Tenebrionid Beetles (Coleoptera) from the Kenting Area in Taiwan
Three New Species and Three New Records of Occurrence

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Abstract
The result of the five-year ongoing research on tenebrionid beetles from the Kenting area, southernmost Taiwan, is dealt with. Three new tenebrionid species are described: Gonocephalum pengi sp. nov., Euhemicera lanae sp. nov., and Strongylium ohmomoi sp. nov. Three named species are recorded from this area as the new fauna of Taiwan, Gonocephalum senkakuense M.-T. Chûjô, 1973, Cneocnemis angustulus (Fairmaire, 1893), and Platydema takeii Nakane, 1956.

Since 2010, Dr. Yen-Chiu Lan, University of Kang Ning, has been conducting the five-year ongoing project concerning the insect fauna of the Kenting (= Kending) Area, southernmost Taiwan. The first author has been participating in this project for these three years. A lot of interesting species were collected from this area, and Dr. Lan asked the members of the present authors to examine them. In this paper, we would like to describe three new species and record three named species for the first time from Taiwan.

Before going further into details, we would like to express our cordial acknowledgement to Dr. Yen-Chiu Lan, University of Kang Ning, Tainan, for permitting to examine specimen materials from the Kenting area. We also thank Dr. Sadahiro Ohmomoi (Ibaraki Pref.) and Dr. Jing-Fu Tsai, Taiwan Forestry Research Institute, Taipei, for offering invaluable materials. Thanks are also expressed to Dr. Keiichi Takahashi (Ushiku City), Mr. Yen-Hao Peng and Mr. Chien-Chih Wang (University of Kang Ning), for supporting us in various way. Thanks should be also expressed to Dr. Ottó Merkl, the Hungarian Natural History Museum, Budapest, and Dr. Wolfgang Schawaller, Staatliches Museum für Naturkunde, Stuttgart, for their valuable advice. Finally we thank Dr. Makoto Kiuchi, (Tsukuba City), for taking clear photographs inserted in this paper.

The holotypes to be designated in this paper will be deposited in the collection of the National Museum of Natural Science, Taichung (NMNST).

Descriptions of New Taxa

Subfamily Tenebrioninae

Tribe Opatrini

Gonocephalum pengi sp. nov.
(Figs. 1, 5–8)

Male: Body oblong-ovate, weakly constricted at the border of pronotum and elytra, gently convex dorsad; brownish black, six basal segments and major apical part of terminal segment of antennae, and tarsi dark reddish brown, setae on each surface brownish yellow; each surface gently,
somewhat vitreously shining, though the dorsal surface is covered with a sort of secretion, five apical segments of antennae weakly shining; dorsal surface rather densely clothed with decumbent setae, ventral surface clothed with fine setae, which are shorter than those on dorsal surface, antennae minutely haired, legs clothed with fine setae.

Head somewhat transversely elliptical, though the apical margin is emarginate, gently inclined anteriad, closely rugoso-punctate, each puncture with a decumbent seta at the center; clypeus inclined apicad, apical margin gently produced anteriad, noticeably emarginate at the middle, each side of the emargination lobed and finely rimmed; fronto-clypeal border indefinite in middle, oblique in lateral parts, and reaching exterior margins; genae gently dilated antero-laterad, feebly convex in middle, weakly depressed anteriad, rather strongly so before eyes, with exterior margins rather noticeably produced laterad; frons moderately inclined anteriad, obliquely impressed close to fronto-clypeal border, longitudinally depressed along the midline, and also longitudinally depressed in lateral parts, with a short ridge at the inside of eye. Eyes oblique in dorso-lateral view, roundly produced postero-laterad, gently, widely inlaid into head, with diatome about four times the width of the transverse diameter of an eye. Antennae weakly subclavate, segment X the widest, tip of the terminal segment reaching at basal 1/4 of pronotum, ratio of the length of each segment from base to apex: 0.18, 0.07, 0.25, 0.18, 0.14, 0.12, 0.13, 0.14, 0.15, 0.15, 0.17.

Pronotum subquadrate with rounded sides, wider than long (10 : 7), widest at the middle, strongly sinuous before base; apex very slightly narrower than base, widely emarginate, nearly straight widely in middle, obliquely curved antero-laterad and finely margined in lateral portions; base weakly produced posteriad, sinuous in lateral portions, truncate in the middle opposite to scutellum; sides gently inclined laterad, then rather widely explanate, finely margined along lateral margins; front angles acutely produced anteriad, hind angles obtuse, with corners acutely projected postero-laterad; disc gently, widely convex, very weakly depressed in V-shape in antero-medial portions, granulate

Figs. 5–8.  *Gonocephalum pengi* sp. nov., holotype, ♂. — 5, Head and pronotum; 6, protibia; 7, male genitalia (dorsal view); 8, ditto (lateral view).
and haired in lateral margins, rather closely, coarsely punctate in major medial portion, each puncture with a granule and a decumbent scale-like seta. Scutellum somewhat widely pentagonal with rounded sides, raised posteriad, weakly convex in middle, microsculptured, scattered with small punctures in major basal part, each with a microscopic scale.

Elytra oblong-ovate with truncate basal portion, 1.60 times as long as wide, slightly more than 2.50 times the length and 1.11 times the width of pronotum, widest at the middle, weakly narrowed anteriad and roundly so posteriad; dorsum gently convex, highest at basal 4/9; disc with rows of punctures, which are rather closely set, grooved, and transversely impressed; intervals convex, very weakly microsculptured, transversely micro-aciculate, granulate, each granule with a decumbent scale-like seta, which are slightly larger than those on pronotum, and mostly pointing posteriad; sides rather steeply declined to lateral margins, which are grooved and finely rimmed, the rim barely visible from above in basal 3/5; humeri weakly swollen; apices weakly, roundly produced.

Terminal segment of maxillary palpus nearly securiform, with rounded exterior side about 1.6 times the length of the rounded interior, 1.2 times longer than the nearly straight apical. Mentum sub-hexagonal, depressed, coriaceous and sparsely haired widely in middle, ridged on the midline in antero-medial part, raised along antero-lateral margins; gula concealed under anterior part of prothorax in the holotype.

Prosternum medium in size with apex nearly straight and weakly ridged, rugulose and granular, sparsely clothed with decumbent setae with tips mostly pointing posteriad, weakly depressed in anterior portion, rather strongly raised posteriad in medial portion, inter-procoxal space raised, weakly concave longitudinally, microsculptured, sparsely punctate and granular, weakly ridged on insides of coxae; prosternal process blunt, weakly widened and depressed posteriad, coarsely rugoso-punctate, clothed with fine setae. Mesoventerite short, widely, triangularly depressed, longitudinally wrinkled and punctulate in anterior part, strongly raised in V-shape, weakly microsculptured, granular, obliquely rugulose and sparsely clothed with setae in posterior part. Metaventerite rather short and wide, impressed in posterior 3/4 on the midline, gently convex in medial and posterior portions on both sides, coarsely punctate and granular, each granule with a decumbent seta. Abdominal ventrites medium in size, very weakly microsculptured, rather closely scattered with small, somewhat transversely ovate punctures, each with a minute granule with a seta; anal ventrite microsculptured, scattered with umbilicate punctures, each with a seta at the centre, posterior margin grooved and rimmed.

Legs medium in size, coarsely rugoso-punctate and covered with setae; protibiae beneath without any modification; ratios of the lengths of pro-, meso- and metatarsal segments: 0.14, 0.08, 0.07, 0.06, 0.35; 0.20, 0.12, 0.11, 0.08, 0.40; 0.31, 0.18, 0.13, 0.45.

Male genitalia rather stout, 1.30 mm in length, 0.25 mm in width, gently curved in the middle of basale in lateral view; apicale 0.37 mm in length, rather strongly compressed from oblique-lateral sides in basal parts, and subparallel-sided in anterior 2/3, with apices roundly projected in dorsal view, and slightly hooked in lateral view.

F e m a l e: Head less strongly produced laterad; pronotum more strongly narrowed anteriad, with front angles more acute, elytra narrower in basal portions; antennae slightly shorter and less strongly widened apicad; terminal segment of maxillary palpus less strongly dilated apicad.

Body length: 6.3–6.7 mm.


Etymology. The specific name is given in honor of Mr. Yen-Hao PENG, who is an assistant of
Dr. Y.-C. Lan, and has been supporting our field survey in various ways.

**Notes.** This new species somewhat resembles *Gonocephalum sawadai* Masumoto, 1985, originally described from Honshu, Japan, but can be distinguished from the latter by the body smaller (8.5–9.5 mm in *G. sawadai*), the head with a short ridge at the inside of the eye, and the diatone narrower (six times in *G. sawadai*), the pronotum more widely explanate in the lateral margins, and with front angles more acutely produced, the elytra with rows of punctures, which are weaker and closer, and the male genitalia differently shaped.

Subfamily Stenochiinae

Tribe Cnodalonnini

**Euhemicera lanae** sp. nov.

(Figs. 2, 9–12)

**Male:** Body elongated oval, constricted at the border of pronotum and elytra, convex dorsad; dark yellowish brown, head, pronotum, scutellum and elytra dark brown with coppery tinge, elytral striae rather purplish, antennae and legs brownish black, hairs on ventral sides and in apical parts of intero-ventral face of tibiae grayish, tufts on ventral faces of tarsi golden yellow; head weakly shining, pronotum and scutellum moderately, feebly vitreously shining, elytra metallically shining with golden reflexion under a certain light, dorsal surface of legs and ventral sides of head moderately shining, ventral side of body rather tallowy; dorsal surface almost glabrous, antennae microscopically haired, major ventral sides of body glabrous, tibiae in apical parts on intero-ventral face rather densely clothed with long hairs, tarsi with ventral face densely tufted.

Head short and wide, gently inclined anteriad, weakly microsculptured; elypeus rather short-ob-

![Figs. 9–12. *Euhemicera lanae* sp. nov., holotype, ♂. — 9, Head and pronotum; 10, antenna; 11, male genitalia (dorsal view); 12, ditto (lateral view).](image-url)
trapezoidal, very weakly convex in medial part, rather closely punctate, the punctures becoming smaller laterad, with apex truncate and weakly, widely emarginate; fronto-clypeal border roundly impressed widely in middle part, obliquely bent in lateral parts, and reaching external margins; genae weakly dilated antero-laterad, roundly narrowed apicad, feebly convex in middle, depressed before eyes, rather closely punctate, the punctures smaller than on clypeus; frons wide, weakly convex widely in middle, punctate, the punctures smaller and sparser than on clypeus. Eyes somewhat transversely subelliptical in dorso-lateral view, strongly convex laterad, obliquely inlaid into head, with diatone 1.70 times the width of the transverse diameter of an eye. Antennae clavate, segment X the widest, tip of the terminal segment reaching base of elytra, ratio of the length of each segment from base to apex: 0.18, 0.12, 0.17, 0.11, 0.12, 0.15, 0.15, 0.16, 0.16, 0.17, 0.26.

Pronotum subquadrate, wider than long (7 : 5), widest at apical 2/5 and basal 1/5, very weakly sinuose at basal 2/5; apex nearly straight, narrower than base, grooved and finely rimmed in lateral portions; base triangularly produced posteriad, feebly sinuous and very weakly reflexed in lateral portions, truncate in area opposite to scutellum; sides gently declined to lateral margins, which are strongly grooved and rimmed, the rims becoming bolder posteriad; front angles rounded, hind angles rather acutely produced posterio-laterad; disc gently convex dorso-anteriad, weakly depressed in basal portion, very weakly covered with microsculpture, scattered with small punctures, obliquely impressed near base on both sides. Scutellum subpentagonal, flattened, sparsely, minutely punctate, the punctures smaller than on pronotum.

Elytra 1.50 times as long as wide, 3.00 times the length and 1.45 times the width of pronotum, widest at the middle, gently narrowed anteriad and posteriad; dorsum strongly convex, highest at basal 1/3; disc punctato-striate, the punctures rather small and closely set; intervals feebly convex, very weakly microsculptured, micro-aciculate, and scattered with small punctures, which are larger and closer than on the pronotum; sides rather steeply declined to lateral margins, which are strongly grooved, finely rimmed, and barely visible from above; epipleuron wide in basal portion, tapering apicad; humeri not swollen, exterior corners of margins angular; apices slightly roundly produced. Hind wings wide but shortened.

Terminal segment of maxillary palpus nearly securiform, with rounded exterior side about twice the length of the rounded interior, slightly longer than the nearly straight apical. Mentum subhexagonal, strongly convex in middle part, smooth in basal half, membranous in apical half, sparsely clothed with long hairs. Gula with border in parabolic, weakly, transversely aciculate, sparsely scattered with minute punctures, with a pair of short, crescent impressions on the borders near apex.

Prosternum short, weakly covered with microsculpture, apex widely emarginate and rimmed, inter-procoxal space raised in subsufusiform and flattened, weakly coriaceous, ridged along lateral margins, with a low longitudinal ridge on the midline; prosternal process strongly projected posteriad. Mesoventrite very short, very strongly, triangularly depressed in anterior portion, ridged in V-shape, ruguloso-punctate and finely haired in posterior portion. Metaventrite rather short, microsculptured, scattered with minute punctures, and obliquely rugulose in major medial portion, depressed in lateral portions, with a longitudinal impression in basal 3/5, and also with a pair of strong, transverse impressions along posterior margins. Abdominal ventrites rather large, microsculptured, and punctulate, longitudinally wrinkled in medial part of ventrite I, baso-medial parts of the II and III; anal ventrite microsculptured and punctulate in basal part, rather smooth and punctulate in apical part, with apex rounded.

Legs rather stout; femora short-clavate, minutely punctures in ventro-apical parts; tibiae rather closely punctate and finely haired, the hairs on apico-interior face becoming longer and denser; tarsi with each segment gently dilated apicad, densely tufted on ventral faces, ratios of the lengths of pro-
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Male genitalia elongated fusiform, 1.88 mm in length, 0.29 mm in width; basale rather strongly curved in middle in lateral view; fused apicale 0.61 mm in length, gently tapering apicad, weakly curved in basal part in lateral view, with subpatulate apices.

Female: Body bolder; punctures on dorsal surface stronger; elytra more coarsely punctate; legs stouter.

Body length: 5.8–6.6 mm.


**Etymology.** The specific name is given in honor of Dr. Yen-Chiu LAN, who collected the holotype.

**Notes.** This new species somewhat resembles *Hemicera kurosawai* MASUMOTO, 1981, originally described from Kuantziling (Tainan Hsien), Meifeng (Nantou Hsien), Lushan (Nantou Hsien), Juisui (Hualien Hsien) and Fenchihu (Chiayi Hsien), in C. Taiwan, but can be distinguished from the latter by the body widened posteriad, more strongly convex dorsad and constricted at the border of the pronotum and elytra, and the male genitalia with peculiar shaped apices. As the hind wings are wide but obviously shortened, they should be in the process of retrogression.

**Tribe Stenochiini**

*Strongylium ohmomoi* sp. nov.

(Fig. 3)

Female: Body elongate; piceous, five basal segments of antennae, mouth parts, terminal segments of tarsi and apical parts of claws dark brown, hairs on ventral surfaces of legs pale yellow; head except clypeus, and pronotum weakly, sericeously shining, clypeus, scutellum, elytra and legs moderately shining, prosternum and mesoventrite weakly shining, metaventrite and abdominal ventrites gently, somewhat tallow-likely shining; dorsal surface near glabrous, ventral surface clothed with fine decumbent hairs, ventral surfaces of tarsi clothed with rather strong hairs.

Head convex in middle, gently inclined antennad, very weakly microsculptured; clypeus semicircular, depressed in basal part, gently convex in middle, weakly bent ventrad in apical part, rather closely punctate, each puncture with a short decumbent hair, with a short transverse impression just before fronto-clypeal border; fronto-clypeal border roundly curved and rather strongly impressed, with lateral ends reaching external margins; genae moderately, roundly raised antero-laterad, sparsely punctate; frons gently, widely convex, steeply inclined behind fronto-clypeal border, closely and coarsely punctate; vertex with a shallow round impunctate impression at the middle; occiput inclined posteriad, closely punctate. Eyes medium-sized and subreniform in dorsal view, convex slightly antero-laterad, rather obliquely inlaid into head, diatone about twice the width of the transverse diameter of an eye. Antennae gently becoming bolder apicad, tip of the terminal segment reaching basal 1/9 of elytra, ratio of the length of each segment from base to apex: 0.62, 0.22, 0.60, 0.26, 0.28, 0.67, 0.52, 0.57, 0.43, 0.39, 0.49.

Pronotum subquadrate with gently rounded sides, slightly wider than long (5 : 4), widest slightly
behind the middle, sinuous before base, noticeably covered with isodiametric microsculpture; apex nearly straight, slightly wider than base, rimmed, the rim tapering laterad and sparsely scattered with small punctures; base bordered by a groove and rimmed, the rim bolder than apex, sparsely, irregularly scattered with small punctures; sides rather steeply declined to lateral margins, which are grooved, finely ridged, and visible from above; front angles rounded, hind angles subrectangular in dorsal view; disc gently convex, weakly, triangularly depressed in medial portion and rather strongly, obliquely impressed in lateral portions close to base, closely, irregularly and coarsely punctate, each puncture with a microscopic scale-like hair. Scutellum elongated equilateral triangle, weakly elevated, very weakly covered with microsculpture, sparsely scattered with fine punctures.

Elytra 2.11 times as long as wide, 4.71 times the length and 1.52 times the width of pronotum, widest at apical 3/8, gradually narrowed anteriorly and roundly so apicad, very weakly constricted in area around basal 1/4; dorsum moderately convex and very weakly depressed in area around basal 1/6 in the middle, highest at basal 1/3; disc with rows of punctures, which are small and round to slightly ovate at each bottom, and become larger and rather transverse towards each surface, those in medio-lateral portions large and rather foveolate, and those in posterior portions small and connected with one another by shallow grooves; intervals longitudinally convex, and also transversely connected with one another, feebly aciculate; sides steeply declined to lateral margins, which are bordered by punctured grooves, very finely rimmed, and invisible from above; humeri rather strongly swollen, smooth, slightly aciculate; apices very weakly, roundly produced.

Terminal segment of maxillary palpus weakly, roundly dilated apicad and obliquely truncate at apex, with rounded exterior side about 1.85 times the length of the rounded interior, about twice the length of the weakly rounded apical. Mentum narrowly subhexagonal, weakly, longitudinally ridged at the middle, coriaceous, and sparsely pubescent; gula gently convex, very weakly, transversely wrinkled in anterior part, transversely microscopically rugose in basal part, with a pair of short, oblique impressions on the borders near apex.

Prosternum medium in size with apex feebly emarginate and very finely rimmed, rather widely depressed and rugoso-punctulate in anterior portion; inter-procoxal space rather strongly raised, weakly, longitudinally depressed in medial portion, feebly rugulose; prosternal process depressed, very weakly, roundly produced and rugulose. Mesoventrite short, weakly depressed in short Y-shape in middle, coarsely rugoso-punctate, feebly convex in antero-medial portion, longitudinally depressed in posterior portion, antero-interior portions of mesocoxae gently convex, rugulose, and sparsely clothed with fine, long hairs. Metaventrite rather short, weakly microsculptured, somewhat transversely depressed and rugoso-punctate, each puncture with a fine decumbent hair in basal portion, gently convex and punctuate, each puncture with a fine decumbent hair broadly in medial portion, finely punctate, haired and obliquely aciculate in posterior portions, coarsely punctate in lateral portions, with an impression in posterior 2/3 on the midline. Abdominal ventrites rather long, rather strongly covered with microsculpture, somewhat transversely wrinkled, and closely punctate, each puncture with a pily hair; anal ventrite rather closely, finely punctate, each puncture with a fine decumbent hair, with apex rounded.

Legs rather bold; femora short-clavate, metafemur with posterior face weakly gouged and clothed with fine decumbent hairs; tarsi long, ratios of the lengths of pro-, meso- and metatarsal segments: 0.25, 0.20, 0.20, 0.14, 1.28; 0.62, 0.36, 0.28, 0.24, 1.20; 0.80, 0.36, 0.32, 1.26; claws rather stout.

**Male**: Unknown.

**Body length**: 4.5 mm.

**Type series**: Holotype: ♀, Taiwan, Kending, / Kendinggongyuan / 8.IV.2012 / S. Ohmomo
leg.” (NMNHT).

Etymology. The specific name is given in honor of Dr. S. OHMOMO, who collected the holotype.

Notes. This new species somewhat resembles Strongylium shigeoi MASUMOTO, AKITA & LEE, 2008, from Central Taiwan, but can be easily distinguished from the latter by the body obviously smaller (6.2–7.7 mm in S. shigeoi), the head less strongly convex laterad, the head and pronotum more strongly punctate, the pronotum shorter and subquadrate, with the hind angles neither acute nor produced postero-laterad, the elytra with the rows of punctures, which are more transverse, and without granule on each side, and the intervals more noticeably, transversely united, and the legs bolder and covered with strong punctures and fine hairs.

New Records of Named Species from Taiwan Collected in the Kenting Area

Subfamily Tenebrioninae

Tribe Ulomini

Cneocnemis angustulus (FAIRMAIRE, 1893)

(Fig. 4)


Distribution. Indochina; Taiwan [New record].

Specimen examined. 1 ex., "TAIWAN, Pingdong / Shuiwaku (水蛙窟) / 21°56'26.7"N 120°50'3.0" E / 2012.1X.23. / leg. 蔡經甫，鴻鎰秋 (= TSAI J.-F., LAN Y.-C.) / by Mercury-vapor lamp”.

Tribe Opatrini

Gonocephalum senkakuense M.-T. CHÛJÔ, 1973


Distributions. Japan (the Ryukyus: Senkaku Isls., Yonguny-jima Is.); Taiwan [New record].


Subfamily Diaperinae

Tribe Diaperini

Platydema takeii NAKANE, 1956


Distributions: Japan (Honshu, Shikoku, Kyushu); Taiwan [New record].

Specimens examined (Kenting area): 2 exs., “Kending Gongyuan, 1.XI.2011, Y.-C. LAN leg.”; 2

要 約

益本仁雄・秋田勝己・李奇峰：台湾・墾丁地区のゴミムシダマシ3新種3新分布記録。——台湾南端の墾丁地域で、台南市康寧大学の藍麗秋博士が中心となって2010年から5年継続の生物調査をおこなっている。筆者らは、このプロジェクトに参画し、ゴミムシダマシ科の分布解明に取り組んでいる。今回の報告では、3新種Gonocephalum pengi sp. nov.（スナゴミムシダマシ属の一種）、Euhemicera lanae sp. nov.（オオニゴミムシダマシ属の一種）、Strongylium ohnomoi sp. nov.（ナガキマワリ属の一種）を記載し、さらにこの地域から、Gonocephalum senkakuense M.-T. Chūo, 1973（センカスナゴミムシダマシ）、Cneocnemis angustulus（Fairmaire, 1893）（アカヒメゴミムシダマシ属の一種）、Platydema takeii Nakane, 1956（タケイキノコゴミムシダマシ）の3種を台湾での新分布記録とした。

References


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