

New Tenebrionid Beetles (Coleoptera) from Taiwan

(7) Descriptions of Six New Species and a New Record of the Named Species of the Genus *Derispia* (Diaperinae, Leiochrinini)

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Abstract This is the seventh part of the studies on the Taiwanese tenebrionid beetles. Six new *Derispia*-species are described from Taiwan under the names of *Derispia tengchiensis* sp. nov., *D. lalashana* sp. nov., *D. wangi* sp. nov., *D. tatachiaensis* sp. nov., *D. tsaoui* sp. nov. and *D. takahashii* sp. nov. A named *Derispia*-species is also recorded from Taiwan, *Derispia annamita* (PIC, 1921), for the first time.

As the seventh part of our series dealing with the Taiwanese tenebrionid beetles, we will describe six new *Derispia*-species, and record a named species belonging to the same genus as a new member of the fauna of Taiwan.

Before going further into details, we would like to express our cordial acknowledgement to Mr. Mei-Hua TSAO (Taipei), Mr. Yu-Tung WANG (Taipei), Mrs. Su-Fang YU (Taipei), for offering material specimens for the present study. Thanks should be also expressed to Dr. Ottó MERKL, the Hungarian Natural History Museum, Budapest, and Dr. Wolfgang SCHAWALLER, Staatliches Museum für Naturkunde, Stuttgart, and Mr. Shigeaki KONDO (Urayasu City), for their constant advice. We thank Dr. Makoto KIUCHI (Tsukuba City), for taking clear photographs inserted in this paper. Finally, special thanks should be expressed to Emeritus Curator Dr. Shun-Ichi UÉNO, National Museum of Nature and Science, Tsukuba, for his constant guidance for our entomological studies.

The abbreviations used herein are as follows: NMNST = National Museum of Natural Science, Taichung; NSMT = National Museum of Nature and Science, Tokyo.

Descriptions of New Taxa

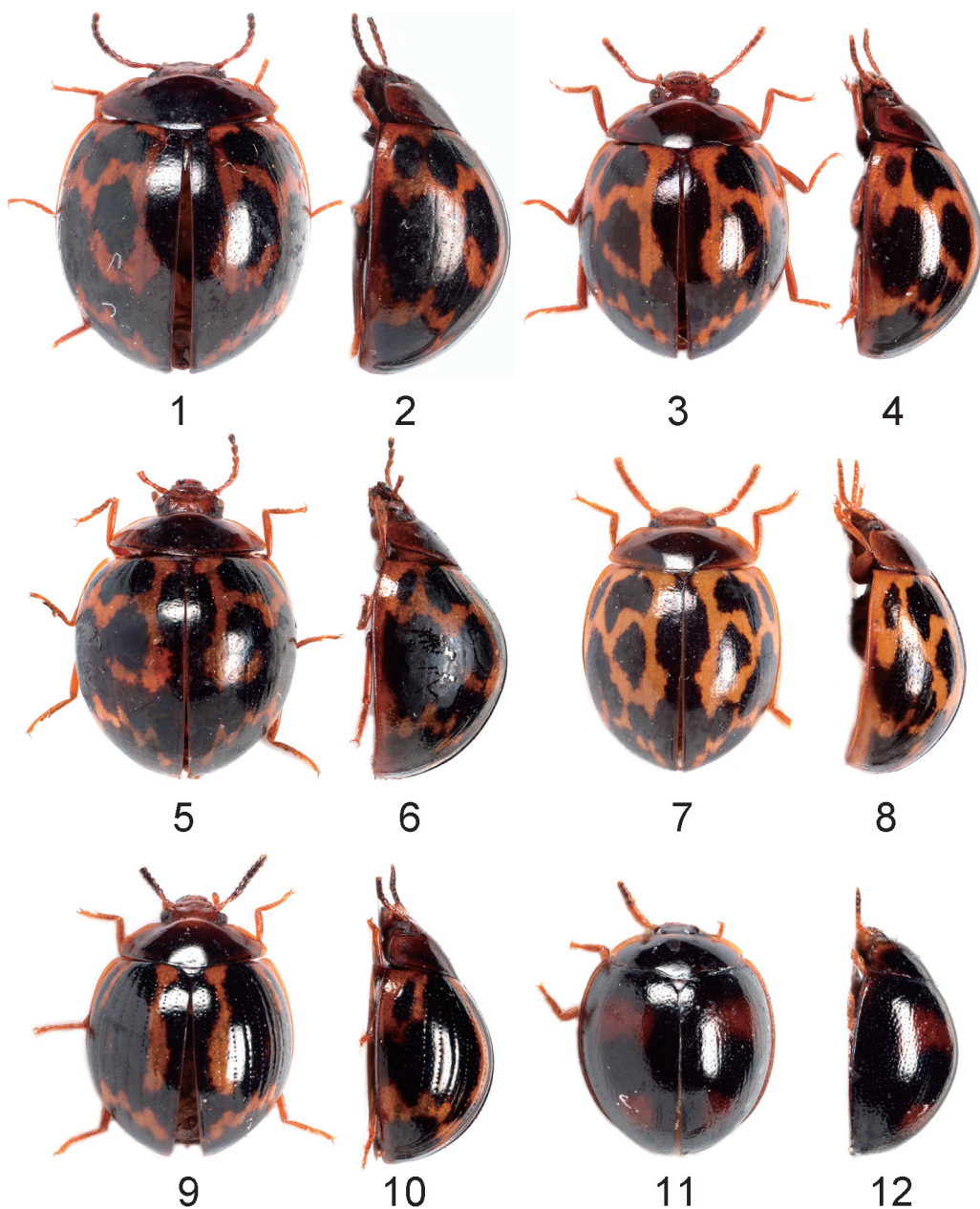
Subfamily Diaperinae

Tribe Leiochrinini

Derispia tengchiensis sp. nov.

(Figs. 1, 2, 13–16)

Male: Body hemispherical; brownish black, major posterior portion of head, five basal segments of antennae, lateral portions of pronotum, elytra except patches, ventral side of head and legs reddish brown to yellowish brown, anterior portion of head and major medial portion of pronotum dark reddish brown, elytral patches black; posterior portion of head, pronotum and ventral sides of legs rather strongly, vitresouly shining, elytra and dorsal sides of legs moderately shining, ventral surface mostly weakly, somewhat greasily shining, six apical segments of antennae mat; dorsal surface and major ventral surface almost glabrous, abdominal ventrites sparsely haired, antennae and tarsi



Figs. 1–12. Habitus of *Derispia* spp. Holotypes, ♂♂. — 1–2, *D. tengchiensis* sp. nov.; 3–4, *D. lalashana* sp. nov.; 5–6, *D. wangi* sp. nov.; 7–8, *D. tatachiaensis* sp. nov.; 9–10, *D. tsaoi* sp. nov.; 11–12, *D. takahashii* sp. nov. — 1, 3, 5, 7, 9, 11, dorsal view; 2, 4, 6, 8, 10, 12, lateral view.

densely haired, femora and exterior sides of tibiae sparsely haired, interior sides of tibiae rather closely haired.

Head transversely elliptical, though the posterior portion is concealed under the anterior portion

of the pronotum, weakly depressed in antero-lateral portions; clypeus transverse, weakly, transversely convex in medial part, widely truncate at apex, very weakly microsculptured, irregularly scattered with microscopic punctures; fronto-clypeal border nearly straight in medial part, obliquely curved in lateral parts, and reaching exterior margins; genae weakly dilated and rather noticeably raised antero-laterad, weakly microsculptured, irregularly punctulate; frons rather broad, very weakly depressed in antero-lateral parts, feebly, triangularly convex in area between the depressions, sparsely scattered with minute punctures; vertex rather closely, finely punctulate. Eyes subovate, strongly convex antero-laterad, gently, roundly inlaid into head, with diatone about 5.7 times the width of an eye diameter. Antennae weakly becoming bolder apicad, weakly flattened, tip of the terminal segment reaching basal 1/6 of elytra, ratio of the length of each segment from base to apex: 0.18, 0.11, 0.28, 0.17, 0.15, 0.16, 0.17, 0.16, 0.16, 0.15, 0.19.

Pronotum somewhat elliptical, though the anterior portion is emarginate, wider than long (5 : 2), widest at the middle (= hind angles); apex finely rimmed, widely emarginate, gently produced in middle, moderately sinuous in lateral parts; base widely rounded, weakly margined in lateral portions; sides weakly declined to lateral margins, which are obliquely rounded, wholly grooved and rimmed; front angles rounded and weakly reflexed, hind angles subrectangular; disc gently, transversely convex, very weakly microsculptured, scattered with microscopic punctures, which are smaller than those on the head. Scutellum widely triangular, flattened and weakly depressed, weakly microsculptured.

Elytra nearly round in dorsal view, about 3.5 times the length and 1.40 times the width of pronotum, widest at basal 3/7; dorsum strongly convex, highest at basal 3/7; disc with rows of minute punctures, which become stronger exteriorly; intervals nearly flattened to very weakly convex, irregularly scattered with small punctures, whose size is slightly smaller than those in the rows; patches on disc as shown in fig. 13; sides steeply, roundly declined to lateral margins, which are grooved, feebly explanate, and very finely rimmed, the rims visible from above in basal 5/7; humeri indistinct; apices roundly produced postero-ventrad; epipleuron very wide and deeply depressed in basal part, tapering apicad, disappeared in apical 1/6. Hind wings extremely atrophied, vestigial.

Terminal segment of maxillary palpus ovate, though the apical part is obliquely truncate. Mentum obtrapezoidal, weakly convex, coriaceous and sparsely haired in middle, smooth and weakly raised in basal and apical parts. Gula with the borders narrowly subparallel in medial parts and widened in basal parts, weakly convex, smooth, with a pair of longitudinally subovate impressions in anterior parts on the borders.

Prosternum short and somewhat widely Y-shaped, finely rimmed along apex, inclined anteriorly and laterad, microsculptured and gently depressed in antero-lateral part; inter-procoxal space raised, flattened and smooth; prosternal process nearly lacking, with posterior margin rimmed. Mesoventrite very short, weakly convex in anterior part, somewhat greasy and sparsely punctulate. Metaventrite short, weakly inclined, sparsely punctulate and minutely haired in anterior portion, feebly raised nearly impunctate in posterior portions, rather strongly depressed and microsculptured in lateral portions. Abdominal ventrites wide, gently depressed in lateral portions, ventrites I and II transversely wrinkled and minutely punctate, ventrites III and IV rather smooth, very sparsely microscopically punctate; anal ventrite weakly microsculptured, scattered with larger and smaller punctures, which become smaller and closer in apical part.

Femora short, elongated subelliptical, concealed under elytra in dorsal view; tibiae weakly becoming bolder apicad with exterior margins very weakly rounded, protibia densely with microscopic, setaceous hairs in apical half on interior face; tarsi rather slender, ratios of the lengths of pro-, meso- and metatarsal segments: 0.25, 0.14, 0.11, 0.06, 0.36; 0.32, 0.16, 0.12, 0.06, 0.37; 0.50, 0.19, —, —.

Male genitalia elongate, noticeably asymmetric and twisted in basal part, 2.55 mm in length and

0.36 mm in width, basale strongly curved in lateral view; apicale 0.73 mm in length, rather spatulate in dorsal view.

F e m a l e: Head less strongly produced anteriorly; pronotum less strongly becoming narrower apicad, with hind angles less acute; elytra less clearly punctate.

Body length: 5.9–6.2 mm.

Type series. Holotype: ♂, “Tengchi / Kaohsiung Hsien / Taiwan, 14.VI.1983 / K. MASUMOTO leg.” (NSMT). Paratypes: 4 ♂♂, 1 ♀, “TAIWAN: Kaohsiung / Tengji (藤枝), 1650 m / 15–16.VI.2004 / leg. C.-F. Lee”; 3 ♀♀, “Taiwan: Kaohsiung / Shihshan logging trail (石山林道) / 01–03.X.2008, leg. M.-H. Tsao.”

Notes. The present new species resembles *D. sauteri* KASZAB, 1946, originally described from “Kosempo” (= Chiasien, in Kaohsiung Hsien), southern Taiwan, but can be distinguished from the latter by the body more strongly convex dorsad and laterad, with the lateral margins only visible from above in the basal portions, the pronotum microscopically punctate, the elytra with punctures in rows smaller but clearer, and becoming stronger laterad, the pattern of patches different, the intervals feebly convex, and scattered with microscopic punctures, and the antenna not so thin, with the segment III obviously longer than the IV.

Etymology. The specific name is given after Tengchi where the type series were collected.

Derispia lalashana sp. nov.

(Figs. 3, 4, 17–20)

M a l e: Body hemispherical; blackish brown, four basal segment of antennae, lateral portions of pronotum, elytra except patches, tibiae and tarsi yellowish brown, elytral patches black, hairs on surfaces mostly brownish yellow; head, pronotum and scutellum rather strongly, vitreously shining, elytra, six basal segments of antennae and dorsal sides of legs moderately shining, ventral sides of head and femora rather strongly shining, meso- and metaventrites, and abdominal ventrites somewhat greasily shining, five apical segments of antennae mat; dorsal surface, except apical portion of head, almost glabrous, ventral surface sparsely, minutely haired, antennae densely, finely haired, femora sparsely haired, tibiae partly densely haired, tarsi clothed with rather long hairs.

Head weakly depressed in anterior, lateral and posterior portions, very weakly microsculptured; clypeus transversely elliptical, transversely convex in medial part, widely truncate at apex, irregularly scattered with small punctures, sparsely clothed with fine, rather long hairs in anterior part; fronto-clypeal border finely sulcate and widely curved, with both lateral ends reaching exterior margins; genae gently dilated, very weakly raised, irregularly scattered with small punctures, with exterior margins roundly bordered and rimmed; frons rather broad, weakly depressed in antero-lateral parts, feebly, triangularly convex in area between the depressions, sparsely, irregularly scattered with small punctures; vertex flattened, rather closely, irregularly punctate, the punctures smaller than those on frons. Eyes semicircular in dorsal view, roundly convex antero-laterad, obliquely inlaid into head, with diatone about 4.5 times the width of an eye diameter. Antennae weakly becoming bolder apicad, tip of the terminal segment fairly reaching basal 1/6 of elytra, ratio of the length of each segment from base to apex: 0.19, 0.10, 0.21, 0.14, 0.12, 0.12, 0.11, 0.12, 0.11, 0.11, 0.16.

Pronotum convergent apicad, 2.80 times as wide as long, widest at basal 2/5; apex widely emarginate, rather strongly produced in middle, sinuous in lateral portions, wholly finely rimmed; base widely rounded, weakly produced in middle, weakly sinuous in lateral parts; sides rather steeply declined to lateral margins, which are oblique, slightly rounded, wholly grooved and finely rimmed; front angles rounded, directing anteriorly, hind angles subrectangular, directing postero-laterad; disc

gently, transversely convex, very weakly microsculptured, scattered with microscopic punctures, which are much smaller than those on the head. Scutellum widely triangular, very slightly convex in middle, scattered with minute punctures, which are more closely set than those on pronotum.

Elytra nearly as long as wide, about 3.1 times the length and 1.4 times the width of pronotum, widest at basal 2/5; dorsum strongly convex, highest at basal 2/5; disc with rows of minute punctures; intervals nearly flattened to very weakly convex, irregularly scattered with minute punctures, whose size is slightly smaller than those in the rows; patches on disc as shown in fig. 17; sides steeply, roundly declined to lateral margins, which are bordered by grooves and finely rimmed, the rims visible from above in areas except apical 1/6; humeri indistinct; apices roundly produced postero-ventrad; epipleuron very wide, tapering posteriad, disappeared in apical 1/6, strongly depressed in intero-basal part, the depression becoming shallower posteriad. Hind wings extremely atrophied.

Terminal segment of maxillary palpus ovate, though the apical part is obliquely truncate. Mentum subquadrate with sides emarginate near base, flattened, smooth in basal part, weakly microsculptured, sparsely microscopically punctate and haired in anterior part. Gula with borders narrowed anteriorly in basal part, subparallel in medial and apical parts, weakly convex and very smooth, with a pair of ovate impressions on the borders in anterior part.

Prosternum short and somewhat widely Y-shaped, rimmed along apical and lateral margins, smooth in medial part, weakly depressed, covered with microsculpture and wrinkled in lateral parts; prosternal process truncate, longitudinally ruguloso-punctulate. Mesoventrite very short, strongly depressed in anterior part, with a pair of transverse convexities in middle, weakly inclined and transversely wrinkled in posterior part. Metaventrite short, produced anteriorly, weakly convex and transversely ruguloso-punctate in basal part, rather smooth and almost impunctate in posterior part, weakly depressed, rugulose and sparsely scattered with small punctures in lateral parts. Abdominal ventrites wide, gently depressed in lateral portions, ventrite I rather widely produced anteriorly, sparsely haired, rugose and punctate in anterior part, irregularly punctate, the punctures connected with one another by transverse grooves in middle, simply scattered with punctures in posterior part, ventrite II punctate, the punctures transversely connected with one another by rather transverse impressions in medial part, ruguloso-punctate in anterior marginal parts on both sides, simply punctate in middle, almost impunctate in posterior part, ventrites III and IV very sparsely scattered with small punctures in middle, ruguloso-punctate in anterior marginal parts on both sides; anal ventrite almost impunctate in basal part, scattered with minute punctures in apical part, each with a long pily hair, with apex rounded.

Femora short, somewhat elongated elliptical, wholly concealed under elytra in dorsal view; tibiae short, weakly becoming bolder apicad with exterior margins very weakly rounded, densely haired in apical parts on interior face; tarsi rather slender, clothed with long hairs, densely so on ventral faces, ratios of the lengths of pro-, meso- and metatarsal segments: 0.19, 0.13, 0.11, 0.05, 0.30; 0.28, 0.14, 0.11, 0.06, 0.33; 0.44, 0.11, 0.06, 0.36.

Male genitalia elongate, weakly asymmetric and twisted in basal part, 2.15 mm in length and 0.32 mm in width, basale strongly curved in lateral view; apicale 0.76 mm in length, subspatulate in dorsal view.

F e m a l e: Head less strongly produced anteriorly, diameter 4.7 times the width of the transverse diameter of an eye; pronotum less strongly becoming narrower apicad, with hind angles less strongly angular; elytra less strongly produced posteriorly; legs slenderer.

Body length: 5.2–5.3 mm.

Type series. Holotype: ♂, "Lala-shan / Taoyuan Hsien / Taiwan, 16.V.1983 / K. MASUMOTO leg." (NSMT). Paratypes: 2 ♂♂, 1 ♀, same data as for the holotype.

Notes. The present new species also resembles *Derispia sauteri* KASZAB, 1946, originally de-

scribed from "Kosempo, Formosa," but can be distinguished from the latter by the head narrower with the eyes more strongly convex laterad, the pronotum more strongly narrowed apicad, with the apex more strongly produced in middle, the elytra less strongly punctate, with the pattern of patches different-shaped, and the male genitalia stouter.

Etymology. The specific name is given after Mt. Lala-shan (= Takuan Shan) in Taoyuan Hsien, northern Taiwan, where the type series were collected.

***Derispia wangi* sp. nov.**

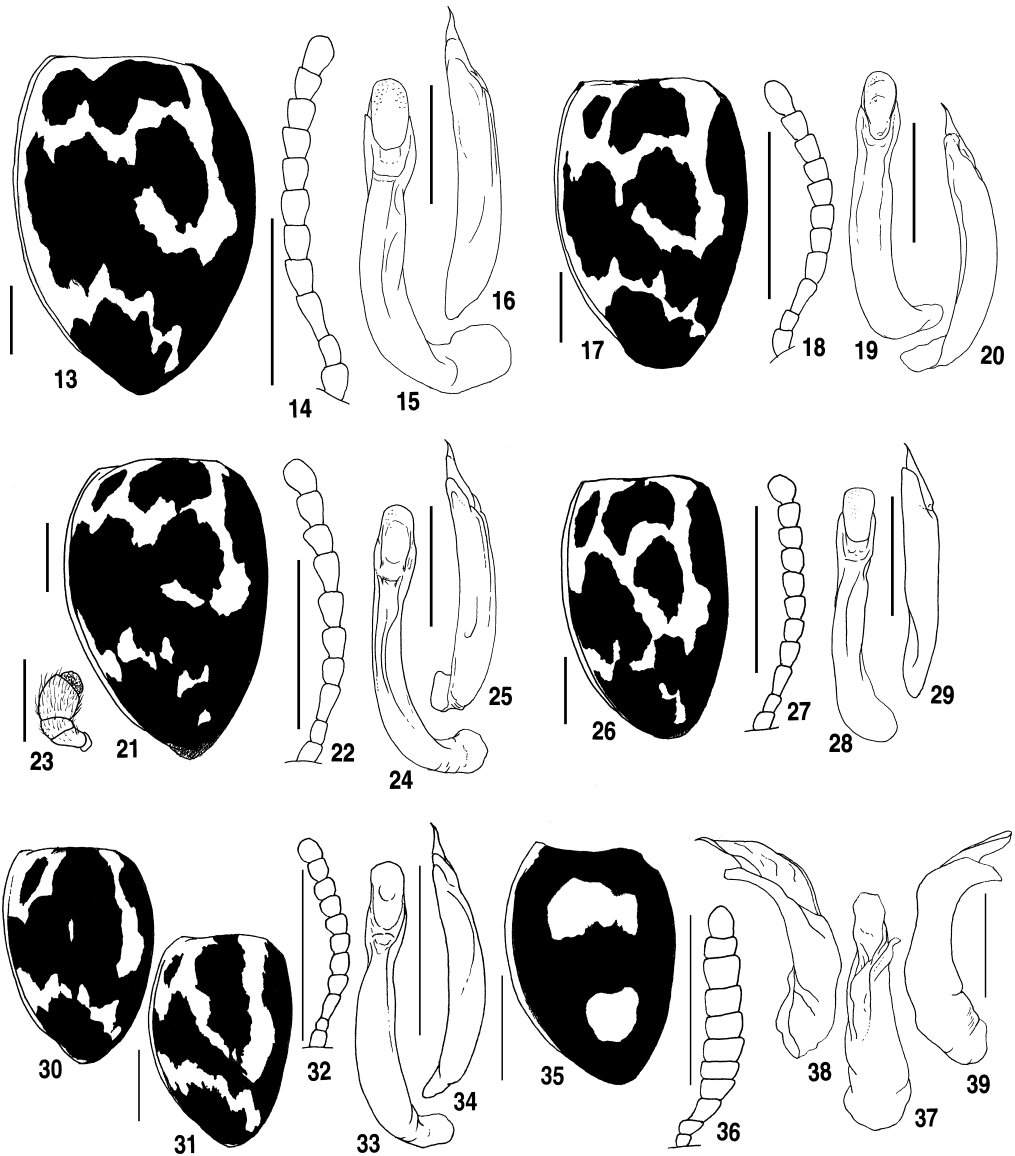
(Figs. 5, 6, 21–25)

M a l e: Body hemispherical; five basal segment of antennae, major medial portion of head, lateral portions of pronotum, elytra except patches, epipleura, ventral side of head, prosternum, mesoventrite and legs yellowish brown with feeble reddish tinge, metaventrite and abdominal ventrites blackish brown, six apical segments of antennae, lateral portions of head, major medial portion of pronotum and scutellum dark brown, elytral patches black, hairs on surfaces mostly brownish yellow; head, major medial portion of pronotum and scutellum rather sericeously shining, elytra, five basal segments of antennae, femora and tibiae moderately shining, ventral side of head, prosternum, meso- and metaventrites moderately, feebly sericeously shining, epipleura, ventral side of head, abdominal ventrites rather strongly, vitreously shining, six apical segments of antennae and tarsi mat; dorsal surface, except apical portion of head, nearly glabrous, apical portion of head sparsely haired, anal ventrite sparsely pubescent, antennae minutely haired, tibiae partly densely haired, tarsi densely haired.

Head rather transverse, weakly microsculptured; clypeus transverse, sparsely, minutely punctate and each puncture with a fine hair, rather steeply inclined apicad in anterior part, with apical margin finely reflexed; fronto-clypeal border finely sulcate and weakly, widely curved, with both lateral ends reaching exterior margins; genae weakly raised, ruguloso-punctulate, with exterior margin rounded in anterior part, and sharply emarginate before eyes; frons weakly depressed in antero-lateral parts, feebly convex in middle, sparsely, finely punctate; vertex flattened, sparsely, irregularly punctulate in medial part, weakly, somewhat longitudinally rugulose in lateral parts; vertex impunctate, inclined posteriad. Eyes oblique in dorsal view, roundly convex antero-laterad, roundly, obliquely inlaid into head, with diatone about five times the width of an eye diameter. Antennae weakly becoming bolder apicad, tip of the terminal segment fairly reaching basal portion of elytra, ratio of the length of each segment from base to apex: 0.23, 0.12, 0.21, 0.17, 0.15, 0.15, 0.16, 0.17, 0.13, 0.15, 0.16.

Pronotum roundly narrowed apicad, 2.26 times as wide as long, widest slightly after the middle; apex weakly, widely emarginate, gently produced in middle, sinuous in lateral parts, rimmed, the rim tapering laterad; base widely rounded, very slightly produced in middle; sides rather steeply declined to lateral margins, which are obliquely, roundly narrowed anteriad, wholly grooved and finely rimmed; front angles widely rounded, hind angles angular postero-laterad; disc strongly, transversely convex, rather distinctly microsculptured widely in medio-basal portion, microscopically punctate, which are far smaller than those on the head. Scutellum widely triangular with rounded apex, very slightly depressed in apical part, very shallowly punctulate.

Elytra nearly as long as wide, 3.08 times the length and 1.38 times the width of pronotum, widest at basal 3/8; dorsum strongly convex, highest at basal 3/8; disc with rows of minute punctures, which are closely set; intervals nearly flattened to very weakly convex, irregularly microscopically punctate, the punctures with similar size or smaller than those in the rows; patches on disc as shown in fig. 21; sides steeply, roundly declined to lateral margins, which are bordered by grooves and finely rimmed,



Figs. 13–29. *Derispia* spp., ♂♂. — 13–16, *D. tengchiensis* sp. nov., holotype; 17–20, *D. lalashana* sp. nov., holotype; 21–25, *D. wangi* sp. nov., holotype; 26–29, *D. tatachiaensis* sp. nov., holotype; 30, 32–34, *D. tsaoui* sp. nov., holotype; 31, ditto, paratype; 35–39, *D. takahashii* sp. nov., holotype; 13, 17, 21, 26, 30, 31, 35, left elytra; 14, 18, 22, 27, 32, 36, antennae; 15, 19, 24, 28, 33, 37, male genitalia (dorsal view); 16, 20, 25, 29, 34, 38, ditto (left lateral view); 39, ditto (right lateral view); 23, maxillary palpus. Scales; 0.1 mm for 13–22, 24–35; 0.5 mm for 23, 36–39.

the rims visible from above in areas except apical 1/5; humeri indistinct; apices weakly roundly produced; epipleron very wide, tapering posteriad, disappeared in apical 1/8, deeply concave in basal part. Hind wings extremely atrophied and vestigial.

Apical part of maxillary palpus peculiarly modified as shown in Fig. 23. Mentum transversely

quadrate with emarginate sides, weakly convex in middle, smooth. Gula narrow smooth, with borders subparallel-sided in anterior part and weakly widened in posterior part, with a pair of small, longitudinally ovate impressions on the borders in anterior part.

Prosternum short and somewhat widely T-shaped, rimmed along widely emarginate apex, gently, longitudinally raised and smooth in medial part, weakly depressed and rugulose in areas before pro-coxae; inter-coxal space weakly convex, sparsely, microscopically punctate and micro-aciculate, with lateral parts rimmed; prosternal process truncate and rimmed. Mesoventrite very short, raised in posterior portion, which is of the same level as metaventrite and sparsely punctate, with a pair of small transverse convexities at dorsal edge of anterior declivity. Metaventrite short, produced anteriorly, transversely ruguloso-punctate in medial part, rather smooth and almost impunctate in posterior part, weakly depressed, rugulose and very sparsely microscopically punctate in lateral parts. Abdominal ventrites wide, gently depressed in lateral portions, ventrite I widely, roundly produced anteriorly, transversely rugulose and microscopically punctate, ventrite II microscopically punctate and transversely aciculate, ventrites III and IV very weakly microsculptured, and sparsely, microscopically punctate; anal ventrite weakly microsculptured, scattered with larger and smaller punctures in middle, rather closely, microscopically punctate and finely pubescent in apical part.

Femora wholly concealed under elytra in dorsal view, subelongated elliptical, flattened, rather sparsely microscopically punctate and finely haired; tibiae weakly becoming wider apically, rather closely microscopically punctate and finely haired, protibia densely haired in apical 2/3 on interior face, mesotibia densely haired in apical half on interior face, metatibia densely haired in apical 2/7 on interior face; tarsi rather long and stout, and densely haired, particularly so on ventral sides, ratios of the lengths of pro-, meso- and metatarsal segments: 0.15, 0.11, 0.06, 0.05, 0.24; 0.29, 0.12, 0.10, 0.06, 0.31; 0.46, 0.16, 0.11, 0.32.

Male genitalia elongate, asymmetric, about 2.19 mm in length and 0.30 mm in width; basale strongly curved in lateral view, twisted in basal part; apicale 0.56 mm in length, subspatulate in dorsal view.

Female: Head wider and less strongly produced anteriorly, diameter about 4.5 times the width of the transverse diameter of an eye; pronotum slightly longer, less strongly becoming narrower apically, not microsculptured in medio-basal portion but wholly smooth, with apex narrower and more strongly produced in medial portion; elytra more convex dorsally; legs slenderer.

Body length: 5.4–5.7 mm.

Type series. Holotype: ♂, "Taiwan: Nantou / Hsitou (溪頭) / 7.III.2010, leg. Y.-T. Wang" (NMNST). Paratypes: 1 ♂, 2 ♀, same data as the holotypes.

Notes. The new species closely resembles the preceding new species *Derispia lalashana* sp. nov., from N. Taiwan, but can be distinguished from the latter by the dorsal surface less shiny, the head wider, the pronotum wider, with lateral portions more strongly curved anteriorly, the elytra more strongly convex and round, the pattern of elytral patches, and the male genitalia differently shaped, and the terminal part of the maxillary palpus quite unique-shaped.

Etymology. The specific name is given in honor of Mr. Y.-T. WANG who collected the type series.

***Derispia tatachiaensis* sp. nov.**

(Figs. 7, 8, 26–29)

Male: Body hemispherical; three basal segments of antennae, major anterior portion of head, lateral portions of pronotum, scutellum, elytra except patches, epipleura, ventral side of head and legs

brownish yellow, eight apical segments of antennae, major medio-basal portion of pronotum, prosternum, mesoventrite and abdominal ventrites dark brown, elytral patches black, hairs on surfaces mostly yellow with feeble brownish tinge; five basal segments of antennae, head, pronotum, scutellum, elytra, femora and tibiae moderately shining, epipleura and abdominal ventrites rather vitreously shining, prosternum, meso- and metaventrites slightly sericeously shining, six apical segments of antennae and tarsi nearly mat; dorsal surface, except apical portion of head, nearly glabrous, apical portion of head and abdominal ventrites finely haired, antennae minutely haired, tibiae partly densely haired, tarsi, particularly on ventral sides, densely haired.

Head transversely subelliptical, very weakly microsculptured; clypeus transverse, sparsely, minutely punctate, with apical part roundly bent ventrad and sparsely, finely haired; fronto-clypeal border very weakly impressed in extremely wide U-shape, with both lateral ends reaching exterior margins; genae with indefinite borders of clypeus and frons, weakly raised antero-laterad, very weakly microsculptured, nearly impunctate, with exterior margins raised and weakly emarginate before eyes; frons wide, weakly depressed in antero-lateral parts, very weakly microsculptured, sparsely, finely punctate; vertex flattened, weakly inclined posteriad in middle, rather steeply so postero-laterad, sparsely punctulate. Eyes very slightly oblique in dorsal view, roundly convex laterad, roundly, inlaid into head, with diatone about five times the width of an eye diameter. Antennae weakly becoming bolder apicad, weakly flattened, tip of the terminal segment fairly reaching basal 1/5 of elytra, ratio of the length of each segment from base to apex: 0.15, 0.06, 0.15, 0.14, 0.12, 0.12, 0.12, 0.11, 0.10, 0.11, 0.13.

Pronotum roundly narrowed apicad, 2.08 times as wide as long, widest slightly after the middle; apex widely emarginate, weakly produced in middle, sinuous in lateral parts, finely rimmed, the rim tapering laterad; base widely rounded, very slightly produced in middle; sides rather steeply declined to lateral margins, which are obliquely, roundly narrowed anteriorly, wholly grooved and finely rimmed; front angles widely rounded, hind angles obtuse; disc strongly, transversely convex, sparsely scattered with microscopic punctures, which are much smaller than those on the head. Scutellum widely triangular, smooth.

Elytra nearly as long as wide, about 3.0 times the length and 1.4 times the width of pronotum, widest at basal 3/8; dorsum strongly convex, highest at basal 3/7; disc with rows of minute punctures, which are closely set; intervals nearly flattened to very weakly convex, irregularly microscopically punctate, the punctures with similar size or smaller than those in the rows; patches on disc as shown in fig. 26; sides steeply, roundly declined to lateral margins, which are bordered by grooves (the grooves narrowly explanate), and finely rimmed (the rims visible from above in basal 2/3); humeri indistinct; apices weakly roundly produced; epipleuron very wide and deeply concave in basal parts, tapering posteriad, disappeared in apical 1/10. Hind wings extremely atrophied and vestigial.

Terminal segment of maxillary palpus rather large and ovate. Mentum transversely quadrate with emarginate sides, very weakly convex in middle, rather smooth. Gula narrow with the borders subparallel-sided in anterior part and weakly widened in posterior part, smooth, with a pair of small, longitudinally ovate impressions on the borders in anterior part.

Prosternum very short and somewhat widely T-shaped, rimmed along widely emarginate apex, gently, longitudinally raised and weakly microsculptured in medial portion, weakly depressed and rugulose in areas before procoxae; inter-coxal space weakly convex, covered with microsculptures, with lateral parts rimmed; prosternal process truncate and rimmed. Mesoventrite very short, raised in anterior portion, microsculptured and transversely micro-aciculate, with a pair of small transverse convexities at dorsal edge of anterior declivity. Metaventrite short, produced anteriorly, sparsely scattered with large punctures in medial part, rather smooth and impunctate in posterior part, weakly de-

pressed, microsculptured and transversely micro-aciculate in lateral parts. Abdominal ventrites wide, gently depressed in lateral portions, microsculptured and rather transversely micro-aciculate, sparsely, microscopically punctate and haired; anal ventrite scattered with small punctures with decumbent hairs in middle, minutely punctate in medio-apical part, microscopically pubescent along rounded apex.

Femora wholly concealed under elytra in dorsal view, subelongated elliptical, flattened, sparsely microscopically punctate and very sparsely, finely haired, profemur microscopically setaceous in medial part on anterior face; tibiae weakly becoming wider apicad, protibia closely punctulate and finely haired, densely, microscopically setaceous in apical half on interior face, mesotibia closely punctulate and haired, particularly so in apical half on interior face, metatibia closely punctulate and haired, particularly so in apical 2/3 on interior face; tarsi rather long, densely haired, particularly on ventral surfaces, ratios of the lengths of pro-, meso- and metatarsal segments: 0.14, 0.07, 0.09, 0.04, 0.26; 0.23, 0.11, 0.09, 0.06, 0.31; 0.42, 0.13, 0.07, 0.34.

Male genitalia elongate, asymmetric, about 2.00 mm in length and 0.26 mm in width; basale gently curved in lateral view, weakly twisted in area around basal 2/7; apicale 0.60 mm in length, subspatulate in dorsal view.

F e m a l e: Head wider and less strongly produced anteriorly, diameter about 4.5 times the width of the transverse diameter of an eye; pronotum slightly longer, less strongly becoming narrower apicad, with apex less strongly produced in medial portion; elytra more convex postero-dorsad.

Body length: 4.4–4.5 mm.

Type series. Holotype: ♂, "Taiwan: Nantou / Tatchia (塔塔加) / 21.IX.2009, leg. C.-F. Lee" (NMNST). Paratypes: 1 ♂, 6 ♀♀, same data as for the holotype.

Notes. The new species closely resembles the preceding new species *Derispia wangi* sp. nov., from Central Taiwan, but can be distinguished from the latter by the body smaller, the head wider, the pronotum less strongly narrowed apicad, the elytra less strongly convex dorsad, with black patches differently shaped, the male genitalia differently shaped, and the terminal part of the maxillary palpus normal.

Etymology. The specific name is given after the locality, Tatchia, Nantou Hsien, Central Taiwan, where the type series were collected.

Derispia tsaoui sp. nov.

(Figs. 9, 10, 30–34)

M a l e: Body hemispherical; segment I of antennae, head, anterior and lateral portions of pronotum, epipleura, pro- and mesoventrites, femora and tibiae brown with feeble reddish tinge, segments II and III of antennae, lateral margins of pronotum and elytra, and tarsi brownish yellow, segments IV–V and XI of antennae, major medial basal portion of pronotum, scutellum, prosternum and mesoventrite dark brown, segments VI–X of antennae, metaventrite and abdominal ventrites brownish black, elytral patches nearly black, hairs on surfaces mostly yellow with feeble brownish tinge; head, pronotum, scutellum, elytra, prosternum, mesoventrite, epipleura, metaventrite, abdominal ventrites and ventral sides of femora rather strongly, weakly vitreously shining, three basal segments of antennae moderately shining, ventral side of head, dorsal surfaces of femora and tibiae, eight apical segments of antennae and tarsi weakly shining; dorsal surface, except apical portion of head, nearly glabrous, apical portion of head sparsely, finely haired, ventral side mostly glabrous, abdominal ventrites sparsely clothed with rather long decumbent hairs, antennae minutely haired, tibiae rather densely haired, and tarsi, particularly on ventral face, very densely haired.

Head transversely subelliptical, very weakly microsculptured; clypeus transversely, elliptically flattened in basal part, shallowly, somewhat transversely elliptically impressed in middle near base, sparsely punctulate in basal parts, roundly depressed and pubescent in anterior part, with apex straight and ridged; fronto-clypeal border very widely rounded and finely sulcate; genae with indefinite border of frons, raised antero-laterad, nearly impunctate, with exterior margins weakly rounded; frons wide, noticeably depressed in lateral parts behind the fronto-clypeal border (the depressions very weakly microsculptured, and scattered with rather large punctures near lateral margins), sparsely punctate. Eyes subovate, strongly convex antero-laterad, obliquely inlaid into head in dorsal view, with diatone about 4.7 times the width of an eye diameter. Antennae weakly becoming bolder apicad, weakly flattened, tip of the terminal segment barely reaching basal 1/9 of elytra, ratio of the length of each segment from base to apex: 0.13, 0.05, 0.11, 0.11, 0.09, 0.11, 0.09, 0.08, 0.09, 0.09, 0.11.

Pronotum strongly, roundly narrowed apicad, 2.17 times as wide as long, widest at apical 1/3; apex widely emarginate, noticeably produced in middle, sinuous in lateral parts, finely rimmed; base widely rounded, very weakly produced in middle; sides gently declined to lateral margins, which are wholly, noticeably grooved and finely rimmed; front angles rounded, hind angles subrectangular; disc rather transversely convex, smooth, microscopically punctate, which are much smaller than those on the head. Scutellum widely triangular, very slightly depressed apicad, smooth, sparsely microscopically punctate.

Elytra slightly wider than long, 2.73 times the length and 1.38 times the width of pronotum, widest at basal 3/7; dorsum strongly convex, highest at basal 1/3; disc with rows of small punctures, which are often connected with one another by shallow grooves; intervals gently convex, very sparsely, irregularly punctate, the punctures with smaller size than those in the rows; patches on disc various, and often obscure, as shown in figs. 30 & 31; sides steeply, roundly declined to lateral margins, which are bordered by grooves (the grooves narrowly explanate), and finely rimmed (the rims visible from above in basal 5/6); humeri not convex; apices weakly roundly produced; epipleuron very wide and deeply concave in basal parts, tapering posteriad, disappeared in apical 1/8. Hind wings extremely atrophied and vestigial.

Terminal segment of maxillary palpus rather large and ovate. Mentum subquadrate with emarginate sides, feebly convex in medial part, weakly depressed in lateral parts, smooth, with basal and lateral margins rimmed. Gula narrowly, longitudinally bordered, very weakly convex, smooth, with a pair of longitudinally ovate impressions on the borders in anterior part.

Prosternum very short, somewhat widely T-shaped, ridged along widely emarginate apex, gently, longitudinally raised and smooth in medial part, depressed laterad, and weakly rugulose in lateral portions before procoxae; inter-coxal space flattened, smooth, finely rimmed along procoxal cavities; prosternal process truncate, very weakly depressed, weakly, longitudinally micro-aciculate. Mesoventrite very short, raised in anterior portion, sparsely punctate and transversely rugulose, with a pair of small transverse convexities at dorsal edge of anterior declivity, rather smooth in posterior portion. Metaventrite short, produced anteriorly, microsculptured and transversely ruguloso-punctate in medial part, rather smooth and almost impunctate in posterior part, weakly depressed, microsculptured, rugulose and sparsely punctured in lateral parts. Abdominal ventrites wide, gently depressed in lateral portions, microsculptured and micro-aciculate, sparsely, microscopically punctate, the punctures large in medial parts of sternites I and II, becoming smaller and sparser towards III to IV; anal ventrite impunctate in basal part, scattered with punctures in apical part, those in lateral parts larger and sparser, and those in apico-medial part smaller and closer.

Femora wholly concealed under elytra in dorsal view, elongated subelliptical, weakly flattened, microscopically punctate and haired; tibiae weakly becoming wider apicad and more or less curved

interiad, protibia closely punctulate and finely haired, clothed with setaceous hairs in intero-apical part, mesotibia closely punctulate and finely haired, and clothed with setaceous hairs in intero-apical part, metatibia punctulate and finely haired, and clothed with setaceous hairs in intero-apical part; tarsi haired, particularly densely so on ventral surfaces, ratios of the lengths of pro-, meso- and metatarsal segments: 0.09, 0.06, 0.04, 0.05, 0.23; 0.21, 0.11, 0.03, 0.05, 0.24; 0.33, 0.07, 0.06, 0.25.

Male genitalia elongate, asymmetric, 1.60 mm in length and 0.22 mm in width; basale weakly twisted in basal part, weakly curved in middle in dorsal view, and roundly curved in lateral view; apicale 0.48 mm in length, subspatulate in dorsal view.

F e m a l e: Body slightly more strongly convex dorsad, eyes smaller with diatone about 5.4 times the width of the transverse diameter of an eye, pronotum more strongly narrower, with more strongly produced in medial part, elytra with lateral margins hardly explanate.

Body length: 3.7–4.3 mm.

Type series. Holotype: ♂, "Taiwan: Kaohsiung / Shihshan logging trail (石山林道) / 01–03.X.2008, leg. M.-H. Tsao" (NMNST). Paratypes: 1 ♂, 1 ♀, same data as for the holotype; 1 ♂, "Taiwan: Kaohsiung / Chuyunshan logging trail / 24.III.2009, leg. C.-F. Lee."

Notes. The present new species resembles the preceding new species, *Derispia yui* sp. nov., from northern Taiwan, but can be distinguished from the latter by the pronotum more strongly convex antero-dorsad, the scutellum wider, the elytra narrower and less strongly convex, with punctures weaker, and the male genitalia obviously smaller and differently shaped.

Etymology. The specific name is given in honor of Mr. M.-H. TSAO who collected the holotype.

Derispia takahashii sp. nov.

(Figs. 11, 12, 35–39)

M a l e: Body hemispherical; brownish yellow, major posterior portion of head, major medial portion of pronotum, and elytra, except patches and lateral margins, brownish black, scutellum, patches and lateral margins of elytra reddish brown; major posterior portion of head, pronotum, scutellum and elytra strongly, rather vitreously shining, anterior portion of head and ventral surface moderately, weakly vitreously shining, four basal segments of antennae moderately shining, seven apical segments of antennae weakly so; each surface, except apical portion of head, almost glabrous, antennae densely, finely haired, tarsi rather densely haired and tufted beneath.

Head somewhat transversely elliptical, though the basal portion is concealed by pronotum, rather steeply inclined apicad in repose; clypeus transversely elliptical, sparsely scattered with minute punctures, each with a fine decumbent hair, fronto-clypeal border finely sulcate and widely curved, with both lateral ends reaching exterior margins; genae gently dilated and raised antero-laterad, sparsely scattered with small punctures, with exterior margins rather oblique and nearly straight; frons rather broad, weakly depressed in antero-lateral parts, feebly, triangularly convex in area between the depressions, sparsely, irregularly scattered with small punctures. Eyes rather large, gently convex antero-laterad, roundly inlaid into head, with diatone about 2.5 times the width of an eye diameter. Antennae gently becoming bolder apicad, weakly flattened, the 8th segment the widest, tip of the terminal segment barely reaching basal portion of pronotum, ratio of the length of each segment from base to apex: 0.08, 0.04, 0.05, 0.06, 0.06, 0.07, 0.06, 0.07, 0.07, 0.06, 0.07.

Pronotum wider than long (8 : 5), widest at basal 1/5 (= hind angles); apex widely emarginate, nearly straight in middle, finely rimmed in lateral parts; base widely rounded, rather noticeably produced in middle, sinuous in lateral parts of the production, weakly raised along lateral margins; sides moderately declined to lateral margins, which are produced antero-laterad, finely margined and

rimmed, the rims feebly becoming bolder posteriad; front angles indefinite, hind angles acute, directing laterad; disc gently, somewhat transversely convex, almost impunctate, very weakly micro-aciculate. Scutellum slightly elongated triangle, feebly depressed, very slightly convex in middle, very sparsely scattered with minute punctures in medial part.

Elytra slightly wider than long, about 2.9 times the length and 1.7 times the width of pronotum, widest at basal 1/3; dorsum strongly convex, highest at basal 3/7; disc with rows of minute punctures, which are connected by barely traceable striae; intervals nearly flattened to very weakly convex, irregularly scattered with minute punctures, whose size is slightly larger than those in the rows; patches on disc as shown in fig. 35; sides steeply, roundly declined to lateral margins, which are bordered by grooves, finely explanate, and visible from above in areas except apical portions; humeri indistinct; apices roundly produced postero-ventrad; epipleura very wide, tapering posteriad and disappeared in apical 1/5, depressed, the depression becoming shallower posteriad.

Terminal segment of maxillary palpi subhexagonal, rounded exterior side slightly longer than the rounded interior, about 1.4 times the length of the nearly straightly truncate apical. Mentum transversely subquadrate, weakly convex in middle, weakly impressed in antero-medial part, slightly coriaceous; gula very weakly convex and smooth, nearly straightly, parallelly grooved along the borders in medial and apical parts, with a pair of small, ovate impressions on the borders of medial part.

Prosternum short and widely Y-shaped, rather strongly raised and rimmed along apex, depressed and transversely wrinkled in anterior part, weakly raised posteriad in middle, inter-coxal space depressed medially, raised and rimmed along the borders of procoxae, sparsely scattered with minute punctures, with posterior end emarginate, each side of the emargination acutely produced; prosternal process lacking. Mesoventrite short, vertically depressed in anterior part, roundly produced, raised, and ridged anteriorly in middle, inclined posteriad, sparsely scattered with minute punctures in posterior part. Metaventricle short and wide, produced antero-medial part, weakly convex, rather smooth, weakly, transversely rugulose widely in medial part, weakly depressed, covered with microsculpture and rugulose in lateral parts. Abdominal ventrites wide and rather short, gently convex medially, weakly depressed in lateral portions, weakly covered with microsculpture, sparsely scattered with microscopic punctures, weakly micro-aciculate; anal ventrite rather large, transversely convex in middle, scattered with larger and smaller punctures, furnished with short, minute setae along apical margin.

Femora short, somewhat elongated elliptical, wholly hidden under elytra in dorsal view; tibiae short, becoming bolder apicad, clothed with decumbent hairs, with exterior margins very weakly rounded; tarsi rather densely clothed with hairs, thickly tufted on ventral faces, ratios of the lengths of pro-, meso- and metatarsal segments: 0.08, 0.03, 0.02, 0.02, 0.13; 0.08, 0.04, 0.03, 0.02, 0.13; 0.18, 0.06, 0.02, 0.14.

Male genitalia somewhat elongated fusiform, gently curved in lateral view, 1.18 mm in length and 0.28 mm in width; basale with area in the apical border rather complicated-shaped; apicale 0.70 mm (right side) in length, also complicated-shaped (see Figs. 37–39).

F e m a l e: Head less strongly produced anteriorly, antennae shorter; pronotum less strongly becoming narrower apicad, with hind angles less strongly angular; elytra more closely punctate.

Body length: 2.3–2.4 mm.

Type series. Holotype: ♂, "Taiwan, Hualien, / Shoufeng, 1.IV.2012 / K. Masumoto & / K. Takahashi leg." (NMNST). Paratypes: 4 exs., same date as for the holotype; 1 ♀, "2005. 6. 4. / 台北県瑞芳 (= Taipei Hsien, Ruifang) / Formosa / K. Takahashi leg."

Notes. The new species somewhat resembles *Derispia batuica* SCHAWALLER, 2005, originally described from W. Malaysia, but can be distinguished from the latter by the body slightly larger (2.0–2.2 mm in *D. batuica*), the head scattered with minute punctures, the pronotum noticeably produced

posteriad, with hind angles acute and directing laterad, the elytra obviously punctate, with the pattern of patches and the male genitalia absolutely differently shaped.

Etymology. The specific name is given in honor of the first collector of this new species, Dr. Keiichi TAKAHASHI.

List of *Derispia*-species from Taiwan

***Derispia annamita* (PIC, 1921)**

Leiochrodes annamitus PIC, 1921, Mél. exot.-ent., Moulin, (33): 8.

Distr.: Annam (= Central Vietnam); India; Taiwan (Shoufeng, Hualien Hsien) [New record].

Specimen examined: 1 ex., "Taiwan, Hualien / Shoufeng, 1. IV. 2012 / K. MASUMOTO & / K. TAKAHASHI leg."

***Derispia formosana* MASUMOTO, 1981**

Derispia formosana MASUMOTO, 1981, Ent. Rev. Japan, Osaka, **36**: 20.

Distr.: Taiwan (Fenchihu, Chiayi Hsien).

***Derispia klapperichi* KASZAB, 1942**

Derispia klapperichi KASZAB, 1942, Ent. Blätt., **38**: 216.

Distr.: Taiwan (Alishan and Fenchihu, Chiayi Hsien); China.

***Derispia kondoi* MASUMOTO, 1981**

Derispia kondoi MASUMOTO, 1981, Ent. Rev. Japan, Osaka, **36**: 23.

Distr.: Taiwan (Wulai, Taipei Hsien).

***Derispia lalashana* MASUMOTO, AKITA et LEE, sp. nov.**

Distr.: Taiwan (Lala-shan, Taoyuan Hsien).

***Derispia nanshanchiensis* MASUMOTO, 1981**

Derispia nanshanchiensis MASUMOTO, 1981, Ent. Rev. Japan, Osaka, **36**: 21.

Distr.: Taiwan (Nanshanchi, Nantou Hsien).

***Derispia osawai* MASUMOTO, AKITA et LEE, 2012**

Derispia osawai MASUMOTO, AKITA et LEE, 2012, Elytra, Tokyo, (N. S.), **2**: 197.

Distr.: Taiwan (Kenting National Park, Pingtung Hsien).

***Derispia sauteri* KASZAB, 1946**

Derispia sauteri KASZAB, 1946, Monogr. Leiochrinen: 108.

Distr.: Taiwan (Chiashen, Kaohsiung Hsien).

***Derispia takahashii* MASUMOTO, AKITA et LEE, sp. nov.**

Distr.: Taiwan (Shoufeng, Hualien Hsien; Ruifang, Taipei Hsien).

***Derispia tatachiaensis* MASUMOTO, AKITA et LEE, sp. nov.**

Distr.: Taiwan (Tatachia, Nantou Hsien).

***Derispia tengchiensis* MASUMOTO, AKITA et LEE, sp. nov.**

Distr.: Taiwan (Tengchi = Tengji; Shihshan logging trail, Kaohsiung Hsien).

***Derispia tsaoui* MASUMOTO, AKITA et LEE, sp. nov.**

Distr.: Taiwan (Shihshan logging trail; Chuyunshan logging trail, Kaohsiung Hsien).

***Derispia wangi* MASUMOTO, AKITA et LEE, sp. nov.**

Distr.: Taiwan (Hsitou, Nantou Hsien).

***Derispia zoltani* MASUMOTO, 1981**

Derispia zoltani MASUMOTO, 1981, Ent. Rev. Japan, Osaka, **36**: 22.

Distr.: Taiwan (Alishan, Chiayi Hsien).

要 約

益本仁雄・秋田勝己・李奇峰：台湾産ゴミムシダマシ科甲虫の新種。(7)クロホシテントウゴミムシダマシ属の6新種, 1新分布種。——台湾からキノコゴミムシダマシ亜科, テントウゴミムシダマシ族, クロホシテントウゴミムシダマシ属の6新種, *Derispia tengchiensis* sp. nov., *D. lalashana* sp. nov., *D. wangi* sp. nov., *D. tatachiaensis* sp. nov., *D. tsaoui* sp. nov., *D. takahashii* sp. nov. を命名記載し, 台湾から分布記録のなかった *Derispia annamita* (PIC, 1921) を新たに記録した。また, 今回の新種を含む台湾から記録されている同属種の目録を付した。

References

- KASZAB, Z., 1942. Über die von J. Klapperich in China gesammelten Leiochrinen (Col., Tenebrionidae). *Ent. Blätter*, **38**: 214–217.
- 1946. Monographie der Leiochrinen. Verlag des Ungarischen Naturwissenschaftlichen Museums. 1–221 pp. Budapest.
- MASUMOTO, K., 1981. New or little-known Tenebrionidae from Formosa (I). *Ent. Rev. Japan, Osaka*, **36**: 15–26.
- MASUMOTO, K., K. AKITA & C.-F. LEE, 2012. New tenebrionid beetles (Coleoptera) from Taiwan (6). Descriptions of four new species, and a comment concerning a male of the previously described species with figures of the male genitalia. *Elytra, Tokyo*, (n. ser.), **2**: 193–205.
- PIC, M., 1921. Nouveautés diverses. *Mél. exot.-ent., Moulins*, (33): 1–32.

SCHAWALLER, W., 2005. New species and records of Leiochrini (Coleoptera, Tenebrionidae) from continental south-eastern Asia. *Ent. Basil. Coll. Frey*, **27**: 209–226.

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