

Tenebrionidae of East Asia

(VIII) Three New Species of the Genera *Campsiomorpha* (Cnodalonini) and *Strongylium* (Strongyliini) from Taiwan

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Abstract Three new tenebrionid species (Coleoptera, Tenebrionidae) are described from Taiwan: *Campsiomorpha andoi* sp. nov. (Cnodalonini), *Strongylium ochii* sp. nov., and *Strongylium lutaoense* sp. nov. (Strongyliini).

In this paper, I am going to describe three new tenebrionid species taken in Taiwan, where I have been undertaking researches of the coleopteran fauna since 1971.

Of the new species to be described, the first one belongs to the genus *Campsiomorpha* (Cnodalonini). PIC (1930) described *Campsiomorpha spectabilis* var. *formosana* from the island. Recently, I noticed that two species of *Campsiomorpha* occur in Taiwan. Through the courtesy of Dr. Claude GIRARD, Muséum National d'Histoire Naturelle, Paris, I have had an opportunity of examining the type of PIC's species.

The second insect is a *Strongylium* (Strongyliini) brought forth by Mr. Teruo OCHI of Kawanishi City. Though I felt that the species resembled a member of the Papuan Region at the first impression, I was unable to find any relatives in the Papuan and also the Oriental Regions.

The third species is also a *Strongylium* and was captured on Lutao Island located 30 kilometers off the east coast of Taiwan. This beetle is unique in that each elytral puncture is surrounded by four granules at the upper edge, two at the sides and the other two in front and back.

Before going into descriptions, I wish to express my sincere thanks to the above two persons, and also to Mr. Kaoru SAKAI who took photographs inserted in this paper.

The holotypes will be preserved in the collection of the National Science Museum (Nat. Hist.), Tokyo.

Descriptions

Campsiomorpha andoi sp. nov.

(Figs. 1, 5-6)

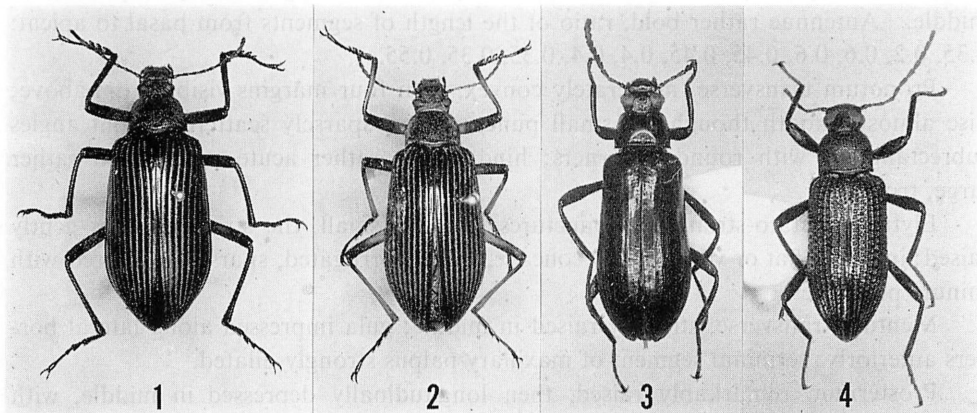
This new species resembles *Campsiomorpha formosana* PIC in general appearance

(Fig. 2), but can be discriminated from the latter by the characteristics mentioned in the following table.

Table for comparison of *Campsiomorpha* spp. from Taiwan

	<i>C. formosana</i> PIC	<i>C. andoi</i> sp. nov.
Body	more slender, less strongly thickened in middle, with surface more distinctly covered with hairs	stouter, more strongly thickened in middle, less distinctly covered with hairs
Clypeus	apical margin more distinctly emarginate with each side more strongly produced forwards	apical margin less distinctly emarginate with each side less strongly produced forwards
Genae	less distinctly raised	more distinctly raised
Eyes	more strongly convex laterad and more deeply inlaid inwards with ocular sulcus becoming shallower before eye	less strongly convex laterad and less deeply inlaid inwards with ocular sulcus not becoming shallower before eye
Pronotum	less distinctly narrowed towards apex, with base less distinctly sinuous on each side, hind angles less angulate	more distinctly narrowed towards apex, with base more distinctly sinuous on each side, hind angles distinctly angulate
Scutellum	smaller and narrower	larger and wider
Elytra	more clearly punctato-striate, the striae feebly bearing greenish tinge, less distinctly micro-shagreened	less clearly punctato-striate, the striae feebly bearing violet tinge, distinctly micro-shagreened
Scutellar striole	longer as compared with own elytral length	shorter as compared with own elytral length
Intervals	more convex above, distinct in apical portions	less convex
Humeri	less remarkably gibbous, with base of 9th interval almost invisible from above	more remarkably gibbous, with base of 9th interval visible from above
Apices	less strongly produced	more strongly produced
Mentum	narrower	wider

	<i>C. formosana</i> PIC	<i>C. andoi</i> sp. nov.
Prosternal process	longitudinally impressed in middle	triangularly depressed in middle
Mesosternum	semicircularly ridged at base, each frontal side pointed	triangularly ridged at base, with each frontal side not pointed
Metasternum	more distinctly produced in baso-medial portion	less distinctly but more widely produced in baso-medial portion
Anal segment	narrower at base	wider at base
Legs	more slender, with tarsi weakly dilated towards each apex, tibiae (especially metatibiae) light brown	bold, with tarsi more strongly dilated towards each apex, tibiae always dark in colour
Male genitalia	as in Figs. 7-8	as in Figs. 5-6
Body length	22-27 mm	26-32 mm
Locality	Paling (Taoyuan), Nanshanchi, Wushe, Lushan, Hehuanshan, Tehuashe (Nantou), Tenghsi, Liukuei (Kaohsiung), etc.	Yangmingshan, Wulai, Taitung (Taipei)



Figs. 1-4. Dorsal views. — 1, *Campsiomorpha andoi* sp. nov., ♂, holotype; 2, *C. formosana* PIC, ♂; 3, *Strongylium ochii* sp. nov., ♀, holotype; 4, *Strongylium lutaoense* sp. nov., ♂, holotype.

Type series. Holotype. ♂, Yangmingshan, Taipei Hsien, Taiwan, 28-V-1973, K. MASUMOTO leg. Paratypes. 2 exs., same data as for the holotype; 1 ex., 27-VI-1981, same locality and collector as for the holotype; 1 ex., 29-V-1968, 1 ex., 30-V-1968,

Yangmingshan, Y. HAYASHI leg.; 3 exs., Tatunshan, Taipei Hsien, 10-VI-1977, H. SAKAINO leg.; 1 ex., 5-V-1973, 1 ex., 28-VI-1981, Wulai, Taipei Hsien, K. MASUMOTO leg.; 1 ex., Wulai, 2-VIII-1969, no collector's name.

Notes. The type of *Campsiomorpha formosana* PIC is a female specimen and labelled as follows: Formosa Y. Miwa (printed)/type (manuscript)/TYPE (printed)/Museum Paris Coll. M. Pic (printed)/*spectabilis* v. *formosanus* Pic (manuscript). The specimen clearly resembles those from central Taiwan, e.g., Musha (Wushe), where Y. MIWA might collect the material.

The new species occurs in the northernmost part of Taiwan in the suburbs of Taipei City.

Strongylium ochii sp. nov.

(Fig. 3)

Rather elongate, gently convex longitudinally, feebly widened posteriorly. Ventral surface brownish black and feebly bearing greenish blue tinge, moderately shining; dorsal surface dark greenish blue, rather strongly shining.

Head subdecagonal, raised in middle; clypeus transversely hexagonal, sparsely and finely punctate, truncate and bent downwards in front; genae triangularly produced and raised, with lateral margins subparallel in basal half; frons smooth and declined to fronto-clypeal suture, which is clearly impressed and arcuate; eyes fairly large, roundly convex laterad, with interocular space same in width as that of each eye; occiput sparsely scattered with small punctures, longitudinally impressed in middle. Antennae rather bold, ratio of the length of segments from basal to apical: 0.35, 0.2, 0.6, 0.6, 0.45, 0.45, 0.4, 0.4, 0.35, 0.35, 0.55.

Pronotum transverse, moderately convex, with four margins visible from above; disc almost smooth though the small punctures are sparsely scattered; front angles subrectangular with rounded corners; hind angles rather acute. Scutellum rather large, triangular.

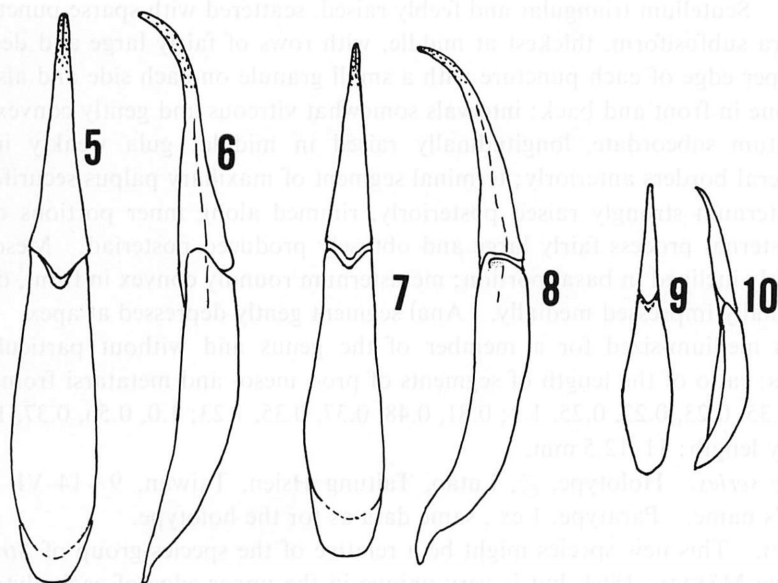
Elytra punctato-striate, the punctures in striae small, the strial portions gently raised; intervals flat or very slightly concave, feebly corrugated, sparsely scattered with minute punctures.

Mentum transverse, strongly raised in middle; gula impressed along lateral borders anteriorly; terminal segment of maxillary palpus strongly dilated.

Prosternum remarkably raised, then longitudinally depressed in middle, with prosternal process large, strongly depressed and bluntly pointed backwards. Mesosternum widely, triangularly depressed in anterior portion. Anal sternite longest of 5 visible abdominal sternites.

Legs rather bold; ratio of the length of segments of pro-, meso- and metatarsi from basal to apical: 0.3, 0.2, 0.24, 0.23, 1.2; 1.6, 0.77, 0.68, 0.55, 1.5; 1.55, 0.75, 0.57, 1.48.

Body length: 12 mm.



Figs. 5-10. Male genitalia. — 5-6. *Campsiomorpha andoi* sp. nov., 5, dorsal view; 6, lateral view. — 7-8. *C. formosana* Ptc; 7, dorsal view; 8, lateral view. — 9-10. *Strongylium lutaense* sp. nov.; 9, dorsal view; 10, lateral view.

Type series. Holotype. ♀, Liukuei, Taiwan, 4-V-1978, W. CHENG leg.

Notes. This new species is very unique in that the four pronotal margins are visible from above. I cannot find any related species ever named from the Oriental and Papuan Regions.

Strongylium lutaense sp. nov.

(Figs. 4, 9-10)

Oblong, rather strongly convex longitudinally, feebly widened in posterior portion. Dark reddish brown, with dorsal surface moderately shining and ventral surface gently so.

Head subdecagonal, convex above, rather closely punctate; clypeus semicircular, truncate and bent downwards in front; genae obtusely angulate and distinctly raised; eyes large, roundly convex laterad, broadly inlaid in head in dorsal view, with diatone about a half of the width of each eye; frons fairly steeply declined to finely impressed fronto-clypeal border; occiput moderately convex, with impunctate area in middle. Antennae subfiliform, ratio of the length of segments from basal to apical: 0.47, 0.2, 0.78, 0.75, 0.76, 0.65, 0.63, 0.62, 0.62, 0.63, 0.77.

Pronotum subparallel-sided in basal 2/3, rounded in apical 1/3; apical and lateral margins finely bordered; base noticeably rimmed; disc rather strongly convex, fairly closely and somewhat coarsely punctate; front angles rounded; hind angles subrec-

tangular. Scutellum triangular and feebly raised, scattered with sparse punctures.

Elytra subfusiform, thickest at middle, with rows of fairly large and deep punctures, upper edge of each puncture with a small granule on each side and also with a smaller one in front and back; intervals somewhat vitreous and gently convex.

Mentum subcordate, longitudinally raised in middle; gula weakly impressed along lateral borders anteriorly; terminal segment of maxillary palpus securiform.

Prosternum strongly raised posteriorly, rimmed along inner portions of coxae, with prosternal process fairly large and obtusely produced posteriad. Mesosternum triangularly inclined in basal portion; metasternum roundly convex in front, distinctly, longitudinally impressed medially. Anal segment gently depressed at apex.

Legs medium-sized for a member of the genus and without particular characteristics; ratio of the length of segments of pro-, meso- and metatarsi from basal to apical: 0.35, 0.23, 0.22, 0.25, 1.2; 0.81, 0.48, 0.37, 0.35, 1.23; 1.0, 0.56, 0.37, 1.22.

Body length: 11–12.5 mm.

Type series. Holotype. ♂, Lutao, Taitung Hsien, Taiwan, 9~14-VI-1989, no collector's name. Paratype. 1 ex., same data as for the holotype.

Notes. This new species might be a relative of the species-group of *Strongylium cultellatum* MÄKLIN, 1864, but is very unique in the upper edge of each elytral puncture with a granule not only on each side but also in front and back, and elytral intervals only gently convex (in case of other species of the group, upper edge of each elytral puncture bears a granule only on each side and the odd elytral intervals are ridged).

要 約

益本仁雄：東南アジアのゴミムシダマシ科。(VIII) 台湾産 *Campsiomorpha* 属 (Cnodalonini 族) の1新種および *Strongylium* 属 (Strongyliini 族) の2新種について。——台湾には *Campsiomorpha formosana* PIC が分布しているが、最近、同島産の標本のなかに特徴の異なる個体群があることに気づき、バリの国立自然史博物館から既知種の基準標本を借り出し比較検討したところ、台北県に分布しているものは別種であることが判明した。また、高雄県六龜郷で採集された *Strongylium* は、前胸背板が台形で隆起が弱く、4外縁が背面から見えるという特異な形状をしている。さらに、緑島産の *Strongylium* は、*S. culcutellum* MÄKLIN に近縁であるが、上翅点刻周囲の左右と上下に小顆粒をそなえ、各間室は同様に弱く膨隆する。以上の3種を新種記載した。

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