

Nine New Species of Tenebrionidae (Coleoptera) from Southeast Asia

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Taxonomy, new species, descriptions, *Hosohamudama*, *Basanopsis*, *Plesiophthalmus*, *Androsus*, *Ainu*, *Pigeostrongylium*, *Stenochinus*, Tenebrionidae, Southeast Asia

Abstract. Nine new tenebrionid beetles from Southeast Asia are described: *Hosohamudama niisatoi* sp. nov. (Lagriinae, Lagriini; Taiwan); *Basanopsis thailandicus* sp. nov. (Tenebrioninae, Ulomini; Thailand); *Plesiophthalmus (Plesiophthalmus) walamiensis* sp. nov. (Tenebrioninae, Amarigmini; Taiwan); *Androsus halmaheranosuzukii* sp. nov. (Stenochiinae, Cnodalonini; Halmahera Is. & Ternate Is., Indonesia); *Ainu (Ainu) maoi* sp. nov. (Stenochiinae, Cnodalonini; Laos); *A. (A.) thailandicum* sp. nov. (Stenochiinae, Cnodalonini; Thailand); *Pigeostrongylium fujikoi* sp. nov. (Stenochiinae, Cnodalonini; Thailand); *Stenochinus barclayi* sp. nov. (Stenochiinae, Cnodalonini; Myanmar); *S. wakaharai* sp. nov. (Stenochiinae, Cnodalonini; Laos).

INTRODUCTION

We have been studying the tenebrionid fauna of Southeast Asia for long time. Recently, we have had an opportunity of examining a lot of species preserved in several museums and institutes and offered from many persons. Of those we found nine unknown species, and have been examining them in detail for these several months. We, as the result, recognized they are new to science. Therefore, we are going to describe nine new species in this paper.

MATERIAL AND METHODS

The specimen materials used for this study were offered from several museums and persons mentioned in each text. The newly collected specimens were compared with types and other confidently identified specimens preserved in the National Museum of Nature and Science, Tsukuba, Japan (Masumoto Collection), the Natural History Museum, London, UK, and the Akita private collection in Tsu City, Japan, and also with accounts of the original descriptions.

External morphology and male genitalia were examined using an Olympus SZ60 and a Leica MS5 stereoscopic microscope. Pictures were taken using an Olympus PEN E-P3 digital camera equipped with an extension tube and a ZUIKO AUTO-MACRO 50mm f3.5 lens or a 80mm f4 lens, and stacked using the free software Combine ZM from Alan Hadley.

The label data of the analysed specimens are verbatim cited between quotation marks, and a slash is used to separate lines of the data on the label, and a double slash separates the labels.

Abbreviations herein used are as follows: NMNSTJ = National Museum of Nature and Science, Tsukuba, Japan; NMNSTT = National Museum of Natural Science, Taichung, Taiwan; NHML = The Natural History Museum, London, UK; BL/BW = Body length / Body width; LAI-XI = Lengths of antennomere I to XI in mm; WE/ED = Width between eyes / Eye transverse diameter; PW/PL = Pronotal width / Pronotal length; EL/EW = Elytral length / Elytral width; EL/PL = Elytral length / Pronotal length; EW/PW = Elytral width / Pronotal width; LTB-A = Lengths of pro-, meso- and metatarsi from baso- to apicomeres in mm.

TAXONOMY

Lagriinae: Lagriini

***Hosohamudama niisatoi* sp. nov.**

(Figs. 1, 10-11)

Type locality. Taiwan, Pingtung County, Wutai Township, Ari.

Type material. Holotype, ♂: "Ari, ca. 1,500 m / Wutai Township / Pingtung County, Taiwan / 26. III. 2018 / T. Niisato leg. // K. AKITA / Collection / KAC 159274" (NMNSTJ).

Description of holotype. Body 7.3 mm in length, BL/BW = 3.6, elongate, slightly widened posteriad, convex longitudinally. Head, antennae, major anterior portion of pronotum, mouth parts, apical parts of femora and tibiae dark brown, posterior portion of pronotum, scutellum, elytra, major portions of ventral surface, basal parts of femora and tarsi yellowish brown, hairs on surface mostly pale yellow; dorsal and ventral surfaces weakly, slightly sericeously shining, seven apical antennomeres mat; dorsal and ventral surfaces wholly, rather densely clothed with suberect, partly long, hairs.

Head subrhombical, though the basal portion is concealed under the pronotum, moderately inclined anteriorly; clypeus inverted subtrapezoidal, noticeably depressed, weakly convex in medial part, microsculptured, punctate, clothed with fine suberect hairs, with apical margin widely rounded; fronto-clypeal suture indefinite; genae raised, fairly smooth, rather sparsely punctate and finely haired, with exterior margins gently produced antero-laterad; frons somewhat trapezoidal, gently inclined and becoming narrower apically, weakly microsculptured, rather closely, coarsely punctate, clothed with suberect hairs; vertex weakly microsculptured, irregularly punctate, the punctures often fused with one another, forming rugosities, each puncture mostly with a fine hair; occiput depressed, ruguloso-punctate. Eyes large, strongly convex laterad, transversely, roundly inlaid into head, WE/ED = 1.5. Antennae subfiliform, tip of antennomere XI fairly reaching apical 1/3 of elytra, LAI-XI: 0.35, 0.11, 0.27, 0.35, 0.35, 0.46, 0.45, 0.45, 0.44, 0.43, 0.90.

Pronotum somewhat barrel-shaped, PW/PL = 1.0, widest at apical 3/7 and also at base, rather noticeably constricted at basal 2/7; apex nearly straight, finely margined; base slightly emarginate, very weakly produced in lateral parts; front angles slightly obtusely angulate; hind angles subrectangular; sides rather steeply inclined, and extending to underbody; disc rather weakly convex, highest at slightly before middle, weakly depressed in postero-lateral and basal portions, microsculptured, closely, coarsely rugoso-punctate, clothed with fine hairs in major medial portion, sparsely clothed with long hairs in lateral portions. Scutellum sublinguiform, slightly convex above, weakly microsculptured, irregularly, weakly impressed.

Elytra rather elongate, gently widened posteriad, EL/EW = 2.7, EL/PL = 5.8, EW/PW = 2.0, widest at apical 4/9, gently, roundly narrowed anteriorly and posteriorly from the widest point, weakly sinuous at basal 1/4; dorsum moderately convex longitudinally, very weakly flattened in basal half, highest at basal 1/8; disc with rows of small, round punctures, which are closely set in anterior and medial portions, become smaller and sparser in posterior portions, and are often transversely connected with each other across intervals; intervals rather narrow, weakly convex, microsculptured, scattered with small punctures; sides mildly inclined in interior portions and then rather steeply declined to lateral margins, which are punctate-grooved (the punctures small and constantly set), finely ridged, and almost wholly, except humeral portion, visible from above; humeri moderately swollen, microsculptured, scattered with microscopic punctures, finely haired; apical portion weakly roundly produced, with apices slightly acute.

Maxilla with terminal palpomere subsecuriform, nearly straight apical side 1.3 times the length of gently roundly curved exterior side, and 3.5 times the length of nearly straight interior side. Mentum subquadrate with rounded sides, moderately convex in antero-medial part, flattened in latero-marginal parts, surface rather smooth, sparsely scattered with minute punctures. Gula semicircularly bordered, gently convex in medial part, weakly, transversely wrinkled, with a pair of impressions on the border.

Prosternum with apex very slightly emarginate and finely margined; anterior part weakly depressed, weakly microsculptured, minutely punctate and finely haired; posterior part strongly raised, microsculptured, transversely rugulose and minutely punctate, with inter-procoxal space strongly, longitudinally raised; prosternal process almost lacking. Mesoventrite short; anterior and medial parts rather flattened, partly microsculptured and micro-aciculate; posterior parts strongly raised and narrowed, minutely punctate. Metaventrite longitudinally impressed in posterior 3/4 on midline; basal part weakly depressed and microsculptured; medial and posterior parts roundly convex, smooth, weakly microsculptured, scattered with minute punctures, each with a subdecumbent fine hair; lateral parts closely punctate and densely haired. Abdomen weakly microsculptured, closely punctate, fairly densely clothed with rather long decumbent hairs; ventrite V rather noticeably microsculptured, punctate and haired, the punctures large and sparse in basal part, and becoming smaller and closer apicad, the hairs sparse and rather long in basal part, becoming denser and shorter apicad; apex simply rounded.

Femora subclavate, closely punctate and clothed with rather long fine hairs. Tibiae nearly straight, slightly becoming bolder apicad and weakly curved interiad, closely minutely punctate, densely clothed with rather long fine hairs, which become longer and denser in apico-ventral parts. Tarsi dilated to each apex, LTB-A: 0.32, 0.24, 0.25, 0.20, 0.33; 0.47, 0.27, 0.18, 0.15, 0.27; 0.69, 0.36, 0.16, 0.34.

Genitalia rather slender, tapering apicad, 1.39 mm in length, 0.20 mm in width, moderately curved in middle in lateral view; apicale small, 0.29 mm in length, slightly prolonged, with apices rather acute.

Female. Unknown.

Differential diagnosis. This new species resembles *Hosohamudama hanatanii* Masumoto & Akita, 2008, distributed in Ishigakijima Is., and Iriomotejima Is., of the Ryukyus, but can be distinguished from *H. hanatanii* by the body a little flattened, the antennae and legs slenderer, hairs on the dorsal surface longer, the dorsal surface more strongly punctate, and male genitalia obviously smaller (1.82-1.90 mm in *H. hanatanii*).

Etymology. The specific name, *niisatoi*, is given in honor of Tatsuya Niisato, Tokyo, Japan, who was editor of the Elytra Journal, Tokyo, for long time, and offered us the holotype specimen for the present study.

Distribution. Taiwan.

Tenebrioninae: Ulomini

***Basanopsis thailandicus* sp. nov.**

(Figs. 2, 12-13)

Type locality. Thailand, Chiang Rai, Wiang Pa Pao.

Type material. Holotype, ♂: "Thailand, Chiang Rai, Wiang Pa Pao, / 27. IV-1. V. 2013 / K. Takahashi leg. // Coll. Masumoto / 2013" (NMNSTJ).

Description of holotype. Body 8.2 mm in length, BL/BW = 2.3; ovate, gently convex dorsad. Dorsal and ventral surfaces brownish black, apical portion of head, antennomere I to V and apical part of XI, mouth parts and legs lighter in color, elytra with two pairs of reddish brown patches; head, scutellum, elytra, abdomen and legs moderately shining, pronotum strongly, somewhat vitreously shining, antennomere I to V, ventral side of head, prosternum, and meso- and metaventrites weakly shining, antennomere VI to XI mat; dorsal and ventral surfaces almost glabrous, seven apical antennomeres densely clothed with minute hairs, apico-ventral parts of tibiae and ventral sides of tarsi clothed with setaceous hairs.

Head trapezoidal, weakly convex dorsad; clypeus transversely subhexagonal, widely, weakly convex in medial part, gently inclined apicad and antero-laterad, truncate at apex, rather closely, finely punctate, with a pair of large punctures at basal 1/4; fronto-clypeal suture somewhat wide U-shaped, with each end reaching exterior margin; genae dilated antero-laterad, flat in anterior part, declined to the border of eyes in posterior part, irregularly punctate, with exterior margin oblique and almost smoothly connected with clypeal margin; frons rather wide and short, weakly raised, punctate, the punctures a little larger and sparser than those on clypeus; vertex weakly convex, scattered with larger punctures than clypeus; occiput microsculptured. Eyes gently convex laterad, slightly obliquely inlaid into head, WE/ED = 2.3. Antennae subclavate, antennomere IV to XI with interior sides more strongly, roundly produced than exterior side, tip of antennomere XI hardly reaching base of elytra, LAI-XI: 0.14, 0.09, 0.25, 0.23, 0.23, 0.25, 0.22, 0.20, 0.18, 0.16, 0.30.

Pronotum subtrapezoidal, PW/PL = 1.5, widest at base, roundly narrowed from base to apex; apex widely emarginate, finely margined, the margination scattered with minute punctures; base noticeably sinuous in lateral parts, bordered by a row of punctures and a fine ridge; front angles acute and pointing anteriorly; hind angles acute and pointing postero-laterad; sides gently declined to lateral margins, which are grooved and marginate, the margination easily visible from above; disc weakly convex in major anterior portion, weakly depressed in postero-lateral portions, rather closely, finely punctate, with a pair of large punctures at basal 1/4. Scutellum triangular with weakly rounded sides, very weakly convex widely in middle, scattered with minute punctures.

Elytra longitudinally subelliptical, EL/EW = 1.6, EL/PL = 3.3, EW/PW = 1.3, widest at basal 4/9, roundly narrowed anteriorly and posteriorly from the widest point; dorsum moderately convex, highest at basal 1/3; disc punctate striate, the striae weak, often disappearing in antero-lateral portions, the punctures small and closely set in interior portion, becoming larger and sparser in antero-lateral portions, and smaller and disappeared in apical portion; each elytron with two patches, one at basal 1/5, and the other at apical 1/5, anterior and posterior margins zigzagged; intervals slightly convex, weakly microsculptured, often feebly micro-aciculate, and scattered with minute punctures; sides gradually inclined in interior portions, becoming steeply so near lateral margins, which are clearly grooved, finely margined, and wholly visible from above; humeri very slightly convex; apices gently rounded.

Maxilla with terminal palpomere weakly dilated apicad, weakly curved apical side 0.6 times the length of gently curved exterior side, and 1.2 times the length of weakly curved interior side. Mentum somewhat cross-sectioned diamond in shape, raised in antero-medial part, microsculptured and ruguloso-punctate. Gula triangular, prolonged in apical part, weakly convex, with a pair of impressions near apex on the border.

Prosternum subtrapezoidal and rather long; apex nearly straight, finely margined and fringed with setae; anterior part rugoso-punctate and finely haired; medial part gently raised, minutely punctate and finely haired; posterior part raised with inter-procoxal space flattened and sparsely scattered with large punctures; prosternal process sublinguiform, very weakly inclined apicad, rugoso-punctate, and with a round granule at the middle near apex. Mesoventrite short; anterior and medial parts strongly, triangularly depressed and concealed under prosternum in repose; posterior part raised in V-shape and scattered with punctures. Metaventrite rather wide, longitudinally impressed on midline; anterior part scattered with rather large, somewhat transverse punctures, which are often connected with each other and forming rugulosity; medial and posterior parts gently convex on both sides of midline, weakly microsculptured and micro-aciculate, scattered with small, somewhat transverse punctures. Abdomen rather wide, weakly microsculptured, ventrite I to III raised in medial part, widely depressed in lateral parts, fairly closely, finely punctate, each puncture with a minute, decumbent hair; ventrites IV and V rather smooth, finely punctate, and depressed in medio-basal parts, ventrite V closely, minutely punctate in apical part, and rounded at apex.

Femora subclavate, rather closely, minutely punctate. Tibiae closely, finely punctate, densely clothed with setaceous hairs on interior faces; pro- and mesotibiae becoming gently bolder and interiorly curved apicad; metatibia weakly curved at basal 1/3, and gouged and setaceous in apical half on interior face. Tarsi with LTB-A: 0.11, 0.07, 0.06, 0.05, 0.48; 0.29, 0.11, 0.06, 0.07, 0.52; 0.35, 0.12, 0.10, 0.54.

Genitalia elongate subovate, flattened, 1.40 mm in length, 0.39 mm in width, rather strongly curved in basal part; apicale subelliptical and flattened, 0.40 mm in length, apex with a small protruded part at middle.

Female. Unknown.

Differential diagnosis. This new species resembles *Basanopsis curvipes* Gebien, 1914, from Taiwan, but can be distinguished from *B. curvipes* by following points: Body a little stouter, more shining above; antennae with each interior side of antennomeres more rounded; pronotum shorter, with apex more strongly emarginate, and front angles more acute; elytra more clearly punctate striate (or rows of punctures in part); male metatibia more stout and curved at basal 1/3 (slenderer and curved at middle in *B. curvipes*). It is the second species belonging to the genus *Basanopsis*.

Etymology. The specific name, *thailandicus*, is named after the country from which this new species was collected.

Distribution. Thailand.

Tenebrionidae: Amarygmini

***Plesiophthalmus (Plesiophthalmus) walamiensis* sp. nov.**

(Figs. 3, 14-15)

Type locality. Taiwan, Taitung, Walami.

Type material. Holotype, ♂: "Walami, Taiwan, / 17. IV. 2016, / F.-S. Huang leg." (NMNSTT).

Description of holotype. Body 11.8 mm in length, BL/BW = 2.1; subovate, strongly convex

above, somewhat hunchback. Dorsal and ventral surfaces black with feebly dark greenish tinge, apical part of antennomere XI and tarsi dark reddish brown, hairs mostly brownish yellow; head and pronotum rather strongly, metallicly shining, scutellum, elytra and legs weakly shining, ventral surface mostly weakly, sericeously shining, antennae mat; dorsal surface mostly glabrous, ventral surface except abdomen glabrous, abdomen minutely haired, antennae densely, finely haired, tibiae clothed with setaceous hairs in intero-apical parts, tarsi densely clothed with short setaceous hairs on ventral side.

Head almost vertical in repose, subhexagonal; clypeus transversely subhexagonal, transversely convex in medial part, weakly depressed in basal and apical parts, truncate at apex, wholly weakly microsculptured, closely punctate, each puncture with a fine subdecumbent hair; fronto-clypeal suture straightly and deeply impressed in medial part, rather strongly curved anteriorly and becoming finer in lateral parts, and finally reaching exterior margins; genae moderately dilated, weakly raised antero-laterad, irregularly punctate, with exterior margins slightly produced; frons somewhat widely T-shaped, almost vertical, weakly microsculptured, rather closely, irregularly punctate, with a pair of impressions in posterior part; vertex weakly microsculptured, scattered with small punctures. Eyes gently convex laterad, transversely inlaid into head, WE/ED = 1.4. Antennae subfiliform, gradually becoming bolder apicad, tip of antennomere XI reaching basal 1/3 of elytra, LAI:XI: 0.50, 0.15, 0.72, 0.52, 0.61, 0.58, 0.56, 0.46, 0.44, 0.42, 0.56.

Pronotum subtrapezoidal, PW/PL = 1.5, widest at base; apex very slightly emarginate, grooved and margined; base sinuous in lateral parts, weakly emarginate opposite to scutellum; front angles subrectangular; hind angles slightly acute; sides weakly convex laterad in medial parts, weakly sinuous before hind angles, rather steeply declined to lateral margins, which are finely punctate-groove, and hardly visible from above; disc rather strongly convex in antero-medial part, very weakly microsculptured, rather closely, minutely punctate, the punctures visible under ten times magnification. Scutellum subcordate, weakly convex above, microsculptured, scattered with minute punctures in lateral parts.

Elytra subelliptical, EL/EW = 1.7, EL/PL = 2.5, EW/PW = 1.4, widest in humeral portions, gently narrowed posteriorly, constricted at basal 1/3, then gently roundly narrowed apicad; dorsum strongly convex, weakly ridged along sutural line, highest at basal 2/9; disc punctate striate, the striae fine and weak, often disappeared, the punctures in striae mostly longitudinally ovate, closely set in interior portion, becoming larger, sparsely set, often fused with one another and forming foveae in lateral portions, and finer and disappearing in apical portion; intervals rather wide, wholly weakly microsculptured and micro-aciculate, gently convex in interior and posterior portions, not gently convex but irregularly undulate in lateral portions; sides gently declined to lateral margins, which are bordered by a row of coarse punctures and a fine ridge, and visible in medial portions; humeri rather strongly swollen; apical portion very weakly roundly produced.

Maxilla with terminal palpomere moderately dilated apicad, rounded apical side 1.0 times length of slightly curved exterior side, and 1.7 times the length of nearly straight interior side. Mentum subtrapezoidal, minutely punctate, raised in inverted triangular in antero-medial part, depressed and flattened in postero-lateral parts. Gula concealed under prosternum in repose.

Prosternum short; apex widely emarginate and margined; anterior part extremely widely V-shaped, depressed, minutely punctate; medial part subrhombical, depressed in medial part, raised along borders of procoxae, scattered with punctures; posterior part inclined and dilated posteriorly, coarsely punctate and granulate; prosternal process wide-based inverted triangular, depressed laterad and posteriorly, microgranulate and closely punctate, with apex pointed. Mesoventrite short; anterior part concealed under prosternum in repose; medial part triangularly

depressed; posterior part strongly raised in V-shape, coarsely ruguloso-punctate, coarsely ridged along antero-interior and medial parts of mesocoxae. Metaventrite rather short but wide, longitudinally impressed on midline; basal part ruguloso-punctate; medial and posterior parts gently convex, weakly microsculptured and finely wrinkled, scattered with minute punctures; lateral parts microsculptured and hardly punctate. Abdomen microsculptured, scattered with finely haired punctures, ventrite I to III longitudinally wrinkled, ventrite V smooth in basal part, rather closely punctate and finely haired in medial part, closely, minutely punctate in apical part; apex very slightly truncate.

Femora subclavate, fairly closely punctate, the punctures clothed with minute hairs; profemur with a spine at apical 1/3 on interior face. Protibia curved intero-ventrad, gently becoming bolder apicad, closely punctate, gouged in basal half, densely clothed with fine scale-like hairs in apical half; mesotibia weakly curved intero-ventrad, weakly becoming bolder apicad, closely punctate, slightly gouged in basal half on interior face, densely clothed with fine scale-like hairs on apical half; metatibia nearly straight, feebly becoming bolder apicad, closely punctate, very slightly gouged in basal half on interior face, clothed with fine hairs, which become longer and denser intero-apicad. Tarsi rather slender, LTB-A: 0.44, 0.26, 0.23, 0.24, 0.82; 0.62, 0.34, 0.29, 0.24, 0.84; 0.98, 0.41, 0.30, 0.91.

Genitalia subfusiform, 2.62 mm in length, 0.62 mm in width, rather strongly curved in middle in lateral view; basale gently narrowed anteriad and posteriad from the middle (widest point); apicale subtriangular, 0.82 mm in length, length ratio of apical / total length = 0.24, with apices mildly pointed.

Female. Unknown.

Differential diagnosis. This new species somewhat resembles *Plesiophthalmus (Pyanirygmus) chujoi* Masumoto, 2005. The former can be easily distinguished from the latter by the body a little stouter and larger (8.6 mm in the latter), the distance between eyes wider (slightly wider than the width of the eye diameter in the latter), the pronotum finely but more noticeably punctate, visible under ten times magnification (under 40 times so in the latter), the scutellum smaller, and slightly convex (weakly depressed in the latter), the elytra more strongly convex dorsad, more noticeably constricted at basal 1/3, punctures in striae more irregular and sparser, intervals not evenly convex, but slightly, irregularly undulate and wrinkled, the profemur with a hock at apical 1/3 on interior face, and the male genitalia longer (2.21 mm in the latter), with apicale shorter compared with total length of genitalia (ratio = 0.28 in the latter); apices more acutely projected.

Etymology. The specific name, *walamiensis*, is named after the place where the holotype was collected.

Distribution. Taiwan.

Stenochiinae: Cnodalonini

***Androsus halmaheranosuzukii* sp. nov.**

(Figs. 4, 16-17)

Type locality. Indonesia, Malka Utra, Halmahera / Selatan, Kasiruta Timur, Kasiruta Dalam.

Type material. Holotype, ♂: "Kasiruta Dalam, Kasiruta Is., / Kasiruta Timur, Halmahera / Selatan, Maluka Utra, / INDONESIA FIT+4W Black Light / S00 29°08.72 E127 12'24.65 (37m) / 29. XII. 2012-1. I. 2013, / Wataru Suzuki Leg." (NMNSTJ). Paratypes: 1 ♀, Same data as for the holotype; 3 exs., (sexuality unknown), "Ins. / Ternate, / Doherty VIII // C. E. Tottenham / Collection / B.M. 1969-77." (NHML).

Description of holotype. Body 7.6 mm in length, BL/BW = 2.4; oblong-oval, gently convex dorsad. Color dark reddish brown; head, pronotum and scutellum black with dark brownish tinge; elytra dark greenish blue; antennae, mouthparts, gula, tibiae and tarsi lighter in color; head and scutellum weakly shining, pronotum moderately shining, elytra slightly metallicly shining, major ventral surface weakly, sericeously shining, four basal antennomeres and abdomen moderately shining, seven apical antennomeres rather mat; dorsal and ventral surface almost glabrous, six apical antennomeres, apico-interior part of tibiae and ventral face of tarsi densely haired.

Head transversely subelliptical, wholly microsculptured, gently convex in medial portion; clypeus transversely hexagonal, convex in medial part, weakly depressed in lateral parts, scattered with small puncture, with apical margin weakly emarginate at middle; fronto-clypeal suture very fine and nearly straight in medial part, bent anteriorly in lateral parts, and becoming finer and extending to exterior margins; genae weakly dilated, horizontal in anterior part, declined to eyes in posterior part, irregularly punctate, the punctures smaller than those on the central part of clypeus, exterior margin smoothly continuous with that of clypeus; frons wide and weakly convex, gently inclined anteriorly, closely and coarsely punctate, the punctures somewhat ovate, larger than those on clypeus, often fused with one another; vertex very weakly flattened; occiput scattered with smaller punctures than vertex. Eyes rather strongly convex laterad, obliquely inlaid into head, inner ocular sulci narrow and deep in posterior part, WE/ED = 3.7. Antennae medium in size, subclavate, tip of antennomere XI reaching basal 1/4 of pronotum, LAI-XI: 0.21, 0.11, 0.17, 0.15, 0.13, 0.12, 0.15, 0.16, 0.15, 0.16, 0.26.

Pronotum subtrapezoidal, PW/PL = 1.7, widest at base, gently narrowed apicad, weakly sinuous at basal 1/3; apex weakly, widely emarginate, finely bordered near front angles; base gently produced and slightly bordered in medial 1/3, slightly truncate at middle opposite to scutellum, sinuous in lateral parts; front angles rounded, gently produced; hind angles subrectangular; sides moderately declined to lateral margins, which are bordered by a groove and a ridge, the groove slightly produced laterad in medial parts; disc gently, widely convex, obliquely impressed on both sides close to base, microsculptured, irregularly punctate, the punctures becoming smaller and closer in lateral portions. Scutellum slightly wide-based triangular, flat and microsculptured.

Elytra oblong ovate, EL/EW = 1.7, EL/PL = 3.2, EW/PW = 1.2, widest at basal 2/7, gradually narrowed anteriorly and posteriorly from the widest point; dorsum moderately convex, highest at basal 2/7; disc punctate striate, the striae fine, the punctures small and closely set in interior portion, becoming larger and sparser in lateral portions, and smaller and disappeared in apical portions; intervals rather wide, moderately convex, microsculptured, scattered with minute punctures; sides gradually declined to lateral margins, which are clearly bordered by a groove and a fine ridge, and almost wholly visible from above; humeri moderately swollen; apices weakly roundly produced.

Maxilla with terminal palpomere gently dilated apicad, slightly sinuous apical side 0.9 times length of roundly curved exterior side, and 1.6 times the length of nearly straight interior side. Mentum subhexagonal, weakly depressed, raised in medial part, pointed at middle, ridged in antero-laterad. Gula finely parabolically bordered, weakly convex, microsculptured.

Prosternum rather short, microsculptured, scattered with minute punctures, longitudinally raised; apical margin widely emarginate, prosternal process subfusiform, almost horizontal, boldly margined, sharply projected posteriorly, Mesoventrite short; anterior part strongly depressed and concealed under prosternum; middle and posterior parts abruptly raised in V-shape and minutely punctate. Metaventrite rather short, weakly convex, microsculptured, finely punctate in medial

part, impressed in posterior 3/4 on midline, depressed and slightly coarsely microsculptured in lateral parts. Abdomen microsculptured, closely punctate, the punctures rather coarse and large in ventrite I, becoming finer and smaller toward ventrite V, two basal ventrites longitudinally wrinkled, ventrite V minutely, transversely punctate, with apex rounded.

Femora subclavate, weakly microsculptured, scattered with fine punctures. Tibiae short, rather closely, minutely punctate, the punctures clothed with fine hairs, which become longer on apico-interior faces. Tarsi rather slender, LTB-A: 0.19, 0.11, 0.10, 0.10, 0.48; 0.16, 0.11, 0.10, -, - (two apicomeres lost in the holotype); 0.30, 0.13, 0.14, 0.59.

Genitalia slender, 1.25 mm in length, 0.20 mm in width; basale strongly curved in middle in lateral view, narrowed at middle, gently widened anteriorly, hallowed in apical half along midline; apicale nib-shaped, 0.58 mm in length, depressed in medial part, with apices acutely pointed.

Female. Body a little larger (8.6 mm in length), BL/BW = 2.4; head with WE/ED = 3.5; pronotum wider (PL/PW = 1.8); somewhat transversely convex, with lateral margins simple in shape; elytra longer (EL/EW = 1.8), with sides a little more produced laterad, thus the lateral margins hardly visible from above. (n=1).

Differential diagnosis. This new species can be easily distinguished from *A. philippinus* Ando & Ruzzier, 2016, by the body slenderer, the antennae longer, the genae less produced, the eyes more acutely projected, the pronotum with front angles less strongly produced, the elytra more strongly punctate striate, the intervals weakly microsculptured and hardly rugulose, the male genitalia more complicated in shape and with longer apicale. The coloration of body surface is also different ("Dark reddish brown; head and pronotum blackish, with dark brassy sheen; elytra purple with obscure metallic green spot on humeri and along margin in apical third" in *A. philippinus*).

Etymology. The specific name, *halmaheranosuzukii*, is named after the locality of the holotype, Halmahera, and Wataru Suzuki, the collector of the holotype.

Distribution. Indonesia, Halmahera Is. and Ternate Is.

Ainu (Ainu) maoi sp. nov.

(Figs. 5, 18-19)

Type locality. Laos, Allapeau, Annam Hls, Dong Amphan.

Type material. Holotype, ♂: "Laos, Allapeau, Annam / Hls, Dong Amphan / 30 IV-6. V, 2010, / St. Jakl lgt." (NMNSTJ). Paratype: 1 ♀, "[LAOS] XIENG KHOUANG, / Phou Sam Soun, / alt. 2048 m / 19.140372°, 103.780296° / 11 V 2018 / leg. M. KOBAYASHI / Permit No. 09-05-2018".

Description of holotype. Body 13.3 mm in length, BL/BW = 3.2; elongate, subcylindrical. Antennae brownish black, with five basal antennomeres lighter in color, head and pronotum purple with interior portions partly dark green, scutellum purple, elytra longitudinally purple and dark green along striae, legs mostly purple, hairs on antennae and tibiae brownish yellow, those on tarsi dark brown; head moderately, slightly sericeously shining, pronotum, scutellum, elytra, femora and tibiae strongly, metallicly shining, ventral surface mostly moderately shining, five basal antennomeres and tarsi moderately shining, six apical antennomeres rather mat; dorsal and ventral surfaces almost glabrous, six apical antennomeres minutely haired, apico-interior

part of tibiae and ventral face of tarsi densely haired.

Head subhexagonal, wholly microsculptured, very weakly convex in medial portion; clypeus transversely hexagonal, weakly depressed and flattened in major basal part, gently bent in anterior part, closely scattered with small puncture, with apex truncate; fronto-clypeal suture widely curved, clearly impressed in medial part, becoming finer in lateral parts, and extending to exterior margins; genae dilated and raised antero-laterad, sparsely punctate, with exterior margin weakly produced; frons wide-and-short Y-shaped, weakly convex, closely punctate, the punctures in antero-lateral parts becoming smaller; vertex with a round impression at middle; occiput scattered with small punctures. Eyes subreniform, roundly convex laterad, slightly obliquely inlaid into head, inner ocular sulci deep in interior part, WE/ED = 1.0. Antennae filiform, tip of antennomere XI reaching the midst of elytra, LAI-XI: 0.48, 0.18, 0.79, 0.71, 0.69, 0.72, 0.81, 0.87, 0.91, 0.92, 1.06.

Pronotum subquadrate, PW/PL = 1.2, widest at middle, gently narrowed apicad and posteriad from the widest point, slightly sinuous at basal 1/3; apex nearly straight, boldly margined and weakly convex; base slightly produced, and wholly bordered by a groove and a fine margination, slightly sinuous in lateral parts; front and hind angles subrectangular; sides moderately declined to lateral margins, which are bordered by a groove and a fine ridge, and barely visible from above; disc gently, widely convex, longitudinally impressed in anterior half, transversely impressed in anterior 1/3 on both sides, and a little obliquely impressed in basal 1/3 on both sides, rather closely, irregularly punctate. Scutellum triangular, slightly convex, and microsculptured.

Elytra elongate, EL/EW=2.4, EL/PL=4.5, EW/PW=1.6, widest at apical 1/3, feebly narrowed anteriorly and roundly so from the widest point; dorsum moderately convex longitudinally, highest at basal 1/10; disc punctate striate, the striae rather deep, the punctures small and closely set; intervals rather strongly convex, weakly microsculptured, very weakly, transversely micro-aciculate; sides gradually, and then steeply declined to lateral margins, which are bordered by a coarsely punctate groove and a fine ridge, and almost (except humeral and apical part) visible from above; humeri moderately swollen; apices slightly dehiscent.

Maxilla with terminal palpomere gently dilated apicad, feebly produced apical side 1.1 times length of nearly straight exterior side, and 1.8 times the length of nearly straight interior side. Mentum subcordate with basal part truncate, microsculptured, with a granules in antero-medial part. Gula rather strongly, parabolically bordered, microsculptured.

Prosternum short; apical margin nearly straight, prosternal process elongate triangular, almost horizontal, strongly projected posteriad, Mesoventrite short; anterior part depressed and concealed under prosternum; middle and posterior part abruptly raised in V-shape and minutely punctate. Metaventrite rather short, gently convex, microsculptured, wrinkled, finely punctate in medial part, impressed in posterior 1/3 on midline, depressed and slightly coarsely microsculptured in lateral parts. Abdomen long, weakly microsculptured, sparsely punctate, the punctures becoming smaller and sparser toward ventrite V, three basal ventrites longitudinally wrinkled, ventrite V closely, minutely punctate, with apex rounded.

Femora subclavate, weakly microsculptured, scattered with fine punctures. Tibiae minutely punctate, densely haired on apico-interior faces. Tarsi dilated to each apex of tarsomeres, LTB-A: 0.59, 0.54, 0.48, 0.57, 0.79; 0.62, 0.47, 0.53, 0.55, 0.77; 0.89, 0.60, 0.51, 0.96.

Genitalia slender, 3.21 mm in length, 0.36 mm in width; basale rather strongly curved in middle in lateral view, slightly narrowed at middle; apicale elongate triangular, 1.32 mm in length, with apices roundly widened (0.10 mm in diameter).

Female. Body length 14.3 mm, BL/BW = 3.2; eyes smaller, WE/ED = 1.3; pronotum wider,

PW/PL = 1.5, more strongly punctate; elytra longer, EL/EW = 2.5, more strongly punctate striate. (n = 1)

Differential diagnosis. This new species can be easily distinguished from *Ainu* (*Ainu*) *basiforatum* Nabozhenko & Ren, 2018 from Yunnan, by the head more noticeably produced anteriorly, the genae more strongly, obliquely raised, the ocular sulci deeper in interior part, the pronotum with lateral margins visible from above, the tibiae not becoming bolder in apical parts, the male genitalia a little longer with apical less strongly prolonged, and the body darker in color.

The present new species is the second *Ainu* species from Laos. The first one is *A. (Erulipus) andoi* Ruzzier, 2014. This new species can be easily distinguished from *A. (E.) andoi* by the differential characteristics of the subgeneric level: head, pronotum and elytra similar in color, and protarsomere longitudinal, etc.

Etymology. The specific name, *maoi* is given in honor of Mao Kobayashi, a promising young moth-specialist living in Laos, and offered us the type specimen collected by him for the present study.

Distribution. Laos.

***Ainu (Ainu) thailandicum* sp. nov.**

(Figs. 6, 20-21)

Type locality. Thailand, Chiang Mai Province, Mae Rim District, Ban Nong Hoi Kao.

Type material. Holotype, ♂: "Thailand, Chiang Mai Prov., / Mae Rim Distr., Ban Nong / Hoi Kao, 24-26, V. 2014, / K. Masumoto leg. // Coll. Masumoto / 2014". (NMNSTJ). Paratypes: 1 ♀, "Thailand, Chiang Rai / Wiang Pa Pao, / 17-21. V. 2015 / K. Takahashi leg. // Coll. Masumoto / 2015"; 1 ♀, "Thailand, Chiang Mai / Doi Suthep, 8. V. 2012 / K. Masumoto & / K. Takahashi leg. // Coll. Masumoto / 2014".

Description of holotype. Body 10.4 mm in length, BL/BW = 3.0; elongate, subcylindrical, slightly widened posteriorly. Dorsal surface black with dark coppery tinge, antennae and ventral surface mostly brownish black, major basal parts of profemora and medial parts of meso- and metafemora brownish yellow, hairs pale yellow; dorsal surface including femora and tibiae strongly, somewhat vitreously shining, ventral surface moderately, weakly sericeously shining, five basal antennomeres and tarsi weakly shining, six apical antennomeres rather mat; dorsal and ventral surfaces almost glabrous, six apical antennomeres minutely haired, apico-interior parts of tibiae and ventral face of tarsi densely haired.

Head subdecagonal, though the basal portion is concealed under pronotum, very weakly convex in medial portion; clypeus transversely hexagonal, depressed in major basal part, gently inclined in anterior part, punctate, the punctures becoming smaller and closer anteriorly, with apex truncate; fronto-clypeal suture nearly straight, deeply impressed in medial part, becoming finer and weaker in lateral parts, and extending to exterior margins; genae well-dilated and raised antero-laterad, scattered with small punctures, with exterior margin roundly produced; frons short subquadrate, raised posteriorly, sparsely scattered with small punctures; vertex very slightly convex, with a vague depression in medial part; occiput gently inclined, sparsely scattered with small punctures. Eyes subreniform, roundly convex laterad, obliquely inlaid into head, inner ocular sulci deep in interior part, WE/ED = 1.6. Antennae subfiliform, slightly bolder apically, tip

of antennomere XI reaching the midst of elytra, LAI-XI: 0.29, 0.15, 0.66, 0.50, 0.47, 0.55, 0.55, 0.56, 0.51, 0.58, 0.67.

Pronotum subquadrate, PW/PL = 1.5, widest at middle, gently narrowed apicad and posteriad from the widest point; apex slightly produced, slightly narrower than base, rather boldly margined and weakly convex, the margination tapering laterad; base slightly produced, and wholly bordered by a groove and a fine ridge, slightly sinuous in lateral parts, the groove microscopically punctate; front angle subrectangular with rounded corner, hind angles rectangular; sides moderately declined to lateral margins, which are bordered by a groove and a fine ridge, and barely visible from above; disc gently, widely convex, obliquely impressed in posterior 1/3 on both sides, rather closely, irregularly punctate. Scutellum linguiform, slightly convex, sparsely scattered with microscopic punctures.

Elytra elongated subfusiform, EL/EW = 2.3, EL/PL = 5.0, EW/PW = 1.5, widest at apical 1/3, feebly narrowed anteriorly and roundly so from the widest point; dorsum moderately convex longitudinally, highest at basal 2/9, weakly undulate in medial portion; disc punctate striate, the striae rather weak, the punctures small but strongly and closely set; intervals rather strongly convex, weakly microsculptured, very weakly, transversely micro-aciculate, and sparsely scattered with microscopic punctures, with interval II rather noticeably swollen in apical parts; sides rather steeply declined to lateral margins, which are bordered by a coarsely punctate groove and a fine ridge, and visible only in medial portions from above; humeri moderately swollen; apices weakly, roundly produced.

Maxilla with terminal palpomere gently dilated apicad, nearly straight apical side 0.9 times the length of nearly straight exterior side, and 1.6 times the length of rounded interior side. Mentum inverted trapezoidal, gently convex anteriorly, microsculptured. Gula rather strongly, parabolically bordered, microsculptured and micro-wrinkled.

Prosternum rather short, weakly depressed, microsculptured; apical margin finely ridged, widely straight in medial part, curved antero-laterad in lateral parts; prosternal process subrhombical on ground, strongly raised and elongate triangular on top with almost horizontal surface, strongly projected posteriorly. Mesoventrite short; anterior part depressed and concealed under prosternum; middle and posterior parts abruptly raised in V-shape and minutely punctate. Metaventricle rather short, gently convex, microsculptured, rather strongly wrinkled, finely punctate in medial part, impressed in posterior 1/3 on midline, weakly depressed, microsculptured and shallowly punctate in lateral parts. Abdomen long, ventrite I to IV microsculptured and scattered with small punctures, three basal ventrites longitudinally wrinkled, ventrite V smooth, scattered with small but strong punctures, with apex rounded.

Femora subclavate, minutely punctate. Tibiae scattered with small punctures, densely haired on apico-interior face, pro- and mesotibiae weakly curved interiorly and a little bold near apical parts, metatibiae nearly straight. Tarsi dilated to each apex of tarsomeres, LTB-A: 0.39, 0.29, 0.25, 0.34, 0.65; 0.35, 0.24, 0.20, 0.21, 0.67; 0.65, 0.38, 0.24, 0.88.

Genitalia elongated fusiform, 2.39 mm in length, 0.32 mm in width; basale rather strongly curved in middle in lateral view, slightly narrower than base of apicale; apicale elongate triangular, 0.98 mm in length, with apical part prolonged and triangularly projected at apices (the triangle 0.11 mm in width).

Female. Body longer (11.1-12.4 mm in length), a little bolder (BL/BW = 2.8); distance between eyes wider (WE/ED = 2.2); pronotum wider (PW/PL = 1.6-1.7); elytra shorter (EL/EW = 2.2), more strongly punctate striate; legs bolder and shorter. (n = 2).

Differential diagnosis. The type series of this new species were collected in Thailand. From neighboring areas, Laos and China, *Ainu (Erulipus) andoi* Ruzzier, 2014 occurs. The new species can be easily distinguished from *A. (E.) andoi*, by the body slenderer and almost unicolor (only femora with brownish yellow parts), the distance between eyes wider, (WE/ED = 1.6, hence WE/ED=1.0 in *A. (E.) andoi*), the pronotum more transverse (PW/PL=1.3-1.5, hence PW/PL = 1.1 in *A. (E.) andoi*), the elytra slender (EL/EW = 2.2-2.3, hence EL/EW = 2.1 in *A. (E.) andoi*), more strongly punctate striate, the tarsi not so transversely widened and the male genitalia obviously bolder.

Etymology. The specific name, *thailandicum*, is named after the place where the type series were collected.

Distribution. Thailand.

***Pigeostrongylium fujiokai* sp. nov.**
(Figs. 7, 22-23)

Type locality. Northern Thailand, Chiang Mai Province, Doi Saket.

Type material. Holotype, ♂: "Doi Saket, Chiang Mai Prov./ N. THAILAND / 18. MAR. 2002, Y. Nishiyama-leg. // K. AKITA / Collection / KAC 60695" (NMNSTJ).

Description of holotype. Body 13.5 mm in length, BL/BW = 3.8; elongate, subparallel-sided, convex longitudinally. Dorsal surface mostly dark brown, antennae, mouth parts, major ventral surface lighter in color, hairs on each surface pale yellow; dorsal and ventral surfaces moderately, slightly vitreously shining; head rather densely clothed with fine bent hairs, antennae finely haired, the hairs becoming denser apicad, pronotum clothed with subdecumbent hairs, which become bolder and longer laterad, scutellum clothed with minute, subdecumbent scale-like hairs, elytra clothed with minute hairs, ventral surface clothed with fine, decumbent hairs, legs rather densely clothed with fine subdecumbent hairs, intero-ventral parts of femora and apico-ventral parts of tibiae clothed with rather long decumbent hairs, ventral faces of tarsi clothed with rather short, setaceous hairs.

Head transversely subdecagonal, though the basal portion is concealed under the pronotum, moderately inclined anteriorly; clypeus transversely extended subhexagonal, weakly depressed, weakly microsculptured, closely, coarsely punctate (the punctures often fused with one another, and forming rugulosities), granulate, clothed with subdecumbent hairs; apex widely emarginate, both ends of emargination roundly produced anteriorly; fronto-clypeal suture roundly impressed, the impression rather strongly curved anteriorly in lateral parts, and reaching exterior margins; genae moderately dilated and weakly raised antero-laterad, weakly microsculptured, scattered with round punctures, finely haired, with exterior margins gently rounded; posterior part of gena hardly inlaid into eye, instead with a narrow space from eye; frons somewhat wide V-shaped, gently inclined, rather closely, coarsely punctate (the punctures often fused with one another, and forming rugulosities), clothed with decumbent hairs, and scattered with minute granules; vertex weakly microsculptured, ruguloso-punctate, with an impunctate part at the middle. Eyes gently convex laterad, transversely inlaid into head, WE/ED = 1.8. Antennae subfiliform, gradually becoming bolder apicad, apical four antennomeres flattened, tip of antennomere XI reaching basal part of elytra, LAI-XI: 0.30, 0.19, 0.58, 0.50, 0.46, 0.52, 0.47, 0.50, 0.44, 0.39, 0.46.

Pronotum subquadrate, PW/PL = 0.9, widest at apical 3/8, roundly narrowed apicad and

weakly, straightly narrowed basad from the widest point; apex moderately, roundly produced, rather boldly margined, the margin smooth, scattered with minute punctures with hairs, and tapering laterad; base slightly sinuous in lateral parts, bordered by a punctate groove and a margination, which is rather bold, weakly raised, and scattered with minute punctures with fine hairs; front angles rounded; hind angles subrectangular; sides rather steeply inclined and extending to underbody, bordered from underbody by a fine ridge, which is invisible from above; disc rather strongly convex, highest in apical 1/4, very weakly flattened in medial portion, weakly microsculptured, closely, coarsely rugoso-punctate, clothed with subdecumbent hairs, weakly depressed and microgranulate in medio-basal area. Scutellum sublinguiform, weakly convex above, weakly microsculptured, clothed with minute decumbent hairs in medial and apical parts.

Elytra elongate, $EL/EW = 2.8$, $EL/PL = 3.9$, $EW/PW = 1.5$, widest in humeral portions, gently narrowed posteriad, weakly constricted at basal 1/4; dorsum convex longitudinally, highest at basal 1/5, very weakly depressed in areas around scutellary striae; disc punctate grooved, the punctures small and round at each bottom, becoming wider and transversely invading interval at each top (surface); intervals convex, weakly microsculptured, scattered with small punctures, noticeably transversely depressed; sides rather steeply declined to lateral margins, which are punctate-grooved (the punctures irregular and coarse in anterior and medial parts), and visible from above except for humeral portions; humeri swollen, microsculptured, scattered with microscopic punctures; apical portion weakly roundly produced, with apices acutely projected.

Maxilla with terminal palpomere strongly dilated apicad, gently produced apical side 0.9 times the length of nearly straight exterior side, and 2.7 times the length of nearly straight interior side. Mentum somewhat trapezoidal, weakly raised in antero-medial part, longitudinally depressed and minutely rugoso-granulate in lateral parts. Gula rather indefinitely, semicircularly bordered, weakly convex in medio-basal part, microsculptured and weakly, transversely wrinkled, with a pair of impressions near apex on the border.

Prosternum rather short; apex widely emarginate and finely margined; anterior part weakly depressed, weakly microsculptured, coarsely punctate and finely haired; posterior part strongly raised, microsculptured, longitudinally grooved in inter-procoxal space, rather boldly ridged on both sides of the groove; prosternal process wide-based inverted triangular, depressed laterad and posteriad, microsculptured, microgranulate and finely haired. Mesoventrite short; anterior parts concealed under prosternum in repose; medial part triangularly depressed; posterior parts strongly raised in V-shape, coarsely granulate and haired, finely ridged along antero-interior parts of mesocoxae. Metaventrite medium-sized, longitudinally impressed in posterior 4/5 on midline; basal part weakly microsculptured, rather closely punctate and finely haired, weakly depressed in lateral parts; medial and posterior parts gently convex, weakly microsculptured, rather closely punctate (the punctures fairly large in medial part and becoming smaller posteriad), clothed with minute hairs; lateral parts rather closely punctate and densely clothed with fine decumbent hairs. Abdomen weakly microsculptured, closely punctate, fairly densely clothed with rather long decumbent hairs, ventrite V gently depressed in apical part, weakly microsculptured, closely punctate, the punctures large in basal part, and becoming smaller and closer apicad, densely clothed with decumbent hairs; apex slightly angulate.

Femora short and strongly subclavate, closely punctate, clothed with fine scale-like hairs. Protibia nearly straight, becoming bolder apicad, closely punctate, clothed with fine scale-like hairs, which become longer and denser in apico-ventral part; mesotibia weakly curved ventrad, becoming bolder apicad, closely punctate, clothed with fine scale-like hairs, which become longer and denser in apico-ventral part; metatibia nearly straight, becoming bolder apicad,

closely punctate, clothed with fine scale-like hairs, which become longer and denser in apico-ventral part. Tarsi dilated to each apex, LTB-A: 0.40, 0.26, 0.24, 0.27, 1.03; 0.54, 0.31, 0.25, 0.19, 1.04; 0.73, 0.41, 0.39, 1.19.

Genitalia rather slender, tapering apicad, 2.78 mm in length, 0.49 mm in width, rather strongly curved in middle in lateral view; basale gradually narrowed anteriad; apicale subtriangular, 0.66 mm in length, elongated in apical parts, with apices rounded.

Female. Unknown.

Differential diagnosis. This new species somewhat resembles *Pigeostrongylium andoi* Masumoto, 2010. The former can be easily distinguished from the latter by the body obviously larger (6.4 mm in length in the latter), the pronotum a little longer and more quadrate, the elytra less haired, and with rows of small punctures, intervals wider and more coarsely, transversely depressed, and apices more acutely projected. The species belonging to this genus have ever been known from the Malay Peninsula and Sumatra. The present new species is the first one from Thailand.

Etymology. The specific name, *fujikoi*, is given in honor of Masayuki Fujioka, Emeritus advisor of the Society of Scarabaeoidology, who has been contributing to the development of the society for long time, and offered the type specimen for our present study.

Distribution. Thailand.

***Stenochinus barclayi* sp. nov.**

(Figs. 8, 24-25)

Type locality. Ruby Mes., Myanmar.

Type material. Holotype, ♂: "Birmah / Ruby Mes., // Doherty// 64731 // Fry Coll. / 1905. 100." (NHML).

Description of holotype. Body 5.8 mm in length, BL/BW = 3.5; elongate oblong, subparallel-sided, convex longitudinally. Dorsal surface mostly covered with dusty secretion, foundation dark brown, granules on dorsal surface brownish black, antennae, mouth parts, ventral surface and tarsi lighter in color; dorsal and ventral surfaces mostly weakly, partly sericeously shining, apical four antennomeres mat; dorsal surface clothed with minute, scale-like hairs, ventral surface clothed with minute subdecumbent hairs, antennomeres rather densely clothed with minute hairs.

Head transversely subelliptical, steeply inclined in basal portion, depressed in medial portion, and reflexed in apical portion; clypeus transversely subelliptical, weakly depressed in lateral parts, ruguloso-punctulate, minutely clothed with scale-like hairs, apical margin strongly raised in medial part, forming a subtrapezoidal upright horn, whose frontal face is smooth, hind face is rough, and summit is prominent at each lateral end; fronto-clypeal suture indefinite; genae wide-triangular, weakly raised and produced antero-laterad in apical part, minutely granulo-punctate; frons rather wide, fairly steeply inclined, closely punctate and clothed with minute scale-like hairs; vertex concealed under capuche of pronotum. Eyes gently convex laterad, slightly obliquely inlaid into head, WE/ED = 3.7. Antennae clavate, apical three antennomeres forming prominent club, tip of antennomere XI hardly reaching apical 1/4 of pronotum, LAI-XI: 0.14, 0.08, 0.09, 0.06, 0.04, 0.04, 0.05, 0.05, 0.09, 0.08, 0.19.

Pronotum subquadrate, PW/PL = 1.1, widest at apical 2/7, weakly narrowed apicad and gently, roundly narrowed posteriad from the widest point; apex weakly produced, major medial part concealed under capuche; base slightly emarginate at middle, weakly oblique and slightly sinuous in lateral parts, bordered by a row of punctures, the border microsculptured and microgranulate; front angles acutely projected anteriorly, hind angles subrectangular; disc strongly convex anteriorly, forming capuche, the capuche occupying in anterior 1/3 of pronotum, producing anteriorly, weakly emarginate at the middle in front, ridged along lateral margins, highest at apical 1/4, and depressed in intero-medial part; surface of pronotum coarsely, closely rugoso-punctate, clothed with fine scale-like hairs, and coarsely irregularly granulate. Scutellum subquadrate, weakly depressed, convex in middle, weakly microsculptured.

Elytra elongate subelliptical, EL/EW = 2.1, EL/PL = 2.2, EW/PW = 1.1, widest at apical 1/3, gently narrowed anteriorly and roundly so posteriorly from the widest point, weakly constricted at basal 2/9; dorsum strongly convex, highest at middle, elytral suture fused; disc with rows of small, slightly longitudinal punctures, which are provided with a small granule on each side; intervals microsculptured, odd intervals convex and irregularly granulate, the granules often becoming larger, connected with each other and forming longitudinal ridges, even intervals rather bumpy, irregularly microgranulate; sides rather steeply inclined, enveloping the underbody, and finely bordered; humeri depressed; apices gently rounded. Hind wings atrophied.

Maxilla with terminal palpomere gently dilated apicad, nearly straight apical side 1.1 times the length of weakly curved exterior side, and 1.4 times the length of weakly curved interior side. Mentum somewhat inverted trapezoidal, raised in antero-medial part, minutely punctate. Gula subelliptically bordered, weakly convex, microsculptured and transversely wrinkled, with a pair of impressions near apex on the border.

Prosternum short; apex widely emarginate and margined; anterior part depressed, microsculptured; posterior part very strongly raised, microsculptured, with a large puncture in inter-procoxal space; prosternal process subquadrate, strongly depressed, microsculptured, explanate along posterior margin, and with an obtuse protrusion at the middle near apex. Mesoventrite rather short; anterior part concealed under prosternum in repose; medial part depressed, weakly swollen in V-shape, microsculptured, bordered from posterior part by deep V-shaped groove; posterior part strongly raised in V-shape, coarsely wrinkled and microgranulate. Metaventrite rather wide, longitudinally impressed on midline in posterior 4/5; basal part rugulose and microgranulate; medial and posterior part granulate, clothed with minute scale-like hairs; lateral parts coarsely punctate and clothed with minute scale-like hairs; postero-medial part wrinkled. Abdomen rather wide, weakly microsculptured, ventrite I to III rather closely punctate, each puncture with a minute, scale-like hair; ventrite IV microsculptured, closely fine punctate, the punctures often connected with each other and clothed with fine hairs, ventrite V weakly depressed in medio-basal parts, weakly microsculptured, closely punctate, the punctures large in basal part and becoming smaller and closer apicad, each with a scale-like hair; apex weakly rounded.

Femora short-subclavate, closely, coarsely punctate, clothed with fine scale-like hairs. Tibiae nearly straight, slightly becoming bolder in apico-interior part, closely, coarsely punctate, clothed with fine scale-like hairs, the hairs becoming longer and suberect in apico-ventral part. Tarsi with LTB-A: 0.13, 0.09, 0.09, 0.07, 0.36; 0.22, 0.11, 0.15, 0.07, 0.33; 0.24, 0.13, 0.10, 0.39.

Male genitalia rather slender, tapering apicad, 1.14 mm in length, 0.20 mm in width; basale rather strongly curved in basal part; apicale elongate triangular, 0.55 mm in length, curved in lateral view, with apex rather acute.

Female. Unknown.

Differential diagnosis. This new species somewhat resembles *Stenochinus unicornis* (Shibata, 1980) from Taiwan. The former can be distinguished from the latter in following points: Head with a wider horn at the middle of clypeal margin; pronotum with capuche less strongly produced anteriorly, front angles more acutely projected anteriorly, surface more coarsely granulate; elytra more coarsely granulate and often forming ridges; male genitalia slenderer (0.90 mm in *S. unicornis*).

Etymology. The specific name, *barclayi*, is given in honor of Maxwell V. L. Barclay, Senior Curator of the Natural History Museum, London, who has been supported our entomological study for long time.

Distribution. Myanmar.

***Stenochinus wakaharai* sp. nov.**

(Figs. 9, 26-27)

Type locality. Laos, Xieng Khouang, Phou Sam Soum.

Type material. Holotype, ♂: "[LAOS] XIENG KHOUANG, / Phou Sam Soum, alt. 2026 m / 19.142740°, 103.780480° / May 11-14, 2018 / leg. T. HIGURASHI / FIT / Permit No. 09-05-2018." (NMNSTJ).

Description of holotype. Body 5.2 mm in length, BL/BW = 3.3; elongate oblong, convex longitudinally, subparallel-sided, gently constricted at the border of fore and hind bodies. Major dorsal surface covered with dusty secretion, naked portions dark reddish brown, antennae, mouth parts and tarsi lighter in color, major ventral portion blackish brown; granules on pronotum and tibiae, and naked portions of elytra moderately, vitreously shining, antennae, mouth parts and tarsi weakly shining, ventral surface mostly mat; dorsal surface clothed with fine scale-like hairs, ventral surface and major portions of legs clothed with minute subdecumbent hairs, apical three antennomeres clothed with fine, rather long hairs, tibiae in apico-interior parts and tarsi on ventral faces densely clothed with rather long hairs.

Head widely subelliptical, inclined anteriorly, depressed in antero-medial portion, and reflexed in apico-medial portion; clypeus transversely extended elliptical, weakly depressed in basal part and rather strongly so in lateral parts, rather densely microgranulate and clothed with minute scale-like hairs, apical margin with an upright triangular protrusion in medial part, whose frontal face is smooth, hind face is rough, and summit is gently prominent; fronto-clypeal suture indefinite; genae weakly raised, produced antero-laterad, microgranulate and clothed with minute scale-like hairs; frons wide, rather steeply inclined, microgranulate and clothed with minute scale-like hairs; vertex concealed under capuche of pronotum. Eyes gently convex laterad, slightly obliquely inlaid into head, WE/ED = 4.2. Antennae clavate, apical three antennomeres forming prominent club, tip of antennomere XI hardly reaching apical 1/4 of pronotum, LAI-XI: 0.17, 0.06, 0.13, 0.05, 0.04, 0.04, 0.05, 0.05, 0.09, 0.08, 0.17.

Pronotum subquadrate, PW/PL = 0.8, widest at apical 2/7, weakly roundly narrowed apically and posteriorly from the widest point; apex weakly produced in medial part and deeply emarginate in lateral parts, though the major medial part is concealed under a capuche; base slightly emarginate at middle, weakly oblique and slightly sinuous in lateral parts; front angles acutely projected anteriorly, and weakly curved interiorly; hind angles subrectangular; disc strongly convex anteriorly and forming capuche, which is strongly raised and highest at apical 2/7, produced anteriorly, ridged along lateral margins, weakly emarginate at the middle of the front

margin, depressed in the intero-medial part, and gradually inclined posteriad; surface of pronotum coarsely, closely rugoso-punctate, clothed with fine scale-like hairs, and sparsely granulate with a weak longitudinal impressed along midline. Scutellum subquadrate, weakly constricted in basal 1/3, convex above in medial part, weakly microsculptured and microgranulate.

Elytra elongate subelliptical, EL/EW = 2.2, EL/PL = 2.0, EW/PW = 1.2, widest at the middle, gently narrowed anteriad and roundly so posteriad from the widest point, slightly sinuous at basal 1/4; dorsum strongly convex, highest at basal 1/4; elytral suture fused; disc microsculptured, irregularly clothed with minute scale-like hairs, and with rows of longitudinally ovate punctures; intervals narrow, odd intervals (except the first interval) convex with large granules, which often connect with each other and become high longitudinal ridges, first and even intervals rather bump, sparsely scattered with small granules; sides rather steeply inclined laterad and extending to underbody, with lateral margins invisible from above; humeri not developed, nearly flat, sparsely microgranulate; apices dehiscent. Hind wings atrophied.

Maxilla with terminal palpomere gently dilated apicad, nearly straight apical side 0.8 times the length of weakly curved exterior side, and 1.6 times the length of weakly curved interior side. Mentum inverted trapezoidal, raised in antero-medial part, microsculptured. Gula subelliptically bordered, nearly flat, microsculptured, with a pair of impressions near apex on the border.

Prosternum very short, wholly microsculptured; apex widely emarginate; anterior part widely depressed; posterior part (inter-procoxal area) very strongly raised; prosternal process short sublinguiform, inclined laterad and posteriad, microsculptured and sparsely microgranulate. Mesoventrite short; anterior parts concealed under prosternum in repose; posterior parts (antero-interior parts surrounding mesocoxae) strongly raised in V-shape, coarsely wrinkled and microgranulate. Metaventrite rather short, closely, minutely microgranulate and rugulose. Abdomen rather wide, microsculptured, microgranulate, ventrite I to IV rather closely punctate, each puncture with a minute, curved, scale-like hair; ventrite V rather closely, finely punctate, each puncture with a finer and longer hair than those on ventrite I to IV; apex rounded.

Femora rather stout, closely, coarsely rugoso-punctate, clothed with fine scale-like hairs, very sparsely granulate. Tibiae nearly straight, becoming bolder in apico-interior parts, coarsely rugoso-punctate, clothed with fine scale-like hairs (those in apico-ventral part becoming longer), sparsely providing large granules on exterior margins. Tarsi with LTB-A: 0.15, 0.09, 0.08, 0.07, 0.38; 0.20, 0.09, 0.08, 0.07, 0.40; 0.21, 0.11, 0.08, 0.39.

Genitalia rather slender, tapering apicad, 1.16 mm in length, 0.17 mm in width; basale rather strongly curved in middle; apicale elongated triangular, 0.48 mm in length, curved in lateral view, with apex rather acute, curved ventrad.

Female. Unknown.

Differential diagnosis. This new species also resembles *Stenochinus unicornis* (Shibata, 1980) from Taiwan. The former can be distinguished from the latter by following points: Head with genae more widely produced; pronotum with capuche more strongly raised anteriad and ridged in lateral parts, front margin obviously emarginate in middle, front angles more acutely projected anteriad and curved interiad, surface more coarsely granulate; elytra more coarsely granulate, odd intervals distinctly granulate and often strongly ridged; male genitalia obviously slenderer.

Etymology. The specific name, *wakaharai*, is given in honor of Hiroyuki Wakahara, who has

been in Laos for more than 30 years, and many Japanese collectors were indebted to him for arrangement and guidance of field researching in Laos.

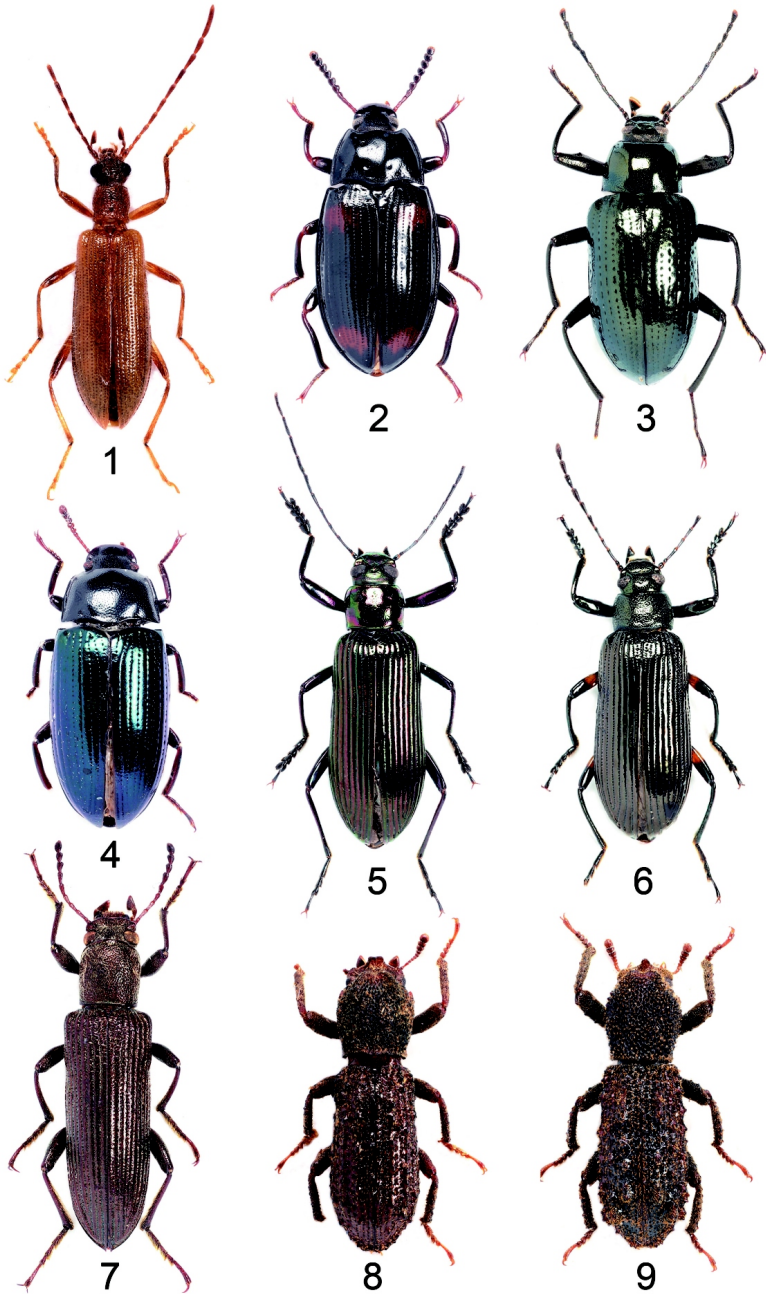
Distribution. Laos.

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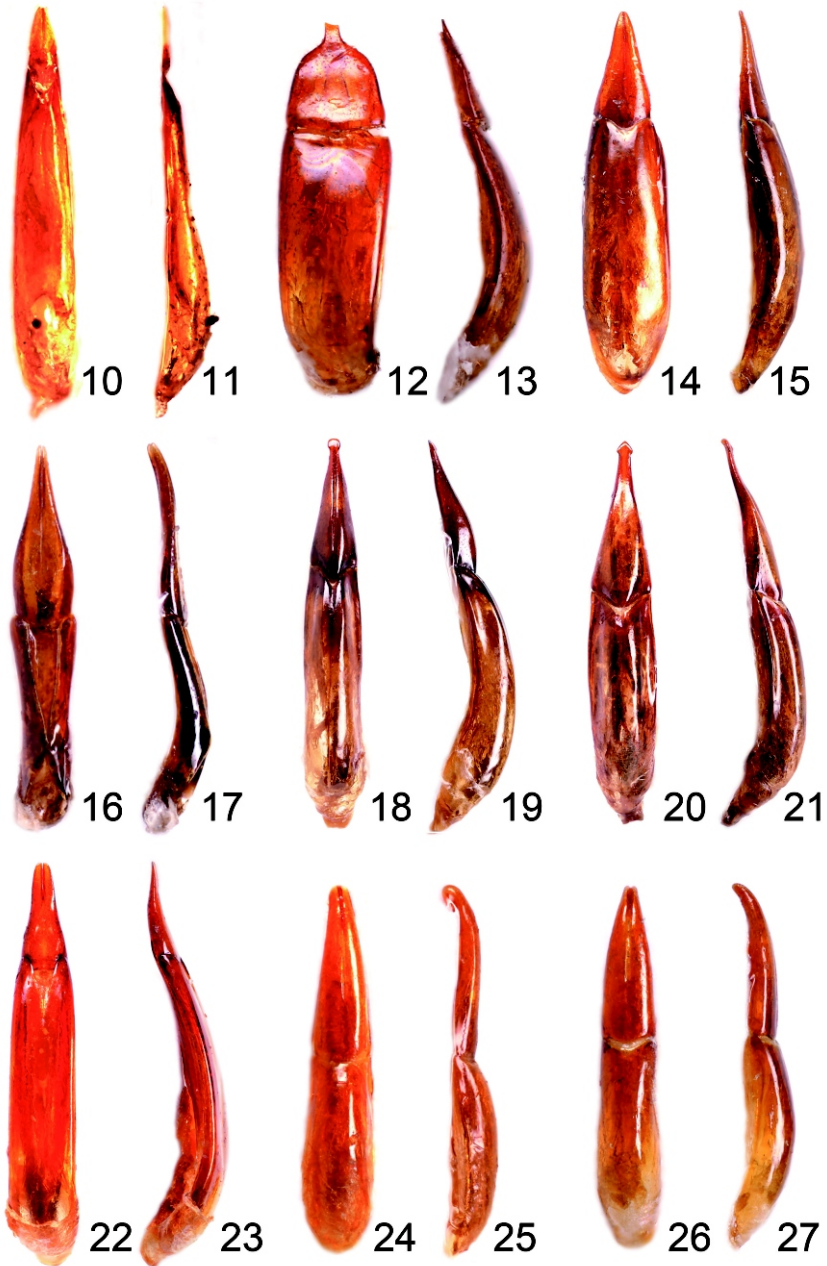
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Figs. 1-9. Habitus of holotypes (males). 1- *Hosohamudama niisatoi* sp. nov.; 2- *Basanopsis thailandicus* sp. nov.; 3- *Plesiophthalmus (Plesiophthalmus) walamiensis* sp. nov.; 4- *Androsus halmaheranosuzukii* sp. nov.; 5- *Ainu (Ainu) maoui* sp. nov.; 6- *A. (A.) thailandicus* sp. nov.; 7- *Pigeostromyllum fujiokai* sp. nov.; 8- *Stenochinus barclayi* sp. nov.; 9- *S. wakaharai* sp. nov.



Figs. 10-27. Genitalia (even numbers: dorsal view; odd numbers: lateral view).

10-11- *Hosohamudama niisatoi* sp. nov.; 12-13- *Basanopsis thailandicus* sp. nov.; 14-15- *Plesiophthalmus* (*Plesiophthalmus*) *walamiensis* sp. nov.; 16-17- *Androsus halmaheranosuzukii* sp. nov.; 18-19- *Ainu* (*Ainu*) *maoi* sp. nov.; 20-21- *A.* (*A.*) *thailandicum* sp. nov.; 22-23- *Pigeostromylyium fujiokai* sp. nov.; 24-25- *Stenochinus barclayi* sp. nov.; 26-27- *S. wakaharai* sp. nov.