

## New or Little-known Tenebrionid Beetles (Coleoptera) from Taiwan

(14) Descriptions of Five New *Tarpela* Species (Tenebrioninae, Helopini)

with a Diagnostic Key to All the Taiwanese Species

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**Abstract** Five new *Tarpela* species of Tenebrionidae are described from Taiwan: *Tarpela pilushen-mua* sp. nov., *T. yuanfenga* sp. nov., *T. xiaoxueshana* sp. nov., *T. dongurii* sp. nov., and *T. merkli* sp. nov. A diagnostic key to all the Taiwanese *Tarpela* species is provided.

As the 14th paper of the results of our ongoing researches on new or little-known tenebrionid beetles from Taiwan, members of the genus *Tarpela* BATES, 1870 (Tenebrioninae, Helopini) were focused on. Only two species of the genus, *T. formosana* MASUMOTO, 1981 and *T. zoltani* MASUMOTO, 1981, have hitherto been known from Taiwan. After careful examination of collected materials, we found that another five species belonging to this genus are new to science. In this paper, we are going to describe them, and provide a diagnostic key to all the Taiwanese *Tarpela* species.

We would like to express our cordial thanks to Dr. Ottó MERKL, the Hungarian Natural History Museum, Budapest, for giving us invaluable advice and lending several materials preserved in the museum for the present study. We deeply thank Dr. Ming-Lun JENG and Dr. Jing-Fu TSAI, the National Museum of Natural Science, Taichung, for lending the types and other materials preserved in the museum. We also thank Dr. Keiichi TAKAHASHI (Ushiku City) for helping field surveys in Taiwan. Finally, we thank Dr. Makoto KIUCHI (Tsukuba City) for taking photographs inserted in this paper.

The holotypes designated for newly described species in this paper will be deposited in museums and an institute mentioned in each text. Abbreviations used herein are: NMNS: National Museum of Natural Science, Taichung; HNHM: Hungarian Natural History Museum, Budapest; NSMT: National Museum of Nature and Science, Tsukuba; TARI: Taiwan Agriculture Research Institute, Wufeng.

### Taxonomy

#### Genus *Tarpela* BATES, 1870

*Tarpela*, BATES, 1870: 272. Type species: *Tarpela brownii* BATES, 1870.

*Lamperos* ALLARD, 1876: 4. Type species: *Helops micans* FABRICIUS, 1798.

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\*In collecting data of this paper, symbols of “ ”, / and // are used. “ ” show the collecting data quoted from the original data; a slash separates the next line, and a double slash the next label.

***Tarpela formosana* MASUMOTO, 1981**

(Figs. 6, 18 &amp; 19)

*Tarpela formosana* MASUMOTO, 1981: 35. Type locality: Meifeng, Nantou Hsien, Formosa.

*Type specimens examined.* Holotype: ♂, “Meifeng (Nantou Hsien, Formosa) / 25. IV. 1976 / K. Masumoto leg.” (MSMT). Paratypes: 1 ♀, same data as for the holotype; 1 ♀, “Sung kang / 11-VI-1974 / H. Yokoyama leg.”; 1 ♀, “Meifeng / 30. VI. 1974 / H. Yokoyama leg.”

*Other specimens examined.* 1 ♂, 1 ♀, “TAIWAN, Nantou county / Kao-Leng Dyi. 18 km W of Wushe, 24°4.605 N. / 121°7.538 E. 2074 m. // from tree trunks at night. / 18-19. IV. 2002. / leg. D. A. Anstine, / Gy. Fábíán & O. Merkl. // HNHM”; 1 ♂, “C. TAIWAN: Meifeng / 2150m. Nantou Hsien / 19-21. IV. 1983 / K. C. Chou & S. P. Huang.” (TARD); 1 ♀, “Tengshi (Kaohsiung Hsien) / 13.VI.1983 / K. Masumoto leg.”; 1 ♀, no detailed data (native collector) / MASUMOTO Collection // (Taiwan); 1 ♂, “Taiwan, Taichung / Anmashan Cottage / VI/8/ 2005 / Y. L. Chen / By hand // NMNS ENT / 5017-106”; 1 ♂, “Taiwan Nantou / Meifeng / IV/9-V/7/2002 / C.S. Lin & W.T. Wang / Malaise Trap (KCN) // NMNS-ENT / 491-573”.

*Distribution.* Taiwan.

***Tarpela zoltani* MASUMOTO, 1981**

(Fig. 7)

*Tarpela zoltani* MASUMOTO, 1981: 34. Type locality: Alishan (2,400 m), Chiayi Hsien, Formosa.

*Type specimens examined.* Holotype: ♀, Alishan (2,400 m), Chiayi Hsien, Formosa, 10.VI.1977, J. KLAPPERICH leg. (HNHM).

*Other specimens examined.* 1 ♀, “Tsuifeng, Nantou / Formosa, 25.VI.1983, N. NIMURA”; 1 ♀, Taiwan, Hsinchu / Wufeng, Hsieha Farm / V/9-10/2004 / M. L. Chan, Ling & hand // NMNS ENT / 4784-122”; 1 ♀, “Taiwan: Pingtung / Jinshuiying (浸水營) / 12.IV.2012, leg. C.-F. LEE // *Tarpela zoltani* / Masumoto, 1981 / det. O. Merkl”.

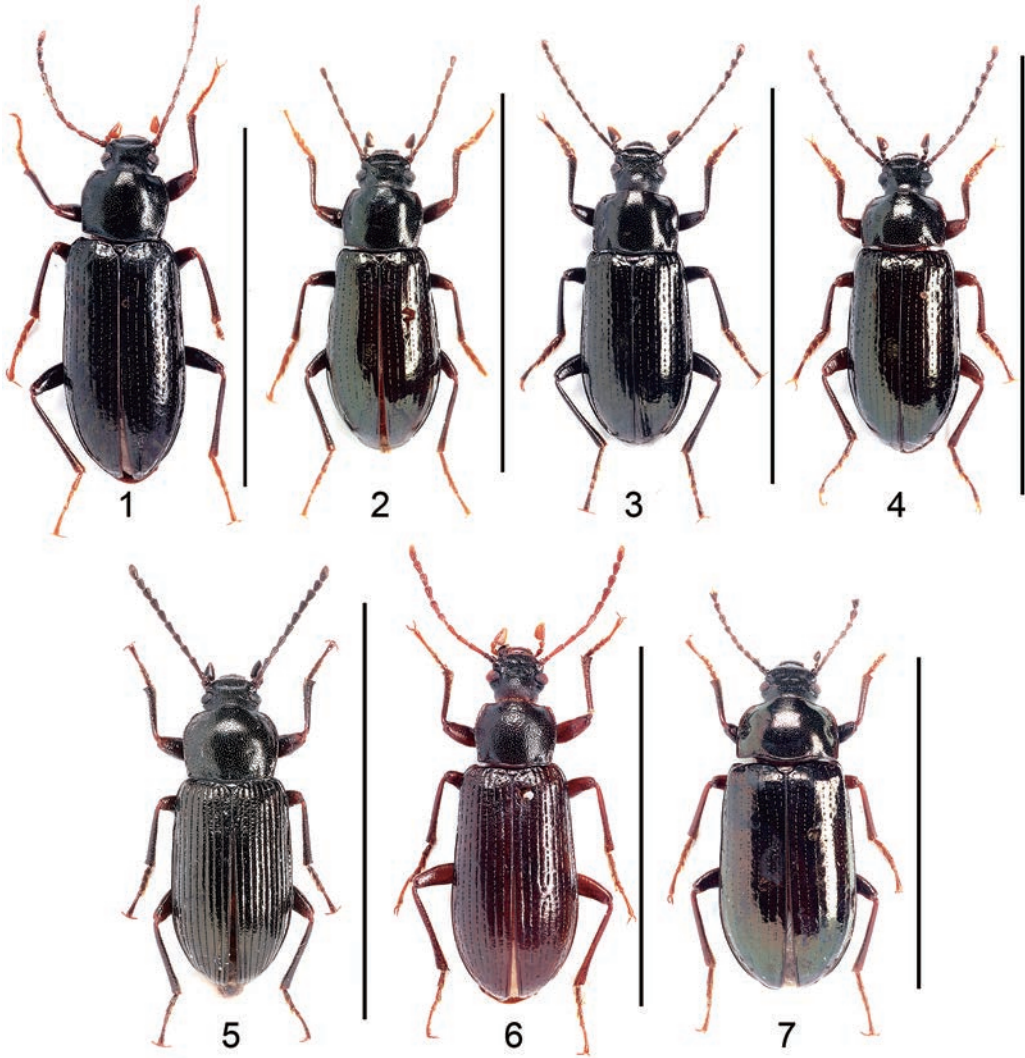
*Distribution.* Taiwan.

***Tarpela pilushenmua* sp. nov.**

(Figs. 1, 8 &amp; 9)

**M a l e.** Body elongated elliptical, weakly convex longitudinally and slightly flattened in medial portion; black with feeble brownish luster, antennae, femora and tibiae dark brown, mouth parts and tarsi reddish brown; head, pronotum and major portion of ventral surface moderately shining, scutellum and elytra microsculptured and weakly shining, antennae, mouth parts and tarsi nearly mat; dorsal and ventral surfaces of body almost glabrous, antennae, mouth parts, intero-ventral sides of tibiae and tarsi clothed with hairs.

Head subdecagonal, concealed by pronotum in basal portion, closely, weakly microsculptured and finely punctate; clypeus transversely hexagonal, weakly depressed in basal part, with apex very weakly rounded; fronto-clypeal suture nearly straight and finely impressed, with lateral parts weakly depressed and obliquely bent anteriorly; genae raised and gently, roundly produced antero-laterad; frons convex and narrowed in posterior parts, gently widened and inclined anteriorly. Eyes oval, transverse in dorsal view, roundly convex laterad, distance between them about 3.5 times as wide as trans-



Figs. 1–7. Habitus — 1, *Tarpela pilushenmua* sp. nov., holotype, ♂; 2, *T. yuanfenga* sp. nov., holotype, ♂; 3, *T. xiaoxueshana* sp. nov., holotype, ♂; 4, *T. dongurii* sp. nov., holotype, ♂; 5, *T. merkli* sp. nov., holotype, ♂; 6, *T. formosana* MASUMOTO, ♂; 7, *T. zoltani* MASUMOTO, ♀. Scales: 10.00 mm.

verse eye diameter. Antennae filiform, tip of terminal antennomere reaching basal 1/4 of elytra, length ratio (= mm in length) of antennomeres from base to apex: 0.21, 0.18, 0.44, 0.31, 0.32, 0.34, 0.35, 0.36, 0.32, 0.33, 0.47.

Pronotum short barrel-shaped, slightly transverse (width : length = 6 : 5), slightly narrower anteriorly than basally; apex very weakly produced anteriorly in middle, finely rimmed in lateral parts; base weakly produced, slightly sinuate in lateral parts, entirely rimmed; anterior corners rounded, posterior corners obtuse-angled; sides moderately declined to lateral margins; lateral margins roundly produced and bordered by rather distinct groove and fine rim, weakly sinuate near basal parts; disc moderately convex, depressed around four corners and in medio-basal part, impressed at middle close to lateral

margins, with scattered round punctures, sparse in medial part, becoming denser and smaller in remaining parts. Scutellum semicircular, microsculptured, microscopically, sparsely punctate and rugulose.

Elytra elongated subelliptical, about twice as long as wide, 3.50 times as long and 1.40 times as wide as pronotum, widest at apical 4/9, very weakly, nearly straightly narrowed anteriorly, roundly narrowed posteriorly from the widest point, slightly sinuate at basal 2/9; dorsum moderately convex longitudinally, weakly flattened in basal 1/5 of medial portion; disc with rows of punctures, those in interior rows small, subovate and close, those in exterior rows becoming longer and sparser, longitudinally interconnected, and often forming short longitudinal striae; interstriae weakly convex, microsculptured, with scattered microscopic punctures; lateral margins slightly expanded laterad, rather coarsely punctate, finely rimmed from shoulders to near apex; humeri moderately produced; apices slightly roundly produced. Hind wings complete.

Terminal maxillary palpomere securiform with interior corner obtusely angular, apical side gently rounded, 2.1 times as long as interior side, and 0.9 times as long as exterior side. Prosternum gently raised posteriad, ruguloso-punctate, widely emarginate and rimmed along apex, strongly raised in intercoxal space; prosternal process inclined apicad, almost pentagonal at bottom, triangular and coarsely granular at top; metaventricle without tuft of hairs. Abdominal ventrite 5 about 1.5 times as long as ventrite 4, finely punctate, the punctures becoming closer and smaller apicad; apical margin gently rounded, finely bordered only in lateral parts.

Intero-ventral sides of tibiae setaceous; tarsi rather long, length ratios of tarsomeres of pro-, meso- and metatarsi from base to apex (= mm in length): 0.35, 0.20, 0.16, 0.12, 0.63; 0.39, 0.32, 0.26, 0.22, 0.78; 0.59, 0.34, 0.29, 0.80.

Male genitalia weakly elongate fusiform, 2.60 mm long, 0.24 mm wide, gently curved in lateral view; apicale somewhat elongated triangular, 0.68 mm long, with apices very weakly prolonged.

F e m a l e. Unknown.

Body length. 8.60–9.50 mm.

*Type series.* Holotype: ♂, “Taiwan Hualien Hsien / Pilushenmu / III/14/2010 / H.H. Liang / Mercury light // NMNS ENT / 6438-131” (NMNS). Paratypes: 2 ♂♂, “台湾 (Taiwan), Pilu 碧綠 / 21. iii. 1991 / 羅錦吉 採集 (Luo Jinjih leg.) // Coll. Masumoto / 2001”; 1 ♂, “台湾 (Taiwan), Pilu 碧綠 / 19. iv. 1991 / 羅錦吉 採集 (Luo Jinjih leg.) // Coll. Masumoto / 2001”.

*Distribution.* Taiwan.

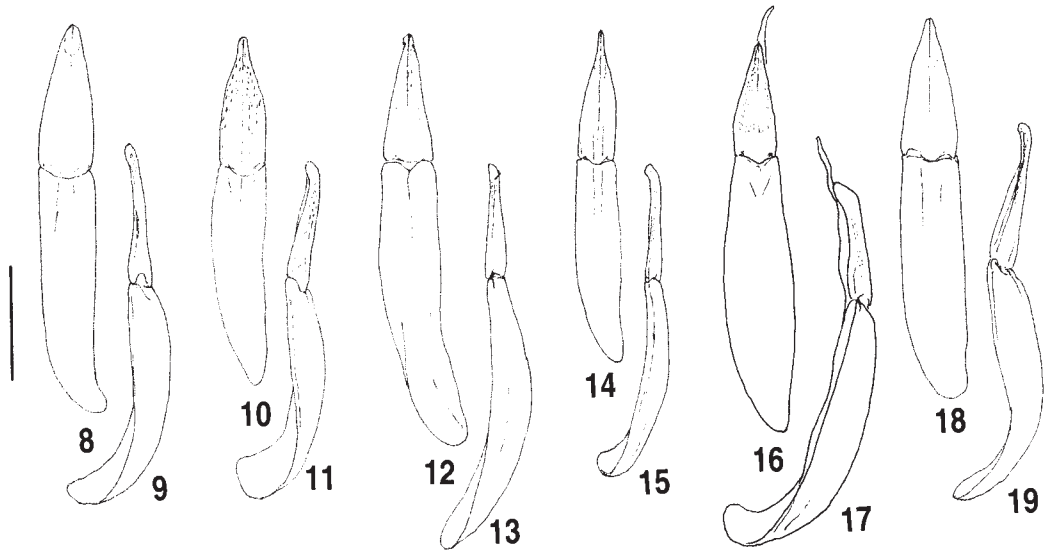
*Notes.* Its distinguishing characters from other Taiwanese species are mentioned in the diagnostic key provided after this section.

*Etymology.* The specific epithet, *pilushenmua*, is given after the place, Pilushenmu (碧綠神木 in Chinese), where the holotype was collected.

### *Tarpela yuanfenga* sp. nov.

(Figs. 2, 10 & 11)

M a l e. Body elongate oval, rather strongly convex dorsad, weakly constricted between pronotum and elytra; head, pronotum, scutellum and elytra brownish black with dark coppery luster, antennae, femora and tibiae brownish black, tarsi brown; head, pronotum, scutellum, elytra and major portion of ventral surface rather strongly, metallicly shining, femora and tibiae moderately shining, antennae and tarsi nearly mat; dorsal and ventral surfaces of body almost glabrous, antennae, mouth parts, intero-ventral sides of tibiae, and tarsi closely clothed with hairs.



Figs. 8–19. *Tarpela* spp., male genitalia. — 8 & 9, *T. pilushenmua* sp. nov., holotype; 10 & 11, *T. yuanfenga* sp. nov., holotype; 12 & 13, *T. xiaoxueshana* sp. nov., holotype; 14 & 15, *T. dongurii* sp. nov., holotype; 16 & 17, *T. merkli* sp. nov.; 18 & 19, *T. formosana* MASUMOTO, 1984. — Even numbers: dorsal view; odd numbers: lateral view. Scales: 0.50 mm.

Head transversely subhexagonal, concealed by pronotum in basal portion, weakly microsculptured, closely, finely punctate; clypeus transversely subhexagonal, weakly depressed in basal part, with apex subtruncate; fronto-clypeal suture finely impressed, nearly straight in middle, obliquely bent anteriorly and weakly depressed in lateral parts; genae raised and slightly, roundly produced antero-laterad; frons rather steeply inclined in anterior part, transversely depressed in medial part, and gradually raised toward vertex in posterior part. Eyes subovate, transverse in dorsal view, roundly convex laterad, distance between them about three times as wide as transverse diameter of eye. Antennae filiform, length ratio of antennomeres from base to 9th (remaining antennomeres lost in holotype): 0.26, 0.13, 0.43, 0.32, 0.30, 0.32, 0.30, 0.31, 0.28, —, —.

Pronotum short barrel-shaped, transverse (width : length = 9 : 7); apex slightly narrower anteriorly than basally, slightly trisinate, almost completely, finely rimmed; base weakly produced, slightly sinuate in lateral parts, completely grooved and rimmed; sides rather steeply declined to lateral margins; lateral margins roundly produced and distinctly bordered by groove and rim; anterior corners obtuse-angled, moderately acute, posterior corners subrectangular; disc convex, weakly depressed in medio-basal part, shallowly impressed at middle close to lateral margins, very slightly microsculptured, scattered with small, round punctures, sparse in medial part, becoming slightly denser in remaining parts. Scutellum subpentagonal, scattered with microscopic punctures in basal part, sparsely scattered with slightly larger punctures in apical part.

Elytra elongated subovate, noticeably narrowed in basal portion, 1.81 times as long as wide, 3.21 times as long and 1.43 times as wide as pronotum, widest at apical 4/9, noticeably sinuate at basal 2/9; dorsum rather strongly convex, very weakly depressed in basal 1/6 of medial portion; disc with rows of elongate punctures, which are often interconnected and finely striate in medial portions, become coarser in antero-lateral portions, and become intermittent striae in posterior portions; interstriae

weakly convex, very weakly microsculptured and somewhat transversely aciculate, sparsely scattered with microscopic punctures; sides very slightly expanded laterad, steeply declined to lateral margins, finely rimmed from shoulders to near apex; humeri rather reduced; apices slightly roundly produced. Hind wings atrophied.

Terminal maxillary palpomere subsecuriform, with interior corner slightly rounded; apical side slightly produced, 2.30 times as long as interior side, and 1.10 times as long as exterior side. Prosteronum very widely emarginate, noticeably rimmed along apex, weakly microsculptured in anterior part, raised and coarsely punctate in posterior part; intercoxal space strongly raised, subfusiform, finely punctate; prosternal process strongly depressed, short and rather wide, weakly roundly produced, sparsely scattered with punctures; metaventrite without tuft of hairs. Abdominal ventrite 5 about 1.40 times as long as ventrite 4, finely punctate and microsculptured, the punctures becoming closer and smaller apicad; apical part weakly raised in middle, apical margin gently rounded, finely bordered only in lateral parts.

Intero-ventral sides of tibiae haired; tarsi rather long, length ratios of tarsomeres of pro-, meso- and metatarsi: 0.30, 0.26, 0.19, 0.17, 0.57; 0.37, 0.32, 0.29, 0.18, 0.66; 0.53, 0.33, 0.26, 0.72.

Male genitalia weakly elongate fusiform, about 1.60 mm long, 0.21 mm wide; basale gently curved in lateral view; apicale somewhat elongate isosceles triangular, 0.60 mm long, strongly punctate, with apices weakly prolonged and bent ventrad.

F e m a l e. Unknown.

Body length. 8.00 mm.

*Type series.* Holotype: ♂, “Taiwan Nantou/ Yuanfeng / IV/9–V/7/2002 / C.S. Lin & W.T. Yang / Malaise trap (KCN) // NMNS ENT / 4312-806” (NMNS).

*Distribution.* Taiwan.

*Notes.* Its distinguishing characters from resembling species are shown in the diagnostic key.

*Etymology.* The specific epithet, *yuanfenga*, is given after the place, Yuanfeng ( 鸞峰 in Chinese), where the holotype was collected.

### *Tarpela xiaoxueshana* sp. nov.

(Figs. 3, 12 & 13)

M a l e. Body elongated elliptical, moderately convex longitudinally, not constricted between pronotum and elytra, very weakly flattened in medial portion; major portions of body blackish brown and without coppery luster, antennae, mouth parts and tarsi yellowish brown and with partly darker in color; head, pronotum and major portion of ventral surface moderately shining, scutellum and elytra strongly shining, antennae, mouth parts and tarsi nearly mat; dorsal and ventral surfaces of body nearly glabrous, antennae, mouth parts, intero-ventral sides of tibiae and tarsi clothed with hairs.

Head rather short and wide, very weakly microsculptured, with irregularly scattered punctures; clypeus short, moderately, transversely convex, distinctly, nearly straightly impressed on fronto-clypeal border, indistinctly, nearly longitudinally impressed clypeo-genal borders; genae raised and slightly produced in exterior marginal parts, rather strongly depressed in posterior parts before eyes; frons widely, weakly raised, moderately declined to fronto-clypeal border. Eyes transversely subovate in dorsal view, gently convex laterad, distance between them about 3.30 times as wide as transverse diameter of eye. Antennomeres rather noticeably dilated toward their apices, tip of terminal antennomere reaching basal 1/4 of elytra, length ratio from base to apex: 0.16, 0.12, 0.40, 0.28, 0.26, 0.27, 0.26, 0.27, 0.25, 0.25, 0.39.

Pronotum subquadrate, slightly transverse (width : length = 5 : 4); apex not produced but nearly

straight, rimmed only in lateral parts; base bisinuate; sides rather steeply declined to lateral margins, which are widest in anterior 1/3, roundly narrowed apicad, and very weakly narrowed posteriad from the widest point; anterior corners not angular but rounded, posterior corners almost rectangular; disc gently convex, evenly punctate, with impressions in middle close to lateral margins. Scutellum sub-pentagonal, very weakly convex dorsad, rather smooth but wholly, sparsely scattered with minute punctures.

Elytra elongated subelliptical, 1.82 times as long as wide, 3.87 times as long and 1.23 times as wide as pronotum, widest at apical 1/3, slightly narrowed in basal 1/3; dorsum moderately convex, highest in basal 2/7; disc with rows of weak punctures, which are often interconnected and form fine striae, closely set in interior portions, and become sparser in antero-lateral portions and finer in apical portions; interstriae nearly flattened, rather noticeably, transversely aciculate and wrinkled in antero-medial portions; sides rather steeply declined to lateral margins, which are distinctly grooved and rimmed; humeri normally developed; apices a little strongly produced. Hind wings complete.

Terminal maxillary palpomere rather strongly dilated apicad, with interior corner subrectangular; apical side slightly produced, about 1.80 times as long as interior side, about 1.10 times as long as exterior side. Prosternum rather narrow, roundly emarginate and weakly rimmed along apex, almost completely microsculptured and scattered with small punctures, moderately raised posteriad; intercoxal space short, rather smooth, weakly, longitudinally concave; prosternal process rather strongly depressed and short, only weakly produced; metaventrite without tuft of hairs. Abdominal ventrite 5 slightly long, about 1.5 times as long as ventrite 4, rather densely scattered with punctures, rather strongly raised apicad in middle, with apex slightly truncate.

Protibiae nearly straight; mesotibiae very weakly curved and haired on intero-apical face; metatibiae nearly straight. Pro- and mesotarsi rather noticeably dilated; length ratios of tarsomeres of pro-, meso- and metatarsi: 0.27, 0.24, 0.14, 0.10, 0.52; 0.23, 0.19, 0.15, 0.11, 0.56; 0.58, 0.26, 0.17, 0.61.

Male genitalia elongated subfusiform, about 1.80 mm long, 0.20 mm wide; basale gently curved in basal part in lateral view; apicale slightly elongated isosceles triangular, 0.56 mm long, with apices slightly prolonged and weakly bent ventrad.

F e m a l e. Unknown.

Body length. 7.70–8.00 mm.

*Type series.* Holotype: ♂, “Taiwan, Taichung, / Xiaoxueshan, / 20-21. X. 2016, / K. Takahashi leg.” (NMNS). Paratype: 1 ♂, same data as for the holotype.

*Distribution.* Taiwan.

*Notes.* Its distinguishing characters from resembling species are shown in the diagnostic key.

*Etymology.* The specific epithet, *xiaoxueshana*, is given after the place, Xiaoxueshan (小雪山 in Chinese) where the holotype was collected.

### *Tarpela dongurii* sp. nov.

(Figs. 4, 14 & 15)

Body elongated elliptical, moderately convex longitudinally and slightly flattened in medial portion; major portions of dorsal surface brownish black with feeble coppery luster, femora and tibiae reddish brown, mouth parts and tarsi yellowish brown; head, pronotum, major portion of ventral surface and legs moderately shining, scutellum and elytra rather strongly shining, antennae, mouth parts and tarsi nearly mat; dorsal and ventral surfaces of body almost glabrous, antennae, mouth parts, intero-ventral sides of tibiae and tarsi clothed with hairs.

**M a l e.** Head closely, finely punctate, feebly microsculptured, weakly impressed along fronto-clypeal suture on both sides; clypeus transversely subelliptical, weakly convex, with apical margin not truncate but mildly rounded; genae weakly raised in middle, weakly, roundly produced laterad; frons gently raised widely in middle, weakly declined to fronto-clypeal border, with a vague impression at middle between eyes. Eyes rather small, strongly convex laterad, distance between them about 3.00 times as wide as transverse eye diameter. Antennae rather noticeably dilated to each apex, tip of terminal antennomere reaching basal 1/3 of elytra, length ratio of antennomeres from base to apex: 0.25, 0.11, 0.28, 0.27, 0.24, 0.25, 0.27, 0.27, 0.26, 0.25, 0.31.

Pronotum transversely subquadrate (width : length = 3 : 2), widest at middle, roundly narrowed apicad and slightly roundly narrowed posteriad from the widest point; apex rather noticeably produced in medial part, entirely rimmed; base gently produced widely in medial part, sinuate in lateral parts; sides rather strongly declined to lateral margins, which are weakly, roundly produced, bordered by groove and rim, and sinuous before posterior corners; anterior corners rounded, posterior corners slightly angled; disc somewhat hemispherically convex, with round, rather sparsely scattered punctures. Scutellum slightly convex, rather smooth, sparsely scattered with minute punctures in lateral parts.

Elytra elongated subovate, 1.82 times as long as wide, about 3.50 times as long and 1.40 times as wide as pronotum, widest at basal 4/7, weakly roundly narrowed apicad, and more strongly so posteriad from the widest point; dorsum rather strongly convex, highest at basal 1/4; disc shallowly punctate-striate, the punctures subelongate; interstriae weakly convex, weakly microsculptured, and with noticeably scattered microscopic punctures; humeri longitudinally swollen; apices a little narrowly rounded. Hind wings complete.

Terminal maxillary palpomere with apical corner rather acute, apical side about 2.30 times as long as interior side, and about 0.90 times as long as exterior side. Prosternum rather widely emarginate and distinctly rimmed along apex, noticeably ruguloso-punctate, strongly raised posteriad; intercoxal space strongly raised and scattered with microscopic punctures; prosternal process small, triangularly produced; metaventricle without tuft of hairs. Abdominal ventrite 5 about 1.60 times as long as ventrite 4, weakly, widely convex, with small, closely scattered punctures, which become smaller in apical part.

Legs rather short and stout. Tarsomeres dilated to each apex; length ratios of pro-, meso- and metatarsi: 0.26, 0.24, 0.16, 0.11, 0.46; 0.24, 0.17, 0.13, 0.10, 0.56; 0.39, 0.26, 0.18, 0.56.

Male genitalia 1.35 mm long, 0.17 mm wide; basale gently curved in middle; apicale slightly elongated isosceles triangular, 0.62 mm long, weakly constricted in basal part, widened in middle, narrowed apicad, with apices weakly prolonged and slightly bent ventrad.

**F e m a l e.** Compared with the male, having stout body, antennae thicker, distance between eyes about 3.20 times as wide as transverse eye diameter, and elytra more coarsely punctate-striate.

Body length. 6.20–8.20 mm.

*Type series.* Holotype: ♂, “Taiwan Nantou / Meifeng / IX/10–X/15/2002 / C.S. Lin & W.T. Yang / Malaise trap (KCN) // NMNS ENT / 4913-81” (NMNS). Paratypes: 1 ♂, “Taiwan Nantou / Meifeng / IX/11–X/16/2001 / C.S. Lin & W.T. Yang / Malaise trap (KCN) // NMNS ENT / 4475-368”; 1 ♀, “Taiwan Nantou / Tsuifeng Station / XI/13/2007 / H.H. Liang / Mercury light // NMNH ENT / 5719-680”; 1 ♀, “Meifeng / Date 14-VI-1974 / H. YOKOYAMA leg. // Coll. Masumoto / 2001”; 1 ♀, “Formosa / Musha, 1919. / V 18 – VI 15 / T. Okuni, // nu rein ex. / *Tarpela* / n. sp.”; 1 ♀, “Alishan. / Chiayi Pref. / TAIWAN. 7. IV. 1986 / M. OHARA leg. // Coll. Masumoto / 2001”; 1 ♀, “Shihou. Alishan. / Chiayi Pref. / TAIWAN. 9. IV. 1986 / M. OHARA leg. // Coll. Masumoto / 2002”; 1 ♂, “Taiwan Nantou / Meifeng / IX.25–XI.3/1997 / C.S. Lin & W.T. Wang / Malaise trap // NMNS ENT / 3028-



60°.

*Distribution.* Taiwan.

*Notes.* Its distinguishing characters from resembling species are shown in the diagnostic key.

*Etymology.* The specific epithet, *dongurii*, is given after the nickname (Donguri-chan in Japanese or 小殼斗 in Chinese) of the son of Dr. Jing-Fu TSAI who has been supporting our study on the fauna of Taiwan for a long time.

***Tarpela merkli* sp. nov.**

(Figs. 5, 16 & 17)

Body elongated elliptical, moderately convex longitudinally and very slightly depressed in medial portion; major portions of dorsal surface black, antennae and legs with brownish tinge; major portion of dorsal and ventral surfaces moderately shining, antennae and legs weakly shining; dorsal and ventral surfaces of body almost glabrous, antennae, mouth parts, intero-ventral sides of tibiae and tarsi clothed with hairs.

*M a l e.* Head weakly microsculptured, closely, finely punctate; clypeus transversely subhexagonal and rather noticeably depressed; fronto-clypeal suture unclear; genae rather strongly raised and weakly, roundly produced antero-laterad; frons wide and gently raised in middle, rather steeply declined to fronto-clypeal border. Eyes subovate, slightly oblique in dorsal view, strongly convex laterad, distance between them about 2.50 times as wide as transverse eye diameter. Antennae moderately dilated to each apex, tip of terminal antennomere reaching basal 1/4 of elytra, length ratio of antennomeres from base to apex: 0.28, 0.11, 0.32, 0.27, 0.24, 0.26, 0.27, 0.28, 0.27, 0.25, 0.33.

Pronotum short barrel-shaped (width : length = 5 : 4), widest at slightly before middle, roundly narrowed apicad and more mildly roundly narrowed posteriad from the widest point; apex weakly produced, entirely rimmed, the rim a little bold in medial part and tapering laterad; base gently produced, slightly sinuate in lateral parts; sides rather steeply inclined, with lateral margins bordered by fine groove and rather remarkable rims, very slightly explanate in medial parts, and very slightly sinuous before posterior corners; anterior corners obtuse, posterior corners angled; disc somewhat hemispherically convex, closely punctate, the punctures somewhat elongate. Scutellum wide-triangular, flattened and smooth.

Elytra elongated elliptical, 1.79 times as long as wide, 2.77 times as long and 1.31 times as wide as pronotum, widest at apical 4/9, very weakly narrowed apicad, and roundly narrowed posteriad from the widest point; dorsum rather strongly convex, highest at basal 1/3, very weakly depressed in area before the highest point; disc strongly punctate-striate, the striae entirely growing posteriad, the striae punctures small and rather closely set; interstriae strongly convex, very weakly microsculptured, with irregularly scattered punctures, somewhat transversely aciculate, particularly noticeable in antero-lateral portions; humeri swollen; apices rounded. Hind wings complete.

Terminal maxillary palpomere securiform, apical side about 1.70 times as long as interior side, and almost of the same times as long as exterior side.

Prosternum rather widely emarginate and distinctly rimmed along apex, noticeably ruguloso-punctate, strongly raised posteriad; intercoxal space strongly raised; prosternal process small, triangularly produced, with sparsely scattered large punctures; metaventrite without tuft of hairs. Abdominal ventrite 5 about 1.2 times as long as ventrite 4, weakly, widely convex, closely scattered with small punctures.

Legs rather stout. Tarsomeres weakly dilated to each apex; length ratios of pro-, meso- and meta-

tarsi: 0.17, 0.12, 0.12, 0.10, 0.53; 0.16, 0.15, 0.13, 0.11, 0.56; 0.27, 0.17, 0.13, 0.60.

Male genitalia 1.44 mm long, 0.26 mm wide; basale gently curved in middle; apicale 0.50 mm long, gently narrowed apicad, with apices weakly prolonged and slightly bent ventrad.

**F e m a l e.** Compared with the male, antennae slightly bolder, distance between eyes about 3.10 times as wide as transverse eye diameter, pronotum less noticeably convex dorsad, and elytral interstriae less strongly convex and without aciculation.

Body length. 5.30–7.20 mm.

**Holotype:** ♂, “TAIWAN, Ilan County, / Fushan Botanical Garden, / at light, 21.I.2002, / leg. A. Kun & L. Ronkay” (HNHM). **Paratypes:** 10 ♂♂, 1 ♀, “Fushan, Ilan Co., / TAIWAN, XI-30- / 1994, A. Wameke”; 2 ♂♂, “Fushan, Ilan Co., / TAIWAN, XI-30- / 1994, Y. C. Sen”; 2 ♂♂, “Fushan, Ilan Co., / TAIWAN, XII-1- / 1994, A. Wameke”; 1 ♂, “Fushan, Ilan Co., / TAIWAN, XII-1- / 1994, Y. C. Sen”; 1 ♂, “大漢山 (Tahanshan Mt.) / Date: 4–6. Apr. 2015 / K. Masumoto leg. // Coll. Masumoto / 2015”; 1 ♀, “TAIWAN, Pingtung co. / Chunri Township / Mt. Tahanshan 1100m / (大漢山)30. IV. 2011 / Hideo Akiyama leg. // Coll. Masumoto / 2013”.

**Distribution.** Taiwan.

**Notes.** Its distinguishing characters from resembling species are shown in the diagnostic key.

**Etymology.** The specific epithet, *merkli*, is given in honor of Dr. Ottó MERKL (HNHM), who has been supporting our study about the Asian Tenebrionidae for a long time.

#### Diagnostic Key to the *Tarpela* Species from Taiwan

- 1 (2) Body size large (10.5–16.0 mm); dorsal surface dark reddish brown, without strong luster; pronotum very closely punctate, the punctures often fused with each other and becoming rather rugulose (Fig. 6) ..... *T. formosana* MASUMOTO
- 2 (1) Body size medium to small (5.30–9.50 mm); dorsal surface with strong luster; pronotum not so closely punctate, the punctures never becoming rugulose ..... 3
- 3 (4) Dorsal surface with strong coppery luster; punctures on pronotum very small; elytra with rows of punctures small and sparse, and not forming striae; interstriae flat (Fig. 7) ..... *T. zoltani* MASUMOTO
- 4 (3) Dorsal surface with strong luster, but not coppery, or only feebly coppery; punctures on pronotum rather large; elytra with rows of punctures large and close, and forming striae; interstriae more or less convex ..... 5
- 5 (6) Punctures on pronotum somewhat elongate and close; elytral striae deep and entire; interstriae strongly convex (Fig. 5) ..... *T. merkli* sp. nov.
- 6 (5) Punctures on pronotum almost round and sparse; elytral striae shallow, and partly disappeared; interstriae weakly convex ..... 7
- 7 (8) Body strongly convex dorsad; basal portion of elytra strongly narrowed; hind wings shortened, nearly of the same length of elytra; apicale of male genitalia strongly punctate (Fig. 2) ..... *T. yuanfenga* sp. nov.
- 8 (7) Body not so strongly convex dorsad; basal portion of elytra not narrowed; hind wings complete; apicale of male genitalia not strongly punctate ..... 9
- 9 (10) Elytral luster not so strong; pronotum barrel-shaped and narrow, width/length = ca 1.20 (♂) (Fig. 1) ..... *T. pilushenmua* sp. nov.
- 10 (9) Elytral luster strong; pronotum subquadrate and wide, width/length = 1.25–1.50 (♂) ..... 11
- 11 (12) Elytra and legs blackish brown, and without coppery luster; pronotum narrow,

- width/length = 1.25 (♂); 3rd antennomere long, 3.30 times the length of 2nd; apicale of male genitalia not so strongly prolonged, 0.32 times total length of genitalia (Fig. 3) ..... *T. xiaoxueshana* sp. nov.
- 12 (11) Elytra dark brown with feeble coppery luster, legs reddish brown; pronotum wide, width/length = 1.50 (♂); 3rd antennomere short, 2.60 times the length of 2nd; apicale of male genitalia prolonged in apical part, 0.46 times of total length of genitalia (Fig. 4) ..... *T. dongurii* sp. nov.

## 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（鞘翅目）の新種・稀少種。（14）マルムネゴミムシダマシ属（ゴミムシダマシ科，マルムネゴミムシダマシ族）の5新種。——台湾からゴミムシダマシ科マルムネゴミムシダマシ属5新種，*Tarpela pilushenmua* sp. nov., *T. yuanfenga* sp. nov., *T. xiaoxueshana* sp. nov., *T. dongurii* sp. nov. および *T. merkli* sp. nov. を命名記載した。また，台湾産本属の全種への検索表を付けた。

## References

- ALLARD, E., 1876. Révision des hélopinés vrais de Lacordaire. *L'Abeille, Journal d'Entomologie*, **14**: 1–80.
- BATES, F., 1870. Descriptions of new genera and species of Heteromera. *The Entomologist's monthly Magazine*, **6** [1869–1870]: 268–275.
- MASUMOTO, K., 1981. Tenebrionidae of Formosa (2). *Elytra, Tokyo*, **9**: 15–52. (In Japanese, with English descriptions.)

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