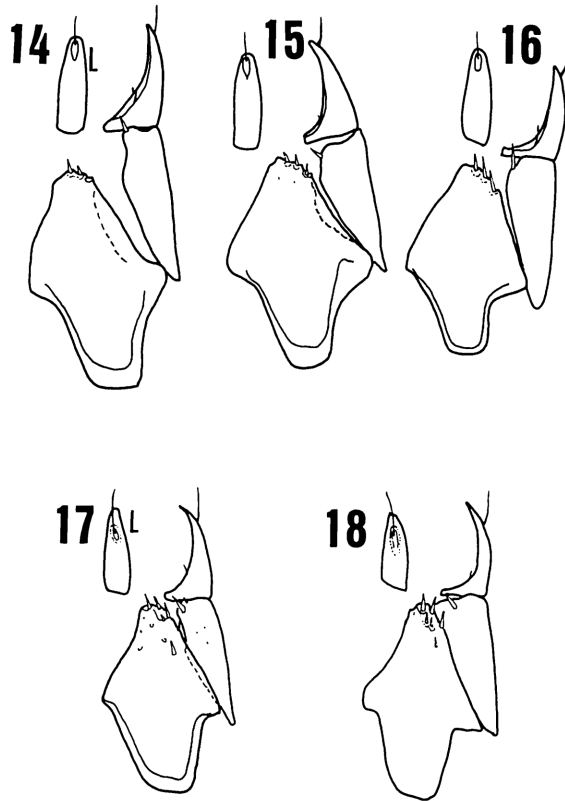
*Anisodactylus (Anisodactylus) andrewesi*: HABU, 1973, Fauna Japonica: Carabidae, Harpalini, 21, 43–46.

Body rather robust, oblong, rather well raised, black, shiny, with feebly iridescent lustre on pronotum and with rather clear lustre on elytra; antennae, lateral margins of pronotum and legs dark reddish brown, palpi, outer areas of labrum and apical border of clypeus light brown.

Head gently convex, gently obliquely flattened in frons, wide, a little more than seven-tenths pronotal width, finely and moderately punctate, wider in interocular space than in *Harpalomimetes andrewesi* SCHAUBERGER, seven-tenths the width of head; labrum straightly or subarcuately convergent forwards, deeply emarginate at apex; clypeus deeply emarginate at apex, with fine and short rugosities near sides; clypeal suture fine, weak and equal in depth throughout; frontal impressions straightly divergent behind, fine and shallow, reduced just before eyes; eyes smaller and less prominent than those of *H. andrewesi*; temples relatively long, one-fourth the length of eyes, weakly convergent behind, forming a wide and blunt angle with neck constriction; genuine ventral margin of eye widely separated from buccal fissure; mandibles (Fig. 20) short and robust, vertically truncate at tips, retinacular tooth rudimentary in left mandible and only weakly and widely arcuate in right mandible; antennae slender, a little surpassing pronotal base, 3rd segment weakly dilated distad, pubescent in apical two-thirds, a little longer than the 4th (1.15 in ratio) and about twice the length of 2nd; labial palpi slender, 3rd segment sparsely setose, as long as the 2nd; ligula narrow, weakly expanded forwards from apical fifth, free from paraglossae in the expansion; paraglossae prolonged in front a little beyond ligula, subarcuate at external sides; mentum truncate at bottom of apical emargination, epilobes narrow, weakly widened forwards, suture with submentum shallow, obscure at sides; microsculpture considerably clear, composed of fine isodiametric meshes.

Pronotum wide, about a half wider than long, widest at the middle, gently convex, almost smooth on disc, finely and sparsely punctate in apical and lateral areas and coarsely, densely and not confluent punctate in basal foveae; sides arcuate lengthwise, widely bordered and rather well reflexed; apex regularly and more or less deeply emarginate, unbordered medially; base one-fifth wider than apex, weakly arcuate, with entire wide border like the sides; basal angles more widely rounded than in *H. andrewesi*; lateral furrows narrow and clear, weakly widened behind; basal foveae ill-defined, never deepened and only flattened in inclined portions of discal convexity; front transverse impression not deep and somewhat clear; hind transverse one not observable; median line fine and shallow, reduced near both apex and base; microsculpture invisible on disc, observable as isodiametric meshes in lateral furrows and as transverse lines in front transverse impression and basal foveae.

Hind wings fully developed. Elytra oblong, subparallel-sided, a little more than one and a half as long as wide (1.54–1.57 in ratio) and one-eighth wider than pronotum, gently convex, but a little more strongly declivous to sides than in *H. andrewesi*, finely or somewhat coarsely and moderately punctate, sparsely pubescent on 8th and 9th



Figs. 14–18. Female genitalia of *Harpalomimetes* spp. — 14–16, *H. orbicollis* sp. nov.; 17–18, *H. andrewesi* SCHAUBERGER; 14, from Koga; 15, from Mt. Iwawaki; 16, from Nishiyama; 17, from Tonkin; 18, from Annam; L, lateral view of stylus.

intervals; apices a little more prominent than in *H. andrewesi*, narrowly rounded, acute at sutural angles; bases shallowly emarginate, rounded at humeral angles; striae comparatively wide and deep, becoming wider towards apices, scutellar striole long; intervals mostly flat, more or less raised near apices, a dorsal pore of 3rd interval adjoining 2nd stria and situated at about apical two-fifths; marginal series of umbilicate pores continuous and 34–37 in number; microsculpture invisible under 80× magnification.

Ventral surface finely punctate on prosternum and in middle of metasternum and 2nd to 6th abdominal segments, pubescent at each puncture, the pubescence on metasternum and the 2nd and 3rd segments considerably long; metepisternum rather well contracted behind, a half longer than wide; 6th abdominal segment bisetose at each side, apex truncate or feebly emarginate in ♂ and clearly arcuate in ♀.

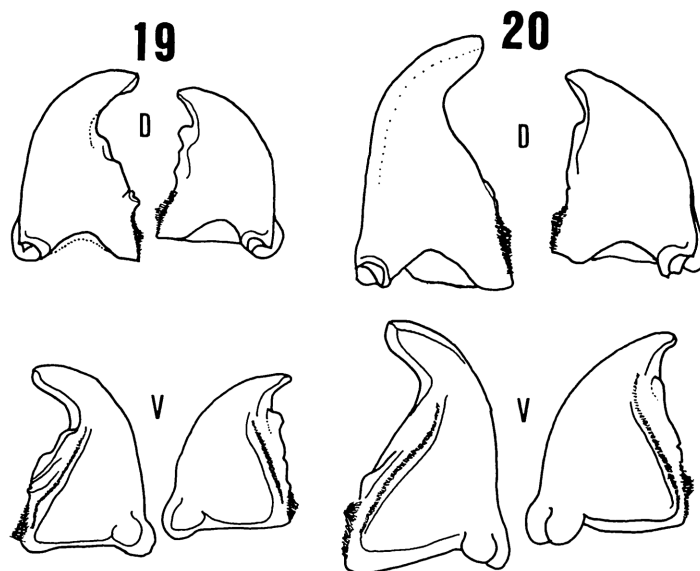
Mid coxa bearing long and dense setae in external half; fore femur with seven to eleven uniseriate setae along the front dorsal margin and five to eight setae near the ventral margin, mid femur with five to eight short setae along each hind margin,

hind femur bi- or trisetose on hind margin; fore tibia relatively dilated forwards, subtruncate at apex, dorsally without sulcus, quadrispinous apico-externally, mid and hind tibiae densely setose on apico-external sides; fore and mid tarsi furnished dorsally with several setae, hind tarsus a little shorter than the width of head (0.85 in ratio) in both sexes, 1st segment two-fifths longer than the 2nd and twice the 3rd, 4th a half as long as the 3rd, claw segment tri- or quadrisetose ventrally along each side.

Aedeagus (Fig. 13) robust, gently curved before apex; apex thin, not thickened at tip; apical orifice widely open, inner sac without any sclerites; apical lobe transverse, twice as wide as long, finely bordered and widely rounded at outer margins; ventral side flattened, weakly bordered at sides. Stylus (Figs. 14–16) relatively robust, weakly arcuate, a long seta near tip and a short seta near base of ventro-external margin, basal segment bearing a short spine ventrally at apico-external corner; valvifer trispinous at apex.

Length: 10.0–11.8 mm. Width: 3.8–4.5 mm.

Holotype: ♂, Fujioka, Watarase, Tochigi Pref., 21-V-1968, A. HABU leg. (preserved in the National Institute of Agro-environmental Sciences). Paratypes: 1 ♂, 1 ♀, same data as the holotype; 1 ♂, 1 ♀, same locality as the holotype, 15-V-1968, A. HABU leg.; 2 ♀♀, Watarase, Ibaraki Pref., 27-III-1963, K. SUGA leg.; 1 ♂, 1 ♀, Koga, Ibaraki Pref., K. KUROSA leg.; 1 ♂, Koga, Saitama Pref., 30-IV-1973, S. MORITA leg.; 1 ♂, 2 ♀♀, ditto, 13-IV-1974, S. MORITA leg.; 1 ♂, 1 ♀, Nogi, Tochigi Pref., 5-V-1975, S. MORITA leg.; 1 ♂, ditto, 19-IV-1975, S. MORITA leg.; 1 ♂, Uchiyamachô, Mitsukaidô City, Ibaraki Pref., VIII-1984, K. AKIYAMA leg.; 1 ♂, 1 ♀, Tsurugaike, Iwata City,



Figs. 19–20. Mandibles of *Harpalomimetes* spp. — 19, *H. andrewesi* SCHAUBERGER; 20, *H. orbicollis* sp. nov.; D, dorsal side; V, ventral side.

Shizuoka Pref., 11-XI-1989, S. MORITA leg.; 1♂, Toride, Riv. Tone, Ibaraki Pref., Japan, 20-IX-1954, K. TANAKA leg.; 1♂, 1♀, Mt. Iwawaki, Osaka Pref., Japan, 13-VIII-1966, Y. KIMURA leg.; 1♂, Aina, Hyôgo Pref., 8-XI-1981, M. YAMAMOTO leg.; 1♀, Nishiyama, Ube City, Yamaguchi Pref., Japan, 4-IV-1965, K. TANAKA leg.; 1♀, Koriki, Maebaru, Fukuoka Pref., 13-XI-1967, A. HABU leg.

This new species is closely allied to *Harpalomimetes andrewesi* SCHAUBERGER, but differs from the latter in having the pronotum wider and more thickly bordered at sides, the elytra flat on intervals, the female stylus with a long seta situated more closely to apex, and additionally in the characteristics mentioned in description.

### 要 約

伊藤 昇： *Harpalomimetes* 属の種について。—— *Harpalomimetes* 属の既知種の再記載とともに、日本およびニューギニアからそれぞれ1種ずつ新種を記載した。前者は、従来 *Harpalomimetes andrewesi* SCHAUBERGER とされていたものであるが、*H. andrewesi* の正基準標本および Annam の標本と比較した結果、前胸背板がより幅広くてその側縁がより厚く縁取られる点、上翅間室が隆起しない点、および雌の生殖器の stylus の剛毛がより先端に近い位置にある点などで異なり、別種であることが判明した。この属の種は今までアジア地域からのみ知られていたが、後者の新種によりニューギニアにも分布していることが判明した。

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