Taxonomical Notes on the Southeast Asian Species of the Clavigerine Genus *Articerodes* (Insecta, Coleoptera, Staphylinidae, Pselaphinae)

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Abstract Four new clavigerine species of Pselaphinae are described: *Articerodes ohmomoi*, *A. jariyae* and *A. thailandicus* from the eastern part of Thailand and a new species, *A. longiceps* from South Vietnam. Observations of their external structures by SEM are present in this study. Systematic position of this genus is discussed.

Key words: Coleoptera, Staphylinidae, Pselaphinae, Articerodes, new species.

The genus *Articerodes* is known from the Palaearctic, Oriental and Ethiopian Regions. Four Asian species of this genus have been known, namely, *A. kurosawai* Nomura and *A. kishimotoi* Nomura from Ogasawara, Pacific islands of Japan (Nomura, 2001), *A. borneensis* Bryant from Sarawak, Borneo and *A. quadriscopulatus* Schaufuss from Sumatra. However, no *Articerodes* species have been recorded from the Asian Continent. In the course of the authors' study on the pselaphine fauna of Southeast Asia, three new species from Thailand and a new species from Vietnam were discovered. In the present study, the new species are described on the basis of a detail observation by SEM.

Material and Methods

The holotype specimen of *A. ohmomoi* sp. nov. was collected by a light trap (LT), and the paratype of this species was captured by a special type of flight intercept trap (FIT). The FIT used in Thailand (Khao Ang Rue Nai: Fig. 1A) was coded NHP-1 (Fig. 1B), which is a hanging type for high layer of the forest (5–10 m above the ground), consisting of a diamond-shaped vertical barrier sized $850 \text{ mm wide} \times 1100 \text{ mm high}$, a roof, and receiving funnel, all of which are made of thin plastic sheet (0.1 mm in thickness) together with preserving bottle (PET) filled with sorbic acid hydrate.

The holotype of *A. longiceps* was collected by hand sifting leaf litter in the dry secondary forest in Vietnam. The other type materials were extracted from leaf litter by Tullgren funnels.

The holotypes of the new species described below were not metal-coated for SEM observation. They were examined by a scanning electron microscope (SEM: JEOL JSM-6380LV), observed under dry condition with low accelerating voltage 0.9–1.5 kV, and were digital-micrographed from various angles. Scale bars in all figures are in micrometres. Measurements of the body and the parts were made by Nomura with a stereo microscope (Leica MZ Apo).

All holotypes are deposited in the National Museum of Nature and Science, Tokyo (NSMT), and paratypes are going to be shared in NSMT and the Department of Entomology, Kasetsart University, Bangkok.



Fig. 1. Habitat and collecting tool of *Articerodes* spp. nov. — A, The habitat of *A. ohmomoi* and *A. thailandicus*, a tropical forest of Khao Ang Rue Nai National Park, Thailand; B, the high position FIT (NHP-1), by which the paratype of *A. ohmomoi* was collected (see Material and Methods).

Genus Articerodes Raffray Articerodes Raffray, 1890, Rev. Ent., Caen, 9: 167. Pararticerus Jeannel, 1955, Mém. Mus. Hist. nat., Paris, (N. S.-A), 9: 179.

(N. S.-A), 9: 179. mented ar Type species: *Articerus syriacus* Saulcy. ments.

Remarks. This genus is similar to the other Asian genera, *Triartiger* and *Diartiger*, however, it is separated from them by having the four-segmented antenna with very short basal three segments.

A Key to the East to Southeast Asian Species of the Genus Articerodes

1.	Antennae each shorter than head, thick; hind tibiae each with a long spine near the middle in
	male A. borneensis Briant
	Antennae as long as head or longer, elongate and slender; hind tibiae without spine in male 2
2.	Body small, less than 1.5 mm in length; elytra densely covered with longitudinal linear
	microsculpture A. jariyae sp. nov.
	Body large, more than 1.7 mm in length; elytra without linear microsculpture
3.	Head elongate, cylindrical, 1.5 to 2 times as long as wide; elytra each with a long lateral longitu-
	dinal carina reaching posterior 1/4 4
	Head subcylindrical, less than 1.5 times as long as wide; elytra without long lateral longitudinal
	carina
4.	Head about twice as long as wide; elytra each with a trichome at inner 2/5 on posterior margin;
	abdominal composite tergum with small and round basimedian depression A. longiceps sp. nov.
	Head less than twice as long as wide; elytra each with a trichome at middle; abdominal composite
	tergum with large, transverse basimedian depression A. thailandicus sp. nov.
5.	Elytra each with a very short trichome at apex A. ohmomoi sp. nov.
	Elytra each with a large trichome at apex
6.	Elytra each with four clear rows of punctures at base A. quadriscopulatus Schaufuss
	Elytra without clear row of punctures at base
7.	Elytra each with large and transverse apical trichome in lateral 1/2; dorsal surface sparsely
	covered with spoon-like setae on head, pronotun, legs and peripheral parts of elytra and abdomen.
	Elytra each with large subconical apical trichome at the middle; dorsal surface covered with nor-
	mal setae and bifurcate setae A. kurosawai Nomura

Articerodes ohmomoi Nomura et Sakchoowong sp. nov. (Figs. 2A, B, 3–5)

Etymology. This new species is dedicated to the collector of the holotype, Dr. Sadahiro Ohmomo who is an excellent amateur coleopterologist in Japan studying Buprestidae.

Material examined. Holotype male, Khao Krok (LT), 300 m alt., Kaeng Hang Naw, Chantha Buri, Thailand, 25–27. iv. 1997, S. Ohmomo leg. Paratypes: 1 female, FIT (NHP-1), Lum Jangwat, Khao Ang Rue Nai, E-Thailand, 11–19. x. 2005, S. Nomura leg.; 2 males, DEF (dry evergreen forest), 155 m alt., Khao Ang Rue Nai, E-Thailand, 28. ix. 2006, W. Sakchoowong leg.

Description. Male (fig. 2A, B). Body length 1.85 mm, width 0.71 mm, gently narrowed anteriad, broad in elytra and abdomen.

Head longer than wide, subcylindrical, weakly thickened anteriad, densely covered with coarse, irregular reticulation on dorsal and lateral sides; clypeus very short, feebly angulate on anterior margin; frons pentagonal in dorsal view, convex at antennal bases; vertex scarcely convex, sparsely with short erect setae, with a pair of deep, round dorsal tentorial pits just behind eyes; genae each angulately expanded anterolaterad beneath antennal base; postgenae angulate. Eyes developed, each ovoid, consisting of about 20 facets. Antennae short, thick, 0.38 mm in length, 0.09 mm in width, each weakly thickened distad, densely covered with short setae and coarse, irregular reticulation; segment I very short, invisible in dorsal view; II short, wider than long, cylindrical; III as long as II, as long as wide, subcylindrical, weakly broadened distad; IV largest, 4 times as long as I+II+III, 4 times as long as wide, weakly thickened distad, trunctae at apex, with a round concavity densely containing conical sensilla at apex.

Pronotum as long as wide, gently narrowed anteriad, with a longitudinal groove in dorsomedian part, with a pair of large, deep basilateral foveae at basal 1/4, densely covered with minute, irregular reticulation, sparsely covered with short erect setae and very short conical setae. Elytra slightly wider than long, flattened on dorsal side, densely covered with short, erect setae in basilateral parts, with long recumbent setae in posteromedian part; each elytron with basal carina, very short trichome in lateral part of hind margin. Metasternum very broad, convex, densely covered with linear microsculpture in both lateral parts. Legs short, thick; fore trochanter and femur coarsely reticulate; mid trochanter and femur covered with coarse, irregular reticulation; mid femur with a large denticle on posterior side; mid tibiae each slightly thickened distad, weakly curved internally.

Abdomen large, slightly longer than elytra, round-sided, weakly convex on dorsal side, sparsely covered with erect setae in lateral and posterodorsal parts, densely covered with linear microsculpture on ventrolateral part; composite tergum (tergites III to VI) nearly rectangular, convex in median part, shallowly concave in basal part, with a pair of short trichomes just behind each elytral trichome, with a pair of large deep foveae just outside basal trichomes, sparsely covered with very short setae in basilateral part, densely covered with minute reticulation in posterior part; paratergites IV to VI each demarcated; IV largest, with a small trichome in basal part; V about as long as IV, elongate; VI slightly shorter than V, narrowed posteriorly; segment VII short, almost invisible in dorsal view, tergite VIII wider than long, nearly semicircular, with a pair of basilateral foveae; sternite VIII transverse, almost horizontal on posterior margin.

Male genitalia weakly sclerotized, symmetrical, weakly broadened near apex; basal bulb of median lobe nearly ovoid, thickened basally, with well-projected large basal foramen on ventral side, with a small elliptical membranous part on dorsal side; apical lobe projected ventroapically, with large deep apical orifice at apex.

Female. Body length 1.96 mm, width 0.67 mm. Antennae 0.39 mm in length, 0.09 mm in width. Very similar to male, but mid femora each slenderer than that of male, without denticle, mid tibiae less curved internally than in male, without



Fig. 2. *Articerodes* spp. nov., habitus. — A, *A. ohmomoi* sp. nov., holotype male in dorsal view; B, ditto, in ventral view; C, *A. jariyae* sp. nov., holotype female in dorsal view; D, ditto, in ventral view.



Fig. 3. *Articerodes ohmomoi* sp. nov., holotype, male. — A, Head and pronotum in dorsal view; B, ditto, in ventral view; C, head in lateral view; D, ditto, in anterior view; E, antenna in dorsal view; F, ditto, in ventral view; G, mouthparts in ventral view; H, elytron in dorsal view.

denticle.

Distribution. East Thailand.

Remarks. This new species is closely allied to *A. kurosawai* and *A. kishimotoi* in many characters. However, it is separated by having the shallower basal concavity of the abdomen and the smaller elytral and abdominal trichomes than in the other species. It is also distinct in having the dense long recumbent setae in the posteromedian part of the elytra.

This species was collected by light trap and flight intercept trap (FIT). The habitat of this species and the special type of high position FIT are shown in Fig. 1.

Articerodes jariyae Nomura et Sakchoowong, sp. nov.

(Figs. 2C, D, 6, 7)

Etymology. This species was dedicated to the collaborator, Professor Jariya Chanpaisaeng by the first and second authors.

Material examined. Holotype female, HEF (hill evergreen forest), 1,050 m alt., Khao Kitchakud, E-Thailand, 19. i. 2006, W. Sak-choowong leg. Paratypes: 2 females, same data as holotype.

Description. Male unknown.

Female (Fig. 2C, D). Body length 1.43 mm, width 0.49 mm, small-sized, broad in elytra and abdomen, color light brown, shiny.

Head as long as wide, short and thick, weakly constricted just before eyes, densely covered with coarse reticulation on dorsal and lateral surface, sparsely with short thick suberect setae on dorsal and lateral sides; clypeus short, transverse, nearly arcuate on anterior margin; frons narrowed, strongly convex at antennal bases, with a short longitudinal carina at anteromedian part; vertex flattened, with a pair of minute dorsal tentorial pits just above eyes; genae slightly broadened anteriad before eyes; postgenae broad, flat; gular area flat and almost smooth. Eyes developed, ovoid, each composed of about 20 facets. Antennae short and thick, 0.23 mm in length; segment I very short, annular, invisible in dorsal view; II as wide as I, as long as wide, subcylindrical; III smaller than II, about as long as wide, thickened distally; IV largest, about as long as head, 2.7 times as long as wide, slender in basal part, subconical, truncate at apex, covered with very coarse punctures on lateral side, with a large circular concavity at apex, densely with erect setae in concavity. Mouthparts reduced, almost same in structure as those of *A. ohmomoi*.

Pronotum slightly longer than head, as long as wide, nearly subglobose, widest near middle, convex on dorsal side, densely covered with coarse, irregular reticulation, very sparsely with thick erect setae on dorsal and lateral sides, with a shallow and short longitudinal depression at basimedian part. Meso- and metasterna very broad, weakly convex, densely covered with linear longitudinal microsculpture on lateral sides. Elytra slightly wider than long, gently convex on dorsal surface, covered with linear microsculpture on dorsal side, sparsely covered with recumbent setae; each elytron with large subconical trichome at middle of hind margin, with 5 indistinct basal foveae and 4 longitudinal carinae; 4 longitudinal carinae consisting of adsutural carina in full length, median carina just outside adsutural carina, inner lateral carina running from just inside of second outer fovea to middle and very short outer lateral carina between outer 2 foveae. Legs short and thick; fore and mid femora thick, covered with reticulation; tibiae slender, thickened distally, covered with longitudinal linear microsculpture.

Abdomen slightly longer than elytra, slightly longer than wide, weakly convex on dorsal and ventral sides, rounded posteriorly; composite tergum (tergites III to VI) very large, weakly narrowed posteriad, with a large and transverse basimedian depression and a pair of very small basilateral trichomes just behind elytral trichomes, sparsely covered with long suberect setae in posterior part, densely covered with minute, irregular reticulation near hind margin; paratergites IV to VI very narrow; IV with a large elongate trichome in basal part; V almost flat, parallel-sided; VI narrowed posteriorly; tergite VII short, trans-



Fig. 4. *Articerodes ohmomoi* sp. nov., holotype, male. — A, Meso- and metasterna in ventral view; B, ditto, in lateral view; C, fore leg in ventral view; D, mid leg in ventral view; E, hind leg in ventral view; F, abdomen in dorsal view; G, ditto, basal part enlarged; H, abdomen in ventral view.



Fig. 5. *Articerodes ohmomoi* sp. nov., holotype, male. — A, Tergite VIII; B, sternite VIII; C, male genitalia in ventral view; D, ditto, in lateral view; E, ditto, in dorsal view. Scale: 0.1 mm.

verse; VIII short, nearly triangular in posterior view; sternite III very short, densely covered with linear longitudinal microsculpture; IV large, transverse, weakly concave at basal 1/3, covered with longitudinal microsculpture in posterolateral parts; V longest, feebly convex, broadly with linear microsculpture on lateral sides; VI to VII very short, covered with irregular reticulation; VII short and transverse, arcuate on basal and apical margins.

Distribution. East Thailand

Remarks. This species is distinct in the small body, the short head and the elytra covered with longitudinal linear microsculpture as in *Diartiger japonicus*

Articerodes thailandicus Nomura et Sakchoowong, sp. nov. (Figs. 8–11)

Etymology. The new name is derived from the type area of this species.

Material examined. Holotype male, SDEF (secondary dry evergreen forest), 120 m alt., Khao Ang Rue Nai, E-Thailand, 3. v. 2006, W. Sakchoowong leg. Paratypes: 2 females, same data as holotype; 1 male, 1 female, same data as holotype, but 12. vii. 2006; 2 males, 1 female, same data as holotype, but 28. ix. 2006.

Description. Male (Fig. 7A, B). Body length 1.80–1.85 mm, width 0. 62–0.64 mm, narrowed in head and pronotum, broad in elytra and abdomen, reddish brown.



Fig. 6. *Articerodes jariyae* sp. nov., holotype, female. — A, Head and pronotum in dorsal view; B, ditto, in ventral view; C, head in lateral view; D, ditto, in anterior view; E, antenna in dorsal view; F, ditto, in ventral view; G, mouthparts in ventral view; H, elytron in dorsal view.



Fig. 7. *Articerodes jariyae* sp. nov., holotype, female. — A, Meso- and metasterna in ventral view; B, ditto, in lateral view; C, fore leg in ventral view; D, mid leg in ventral view; E, hind leg in ventral view, F, abdomen in dorsal view; G, ditto, basal part enlarged; H, abdomen in ventral view.



Fig. 8. *Articerodes thailandicus* sp. nov., habitus. — A, Holotype male in dorsal view; B, ditto, in ventral view, C, paratype female in dorsal view; D, ditto, in ventral view.



Fig. 9. *Articerodes thailandicus* sp. nov., holotype, male. — A, Head and pronotum in dorsal view; B, ditto, in ventral view; C, head in lateral view; D, ditto, in anterior view; E, antenna in dorsal view; F, ditto, in ventral view; G, mouthparts in ventral view; H, elytron in dorsal view.



Fig. 10. *Articerodes thailandicus* sp. nov., holotype, male. — A, Meso- and metasterna in ventral view; B, ditto, in lateral view; C, fore leg in ventral view; D, mid leg in ventral view; E, hind leg in ventral view; F, ab- domen in dorsal view; G, ditto, basal part enlarged; H, abdomen in ventral view.



Fig. 11. Articerodes thailandicus sp. nov., holotype, male. — A, Tergite VIII; B, sternite VIII; C, male genitalia in ventral view; D, ditto, in lateral view; E, ditto, in dorsal view. Scale: 0.1 mm.

Head elongate, cylindrical, 1.6 to 1.8 times as long as wide, slightly constricted just before eyes, then gently broadened anteriad; clypeus short, angulate anteriorly; frons narrow, convex, sparsely covered with short suberect setae; vertex almost flat, densely covered with coarse and irregular punctures, sparsely with short suberect setae on dorsal surface, with a pair of small dorsal tentorial pits just inside eyes; genae broadened anteriad, with a pair of small foveae beneath antennal bases; postgenae angulate. Antennae 0.39–0.42 mm in length, 4-segmented, elongate, subcylindrical, thickened distally; segment I very short, invisible in dorsal view; II short, about as long as wide, thickened distally; III slightly smaller than II, narrowed basally; IV the largest, gently thickened distad, with two notches in basal part of ventral side (vestiges of original segments V and VI?), covered with coarse sculptures on lateral surface, with circular concavity at apex, densely with short erect setae in concavity. Mouthparts reduced, receded into buccal cavity; labrum small, transverse, nearly semicircular in anterior view; mandibles very small, nearly triangular; maxillary palpi elongate, fusiform in apical part, with two long setae on anterior side.

Pronotum slightly shorter than head, slightly longer than wide, subcylindrical, widest near middle, with a pair of small, indistinct lateral foveae near base, densely covered with coarse punctures and irregular reticulations, sparsely covered with short suberect setae on dorsal side and sparsely with long erect setae on lateral sides. Elytra wider than long, feebly convex on dorsal side, covered with long recumbent pubescence on dorsal surface; each elytron with short trichome at middle on posterior margin, and with 2 indistinct basilateral foveae and 3 longitudinal carinae; 4 longitudinal carinae consisting of adsutural carina, median carina just outside adsutural carina, and lateral carina running from just inside of inner basal fovea to posterior 1/4. Metasternum broad, gently convex, sparsely with short setae on ventromedian side, densely with long, recumbent setae along median line, densely with linear microsculpture and punctures, with a strong median longitudinal keel running from mid coxae to middle point of hind coxae, angulate at posterior end of keel. Legs short and stout; mid tibiae elongate and thick, feebly curved inward on inner margin, with a very short mucro at apex.

Abdomen about as long as elytra, as wide as elytra, widest at base, slightly narrowed posteriad, rounded at apex, densely covered with irregular microsculpture in posterior part, sparsely with long erect setae on dorsal surface; composite tergum (tergites III to VI) nearly rectangular, weakly convex in median part, deeply concave in basal part, with a pair of short trichomes just behind each elytral trichome, with a pair of large deep foveae beneath basal trichomes; paratergites IV to VI each demarcated; IV the largest, with a large elongate trichome; V shorter than IV, subparallel-sided; VI shorter than V, elongate, slightly narrowed posteriad; tergite VII very short, transverse; VIII small, nearly triangular; sternite III short, densely covered with long, recumbent setae; IV largest, almost glabrous, with linear longitudinal microsculpture on both basilateral sides; V to VII successively shortened posteriad; VIII short, transverse, weakly arcuate on posterior margin.

Male genitalia well sclerotized, almost sym-

metrical; median lobe elongate; basal bulb thick, nearly ovoid, with well projected basal foramen on basiventral side, an elliptical membranous part on basidorsal side, and a pair of longitudinal lateral carinae extending from both lateral side of basal foramen; apical lobe narrowed distally, arcuately curved ventrad, attenuate at apex.

Female. Body length 1.84–2.10 mm, width 0.61–0.70 mm. Antennae 0.38–0.43 mm in length. Very similar to male, but body slightly larger than male, mid femora each slenderer than that of male, almost straight, without mucro.

Distribution. East Thailand

Remarks. This species is similar to the sympatric species *A. ohmomoi* in the middle-sized body and in general structure; however, it is distinguished by having the elongate head (1.6 to 1.8 times as long as wide) and the elytra each with long lateral carina reaching the posterior fourth.

Articerodes longiceps Nomura et Sakchoowong,

sp. nov. (Figs. 12–14)

Etymology. The new specific name is derived from the elongate form of the head of this species.

Material examined. Holotype female, Deo Bao Loc, ca. 800 m alt., nr. Bao Loc, Lam Dong Prov., S-Vietnam, 2. v. 2000, S. Nomura leg.

Description. Male unknown.

Female (Fig. 12). Body length 2.34 mm, width 0. 79 mm, narrowed in head and pronotum, broad in elytra and abdomen, dark brown, shiny.

Head elongate, cylindrical, about twice as long as wide, weakly constricted just before eyes, then gently broadened anteriad; clypeus short, angulate anteriorly; frons narrow, convex, sparsely covered with fusiform scales; vertex hardly convex, densely covered with coarse and irregular punctures, sparsely with fusiform scales on dorsal surface, with a pair of distinct dorsal tentorial pits just behind eyes; genae broadened anteriad, with a pair of large foveae beneath antennal bases; postgenae angulate. Antennae 0.49 mm in



Fig. 12. Articerodes longiceps sp. nov., habitus. — A, Holotype female in dorsal view; B, ditto, in ventral view.

length, 0.10 mm in width, 4-segmented, elongate, subcylindrical, thickened distally; segment I very short, invisible in dorsal view; II short, subcylindrical; III slightly shorter than II, narrowed basally; IV the largest, gently thickened distad, with two notches in basal part of ventral side (vestiges of original segments V and VI?), with circular setose area at apex, covered with coarse sculptures on lateral surface. Mouthparts reduced, put into buccal cavity.

Pronotum slightly shorter than head, longer than wide, subcylindrical, widest at the middle, with a pair of large lateral foveae at basal 1/4, densely covered with coarse punctures and irregular reticulations, sparsely covered with fusiform scales on dorsal side and with erect setae on lateral sides. Elytra slightly wider than long, nearly flat on dorsal side; each elytron with 2 basilateral foveae and 4 longitudinal carinae and short trichome at internal 2/5 on posterior margin, sparsely covered with recumbent setae on dorsal surface; 4 longitudinal carinae consisting of adsutural carina, median carina just outside adsutural carina, inner lateral carina running from just inside of inner basilateral fovea to posterior 1/4, and very short outer lateral carina between basilateral foveae. Metasternum broad, gently convex, densely with long, recumbent setae along median line, densely with linnear microsculpture on both lateral sides. Legs short and stout.

Abdomen about as large as elytra, widest at base, gently narrowed posteriad, rounded at apex, densely covered with irregular microsculpture in posterior part, very sparsely with long erect seae in posterior part; composite tergum (tergites III to VI) nearly trapezoidal, weakly convex in median part, shallowly concave in basal part, with a pair of short conical trichomes just behind each elytral trichome, with a pair of large, deep foveae beneath basal trichomes; paratergites IV to VI each demarcated; IV the largest, with a large elongate trichome; V and VI shorter than IV,



Fig. 13. *Articerodes longiceps* sp. nov., holotype, female. — A, Head and pronotum in dorsal view; B, ditto, in ventral view; C, head in lateral view; D, ditto, in anterior view; E, antenna in dorsal view; F, ditto, in ventral view; G, mouthparts in ventral view; H, elytron in dorsal view.



Fig. 14. *Articerodes longiceps* sp. nov., holotype, female. — A, Elytron, basal part enlarged; B, meso- and metasterna in ventral view; C, fore leg in ventral view; D, mid leg in ventral view; E, hind leg in ventral view; F, abdomen in dorsal view; G, ditto, basal part enlarged; H, abdomen in ventral view.

elongate, slightly narrowed posteriad; tergite VII very short, transverse; VIII small, semicircular; sternite III short, densely covered with long, recumbent setae; IV the largest, almost glabrous, with linear longitudinal microsculpture on both basilateral sides; V to VII successively shortened posteriad; VIII as long as VI+VII in median part, transverse.

Distribution. South Vietnam.

Remarks. This species closely resembles *A. thailandicus* in having the elongate head and in general structure. However, it is easily separated by the large body, the elytra with trichome at inner 2/5 of the posterior margin, and the abdominal composite tergum with a small and round basimedian depression.

Discussion

According to Newton and Chandler (1989), the supertribe Clavigeritae (the subfamily Clavigerinae in the paper) contains fifteen tribes and a subtribe. The genus Articerodes was placed in the tribe Clavigerodini in this checklist together with some other Asian genera, Anaclasiger, Cerylambus, Diartiger, Pseudacerus, Triartiger, and so on. Besuchet (1991) reconstructed the system of the supertribe (subfamily in the paper) to include three tribes, Colilodionini, Tiracerini and Clavigerini. In this system, fourteen tribes excepting Tiracerini mentioned in Newton and Chandler (1989) were included in the tribe Clavigerini. Then, the fourteen tribes were downgraded to subtribes as shown in Löbl and Besuchet (2004). The genus Articerodes, therefore, belongs to the subtribe Clavigerodina of the tribe Clavigerini in the current system. However, the classification of subtribes in the tribe Clavigerini is considered not well defined.

In a view on the Asian genera of the subtribe Clavigerodina, two genus-groups may possibly be recognized, namely *Articerodes-* and *Anaclasiger* groups whose names are given here for convenience. The *Articerodes* group including *Articerodes, Diartiger, Triartiger* and *Micrelytriger* is characterized by the following fea-

tures: 1) The antenna is subcylindrical or subconical with its apex truncated, and with a circular concavity containing short sensory setae, 2) the elytra each bears basal foveae or longitudinal carinae in the basal part in general, and possesses a large trichome or fringe near the middle of the hind margin, 3) the mid coxae are close to each other. On the other hand, the Anaclasiger group comprising Anaclasiger, Cerylambus and Pseudacerus has the following common character states: 1) The antenna is not truncated at apex, sometimes modified asymmetrically, 2) the elytra each bears neither basal fovea nor longitudinal carina in the basal part, and is lacking trichome or fringe on the hind margin, 3) the mid coxae are distant from each other.

Some primitive characters are observed in the new species described in the present study. One is the vestiges of the original antennal segments IV to V observed in the ventral side of the antenna of A. thailandicus and A. longiceps. They are considered to be an evidence showing that the large last segment is formed from some apical segments of the original antenna. The other primitive character is the basal structure of the elvtra with two to five basal foveae and three or four longitudinal carinae extending from the carinated anterior margin clearly shown in A. thailandicus and A. longiceps. The pattern of the longitudinal carinae in these Articerodes species is similar to that of Colilodion thienmu shown by Nomura and Sugaya (2007). Probably the general pattern of the elytral basal structure is common within the supertribe Clavigerinae, and it should be reduced in various degree in some groups of Clavigerinae.

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References

Besuchet, C., 1991. Révolution chez les Clavigerinae (Coleoptera, Pselaphidae). *Revue suisse Zoology*, 98: 499–515.

- Löbl, I. and C. Besuchet, 2004. Subfamily Pselaphinae. *In*: Löbl, I., and A. Smetana (eds.), *Catalogue of Palaearctic Coleoptera*, Vol. 2, pp. 272–329. Apollo Books, Stenstrup.
- Newton, A. F., Jr. and D. S. Chandler, 1989. World catalog of the genera of Pselaphidae (Coleoptera). *Fieldiana Zoology*, (N. S.), (53): 1–93.
- Nomura S., 2001. Descriptions of two new species of the clavigerine genus *Articerodes* (Coleoptera, Staphylinidae, Pselaphinae) from the Ogasawara Islands, Japan. *Elytra, Tokyo*, **29**: 343–351.
- Nomura, S. and H. Sugaya, 2007. A new species of the genus *Colilodion* (Coleoptera, Staphylinidae, Pselaphinae) from Vietnam. *Annales de la Sociétè Entomologique de France* (N. S.), **43**: 333–339.